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## Speed Racer's Aesthetic Theory of the Digital

Jonah Jeng, University of Pittsburg, US, [joj44@pitt.edu](mailto:joj44@pitt.edu)

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This article contends that *Speed Racer* (2008) embodies and expresses an aesthetic theory of the digital. Both formally and narratively, the film suggests aesthetics to be a privileged mode for negotiating and literally making "sense" of encounters between the human sensorium and the subperceptual digital operations that organize and sustain so much of contemporary social life. Specifically, in displaying a sensational, layered visual style that discloses the images' basis in computer code, and in meta-textually linking this style to a narrative focus on the experience of art, the film compels us to relate to the digital aesthetically and, in the process, to more mindfully inhabit our contemporary media ecology.

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## Introduction

From its initial divisive release to its recent critical reevaluation, discussions on *Speed Racer* (2008) have revolved around its aesthetic. Based on the eponymous manga and anime television series and directed by Lana and Lilly Wachowski following their work on the original *Matrix* trilogy (1999–2003), the film centers on a young driver named Speed (Emile Hirsch) who competes in a futuristic circuit of high-stakes racing. A notorious box office flop, the movie was panned for being a “cathedral of glitz”<sup>1</sup> that burned “chartreuse pinwheels [...] into your retinas”<sup>2</sup> and evoked the experience of “being trapped in an arcade with screens on all sides and no eyelids.”<sup>3</sup> Praise for the film was expressed in similar terms, with complimentary descriptions ranging from “video action painting”<sup>4</sup> to “assault of seductive visual information”<sup>5</sup> to “retina-splitting oceans of digitally captured color.”<sup>6</sup> Across various reviews, the film’s visual style and affective intensity were linked to the Wachowskis’ intermixing of live-action footage, CGI, and animation-inspired techniques. Joe Morgenstern called the film “a toxic admixture of computer-generated frenzy and live-action torpor,”<sup>7</sup> a phrase which resonated with David Ansen’s remark that, in the film, “the narrowing line between live action and animation is obliterated.”<sup>8</sup>

The following article contends that *Speed Racer* embodies and expresses an aesthetic theory of the digital. Both formally and narratively, the film suggests that aesthetics—which, as M. Beatrice Fazi notes, can be broadly conceptualized as a “theory of sensory knowledge,” harking back to the term’s etymological basis in

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<sup>1</sup> J. Hoberman, “*Speed Racer* Is a Fast Track to Nowhere,” *Houston Press*, May 7, 2008, <https://www.houstonpress.com/film/speed-racer-is-a-fast-track-to-nowhere-6540884>.

<sup>2</sup> Dana Stevens, “Go, *Speed Racer*, Go Away!” *Slate*, May 9, 2008, <https://slate.com/culture/2008/05/speed-racer-reviewed.html>.

<sup>3</sup> David Edelstein, “No, *Speed Racer*, No,” *New York Magazine*, May, 2, 2008, <https://nymag.com/movies/reviews/46661/>.

<sup>4</sup> Todd McCarthy, “*Speed Racer*,” *Variety*, May 1, 2008, <https://variety.com/2008/film/reviews/speed-racer-2-1200522793/>.

<sup>5</sup> Richard Corliss, “*Speed Racer*: The Future of Movies,” *Time Magazine*, May 8, 2008, <https://content.time.com/time/arts/article/0,8599,1738558,00.html>.

<sup>6</sup> Michael Phillips, “Racing over plot holes,” *Chicago Tribune*, May 9, 2008, <https://www.chicagotribune.com/2008/05/09/racing-over-plot-holes/>.

<sup>7</sup> Joe Morgenstern, “*Speed Racer* Has Two Tracks: Tedium, Frenzy,” *The Wall Street Journal*, May 9, 2008, <https://www.wsj.com/articles/SB121028585161579009>.

<sup>8</sup> David Ansen, “‘*Speed Racer*’ is Fun Abstraction,” *Newsweek*, May 8, 2008, <https://www.newsweek.com/ansen-review-speed-racer-fun-abstraction-89837>.

“aisthesis”<sup>9</sup>—is a privileged mode for negotiating and literally “making sense” of encounters between the human sensorium and the subperceptual digital operations that organize and sustain so much of contemporary social life. Specifically, in displaying a sensational, layered visual style that discloses a basis in computer code, and in meta-textually linking this style to a narrative focus on the experience of art, the film compels us to relate to the digital aesthetically and, in the process, to more mindfully inhabit our contemporary media ecology.

The article is divided into three sections. In “Layer as Deformation,” I explore how *Speed Racer*’s layered, fragmented yet fluid visual style confronts us with the limits of phenomenal experience, presenting images that could implicitly and palpably have been achieved only through digital means. In doing so, the film sensitizes us to the microscopic bits and microtemporal operations that constitute the digital media we view and use—an alien domain that, via the film’s spectacularly digital images, is felt to press in on the phenomenal world from the outside, “deforming” it in visible and affectively potent ways. Through such vivid encounters with digital deformation, viewers are made to obliquely feel the existence of a digital realm beyond the edges of the phenomenal; translated into the terms of human phenomenal experience, this realm becomes indirectly sensible. One kind of “sense”—affective encounter with the film’s sensational digital aesthetic—engenders another kind: the intuitive “sense” of the digital as a pervasive, intangible reality with tangible effects, its material operations as black-boxed away from human phenomenal experience as they are integral to the functioning of our hypermediated society.

This notion of affective encounter is the focus of the second section, “Layer as Aisthesis,” which draws on speculative realism to theorize aisthesis as a form of “metaphorical” contact with a perceptually inaccessible domain. In this section, I show how *Speed Racer* introduces an analogy between the sport of racing and the experience of art; links both to the figure of the layer; and meta-textually frames viewers’ own encounters with the film (and, by extension, with subperceptual digitality) as aesthetic in nature. If the concept of deformation stresses a fundamental disconnect between human phenomenal experience and subperceptual digitality, aisthesis reintroduces the possibility of translative affective contact. In the final section, “Aisthesis as Futurity,” I explore the connection that *Speed Racer* draws between contemporary capitalism and the digital and how, in mediating encounters with the latter, the film also mediates encounters with the former, grappling with the challenge of realizing alternative futures within what seems to be a totalizing system of control. The film suggests that aisthesis may pave the way forward by enabling us

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<sup>9</sup> M. Beatrice Fazi, *Contingent Computation: Abstraction, Experience, and Indeterminacy in Computational Aesthetics* (Washington, DC: Rowen & Littfield, 2018), 8.

to feel beyond the edges of the present and, in the process, body forth new worlds.

In my article, I view *Speed Racer* as being simultaneously exceptional and exemplary. The film is exceptional in the degree to which it is “about” our engagements with digital film and media at the level of both form and narrative. There are other films that incorporate hyper-visible digital compositing in ways that would qualify as digital deformation—various mid-aughts, CGI-heavy studio experiments like *Sky Captain and the World of Tomorrow* (2004), *Sin City* (2005), and *300* (2006) fit the bill—but few works of mainstream American cinema do so as extensively, complexly, and ostentatiously as *Speed Racer*, and fewer still (if any) link the visual style to a narrative and thematic exploration of aesthetics under digital capitalism. At the same time, the film’s style and insights implicate these other works of digital cinema: the film is exemplary in the way it gives heightened expression to dynamics of digital compositing, subperceptual digitality, and translative aesthetic encounter that exist more broadly.

