

A Short History of Cinema

1924. The classic cinema has perfected its geometry of forms, its logic of spatiotemporal exposition, and its "laws" for the linking of actions through montage. In *Sherlock, Jr.*, Buster Keaton plays a young projectionist who divides from himself in lap dissolve, entering the rectangle of the screen as the space of his own dream. The action following is exemplary of the logic of (paradoxical) sense informing the classical Hollywood cinema in its silent phase. In this series of shots, Buster's moving figure provides a stable foreground against a shifting background of increasingly unlikely and dangerous locations: a garden, a busy street, a cliff side, a jungle with lions, train tracks in a desert. When Buster finds himself on a rock by the ocean, he dives, only to land head first in a snowbank. Buster's movements from one shot to the next link incommensurable spaces through what modern mathematics terms a "rational" division. The interval dividing any two spatial sections serves simultaneously as the end of the first and the beginning of the second. In Keaton's film, every division, no matter how unlikely and nonsensical, is mastered by this figure of rationality where the identification of movement with action assures the continuous unfolding of adjacent spaces. The consequence of this identification is the subordination of time to movement. Time is measured only dynamically, as a process of action and reaction rebounding across contiguous spaces through match-cutting.

This geometry of action and movement expands by levels as well as by linear development. The moving whole of the film is assured equally by the continuous linking of one shot to the next, as well as the embedding of photograms into the shot, shots into sequences, sequences into parts, and parts into the moving whole of the film as one great clockwork mechanism. The dynamics of the classic film functions like a Newtonian universe where laws of motion function independently of time. This subordination of time to movement has philosophical consequences.

1962. The modern European cinema, as well as the New American cinema, has displaced the Newtonian conception of space that characterizes the classical period. Chris Marker's *La Jetée* depicts a not so distant future where a prisoner of war is subjected to a series of painful experiments that enable him to "travel" in time. Whether this passage is actual and physical, or mental and spiritual, is ambiguous. Movement, drained from the image and divorced from the representation of action, has relinquished its role as the measure of time. In *La Jetée*, the image of time is no longer reduced to the thread of chronology where present, past, and future are aligned on a continuum. The painful binding of the subject--physically stilled no less than movement is frozen in the image--liberates him briefly in time, just as the imaging of time is released from its subordination to movements linked with physical actions. Once chronology is pulverized, time is fragmented like so many facets of a shattered crystal. The chronological continuum is flayed, shaving past, present, and future into distinct series, discontinuous and incommensurable. The narrative sections of the film are disconnected spaces, divided into blocks of time linked in a probabilistic manner: the park, the museum, the quay at Orly. The spectator's apprehension of what comes next is equivalent to a dice throw. Time no longer derives from movement; "aberrant" or eccentric movement derives from

time.

With both action and movement absented from the image, there is now only linking through "irrational" divisions. According to the mathematical definition, the interval dividing segmentations of space is now autonomous and irreducible; it no longer forms a part of any segment as the ending of one and the beginning of another. Image and soundtrack are also relatively autonomous. While referring one to the other they resist being reconciled into an organic whole. As a result, there is no totalization of space in an organic image of the whole and no subordination of time to movement. Inside and outside, mind and body, mental and physical, imaginary and real are no longer decidable qualities. This is another theory of mind and another logic of sense, defined by a decisive break with the earlier model.

My two examples illustrate how Gilles Deleuze conceives the history of cinematic signs in his volumes, *The Movement-Image* and *The Time-Image*. Deleuze himself would demur from characterizing his books as historical works. Still I would argue that they are informed by an historical idea adapted from the German art historian Heinrich Wöfflin. In his *Principles of Art History*, Wöfflin argues for classifications of style based on historical modes of "imaginative beholding".^[1] The task of the history of aesthetic forms is understanding the specific set of formal possibilities--modes of envisioning and representing, of seeing and saying--historically available to different cultures in different times.

Equally important for Deleuze is the work of Ilya Prigogine and Isabel Stengers in the history and philosophy of science. In their book *Order Out of Chaos*, Prigogine and Stengers characterize the evolution of science and philosophy as "open" systems that incessantly exchange information with their cultural environment, and never cease altering that culture as they themselves change. Strategies of observation, representation, and conceptualization--of modeling nature--are no less historically based than Wöfflin's modes of imaginative beholding. These two references are important. For Deleuze's larger objective is not to produce another theory of film, but to understand how aesthetic, philosophical, and scientific modes of understanding converge in producing cultural strategies for imagining and imaging the world.

