

Frampton's Lemma, Zorn's Dilemma

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Copulation and mirrors are abominable. For one of those gnostics, the visible universe was an illusion or (more precisely) a sophism. Mirrors and fatherhood are abominable because they multiply and disseminate that universe.

—Jorge Luis Borges

I do not believe there is such a thing as a perfect appearance. Even an epiphany is not in the theological sense a perfect appearance. . . . Appearance itself is imperfect.

—Hollis Frampton

To the abominations of copulation and mirrors one might add cinema. In a world where error, as Nietzsche teaches us, is the very precondition of thought, truth and beauty are always proximate to sophism and illusion. Cinema disposes of yet another set of codes which are available for ideological misappropriation. This disposition by means of seriality, exemplification, listing, and cataloguing operates within the limits of two antithetical functions. Either such listing is a subversive activity, destroying all taxonomic schemes, or lists serve as formal imperatives, constituting structures and systems. In the former case, a hermeneutic schema entails a de-centering and de-totalizing logic of events, operating according to the aleatory conditions of existence. In the latter, a hermeneutics entails a centering and totalizing logic of structures and formal systems, constituting a determinate axiomatics.¹

1. Apropos of this gross schematization of lists, consider the following set of analogies: closure : overture = conjunction : disjunction = homogeneity : heterogeneity = fusion : diffu-



Hollis Frampton. Zorns Lemma. 1970.

Hollis Frampton's film *Zorns Lemma* is structured according to a twofold axiomatic system. The first axiom is indicated by the film's title, which refers to mathematical set theory: "Zorn's lemma. The maximal principle: If T is partially ordered and each linearly ordered subset has an upper bound in T, then T contains at least one maximal element." The second axiom derives from the mystical philosophy expounded by Robert Grosseteste in *On Light, or the Ingression of Forms*, which offers a combination of neo-Platonic and Aristotelian philosophy to express a theology, ontology, and cosmology of light. A section of this text is read in the third part of the film.

These two axioms are already figured within the text recited in the first part of the film, the eighteenth-century Massachusetts elementary school lesson book called *The Bay State Primer*. The production of the sets and subsets in the second part of the film is determined by a system of substitutions and progressions ordered by the (abridged) twenty-four-letter alphabet of the English language used in the primer. The mathematical axiom is operative in the alphabetical order of the text; the theological axiom is operative in the biblical content of the text. Thus the twofold axiomatic system is articulated according to a double coding: structural and ontological.²

In both cases, the axiomatic systems postulate a maximally ordered universe and generate a maximally ordered film. We may compare the implications of Zorn's lemma and Frampton's theory of narrative in this respect. A corollary of Zorn's lemma is that "any set can be well ordered." This accords with Frampton's claim that narrative is one of the axioms of cinema, defined as Brakhage's Theorem: "For any finite series of shots ['film'] whatsoever there exists in real time a rational narrative, such that every term in the series, together with its position, duration, partition and reference, shall be perfectly and entirely accounted for."³ This narrative ordering obtains not only on the cinematic and meta-cinematic levels, but also on the micro-cinematic level, wherein every shot is already an ordering of the very frames which constitute it. Recognition of this fact (already made manifest in the single-frame work of Robert Breer as well as in Frampton's own film *Ordinary Matter*) permits Frampton the radical

sion = parity : disparity. On the relation between categorization and epistemological structures, see especially Michel Foucault, *The Order of Things*, New York, Pantheon, 1970. On textual and libidinal subversion, see Gilles Deleuze and Felix Guattari, *Anti-Oedipus*, trans. Robert Hurley, Mark Seem, and Helen R. Lane, New York, Viking, 1977.

2. Thus Annette Michelson is correct to claim that in this film Frampton "translated the contradictions between lyric and analytic modes" (Annette Michelson, "About Snow," *October*, no. 8 [Spring 1979], p. 116). Here, the lyrical is an expression of the mystical praise of God, a poetic mode of knowledge; the analytic is an expression of the mathematization of sign systems, a "scientific" mode of knowledge. Both modes are expressed by Grosseteste's onto-theology, and the rhythmic and transformational system is further delineated by the mathematical exigencies of Zorn's lemma. Both are subsumed by the all-encompassing province of Brakhage's theorem.