A similar reasoning can be applied to *Speed Racer*’s relationship to digital visual culture in general, within which aesthetics of fragmentation have become the norm.<sup>10</sup> From the disaggregated jumble of graphics, video, and text that marks the standard user interface for digital devices, to music videos, advertisements, and Internet art that hyper-visibly mash together live-action and computer-generated elements with abandon, the logic of *Speed Racer*’s visual style can, in a sense, be seen everywhere. On one level, this ubiquity affirms the film’s broader cultural resonance—the film is *exemplary* of digital aesthetics more broadly—but it also begs the question: why focus on *Speed Racer* in particular? What can a mainstream work of narrative cinema—which is a rather marginal form within the grand scheme of digital media objects—teach us about our relationship to digital media in general? I argue that it is precisely *as* a work of narrative cinema that the film stands out. As I have noted elsewhere, it is *within* the context of mainstream narrative filmmaking, its aesthetic and industry trends, and its audience expectations that *Speed Racer*’s aesthetic choices register as exceptional.<sup>11</sup> It is because mainstream narrative cinema still tends toward visually seamless photorealism—CGI, though widely implemented, is largely designed to be invisible<sup>12</sup>—that the film’s hyper-visible compositing feels iconoclastic. *Speed*

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<sup>10</sup> See Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge: The MIT Press, 2000); Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge: The MIT Press, 2009); Nicholas Rombes, *Cinema in the Digital Age* (New York: Wallflower Press, 2009).

<sup>11</sup> See Jonah Jeng, “Sidelining Photorealism: *Speed Racer* and the Articulation of Digital Visual Effects Labour,” in *Media, Practice and Theory: Tracking Emergent Thresholds of Experience*, ed. Nicole de Brabandere (Wilmington: Vernon Press, 2023).

<sup>12</sup> See Stephen Prince, *Digital Visual Effects in Cinema: The Seduction of Reality* (New Brunswick: Rutgers University Press, 2012); Julie Turnock, *Plastic Reality: Special Effects, Technology, and the*

*Racer* brings the fragmented compositing that is already ubiquitous in digital visual culture into the domain of narrative cinema, defamiliarizing both photorealism and digital fragmentation (and their tension with each other) in the process.

Although the film has developed an online cult following, it has received limited attention in Anglophone scholarship. One important analysis of the film appears in C  el M. Keegan’s *Lana and Lilly Wachowski: Sensing Transgender*, in which the author links the film’s vibrant, affectively potent visual style to both the lure of commodities and a trans\* sensibility marked by an openness to futurity<sup>13</sup>; another can be found in Stephen Prince’s *Digital Visual Effects in Cinema: The Seduction of Reality*, a section of which examines the film’s showy, CGI-enabled rejection of perceptual realism.<sup>14</sup> Lisa Purse elaborates on Prince’s premise in her discussion of the “disaggregate digital composite,” presenting *Speed Racer* as one instance in a contemporary trend toward seam-filled digital compositing that displays the “procedural mechanics of its [own] production.”<sup>15</sup> Building on both Prince’s and Purse’s work, I have written on how *Speed Racer*’s seamful style foregrounds the labor of digital visual effects artists.<sup>16</sup> In her article on the film’s complex transnational origins and the role they played in its spectacular box office failure, Rayna Denison notes that the film’s status as an anime-inspired “experiment in live action-animation hybridization”<sup>17</sup> was a central point of discussion among critics.

Through examining the polyvalent figure of the layer in *Speed Racer*, I contend that these various topical threads—the film’s affective force as tied to commodity culture, the focus on futurity and new horizons, the disarticulated visual style that mixes live-action and CGI—in fact intertwine around a shared theme: digital aesthetics under contemporary capitalism.

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*Emergence of 1970s Blockbuster Aesthetics* (New York: Columbia University Press, 2015); Hye Jean Chung, *Media Heterotopias: Digital Effects and Material Labor in Global Film Production* (Durham: Duke University Press, 2018).

<sup>13</sup> C  el M. Keegan, *Lana and Lilly Wachowski: Sensing Transgender* (Champaign: University of Illinois Press, 2018).

<sup>14</sup> Prince, *Digital Visual Effects in Cinema*, 87-89.

<sup>15</sup> Lisa Purse, “Layered Encounters: Mainstream Cinema and the Disaggregate Digital Composite,” *Film-Philosophy* 22, no. 2 (June 2018): 152, <https://www.euppublishing.com/doi/full/10.3366/film.2018.0070?role=tab>.

<sup>16</sup> See Jeng.

<sup>17</sup> Rayna Denison, “Franchising and Failure: Discourses of Failure within the Japanese-American *Speed Racer* Franchise,” *Mechademia* 9 (2014): 276, <https://doi.org/10.1353/mec.2014.0011>.

## Layer as Deformation

As various commentators have observed, *Speed Racer's* extraordinary opening sequence—which “teach[es] you how to watch the rest of the movie” by establishing the film’s style and themes<sup>18</sup>—abounds with a sense of laterality, smoothness, and flatness. Futuristic race cars zip around a high-altitude track at multi-Mach speeds, displaying “glossy, lacquered, and slick”<sup>19</sup> exteriors and a trajectory that emphasizes drift as much as straight-line driving: a buoyant skimming *across* the racetrack’s surface “like pucks on an air hockey table.”<sup>20</sup> The cars’ sideways movement is matched by the form of the film. Often, the camera would whip from one character to another via a rapid, lateral tracking shot (reminiscent of a whip pan but with the camera physically moving along the y-axis), a planar movement echoed in the scene’s most striking visual effect: in lieu of hard cuts, wipe transitions are often used in concert with fragmented visual compositing, resulting in image elements that appear to slide around on top of each other.

“The Wachowskis intentionally constructed *Speed Racer* to make minimal use of cuts,”<sup>21</sup> Keegan observed in their book on the filmmakers’ oeuvre, a process that Lana Wachowski framed as a deliberate departure from classical cinema. “In cinema, a sentence is a cut. It’s from the beginning of one cut to the end of another cut,” she notes. “My brain doesn’t have sentences....We were trying to get to a way to express that, visually.”<sup>22</sup> Speaking to *Uproxx*, she compares this visual style to “run-on sentences, stream-of-consciousness sentences,” which generate an “experiential flowing thing” that “[transcends] normal simple linear time.”<sup>23</sup> Insistently refusing to cut where cuts would customarily have been used, *Speed Racer's* “run-on” moments opt instead for hyper-visible, seam-filled digital compositing, which replaces the sequentiality of editing with a logic of visual simultaneity and juxtaposition. These moments, in their spectacular visibility, collectively trumpet the film’s departure from conventional editing, even if the latter is still present more subtly throughout the film (e.g., shot-reverse-shot setups during conversation scenes, cross-cutting during races).

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<sup>18</sup> B.C. Wallin, “*Speed Racer: Cubist Cinema*,” *Bright Wall, Dark Room*, October 17, 2023, <https://www.brightwalldarkroom.com/2023/10/17/speed-racer-cubist-cinema/>.

<sup>19</sup> Keegan, 78.

<sup>20</sup> Jeng, “Sidelineing Photorealism,” 163.

<sup>21</sup> Keegan, 78.

