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MACHINIC VISIONS OF THE PLANETARY

Ecologies of Scale in the Age of Satellites and Television

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This essay presents a theory of scale as a nonrepresentational interface, or crossing-point, to reappraise distance in approaches to remote viewing. To do so, it turns to the idea of "action at a distance," particularly as described by Maurice Merleau-Ponty, as well as to the year 1968, when the photograph *Earthrise*, the *Whole Earth Catalog*, and shouts of "the whole world is watching" put a fine point on matters of scale for media such as satellites and television. Variously revered or reviled in this historical moment, these devices implied totalities for some and total fields for others, though in either case, it was distance that assured hierarchy and homogeny, according to critics and scholars. In the years since 1968, this distrust has typically held sway, shaping calls for immediacy as opposed to abstract distance in most accounts of scale. By contrast, this essay argues that distance preserves difference and, emphatically, dependence across vast and variegated milieus, making scale a site for mutual responsibility in addition to variance or invariance. Bearing this out, the essay concludes with considerations of scale in the films *Medium Cool* and *2001: A Space Odyssey*, wherein distance ensures the entangled conditions by which just and unjust circumstances are made and unmade.

Photographed by the crew of Apollo 8 in December 1968, the image known as *Earthrise* crystallized ambivalences about remote viewing for an increasingly ecological age (figure 1). At stake was the scale of the picture, which looked back at Earth from space, a vantage that affirmed ecology's assertion that entities and environments belong to larger systems. For some, this inspired enthusiasm for global goodwill among unexpectedly intimate neighbors. For others, it roused anxiety about an imperiled and vulnerable planet in need of local stewardship. Regardless, the dispute galvanized faith in what the image draws near, not the distance that, I propose, assures dependence across vast and variegated fields.

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Figure 1: The photograph known as *Earthrise,* taken from the moon's orbit in December 1968 by the crew of Apollo 8 (https://www.nasa.gov/sites/default/files/images/640273main_Apollo8-color-full.jpg).

Time and again, in fact, doubts about distance unite period debates about remote viewing. Satellites and television are flashpoints in these discussions, thanks to broadcasts from Apollo 8, which carried the planet to viewers at home in advance of *Earthrise*'s release. As with the photograph, these devices mingled hope with dismay and aroused thoughts of a shared yet mutually troubled world. More to the point, they prompted replies that made immediacy their virtue and thereby echoed earlier reactions to the technologies. For Marshall McLuhan, "Sputnik created a new environment for the planet" and television a "global village," precisely because they convened instantaneous involvement among faraway people and things (McLuhan 1974, 9; 1962, 31). Extending the senses, the devices contracted diverse elements, configuring "total fields" that challenged the homogenous and hierarchical totalities that others, like Hannah Arendt, ascribed to modern technology (McLuhan [1964] 1994, 13). Still, if McLuhan departed from Arendt, then he also kept to her claims about distance and remote viewing, which, like abstraction, threaten "the world of our senses and of our bodies" by pulling away from the propinquity of our "earthbound, common sense" (Arendt 1963, 535). By 1968 these claims were widespread, particularly among activists, who appealed to satellites and television to wrest proximity from distance and disseminate the here-and-now to far-flung communities. Consider shouts of "the whole world is watching" at the Democratic National Convention (figure 2) or the cover of Stewart Brand's *Whole Earth Catalog* (figure 3), which pit "remotely done power" against the "intimate personal power ... of the individual to ... shape his own environment" (Brand 1968, 2).

Figure 2: Activists shout "the whole world is watching" in the presence of television crews during the Democratic National Convention in Chicago (https://en.wikipedia.org/wiki/The_whole_world_is_watching#/media/File:1968_Chicago.gif).

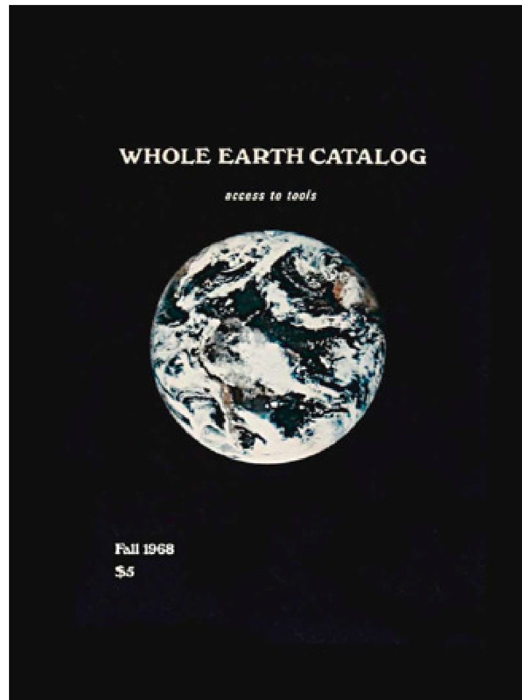

Figure 3: The inaugural cover of *Whole Earth Catalog* features an image of Earth taken by NASA's ATS-3 satellite in November 1967 (https://archive.org/details/1stWEC-complete).

