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“Phosphene Polymorphisms and *Dis Legomena*”
Critical Mass: The Legacy of Hollis Frampton
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As far as I can tell, and to whatever degree of flippancy you prefer, Hollis Frampton thinks that the history of cinema runs a course of some 350 million years. Prehistoric times saw music claim its place as the first cinema,¹ Plateau’s phenakistoscope heralded the first “true cinema,”² the years 1895 to 1943 witnessed cinema’s “proper epoch,”³ and we’re currently inhabiting the era of metahistorical cinematic art production. What’s more, even at this eons-old stage, the cinema finds itself merely “verging on adolescence.”⁴ It is, as Frampton said in 1977, “a young art.”⁵ But it’s also, in its “total historical function,” not a medium of art at all, he said, but rather “this great kind of time capsule,” the stuff of a universal archive.⁶

Hence, the impetus for Frampton’s claim that the entirety of art history may well amount in due time to an overwrought footnote to film history. He makes this footnote statement on two different occasions, once in the 1976 paper “Notes on Composing in Film,”⁷ and before that in his 1973 letter to Donald Richie⁸—written, of course, on the occasion of Richie’s failure to anticipate the argument made 30 years later by Scott MacDonald that academics have an “ethical

¹ Peter Gidal, “Interview with Hollis Frampton,” *October* 32 (Spring, 1985): p. 105.

² Hollis Frampton, “For a Metahistory of Film: Commonplace Notes and Hypotheses,” in *On the Consecutive Camera Arts and Consecutive Matters: The Writings of Hollis Frampton*, ed. Bruce Jenkins (Cambridge: MIT Press, 2009), p. 133.

³ *Ibid.*, 135.

⁴ Frampton, “Notes on Composing in Film,” p. 154.

⁵ Lecture at Mills College, April 29, 1977. Reprinted in Scott MacDonald, *Canyon Cinema: The Life and Time of an Independent Film Distributor* (Berkeley: University of California Press, 2008), p. 269.

⁶ Gidal, p. 98.

⁷ Frampton, “Notes on Composing in Film,” p. 154.

⁸ Frampton, “Letter to Donald Richie,” p. 160.

responsibility” to avoid “exploiting the labor and financial risk-taking of filmmakers.”⁹ Suffice it to say that the “art history as footnote to film history” claim stands as a striking *dis legomenon* in Frampton’s work, occurring twice and demanding at least some degree of serious consideration, regardless of just how much light-heartedness may reside within the idea. This footnote comment stretches both backward and forward in time. It harks back to protocinema, for instance, pointing to the “axiomatics of every discipline from which film has, willingly or unwillingly, borrowed.”¹⁰ And at the same time, the vague, undefinable notion of “whatever evolves from film” vaults us forward into contemporary and future media convergences. “However fascinating [film] is,” Frampton said, “however much we may be deeply involved, implicated . . . it may turn into something else and we should perhaps be prepared . . .”¹¹

In this paper, I’m going to locate a few additional *dis legomena* in Frampton’s writings—a few particularly vexing things stated twice. In so doing, I hope to conceptualize a frame for the metahistorical project—encapsulating both Frampton’s impossibly expansive periodizations of cinema history *and* his more conceivable spectrum of proto- to post-(or current)-cinematic technology. How does the metahistorian adapt to cinema’s shifting technologies, and where do these shifting technologies leave Frampton’s own corpus of films, residing as it does in the endangered gauge of 16mm?

Frampton took it upon himself to define the metahistorian’s tool of preparedness for the future. Overseeing the vast film archive, and indeed reproducing it anew with every passing ecstatic

⁹ Scott MacDonald, “Professional Myopia: How American Academe Is Failing Cinema,” *Quarterly Review of Film & Video* 19 (2002): pp. 201-207.

¹⁰ Frampton, “Notes on Composing in Film,” p. 154.

¹¹ Lecture at Mills College, April 29, 1977. Reprinted in MacDonald, *Canyon Cinema*, p. 269.

instant, is Frampton's infinite-film-yielding "polymorphous camera," introduced in true *hapax legomenon* fashion in the metahistory essay.¹² As Jim Hodge just put it, it's metahistory's "media-conceptual *a priori*." Whatever frame the metahistorian isolates from the infinite film has, at some point, passed through the film gate of the polymorphous camera.

