

Seeing Aspects of the Moving Camera: On the Twofoldness of the Mobile Frame

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Abstract

Accounts of the perceptual experience of camera movement tend to extend a truism in film theory that the camera eye is analogous to the human eye. Whether argued from a position of perceptual psychology or phenomenology, such theories claim that when we see the movement of the camera, we experience an illusion of our own embodied movement through space. This article argues against the affinity between camera movement and human perception and for a phenomenology of camera movement that proceeds from the spectator's ways of seeing aspects of the screen's surface. Examining experimental films by Ken Jacobs and Michael Snow, this article argues that the phenomenological aspect-perception at work in camera movements is best understood in the terms of Richard Wollheim's "twofoldness" theory of picture perception, according to which the aesthetic perception of a picture involves a simultaneous attention to its surface qualities as well as its depictive content.

Keywords: Aspect-perception, camera movement; experimental film; phenomenology.

A persistent intuition in film theory and criticism is that a moving camera seems to move *us* through the film's world along with it.¹ In the "phantom rides" of early cinema, cameras mounted on the fronts of locomotives make us feel the familiar illusion of moving forward through picturesque landscapes. In *Citizen Kane* (1941), when the camera rushes toward and dissolves through the broken skylight at Susan Alexander's El Rancho nightclub, the camera's inquisitive propulsion seems to carry us through space, provoking a desire to explore the film's world. And in *The Shining* (1980), as the camera's ghostly point of view hovers behind Danny riding through the empty hallways of the Overlook hotel, we cannot help but feel as if we are moving through space with, alongside, or even *as* the camera.

Critics and theorists have emphasized this unmistakable feeling of moving with the camera, often noting how the camera's moving perspective evokes the optical effects produced by our own movement through space.² Recently, such observations have been taken up by

¹ Throughout this article, my use of the term "world" should be understood entirely in a spatial-perceptual sense, especially as it pertains to Maurice Merleau-Ponty's phenomenology of perception.

² Writing about F.W. Murnau's moving camera, M. Kann writes: "As the eye moves, so must the lens." Patrick Keating, "The Homeless Ghost: The Moving Camera and its Analogies," *[in]Transition* 2.4

phenomenological approaches to film theory, which explore the ways in which cinema draws on the perceptual and affective foundations of ordinary embodied experience. Identifying a deep phenomenological sympathy between the experience of embodied movement and the perceived movement of the camera, such theorists have placed our identification with the moving camera at the center of their accounts of cinematic experience. Drawing heavily from Maurice Merleau-Ponty, for whom the perception of the world is inextricable from our movements within it, such accounts tend to argue that camera movement, more than any cinematic device, gives us the sense of being oriented in a world.

In different ways, the work of Jennifer Barker, Scott Richmond, and Vivian Sobchack has focused on how camera movements evoke familiar kinds of embodied movement through space. Barker broadly privileges our mimetic muscular reactions to camera movements, claiming that “physical movement of the camera is the closest approximation of muscular movement of the human body.”³ Richmond, drawing on both Merleau-Ponty’s phenomenology and James Gibson’s perceptual psychology, argues that cinematic experience can be radically redefined by accounting for our embodied experience of the subjectively moving camera (simulated or not), that is, by camera movements that penetrate into space along the z-axis.⁴ Most influentially, Sobchack develops a phenomenological theory of spectatorship that relies on recognizing the moving camera as an embodied consciousness related to the world as we are: she claims “camera movement echoes the essential motility of our own consciousness as it is embodied in the world and able to accomplish and express the tasks and projects of living.”⁵ In Sobchack’s account, whenever we see the camera move, we are attuned to the subjectivity of what she calls the film’s “body”—through its movement, we sense its agency, vitality, and intentionality.⁶ For each theorist, the movement of the camera recalls our own experience of being situated in the world, moving through that world, and feeling the possibilities of movement and action therein.

(2016). <http://mediacommons.futureofthebook.org/intransition/homeless-ghost>. Accessed February 11, 2017. Advancing a similar observation with the help of perceptual psychology, David Bordwell writes: “we can hardly resist reading the camera movement effect as a persuasive surrogate for our subjective movement through an objective world.” David Bordwell, “Camera Movement and Cinematic Space,” *Ciné-Tracts* 1.2 (1997): 23. Considering the implications of Bordwell’s observation for theories of art, Arthur Danto finds that because “the experience [of camera movement] is of *ourselves* moving,” the moving camera “seems to overcome [...] the distance between spectator and scene.” Arthur Danto, “Moving Pictures,” in Noël Carroll and Jinhee Choi, eds., *Philosophy of Film and Motion Pictures: An Anthology* (Malden: Blackwell, 2006), 110.

³ Jennifer M. Barker, *The Tactile Eye: Touch and the Cinematic Experience* (Berkeley: University of California Press, 2009), 110.

⁴ Scott Richmond, *Cinema’s Bodily Illusions: Flying, Floating, and Hallucinating* (Minneapolis: University of Minnesota Press, 2016), 51-72. While Richmond eschews the term “camera movement” because of its medium-specific implications, what he calls the “illusion of bodily movement” is essentially produced by actual camera movements or simulated camera movements, or what David Bordwell would call the “camera movement effect.” Bordwell, “Camera Movement,” 23.

⁵ Vivian Sobchack, “Toward Inhabited Space: The Semiotic Structure of Camera Movement in the Cinema,” *Semiotica* 41.1-4 (1982): 317.

⁶ Vivian Sobchack, *The Address of the Eye: A Phenomenology of Film Experience* (Princeton: Princeton University Press, 1992), 203-247.

While it seems intuitive to say that camera movements make us feel as if we are moving through space with them—that they feel familiar and *real*—such a claim perpetuates the idea that cinema naturally produces the illusion of our ordinary perception of movement.⁷ In what follows, I want to consider the possibilities of seeing beyond the satisfying illusions that camera movements are said to produce. To do so, I turn to experimental films that actively explore the perceptual conditions of the moving camera and make those conditions radically visible to the spectator. Examining Ken Jacobs’s phantom ride films *Georgetown Loop* (1996) and *Disorient Express* (1996) and Michael Snow’s *La région centrale* (1971), films that both explore and reflect on what it means to perceive the movement of a moving camera, I argue against the affinity between camera movement and human perception in favor of a phenomenology of camera movement that proceeds from the spectator’s ways of seeing aspects of the screen’s surface. Specifically, I argue that the phenomenological aspect-perception at work in camera movements are best understood in the terms of Richard Wollheim’s “twofoldness” theory of picture perception, according to which the *aesthetic* perception of a picture involves a simultaneous attention to its surface qualities as well as its depictive content. Integrating aspect-perception into an account of our experience of camera movement, I argue, is part of what it means to engage in a phenomenology of cinema as an aesthetic experience instead of merely as an analogy to natural perception.