<sup>22</sup> “Lilly Wachowski and Lana Wachowski,” YouTube, uploaded by DePaul Visiting Artists Series, May 2, 2014, <http://www.youtube.com/watch?v=ARoKJJoocEZ8>.

<sup>23</sup> Drew McWeeny, “An epic interview with the Wachowskis and Tom Tykwer: From ‘Cloud Atlas’ to ‘Jupiter Ascending,’” *Uproxx*, October 10, 2012, <https://uproxx.com/hitfix/an-epic-interview-with-the-wachowskis-and-tom-tykwer-from-cloud-atlas-to-jupiter-ascending/>.

Aligning with what Lev Manovich calls “spatial montage”<sup>24</sup> in the way they seem to “edit” within the frame, these instances flout the spatial, temporal, and metaphysical claims of the traditional filmic shot, whose indexical modality denotes a seemingly integral, spatiotemporal moment in physical reality. In *Speed Racer*, the sight of live-action, photorealistic image elements—the “talking heads” of sports announcers, for example, or a medium close-up of a racer’s visored visage—wiping over each other, seeming to momentarily stack one on top of the other in their movement across the screen, splinters this sense of photographic integrity. The visual layering of photorealistic elements has a long history in cinematic special effects, from rear projection to multiple exposure, but, here, the paradoxical *seamlessness of the seamfulness* is exceptional (Figure 1). The high-definition crispness of each image element, the sharpness of layer outlines, the algorithmic smoothness of the gliding movements—ironically, this spectacle of seamfulness *foregrounds the capacity for seamlessness*, or what Purse describes as digital compositing’s “capacity to erase edge bleed and other indicators of co-presence at pixel level, so that it is *often literally impossible to ‘see the seams’* between image elements.”<sup>25</sup> Here, the seams are simultaneously visible and invisible; the incongruity between layers is evident, but the precise location and manner of their stitching eludes our capacity to phenomenologically grasp.

Furthermore, alongside the film’s photorealistic layers are many that are overtly computer-generated, from the vehicles to the race track to the entire background of many shots. These image elements abound with what I have elsewhere described as “aesthetic signifiers for ‘digitally rendered’”<sup>26</sup>—for instance, inconsistent shading or texture gradients, which produce objects that appear too smooth, too texturally uniform, and/or too neatly polygonal to be mistaken for the “real” thing. Unlike forms of analog compositing where each composited element is still clearly photographic, *Speed Racer* freely and conspicuously intermixes live-action and CGI, in a way that complicates the ontological distinction between the two. The co-presence of these elements within the frame reveals the live-action components to *also* be based in ones and zeroes—a requirement for this co-presence and intricate intermixing to occur in the first place. It can be said that the photorealistic elements are ontologically “contaminated” by their close contact with the manifestly digital ones,<sup>27</sup> revealing their status as what Bernard Stiegler terms “analogico-digital” images:

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<sup>24</sup> Lev Manovich, *The Language of New Media* (Cambridge: The MIT Press, 2002), xxiv.

<sup>25</sup> Purse, “Layered Encounters,” 150, my emphasis.

<sup>26</sup> Jeng, “Sidelining Photorealism,” 167.

<sup>27</sup> See Jonah Jeng, “Digitality and the Persistence of Realism in *Birdman*,” *Senses of Cinema* 104 (2023): <https://www.sensesofcinema.com/2023/the-geometry-of-movement-computer-generated-imagery-in-film/digitality-and-the-persistence-of-realism-in-birdman/>.

images that look photographic but are known to be based in subperceptual bitmaps.<sup>28</sup> Foregrounded is what Manovich calls digital media's "deep remixability": the unprecedented capacity for various media to be brought together—and for techniques previously native to one medium to be applied to other media—within the "metamedium" of computer software.<sup>29</sup> A precondition for this gathering-together is that all these different media "share some common DNA"<sup>30</sup>—computer code—and it is in moments like *Speed Racer's* seamlessly seamful compositing that this "common DNA" is most emphatically underscored. Confronting the viewer with an image that could implicitly yet palpably have been achieved only through digital means, the film sensitizes the viewer to the digital sphere as an alternative dimension pressing against the outer edges of the phenomenal field, an alien domain made indirectly sensible through the gaps and fissures it generates.

The sense of *Speed Racer's* layered visual style as rejecting aesthetic norms of phenomenal, photographic spatial representation resonates with Thomas LaMarre's distinction between cinematism and animetism.<sup>31</sup> Cinematism envisions the world as continuous and navigable, extending from the lens of the camera—and, by implication, the eye of the subject—into depth. Animetism, which is tied to the technology of the animation stand, involves a composited image whose seams remain foregrounded in the spectator's experience. Although LaMarre is discussing cel animation, the concepts of cinematism and animetism capture well the precise way in which *Speed Racer* subverts the aesthetics and metaphysics of the traditional filmic shot.

Specifically, I argue that cinematism aligns with photorealism, which invokes the technology of photography and the indexical claims it makes about the world. In Julie Turnock's words, photorealism involves "separately filmed elements [being] arranged and composed within the frame, frame by frame, in order to appear *as if* filmed together in live-action motion photography."<sup>32</sup> This style has become the norm in mainstream American cinema even into the digital age, whose commercial films largely aspire to composite pro-filmic bodies/objects and computer-generated ones so

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<sup>28</sup> Bernard Stiegler, "The Discrete Image," in *Echographies of Television: Filmed Interviews*, trans. Jennifer Bajorek (Cambridge: Polity Press, 2002), 148.

<sup>29</sup> Lev Manovich, *Software Takes Command* (London: Bloomsbury, 2013), 275.

<sup>30</sup> Manovich, *Software Takes Command*, 248.

<sup>31</sup> Thomas LaMarre, *The Anime Machine: A Media Theory of Animation* (Minneapolis: University of Minnesota Press, 2009).

<sup>32</sup> Turnock, 24.





Figure 1 – Layered, seamlessly seamful visual style

that all appear to be inhabiting the same physical space. Photorealism references the technology of photography and its attendant, historically constructed ideology and metaphysics of presence. In the terminology of Charles Sanders Peirce's theory of signs, photorealism is both indexical and iconic.<sup>33</sup> It suggests that the image we see corresponds with an actual physical space in front of the camera and, hence that this space both preexisted and persists beyond the moment of recording (indexicality). Furthermore, this space visually resembles the phenomenal world, thus framing the onscreen reality as being analogous to our own (iconicity).

In referencing a preexisting physical world analogous to the viewer's own, photorealism appeals to her phenomenological sensibility. It denotes the captured world as being, in theory, inhabitable and navigable by the viewer. Photorealism is not exclusive in making a phenomenological appeal. Everything from animation to abstract experimental cinema can and does act on the viewer in embodied ways. That said, I would argue that a privileged resonance exists between photorealistic, live-action images and phenomenal experience. More than any other medium, live-action cinema resembles the textures, shapes, and movements of lived experience and invokes the idea of indexicality even into the digital age (the persistence of cameras and recording as a prominent cultural practice attests to the continued centrality of photography-inspired capture and documentation). Even if phenomenological effects exist across media and vary as a function of different stylistic techniques (e.g., different editing and staging strategies), I propose that, all else being equal, a sense of physical correspondence with lived experience tends to be strongest with live-action films. As such, when *Speed Racer* intertwines live-action elements with

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<sup>33</sup> See Kaja Silverman, *The Subject of Semiotics* (New York: Oxford University Press, 1983) and Peter Wollen, *Signs and Meaning in the Cinema* (5th Edition) (London: Palgrave Macmillan, 2013).

computer-generated ones, the result is uncannier than the purely animated examples discussed by LaMarre. The film destabilizes photorealism and its metaphysical assertions “from within,” simultaneously referencing and fragmenting photography’s sense of seamless, physical, phenomenal presence.