In the years since *Earthrise*, this rhetoric has moved to the academy, where it inflects critiques of scale from ecology to geography to film and media studies. Doubtless, scale merits attention in these disciplines, which long neglected its complexity. It is with good reason, therefore, that scholars heed ecologist Simon Levin's suggestion that "phenomena differ at different scales of analysis" and reject studies that "assume continuity when," as media scholar Alenda Y. Chang notes, "discontinuity, or nonlinearity, is actually the norm" (Levin 1992, 1947; Chang 2019, 75). With this in mind, commentators regularly distinguish ontology from epistemology in their approaches to scale, aligning difference with the former and its suppression with the latter (Horton 2021; Marston, Jones, and Woodward 2005; Sayre 2005; Woods 2017). In geography, Nathan Sayre answers calls to eliminate scale with descriptions of two "moments": one "intrinsic to some objective reality" and another that "may strongly determine what, if anything, one 'sees'" (Marston, Jones, and Woodward 2005; Sayre 2005, 280). Zachary Horton proceeds similarly in film and media studies when he distinguishes "scalar access," which refers to "our own stabilizing knowledge practices," from "scalar alterity," which registers

"the impingement or perturbation of other assemblages upon us" (Horton 2021, 26–27). As this suggests, difference belongs to what presses near. Theorists "linger upon the materialities and singularities of space," including "localized connections" that are, at best, confrontations with discontinuity or, at worst, compensations for systems that deny the uniformity of abstraction (Marston, Jones, and Woodward 2005, 424, 425; Doane 2022, 189–238). Either way, invariance proceeds from distance in these accounts and, by extension, globality and remote viewing, each of which purportedly threatens the heterogeneity of scalar realities.

On my read, by contrast, distance preserves variability across wide-ranging milieus; it also ensures their dependence, making scale a site for mutual responsibility in addition to scalar difference and scalar collapse. Appropriately, I present a theory of scale, not as two moments or perspectives, but as the interface, or crossing-point, that constitutes and conjoins scalar regimes. Far from epistemology, on the one hand, and ontology, on the other hand, scale names the very form of relation by which being and knowing are concealed and revealed. To get at this relation, I invoke the work of Maurice Merleau-Ponty, whose account of human perception indicates the "action at a distance" I delineate in this essay. Long deployed in science and philosophy, "action at a distance" designates interaction without contact among far-off bodies.[1] For Merleau-Ponty, it describes vision as a "cross-section upon a massive being," whereby we view things as part of a multifariously shared world from which subjects present to themselves what objects manifest by their own means (Merleau-Ponty 1968, 135).[2] Perception joins seer to seen, in other words, though they diverge from each other, through an "intertwining," or "chiasm," that, I argue, also characterizes scale (Merleau-Ponty 1968, 130–55). Accordingly, scale gathers and disperses entities and environments that are linked yet distinct, orchestrating the conditions by which totalities are at once coerced and contested.

In what follows, I return to 1968 to trace the action at a distance by which *Earthrise*, satellites, and television *remediate*—indeed, *repeat* and *rectify*—the homogeny and hierarchy so often assigned to scale and remote viewing. Though hardly singular for the views they provide, media from this year put a fine point on the ecologies, or *logics of dwelling*, that scale shapes and reshapes, especially for raced, classed, and gendered experiences of locality and globality. Bearing this out, I examine two films that express these connections: Haskell Wexler's *Medium Cool* and Stanley Kubrick's *2001: A Space Odyssey*. Shot and released in 1968, respectively, these works test the limits and possibilities of broadcast news and space-age technologies. More important, they do so

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1 See Sprenger, Peters, and Vagt 2020 for a useful introduction to "action at a distance" as well as essays that trace its relationship to philosophy, science, and mediation.

2 In his essay "Eye and Mind," Merleau-Ponty uses the phrase "action at a distance" to distinguish the phenomenology of perception from Cartesian models of vision. See Merleau-Ponty [1964] 1993, 131.

through distance as well as proximity, reminding us that scale, too, is a medium, which is to say, a middle ground or intermediate position that organizes the conditions by which alterity and responsibility are recognized or repressed. Scale implies representation of size, extent, or relative proportion, but it is, fundamentally, a nonrepresentational crossing-point for difference and dependence. Connecting as medium what it cannot contain as measure, scale coordinates the entanglements by which just and unjust circumstances are made and unmade.

"*Where* and *What* Is Down to Earth?" —Buckminster Fuller 1969

Approaches to *Earthrise* typically begin with the photograph's globality, which invited excitement and unease, I have suggested, among those who encountered it in the midst of war, social revolt, and environmental devastation. It also animated debates about scale and remote viewing for scholars of satellites, television, and related technologies. In this section, I pursue these reactions for their attitudes toward distance, which localities must overcome, by most accounts, if media are to avoid scale invariance and preserve difference in the face of totalizing systems. We might begin, then, with postwar America, when globality signaled international incorporation as a new world order. Advocating "universal brotherhood in a shrinking world," commentators espoused democratic bonds through technological fixes, making the United Nations and Trans World Airlines bedfellows of systems scientists, counterculturalists, and Project Apollo (Cosgrove 2001, 255; Poole 2008). Still, thanks to *Earthrise*, another response issues from this context, what geographer Denis Cosgrove names "whole-earth" as opposed to "one-world" thinking (Cosgrove 2001, 262–63). Unlike "one-world," it exchanged geopolitics for more intimate attachments, emphasizing the planet's isolation and fragility and consequent need for protection. Nevertheless, Cosgrove argues, "whole-earth" exhibits the tacit imperialism of its counterpart, whereby one-for-all meets all-for-one in an image captured "so far outside the bounds of Earth ... [as to] seemingly constitute an unchallengeable vantage point" (Cosgrove 1994, 288). Here, globality is dangerous because it relies on distance, which authorizes discourses that preach alliances and community yet abandon local perspectives.