To be sure, pointing out the limitations of the anthropomorphic model of camera movement is not a new gesture. Anthropomorphic analogies for the moving camera have long faced their most immediate challenges from what David Bordwell has called “forbidden movements” that “block an anthropomorphic reading,”⁸ or what Patrick Keating has called “omniscient” camera movements, which soar into the air or otherwise defy human limitations.⁹ Moreover, as digital cinema’s virtual cameras can easily move through walls and go places no human body could physically occupy, the disembodiment of the moving camera seems more prevalent now than ever.¹⁰ My aim, however, is to offer a different kind of critique. Instead of arguing that certain kinds of camera movement warrant their own theoretical camps—that of the “forbidden,” the “omniscient,” or the “virtual”—I will argue that the persistent marginalization of these examples reveals a deeper problem in the way we think about the moving camera. The moving camera, I will argue, in all its iterations—from the forbidden movements of experimental cinema to the normative movements of mainstream fiction film—instills a deep phenomenological uncertainty at its very core because it taps into a broader uncertainty about the moving image, and part of the problem of camera movement has been film theory’s tendency to

⁷ There are various arguments involved in claims that cinema is an “illusion.” For a systematic breakdown of these arguments, see Gregory Currie, *Image and Mind*, 19-47. In my use of the term “illusion” as it pertains to the experience of camera movement, I follow Scott Richmond’s account of what he calls cinema’s “illusion of bodily movement,” which involves a palpable kinesthesia without epistemological deception. Richmond, 12. To experience an illusion of moving through space, Richmond explains, is not to be *fooled* into thinking that you are actually moving through the world on screen, but it is nevertheless to experience a palpable, visceral sensation of movement that is felt as an illusion. Richmond, 12.

⁸ Bordwell, “Camera Movement,” 24.

⁹ Keating, “Homeless Ghost.”

¹⁰ For a theoretical account of digital cinema that places a significant emphasis on the aesthetic possibilities of virtual cameras, see William Brown, *Supercinema: Film-Philosophy for the Digital Age* (New York: Berghahn Books, 2013).

conceal those uncertainties. The need to rethink the moving camera stems not from the ubiquity of virtual cameras and computer-generated worlds but from the fundamental phenomenological ambiguity of *all* camera movements as forms of movement unique to the moving image.

The Moving Camera and the Invisibility of the Frame

I want to begin by considering a significant but unexamined implication of the phenomenological sympathy between ordinary perception and the perception of the moving camera: the spectator's attenuated awareness of the film frame. Because phenomenological film theory rests on a sympathy between our *frameless* perception and the perception of the camera, the screen and its frame must be relegated to the periphery of the spectator's attention. For example, as Sobchack conceives of the moving camera as a seeing subjectivity that intends the world as we do, such a subjectivity disregards the rectangular boundary of its vision. She writes:

[As] the film's vision moves toward its intentional objects, others gently peel away out of frame—and much less abruptly than we *think* [...] [Things] become gradually invisible before they vanish from the frame and the visual field [...] This is not to deny the geometric rectangularity of the frame nor its function for us as objective spectators, but it is to assert that the frame's function in the subjective visual activity of the film is not to halt vision abruptly [...] The frame is *invisible* to the seeing that is the film. It is a limit, but like that of our own vision it is inexhaustibly mobile and free to displace itself [...] For the film as for us, then, openness upon the world that is the act of viewing “implies that the world be and remain a horizon” that extends beyond any immediate view seen by an existential presence that “is of it and is in it.”¹¹

In Sobchack's account, while we are consciously aware of the rectangular frame delimiting the field of vision, the experience of camera movement attunes us to the film's perception as an intentional, unframed seeing analogous to our own, which thereby attenuates our attention to the frame. Similarly, Richmond writes that just as “one of the most significant aspects of motion perspective is progressive occlusion at the edges of the visual field,” during the embodied illusion of moving through space “we have progressive occlusion at the edges of the *screen*.”¹²

Particularly useful in explaining this occlusion of the frame is Sobchack's invocation of the phenomenological “horizon.” Like the perceived line dividing land and sky, a horizon marks the endpoint of our perception but beckons us to go toward and beyond it. More generally, a horizon constitutes the intuited existence of what we do not directly perceive, of what lies just around the corner of our perceptual field. Thus, the concept of the horizon encourages an analogy between the incompleteness that marks both human perception and the perception of the camera. In the words of Victor Perkins, “There is always an out-of-sight just as there is always an off-screen.”¹³ Such a notion of incompleteness tacitly undergirds what Noel Burch calls offscreen space, a sense that the space that lies outside of the camera's view is nevertheless present to the spectatorial imagination.¹⁴ The very ability for the camera to move, and

¹¹ Sobchack, *Address of the Eye*, 131.

¹² Richmond, 87.

¹³ Victor Perkins, “Where is the World?: The Horizon of Events in Movie Fiction,” in John Gibbs and Douglas Pye, eds., *Style and Meaning: Studies in the Detailed Analysis of Film* (Manchester: Manchester University Press, 2005), 22.

¹⁴ Noel Burch, *Theory of Film Practice* (Princeton: Princeton University Press, 1981), 17.

consequently for the framed viewpoint to shift, invites comparison to the embodied and enworlded incompleteness of human vision. In Sobchack's words, then, the frame is "a limit, but like that of our own vision it is inexhaustibly mobile and free to displace itself."¹⁵ Throughout the work of Sobchack, Richmond, and Barker, this general identification with the mobile frame as an equally situated, limited perceiving consciousness implies a phenomenological disregard for the limits of the frame and the surface of the screen. In Barker, for example, if we indeed feel the movement of a whip pan "in our muscles," because "we have whipped our heads from side to side," we would experience the momentarily blurred screen space produced by the camera's velocity not as a moving image of painterly abstraction but as a kinesthetically familiar perceptual cue for our movement through a world.¹⁶ In our experience of the moving camera, the limits of the frame are experienced as an infinitely displaceable horizon of possibility.

The horizon also provides a useful theoretical model for explaining how certain forms of camera mobility—namely tracking shots that move into depth along the z-axis—induce an illusion of movement that reduces our attention to the edges of the screen. In perceiving camera movements that penetrate into depth, such as the phantom ride, we experience a *horizon* of anticipation and enticement of distant, unfolding space. For example, Tom Gunning's description of the phantom ride (Fig. 1) as an experience of "chasing the horizon into the depth of an ever-unfolding image" deeply resonates with Merleau-Ponty's reflection on the phenomenological horizon: "I can feel swarming beneath my gaze the countless mass of more detailed perceptions that I anticipate, and upon which I already have a hold."¹⁷ The phantom ride, then, distills Merleau-Ponty's sense of *anticipated* perception into a compelling image of a world's continuous unfolding. Caught up in the animation of the unfolding world in its continuous incompleteness and openness, our attention moves centripetally as we project ourselves through space along with the unseen camera, effectively rendering the edges of the frame phenomenologically invisible. The static elements displaced by the moving camera—the train tracks at our feet, the human figures standing by, the looming mountains and buildings—seem to flow seamlessly in and out of the visual field despite the geometrical rigidity of the frame, which fades into the periphery of our attention.

While this account of our experience of the moving camera is extraordinarily sensitive to the phenomenological structures of cinematic illusion, it suffers from two major conceptual limitations. First, such an account does not describe a perceptual condition of camera movement as such but rather an effect of particular ways of moving the camera—namely, forward movements-into-depth. This kind of movement, not surprisingly, is one that effectively encourages the illusion of bodily movement and the phenomenological invisibility of the frame. And particular ways of moving the camera in particular kinds of spaces—such as lateral tracking shots in shallow space—have been advocated precisely because they suppress these effects.¹⁸

¹⁵ Sobchack, *Address of the Eye*, 131.

¹⁶ Barker, 75.

¹⁷ Tom Gunning, "Landscape and the Fantasy of Moving Pictures: Early Cinema's Phantom Rides," in Graeme Harper and Jonathan R. Rayner, eds., *Cinema and Landscape* (Wilmington: Intellect Books, 2010), 57; Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (New York: Routledge, 1962), 395.