I contend that *Speed Racer*’s hyper-visible, hyper-fluid compositing can be understood as both a case of digital deformation and a kind of digital interface. The concept of digital deformation appears in Mark Hansen’s discussion of works of digital art that, in their physically distorted shapes and surfaces, appear “deformed”<sup>34</sup> by an alien realm beyond human perception, “bearing traces of inhuman topological manipulation,”<sup>35</sup> of having been “digitally warped.”<sup>36</sup> Such traces induce in the viewer a “bodily intuition” of alienness,<sup>37</sup> prompting them to indirectly sense an inhuman “outside” through the imprint it leaves on the human phenomenal “inside.” For Hansen, the digital image is a “vehicle of contact between our bodies and the domain of information that would otherwise remain largely without relation to us.”<sup>38</sup> In a similar vein, Shane Denson argues that, despite the “algorithms and hardware operations” of digital media being ‘discorrelated’ from phenomenological processes of noetic intentionality [...] various forms and manifestations of contemporary audiovisual media mediate to us these processes, providing *sensory complements to subperceptual events*.<sup>39</sup>

The process of mediation discussed by Hansen and Denson evokes Alexander Galloway’s conception of interfaces, which he describes as “mysterious zones of interaction that *mediate between different realities*”<sup>40</sup> marked by a fundamental “incompatibility.”<sup>41</sup> I argue that, as a meeting point between two incompatible realities that “[provides] sensory complements to subperceptual events,” *Speed Racer*’s layered style functions as an interface. Crucially, Galloway theorizes interfaces not as static objects but as processes—“autonomous zones of activity”<sup>42</sup> that may better be characterized as “interface effects.” He elaborates:

Interfaces themselves are effects, in that they bring about transformations in material states. But at the same time interfaces are

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<sup>34</sup> Mark B.N. Hansen, *New Philosophy for New Media* (Cambridge: The MIT Press, 2004), 14.

<sup>35</sup> Hansen, 203.

<sup>36</sup> Hansen, 14.

<sup>37</sup> Hansen, 203.

<sup>38</sup> Hansen, 130.

<sup>39</sup> Shane Denson, *Discorrelated Images* (Durham: Duke University Press, 2020), 2, my emphasis.

<sup>40</sup> Alexander Galloway, *The Interface Effect* (Cambridge: Polity Press, 2012), vii.

<sup>41</sup> Galloway, viii, my emphasis.

<sup>42</sup> Galloway, vii.

themselves the effects of other things, and thus tell the story of the larger forces that engender them.<sup>43</sup>

As an interface, *Speed Racer*'s visual style “[tells] the story of larger forces that engender[ed] [it]”—subperceptual digital operations—but it also “bring[s] about transformations in material states,” including the spectator’s body. In other words, the film simultaneously expresses *disconnection*—the “incompatibility” between human perception and subperceptual digitality—and facilitates causal, material, and affective *contact*, in which the informatic domain of computer code affects and transforms the material interface, which then affects and transforms the viewer’s body. As Hansen and Denson both note, much of this affect is pre- and subperceptual.<sup>44</sup> My interest, however, is in the phenomenal: cases where this affective chain from computer code to interface to embodied viewer is made consciously sensible, where the viewer’s own contact with “a domain (informatics) that is fundamentally heterogenous to it”<sup>45</sup> becomes magnified in her phenomenal experience. These instances of heightened visibility and sensibility, I contend, have the potential to *thematize* the act of interfacing itself. They not only materially register digital operations but bring this whole process to the viewer’s awareness, in a way that can engender a more mindful relationship with digital technology.

*Speed Racer*'s layered visual style foregrounds the digital interfacing process in this fashion, but the film raises thematization to another degree of power. It not only visually enacts but meta-textually links our interfacial encounter with digital images to the experience of art. In doing so, the film presents a vision of mediation as aisthesis.

## Layer as Aisthesis

After Speed discovers that the sport he loves is controlled by corporate sponsors who fix the outcomes of races to maximize stock market gains, his mom (Susan Sarandon) sits her disillusioned son down for a pep talk. “What you do behind the wheel has nothing to do with business,” she insists. Afterwards, she delivers a speech that draws an analogy between racing and art:

Speed, when I watch you do some of the things you do, I feel like I’m watching someone paint or make music. I go to the races to watch you make art. And it’s beautiful, and inspiring, and everything that art

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<sup>43</sup> Galloway, vii.

<sup>44</sup> See Denson, *Posnaturalism*; Denson, *Discorrelated Images*; Hansen, *New Philosophy for New Media*.

<sup>45</sup> Hansen, 132.

should be. Even though there are times when I have to close my eyes.  
But then there are other times when you just take my breath away.

This moment underscores connections that were already implicit in preceding scenes: between racing and art, between both of these and the visual figure of the layer, and between the digital realm as a distributed, imperceptible system of control underpinning the film image and capitalism as a distributed, imperceptible system of control underpinning the impression of an honest race.

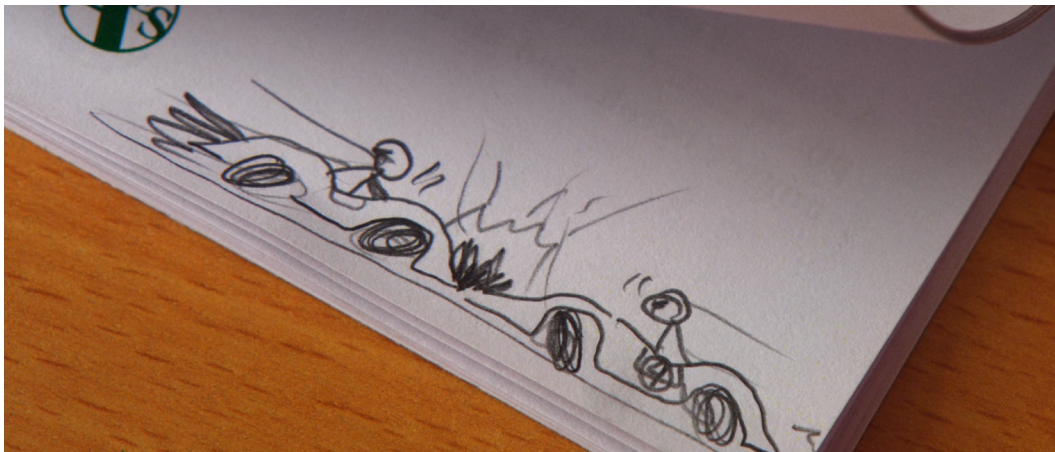


Figure 2 – Racing - art - the layer

From its opening sequence, the film establishes an equivalence between racing and the creation of art. Before we are shown any “real” vehicles, we receive a flashback in which a fidgety young Speed (Nicholas Elia) is seen doodling race cars into the corners of his exam booklet, images he then sets into motion by thumbing the pages like a flipbook. Shortly after, we are propelled into the boy’s daydream: he is shown

“driving” a car that, despite being now in color, retains a crude, hand-drawn aesthetic. The automobile has been layered on top of the live-action Speed, giving the impression that he is “in” the vehicle. In other words, the first, overt image layer that we see is none other than a race car. This layered visual style is doubly underscored when other, hand-drawn cars slide into view, most gliding “behind” Speed’s layer, one “in front” so that he is momentarily occluded. Introducing the connection between racing and art while also linking both to the figure of the layer, this opening segment posits the formula: racing ~ art ~ the layer (Figure 2).