Reduced to its simplest form, the question informing Deleuze's cinema books is: how does a sustained meditation on film and film theory illuminate the relation between image and thought? With respect to our recent history, Deleuze argues, the development of cinema provides a privileged site for comprehending a decisive shift in strategies of signification, understanding, and belief that is no less true for aesthetic thinking than philosophical and scientific thinking. This shift concerns the question of time. For example, Prigogine and Stengers argue that beginning in the late nineteenth century, the study of thermodynamic systems, and then probability physics, reintroduce time to science's image of the physical world. This is an image of irreversible Becoming in contrast with the static and eternal image of Being depicted by Newton's universal laws of motion. At about the same time, Henri Bergson produces his image of thought as internal movement, and memory as complex duration. Among aesthetic practices,

Deleuze argues, cinema concretely produces a corresponding image of thought, a visual and acoustic rendering of thought in relation to time and movement. At the outset, time is the focus of both of Deleuze's cinema books.

This emphasis on categories of movement and temporality, in relation to visualization or imaging, is meant as a critique of theories of signification in both contemporary philosophy and film theory. The history of philosophy is often conceived as a teleological and progressive refinement of logic in its relation to thought. Thought is considered here to have an (ideally) unchanging identity to which logical representations can progressively adequate themselves. Alternatively, for Deleuze, one might say, there is no thinking other than thinking-through. "Through" what? Images, signs, and concepts. In this respect, Deleuze follows V. N. Volosinov's argument in *Marxism and the Philosophy of Language* that ". . . consciousness itself can arise and become a viable fact only in the material embodiment of signs. . . . The individual consciousness is nurtured on signs; it derives its growth from them; it reflects their logic and laws."^[2] Deleuze similarly appropriates Bergson to argue that thought is quintessentially temporal, a product of movement and change. And rereading Peirce, Deleuze argues that the image must be considered not as a unified or closed whole, but rather as an ensemble or set of logical relations which are in a state of continual transformation. This is why, in my examples from *Sherlock, Jr.* and *La Jetée*, what was "in" the shots was less important than understanding how they were linked, grouped, and interconnected, and what these connections implied for a theory of sense. To refer to the movement or time image, then, is to refer to a fluid ordering of representational elements. This ordering in turn produces different types of signs, a logic based on division and regrouping.

This emphasis clarifies Deleuze's preference for Peirce's semiotic as opposed to a film semiology derived from Saussure. Metz's notion of the filmic *énoncé*, and his theory of narrative derived from the *grande syntagmatique*, are both criticized by Deleuze for the assumption that meaning is only linguistic meaning, and for reducing the image by subtracting its most visible characteristic--movement. For Deleuze the image-components of cinema comprise instead a moving "signaletic material that includes all kinds of modulation features, sensory (visual and sound), kinetic, intensive, affective, rhythmic, tonal, and even verbal (oral and written). Eisenstein compared them first to ideograms, then, more profoundly, to the internal monologue as proto-language or primitive language system. But even with its verbal elements, this is neither a language system nor a language. It is a plastic mass, an a-signifying and a-syntactic material not formed linguistically. . ." (TI 29). Since Peirce's theory is a logic and not a linguistics, and since it understands signification as a process, Deleuze finds it more applicable for understanding the generation and linking of signs in movement. Where semiology wants to define the cinematic sign by imposing a linguistic model from the outside, Deleuze applies Peirce's logic to deduce a theory of signs from material the cinema has itself historically produced.

The idea of the image also serves as a periodizing figure in the two books, marking the borders of relatively distinct cinematic logics and practices. (In fact, Deleuze defines two "pure semotics," one of movement and one of time.) In this manner, Deleuze examines