¹⁸ See, for example, Brian Henderson, "Toward a Non-Bourgeois Camera Style: Part-Whole Relations in Godard's Late Films," in *A Critique of Film Theory* (New York: Dutton, 1980), 80.



Fig. 1 *Railway Trip over the Tay Bridge* (Peter Feathers, 1897), an example of one of early cinema’s “phantom rides.”

Second, and more importantly, even in our experience of forward movements-into-depth, the illusion of moving through the world on screen—and the corollary loss of the frame—is necessarily a *partial* illusion.¹⁹ There remains a gap left over between the illusion of movement and actual movement, between our own frameless seeing and cinema’s rigidly framed field of vision. In other words, despite the extent to which camera movement provides an illusory sense of inhabiting the world on screen, what remains unaccounted for is the fundamental experience of seeing the moving image *as* a moving image, that is, as a rectangular surface through which we experience the illusion of moving through a world.²⁰

¹⁹ I mean to invoke Arnheim’s concept of “partial illusion.” “By the absence of colors, of three-dimensional depth, *by being sharply limited by the margins on the screen*, and so forth, film is most satisfactorily denuded of its realism. It is always at one and the same time a flat picture post card and the scene of a living action.” Rudolph Arnheim, *Film as Art* (Berkeley: University of California Press, 1968), 26, emphasis added.

²⁰ It is important to note here that Richmond’s account of the illusion of bodily movement addresses this issue at great length. Richmond emphasizes the ways in which the cinematic illusion of embodied movement is different from ordinary embodied movement even though it activates a sensation of moving through an environment. For example, Richmond notes that while the appearance of our environment generally shifts with respect to our bodily movement within that environment, what we see on screen does not vary with respect to our bodily movement in the movie theater. For Richmond, such a distinction is essential to the very structure of pleasure involved in the cinematic illusion of bodily movement, for he claims that the illusory feeling of flying through onscreen space is also “palpably illusory.” Richmond, 58. Sobchack also acknowledges that human subjective experience is not identical to the film’s subjective experience by invoking *Lady in the Lake*’s failure to induce total immersive identification with the

In the rhetoric of phenomenological film theory, the illusion of moving through the world is posited as an unshakable *condition* of cinematic perception. In Richmond's words, when we watch a phantom ride, or in his example, the Stargate sequence from *2001: A Space Odyssey* (1968), we are "caught up" in its illusion of bodily movement.²¹ Almost automatically attuned to the illusion of movement through the participation of our embodied perceptual capacities, we become one with the machine, as if *locked in*. What might happen, though, when we are shocked out of that illusion? In other words, if the moving camera so easily locks us in or holds us, what happens when it deliberately lets us go? If we are going to move beyond the terms of phenomenological film theory, more must be done to show its limits.

Disembarking the Phantom Ride: *Georgetown Loop* and *Disorient Express*

In considering the partiality of the moving camera's illusion of moving through the world on screen, we need to ask different kinds of questions than those posed by phenomenological film theory. Instead of describing the phenomenological structures that undergird the illusion at the height of its power—that is, when the screen and spectator seamlessly merge together—we need to consider the conditions of the moving camera that threaten to slip out of the illusion and thus pose a threat to our immersion.

One such condition is a fundamental fact about the kind of perceptual phenomenon that a camera movement produces: to adopt the moving point of view produced by a camera movement is, at its bottom, to see the movement of space as the movement of an off-screen point-of-view. When the camera moves, Edward Branigan reminds us, "the objects are in motion, though not in movement, because it is the *viewpoint* on the objects that is changing."²² In what we might call the *camera movement paradox*, there exists an apparent disconnect between screen movement and depicted movement. When the moving picture depicts the camera (or the cameraman? a frame? a viewpoint? me? we?) rushing toward and dissolving through the broken skylight at Susan Alexander's El Rancho nightclub, the subject of depiction is not viewable onscreen. The broken skylight, we want to say, does not approach the camera; *we* (i.e. the camera) approach the skylight.²³ While we clearly see the skylight move on screen, the skylight cannot be said to move in terms of what the film depicts. A photograph of that skylight, or even a static shot of that skylight, is a photograph or shot *of* that skylight; but when the camera moves with respect to the skylight, what exactly is the moving image an image of?²⁴

subjective camera. But while both cases acknowledge these distinctions, and hence place limits upon their anthropomorphism, their accounts of camera movement are still fundamentally based on seeing camera movements (or their non-representational analogs) as moving through a world.

²¹ Richmond, 55.

²² Edward Branigan, *Projecting a Camera: Language-Games in Film Theory* (New York: Routledge, 2013), 153.

²³ Rudolph Arnheim notably did not share this intuition. He argued that when a camera moves through space, the spectator is led to believe that the static objects displaced by the moving camera are in motion, not the camera itself. Arnheim, 30-31. While this seems to be a strange phenomenological description, and is perhaps willfully in tune with his formalist theoretical tendencies, Arnheim's description nonetheless evokes a desire to acknowledge the camera movement paradox.

²⁴ For a similar discussion of the logical conundrum inherent to the depiction of camera movement, see Danto, 110.

A number of theorists have begun their inquiries into camera movement by addressing this paradox in one way or another. Branigan, for example, expands the camera movement paradox into his larger metatheoretical thesis about the language of film theory and criticism: *any* critical invocations of the “camera,” such as in descriptions of “camera movement,” are not statements of fact but linguistic aids to description.²⁵ Bordwell takes more prescriptive measures, calling for the eradication of the profilmic definition of camera movement—i.e. “the camera as a mechanism coasting through a three-dimensional studio”—and instead opts for the term “camera movement effect,” which refers not to an actual camera but to the kinetic depth cues produced onscreen.²⁶ Sobchack echoes Bordwell’s desire to eliminate a profilmic definition of camera movement, arguing against the “theoretical transformation of camera movement into...discrete and determinate movements in geometric space.”²⁷ Most recently, Ryan Pierson, writing about the perceptual possibilities of animation for evoking and transforming an experience of camera movement, has considered (though ultimately dismisses) defining the camera in motion “not as a physical entity but as anything which takes a view of a world.”²⁸ In each case, the question of what a camera movement depicts is jettisoned in favor of what it feels like to watch it.

Such arguments, which seek to create a distinction between the physical camera and what we see on screen, help us see an often overlooked perceptual condition of camera movement. Because the onscreen *movement* produced by camera movement is not that of an object—i.e. the camera—but of space itself, the relationship between what a camera movement shows and what it depicts is left in an unusually precarious position. Automatically attuned to a set of perceptual depth cues, we *see* the onscreen movement of space *as* a movement of the offscreen camera instead of as the movement of space across the surface of the screen—or, in Bordwell’s words, as “a series of expanding, contracting, and labile configurations.”²⁹ These abstract configurations that constitute the illusion of the unseen camera’s moving perspective are *there* but not seen. They are phenomenologically invisible. According to Bordwell, it is “virtually impossible” to see such configurations under “normal circumstances.”³⁰ But what might be the circumstances for seeing them? If camera movements harbor another way of being seen, a perceptual aspect that remains hidden under “normal” conditions, how might we access it, and what might be the stakes of doing so?

To probe this issue, I want to look at the experimental short film *Georgetown Loop* by Ken Jacobs (Fig. 2). The film begins by showing us footage from a 1903 phantom ride film that

²⁵ Branigan’s project in *Projecting a Camera* is to analyze the arguments of film theory by examining the language-games used by film theorists. Much of this Wittgensteinian meta-discursive approach hinges on the fact that the physical camera on set is not identical to the “camera” through which we see perceptually or fictionally, nor is it always the referent in the various language-games film theorists use to make sense of cinema.