I would like to hypothesize that the polymorphism inherent to Frampton's polymorphous camera is not just your run-of-the-mill kind of general polymorphism—definition number one in the dictionary. Rather, I'd like to think he's alluding specifically to computer science's concept of polymorphism, as it was introduced by Christopher Strachey in 1967, four years before the publication of "For a Metahistory of Film."¹³ A polymorphous command in a programming language is a command that can work with different data types, without necessarily specifying those data types or classes in advance. A book about programming in C++ puts it this way: "Without modifying the system, ... programmers can use polymorphism to accommodate additional classes, including ones that were not even envisioned when the system was created."¹⁴

Applied to a polymorphous, infinite-film-yielding camera, this definition suggests a hypothetical optical device capable of handling pictorial data in whatever form those data come to take as technologies change. And the camera, always and forever turning, has the capacity to adapt to these shifting data types without those data types' necessarily being specified in advance. In its self-perpetuating form, the polymorphous camera is adaptable to (and therefore swallows up)

¹² Frampton, "For a Metahistory of Film: Commonplace Notes and Hypotheses," p. 134.

¹³ Strachey delivered the original lectures at the International Summer School in Computer Programming in Copenhagen in August, 1967. They are reprinted in "Fundamental Concepts in Programming Languages," *Higher-Order Symbolic Computation* 13 (2000): pp. 11-49.

¹⁴ Paul J. Deitel and Harvey M. Deitel, *C++: How To Program* (Upper Saddle River, New Jersey: Pearson Education, 2008), 696.

whatever data come its way. Mark Hansen has written that digital data is “at heart polymorphous,” citing its “polymorphous potential” to exceed typical cinematically enframed bounds.¹⁵ It’s as though the polymorphous camera’s infinite filmstrip stands at the ready to morph into a charge-coupling device—or complementary metal-oxide-semiconductor, or whatever happens to come along to bear the cinema its raw data.

In its adaptive, generative capacity, the metahistorian’s polymorphous camera clearly takes on a very different role from that of other media so often metaphorized as all-encompassing history-seers. Consider, for example, Oliver Wendell Holmes’s prediction of an infinite stereographic library in the 1860s, in which everything was to be photographed “with camera-lenses of the same focal length, at the same distance, and viewed through stereoscopic lenses of the same pattern,” in order to create a totalized history of forms spelled out in easily accessible images.¹⁶

We might also think of the magical luminal of which Ernst Jünger’s historian protagonist was so suspicious in the 1977 novel *Eumeswil*.¹⁷ Or even D. W. Griffith’s dream of an infinite cinematic database of history: “You will merely seat yourself at a properly adjusted window, in a scientifically prepared room, press the button, and actually see what happened.”¹⁸ Frampton’s conception of “the universe as a vast film archive” assumes, paradoxically, a similar figure:

“Presumably somewhere in the ... undiscoverable center of this whole matrix of film-thoughts, is an unlocatable viewing room in which, throughout eternity, sits the Great Presence screening the

¹⁵ Mark Hansen, *New Philosophy for New Media* (Cambridge: MIT Press, 2004), p. 34.

¹⁶ Oliver Wendell Holmes, “The Stereoscope and the Stereograph,” in *Soundings from the Atlantic* (Boston: Ticknor and Fields, 1864), pp. 163-164.

¹⁷ Ernst Jünger, *Eumeswil*, trans. Joachim Neugroschel (New York: Marsillo Publishers, 1993).

¹⁸ D. W. Griffith, “Five Dollar “Movies” Prophesied,” *The Editor* (April 24, 1915). Quoted in Anne Friedberg, *Window Shopping: Cinema and the Postmodern* (Berkeley: University of California Press, 1993), p. 181

infinite footage.”¹⁹ But, of course, an imposition of timelessly truthful images of past time is most definitely *not* the object of Frampton’s polymorphous camera. In a sense, in fact, the polymorphous camera turns both in precise accord and utter opposition to a particularly enlightening 1888 media metaphor for history. This media metaphor—it appears in an education manual—argues two things about history: 1) that it will “ever remain a composition”—that is, an art in constant revision of its “rational fictions,” and 2) that history “is never a lifeless photograph that can be handed around.”²⁰ Certainly Frampton would agree that the history of film will in fact “ever remain a composition.” But he would balk at the notion of history as a “lifeless photograph.” It’s more like a living string or filmstrip of photographs—a filmstrip whose every successive exposure alters the whole shebang, thus turning all past exposures on the infinite filmstrip not into something “lifeless,” but rather something generative, and, by virtue of its constant generation, also something wholly, yet somehow constructively, irrecuperable. One wonders if the hexagons so prevalent in the film *Traveling Matte* have anything to do with the hexagons that compose Borges’s Library of Babel.