how mutations in the history of cinematic signification have produced our contemporary "audiovisual culture." If for Deleuze, postwar cinema is different from what preceded it, thus indicating a gradual yet distinct transition from the regime of the movement-image to that of the time-image, this marks equally a transformation in the nature of signs and images, and how the cultural image of thought evolves. Deleuze depicts image-practices as social and technological automata where each era thinks itself by producing its particular image of thought, what Deleuze calls its "noosigns": its implied image of the brain with its internal wirings, connections, associations, and functionings. In its largest sense, then, the image describes historically specific cinematic practices as "spiritual automata or "thought-machines." In this respect, an era's image of thought is "the image thought gives itself of what it means to think, to make use of thought, to find one's bearings in thought" (WIP 37). The cinema is considered here as an "artificial intelligence," a Cartesian diver, or a machine for the fabrication of concepts.^[3] For Deleuze this is the most compelling gambit of writing a history of "cinematic" philosophy. To take an era's strategies of thinking-through, represented aesthetically in the nature of its images and signs, and render them in the form of philosophical concepts. But also for philosophy to understand how the possibilities of thought are renewed in aesthetic practices.

As a philosopher, Deleuze claims an interest in film because it provides a complex moving-picture of duration. And what divides the movement-image from the time-image is their respective spatial rendering of time in this sense. Deleuze rejects the idea that the film-image is always "in" the present, whether with respect to itself or its spectator. For Deleuze the image is instead a grouping of temporal relations. "The image itself," writes Deleuze, "is the system of relationships between its elements, that is, a set of relationships of time from which the variable present only flows. . . . What is specific to the image . . . is to make perceptible, to make visible, relationships of time which cannot be seen in the represented object and do not allow themselves to be reduced to the present" (TI xii). These temporal relations are rarely apparent to quotidian perception; rather they are rendered as visible and legible in the images that create signs from them. Because of its constitutive factors of movement and time, for Deleuze the cinematic image can never be reduced to a simple unity, nor can the relation between image and thought be reduced to a simple, punctual present.

Nevertheless, the movement-image and the time-image each manage this relation differently. According to Deleuze, the former gives us an indirect image of time; the latter, a direct image of time. The gist of this unusual idea derives from Deleuze's rethinking of the interval--the space or division between photograms, shots, sequences--and how the organization of intervals informs the spatial representation of time in cinema. While he borrows this concept from Dziga Vertov, Deleuze gives it much wider scope. Understanding how the organization of intervals serves the spatial imaging of time makes clearer Deleuze's attempts to formalize the logic of enchainment as a kind of geometry of cinema.

In his "Short History of Photography," Walter Benjamin focuses on how the problem of time characterized the evolution of early photography.^[4] Neither the indexical quality of

the photograph, nor its iconic characteristics fascinated him as much as the interval of time marked by exposure. In the technological transition from an exposure time requiring several hours to only fractions of a second, Benjamin marked the gradual evaporation of aura from the image. The idea of aura invoked here is clearly related to Bergson's *durée*. For Benjamin, the longer the interval of exposure, the greater the chance that the aura of an environment--the complex temporal relations woven through its represented figures--would seep into the image, etching itself on the photographic plate. More concretely, the temporal value of the interval determines a qualitative ratio between time and space in the photograph. In the evolution from slow to fast exposure times, segmentations of time yielded qualitative changes in space: sensitivity to light, clearer focus, more extensive depth of field, and, significantly, the fixing of movement. Paradoxically, for Benjamin, as the iconic and spatial characteristics of photography became more accurate by decreasing the interval of exposure, so too did the image lose its temporal anchoring in the experience of duration, as well as the fascinating ambiguity of its "aura."

Benjamin's commentary on the long exposure photograph portrays it as a "primitive" time image, a kind of open window on accumulating duration. Alternatively, the reduction of the time interval in "instantaneous" photography introduced a new possibility for the image: the representation of movement. Not only the freezing of movement, as in the extraordinary photographs of the young Jacques-Henri Lartigue, but also its serial decomposition, as in the motion studies of Etienne Jules Marey and Edward Muybridge. For Deleuze, the seed of the movement-image's indirect representation of time is already here. The developing technology has a specific goal. It equates movement with physical action, and dissects movement by dividing it into rational segments, here, the action of a man doing forward hand stands in 12 contiguous images. Even in these early motion studies, the management of time is a central problem for the so-called scientific perception and analysis of movement. Action cannot be clearly represented without reducing the interval of exposure to a fraction of a second; the action itself must be carefully "timed" in relation to the relay of cameras to assure that movement is recorded as successive and contiguous segments. In both cases, time is subordinated to movement and represented only indirectly through the agency of movement in two ways. First it is reduced to a constant (here 1/100th of a second) repeated as equidistantly spaced intervals. Second, it is restricted to a line of action; it flows only through rationally segmented, contiguous movements. Time serves here as the measure of space and movement; it can only be "seen" through the intermediaries of space and movement.