²⁶ Bordwell, “Camera Movement,” 23. In this sense, cel animation and CGI each have the capacity for the “camera movement effect” without using a moving camera.

²⁷ Sobchack, “Toward Inhabited Space,” 320.

²⁸ Ryan Pierson, “Whole-Screen Metamorphosis and the Imagined Camera (Notes on Perspectival Movement in Animation),” *Animation* 10.1 (2015): 8.

²⁹ Bordwell, “Camera Movement,” 23.

³⁰ *Ibid.*

takes its viewers through the eponymous railway loop in the city of Georgetown, Colorado. Offering the expected spectatorial pleasures of the phantom ride, the film delights us with views of the snowy, mountainous landscape, the occasional silver mine, and a fellow train riding in front of us filled with enthusiastic passengers. Likewise, the phenomenological pleasures of the phantom ride's movement into depth are firmly in place. We feel the forward propulsion of the train's moving perspective in our bodies, and our attention is drawn toward the center of the image as we anticipate and delight in the unfolding of space.

Curiously, though, this otherwise familiar phantom ride takes up only the right half of the wide-screen projection, producing a sense of great suspense for what might fill its place. When, at roughly two-and-a-half minutes in, the phantom ride footage reaches its end, the wait is over. The film restarts the footage, but this time projects its mirror image alongside it in the blank space, effectively creating a split-screen display. What results is a mesmerizing kaleidoscopic effect: our attention is immediately drawn to the central axis between the images, from which two-dimensional abstract swirls of space contract and expand in various degrees of speed and intensity. Although each moving image retains its picture of perspectival movement, the Gestalt switch triggered by their juxtaposition is overwhelming enough that we are compelled to watch the film as a kind of moving Rorschach test. The shock of Jacobs's film is that he manipulates us into watching a phantom ride as a picture of pure motion³¹ rather than as representation of



Fig. 2 *Georgetown Loop* (Ken Jacobs, 1996).

³¹ I mean to use the term “pure motion” in a similar way that Gestalt psychologist Max Wertheimer used the term “pure movement” to describe the apparent perception of movement without a moving object that is seen to change its position in space. The “pure motion” in Jacobs's film, then, evokes the sense that the swirls of space are seen as abstractions rather than perceptual cues indicating a moving viewpoint. See Robert M. Steinman, Zygmunt Pizlo, and Filip J. Pizlo. “Phi is not beta, and why Wertheimer's discovery launched the Gestalt revolution,” *Vision Research* 40.17 (2000): 2257-2264.

perspectival movement. Instead of seeing a framed mobile perspective that reveals and conceals the world with its movement through space, we are compelled to see formless matter spontaneously emerge from the central axis and glide laterally across the screen's surface.

While it seems that Jacobs is playing a trick on us, manipulating our perceptual faculties into seeing moving abstractions where none exist, I think he is more so showing us, or rather teaching us, what is perceptually strange about camera movements: by compelling us to see as two-dimensional the streams of motion that camera movements conditionally produce, he disrupts our habit of participating in what we ordinarily perceive as the camera's movement.³² Importantly, what the images compel us to see is not an empirically new image but a structural form created from the combined Gestalt of their juxtaposition. To borrow Bordwell's words, Jacobs doesn't modify the image itself but merely alters the "normal circumstances" under which camera movements are perceived. Yet in doing so he creates a perceptual context under which the visual effects of the moving camera can be seen in shockingly new ways.

This startling perceptual shift has much in common with a kind of spatial disorientation unique to animated films that Pierson terms "whole-screen metamorphosis." In challenging the perceptual conventions of perspectival movement typical of live-action and CG animation, whole-screen metamorphoses undercut our sense of having a stable world, a consistent field of possible action that we are situated within. As an example, Pierson examines the climax of Norman McLaren's *Blinkity Blank* (1955), in which the fluttering, two-dimensional movements of flat figures on the screen's surface shockingly break into the z-axis, as if suddenly flying *forward* into the depth of the screen. In Pierson's analysis, such a moment should not be understood as a metaphorical camera movement, as if an imagined static camera had spontaneously begun to move; rather, it is as if "deep space did not so much as exist before the movement into it."³³ It is as if we have entered a new world with previously unimaginable possibilities.

Pierson's phenomenological analysis of the Gestalt shift offers a useful vocabulary for describing the analogous aesthetic shift in *Georgetown Loop*. Understood as the inverse of McLaren's Gestalt-shifting movement-into-depth, Jacobs' kaleidoscopic flattening radically changes the perceptual possibilities of the world we are initially given. It is not as if the mobile perspective from the moving train has dramatically changed, as if the camera has suddenly occupied a new point of view that shocks us with its difference. Rather, the ground itself has changed. In Pierson's words, there is the sense that "something has changed without our having a means of orienting ourselves in relation to the change."³⁴ One important difference with Jacobs, though, is that both grounds, both worlds, co-exist as transparently co-constitutive *aspects*. Both fully present to be seen, the movement-into-depth and flat lateral swirls are two different aspects of the same moving image, beckoning us to choose between them.

This idea of seeing aspects of images gets its fullest, and most well-known, articulation in the second part of Ludwig Wittgenstein's *Philosophical Investigations*. There, he discusses the philosophical implications of a fundamental characteristic of human perception, that we can see

³² Jacobs's process of making camera movements "strange" resonates in many ways with Viktor Shklovsky's concept of "defamiliarization" in "Art as Device." Viktor Shklovsky, "Art as Device," in Lee T. Lemon and Marion J. Reis, trans. and eds., *Russian Formalist Criticism: Four Essays* (Lincoln: University of Nebraska Press, 1965), 3-24.

³³ Pierson, 14.

³⁴ *Ibid.*

one thing—a picture, an object, a state of affairs—in multiple ways or “aspects.”³⁵ We can see a “W” as an upside-down “M”; we can see a crude schematic drawing of a cube as a two-dimensional array of three conjoined quadrilaterals; and in Wittgenstein’s most famous example, we can, and in fact must, see the duck-rabbit illustration as a duck or a rabbit (Fig. 3), but never both at the same time. While each of these perceptual shifts involves a slightly different psychological structure, they all share the feeling that we *see* the image differently while also seeing that it has not changed. This paradoxical structure lies at the heart of the perceptual effects at work in Jacobs’s *Georgetown Loop*. In creating the conditions to perceive both the movement-into-depth and the flat lateral swirls within the pair of mirrored phantom rides, Jacobs plays with our capacity to see—and *choose* to see—multiple aspects within a single moving image.

This willed form of aspect-perception matters for Jacobs’s film because it serves a pedagogical function. Instead of radically changing the world we are given, Jacobs shows us how to detach ourselves from that world if we so choose. Unlike McLaren’s animated film, which demonstrates animation’s capacity for spatial metamorphosis—that is, for fundamentally altering the spatial logic of an aesthetic world—Jacobs’s film creates a similar shift while leaving the previous world perceptually accessible, thereby creating the conditions for seeing the hidden visual forms already at play in camera movements.