We need only locate another *dis legomenon* in Frampton’s writings to pinpoint the metahistorian’s position relative to cinema’s history. If it’s not what Griffith or Holmes envisioned, then what is it? In “Notes on Composing in Film,” he proposes a morphology of cinema that “views film not from the outside, as a product to be consumed, but from the inside, as a dynamically evolving organic code.”²¹ And in “Incisions in History / Segments of Eternity,” he writes the following of photography and its “prodigious sibling” cinema: “Viewing them

¹⁹ Gidal, p. 98.

²⁰ Louis Richard Klemm, *Educational Topics of the Day: Chips from a Teacher’s Workshop* (Boston: Lee and Shepard Publishers, 1888), p. 353.

²¹ Frampton, “Notes on Composing in Film,” p. 155.

from the outside, we seem curiously unwilling to trust the discoveries made, in all the arts, on the ‘inside’, where their substance and implications are recreated, *ab ovo*, in every really new work.”²² So, inside versus outside. The inside mode of history, as Frampton writes in the metahistory essay, constructively moves us away from history as fact and back to the muse Clio’s “rational fictions”—visible only by diving *inside* film and thus concurrently absconding from a bird’s-eye view outside or above it.

We might understand Frampton’s polymorphous camera to produce in this regard a paradoxical combination of what Leo Braudy called, in 1976, “open” and “closed” films. Where the closed film maps out a narrative’s every motivation and stylistic pattern from above, the open film refuses to “elicit order from the world.” The open film “has a contingent relation” to the world, as does, I think we can safely say, the polymorphous camera. But so too does Braudy’s description of how a closed film “burrows inward,” trying to “get at the invisible heart of things, where all connections are clear”—so too does *this* description benefit Frampton’s polymorphous camera.²³ For Frampton, cinema is privileged ontologically as a model for how we *cannot* see: we cannot see definitively, teleologically, totally, essentially, etc. This is akin, I think, to Jean-Louis Comolli’s 1978 assertion that we should recognize the “blindness at the heart of the visible”—that is, the manner in which every image, bountiful and frenzied as the corpus of all images may be, merely implies the lack of another image.²⁴ The *inside* view of film’s morphology that Frampton twice advocates is one that operates on a constructive blindness.

²² Frampton, “Incisions in History / Segments of Eternity,” p. 37.

²³ Leo Braudy, *The World in a Frame: What We See in Films* (Chicago: University of Chicago Press, 1976), pp. 44-51.

²⁴ Jean-Louis Comolli, “Machines of the Visible,” in *The Cinematic Apparatus*, ed. Teresa de Lauretis and Stephen Heath (New York: St. Martin’s Press, 1978), p. 141.

Consider a particular structural tactic so prevalent in Frampton's films: the frequent inset, for a beat or two, of blank leader or slug, whether black, green, red, whatever. These shots appear in *Remote Control*, *Otherwise Unexplained Fires*, *More than Meets the Eye*, for example. They function both to establish at least a semblance of algorithmic, iterative editing *and* to compile fast-motion images in such a way as to exceed the viewer's capacity to crack the code, so to speak. Any of these insets of black may, the viewer realizes, signal the end of the film. But, of course, all but one of them do not. It's easy to imagine the iterations of footage continuing ad infinitum, long after the projector (but not the polymorphous camera!) has ceased to turn. In this sense, it's not only metahistory's polymorphous camera that adapts to the future of pictorial code; it's also, quite possibly, each individual film that does so, or least those of a metahistorical persuasion. The "dynamically evolving organic code" that results from an *inside* view of film's morphology is both all-encompassing and, paradoxically, blind to its own future iterations. Hence, a third, somewhat understated *dis legomenon* in Frampton's writings: between the "polymorphous camera" and the inside-oriented "organic code," we see how the metahistorian of film was to have worked on the model of computer science from the very get-go.