When the film launches into its first “real-life” race, these associations remain in play, with the wiping, disaggregated layers evoking the fragmented compositing of the flashback daydream sequence. Furthermore, in presenting racing as art and linking both to the layer, *Speed Racer*, as a film that abounds with both racing and layers, meta-textually frames itself as a work of art and the viewer’s experience of it as a specifically aesthetic one—i.e., as involving sensuous contact and affective experience. The centrality of not just the form but the experience of art is evoked in both the affective language of the mom’s speech—“I *feel* like I’m watching someone paint or make music,” “there are times when you just *take my breath away*”—and the tender expressiveness of Sarandon’s line delivery and performance. That said, the film also thematizes aisthesis as early as the opening race, which depicts not only the spectacle of racing but its profound affective resonance with those in the stands.

As Speed zips around the racetrack, the film repeatedly peels away from him to observe the engrossed, emotional expressions of his family and friends and the flood of memories the race triggers. A mixture of a wipe and a fade transports us from a shot of Speed’s girlfriend Trixie (Christina Ricci) to her memory of their childhood meet-cute, in which the young Speed, starstruck by this girl from his class (Ariel Winter), drives his pint-sized convertible straight into the bushes. After the incident, the two kids head to Speed’s home, where an assassination attempt on Speed’s older brother Rex (Scott Porter) portends darker developments in the family’s history. Back to the present, and the race announcers are supplying contextual commentary (“No one from these parts will ever forget the tragic story of Rex Racer”); meanwhile, we see Speed racing what is essentially the ghost of his brother (holographic footage of Rex, the previous record holder for this particular race, is seen projected onto the track beside him). As a profile medium close-up of Speed’s helmeted head holds for a beat, the echoing sound of a young Speed’s voice forms a sonic bridge back into the past. This heavier memory—of Rex abandoning his family’s cottage-industry outfit to race for bigger corporate backers—culminates with a bitter falling-out between him and his father Pops (John Goodman). Rex leaves, the door shuts, and the film cuts to Pops in the present, his perturbed expression suggesting that the incident we had just seen is on his mind. With the din of the ongoing race audible in the background, the

shot then “tracks” rightward to reveal his wife beside him. The rightward movement continues, unveiling that mom and dad are actually on their own image layer, which is moving left and clears the way for an underlying layer set once more in the past: a young Speed and his parents sit in disturbed silence as the glow of the television flickers across their faces and a sportscaster is heard describing Rex’s uncharacteristically dirty racing style. The rest of the scene continues in this fashion, with the anchoring narrative event of the present-day race being interwoven with increasingly frequent flashbacks, which are often introduced through a wiping of layers across the image.

Several details stand out in this scene vis-à-vis the idea of racing-as-art-as-layering. The first is the attention paid to the racing audience, which meta-textually evokes our own status as spectators. The second is the depiction of the audience as being deeply and affectively intertwined with the race. Lana Wachowski’s “experiential flowing thing” applies here: the race catalyzes a cascade of feeling and remembrance in which the present spills over into the past and back again, a temporal deluge that has led some commentators to describe the film as Cubist.<sup>46</sup> The reverse is true as well: it is these memories that help make the race meaningful for these diegetic spectators, amplifying its beauty and tension. The scene depicts a contagious coursing of affect, in which the art of racing impresses upon its audience who, bearing their own experiences and memories, impress upon it in turn, bringing their own embodied histories to the aesthetic encounter. It is true that these particular spectators are Speed’s family and friends and, hence, have a unique emotional investment in the race. That said, the broad *form* of their contagious affectivity can be read as characterizing spectatorship in general, evoking the way encounters with art involve an alchemy between aesthetic form and spectator affect.

A third striking detail from the scene is the way this affective contagion is conveyed through a sensationally layered visual style. During two crucial dramatic moments (the flashback to Rex leaving home, and, later, the family learning that he had been killed in a crash), temporal transitions occur through a sliding-layers aesthetic. The layer formally segues past into present and vice versa, seeming to trace the race’s affective entwinement with the spectators in the film. Riding the waves of emotion that cause memories to flood into the present, the layer is a key formal hinge through which the film expresses the process of aesthetic affectivity.

There thus emerges a resonance between the figure of the layer and aesthetic experience—a resonance reproduced for us, the film’s viewers. In its seamless seamfulness, the scene’s visual style—which is emblematic of the film’s visual style in general—simultaneously facilitates and disrupts the “experiential flowing thing” for

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<sup>46</sup> See, for example, Wallin and Keegan.

us (this disruption itself, however, constitutes an affectively forceful experience). On the one hand, the scene bears out the comparisons to Cubism by “flattening”<sup>45</sup> time and space into what seems to be a continuously unfurling collage: past and present appear to be equally “present,” with the frequent oscillation between the two culminating in the sliding-layers moments, in which past and present glide into and out of one another as if each is always just off-frame whenever the other is onscreen. Coupled with the vibrancy of the film’s colors and composer Michael Giacchino’s bouncy, driving score, the scene induces a feeling of kaleidoscopic flow, inviting the viewer to affectively lose themselves in the psychedelic cascade of movement. On the other hand, flattening is also flattening: the seamlessly seamful layering fragments photorealism’s spatiotemporal integrity, interfacially sensitizing the viewer to the alien domain of subperceptual digitality. In other words, layering, though enabling an experience of free-flowing affective immediacy, also foregrounds distance and mediation. It suggests that works of art touch us and move us but remain apart from us, and, especially in the connotatively digital, seamless seamfulness of the compositing, underscores the way aesthetic encounters mediate unseen realities.

This simultaneity of immediacy and mediation, of affect and distance, resonates with a strain of speculative realism that revolves around aesthetics. I argue that *Speed Racer* expresses and embodies a theory of aisthesis in the speculative realist sense—i.e., as involving sensuous contact between incompatible beings and realms. Drawing on the work of Martin Heidegger, Graham Harman argues that “aesthetics is the root of philosophy”<sup>47</sup>: objects are fundamentally “withdrawn” from each other—the fullness of each thing’s being is inaccessible to the other—and can only encounter one another indirectly and allusively. When I encounter something, I phenomenologically grasp it only as a “sensual object”<sup>48</sup> possessing “sensual qualities”<sup>49</sup>; the ontological totality of its being apart from human perception and cognition—its status as a “real object”—eludes me.<sup>50</sup> That said, I am able to obliquely access this withdrawn reality in a process that Harman likens to metaphor. Metaphor is a “non-literal form of cognition”<sup>51</sup> in which “allusion, hint, [and] innuendo” replaces “direct access to the truth,”<sup>52</sup> and in which the reader’s experience is a key aspect. Referencing the metaphor “the cypress is a flame,”<sup>53</sup> Harman notes that, in this

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<sup>47</sup> Graham Harman, *Object-Oriented Ontology: A New Theory of Everything* (London: Penguin UK, 2018), 15.