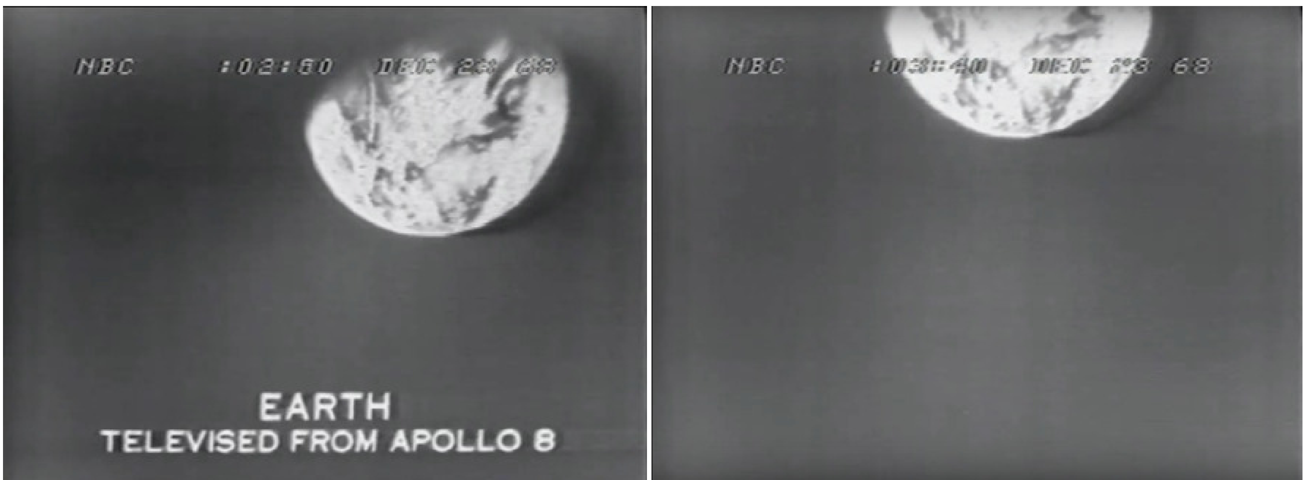
There are others, meanwhile, for whom *Earthrise* does not forsake scale variance but, rather, returns us to the world by diminishing our distance from it. For Timothy Clark, "the terrestriality of one's own sensorium is implicated in the effect of the image," which challenges the universality of any one view by bending us back toward our earthly coordinates (Clark 2015, 34). "The Earth is not 'one,'" he writes, "in the sense of an entity we can see, understand, or read as a whole. No matter from how far away or 'high up' it is perceived or imagined ... it is always something we remain 'inside' and cannot genuinely perceive from elsewhere" (Clark 2015, 33). An image of the planet from space upends, therefore, our normative relationships to scale. It puts us inside and

outside the picture, defamiliarizing human perception and destabilizing the univocal point of view that globality reportedly secures. *Earthrise* is "an inexhaustible surprise, an event," and "a testimony to our terrestriality"; it is, in short, a reflexive encounter with discontinuity that demands our scrutiny and narrows our focus to what is near rather than far (Clark 2015, 31, 39). There is heterogeneity here and a more salutary view of globality. As before, however, the accent falls on proximity, neglecting the interface by which, I have argued, localities appear, or do not, and could appear otherwise.

Scale names this interface, which we reclaim when we recoup distance. Only from this vantage does *Earthrise* orient and disorient viewers, precipitating confrontations with difference and the subjugation it resists. We view things, notes Maurice Merleau-Ponty, "in their places, where they are, [and] according to their being," but they remain "more than their being-perceived" because the world precedes and exceeds any cross-section, any perception, any image at any scale we present of it (Merleau-Ponty 1968, 135). There is no totality, in other words, no "soaring over" or "infinite distance"—or, for that matter, any "absolute proximity" in an image such as *Earthrise* (Merleau-Ponty 1968, 127). There is, instead, a "coinciding from afar, a divergence," or action at a distance, which marks the crossing-point of being and knowing that defines scale (Merleau-Ponty 1968, 125). *Earthrise* literalizes this action with a snapshot taken more than two hundred thousand miles from the planet, a distance at which its scale locates and dislocates viewers of the photograph. On the one hand, we recognize a brightly lit Earth rising over the lunar surface, the ashen horizon of which affirms the former's ascent by supplying the ground for this landscape. At the same time—and on the other hand—the image gives us but a sphere, half-shrouded and flat above a gray expanse. *Earthrise* is abstract, that is, though no less immediate for this reason. We sense earth and sky, for which there is little evidence, but these localities do not exhaust the globality of the photograph or the alterity that dwells within it. A review of the original corroborates this conclusion. With its vertical orientation, the picture confounds the directionality established by its rotation (figure 4). It arrests Earth's movement and, with no ground and few depth clues, highlights the confusion between planet and satellite already at stake in the snapshot's title.