These two principles were necessary, of course, for the perfection of cinematographic technology. Yet the cinema added what pioneers such as Marey and Muybridge neither desired nor imagined: they automated movement by projecting these images at a fixed rate. At this stage, the cinema of the movement-image becomes, for Deleuze, a spiritual automaton, producing with its own signifying materials an image of memory and thought extraordinarily close to what Bergson was describing through the philosophy and psychology of his day. And by extending the subordination of time to movement in a new way, it replicated in the developing narrative cinema a logic Bergson described as "an open totality in movement." This figure, through which Bergson describes the essentially temporal character of thought, is seized by Deleuze to describe the narrative organization

of classic cinema. In Bergson's view, thought always moves in two directions at once: while it unfolds along a horizontal axis, it also expands across a vertical axis. The former is an axis of association. It links related images through principles of similarity and contiguity, contrast and opposition. At the same time, associated images are distinguished then grouped conceptually into ever-growing ensembles or sets through a process of differentiation and integration. Through integration related images are internalized into a conceptual whole whose movement expresses a qualitative change: the whole is different from the sum of its parts. But this whole in turn enlarges itself through retotalization in related sets. Across all levels there is continuous linear movement by association, and volumetric expansion through differentiation and reintegration. Deleuze argues that the classical cinema, the cinema of the movement-image, provides a concrete image of this process. In so doing, it clarifies for philosophy the distinction between sets and wholes, as well as Bergson's definition of the relation between time, the whole, and the open. While an ensemble or set groups diverse elements, it is nonetheless relatively and artificially closed. There is always a thread that connects a set to another more extensive one, and so on ad infinitum. In contrast, the whole belongs to time. It traverses all sets and prevents them from realizing their tendency toward closure. Therefore, time is defined by Bergson as the Open: that which changes and never stops changing nature at each moment.

This account of movement as an open totality closely resembles the theory and practice of Sergei Eisenstein as Deleuze himself points out in *The Movement-Image*. It is also logically very close to Raymond Bellour's account of the textual organization of classic, Hollywood films. This is not surprising since Deleuze in no way opposes the practice of Soviet and Hollywood films especially in the silent period. Rather, he sees them as two distinct manifestations of the movement-image, different in kind but not in nature. Both, for example, organize the shot as a moving ensemble rather than a static figure. In both cases, Deleuze writes that "In so far as it relates movement to a whole which changes, [the shot] is the mobile section of a duration" (MI 22). As in Eisenstein's conception of the montage-cell, the shot defines a relatively open and variable space where the process of framing determines a provisionally and artificially closed set. Framing detaches objects from the pro-filmic space, grouping actions, gestures, bodies, and decors in a motivated ensemble. At the same time the frame opens the shot to the moving whole of the film. The shot already integrates the action-movement linkage from the photogrammatic level. Through montage this schema replicates and extends itself by levels, determining the movement or movements that distribute these elements into larger ensembles. The continuity system of editing established one set of norms for the linkage of shots through rational divisions. But an enlarged conception of off-screen space is equally important for Deleuze because it expresses the essentially open character of sets. Just as the continuous movement of the film-strip is integrated into the shot, the shot into sequences, the sequences into parts, and so forth, every ensemble is part of another more extensive one. The interval here is the sign of a differentiation that is continually retotalized in the image of an organic whole expanding through rational divisions. In sum, Deleuze writes that,

The movement-image has two sides, one in relation to objects whose relative position it varies, the other in relation to a whole--of which it

expresses an absolute change. The positions are in space, but the whole that changes is in time. If the movement-image is assimilated to the shot, we call framing the first facet of the shot turned towards objects, and montage the other facet turned towards the whole. . . . [It] is montage itself which constitutes the whole, and thus gives us the image *of* time. . . . [But] time is necessarily an indirect representation because it flows from the montage which links one movement-image to another. (TI 34-35)

The movement-image provides only an indirect image of time because time is reduced to intervals defined by movement and the linking of movements through montage. Deleuze makes no distinction between avant-garde and narrative cinema in this respect. American silent film, the Soviet montage school, and the French impressionist cinema are all grouped in the first volume by this principle. Although they produce qualitatively different montage strategies--analytical fast and slow motion in Vertov, abstract or intellectual movement in Eisenstein, rhythmic and metric variations in Epstein or Dulac--the idea of montage is in every case founded on managing the number of rational segmentations of movement per unit of time. In this respect, the avant-garde of the twenties demonstrates a fascination with movement and space rather than time, and the organization of time is subordinated to the representation of movement through montage. Both conventional and avant-garde cinemas were obsessed with this problem, and their theories of perception and memory derive from it.