<sup>48</sup> Harman, 9.

<sup>49</sup> Harman, 79.

<sup>50</sup> Harman, 9.

<sup>51</sup> Harman, 65.

<sup>52</sup> Harman, 63.

<sup>53</sup> Harman, 82.

example, the real object of the cypress is expressed to the reader through the sensual qualities of the flame. The cypress “in itself” cannot be directly and definitively grasped, but neither is it entirely reduced to its “flame-qualities,” for then “no metaphor occurs.”<sup>54</sup> For a metaphor to be a metaphor—i.e., to *feel* like a metaphor—the cypress’s reality must continually be invoked. We sense the existence of the cypress beyond its flame-qualities, even as it is only *through* these flame-qualities that it manifests to us. The dynamics of metaphor are *aesthetic* because, like our experience with works of art, they simultaneously involve the affect of the beholder and retain a sense of the object as an independent entity bearing indescribable, never fully knowable depths of being.

Although Harman’s discussion is broader in philosophical scope than mine—as the subtitle of his book indicates, he is interested in nothing less than “a new theory of everything”—his formulation of metaphor bears on *Speed Racer*’s interfacial mediation of subperceptual digitality. Like “the cypress is a flame,” *Speed Racer* invokes a withdrawn realm through translating it into another form: the conventions of photographic, phenomenal spatial representation. Like “the cypress is a flame,” the non-equivalence between the two terms/realms is central. For the metaphor to function as a metaphor, there must exist a felt difference between cypress and flame; in *Speed Racer*’s case, the felt difference occurs with digital deformation, which foregrounds the fundamental incompatibility between the withdrawn digital realm and human phenomenal experience. And like “the cypress is a flame,” this difference affectively impresses upon the beholder, prompting them to incline toward a reality that eludes direct apprehension.

To summarize: in the seamless seamfulness of its layered visual style that deforms normative, integral photorealism, *Speed Racer* metaphorically underscores the digital realm as being withdrawn from human phenomenal experience, exceeding the perceptual frameworks through which we “make sense” of the world. By narratively linking the visible trace of subperceptual digitality’s difference-from-us—the layer—to art and the aesthetic experience, the film thematizes the way we encounter the digital aesthetically.

For Steven Shaviro, aesthetic contact exceeds the realm of the phenomenal. “Things encounter one another aesthetically and not just cognitively or practically,” he writes. “I always feel more of a thing than I actually know of it, and I feel it otherwise than I know it.”<sup>55</sup> While I concur with this statement, I also believe that *conscious aesthetic experience*—noticing and feeling oneself being affected by another

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<sup>54</sup> Harman, 87.

<sup>55</sup> Steven Shaviro, *The Universe of Things: On Speculative Realism* (Minneapolis: University of Minnesota Press, 2014), 55.



entity—has value in the way it paves the way for a more reflexive, purposeful theory of aisthesis. Invoking the phenomenological turn in the field of film and media studies, Keegan notes how “cinema filters our pre-discursive affects so that they might become collectively, cognitively grasped.”<sup>56</sup> It is in this idea of collective, cognitive graspability that I locate the importance of a case like *Speed Racer*. Although affective contact with subperceptual digitality occurs with all digital media to an extent, *Speed Racer* is distinctive in the way it moves beyond the realm of “pre-discursive affects” to thematize the aisthesis of digital encounters, pronouncedly inviting the viewer to relate to digital technologies in a more mindful way. Part of this mindfulness entails a heightened sensitivity to the way digital technologies, despite facilitating new forms of artistic expression, also emerge from and help sustain a regime of capitalist control—a social and historical reality with which *Speed Racer*’s vision of aisthesis engages.

### **Aisthesis as Futurity**

In the opening childhood flashback sequence that establishes the resonance between racing, art, and the layer, another motif is also introduced. Seated opposite Speed’s mom in a conference regarding his distracted behavior, the boy’s teacher pulls out evidence of his inattention: a Scantron-style test slip whose answer bubbles have been filled in to spell “Go Rex Go,” in the manner of a pointillist painting. If the flashback seems to primarily foreground the freedom of animation—the process of traditional animation, as evoked by Speed’s doodled flipbook and the hand-drawn aesthetic of his daydream, is linked to childlike innocence and ludic energy—the test slip presents a more ambivalent counterpoint. In one sense, “Go Rex Go” appears to be another case of playful repurposing, akin to Speed’s conversion of the exam booklet into personalized artistic expression. That said, the text remains visibly constituted by the regimented array of answer bubbles, which metonymizes a larger system of capitalist rationality (tests train students to become standardized productive subjects who can perpetuate the existing capitalist order) and visually evokes the discretized, bit-based digital image.

This moment implies that such expressions of freedom and play remain circumscribed by systems of control and, furthermore, suggests an analogy between contemporary capitalism and the digital. Seb Franklin, writing on the structural and ideological homology between capitalism and digitality, notes how digitality’s tendency to discretize and homogenize—to convert into manipulable ones and zeroes—replicates and facilitates capitalism’s propensity for rendering everything

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<sup>56</sup> Keegan, 3.

equivalent as exchange value.<sup>57</sup> Although both offer the illusion of agency and freedom—the promise of endless modularity and customization with the digital, the lure of infinite choice and mobility with neoliberal capitalism—this illusion remains rooted in pre-programmed pathways. Noting how computer software both emulates and reproduces neoliberal ideology, Wendy Chun argues that the fantasy of programmability—which is based in the logic of the digital—interpellates the user/programmer as an agent of utmost mastery and freedom.<sup>58</sup> Any command that is typed seems to conjure results immediately and dramatically, belying the pre-written algorithms and rigid computer architecture that predetermine what “choices” the user can make and what range of outcomes can be produced. Per Chun, this combination of greater-than-ever systematization and (ostensibly) greater-than-ever freedom (and the latter as being conditional upon the former) is an insidious echo of neoliberalism’s modus operandi, which maintains existing structures of power despite seeming to liberate and empower the individual subject (or, more accurately, *certain* subjects—i.e., those inhabiting a position of comfort and privilege within the current system).

The link between capitalism and the digital is cemented in a later scene in which the main villain Arnold Royalton (Roger Allam), founder and head of the racing conglomerate Royalton Industries, gives Speed a “history lesson” on the sport’s economic basis. Calling the bottom-line of profit “the only record book that matters,” Royalton gestures toward a stock exchange board that, in its tripartite form dotted with pinpricks of light, strikingly resembles the young Speed’s test slip (Figure 3). Like the ones-and-zeroes-based digital image, stocks is a numbers game, and, akin to programmers, Royalton and his corporate cadre pre-write the outcomes of races, a process obscured by the appearance of free and honest competition.

There thus exists another, more overtly political dimension to *Speed Racer*’s vision of aisthesis. When the film’s seamlessly seamful images mediate subperceptual digitality, what is also being mediated is an apparatus of capitalist control in which the digital sphere itself is embedded. By linking its own, overtly digital style to the corporately fixed races viewed by the diegetic racing spectators, *Speed Racer* frames itself as a commodity, operating within the constraints of a digital-capitalist film

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<sup>57</sup> See Seb Franklin, *Control: Digitality as Cultural Logic* (Cambridge: The MIT Press, 2015).