We can see this process more clearly in his companion film, *Disorient Express* (Fig. 4). Unlike *Georgetown Loop*, this film *begins* with the kaleidoscopic juxtaposition of mirror images (this time projected upside down), and then shows us the original footage on its own. In effect, we are offered a kind of perceptual training: when we return to the original footage, we cannot quite look at it the same way. Though the “circumstances” have returned to normal, our retention of the perceptual Gestalt-shift has placed us at a distance from our hard-wired receptivity to depth cues and embodied kinesthesia. Instead of simply being locked into the illusion, we start to peruse the surface of the frame for the abstract dynamism and formless variability that was activated by the mirror image. Specifically, we have learned how the sharpness of the train’s turns and the proximity and location of passing objects affect the intensity of two-dimensional waves of motion. We now see that the most intense velocities of motion occur at the edge of the frame: the space that emerges from the vanishing point must abruptly exit the frame with an overwhelming force. No longer an infinitely displaceable horizon of perception, the frame becomes both empirically and phenomenologically visible; instead of mimicking the soft boundaries of our own perceptual field, the edges of the frame now seemingly *produce* the space that bursts forth. The stakes of Jacobs’s phantom ride films, I would argue, lie precisely in these moments when the kaleidoscopic effects have subsided, when we have returned to the phantom ride’s illusion of bodily movement but *simultaneously* see it as a flat abstraction.

The nature of this simultaneity can best be understood in terms of Richard Wollheim’s account of the “twofoldness” of picture perception, a concept that explicitly follows in the footsteps of Wittgenstein’s aspect-perception but which has a much more particular aim.³⁶ Oriented explicitly against Ernst Gombrich, who claims that seeing a picture involves wavering

³⁵ Ludwig Wittgenstein, *Philosophical Investigations*, trans. G.E.M. Anscombe and P.M.S. Hacker (John Wiley & Sons, 2010), 152.

³⁶ Gregory Currie briefly invokes Wollheim’s notion of *seeing-in* with respect to film in his *Image and Mind*, but only does so to flesh out accounts of the phenomenology of depiction in general. Gregory Currie, *Image and Mind: Film, Philosophy and Cognitive Science* (Cambridge: Cambridge University Press, 1995), 90. For more on Wollheim’s concepts of *seeing-in* and twofoldness as they relate to

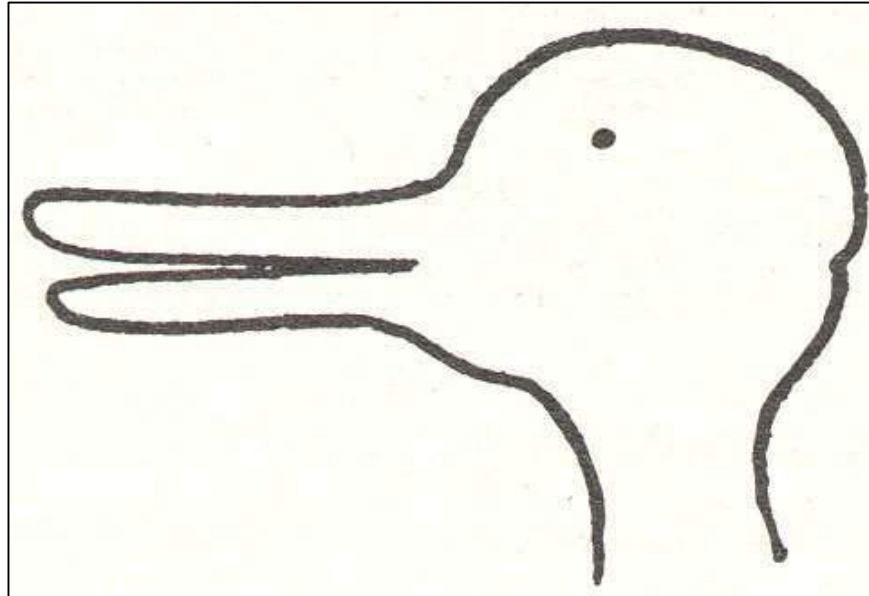


Fig. 3 Joseph Jastrow's duck-rabbit illustration reproduced in Wittgenstein's *Philosophical Investigations*.

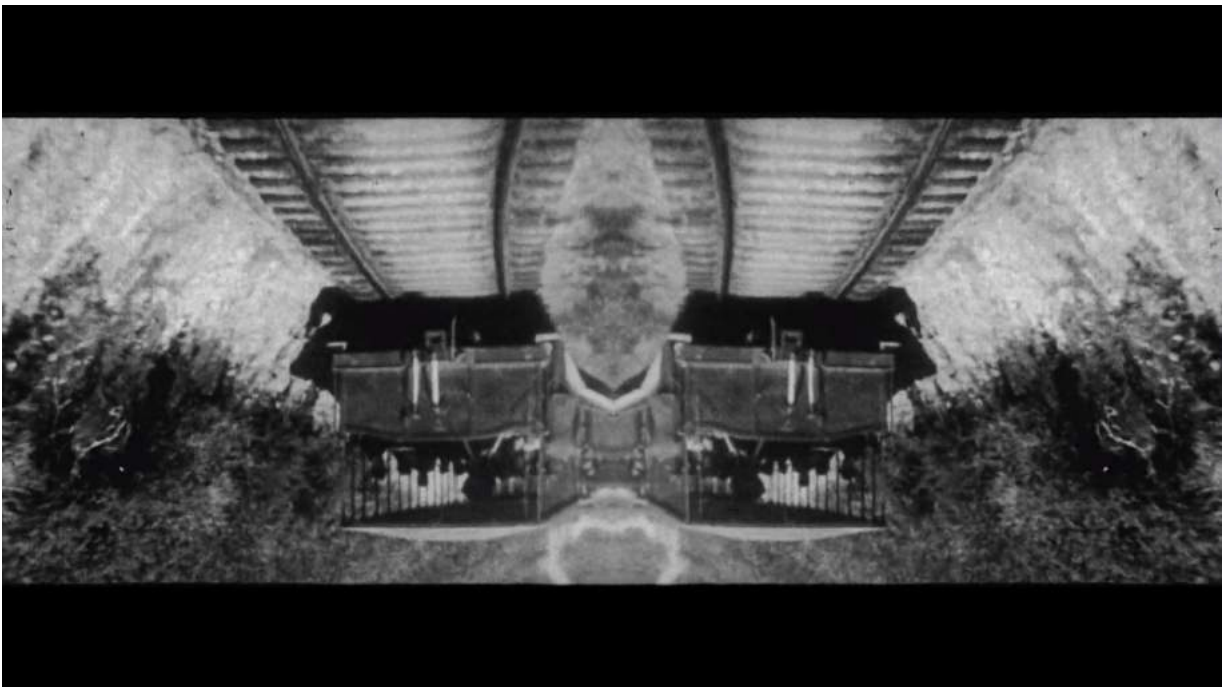


Fig. 4 *Disorient Express* (Ken Jacobs, 1996).

Wittgenstein, see Gary Kemp and Gabriele M. Mras, eds. *Wollheim, Wittgenstein, and Pictorial Representation* (New York: Routledge, 2016).

between seeing what it depicts and seeing the marks—colors, lines, splotches—that constitute it, Wollheim argues that both the configurational and recognitional aspects of a painting are simultaneously present in our appreciation of pictures as art objects. Instead of seeing the physical surface of the painting *as* its depictive content—as in Wittgenstein’s case of “seeing-as,” in which we cannot see the duck and rabbit simultaneously in the duck-rabbit illustration—Wollheim argues that we see the depictive content *in* the surface array (i.e. a matter of *seeing-in* rather than *seeing-as*). The artist, Wollheim writes, “cannot be thought content to leave the two visual experiences in such a way as one floats above the other.”³⁷ That is, these two aspects are constitutive of a single complex experience rather than independent experiences that simply occur at the same time.