The same thing may be said of the noosigns produced by the movement-image. I have already defined what Deleuze believes them to be: on one hand, linkage through association; on the other, an expanding whole expressed through differentiation and integration. The relation between intervals and the whole here is essentially behaviorist. It is articulated through an action-->reaction schema organized by altercations, oppositions, conflicts, and resolutions. This movement of action and reaction derives from an American ideology of will, a belief that the mastery of environments and opponents is inevitable and infinitely extendible. While Eisenstein, taking his cue from Engels's *Dialectics of Nature*, perfects and organizes this schema in a different way, he does not fundamentally change it with respect to the ideal image of thought it expresses.^[5] Both presuppose an organic model of composition predicated on the belief that the changing whole of the open totality in movement represents a process of infinite expansion. The integration of parts into ensembles, and ensembles into wholes, culminates in a totality where image, world, and spectator are identified through a grand image of Truth. Deleuze defines this image as an "ideal of knowledge as harmonious totality, which sustains this classical representation. . . . Eisenstein, like a cinematographic Hegel, presented the grand synthesis of this conception: the open spiral with its commensurabilities and attractions. Eisenstein himself did not hide the cerebral model which drove the whole synthesis, and which made cinema the cerebral art *par excellence*, the internal monologue of the brain world; 'the form of montage is a restoration of the laws of the process of thought, which in turn restores moving reality in a process of unrolling'" (TI 210-211).

Now when Deleuze refers to the organic, movement-image as "classic," and the time-image as "modern," this means neither that the latter flows from the former as natural

progression, nor that the modern form necessarily opposes the classic as critique. Instead, this transition represents a distinct if gradual transformation in the nature of belief and the possibilities of thought. The organic regime, sustained by the movement-image, proceeds by linking through rational divisions, projecting a model of Truth in relation to totality. The noosigns of the movement image derive from a belief in the possibility of action and the stability of Truth. In the aftermath of World War II, especially in the European cinema, this situation changes producing a different form of "imaginative beholding." For example, according to Deleuze, the appearance of neorealism represents a crisis in the cinema of action and movement. Especially in Rossellini's films such as *Germania Anno Zero* (1947), *Stromboli* (1949), or *Viaggio in Italia* (1953), narrative situations appear where reality is represented as lacunary and dispersive. Linear actions dissolve into the form of aleatory strolls. Events occur where it is no longer possible to act or react: situations of pain or beauty that are intolerable or insupportable; occurrences that are incomprehensible or undecidable. As a result, the action-->reaction schema of the movement-image begins to break down producing a change in nature of both perception and affect. Since the linking of images is no longer motivated by action, space changes in nature, becoming a disconnected or emptied space. Acts of seeing and hearing replace the linking of images through motor-actions; pure description replaces referential anchoring. One thinks immediately of a film like Antonioni's *L'Avventura* (1960), whose ironic title points to spaces where any decidable action or interpretation has evaporated, leaving characters who wait, who witness only the passing of time as duration.

What Deleuze calls the non-organic or crystalline regime of the time-image emerges out of the social, historical, and cultural context of postwar reconstruction.^[6] However, if the modern cinema offers a *direct* presentation of time, the emergence of this time-image is not a necessary consequence of the evolution of the movement-image. For Deleuze, the history of cinema is in no way a progression towards an ever more perfect representation of time. Rather the relation between time and thought is imagined differently in the postwar period. This is represented in the signs produced by the time-image no less than by changes in the image of thought in biological sciences, and in the image of time introduced by probability physics. This is why the cinema of Alain Resnais is so significant for Deleuze's project. Resnais represents for the cinema of the crystalline time-image, what Eisenstein represented for the organic, movement-image. From *Toute la mémoire du monde* (1956) to *Mon oncle d'amérique* (1978), Resnais evinces a constant fascination for replicating an image of thought, but in relation to time rather than movement. The time-image organizes a new geometry of the interval marked by the concept of "irrational" divisions. For Deleuze this geometry derives from a heightened sensitivity to the flows of time modeled no less by the calculus of probability physics than by the time-images of modern cinema. As I explained earlier, "irrational" has a precise meaning adapted from mathematics: the interval no longer forms part of the image or sequence as the ending of one or the beginning of the other. Nor can other divisions--for example, sound in relation to image--be considered as continuous or extendible one into the other. The interval becomes an autonomous value; the division it represents is irreducible. Ideally, it no longer facilitates the passage from one image to another in any decidable way. On this basis, since the interval functions as an irreducible limit, the flow of images or sequences bifurcate and develop serially, rather than

