

e i g h t e e n

speculations on film/  
theory and the trope of  
exploration

b h a s k a r s a r k a r

I.

“Give us a place to stand and we will film the universe.” So reads the legend to the cover art of the January 1923 issue of *The American Cinematographer* (see Figure 18.1). This clarion intent, expressed on behalf of the still-fledgling American Society of Cinematographers (established in 1919), centers on the question of a “place,” a vantage point, from which one might “film the universe.” The illustration, more imaginative than realistic, depicts in its foreground a cinematographer with his movie camera on a tripod: standing on what looks like billowing clouds somewhere in outer space, he gazes upon Earth in the distance, getting ready to capture it on film. While his apparent preoccupation with our planet suggests a rather Earth-centric projection of the universe, the presence of a crescent moon and stars conjures a more expansive horizon of cinematic possibilities. We feel ready to film—survey, discover, record, and bring to you—the entire universe. Indeed, the caption’s avowed purposefulness can barely mask the



Figure 18.1 Cover of the January, 1923 issue of *The American Cinematographer*

exhilaration the image communicates about the marvelous affordances of this moving image recording technology—affordances that await further exploration and experimentation.

In its expressivity, the image stages at least three axes of ambiguities with regard to the position from which to film something. The first involves the dissolution of the opposition between objective and subjective perspectives: if the camera is a technology based on scientific principles, any presumed objectivity of this mechanical eye is invariably tainted by the cinematographer's subjective choices. The second pertains to the paradoxical transcendence that representational regimes, ever since the derivation of the quattrocentro perspective, have claimed for themselves while depicting realities of which they are a part. How does a cameraman, who is of this world, film the world? By imagining himself to be standing outside of it, somewhere in outer space. (Of course, the conceit

does not solve the problem of how to capture the *universe* on film, so the onus of a solution is placed on the reader, “Give us a place to stand . . .”) This effective disavowal of immanent subjectivities, central to the individuation of the post-Enlightenment self via separation from its surroundings, has helped shore up the hubris of remote mastery over landscapes, cultures, and communities. To know and to represent something is also to turn it into an object, capture it, and exploit it. Meanwhile, scientific inventions and aesthetic innovations are reduced to mere instruments for achieving goals. This brings us to the third axis of contradictory impulses at play in this cover illustration: if it embodies a will to capture the universe in images frozen across time and space—to turn it into a Heideggerian world picture, as it were—it also conveys a genuine sense of wonderment about the uncharted potentialities of this magical technology. A more pessimistic reading, perhaps not intended by the magazine’s cover, might detect in the upbeat image a slight apprehension about the medium’s capacity to film the sublime, celestial, or terrestrial. At any rate, the search for a location to “stand and film” remains mired in the vacillations between objective and subjective viewpoints, between transcendent and immanent perspectives, and between infinite enchantments and narrow instrumentalities.

It is possible to see the will to “film the universe” as an aspiration to photograph from space the Earth as a unitary whole, and thus to establish the “global” as a universal frame operative at a planetary scale. The relative dimensions of the cinematographer and the planet, as well as their placement in the foreground and the recesses of the illustration, convey precisely such an imperialist aspiration, finally realized in December 1968 with the color images taken by the crew of Apollo 8. But those stunning images mobilized an eddy of affective intensities, including an unexpected and yet pervasive sensitization about the fragility of planet Earth suspended in the vastness of—as far as we know—lifeless space, thereby nurturing an incipient environmentalist consciousness. And so onto heretofore unmanned missions that venture farther and farther from Earth in search of extraterrestrial life forms, producing maps and images of ever-expanding frontiers (most notably, those sent home by the Mars rovers). If the search for life-supporting conditions continue to drive these space explorations, they are also exploratory in the most capacious sense of the term: beyond their stated goals, space missions are charged with obscure yet undeniable anticipations about the unanticipated. An instrumental reason has not been able to tame human awe and inspiration, nor has it succeeded in foreclosing the vast potentialities that the “universe” continues to invoke, and which remain the stuff of dreams.

## II.

In his remarkable 1931 essay “Little History of Photography,” Walter Benjamin takes on the question of the instrumentality of inventions by historicizing, and thus complicating, the polarization of photography’s

technicity and expressivity. Developed primarily to “capture” and “fix” the “images in the camera obscura,”<sup>1</sup> the medium of photography achieved “unaccustomed clarity and...fidelity to nature” even with the earliest daguerreotypes.<sup>2</sup> Nevertheless, Benjamin argues, early photography enjoyed a remarkable period of creative “flowering” in “the decade that preceded its industrialization,” before the demands of developing and marketing the camera on a mass scale focalized the medium onto a fidelity fetish. The subsequent pathways taken by the new technology fixated on the ability to capture images that were more objective, more defined, and more true to reality. If, as André Bazin argued, the advent of (photography and) cinema helped liberate the other plastic arts from the onus of meticulously capturing and preserving the past—of striving for immortality or at least “survival after death”—and thus primed them for a new dynamism, early photography encountered social pressures pushing it toward mummification. Tethered to the demise that its advent helped precipitate, the new technology had to constantly justify itself in terms of the standards of portraiture painting, and became the locus of a mechanized hyper-naturalism. For Benjamin, the most egregious manifestation of this tendency was the practice of retouching photographs, mimicking acts of embalming and touching up corpses, reaching for an ersatz vitality. The painting-versus-photography debates of the period often contrasted the painter’s genius, vision, and inspired choices from the photographer’s rote deployment of a mechanical gadget “to capture fleeting mirror images.”<sup>3</sup> While reiterating and thus amplifying the new industry’s exaltation of crispness, fine detail, and near-perfect resemblance as intrinsic to images delivered by the camera, such discourses also shrunk the role of the photographer and the value of inspiration and enchantment for the profession.