Wollheim’s theory of perceiving paintings is compelling precisely because painting is a medium for which the *look* of the surface—the way in which paint is applied, the curve of a line, the thickness of paint, the patterns of color—explicitly matters to a properly *aesthetic* experience of it rather than as a mere picture of visual information. As Michael Podro explains in a slight modification of Wollheim’s twofoldness, there exists a “symmetry” between the representational content of a painting and the look of its surface.³⁸ In Podro’s account, when we see the face of a woman while looking at the *Mona Lisa*, we see the woman—the painting’s representational content—at the same time as we see the *look* of the painting’s surface. Looking at Raphael’s *Madonna with the Fish*, we cannot separate the experience of “recognising bodily movement of the figure of the virgin” from registering “the sweep of Raphael’s line.”³⁹ James Elkins echoes Podro’s account: “To speak *only* [...] of the figure, or the represented thing [...] is to capitulate to a concept of pictures that imagines there is a gap between marks and signs.”⁴⁰ To look at a painting as a painting—that is, as an object for aesthetic experience rather than as a mere picture of information—is to consider the surface of the painting, the particular textures and forms that constitute representational content.

This model can be used to think about the experience of the screen’s surface in camera movement. To be sure, the surfaces of cinematic images are not worked upon in the same way as those of paintings. Freighted by theories of the automatic nature of photographic registration, cinematic images have long been condemned to a representational determinism in certain traditions of film theory, in which formal creativity is restricted to the activity of manipulating referential content rather than freely generating it. Realist and phenomenological theories of cinematic perception thus tend to marginalize any attention to the surface of the screen.⁴¹ In the

³⁷ Richard Wollheim, *Art and Its Objects* (Cambridge: Cambridge University Press, 2015), 149.

³⁸ Michael Podro, “Depiction and the Golden Calf,” in Philip Alperson, ed., *Philosophy and the Visual Arts* (Netherlands: Springer, 1987), 9.

³⁹ Podro, 18.

⁴⁰ James Elkins, “Marks, Traces, Traits, Contours, Orli, and Splendores: Nonsemiotic Elements in Pictures,” *Critical Inquiry* 21.4 (1995): 834.

⁴¹ On the other side of the theoretical divide, Rudolph Arnheim’s formalist film theory celebrates the flatness and rectangularity of the screen as one of the major conditions of film’s artistic potential, but his account of spectatorial experience thereof is inconsistent. At times, Arnheim describes a simultaneous experience of surface and depth similar to Wollheim’s twofoldness. For example, he writes: “we can perceive objects and events as living and at the same time imaginary, as real objects and as simple patterns of light on the projection screen.” Arnheim, 29. But at other times he suggests we experience the two registers in a two-step process: “In Ruttmann’s film *Berlin* there is a scene of two subway trains

most extreme cases, cinema's automatic realism is invoked as a counterexample to Wollheim's twofoldness thesis. According to Robert Stecker, for example, "People often don't notice anything other than pictorial content while caught up in a movie."⁴² In phenomenological and cognitive theories of cinematic perception, we find a similar privileging of cinema's illusory realism as the starting point for more nuanced accounts of spectatorial investment in cinematic worlds onscreen. A version of this can be found in Joseph Anderson's "ecological" theory of cinematic perception, which concedes that the spectator's attention *alternates* between the "incompatible perceptions" of "scene and surface."⁴³ Because the three-dimensional array contains more vital information, Anderson claims, we privilege the space of illusory depth. In this regard, our momentary awareness of the screen's flatness can seem "obtrusive," as when we crane our necks as if to see around an obstruction in illusory space only to be confronted with the stolidity of screen space.⁴⁴ In such accounts, the surface of the screen is either ignored as an aspect of spectatorial attention or regarded as an obstacle to the richness of the immersive cinematic experience.

Camera movement, in such a view, only counts as a technique to circumvent such an obstacle, in that it enacts the spectator's desire to willfully move through screen space. But if we consider the lesson of *Georgetown Loop* and *Disorient Express*, camera movements—when viewed within a certain perceptual orientation—can be seen to take on the superficial materiality of animate brushstrokes. Camera movements, in other words, need not only bring us with them through an illusory world, but can be *seen as* the gestural agents of two-dimensional screen phenomena, the very material stuff that constitutes the look of the screen's surface. Such a phenomenological approach opens up new ways to describe perceptual experiences produced by camera movements across narrative and non-narrative cinema. For example, lateral camera movements operate very differently than forward movements-into-depth, often suppressing the illusion of embodied movement and exploiting the aesthetic potential of the flatness of the screen. Experimental films like Stan Brakhage's *The Wonder Ring* (1955) and narrative films like Leos Carax's *Mauvais Sang* (1986) explore lateral camera movements's capacity to produce rhythmic abstractions that glide along the screen's surface, yielding perceptual effects that contribute significantly to the aesthetic ambitions of their respective compositions.⁴⁵ The

passing each other in opposite directions [...] Anyone watching this scene realizes, first of all, that one train is coming toward him and the other going away from him (three-dimensional image). He will *then* also see that one is moving from the lower margin of the screen toward the upper and the other from the upper toward the lower (plane image)." Arnheim, 12.

⁴² Robert Stecker, *Aesthetics and the Philosophy of Art: An Introduction* (Lanham: Rowman & Littlefield Publishers, 2010), 187.

⁴³ Joseph D. Anderson, *The Reality of Illusion: An Ecological Approach to Cognitive Film Theory* (Carbondale: SIU Press, 1998), 47-48.

⁴⁴ Anderson, 48.

⁴⁵ In *The Wonder Ring*, composed of shots from New York's Third Avenue "El" train, we explore the abstractions produced by the train passenger's lateral view, yielding a sense of poetic reverie lurking in the everyday. In a sequence from *Mauvais Sang*, in which Denis Lavant jubilantly runs across the frame to the tune of David Bowie's "Modern Love," a laterally moving camera creates vibratory pulses of vertical lines that quickly pass along the surface of the screen. These flashing alternations of white and gray create rhythmic movements that resonate with the pulsing soundtrack, thus producing sensations of intensity and speed that resonate with the emotional tenor of the sequence.

experiences produced in such cases necessarily involve a simultaneous perceptual inference of a profilmic referent—the movement of a viewpoint in space—and the seemingly autonomous surface effects we see on the screen. To ignore one aspect for the sake of the other would fail to account for the complete aesthetic experience that a camera movement can produce.

Georgetown Loop and *Disorient Express* not only offer us a formal vocabulary to talk about such camera movements, but they show us that *all* camera movements harbor this twofold aspect-perception to varying degrees—we just have to be taught how to see it. For even when the illusion of perspectival movement is at its most palpable, Jacobs teaches us how to see beyond the limits of habitual perception, to look with our eyes instead of our bodies, to view the screen as something more than a field of possible action. In demonstrating how little alteration is necessary to dislodge us from the compulsory illusion of bodily movement, Jacobs' films foreground the hidden aspects of camera movement. Our tendency to identify anthropomorphically with the moving camera is not a phenomenological condition of camera movement but a specific effect, a technological and aesthetic achievement that encourages us to see only one perceptual *aspect* of the moving image.