Figure 4: Though *Earthrise* is typically reproduced with a horizontal lunar surface, the original orientation of the photograph depicts it vertically (NASA 2022, https://www.nasa.gov/sites/default/files/images/250524main_GPN-2001-000009_full.jpg).

The bewilderment continues with a live television broadcast from Apollo 8 that predated *Earthrise*'s publication in newspapers and magazines (figures 5a and 5b). Relayed by newly established satellite links on December 23, 1968, the feed compounds the "unity of incompossibilities" that characterize its counterpart, illustrating the value of distance for critiques of scale that accompany these technologies (Merleau-Ponty 1968, 215). Indeed, more than *Earthrise*, the transmission upsets what it inaugurates, including the geo-, ethno-, and anthropocentric points of view with which satellites and television are frequently associated. On-screen, Earth is fuzzy and crude, a pockmarked disc in a horizon-free void. It also moves, unlike the object in *Earthrise*, evidently frustrating the men at mission control, who urge Apollo's crew to keep the planet in frame (YouTube 2010). Such exhortations signal the ways satellite television is "used," according to media scholar Lisa Parks, "by states, scientists, and broadcasters to disembody vision and construct seemingly omniscient and objective structures of seeing and knowing the world" (Parks 2005, 14). Nonetheless, the distance that presumably assures this "fantasy of global presence" also undermines the God's-eye view that putatively sanctions it (Parks 2005, 21). Nowhere is this clearer than in the program's delays, which suspend the crew's delineations of the Western Hemisphere as well as NASA's warnings that the world is slipping away. A live signal "must cover a great distance," Kris Paulsen reminds us, "and this distance is manifested as … lag" (Paulsen 2017, 109). What is faraway invites mastery, so to speak, but it also initiates failure.



Figures 5a and 5b: Images of Earth from a live television broadcast from Apollo 8 relayed through newly established satellite links (https://www.youtube.com/watch?v=9hQU-SuSB-0).

The reverse is true, we might say, for more immediate material. Take ABC's coverage of the Apollo 8 transmission, during which a representative from North American Rockwell handles the crew's camera and maneuvers a pint-sized model of the spacecraft (figures 6a and 6b). As if in response to Earth's fugitivity, the scale of the demonstration restores authority to NASA and the nightly news through the propinquity of the engineer and his bodily contact with the equipment. The demonstration thus complicates theories of scale and remote viewing that express what Ursula K. Heise calls an "ethic of proximity," conveyed as "a deep-seated skepticism vis-à-vis the long-distance, mediated, and abstract structures and institutions that shape modern societies" (Heise 2008, 33, 34). In the years since *Earthrise*, this ethic has taken a number of forms, including accounts that distrust the materiality, geographical specificity, and reflexive encounters with alterity that other thinkers advocate. For Laura Kurgan, a "view up close can be just as blurred as the one from overhead, ... and a visit to the site itself can often raise more questions than it answers" (Kurgan 2013, 30). Extending this claim, Mary Ann Doane suggests that technologies from linear perspective to cinema to the global positioning system (GPS) variously deploy location, nearness, and discombobulation to repudiate the violent "abstraction of time, space, and vision" they in fact perpetuate (Doane 2022, 209). Even so, distance is a measure of dispossession in these approaches, not the means by which scale coordinates confrontation and compensation across local and global domains.

Figures 6a and 6b: A model of Apollo 8 and its on-board television camera exhibited as part of ABC Evening News coverage of the December 23, 1968, NASA transmission (Vanderbilt Television Archive, https://tvnews.vanderbilt.edu/broadcasts/1033).

This coordination matters, meanwhile, if we wish to cultivate relationships of responsibility rather than disclose their absence or indemnification. Scale is, at base, a "relation," writes geographer Nathan Sayre, and "a set of ongoing negotiations," according to Zachary Horton (Sayre 2009, 101; Horton 2021, 26). When I call it an interface, however, I mean to emphasize the entwinement that ordains the "two-step dance" it choreographs between ontology and epistemology (Horton 2021, 150). There is "primary scalar difference," argues Horton, which differentiates entities from within matter itself. It precedes subjects and objects as well as scalar milieus. The latter belong, for their part, to "secondary scalar difference," which generates systems of knowledge and stable environments from particular points of view (Horton 2021, 148–52). Indebted to Karen Barad, whose own work owes to physicist Niels Bohr, these steps involve interior and exterior "cuts" that amplify, as their names suggest, the discontinuities that inhabit scalar relationships (Barad 2007). Without losing this insight, I want to emphasize another—namely, that scale intertwines what it inaugurates from the jump and at a remove. Instead of steps, therefore, I prefer a chiasm, or crossing-point, to describe scale, since it sharpens the rapport—indeed, the entanglement—from which dependence proceeds in addition to difference. The result, which joins Bohr to Merleau-Ponty, underscores the obligations scale convenes for an unequivocally variegated yet emphatically shared world that not only sustains entities and environments but also does so at a distance.[3]

Conceived this way, scale answers its abuses in the age of satellites and television, not to mention drones, GPS, and the so-called Anthropocene, the very name of which ignores disparities among humans who contribute to climate change and those who suffer its consequences. For geographer Kathryn

3 We might remember that Albert Einstein called Niels Bohr's theory of quantum entanglement *spukhafte Fernwirkung,* or "spooky action at a distance," in a March 3, 1947, letter to Max Born (Born 1977).