Benjamin looks into photography’s history, especially the early years, to interrogate the polarization of technical precision and aesthetic enchantment. The very early photographs taken by Hill, Dauthendey, or Blossfeldt continue to be compelling many decades later, because their sharpness, detail, and apparent fidelity allow viewers to enter the realities—and ask questions of the figures and spaces—they depict. Here, “opposites touch,” giving credence to Benjamin’s claim that “the most precise technology can give its products a magical value.” One “feels an irresistible urge to search such a picture for the tiny spark of contingency, of the here and now, with which reality has (so to speak) seared the subject.”<sup>4</sup> Besides securing accurate, life-like images, technological precision becomes the very condition for enchantment and exploration. As Roland Barthes would put it later, reality “sticks” to the (analog) photograph: the image is our proof that the person or the object we see in it once stood before the camera lens. This proof of an ontological connection between a photograph and its originary reality, more than establishing an exact and incontrovertible correspondence between the two, presents the possibility of contingent elements

from the photographed moment “sticking” to the image as traces that may provide clues to—or invite speculation about—the subsequent history of the photograph’s subject.<sup>5</sup> In Benjamin’s memorable words, photographic minutiae feed the impulse “to find the inconspicuous spot where in the immediacy of that long-forgotten moment the future nests so eloquently that we, looking back, may rediscover it.”<sup>6</sup>

At least two distinct readings of the earlier formulation, relevant to the theme of exploration, come to mind. First, photographs of real life, images replete with technologically reproduced details, preserve and transmit a sense of the fullness of potentialities that once seemed realizable. As default archives of the future anterior, photographs embody a mosaic of virtualities whose enigma invites counterfactual, speculative excursions in the service of a future-oriented historiography. From such a perspective, the photographic image is less an ossified world picture than a medial gesture, its minutiae functioning as apertures to alternative futurities.<sup>7</sup>

Second, as Benjamin himself continues in the sentence immediately following the ones cited earlier, “it is another nature which speaks to the camera rather than to the eye” so that “a space informed by human consciousness gives way to a space informed by the unconscious.” The example he offers has to do with walking: while we all have a general understanding of what that act involves, we have no clear sense of what exactly transpires “during the fraction of a second when a person actually takes a step.”<sup>8</sup> The opacity arises from the centrality of corporeal reflexivity—involving bones, sinews, and muscles—and the simultaneous suspension of deliberate thinking in the act of taking each step. Photography, armed with its “devices of slow motion and enlargement,” divulges and maps the intermediate movements to produce a more thorough grasp of walking. In the course of this photographic revelation, we come to apprehend something like an “optical unconscious,” a domain whose constituents escape human ocular perception and would likely remain occluded and incomprehensible without technical mediation. Benjamin’s insight puts to question notions of autonomy and mastery predicated on vision. It also suggests a wager: that it is the *technicity* of photography that facilitates a rediscovery of certain *sensuous* dimensions of existence lost to an all-knowing modern consciousness, thus rekindling the possibility of a more connected, perhaps more enchanted life.

### III.

Benjamin frames his curious history of photography with a quote from the French physicist François Arago, from a speech that the latter, known for his research in optics, had delivered before the French Chamber of Deputies in 1839, expounding the promises of the nascent photographic medium. Going beyond the immediate logistics of developing and managing the new technology, Arago delves into the “historical or, if you like,

philosophical questions” that had become pressing with the rapid advances in photography around that time.<sup>9</sup> The particular insight that Benjamin invokes dwells on a fundamental aspect of all technical inventions: the fitful, often discontinuous trajectory of advancement that materializes from the trade-offs between short-term calculations and long-term visions—from the tensions between pragmatic applications and narrow instrumentalities on one hand, and more imaginative, daring, and open-ended quests on the other. Arago observes: “When inventors of a new instrument apply it to the observation of nature, what they expect of it always turns out to be a trifle compared with the succession of subsequent discoveries of which the instrument was the origin.”<sup>10</sup> While his speech “spans the field of new technologies, from astrophysics to philology,” Arago is specifically referring to the camera’s quick conscription in the service of the objective and accurate apprehension of reality, of nature itself. This limiting specification of the still-infant medium’s epistemological function and social role, building no doubt on the opposition between the “art” of painting to the “science” of photography, produces a foreclosure of potentialities (an obvious example of which would be the research and development of technical capacities to enhance photographic expressivity). What gets disavowed, and thus nearly aborted, by such constraints is an entire horizon of possible extensions and applications, possibilities that can only be realized via conceptual and engineering leaps that allow dreams, whimsy, and creativity to infiltrate the technicity and goal-oriented design of the camera.

But only “nearly” aborted. For, as Arago maintains, the evolution of a technological invention usually surpasses the denuded, if industrially expedient, instrumentality secured on its behalf in the initial stages; likewise, the original expectations are far outstripped by the unbound ingenuities, the unexpected headways in research, and the yet-to-be envisaged virtualities. If the camera has made giant strides in capturing images of outer space, compressing the gigantic scales of celestial bodies millions of light-years away into manageable frames, it has also turned toward inner space: not just the biomedical terrain of the human body, its skeletal frame, and its internal organs but also microbial life and now, increasingly, to nano-scale phenomena. Besides these threshold crossings into previously uncharted horizons, the digital camera and its software supplements now offer practically an endless set of aesthetic possibilities.

Benjamin’s point, following Arago, is that the historicity of a technological invention does not remain contained by the presumed regularities and purposes of its technicity. And thus, like any other product of the imagination, the camera—still or moving (and, we might add, analog or digital)—keeps striving not only to attain new levels of image quality but also to venture into new frontiers, to incorporate mechanisms enabling novel forms of expressivity and to reinvent itself via the deconstruction of its integral modalities.

## IV.

The history of modern media is strewn with instances of technological developments getting overly constrained along a particular trajectory and producing suboptimal outcomes in the long run. QWERTY versus Dvorak (in the domain of typewriter/word processor keyboards) and VHS versus Beta (in the realm of video technologies) are only two of the more salient examples of competition among alternatives, where the “path dependence” (i.e., singular historicity) of technoeconomic evolution “locked” the industry into the arguably inferior option.<sup>11</sup> Thus, even though QWERTY—devised in the 1870s to slow typists down in the interest of avoiding key breakage—is not the most user-friendly, efficient keyboard layout, computer keyboards have embraced it as the standard.<sup>12</sup> The history of the diffusion and adoption of cinematic innovations gets convoluted as early as the Machiavellian moves of Edison to preempt, block, and vanquish competitors. The history of color films, for instance, moves between additive and subtractive color processes, and across two-strip, three-strip, and monopack systems; it is crucially shaped by the competition between Kinemacolor, Kodachrome, and Agfacolor, not to mention the succeeding “new, improved” systems from Technicolor, Eastmancolor, and Fujicolor.<sup>13</sup> If these actual pathways, punctuated by trade-offs between techno-aesthetic quality and economic efficiency, complicate the more utopic Arago-Benjamin take on the media industrial evolution, they also underscore a dialectical tension between the need to secure high returns and a penchant for visionary, if risky, experimentation.