continuing a line or integrating into a whole. The time-image produces a serial rather than organic form of composition. Rather than differentiation and integration, there is only relinking by irrational divisions. This relinking describes a specific form of grouping the images parcellized by irrational divisions. In Deleuze's summary:

There is thus no longer association through metaphor or metonymy, but relinkage on the literal image; there is no longer linkage of associated images, but only relinkage of independent images. Instead of one image after another, there is one image *plus* another; and each shot is deframed in relation to the framing of the following shot. . . . [The] cinematographic image becomes a direct presentation of time, according to non-commensurable relations and irrational divisions. . . . [This] time-image puts thought into contact with the unthought, the unsummonable, the inexplicable, the undecidable, the incommensurable. The outside or obverse of the images has replaced the whole at the same time as the interval [*interstice*] or cut has replaced association. (TI 214; trans. modified)

This difficult passage may be unpacked in reference to a well-known film and one of Deleuze's principal examples of the cinema of the time-image: Marguerite Duras' *India Song* (1975). The opening shot of the film frames a red sun setting into clouds over a verdant delta. This is a direct image of time in its simplest manifestation: an autonomous shot describing a single event as a simple duration. The ensuing shot of the piano in a darkened room is nowhere motivated by this image. Nor will any there be any clear spatial or temporal links in the cascade of images that follow. The cut defines an unbridgeable interval, and having done so, each shot becomes an autonomous segment of time. Similarly, instead of linking one to another, the images divide into series--the Embassy interior with its piano and its mirror that unsettles the difference between on and off-screen space, the ruined exterior of the villa, the tennis court, the park, the river.

The same may be said of the sound-track. At the beginning we hear the beggar's cries, then the two "intemporal voices" whose mutual interrogation initiates *India Song's* uncertain narration. The sounds themselves divide into distinct series--the beggar, "les intemporelles," the piano theme, the voices and music of the reception, the cries of the vice-consul--and it is never certain whether they occupy the same time or not.

Between and within the relations of image and sound, the interval divides and regroups but never in a decidable or commensurable way. By the same token, this geometry is not totalizable as an image of Truth. This does not mean that *India Song* is randomly organized; quite the contrary, it is rigorously composed. But unlike the organic movement-image with its relatively determined and predictable relations, the image of time portrayed here is more probabilistic. The autonomy of the interval produced by the time-image renders every shot as an autonomous shot--a segment of duration where movement is subordinate to time. And because the interval defines only incommensurable relations, the divisions both between and within the image and sound-tracks split into series whose progression can only be interpreted in a probabilistic

manner. If as Deleuze asserts, the crystalline regime produces an increased sensitivity to time, this means that the interval suspends the spectator in a state of uncertainty. Every interval becomes what probability physics calls a "bifurcation point" where it is impossible to know or predict in advance which direction change will take. The chronological time of the movement-image fragments into an image of uncertain becoming.

Aesthetic forms project a sense of order onto an otherwise stochastic universe. In this respect the regime of the time-image is no less conventional or patterned than that of the movement-image. However, change in the order of sense implies change in the nature of belief. The organic regime believes in identity, unity, and totality. It describes a deterministic universe where events are linked in a chronological continuum: one believes retroactively in a past that leads inevitably to the present; one has faith in a future that emerges predictably out of the present.