<sup>58</sup> See Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* (Cambridge: The MIT Press, 2013).



Figure 3 – Visual similarity between test slip and stock exchange board

industry and control society. Featuring colors so uniformly vivid and bright as to verge on blinding, the film’s gleaming, bubblegum aesthetic contributes to this impression of commodification by embracing an ethos of the cosmetic—of surfaces that have been manipulated to catch the eye. Comparing the film’s self-reflexivity to the “ur-text of the Wachowskis’ oeuvre, *The Wizard of Oz*,” Keegan notes how

Like *Oz*, *Speed Racer* is self-aware of its own over-saturated richness, overtly addressing the lure of commodity and its fetishization while offering the viewer a film so visually intense as to be dizzying. Film Crit Hulk remarks that what distinguishes *Speed Racer*—and the Wachowskis’ work as a whole—from typical Hollywood cinema is its aesthetic and affective *sincerity* as “completely aware of its function and effect” (“Film Crit”). In one of many sequences commenting

directly on the seductiveness of consumption, Speed's younger brother, Spritle (Paulie Litt), gorges on candy while Royalton offers Speed a "sweet deal" that is too good to be true. When Royalton says to Speed, "All that matters is power and the unassailable might of money!" he asserts a garish ideology that assaults our sensibilities, much like the film assaults our senses."<sup>59</sup>

*Speed Racer* presents an experience of contradiction: a sensation of aesthetic freedom—bursting the bounds of normative Hollywood photorealism—premised on a heightened awareness of control. For the image to appear this giddily elastic, it must have been more tightly coded and calibrated than ever. The film lays bare the digital logic of neoliberal capitalism without presuming to stand outside it. *Speed Racer* critiques through self-demonstration, and, by thematizing aisthesis, implicates the viewer in the workings of capital, emphasizing the way in which we are affectively lured into participating in a capitalist regime.

The film would seem to offer a grim diagnosis. Is what appears to be new simply more of the same? Is what appears to be freeing simply a tightening of constraints? "You think you can drive a car and change the world? It doesn't work like that," Pops admonishes Speed, who has decided to compete in a hazardous race as part of a plan to expose the corruption within Royalton Industries. "Maybe not, but it's the only thing I know how to do, and I have to do something," Speed retorts. One of the most incisive exchanges in the film, this moment underlines the feeling of helplessness that grips the capitalist subject trying to imagine alternative futures from within what seems to be a totalizing system of control. Also evoked is the film's own, vexed status as a capitalist product attempting to critique the system from the inside. What can art and the aesthetic do to bring about social and historical change when it itself is so completely mired within a capitalist mode of production?

Two later moments from the film appear to take the "easy way out" like so many Hollywood films past, glossing over ideological contradiction through contortions of the screenplay. The first occurs in a scene where Racer X (Matthew Fox) attempts to comfort a despairing Speed after they are abandoned by a third partner (Rain), who had been using them to drive up share prices for his father's company. "It doesn't matter if racing never changes," Racer X tells Speed, speaking to the younger racer's cynicism about the capitalist state of the industry. "What matters is if we let racing change us." Taken at face value, these words of inspirational wisdom seem to embrace a troublingly insular position. Beyond simply acknowledging the capitalist conditions of racing, Racer X appears to be dismissing their importance entirely, saying they do not "matter" when, in lived historical reality, they most

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<sup>59</sup> Keegan, 78.

certainly do. His statement seems to replace the political with the personal, the revolutionary logic of “how can I change the system” with the consumerist rationale of “what can the system do for me?” And yet, despite this bit of counsel, the film concludes with what resembles a classic case of Hollywood having its cake and eating it too: Speed wins the biggest race in the league and *does* change racing. The limits of capitalist control are exposed in his defiance of the odds, and Royalton is jailed in the process. “This could change everything,” one character remarks to Racer X, to which he responds, “It already has.”

Foregrounding an irresolvable contradiction only to speciously resolve it through a *deus ex machina*—a screenwriting machination that has Speed’s victory enact decisive social change when a range of more moderate results could have been depicted—*Speed Racer*’s conclusion may seem to be utterly conventional, curbing the political potential introduced by preceding scenes. That said, I would argue that the “resolution” is not really a resolution at all, but a heightening of contradiction. Not unlike the way Hollywood happy endings sometimes register as ironic due to their forced gaiety, the utopianism of *Speed Racer*’s conclusion undercuts itself because it is presented with such unreserved optimism. This sense of contradiction is intensified by the fact that, in the home stretch of the race, it is Racer X’s “it doesn’t matter if racing never changes” that is presented as echoing in Speed’s mind, accompanied by a brief flashback to the original conversation itself. Furthermore, while multiple flashbacks to loved ones occur in this segment, Racer X’s is the culminating instance. The sentiments of his words are affirmed in the very next shot, which returns to the early, halcyon moment of young Speed creating his own animation using his exam booklet, evoking a sense of art as pure, personalized experience that exists despite and in excess of capitalist constraints. As the stirring score swells, the idea of personalized affect is brought home in a final sonic analepsis of Speed remembering his own words from earlier in the film, suggesting that the truth of art is one he has known all along: “When I’m in a T-180, I dunno. Everything just makes sense.”

Essentially an “art for art’s sake” argument that shuts out the social and historical world in favor of personalized aesthetic experience, this segment clashes with the coda in which this very world spills back into awareness. After emphatically declaring that art and its personalized affect are all that matters, the film makes an abrupt U-turn to suggest that, actually, a truly happy ending must encompass and account for the entire social world. It is in this whiplash-inducing pivot, in which the gap between two contradictory visions is thrown into relief, that I believe *Speed Racer*’s conclusion to be a fitting culmination of the film’s political project. Like the fissures in the seamlessly seamful image, prompting the viewer to phenomenologically incline toward realities different than the present, manifest one, the film’s ending compels the viewer to imaginatively feel the distance between what is and what could be.

Referencing a 2012 *Village Voice* interview with Lana Wachowski, Keegan notes how the director

expresses a faith in the subjunctive quality of art to lead us elsewhere:  
*if by art we come to sense differently, we might then arrive at another world.*  
This is the thesis and animating philosophy behind all of the Wachowskis' cinema.<sup>60</sup>

This, then, is *Speed Racer's* politics of aisthesis: a phenomenology of edges and horizons that affectively underscores the limits of the visible present. The film suggests that aisthesis is the means by which alternative realities can be felt, imagined, and, in establishing a continuity between feeling and being (metaphorical contact is still contact), potentially actualized. Rather than framing affective investments in utopian futures as idealistic abstractions divorced from present material exigencies, *Speed Racer* implies that to feel thusly is to *already* touch these futures, to be indirectly transformed by them. Having been affectively reoriented, we move a step closer to materializing these futures through our bodies.