As long as there is a place for the audacity of imagination within processes of mediation, as long as unplanned peregrinations are encouraged, an element of indeterminacy will stalk the progression of media technologies and forms. Enter speculation, which gains salience in two fundamental senses. First, it is acts of speculation that spur and fuel creativity while also introducing uncertainty about the nature and quality of outcomes. The history of techno-aesthetic innovations, much like the history of scientific discoveries, is largely a narrative of wild conjectures, unanticipated digressions, and leaps of faith. Second, when stable methods, precise predictions, and foolproof control mechanisms become infeasible, speculative practices seek to fill in the gaps in knowledge and representation. This is just as true of William Dickson’s experiments with early movie machines or of D. G. Phalke’s conjuration of miracles in mythological films of the 1910s, as it is of contemporary systems biology—a field in which speculative animations routinely supplement microscalar video footage.

What light might philosophies of speculation shed on the tension between efficiency and experimentation, a tension that is constitutive of technological development—indeed, of all creative production? Around the time when Arago was testifying on the promises of the brand new

medium of photography, the industrial revolution was in full swing in large parts of Europe and North America. From Schelling to Kierkegaard to the young Marx, speculative imaginations reigned paramount in the zeitgeist of the mid-19th century. An excursus through contemporaneous discourses about the human sciences, whose main strands undoubtedly had a formative influence on early cinematic thinking, reveals that intellectual dispositions were often characterized in terms of everyday affects (anxiety and exhilaration), emotions (dismay and joy), and activities (cautious calculation and instinctive exploration). As capitalist modernity revved up to induce transformations at once stimulating and disorienting, economics and philosophy—the two disciplines for which speculation proved to be a core practice—became the locus of much meta-contemplation.

Writing in 1849, in the shadows of a gloomy Malthusian prognosis for human affairs, Thomas Carlyle famously declared that economics was not a “gay science.” Rather, this “Social Science” was “a dreary, desolate, and indeed quite abject and distressing one; what we might call, by way of eminence, the *dismal science*.”<sup>14</sup> The immediate provocation for Carlyle was the economic health of colonial West Indies, which was allegedly “short of labor” after the abolition of slavery and was now considering bringing in paid workers from Africa. His diatribe against the “rueful” science—“which finds the secret of this universe in ‘supply-and-demand’ and reduces the duty of human governors to letting men alone”—led up to an argument about the restitution of slavery.<sup>15</sup> Carlyle’s reference to “letting men alone” was not so much about the free market and its invisible hand (a speculative conceit, if there ever was one), as about the indolent lives of freed Negroes who, he thought, should be forced back into work. Ironically, his proposed solution was in keeping with the dismal core of the economic sciences: the dogged adherence to a calculus of efficiency and profit over all other considerations (although the efficiency of slavery as a production system remains highly debatable).

“Not a ‘gay science,’ I should say, like some we have heard of”: Carlyle’s point of reference was the art of modern European poetry, with its roots in the Provençal *gai saber*.<sup>16</sup> The ludic spirit of exploration and inquiry that galvanized this tradition was a source of inspiration to Friedrich Nietzsche. The southern European concept of the poet as philosopher of love and life embodied, for him, “that union of *minstrel, knight and free-spirit*” unencumbered with the fretful balancing of supply and demand or with measuring up to strict rationalities and unforgiving principles.<sup>17</sup> The figure led Nietzsche to a paradigm of thought—the focus of his 1882 book *The Gay Science*<sup>18</sup>—in which “profundity and exuberance [went] hand in hand,” and which allowed him to “dance right over morality.”<sup>19</sup> Walter Kaufmann has suggested that in juxtaposing gaiety, joy, and frivolity (*fröliche*) with the “serious, disciplined, rigorous quest for knowledge” (*Wissenschaft*), Nietzsche



was introducing southern modalities of unorthodox and imaginative thinking into the “stodgy, heavy, dusty” world of Teutonic intellectualism.<sup>20</sup> With its “overtone of a light-hearted defiance of convention,” a “gay science” also suggests Nietzsche’s willingness to reevaluate values and, we might add, knowledge structures.<sup>21</sup> At stake was the very definition and purpose of philosophy.

Across the Atlantic, Ralph Waldo Emerson had already declared in 1872 that “[p]oetry is the *gai science*. The trait and test of the poet is that he builds, adds and affirms. The critic destroys: the poet says nothing but what helps somebody; let others be distracted with care, he is exempt.”<sup>22</sup> It is easy to mistake this statement for a simple-minded polarization of the imaginative poet and the critical intellectual, with the former writing about “sunsets and souls,” the latter analyzing “politics, economy, manufactures and stock-brokerage.”<sup>23</sup> But as Emerson argues explicitly, all subjects come within the purview of the poet, and poetry is needed to make sense of the most prosaic material affairs. Although “Malthus is the right organ of the English proprietors,” people “shall never understand political economy until ... some poet shall teach it in songs, and he will not teach Malthusianism.”<sup>24</sup> Gay—not dismal—science is, once again, the model for philosophy. Like Nietzsche, Emerson insists on a more ludic approach to intellectual labor: “I think the peculiar office of scholars in a careful and gloomy generation is to be (as the poets were called in the Middle Ages) Professors of Joyous Science.”<sup>25</sup> Affirmation and care via other-oriented and open-ended speculative practices: this seems to be the hallmark of an Emersonian philosophy in action.