Twofoldness in Practice: *La région centrale*

Jacobs's phantom ride films give us perceptual access to the fundamental twofoldness that all camera movements produce, but the logic of twofoldness can also offer us a phenomenological vocabulary for discussing particular kinds of movement that more explicitly problematize anthropomorphic accounts of the moving camera. In Bordwell's essay on camera movement, which undergirds many of the perceptual conditions taken up by phenomenological film theorists, he concedes that the kinetic depth effects produced by the moving camera are undermined by what he calls "forbidden movements" that "block an anthropomorphic reading," such as the rapid panning in Michael Snow's *Back and Forth* (1969) and the intricate array of spinning, twirling, and rotating camera movements in his *La région centrale*.⁴⁶ Such movements, Bordwell argues, "present kinesthetic cues which violate some normal conceptions of how our body might move" and evince a "tension between reading the shot as the movement of a body swiveling quickly or that of a series of abstract patterns whizzing across the screen."⁴⁷ Bordwell ends his essay suggesting that such forbidden modes of camera movement produce a different "mode of seeing."⁴⁸ I want to resist this move. In positing this perceptual otherness, we risk losing the hard-earned lesson of *Georgetown Loop* and *Disorient Express*: because *all* camera movements harbor a kind of twofoldness, the forbidden movements of *La région centrale* and *Back and Forth* can be better understood as playing with the fundamental conditions of the moving camera rather than radically breaking them. Instead of erecting a dualism between

⁴⁶ Bordwell, "Camera Movement," 24.

⁴⁷ Bordwell, "Camera movement," 24-25. Bordwell develops this observation about non-anthropomorphic cinematic techniques in *Narration in the Fiction Film*, where he accuses Vsevolod Pudovkin's "invisible observer" thesis of falsely analogizing film spectatorship with natural perception. There, Bordwell argues that Pudovkin's thesis about the camera—that it should be understood as an invisible observer capable of occupying any point in space—problematically constrains cinematic techniques like camera movement to an anthropomorphic ideal. David Bordwell, *Narration in the Fiction Film* (New York: Routledge, 2013), 10.

⁴⁸ Bordwell, "Camera Movement," 25.

anthropomorphic and non-anthropomorphic movement, such camera movements are better placed on a spectrum of twofoldness, a fluid continuum between embodied identification and painterly abstraction.

While Snow's *Standard Time* (1967), *Back and Forth*, and *La région centrale* all explore the twofoldness of camera movement in this way, perhaps the most virtuosic demonstration of this comes from *La région centrale*, in which the twists, rolls, and revolutions of the camera are generated by a machine that explodes the twofoldness of the moving camera to its most inconceivable extremes. As Snow puts it, in *La région centrale* "the camera moves around an invisible point completely in 360 degrees not only horizontally, but in every plane of a sphere. Not only does it move in predirected orbits and spirals, but it itself, also turns, rolls, and spins [...] The film is a cosmic strip."⁴⁹ Engineered so that the camera always points outwards toward the landscape, Snow's elaborate camera apparatus guarantees that the camera never faces the direction it moves, thereby violating an essential criterion of anthropomorphic movement.⁵⁰ That is, instead of moving forward *through* space to emulate familiar forms of human locomotion (as we might while walking, driving, or even flying), Snow's camera scans space, still very much bound to its apparatus. It pans, tilts, rotates, and spirals, exploring a seemingly infinite flexibility afforded by its apparatus, but it does not penetrate into the space it beholds. Compounded by breakneck speeds during the film's operatic finale, these scanning camera movements gradually produce painterly swirls of color on the surface of the screen, showing us the gradual transference of movement from the camera to screen space itself (Fig. 5).⁵¹ In William Wees's words, the film encourages us to "look *at* the image as well as into it."⁵²

But more than simply showing how the velocity of camera movements determines the threshold between representation and abstraction, *La région centrale* creates visual patterns—and corresponding patterns of aspect-perception—that emerge from the infinitely various but precise trajectories of the moving camera. Even before the film reaches the speeds necessary for producing flattened blurs of color, particular non-anthropomorphic camera movements more subtly displace the agency of movement from the camera to the visual forms projected onscreen. For example, when the film's second section introduces the camera's capacity to rotate on its own axis, the screen's pictorial space takes on an autonomy absent in the slow lateral pans of the first section; in addition to registering the movement as the camera's rotation, we see the horizon

⁴⁹ Michael Snow and Louise Dompierre, *The Collected Writings of Michael Snow* (Waterloo: Wilfrid Laurier University Press, 2010), 58.

⁵⁰ P. Adams Sitney makes a similar observation about the absence of anthropomorphic camera movement in *La région centrale*, proclaiming that the film's camera movement comes from a "disembodied perspective." P. Adams Sitney, *Visionary Film: The American Avant-Garde 1943-1978* (New York: Oxford University Press, 1979), 359.

⁵¹ A number of critics and theorists have acknowledged this basic element of the film, including Sitney (359), Wees (156), and Maureen Turim (129). It is thus significant to note that Sobchack ends her essay on camera movement by insisting on the opposite: "even in [*La région centrale*'s] most mechanical presence and its supposed farthest remove from human intentionality, the camera still moves intentionally and means to mean its movement." Sobchack, "Toward Inhabited Space," 331.

⁵² William Charles Wees, *Light Moving in Time: Studies in the Visual Aesthetics of Avant-Garde Film* (Berkeley: University of California Press, 1992), 156, emphasis added. While Wollheim's twofoldness hasn't been explicitly taken up in film studies, Wees language here suggests that it has been grasped intuitively, finding its way into critical discussions of films.

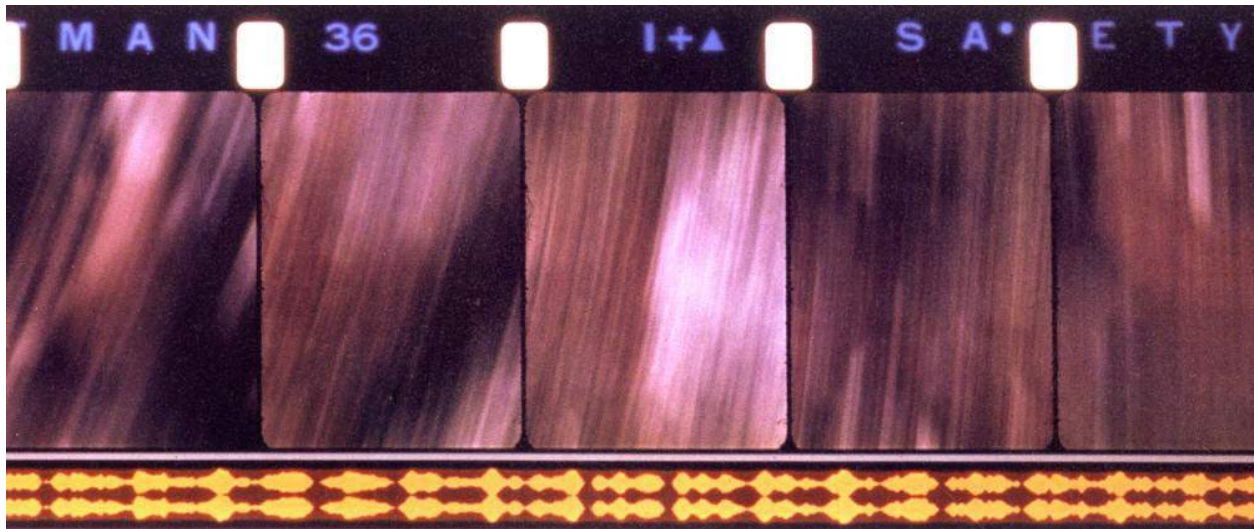


Fig. 5 Five frames (with soundtrack) of *La région centrale* (1971).

line independently rotate within the confines of the frame, almost as if a flat, static image is rotating immediately behind the frame. Likewise, when the camera rotates 90 degrees and positions the horizon as a vertical line bisecting the frame, we can see the horizon as a coarse squiggle spontaneously emerging from the bottom of the frame as the camera moves downwards. In each case, the positional orientation and trajectory of the camera produces the perceptual condition for us to see the meeting between land and sky as an animated line drawing itself along the screen's surface.