On one level, the stark juxtaposition of “it doesn't matter if racing never changes” with an ending where racing does change generates a jolt of contradiction that sensitizes viewers to the limits of the present order—a contradiction formally echoed in the film's fragmented visual style. On another level, this juxtaposition seems to comprise a dream and a declaration: a dream for art to be capable of changing the world, but also perhaps a declaration of art—and aisthesis—as capable of changing the world. “Go Rex Go,” although assembled from digital-capitalist answer bubbles, is also a call to venture elsewhere. A nod to the source anime's theme song lyric of “Go, Speed Racer, Go,” “Go Rex Go” substitutes a different name, suggesting that the hailing force of aisthesis is capable of addressing anyone, of contagiously affecting in the manner of both the opening race and the film's own dizzying, intoxicating style. Aesthetic encounters with a different reality are simultaneously deeply personal and widely accessible—a personal depth and social breadth of feeling that exceeds digital-capitalist attempts to define and circumscribe.

“It's a whole new world, baby,” remarks one race announcer following Speed's victory. Maybe not yet, but *Speed Racer* suggests that, via aisthesis, we just might be able to feel this world into being.

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<sup>60</sup> Keegan, 2, my emphasis.

## Bibliography

- Abrams, Simon. "Starship Wachowski: The Cloud Atlas Team Dares You to Leave Your Pod." *Village Voice*, October 24, 2012. <https://www.villagevoice.com/starship-wachowski-the-cloud-atlas-team-dares-you-to-leave-your-pod/>.
- Ansen, David. "'Speed Racer' is Fun Abstraction." *Newsweek*, May 8, 2008. <https://www.newsweek.com/ansen-review-speed-racer-fun-abstraction-89837>.
- Bolter, Jay D., and Richard Grusin. *Remediation: Understanding New Media*. Cambridge: The MIT Press, 2000.
- Bryson, Norman. *Vision and Painting: The Logic of the Gaze*. New Haven: Yale University Press.
- Chun, Wendy H.K. *Programmed Visions: Software and Memory*. Cambridge: The MIT Press, 2013.
- Chung, Hye J. *Media Heterotopias: Digital Effects and Material Labor in Global Film Production*. Durham: Duke University Press, 2018.
- Corliss, Richard. "Speed Racer: The Future of Movies." *Time Magazine*, May 8, 2008. <https://content.time.com/time/arts/article/0,8599,1738558,00.html>.
- Denison, Rayna. "Franchising and Failure: Discourses of Failure within the Japanese-American *Speed Racer* Franchise." *Mechademia* 9 (2014). <https://doi.org/10.1353/mec.2014.0011>.
- Denson, Shane. *Discorrelated Images*. Durham: Duke University Press, 2020.
- Edelstein, David. "No, Speed Racer, No." *New York Magazine*, May, 2, 2008. <https://nymag.com/movies/reviews/46661/>.
- Fazi, M. Beatrice. *Contingent Computation: Abstraction, Experience, and Indeterminacy in Computational Aesthetics*. Washington, DC: Rowen & Littfield, 2018).
- Franklin, Seb. *Control: Digitality as Cultural Logic*. Cambridge: The MIT Press, 2015.
- Friedberg, Anne. *The Virtual Window: From Alberti to Microsoft*. Cambridge, The MIT Press, 2009.
- Galloway, Alexander. *The Interface Effect*. Cambridge: Polity Press, 2012.
- Hansen, Mark B.N. *New Philosophy for New Media*. Cambridge: The MIT Press, 2004.
- Harman, Graham. *Object-Oriented Ontology: A New Theory of Everything*. London: Penguin UK, 2018.
- Hoberman, J. "*Speed Racer* Is a Fast Track to Nowhere." *Houston Press*, May 7, 2008.

- <https://www.houstonpress.com/film/speed-racer-is-a-fast-track-to-nowhere-6540884>.
- Jeng, Jonah. "Digitality and the Persistence of Realism in *Birdman*." *Senses of Cinema* 104 (2023). <https://www.sensesofcinema.com/2023/the-geometry-of-movement-computer-generated-imagery-in-film/digitality-and-the-persistence-of-realism-in-birdman/>.
- . "Sidelining Photorealism: Speed Racer and the Articulation of Digital Visual Effects Labour." In *Media, Practice and Theory: Tracking Emergent Thresholds of Experience*, edited by Nicole de Brabandere, 153-176 (Vernon Press, 2023).
- Keegan, C  el M. *Lana and Lilly Wachowski: Sensing Transgender*. Champaign: University of Illinois Press, 2018.
- LaMarre, Thomas. *The Anime Machine: A Media Theory of Animation*. Minneapolis: University of Minnesota Press, 2009.
- "Lilly Wachowski and Lana Wachowski." YouTube, uploaded by DePaul Visiting Artists Series, May 2, 2014. <http://www.youtube.com/watch?v=ARoKJooeEZ8>.
- Manovich, Lev. *The Language of New Media*. Cambridge: The MIT Press, 2002.
- . *Software Takes Command*. London: Bloomsbury, 2013.
- McCarthy, Todd. "Speed Racer." *Variety*, May 1, 2008. <https://variety.com/2008/film/reviews/speed-racer-2-1200522793/>.
- McWeeny, Drew. "An epic interview with the Wachowskis and Tom Tykwer: From 'Cloud Atlas' to 'Jupiter Ascending.'" *Uproxx*, October 10, 2012. <https://uproxx.com/hitfix/an-epic-interview-with-the-wachowskis-and-tom-tykwer-from-cloud-atlas-to-jupiter-ascending/>.
- Morgenstern, Joe. "Speed Racer Has Two Tracks: Tedium, Frenzy." *The Wall Street Journal*, May 9, 2008. <https://www.wsj.com/articles/SB121028585161579009>.
- Phillips, Michael. "Racing over plot holes." *Chicago Tribune*, May 9, 2008. <https://www.chicagotribune.com/2008/05/09/racing-over-plot-holes/>.
- Prince, Stephen. *Digital Visual Effects in Cinema: The Seduction of Reality*. New Brunswick: Rutgers University Press, 2012.
- . "True Lies: Perceptual Realism, Digital Images, and Film Theory." *Film Quarterly* 49, no. 3 (Spring 1996): 27-37. <https://doi.org/10.2307/1213468>.
- Purse, Lisa. "Layered Encounters: Mainstream Cinema and the Disaggregate Digital Composite." *Film-Philosophy* 22, no. 2 (June 2018). <https://www.eupublishing.com/doi/full/10.3366/film.2018.0070?role=tab>.



- Rombes, Nicholas. *Cinema in the Digital Age*. New York: Wallflower Press, 2009.
- Shaviro, Steven. *The Universe of Things: On Speculative Realism*. Minneapolis: University of Minnesota Press, 2014.
- Silverman, Kaja. *The Subject of Semiotics*. New York: Oxford University Press, 1983.
- Stevens, Dana. "Go, Speed Racer, Go Away!" *Slate*, May 9, 2008. <https://slate.com/culture/2008/05/speed-racer-reviewed.html>.
- Stiegler, Bernard. "The Discrete Image." In *Echographies of Television: Filmed Interviews*, translated by Jennifer Bajorek, 145-174. Cambridge: Polity Press, 2002.
- Turnock, Julie. *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Blockbuster Aesthetics*. New York: Columbia University Press, 2015.
- Wallin, B.C. "Speed Racer: Cubist Cinema." *Bright Wall, Dark Room*, October 17, 2023. <https://www.brightwalldarkroom.com/2023/10/17/speed-racer-cubist-cinema/>.
- Wollen, Peter. *Signs and Meaning in the Cinema* (5th Edition). London: Palgrave Macmillan, 2013.