Echoing Emerson, Nietzsche exhorts his readers to learn from artists the art of rendering things “beautiful, attractive and desirable” even when they are not, thus signaling his break with idealized notions of fact-based scientific objectivity and the limiting positivism of the social sciences.<sup>26</sup> Seeking to reconstitute enchantment, revelation, and imagination as forms of reason that produce useful knowledge, Nietzsche pointedly wonders if “the sciences would have emerged and matured” without the “magicians, alchemists, astrologers, and witches” whose “promises and false claims created a thirst, hunger, and taste for *hidden* and *forbidden* powers.”<sup>27</sup> And in a spirited defense of dreamers—which would have confounded today’s purposeful, driven, and self-styled “doers”—Nietzsche asserts: “It is we, the thinking-sensing ones, who really and continually *make* something that is not yet there: the whole perpetually growing world of valuations, colours, weights, perspectives, scales, affirmation, and negations.”<sup>28</sup> This array of terms indexing various aspects of our material world, not to mention the cadence generated by the accretive writing, communicates something of the plasticity of world-making practices, of bringing “a whole perpetually growing world” into being by first conjuring it up in our dreams. From artists making any object or experience of life beautiful to charlatans

divining the future to dreamers imagining entire worlds: the plastic arts of speculating and designing become central to Nietzsche's conception of a gay science, to philosophy itself. As Sanford Kwinter has observed, "meaning" for Nietzsche is the "shape-giving aspect of life (and the things it catches up in its movement)," and this meaning becomes his weapon for "irritating the blind belief in static things like Truth."<sup>29</sup> And, not surprising for someone who revels in troubling habitual thinking and challenging entrenched structures, Nietzsche argues that the happiest person is the one who is "always prepared for the most extreme situations" and who refuses to invest in life's experiences and achievements to such a degree that they amount to "*his possession, his state,*"<sup>30</sup> someone "who knows how to *improvise life*" and "never seems to make a mistake even though he constantly plays the riskiest game."<sup>31</sup>

Nietzsche brings us back to the element of indeterminacy, the condition of possibility for all speculative activities. But instead of approaching it as a problem, a lack of knowledge is turned into a potentiality. If no amount of planning can cover all eventualities, why not embrace risk-taking as a *reasonable* option? Since life is full of uncertainties, speculation and improvisation emerge as necessary and attractive life strategies. Note that for Nietzsche, the gay, adventurous, risk-taking subject only "seems" to make no mistakes: in actuality, mistakes are made as contexts change and one has to remain open to that possibility. The happiest is the one who is able to accept mistakes and to adapt and improvise with respect to shifting realities. As illustration, Nietzsche refers to "those masters of musical improvisation" who might make an occasional mistake, even though listeners invest them with a "divine *infallibility.*" But their mastery—the fact that they are simultaneously "practiced and inventive"—enables them to "incorporate into the thematic order the most accidental note," somehow "breathing a beautiful meaning and a soul into the accident."<sup>32</sup> There is a palpable tension in this passage between, on one hand, order and expertise, scripted performance and infallible consistency and, on the other hand, experimentation and the aleatory, improvisation, and readiness to falter. Once again, Nietzsche makes it clear that he values rigorous training, deep reflection, and organization; it is just that he insists simultaneously on enchantment, creativity, and poetry.

## V.

Such tensions persist to this day. Writing in the immediate wake of the 2008 financial crisis, the anonymous collective known as "uncertain commons" returns us to the basic trade-off in techno-industrial evolution: between efficiency and expressivity, stable returns and risk-taking. Drawing on thinkers such as Nietzsche and Michel Foucault, Joseph Schumpeter and Frank Knight, the collective offers two starkly distinct paradigms of

speculation. The distinctions are overstated, no doubt to throw certain points into sharp focus; in reality, any act of speculation would be a negotiation between the two.

The first, “firmative speculation,” is associated with the typical profit-maximizing/cost-minimizing firm of neoclassical economic theory. Speculation in this instance is fixated on extracting the highest returns, usually in the short term, along a rather narrow trajectory; it seizes on every opportunity to monetize circumstances (including human tragedies and climate disasters) and privatize resources (including shared knowledge from the commons and future real estate), foreclosing wider potentialities in the act of realizing myopic projects. Every situation of indeterminacy or uncertainty is tamed to produce determinate risk calculations, employing probability distributions and increasingly sophisticated market instruments to produce an exaggerated sense of control. This control has been central to modern theories of management and finance and has delivered the entire world to the bubble-inducing processes of neoliberal globalization driven by dismal market logics and derivatives. In the words of the collective, to tackle risks, “firmative speculation calculates, communicates the calculation, socializes us into that interpretive rationality, and then globalizes instruments, techniques, protocols and policies.”<sup>53</sup>

The second, affirmative speculation, concerns itself with uncertainty *as such*; it thinks “in the vicinity of the unthinkable,” without “asserting that the unthinkable is in principle always thinkable, knowable, calculable, and so on.” Here, to affirm is not to be self-congratulatory (as in pop psychology); rather, it is to take on “something that has the potential to undo us” and to embrace “what we might become.” If *firmative* speculation harnesses, exploits, and closes off potentialities, affirmative speculation “sabotages the exploitation of potentialities.” Generating innumerable possibilities that mostly remain virtual, “unpredictable and, therefore, singular,” affirmative speculation (re)produces and replenishes the common as the domain of unbounded creativities. Open-ended and exploratory, playful and plastic, such speculative practices potentiate endlessly, conjuring and proliferating worlds—always stepping into uncharted terrain, always in process, and always unfolding, affirmative speculation is the substance of Nietzschean gay science, of philosophy itself.

## VI.

In the decade leading up to Arago’s “scientific” testament on behalf of photography, landmark inventions like the stroboscope and the zoetrope had begun to cast moving images on revolving disks and drums. The subsequent history of the “birth” of cinema as an industrial art and entertainment medium, of which Muybridge, Marey, the Lumières, and Edison are regarded as the main architects, is well known. But there were many

others, such as Louis le Prince, William Kennedy Dickson, and Charles Jenkins, who contributed to this long natal process, and their speculative efforts straddled both the firmative and the affirmative.

The title of this volume, *Cinema of Exploration*, suggests going across boundaries and thresholds, venturing into new territories, and marking out fresh frontiers. Thus, at first sight, it might seem to focus on cinema as a technology for prospecting: surveying, mapping, and recording, with the intention to master, own, and, eventually, exploit. In short, exploratory cinema as teleological instrument, as firmative speculation. However, in a dialectical gesture, the subtitle invokes “an adventurous film practice.” This allusion to adventure, from Latin *advenire*, to arrive, and *adventura*, about to happen, places “film practice” squarely in the realm of the virtual, the uncertain, and the risky, thereby broadening the scope of cinema to include exploration that is conjectural, experimental, and without predetermined goal. As the bulk of the essays in this collection demonstrate, cinema of exploration opens onto cinema as exploration. In other words, cinema embracing the unknown and the unknowable, the unimagined and the unimaginable: cinema approaching the big Other, cinema as affirmative speculation. In terms of 19th-century thought, cinema of exploration remains largely circumscribed by the monetizing compulsions and calculative rationalities of the dismal science; cinema as exploration, in contrast, approaches Nietzschean gay science.