Alternatively, the regime of the time-image replaces this deterministic universe with a probabilistic one. In *Sherlock, Jr.* action leads to repetition, extension, and renewal figured in the final image of the film. In *La Jetée* the end replies to the beginning, but only as an irreversible sequence leading to the death of the protagonist. Incommensurable and undecidable relations between shots yield an entropic narrative marked by finitude, exhaustion, and death, which, nonetheless, leads to the rebirth of history as utopia. The hero dies, but he transmits from the future an energy source that permits a ruined society to prolong itself, although with uncertain consequences. I do not use the term entropy lightly. Prigogine and Stengers argue that the image of thought represented by the sciences of chaos reproduces itself in our information culture. Marked by accelerated temporalities and uncertain social change, these are images of disorder, instability, and diversity; in short, nonlinear relationships where small causes initiate massive and unpredictable consequences. Increasingly, the past is felt as an intangible origin, incommensurable with the present; the emergence of the future seems unpredictable and undetermined by the present.

The image of time produced in modern cinema blossoms no doubt from a cultural sense of disorder and unpredictability. But in the same moment, it charges our perception of time with a receptivity to the multiple, the diverse, and the nonidentical. I would like to conclude on this note of encouraging ambiguity. Ilya Prigogine won a Nobel prize for demonstrating that bifurcation points define an equal chance in the evolution of physical systems: either the system disintegrates into chaos, or it makes an unforeseen and unpredictable leap to a new, more complex, and differentiated order. When Deleuze defines the interval in the time-image as an irrational division and an incommensurable relation, he is introducing the same dice throw into the relation between image and thought. In this sense he claims a "power of falsification" for the autonomous interval of the time-image that derives from its undecidability. What one sees in the time-image, writes Deleuze, "is the false, or rather the power of the false. The power of the false is time in person, not because the contents of time are variable, but because the form of time as becoming questions every formal model of truth."[\[7\]](#) Truth is not opposed to the false as it opposite or negation here; rather, the powers of the false are a measure of truth in its

temporal, and therefore fragile and embattled, forms. Nor is truth an identity waiting to be recovered. "The idea that truth is not pre-existent," writes Deleuze,

something to be discovered, but instead, must be created in every field, is easily seen in the sciences. Even in physics, all truths presuppose symbolic systems, even if only coordinates. All truths "falsify" pre-established ideas. To say "the truth is a creation" implies that truth is produced by a series of processes that shape its substance; literally, a series of falsifications. In my work with Guattari we are each other's falsifiers, which means that each understands in his own way what the other proposes. The result is a reflected series with two terms. Nothing prevents a series of several terms, or a complicated series with bifurcations. The powers of the false that will produce truth--those are the intercessors
(N xx; trans. mod)

The delimitation of truth is a process--without predetermined points of departure or ends--that is creative rather than reflective. This is not a dialectic in the sense of a negation that produces a higher unity, forging identity out of nonidentity in a process of totalization. That is the organic model of truth produced by the movement-image. Rather, it is a dialogue, an interrogation, always a series of at least two terms, each of which is able to question, interrogate, or falsify the other in a process that assures the temporalization of thought. The "intemporal voices" perform this function in *India Song*; just as important is the irrational division between and within image and sound producing both as nontotalizable series. Here the autonomous interval becomes an opening where unforeseen relations occur.

For Deleuze, the cinema of time produces an image of thought as a nontotalizable process and a sense of history as unpredictable change. The autonomous interval is not a sign; it does not define a place for thought to identify itself, even temporarily. Although it characterizes the noosigns of the time-image as irrational divisions and incommensurable relations, it serves neither as link nor bridge between image and thought. Rather, the organization of intervals in the time-image assures that the flux of images and the movements of thought will be disjunct and discontinuous. Where the movement-image ideally conceives the relation between image and thought in the forms of identity and totality--an ever-expanding ontology--the time image imagines the same relation as non-identity--thought as a deterritorialized and nomadic becoming, a creative act. Borrowing from Maurice Blanchot, this is what Deleuze calls "thought from the outside." Thinking, in its attempts to inhabit or encircle the image, continually encounters a force of time as virtuality. This is an interval internal to thought which divides it from itself and in its relation to the image. Thought becomes agitated and turbulent, thrown ever closer to its bifurcation points as it is tossed along the incommensurable relations defined by the time-image. The interval no longer disappears into the seam between movements and actions. Rather, it becomes a ceaseless opening of time--a space of becoming--where unforeseen and unpredictable events may occur. Deleuze calls this the "good news" already announced in *Logique du sens*: "meaning is never a principle or origin; it is produced.... It is to be produced by new machineries."[\[8\]](#)