3. Hollis Frampton, "A Pentagram for Conjuring the Narrative," in *Circles of Confusion: Film, Photography, Video Texts 1968-1980*, Rochester, Visual Studies Workshop Press, 1983, p. 63.

conclusion that "a still photograph is simply an isolated frame taken out of the infinite cinema."⁴ (It is indeed the rare frame that does not meet the condition of a hapax.) This is the antithesis of Eisenstein's theory.

Why do we use montage at all? Even the most fanatical opponent of montage will agree that it is not merely because the film strip at our disposal is not of infinite length, and consequently, being condemned to working with pieces of restricted lengths, we have to stick one piece of it onto another occasionally.⁵

For Eisenstein, cinematic montage necessitates a thematic, an ordering principle; otherwise montage is nothing more than an empiricism on the formal level. Montage theory is a special case circumscribed by the general theory of dialectical materialism: the central trope of both theories is antithesis. Thus Eisensteinian montage does not entail a formally heterodox film practice, but rather a cinematic orthodoxy in relation to the meta-theme of dialectical materialism.

Frampton's theoretical stance is the guarantor of intertextuality within the de facto open system of cinema. His filmic practice is the generatrix of ordered systems which are subsets of a disordered universal cinema, wherein empirical conditions give rise to diverse metaphysics and metaphysics informs cinematic hermeneutics. Frampton's meta-thematic is the imaginary of individual consciousness; Eisenstein's meta-thematic is collective revolutionary praxis.

The specific configurations of the unavoidable narrative algorithms are generated by diverse rhetorical strategies. The antithetical epistemological functions of such algorithms (that is, the de-totalizing destruction of taxonomia or the totalizing construction of systems) find their prime structures in the respective figures of *accumulation* and *enumeration*. Accumulation is a mode of listing independent of any necessary formal or material connection between the constituent terms. Enumeration is a listing of attributes, a mode of predication, defining a central term by means of ancillary terms. Hence, enumeration implies a mode of subordination and determination, a systematization of terms. While the relation between terms in an accumulative list is *disjunctive*, the relation between terms in an enumerative list is *conjunctive*.

Within any enumerative system what must be determined is the central

4. Hollis Frampton, "For a Metahistory of Film," in *Circles of Confusion*, p. 111. As a corollary to this claim, consider Peter Kubelka's statement, "Cinema is not movement. Cinema is a projection of stills—which means images which do not move—in a very quick rhythm. And you can give the illusion of movement, of course, but this is a special case, and film was invented originally for this special case" (Peter Kubelka, "The Theory of Material Film," in *The Avant-Garde Film*, ed. P. Adams Sitney, New York, New York University Press, 1978, p. 40).

5. Sergei Eisenstein, "Word and Image," in *Film Sense*, trans. Jay Leyda, New York, Harcourt, Brace & World, 1947, p. 4.

term. The importance of this determination for filmic practice was recognized by Eisenstein: "Just as in the case of a homogeneous ideology (a monistic viewpoint), the whole, as well as the least detail, must be penetrated by a sole principle."⁶ Frampton expresses the same principle with a concrete example by explaining that in Japanese culture the supreme metaphor is Mount Fujiyama, because of its inevitable, central visibility. Thus, "all things were to be construed according to the number of qualities they could be seen to share with Fujiyama."⁷ The ultimate ontological generalization of this principle is stated by Merleau-Ponty: "Any entity can be accentuated as an emblem of Being."⁸ This claim may be emended with the corollary: any rhetorical trope or figure may serve as the organizational structure of a text.

Traditionally, in Western epistemology, there have been two such supreme metaphors: consciousness and God. Thus in a sense, all axiomatics are reducible to these terms: all accumulation is achieved in relation to them, and all enumeration is a determination and expression of their attributes. For Frampton, consciousness is the supreme mediator,⁹ organizing the dynamic codes of cinema, a cinema which can thus be nothing other than the expression, symptom, and enumeration of the qualities of consciousness. What, then, is the central metaphor of *Zorns Lemma*?

Every day is the beginning of the world.

— Hollis Frampton

. . . that harmony which makes every composition steadfast.

— Robert Grosseteste

To determine the narrative characteristics of *Zorns Lemma* according to Brakhage's Theorem, we may account for the "position, duration, partition, and reference" of the shots, sequences, and segments by means of the film's rhetorical structure. The topography, chronography, and prosography of its

6. Sergei Eisenstein, "A Dialectic Approach to Film Form," in *Film Form*, trans. Jay Leyda, New York, Harcourt, Brace & World, 1949, p. 48.