The most extreme example of this autonomous screen movement occurs at the beginning of the second half of the film, when the moon spirals and rotates against a black background with the independent vitality of an animated figure. Completely divorced from the spatial context of the landscape, the moon barely registers as anything but a blurred white circle moving against blank space, a flat geometric figure seemingly drawn from the experimental animations of Hans Richter or Walter Ruttmann. And yet, we never forego the knowledge that the camera's movement produces such movements. Seen within the context of Snow's overt display of technologically mediated vision, this seemingly non-photographic image beckons us to imagine the camera movements that produced it. As Maureen Turim observes, "[*La région centrale*] does not relinquish its hold on the recognizable, the landscape, the day/night cycle, even as it carries its work of subversion and abstraction of representation to an extreme."⁵³ Though the film oscillates between the recognitional and configurational aspects of the moving image, and thereby reveals the constructedness of the camera's automatic capacity for representing perspectival space, a general twofoldness persists throughout. The camera's movement is as much the subject of the film as is the landscape the camera records. As a result, our awareness of the camera's movement remains a constant; it constitutes the phenomenological background to our immediate experience of the screen's painterly abstractions. Just as we cannot subtract our

⁵³ Maureen Cheryn Turim, *Abstraction in Avant-Garde Films* (Ann Arbor: UMI Research Press, 1985), 129.

knowledge of the activity of painting from the look of the canvas's surface, Snow's film guarantees that we cannot subtract our awareness of the moving camera from the screen's surface even when the normative perceptual cues for camera movement have been suppressed. Our immediate experience of the film is informed as much by our knowledge of or reflection upon the mechanisms of its construction—of which we are sporadically reminded by the machine's shadow—as by our renewed aesthetic awareness of the screen's two-dimensionality. In Wollheim's terms, we'd say that despite the oscillation between movement and abstraction, the configurational and recognitional elements of the moving image are simultaneously present. We don't simply shift between these two modes of experience, seeing one and then the other, but rather glide along a spectrum in which both aspects constitute a singular but multifaceted experience.

If Jacobs's phantom ride films give visual form to the phenomenological condition of twofoldness, Snow's film exploits the aesthetic potential of this condition. In *La région centrale*, the camera's movement does not produce a convincing illusion of a human's embodied movement through space, but rather of the *camera's*. Free from the encumbrances of the human body, the camera does not have to face the world or move forward through it. And unlike the human eye's field of vision, the camera's projected expression is uniquely framed. As Snow himself has indicated, our awareness of the frame is crucial to the experience of the film: "The single rectangle can contain a lot. In *La région centrale*, the frame is very important as the image is continuously flowing through it [...] It can seem sad that in order to exist a form must have bounds, limits, set, and setting. The rectangle's content can be precisely that."⁵⁴ In other words, Snow shows us the extent to which camera movement—despite its tendency to absorb us, to draw us into the world on screen, to feel ourselves moving with it—remains an aesthetic form, an achievement of a framed composition, a moving *image*.

Conclusion

Showing us why camera movements are exemplary cases of aspect-perception in cinema, Jacobs's and Snow's films offer a powerful alternative to the kind of logic that guides most theoretical intuitions about the moving camera. The hallmark of aspect-perception, according to Wittgenstein, is the paradoxical feeling that we *see* the image differently while also seeing that it has not changed. Our capacity to see aspects constitutes our capacity to expand our experience without altering what stands in front of us; it allows us to go beyond habitual ways of seeing without foregoing sense-making. Aspects, according to Wittgenstein, do not teach us something about the external world; they are not properties of an object or image. And yet, the experience of aspect-perception compels us to believe that what we see is there for anybody else to see. As with making judgments of beauty, seeing aspects is constituted by the expectation that others can see what we see, that what we see is available for others, is somehow *there*, even though the experience of seeing aspects unequivocally comes from *here*, within ourselves.⁵⁵

In Stephen Mulhall's words, aspects are *seen* rather than known. That is, the dawning of an aspect is not a result of interpretation or inference (i.e. something demonstrable by reason),

⁵⁴ Snow and Dompierre, 60.

⁵⁵ For an in-depth comparison between seeing-aspects and Kantian aesthetic judgments, see Avner Baz, "What's the Point of Seeing Aspects?," *Philosophical Investigations* 23.2 (2000): 107.

but is immediate, felt, spontaneous, taken for granted.⁵⁶ Seen in this light, Bordwell's invocation of camera movement's unseen abstract configurations is merely an analytical inference. Jacobs's and Snow's films, however, produce the conditions for transforming Bordwell's inferential *knowing* of the screen's surface into a genuine aspect, an experience of *seeing* differently. These films offer the kinds of experience that go beyond what can simply be known, inferred, or interpreted. They provide the aesthetic circumstances for seeing, rather than logically deducing, the twofoldness of camera movement, thereby refreshing our senses to the strangeness of moving images as a category of representation.

Such a defamiliarization may persist beyond the individual film itself, and certainly it can be found in places beyond the realm of the experimental film tradition. Returning to the forward-moving cameras atop the El Rancho nightclub or winding through the corridors of the Overlook hotel, our attention may wander to the edges of the frame and *push* at the overwhelming illusions of embodied movement they offer us. The experience of Jacobs's and Snow's films provoke this playful mode of looking at the effects *all* camera movements produce, especially the most normative techniques in mainstream filmmaking that are difficult to imagine being seen any other way. Jacobs's and Snow's films test the limits of a conventional perceptual form and thus provide us with the conceptual tools to change how we see moving images and the hidden aspects that linger on the surface of the image.

What seeing-aspects adds to a phenomenological account of camera movement is an acknowledgment of cinema as an *aesthetic* experience, particularly a pictorial aesthetic experience. Phenomenological film theory restricts camera movement to an experiential determinism that precludes the possibility of seeing onscreen movement as anything other than kinesthetic movement. In terms of its perceptual aspects, camera movement thus becomes a profoundly singular image form that the spectator cannot help but merge with. Though the moving camera indeed has the unique capacity to evoke a powerful illusion of embodied movement, such an experience remains a privileged *aspect* of the moving camera bolstered by similarly privileged techniques and practices (e.g. camera movements into depth).

Delineating the sympathies between natural and cinematic perception only marks the beginning of a phenomenology of cinematic experience. For even at its most familiar, its most kinesthetic, its most geometrically precise, cinema remains an image, the experience of which is difficult to parse. Before we can say what a camera movement is, and by extension, what cinema is, we need to articulate the ways in which camera movements are images that, as Snow reminds us, "must have bounds, limits, set, and setting." Integrating those bounds into an account of one's experience is part of what it means to engage in a phenomenology of cinema as an *aesthetic* experience instead of as an analogy to natural perception. Camera movements are bounded forms—that is, moving *images*—and are necessarily experienced as such.

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⁵⁶ Stephen Mulhall, *On Being in the World: Wittgenstein and Heidegger on Seeing Aspects* (London: Routledge, 1990), 251-252.

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