Motion pictures emerged in a historical context shaped by the spread of the industrial revolution beyond Western Europe and the United States and the concomitant consolidation of colonialism as a global system for commandeering surpluses. The cultural and ideological transformations wrought by that colonial order, to which cinema’s contributions can hardly be underestimated, remained mostly unthought within Western theoretical frames; because of their eurocentrism and their preoccupation with economic determination, even the more radical traditions turned a blind eye to the “superstructural” operations. All the same, the “scientific” expeditions undertaken under the aegis of institutions such as the Deutsche Kolonial Gesellschaft, the Société Royale Belge de Géographie, the British Royal Anthropological Institute, and the Musée de l’Homme proceeded alongside the wars fought by European trading companies and the Berlin conference of 1885 known as the Scramble for Africa. It is no surprise that a 1907 piece in the German publication *Der Kinematograph* begins with the assertion: “A scientific expedition for the exploration of foreign lands must now absolutely include a cinematograph in its equipment if it wishes to claim that it is apace with the times.”<sup>34</sup> The piece, titled “The Cinematograph in the Service of Ethnology,” goes on to say that “only a recording device of living photographs” will be “appropriate” and “adequate” to the task of “capturing in every detail” the “customs of natives from completely unknown or little-studied areas in their original, traditional form, as yet

untouched by culture.”<sup>35</sup> The curiosity about different peoples and cultures dovetails into a need to capture (*Erfassung*), indeed *medial* capture: the writer is excited about the details of living cultures that moving images may divulge. Capture, of course, is the colonial mode par excellence. From the penetration and annexation of territories to the reification of others as mere objects of metropolitan knowledge, capture parlays genuine fascination into predatory material interest so that resources can be expropriated and entire cosmologies—material cultures, epistemologies, and social mores—devalued or demonized, transformed or violently replaced. The role of cinema in that history, whether embodied in orientalist stereotypes or sensible as the echo of manifest destiny across Hollywood westerns, is well documented.<sup>36</sup> More recent scholarship has updated that history in terms of cinema’s incursions into the marine world. There, too, as Nicole Starosielski points out, “ocean exploitation films” and underwater documentaries “configured the ocean in terms of its resources,” frequently associating “submarine space with a racialized, aquatic Other” while using “exotic . . . underwater environments to pioneer new cinematic technologies.”<sup>37</sup> Not surprisingly, “the language of battle and hunting pervaded the reception” of these films.<sup>38</sup> A cinema of exploration, in its narrow sense, has been the handmaiden of what Lenin called imperialism.

## VII.

If novelty, speed, and awe are the constitutive affects of modernity, then cinema arrives as a propitious medium for revelations, at once timely and untimely. Enchantment with the novel affordances of mediation exceeds cinematic exoticism and prospecting, to inspire artistic and discursive foment around the plastic possibilities of film practice. Alongside the development of cinema in its early decades, the search for a philosophy of film and the coeval project of theorizing the medium proceeds largely in terms of speculative twists and leaps. Cinema as exploration thus finds its cognate in film theory/philosophy as exploration. Strikingly, some of the pioneer philosophers of cinema—precisely those who understand it as artifice, as “accessing a second reality”<sup>39</sup>—liken it to the fecundity encountered in nature, conveying a willingness to be bewitched and swept away. The sublime volatility of comets and volcanoes becomes a reference point for the creative fury that cinema stimulates in theorists and practitioners alike. Élie Faure, writing on the art of cineplastics, speaks of his encounter with the “great eruption of Vesuvius” in 1906: a “plume of smoke, two thousand meters high. . . outlined against the sky and sharply separated from it,” inside which “enormous masses of ashes assumed form and became formless unceasingly,” all the while “sustained. . . by an attraction at the center.”<sup>40</sup> The phenomenon made Faure feel as if he “was looking at a symbolic form of that grandiose art of which in the cinema we now

perceive the germ,” whose future evolution would be that of “a great moving construction ceaselessly reborn of itself...by virtue of its inner forces alone.”<sup>41</sup> Two aspects of Faure’s formulation are particularly salient for understanding cinema as exploration. He speaks, as if echoing Arago, of a germinal art form that is still primarily virtual and that promises to achieve a magnificent materialization in the future. Faure also predicts that cinema’s development will be precipitated by the medium’s distinct properties, its own internal momentum.

A few years later, Jean Epstein—overwhelmed by the “tragic extravagances” of the volcano Etna, its slopes a “blazing spectacle” as its “conflagration reached up to the reddened corner of the sky”—exclaimed in awe: “Glorious volcano! I have never seen expressions comparable to yours.”<sup>42</sup> But this “never” turns out to be more of a rhetorical *not yet*: the encounter with Etna inspires speculation on the medial specificities and plastic potentialities of cinema. While Epstein and his team climb on “our mules’ backs...toward the active crater,” his thoughts turn to the medium’s ability to imbue everything with “a bit of the divine,” to reveal “life itself.”<sup>43</sup> Standing before the potent volcano—the “flowing lava,” the “wall of embers,” huge trees exploding into flames “like so many burning torches”<sup>44</sup>—Epstein reflects on cinema’s intrinsic animism. He writes: “On screen, nature is never inanimate. Objects take on airs. Trees gesticulate . . . . Every prop becomes a character.”<sup>45</sup> To substantiate his claim, he draws our attention to objects and gestures that come alive on screen—anemones “full of rhythm and personality,” a hand “separated from a man” taking on a life of its own, and that entire life “find[ing] its most pointed expression” in a fingernail.<sup>46</sup>

Gradually, the point about cinematic animism opens onto an argument about the “analytic power” of the “cinematic lens.”<sup>47</sup> These vivifying and dissecting attributes come together to constitute, for Epstein, the potency of the medium for simultaneous ecstasy and lucidity and, by extension, for transformation.