7. This fascination with Mount Fujiyama is of broader interest within American experimental film. One may note Robert Breer's film *Fuji*, as well as Harry Smith's avowed desire to have Andy Warhol make a film of the mountain (see Frampton, "A Pentagram for Conjuring the Narrative," p. 61).

8. Maurice Merleau-Ponty, *The Visible and the Invisible*, trans. Alphonso Lingis, Evanston, Northwestern University Press, 1968, p. 270.

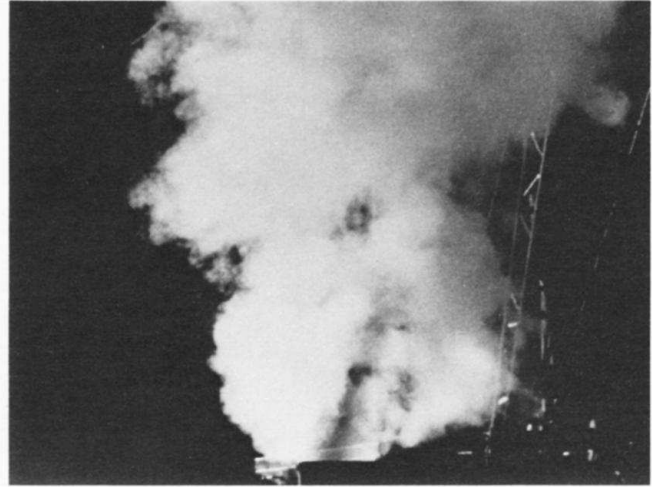
9. See Hollis Frampton, "Notes on Composing in Film," in *Circle of Confusion*, p. 124.

terms must be determined. This will simultaneously reveal the contours of consciousness and a divine cosmology.

The film begins as darkness, with the first enunciation a statement of collective guilt and responsibility read from *The Bay State Primer*: "In Adam's Fall, we sinneth all." This text, read over a black screen, provides the zero degree of subordination of the sound track to the visual track. (This lack of subordination will be strangely reversed in the second part of the film, which is silent but which presents words visually, perhaps to be recited.) The text is read by a female voice, maintaining the authority of enunciation within the disquieting paradigm of a voice unmediated by the presence of a body, a paradigm central to biblical theology and the iconoclastic tradition. This particularly happy disquietude vis-à-vis the tradition is due to the fact that it is a female voice which speaks; but the scenario will become even more disconcerting when the recitation of Grosseteste's text in the third part of the film is performed in rondo, one word per second, by six different female voices. This destroys the illusion of homogeneity of the enunciation's source, just as the visual track of the second section achieves the fragmentation and heterogeneity of narrative structures.¹⁰ Spectatorial pleasure is here a function of heterodoxy, where narrative is a function of secondary process ratiocination and allegory is a condition of truth.

The phrase, "In Adam's Fall, we sinneth all," bears as its referent both the Bible and the subsequent filmic texts and structures. Consequent to the Fall is the infinite distancing of God from humankind, which entails a form of knowledge based upon sense perception in a world fragmented by the ordeals of Chronos. Henceforth, God was manifest only through the Divine Logos, which had the dual referent God/world: it is precisely the significative rupture between these terms that necessitated hermeneutic procedures, and which led to the *reductio ad absurdum* of a God with either an infinite number of names or the name of God as the most general tautology. Yet it is precisely this name which is lacking in the film, but which is revealed by *pronomination*, that is, the designation of a thing by means of its attributes, qualities, and actions rather than by its proper name. This structure of absence is also supported by the last enunciation from *The Bay State Primer*: "Zacharias, he did climb the tree, his Lord to see." This futile task, to see the invisible, provides the articulation of the film's three parts: from Zacharias's tree we do indeed see the forest depicted in the third part of the film. But before that we are presented with the transformational complex of the film's second section, which is composed of sequences of one-second-long shots, ordered according to the alphabetical system already provided by the primer. The first sequence depicts only words; in subsequent sequences a shot of a word will be replaced by a shot without words, of a per-

10. The split-screen image of a woman speaking (in the second part of the film) serves as a figuration of the subsequent multiplication of voices in the third part, as was indicated to me by Chantal Khan Malek.