Yusoff, the Anthropocene draws "borders that define inclusion and exclusion," making raced, classed, and gendered cuts that lead to differentially "disposable lives, waste, toxicity, contamination, extinction, and exhaustion" (Yusoff 2018, 24). In the context of *Earthrise*, one thinks of Gil Scott-Heron's rejoinders to Project Apollo and satellite television, which anchor what they unmoor and unmoor what they anchor, much like the photograph and its associated broadcasts. In "Whitey on the Moon," Scott-Heron exposes the limits of NASA's "giant leap for mankind" by recasting oneness as an image of the few: "A rat done bit my sister Nell. / (with Whitey on the moon) / Her face and arms began to swell. / (and Whitey's on the moon) / I can't pay no doctor bill. (but Whitey's on the moon) / Ten years from now I'll be payin' still. / (while Whitey's on the moon)" (Scott-Heron 1970). Inscribed between parentheses, the poem's appeals to whiteness disrupt descriptions of Black life, locating the latter's dispossession in the former's dislocation. More than contraction, however, the lyrics exhibit abstraction, moving toward and away from life on the ground to register the interface at which violence is enacted and challenged. In "The Revolution Will Not Be Televised," Scott-Heron proceeds similarly. "The revolution will not be right back after a message / About a whitetornado, white lightning, or white people." One "will not be able to plug in, turn on, and drop out" because the "revolution will be live" (Scott-Heron 1970). Here, again, immediacy answers totality, but locality has its limits, whereby staying at home serves the "global now" with which it is ever entangled.

All the more reason, then, to think of scale as a crossing-point for difference and dependence that ordains the "material and conceptual placements and displacements" that belong, as Katherine McKittrick asserts, to "connective sites of struggle" (McKittrick 2006, xiv, xviii). In 1968, *Earthrise* offers unwitting entry to this struggle, as do works that engage scale more self-consciously, including *Medium Cool* and *2001: A Space Odyssey*, which I pursue in the following section. A film about television, *Medium Cool* sticks close to earthly events, especially the Democratic National Convention and accompanying protests in Grant Park. *2001* was designed, meanwhile, with NASA's assistance and concludes with an interstellar event horizon (Schwam 2000). Regardless, the films meet at the intersection of here-and-there and then-and-now, deploying scales of remote viewing to craft other possible futures.

"Beyond the Infinite" —*2001: A Space Odyssey* (1968)

Shot on location during the Democratic National Convention, Haskell Wexler's *Medium Cool* weaves imaginary characters into a historical setting. It also captures on film what spectators previously saw on television, making the former a reflection on the latter, according to critics and scholars. This position is buttressed by the movie's opening scene, which follows John Cassellis (Robert Forster), cameraman for a local affiliate, and his soundman, Gus (Peter Bonerz), to an automobile accident on a Chicago freeway. Initially hazy, the

wreck comes into view as the men approach its victim, recording her injuries without assisting her before requesting an ambulance. The pair's callousness is redoubled by their medium, which is commonly read as the target of the film's critique. *Medium Cool* is about *tele-vision*, Kris Paulsen observes, or *vision at a distance*. Actors and audience occupy "parallel positions: they are detached, distant observers, no matter how close they might be" (Paulsen 2017, 68). For this reason, she continues, the film puts television in league with the "society of the spectacle," Guy Debord's term for the isolation and abstraction that characterize modern capitalism. "The origin of the spectacle lies," Debord writes, "in the world's loss of unity," which "eliminates geographical distance only to reap distance internally in the form of spectacular separation" (Debord [1967] 1994, thesis 29, thesis 167). For most commentators, Wexler endeavors to repair this relation with reflexive gestures such as nonactors, direct address, and handheld camera, which inspire proximity, interaction, and social engagement by comparison (figures 7a and 7b).

Figures 7a and 7b: *Medium Cool* condemns television, according to most accounts, through such reflexive techniques as nonactors, direct address, and handheld camera. Paramount Pictures 1969. Images reproduced under fair use conditions.

I have no doubt, for my part, that Wexler is critical of Cassellis and Gus, or that he, as a documentarian and cinematographer, is concerned about spectatorial disengagement. Still, if "[t]he director presses his audience," as Paulsen proposes, "to recognize their responsibility for, or complicity with, the scene," then he does so, I submit, at the interface of near and far and through their action, not inaction, at a distance (Paulsen 2017, 68). This action proceeds, meanwhile, through a series of reversals that mark the point where cinema and television cross paths. There is the film's title, for instance, which comes from Marshall McLuhan, who distinguishes the media in ways Wexler apparently exchanges. For McLuhan, television is a "cool" medium, but this does not mean it is indifferent or "cold." Rather, like the slang use of the word, "'cool' indicates a kind of commitment and participation in situations" (McLuhan [1964] 2013, 4). Television organizes similar relationships, the media theorist claims, because its resolution is meager compared to cinema and other high-definition, or "hot," media. Unlike the latter, television does not abstract linear successions of photographs; instead, it limns the image with a dynamic beam that fosters "convulsive sensuous participation that is profoundly kinetic and

tactile" (McLuhan [1964] 1994, 314). Television works by immediacy, in other words, inside an implosive field, while cinema fosters homogeny and noninvolvement through external intervention.