A major strand of contemporary continental philosophy, which is in dialogue with recent developments in neuroscience, allows us a fresh perspective onto Epstein’s peculiar line of thinking.<sup>48</sup> To imagine the magical capacities of cinema in terms of volcanic kinetics is to envision the medium’s plasticity beyond the standard sense derived from the Greek term *plassein*: plasticity as the ability to be shaped (to take form) and to shape (provide form to) something else. It involves conceptualizing plasticity as the ability of form to cause its own destruction and mutate into another form, that is, to think of plasticity as inhering in the medium itself, as autopoietic plasticity. As Catherine Malabou reminds us, plasticity derived from the French *plastique* (plastic explosives) has to do with the annihilation of form, which then becomes the condition for the emergence of new forms.<sup>49</sup> Following Malabou, we might say that

the mediality of cinema allows the medium to receive, shape, and blow up form. Cine-plasticity, therefore, must be located as much in the immanent, self-generating, and unsettling creativity of the medium itself, as in the meaning-making ingenuities of the filmmakers and audiences.

It would not be a bad wager to take Epstein's insights about the animistic and analytical potencies of the medium as the launchpad for an argument about cinematic signification entailing not simply the representation but also the creation of something new altogether—*something ontologically distinct*. As Epstein himself suggests in a later work, *L'Intelligence d'une machine*,

the cinematograph...marks its representation of the universe with its own qualities, with an originality that makes this representation not a reflection or a simple copy with conceptions, of an organic mentality-mother, but rather a system that is individualized differently, partly independently, which contains the incitements for a philosophy so far from common opinions, the doxa, that one should perhaps call it an anti-philosophy.<sup>50</sup>

How might we proceed with the delineation of such a philosophy?

### VIII.

First, a few words on “the doxa” of film theory, against which a philosophy “incited” by the “intelligence” of the cinematic “machine” ought to be formulated. From its inception, cinematic thought has privileged the breaking down of classical categories of space and time in terms of fragmented shots and then splicing them together to (re)constitute peculiarly cinematic chronotopes. In Epstein's words, cinematic “space-time...is always mobile and changing, the unique frame within which the cinematograph inscribes its representations.”<sup>51</sup> A similar understanding of the medium informs Faure's prediction that the plasticity of cinema would move away from the stability of the sculptural and towards the durational unfolding of music and dance, thereby embracing a certain volatility. And yet, for Faure, the “new plastic impressions” that he gets “at the cinema” possess a

complexity which varies and winds in a continuous movement, the constantly unexpected things imposed on the work by its mobile composition, ceaselessly renewed, ceaselessly broken and remade, fading away and reviving and breaking down, monumental for one flashing instant, impressionistic the second following ...<sup>52</sup>

The phenomenon, he concludes, is “too radically new for us even to dream of classing it with painting, or with sculpture, or with the dance, least of all with the modern theatre.”<sup>53</sup>

Nevertheless, the most influential contributions to film theory from its heydays in the 1970s and 1980s approached cinema primarily in terms of the textual inscription of ideological structures: medium specificity was occluded by queries and methodologies borrowed from disciplines such as literary studies, art history, and the sociology of media. Consider, for example, the art-historical ruptures that drive, and effectively predetermine, Peter Wollen’s groundbreaking cine-semiotics or the psychoanalytic paradigms of subjectivity that undergird attempts, by Mary Ann Doane, Constance Penley, and others, at rearticulating spectatorship-in-difference.<sup>54</sup>

David Bordwell had a point in criticizing this tendency of locating the significance of cinema elsewhere (an “interpretive” tendency common to the two divergent approaches of “thematic explication” and “symptomatic reading”),<sup>55</sup> subsuming film poetics and medium specificity within the “Grand Theories” of “subject-position theory” and “culturalism.”<sup>56</sup> Such hermeneutic approaches usually try to fit films within predetermined theoretical armatures, as so many cultural examples. Instead, Bordwell calls for mid-level analysis based on cinema’s distinctive meaning-making operations to produce a history of cine-poetics. However, in trying to decenter the borrowed model of “reading,” Bordwell induces a new hermeticism within film studies. Downplaying cinema’s imbrication within a semantic field, his focus on film poetics and the rhetoricity of theory leads to new forms and levels of preoccupation with textuality, often drawing on analytical and pragmatist philosophies.

Through all these debates and developments, the intricate interface of textuality and ontology that Epstein gestured towards remains more or less unexplored. After all, film pedagogy is also an industry, where the relatively focused exigencies of gaining social legitimacy, consolidating a canon, and disseminating modular knowledge via textbooks take precedence over more open-ended explorations.

At least four historical factors have returned materiality qua ontology to the core of film and media studies research agendas.<sup>57</sup> First, the advent of digital media, not to mention attendant anxieties about the imminent “death” of cinema, has generated a renewed interest in the ontological dimensions of the cinematic arts. Second, globalization has rendered the institutions, networks, processes, and hierarchies of global media central to every aspect of life: standard political economic analysis of media now has to be supplemented by critical infrastructures and policy analysis so that the material effects of media on life forms, communities, and environments come to the fore. Third, if poststructuralist thought once promoted an “all the world is a text” mentality, poststructuralism’s abiding investment in the centrality of difference has induced a logical auto-critique



about the textual reduction of the historical singularities that constitute difference. And, fourth, recent advancements in science have ushered in a “biological turn” in cultural studies: not only is mediation now recognized as a crucial aspect of the biomedical sciences but also biomatter is now routinely thought of as biomedica, just as neuroscientific knowledge is beginning to inform analyses of media signification. It is no coincidence, Malabou points out, that plasticity is becoming the dominant mode of mediation precisely at the “dusk of writing,” when the standard modalities of discursive reasoning—including writing, reading, and textual analysis—no longer seem adequate for understanding our lived realities or projecting our futurities.<sup>58</sup>

Not surprisingly, many scholars of film/media have found Gilles Deleuze’s interest in the ontological particularly useful. Deleuzian concepts—time image and movement image, of course, but also affect, assemblage, duration, the fold, and virtuality, among many others—have been taken up to great effect. The one drawback of such approaches is that they often press for such a radical break with extant knowledge structures, producing a cloud of concepts carving out lexicographic alterity, that broader disciplinary engagements remain hindered. Put another way, because of their obduracy, the new frameworks effectively foreclose potentially generative conversations. With time, scholars will hopefully find more common ground for mutual elaborations.