Hollis Frampton. *Zorns Lemma*. 1970.

son, place, thing, or event. This is the ultimate pronomination: God is represented by His creation, that is, by the world's diversity of Logos and Physis.¹¹ Such is precisely the cinematic representation of that "broken and scattered God" referred to by Borges in his tale, "Paradiso, XXXI, 108," which indicates that "something infinite had been lost."¹² The death of God is expressed in an epiphany of His partial representations. What remains is a disjunctive world and the set of arbitrary relations between words and things.¹³

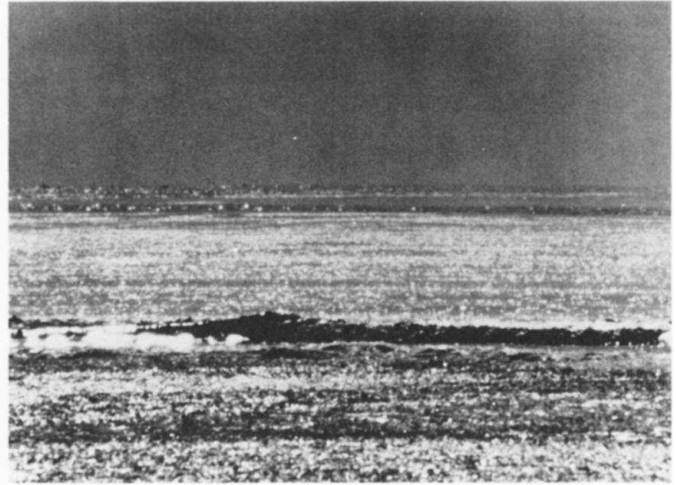
The structure of the first two parts of the film, a system of ordering and substitution based upon the order of the alphabet, is also emblematic of the film's theological referent. It is homologous with hymns to God structured as an alphabetical litany: such litanies offer a multiplication of praise to God, with each letter of the alphabet used to begin a word of praise, a hyperbolic predication of the Divine Being. The particular words do not matter as much as the liturgical structure itself.¹⁴ System as signifier; metaphysics as metaphor.

11. That the words *god*, *angel*, *divine*, *church*, and *bishop* appear by no means negates the argument for pronomination (antonomasia): these are merely more signs lost in the plethora of words and images, from which no centering term may be established except *Deo favente*.

12. Jorge Luis Borges, *Labyrinths*, trans. James E. Irby, New York, New Directions, 1964, pp. 238-239.

13. Such disjunction would become the subject of other films by Frampton, as well as a great part of the avant-garde cinematic tradition. The disjunction between voice and image (as the voice's source) is investigated in Frampton's *Critical Mass*; and while *Zorns Lemma* discloses the world's disjunction in a mode of filmic discontinuity achieved through editing, *Travelling Matte* discloses the world's disjunction in a mode of filmic continuity, where the shifts from abstract to representational images are determined by the variable framing and camera motion within what appears to be one long, unedited shot. Furthermore, the visual series of *Zorns Lemma* are the formal equivalent of the textual lists of *Poetic Justice*.

14. For example, in *Major Trends in Jewish Mysticism* (New York, Schocken Press, 1973),



Thus the double codification of *Zorns Lemma*, of structural and ontological modes, respectively generates accumulative and enumerative sequences, which in turn refer respectively to the world and to God. Yet God, as the conflation of the systems of infinite accumulation and infinite enumeration, entails the breakdown of the ontological implications of rhetorical figures: the literalness of “nature” becomes the zero degree expression of truth.

Furthermore, within the primary transformational matrix of the alphabet is expressed a secondary transformational system:¹⁵ in the second part of the

Gershom Scholem shows how the Hebrew alphabet was found by the mystic Abraham Abulafia to be the perfect, absolute object of mystical meditation. This is the case because the name of God reflects the hidden meaning and order of existence, and the name of God is contained within the alphabet. This notion was derived from the earlier Merkabah mysticism (which had direct ties to neo-Platonism), in which we find hymns structured as alphabetical litanies, such as:

Excellence and faithfulness—are His who lives forever
 Understanding and Blessing—are His who lives forever
 Grandeur and greatness—are His who lives forever
 Cognition and expression—are His who lives forever
 Magnificence and majesty—are His who lives forever
 Counsel and strength—are His who lives forever
 Luster and brilliance—are His who lives forever

and so on, following the sequence of the Hebrew alphabet.

15. These two transformational systems are expressed by Grosseteste's text. (1) Numerological transformation (homologous with the alphabetical system): “Nor are all bodies of the same form though they have their origin in a simple light. Just as all numbers are not of the same form, though they are greater or lesser multiples of unity. Whenever the number one of form and the number two of matter and the number three of composition and the number four of entirety are added together they make up the number ten. Ten is the full number of the universe because every whole and perfect thing has something in itself like form and unity, and something like matter and the number two and something like composition and the number three and something like entirety and the number four, and it is not possible to add a fifth beyond these four.