That Wexler, a filmmaker, would invert these terms is, perhaps, unsurprising. More surprising, however, are *Medium Cool*'s persistent moves between cinema and television and the contractions and abstractions that ostensibly define them. From the start, techniques drawn from both media locate and dislocate viewers, including cinematic montage and postsynchronized sound as well as televisual techniques such as handheld camera and zooms. The film opens with a horn blast across a black void that bridges the gap between "Chicago 1968" and the accident that follows (figures 8a, 8b, and 8c). This horn also jolts the viewer and arrests their attention, prefiguring the crash while yoking it to another, less anonymous, televised emergency. A moment later, the film jumps from past to present, where it draws us toward and away from the collision, its victim, and the dispassionate crew dispatched to record them. Pushing into a broken windshield, Wexler simulates the wreck's urgency, shooting so close we have difficulty gathering our bearings. As our position resolves, we watch Cassellis and Gus from inside and outside the vehicle, sometimes approaching their view and, other times, pulling away from it. We come near Cassellis, for instance, when an eyeline match aligns his camera with Wexler's, and we hear the moans Gus documents with his shotgun microphone (figures 9a and 9b). Another instant, however, and we recognize the men's indifference through our backing away. In either case, *Medium Cool* entwines cinema with television, coordinating difference and dependence with, not against, distance.

Figures 8a, 8b, and 8c: Images from the introduction to *Medium Cool*, which uses techniques from cinema and television to locate and dislocate viewers. Paramount Pictures 1969. Images reproduced under fair use conditions.

Figures 9a and 9b: As viewers, we draw toward and away from the view of cameraman Cassellis (Robert Forster) and soundman Gus (Peter Bonerz). Paramount Pictures 1969. Images reproduced under fair use conditions.

Entanglements persist as the film continues, and Wexler leans into the mutual limits and shared possibilities of these media and the scales they configure. At one point, we travel from present-day Chicago to a West Virginian past, where a community gathers in long shot to participate in the baptism of Cassellis's girlfriend, Eileen (Verna Bloom). A sound bridge ameliorates these leaps as the film dissolves to a close-up of Eileen's hand joining another's before arriving at a congregation that sings in unison. From there, the film returns to Chicago, where Eileen watches a televised retrospective about Martin Luther King Jr. (figures 10a, 10b, and 10c). Framed by a doorjamb, she remains isolated from Cassellis and Dr. King, the latter of whom never appears on screen. Taken together, these scenes apparently denigrate television, assigning the fragmentation of "hot" media to cinema's cooler counterpart. Still, when Cassellis exclaims, "*Jesus*, I love to shoot film," in response to the broadcast, he registers the extent to which both cinema and television animate passions that sometimes run cold. What is more, his reference to Christ entangles both halves of the sequence, which features a preacher on each side and, owing to Dr. King's speech, two allusions to mountaintops. More than equivocation, or one medium's reflection on the other, these links connect the scenes in and through their divergence. In one, a Black man gives the final speech of his life; in the other, a white woman remembers her (re)birth. Undoubtedly, segregation issues from both settings, but the locations also reach toward and away from each other, directing us to the privation and the participation—the negligence and the responsibility—of which both cinema and television are capable.[4]

Figures 10a, 10b, and 10c: Techniques of narrative cinema move *Medium Cool* toward and away from nonnarrative television. Paramount Pictures 1969. Images reproduced under fair use conditions.

It is, finally, at the interface of these media that *Medium Cool* returns to "Chicago 1968" to mediate and remediate its consequences at a remove. Shot on Michigan Avenue and in Grant Park, these scenes intertwine fiction and nonfiction, placing the protagonists in a narrative present, or *here*, that is also a historical *there* (figures 11a, 11b, and 11c). They also portray on film and in color what, for most viewers, appeared on television in black-and-white. As

4 Worth noting, in this context, are the nonprofessional actors from Chicago whom Wexler recruited for the film, including white migrants in Uptown and Black intellectuals on the South Side. In one sequence, two men assail Cassellis for television's exploitative disregard for Black life. Filmed in succession, their monologues address Wexler's camera directly in the style of a cinema verité documentary or a live news report (figure 7b). The result implicates both Cassellis and Wexler, not to mention cinema and television, in the conditions by which indifference and involvement are mediated and remediated by *Medium Cool*.

a result, Eileen demands notice as she weaves through the crowd in a bright yellow dress that not only sustains our connection to character and story but also heightens our concern for the actor, Verna Bloom, and the violence she repeatedly faces. An apt figure in this regard, color is at once sensuous and immediate as well as abstract. It "get[s] somewhat nearer to 'the heart of things,'" argues Maurice Merleau-Ponty, "but this heart is beyond … color as it is beyond … space" and, I would add, beyond time as well (Merleau-Ponty [1964] 1993, 141). Like scale, that is, color marks a cross-section of a greater depth, or dimensionality, a "global 'locality'" that binds matter and meaning while preserving other arrangements (Merleau-Ponty [1964] 1993, 140).

Figures 11a, 11b, and 11c: The protagonists of *Medium Cool* at the Democratic National Convention, on Michigan Avenue, and in Grant Park in August 1968. Paramount Pictures 1969. Images reproduced under fair use conditions.