A similar problem arises with other materialist/ontological approaches. In marking their divergence from established methodologies, especially text-based approaches, some scholars of the political economy of media or of media infrastructures continue to dismiss textuality with such vehemence, some 25 years after such necessary interventions first began to infiltrate the mainstream of the discipline, that the very mention of textual analysis now produces eye rolls on the part of many a doctoral student. This rupture-seeking stance may well be a fixation of Western intellectual vanguardism, always yearning for *the novum*. Text-obsessed methodologies, it was said, make us lose sight of material-ontological dimensions of media formations; but what do these neo-materialist frameworks foreclose? That it is absolutely necessary to study media technology, infrastructure, labor, distribution, and policy is, by now, axiomatic, but would it not be even more fruitful to develop methodologies that are able to apprehend how media work via the articulation of the material-ontological and the textual?

In arguing that the cinematograph “marks its representation of the universe with its own qualities,” Epstein points to a gap between human perception and cinematic perception. In effect, he also suggests an originality that is common to every act of cinematic mediation—a technological automatism that kicks in, independent of the production team’s subjectivity and will, as it were. And yet, for Epstein, the realization of cinema’s radical originality

depends on human creativity: only the salutary aesthetic choices made by certain filmmakers allow for the occasional emergence of a “true cinema.” Taken together, these last two points suggest a tension in the filmmaker-theorist: between medial automatism and authorial interventions. Or, as Trond Lundemo puts it, Epstein vacillates between a need for “a theory of the *dispositif* of cinema” (attending to cinema’s ontological dimensions) and need for “a normative aesthetics of cinema” (concerned more with cinema’s textual qualities).<sup>59</sup> Reflecting on this ambivalence that, for me, indexes an aporia, Lundemo suggests that, in effect, Epstein locates an intrinsic, twofold virtuality in the cinematic medium. The first level of virtuality can translate into actual realizations every once in a while, depending on favorable conditions (including the involvement of exceptionally gifted artists). The second level of virtuality, inhering in the “intelligence of the machine,” is more fundamental: it involves “new regimes of sensation and new modes of subjectivities”<sup>60</sup> that cannot be actualized and thus remain unattainable but that manage to “enter into relations with the image without becoming audible or seen.”<sup>61</sup> Lundemo concludes: “The subject of Epstein’s writings is, to a large degree, a cinema to come.”<sup>62</sup>

This radical virtuality, this unattainability, prompts Epstein to approach cinema’s plasticity indirectly—metaphorically—via extra-cinematic scenes of dynamism, uncertainty, and enchantment (climbing the slopes of Etna or descending the mirrored hotel staircase). Cinema’s haptic energies always exceed linguistic description: it is difficult to represent in words what cinema *does* and even more difficult to capture what it might do in the future. By pointing to this linguistic failure, Epstein attempts to foreground cinema’s inimitable capacities, as well as to remind us of the potentialities that are yet to be imagined, let alone realized. Not wanting to close off those medial promises or to produce reductive accounts of realized achievements, he mostly shies away from “reading” particular works. This reticence may be taken as a refutation of textual analysis. At the same time, in seeking to overcome the partial, faltering province of words through his animated and evocative writing, and in stressing the role of aesthetic strategies that aspire towards the unattainable, the filmmaker-theorist returns us to textuality. It is just that, for Epstein, that textuality is shot through with a medial intelligence, a temporal perspective whose roots are technological.

Far from inducing obfuscation, Epstein’s apparent aporia performs an understanding of a multifaceted cine-plasticity that spans the textual and the material-ontological. While that performance fails to articulate a clear, concrete, and efficacious model of the medium, it instantiates an exploratory, adventurous, and gay mode of thinking cinema.

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I am especially grateful to Hannah Goodwin, who drew my attention to the image with which I begin, reminded me of Benjamin's invocation of Arago, and inspired several arguments by engaging me in long exchanges.

## Notes

- 1 Walter Benjamin, "Little History of Photography," in *Walter Benjamin: Selected Writings Vol. 2, Part 2, 1931–34*, ed. Michael W. Jennings, Howard Eiland, and Gary Smith and trans. Rodney Livingstone and others (Cambridge, MA: The Bellknap Press of Harvard University Press, 2005), 507.
- 2 Benjamin, "Little History of Photography," 512.
- 3 Benjamin, "Little History of Photography," 508.
- 4 Benjamin, "Little History of Photography," 510.
- 5 Roland Barthes, *Camera Lucida: Reflections on Photography*, trans. Richard Howard (New York: Hill and Wang, 1982).
- 6 Benjamin, "Little History," 510.
- 7 Here I invoke Agamben's useful, if admittedly reductive, polarization between the image and the gesture: while the former tends toward a semiotic fixity, the latter remains more expansive—perhaps even indecisive—as an act of signification. Giorgio Agamben, "Notes on Gesture," in *Means without End: Notes on Politics*, trans. Vincenzo Binetti and Cesare Casarino (Minneapolis: University of Minnesota Press, 2000), 49–62.
- 8 Benjamin, "Little History," 510.
- 9 Benjamin, "Little History," 507.
- 10 Benjamin, "Little History," 508.
- 11 S. J. Liebowitz and Stephen E. Margolis, "Path Dependence, Lock-In, and History," *Journal of Law, Economics & Organization* 11 (1995): 205–26.
- 12 Paul David, "Clio and the Economics of QWERTY," *American Economic Review* 75, no. 2 (May 1985): 332–37, <https://www.jstor.org/stable/1805621>.
- 13 Simon Brown, Sarah Street, and Liz Watkins, eds., *Color and the Moving Image: History, Theory, Aesthetics, Archive* (New York: Routledge, 2012).
- 14 Thomas Carlyle, "Occasional Discourse on the Negro Question," *Fraser's Magazine for Town and Country* 40 (December 1849): 672, emphasis in original.
- 15 Carlyle, "Occasional Discourse."
- 16 Carlyle, "Occasional Discourse."
- 17 Friedrich Nietzsche, *Ecce Homo: How One Becomes What One Is*, revised edition (London: Penguin Classics, 1992), 68, emphasis in original.
- 18 Friedrich Nietzsche, *The Gay Science*, trans. Josefine Nauckhoff (Cambridge: Cambridge University Press, 2001). All subsequent references to *The Gay Science*, unless noted otherwise, are to this translation and edition.
- 19 Nietzsche, *Ecce Homo*, 68, emphases in original.
- 20 Walter Kaufmann, "Translator's Introduction," in Nietzsche, *The Gay Science*, tran. with commentary by Walter Kaufmann (New York: Vintage Books, 1974), 4–6. The idea of "southern" modalities of doing philosophy can be extended productively beyond southern Europe, to the southern shores of the Mediterranean, and possibly beyond. For a discussion of Arab poetry as vernacular philosophy, see Kay Dickinson, "At What Cost 'Theory'? An Economics and Poetics of Uptake," *Framework: the Journal of Film and Media* 56, no. 2 (Fall 2015): 433–45.
- 21 Kaufmann, "Translator's Introduction," 5.