Hollis Frampton. Zorns Lemma. 1970.

film the first four images that replace shots of words represent fire, water, air, and earth, that is, the four elements of which the cosmos is composed according to popular pre-Socratic belief, codified by Empedocles, incorporated into Platonism, and subsequently utilized by Grosseteste (in the text read in the film's third part). Every object is composed of a well-ordered combination of the four elements, and it might be noted that according to some mystical iconoclastic theologies these four elements will merge during the apocalypse. As the cosmos is structured between the composition and decomposition of its constituent elements, so this film is structured between the lack of light and the pleni-

Therefore every full and perfect thing is a ten. But from it it is clear that only the five ratios from between the four numbers, one, two, three and four, are fitted to that harmony which makes every composition steadfast." (2) Ontological transformation: "Matter for the four elements was assembled in the ninth sphere which is the sphere of the moon. The ninth sphere engendering daylight from itself and resembling the mass within itself has brought forth fire. Fire engendering light has brought forth air. Air engendering from itself a bodily spirit has brought forth water and earth. But earth is all the higher bodies because the higher daylights were compressed together in the earth and the light of any sphere may be drawn forth from the earth into acts and operations."

tude of light, between the blackness of the first section and the white light into which the snow scene of the third section fades. Between the darkness before creation and the pure white divine light of the apocalypse, we have the second part of the film, that is, the representation of the diversity of the world and language. The film is composed between the perfect antithesis, darkness and white light, the stuff of all cinema.¹⁶

So I asked him if he thought angels would speak in a language without images, purer and akin to light. "Angels must be very good to eat. I would imagine they are very tender, between chicken and fish."

—Peter Kubelka
interviewed by
P. Adams Sitney

The heresies we should fear are those which can be confused with orthodoxy.

—Jorge Luis Borges

The shot of the ibis (the final image of the second part of the film) is startling in its color, its placement as the maximal element in the transformational series, and its brevity: it alone among the nonlinguistic images in the film appears for only one second. (This is an eschatology not without humor: the shot of the ibis occurs immediately after the shot of an egg frying on a pan, thus reviving and reconstituting the myth of the phoenix.) The ibis was the Egyptian god of wisdom, symbolic of the spiritual, of the highest level of existence. It here serves as the articulation between the second and third parts of the film, and also serves as an analogue for the phrase articulating the transition between the first, second, and third parts: "Zacharias, he did climb the tree, his Lord to see." Both the ibis and the object of Zacharias's gaze indicate the subject of Grosseteste's neo-Platonic ontology/theology of light, which is related by

16. Peter Kubelka's *Arnulf Rainer* is one of several films composed within the strict limits of this antithesis of black and white. As for the narrative structure of *Zorns Lemma*, it must be said that, appropriate to its apocalyptic metaphor, it is highly teleological. The substitutive shots are often those of (necessarily fragmented) brief events (such as tying a shoe, painting a wall, changing a tire), whereby the end of the second section is indicated by the progress of these events towards completion. These true teleologies find their counterpart in Frampton's film *Special Effects*, where the electronic soundtrack provides the anticipation of numerous (false) endings by producing sounds that seem to run down.

the text of the film's third section. That object is God, made manifest in the purity of light, from which all else emanates, especially the cinema.

It is quite appropriate that the initiates of Gnostical and Kabbalistic knowledge are known as *illuminati*, those who have been enlightened. We find, for example, in Lurianic Kabbalism a theosophical cosmogony which explains the role of light in the creation of the universe. As Gershom Scholem explains in *Major Trends in Jewish Mysticism*:

The first being which emanated from the [Divine] light was Adam Kadmon, the "primordial man." Adam Kadmon was nothing but a first configuration of the divine light which flows from the essence of En-Sof into the primeval space of the Tsimtsum — not indeed from all sides but, like a beam, in one direction only.

To the abominations of mirrors, copulation, and cinema, one might add God. We find here an expression of the infinite cinema of which Frampton writes: God is the infinite film projector; world and humankind and language are the film that is projected by means of the pure, white, Divine light. And my life, and yours, are partially ordered sets of that maximally ordered set. As is that synecdoche of the infinite film, Frampton's *Zorns Lemma*.