Striking, in this regard, is the moment when Eileen and, thereby, Bloom confronts a National Guardsman who momentarily detains her (figure 12). As I have argued elsewhere, this meeting brings actuality to the fiction, which fabulates history in return (Rust 2017, 69). Will their encounter transform the story? Will it alter the protest? For Michael Renov, such questions indicate the "sheer weight of 'discontinuity' that a historical event of any magnitude bears" and that, in *Medium Cool*, "generates dramatic action and, in the end, annihilates it" (Renov 2004, 25, 28). The narrative is undermined, on this read, by the force of reality, which grounds the singularity, the "a-signifying rupture," through which philosophers such as Jean-François Lyotard, Gilles Deleuze, Félix Guattari, and others defined unforeseen "event-incidents" in the wake of 1968 (Guatarri [1989] 2008, 30). Fittingly, in the case of the guardsman and Eileen/Bloom, these events resemble the "accidental detail[s]" that, writes Guattari, divert an artwork from "its previous path, however certain it had once appeared to be" (Guatarri [1989] 2008, 35). Events initiate what will have been and do so by reducing past, present, and future to a disruptive point of difference.

Figure 12: A National Guardsman detains Eileen/Verna Bloom in a moment that entwines here-and-there with then-and-now through fiction and nonfiction. Paramount Pictures 1969. Image reproduced under fair use conditions.

However apt for *Medium Cool*, given the period of its release, we cannot ignore, I do not think, the dependence that attends this difference. Throughout its climax, Lawrence Webb observes, the film combines a "sense of televisual liveness with more conventional feature film framing and editing patterns" (Webb 2020). The film's continuity thus accentuates distance in addition to proximity and makes Eileen/Bloom "both part of the crowd and distinct from it." That "is critical," he contends, for *Medium Cool*'s "self-reflexive interrogation of the[] conditions of mediation" as well as individualism and collectivity (Webb 2020). It is critical, too, I claim, for that which convenes this reflexivity and the regimes it disturbs—namely, scale, which joins what cannot be put asunder, including past and present, near and far, what has been and what might be.

To leave *Medium Cool* for *2001* may seem a flight of fancy. The latter repeats, after all, the tenets of modern abstraction. Keyed to flatness and geometry, abstract art pursued a "staircase to the Universal," asserts Rosalind Krauss, that cared little for what was "below in the Concrete" (Krauss 1979, 52). More pedestrianly, it furnished "*the* semiology of white middle-class uplift," adds Scott Ferguson, joining technocracy to easy living in the name of raced, classed, and gendered ideals of midcentury prosperity (Ferguson 2018, 163).[5] In *2001*, we need not look far for evidence of these claims, given the film's monoliths and grids, Geoffrey Harcourt chairs, and references to IBM, Boeing, Bell Telephone, and GE (figures 13a, 13b, and 13c). There are its narrative and visual effects, too, which promise autonomy and escape. A phony quarantine permits authorities to seize terrain and break international accords, while virtuoso displays of antigravity suspend earthly constraints.

5 The emphasis is Ferguson's.

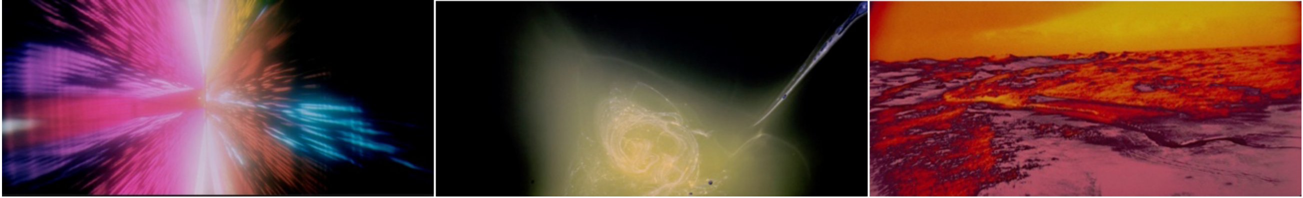
Figures 13a, 13b, and 13c: Modern art meets midcentury modernism in *2001: A Space Odyssey*. Warner Brothers 1968. Images reproduced under fair use conditions.

If there is elation in these views, however, then there is also unease. With its duration, atonal score, and jumps through space and time, the film's set, story, and special effects regularly bewilder the scales of human perception. This is, Annette Michelson reminds us, the other side of modernism, which alienates beholders to reveal structures of experience, including the limits we deny when we enjoy heady freedoms. To wit, *2001* proceeds, she argues, by a "reflexive or compensatory movement" that orients through disorientation (Michelson 1969). The film "projects us ... toward the surface of a distant world ... through a Logistics of the Imagination, to redeliver us in rebound from that surface, into the familiar, the known, the Real" (Michelson 1969). Departure secures arrival, that is, and every bound, a rebound, winnowing our focus to what is proximate and physical over and against distance. Michelson is not wrong, of course; *2001* upends our bearings through a variety of means, yet abstraction is not, I submit, simply a means to a more immediate end. Rather, if the film restores anxiety to midcentury ease, then distance preserves the expanded field of relations by which scale makes and remakes worldly limitations. Beyond the infinite, therefore, and beyond representation, scale propagates alterity at the interface; it is, fundamentally, a nonrepresentational form of differentiation and entanglement, as director Stanley Kubrick's Stargate and Regency Room attest.