- 22 Ralph Waldo Emerson, "Poetry and Imagination," in *The Complete Works of Ralph Waldo Emerson* (Independently published, 2017), 37.
- 23 Emerson, "Poetry and Imagination."
- 24 Emerson, "Poetry and Imagination."
- 25 Ralph Waldo Emerson, "The Scholar," Bartleby.com, accessed July 17, 2019, <https://www.bartleby.com/90/>; originally published as Chapter X in *The Complete Works, Volume X: Lectures and Biographical Sketches* (Boston: Houghton, Mifflin, & Co., 1904).
- 26 Nietzsche, *The Gay Science*, 169.
- 27 Nietzsche, *The Gay Science*, 170, emphases in original.
- 28 Nietzsche, *The Gay Science*, 171, emphasis in original.
- 29 Sanford Kwinter, "The Gay Science (What is Life?)" in *Life Style*, ed. Bruce Mau (New York, NY: Phaidon, 2000), 34.
- 30 Nietzsche, *The Gay Science*, 171–72.
- 31 Nietzsche, *The Gay Science*, 172, emphasis in original.
- 32 Nietzsche, *The Gay Science*, emphasis in original.
- 33 Uncertain commons, *Speculate This!* (Durham, NC: Duke University Press ebooks, 2013).
- 34 H. Ste., "The Cinematograph in the Service of Ethnology," trans. Tara Hoffman, in *The Promise of Cinema: German Film Theory, 1907–1933*, ed. Anton Kaes, Nicholas Baer, and Michael Cowan (Berkeley: University of California Press, 2016), 48.
- 35 Ste., "The Cinematograph in the Service of Ethnology," 48.
- 36 See Fatimah Tobing Rony, *The Third Eye: Race, Cinema, and Ethnographic Spectacle* (Durham, NC: Duke University Press, 1996), as well as Ella Shohat and Robert Stam, *Unthinking Eurocentrism: Multiculturalism and the Media* (New York: Routledge, 1994).
- 37 Nicole Starosielski, "Beyond Fluidity: A Cultural History of Cinema under Water," in *Ecocinema Theory and Practice*, ed. Stephen Rust, Salma Monani, and Sean Cubitt (New York: Routledge AFI Film Readers, 2012), 156–57.
- 38 Starosielski, "Beyond Fluidity," 157.
- 39 Jean Epstein, "To a Second Reality, a Second Reason", trans. Sarah Keller, in *Jean Epstein: Critical Essays and New Translations*, ed. Sarah Keller and Jason Paul (Amsterdam: Amsterdam University Press, 2012), 321–27.
- 40 Élie Faure, *The Art of Cineplastics*, trans. Walter Pach (Boston: The Four Seas Company, 1923), 40–41.
- 41 Faure, *The Art of Cineplastics*, 41.
- 42 Jean Epstein, "The Cinema Seen from Etna," trans. Stuart Liebman, in Keller and Paul, *Jean Epstein*, 288.
- 43 Epstein, "The Cinema Seen from Etna," 289.
- 44 Epstein, "The Cinema Seen from Etna," 288.
- 45 Epstein, "The Cinema Seen from Etna," 289.
- 46 Epstein, "The Cinema Seen from Etna," 290.
- 47 Epstein, "The Cinema Seen from Etna," 292.
- 48 It is noteworthy that until now, cognitive film theory has drawn its energies primarily from analytical philosophy, which hardly facilitates the development of Epstein's speculative insights spanning both the analytical and material energies of cinema.
- 49 Catherine Malabou, *What Should We Do with Our Brain?* trans. Sebastian Rand (New York: Fordham University Press, 2008), especially pp. 5–6.

- 50 Jean Epstein, excerpts from *L'Intelligence d'une machine* (1946), trans. Trond Lundemo, in Keller and Paul, *Jean Epstein*, 312.
- 51 Epstein, excerpts, 312.
- 52 Faure, *The Art of Cineplastics*, 27.
- 53 Faure, *The Art of Cineplastics*, 27.
- 54 Peter Wollen, *Signs and Meaning in the Cinema* (London: Secker & Warburg/BFI, 1969); Mary Anne Doane, *The Desire to Desire: The Woman's Film of the 1940s* (Bloomington: Indiana University Press, 1987); Constance Penley, *The Future of an Illusion: Film, Feminism, and Psychoanalysis* (Minneapolis: University of Minnesota Press, 1989).
- 55 David Bordwell, *Making Meaning: Inference and Rhetoric in the Interpretation of Cinema* (Cambridge, MA: Harvard University Press, 1991), xiii.
- 56 David Bordwell, "Contemporary Film Studies and the Vicissitudes of Grand Theory," in *Post-Theory: Reconstructing Film Studies*, ed. Bordwell and Noël Carroll (Madison: University of Wisconsin Press, 1996), 3–36.
- 57 The shift from film to "film and media" as the disciplinary domain over the past couple of decades has been subjected to much scrutiny; that discussion need not be repeated here. I, for one, prefer the more pithy "media studies" as the apt description for our field now, not only because cinema now exists mainly as media forms but more because cinema—whether on celluloid or as digital video—has always been a *medium* of expression. That historical connection suggests that the "new" paradigms and methodologies that have emerged in the wake of digital media might shed new light on cinemas of the past, enriching our understanding of the medium of film. In the context of this essay, contemporary frameworks that help us analyze the ontological dimensions of media (media technologies and infrastructures, platforms and formats, mixes and ecologies, etc.) may also prove to be useful in expanding Epstein's ideas about the cinematic medium.
- 58 Catherine Malabou, *Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction*, trans. Carolyn Shread (New York: Columbia University Press, 2009).
- 59 Trond Lundemo, "A Temporal Perspective: Jean Epstein's Writings on Technology and Subjectivity," in Keller and Paul *Jean Epstein*, 210.
- 60 Lundemo, "A Temporal Perspective," 222.
- 61 Lundemo, "A Temporal Perspective," 221.
- 62 Lundemo, "A Temporal Perspective," 222.