Appearing in the last of *2001*'s four movements, these sequences feature the most baffling shots of an already perplexing film. They begin by tilting and panning across depictions of Jupiter and its moons, the sun, the protagonist's spacecraft, and a monolith, though "tilt" and "pan" are odd words, since there is no ground on which to perch the camera. As the Stargate opens, the befuddlement continues with the onward rush of abstruse arrays, which are followed by floating, mutating shapes and, later, more terrestrial, though no less alien, multicolored landscapes (figures 14a, 14b, and 14c). As we hurtle through these images or skim across their surfaces, the experience is bodily, but it can scarcely be said that we repossess our coordinates. Instead, we pursue a horizon where there is "direction," according to Scott Richmond, but "no goal, no *toward*, to explain or anchor such movement. ... If consciousness seems to matter here," then contra Michelson, "it matters not as consciousness *of* something" (Richmond 2016, 54, 66).[6] More to the point, the sequence

6 The emphases are Richmond's.

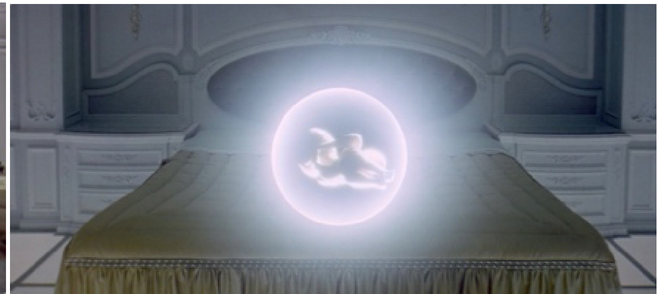
moves us—and moves us viscerally—but vertiginously and at a remove. We are immersed and unanchored, and this action is owing to distance, which preserves the crossing-point that locates and dislocates viewers. “In truth, abstraction is never without body,” writes Ferguson, and contractions are, I would add, ever-irreducible (Ferguson 2014, 185). Proximity is not a lack of distance or its consolation, and neither near nor far guarantees scalar constraint or scalar freedom.



Figures 14a, 14b, and 14c: The Stargate’s abstract arrays and alien landscapes. Warner Brothers 1968. Images reproduced under fair use conditions.

With this in mind, we can return to *2001*’s more legible milieus, including the Regency Room in which the film stages its conclusion. Named for the set’s decor, though certainly not its floor, this room is supported by an illuminated, modernist grid that is, we might say, a visible representation of the in-visible and nonrepresentational foundation that defines scale (figure 15). Accordingly, the floor grounds and ungrounds the footings of bed, tables, and chairs, coordinating the emergence and extinction of the beings in the room (figures 16a and 16b). Creation and destruction also characterize the grid’s “bivalent” structure, according to Krauss, which “makes us ... think we are dealing with materialism ... at the same time it provides us with a release into belief” (Krauss 1979, 60, 54). In the context of scale, we might understand this belief through Merleau-Ponty’s “perceptual faith,” wherein “distance is not the contrary of ... proximity; it is deeply consonant with it” (Merleau-Ponty 1968, 135). Indeed, for the grid, as for scale, there is stability and locatedness. This is the grid of rationality and Euclidean geometry, of linear perspective and the *velo*. It operates centripetally, writes Krauss, separating the grid from the world it contracts and represents. There is another grid, however, and it works centrifugally from the inside out, moving toward infinity and the ineffable and “compelling our acknowledgment of a world beyond the frame” (Krauss 1979, 63). It is this second grid that belongs to scale as medium rather than scale as measure, implying freedom *within*, not freedom *from*, midcentury institutions and their inequitable limitations. It is the grid Eugenie Brinkema describes in nonrepresentational terms: one that is “All”; that we cannot be on or off; that “does not demonstrate or show something else [because] it is the (infra)structure that it is” (Brinkema 2022, 180). So, too, for scale, which precludes escapes and returns because, as interface, or crossing-point, it expresses the relations by which the trappings of white, middle-class expansion, no less than technocracy and modernism, are made and unmade.

Figure 15: The Regency Room in *2001*, so named for its decor, though not the modernist grid that composes its floor. Warner Brothers 1968. Image reproduced under fair use conditions.



Figures 16a and 16b: Death and birth in the Regency Room. Warner Brothers 1968. Images reproduced under fair use conditions.

Scale does not, to conclude, foreclose alternatives or abandon responsibilities. It does not oppose local to global or immediacy to abstraction. Rather, scale gathers and disperses here-and-there and then-and-now to constitute and conjoin vast fields of alterity and involvement. In so doing, it enacts difference and dependence and does so at a distance, organizing the conditions by which we shape and reshape ecologies in the age of satellites, television, and present-day technologies. There are perils, of course, in matters of media's scale, but there is also promise in scale's mediation of matter. It belongs, in this view, to measures and mechanisms, as do NASA and network news, but it also adheres to the variegated domains toward and away from which media invariably move. More than confrontation and compensation, therefore, and certainly more than representation, scale names the nonrepresentational form by which entities and environments are not only propagated but also obligated across the horizons they share.

Transparency Statement

This essay has no competing interests.

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