But where does the adaptive nature of the polymorphous camera leave Frampton's own body of films? I want to close with a consideration of how Frampton's gauge of choice (and of financial necessity) might fit into these provocative periodizations of cinema history, and how the future of 16mm film may well determine its past, in retroactive fashion.

To speculate on this issue, we might consider the two main reasons why tomorrow is a monumental day: 1) Frampton's colleagues and friends and interviewers will gather for a conversation about his legacy, and 2) it's Super Bowl Sunday. Consider what Frampton says in the essay "The Withering Away of the State of the Art": "Film and video share similarly athletic paleontologies: that of film yielding racehorses, and that of video, wrestlers."²⁵ Perhaps, incidentally, these are the same wrestlers that he had in mind when he composed shot number 128 for *Poetic Justice*: "Middle Shot—Bedroom. Love making. Outside the window are wrestlers in a tag match." If early film's fossils are racehorses and early video's fossils are professional wrestlers, then a prime paleontology of the media convergence that Frampton foresaw will prove, I'm rather sure, to be professional football players. I say this with utter sincerity. In Miami tomorrow night, a subsidiary of the National Football League called NFL Films will shoot somewhere in the neighborhood of 125,000 feet of 16mm film—spread among 25 or so cinematographers, around five of whom will be shooting the whole game at a whopping 120 frames per second.²⁶ For the sake of comparison, we might note that 125,000 feet of 16mm film is equal to about one-and-a-half go-rounds of the proposed Magellan Cycle.

Within a few days, the dozens of hours of 16mm Super Bowl footage will find their way, in whittled fashion, of course, onto personal computers and television highlight shows and ipads and ipods. The company is in the process now of creating searchable databases of their hundreds of terabytes' worth of 16mm film footage, and they're color correcting jerseys so that a 1979 Archie Manning might convincingly be made to complete a pass to a 2010 Reggie Bush. To aid

²⁵ Frampton, "The Withering Away of the State of the Art," p. 261.

²⁶ These figures are based on those regarding NFL Films's coverage of the 2009 Super Bowl. See "Covering the Super Bowl," <http://motion.kodak.com/motion/uploadedFiles/superBowl.pdf>.

in this rapid media transmigration, NFL films built a new 50-million-dollar facility in 2002, complete with its own 16mm film processing lab. Recently the company's CFO has said, on the point of rapidly changing information technology, that the company built the facility to last 30 years, but also accounted for the building's necessary adaptability to new demands.²⁷ Especially when applied to shifts or ruptures in inscriptive display technologies, that figure 30 years may ring a bell for Frampton scholars. In November 1979 Frampton predicted that the silver supply requisite for film production would be washed up within 30 years, implying, I suppose, that the polymorphous camera would by that point have adapted to cinema's next technological format.²⁸ Do the quick math and you see, as it is now, that we're living on borrowed time. NFL Films is Kodak's largest consumer of 16mm film, and I imagine that the future of 16mm camera stock—and, it logically follows, the future of 16mm print stock—may very well depend on the ability of a football fan to distinguish film from video, to say to himself or herself something like: "The grain structure on this new 500T Vision 3 color negative is spectacular, and I simply wouldn't have it any other way." But, we have no cause to worry as long as we believe that the metahistorian's polymorphous camera can always and forever and adequately obtain an *inside* view of 16mm films, even those tending toward the modernist and metahistorical. Frampton said in 1980 that he wouldn't be offended by video distribution if only tvs had 2000 lines of resolution.²⁹ I guess we should hope that NFL Films keeps shooting 16mm, and that Kodak keeps making print stock, at least until 1080p becomes 2000p. Just to be safe, I might suggest that you all develop an obsession with football and buy the Super Bowl highlight dvd in large quantities. If need be, it's not that hard to imagine the players as so many

²⁷ Matt Villano, "Interview with NFL Films CFO Barry Wolper," *CIO*, http://www.cio.com/article/28175/Interview_with_NFL_Films_CFO_Barry_Wolper.

²⁸ Frampton, "The Invention without a Future," p. 178.

²⁹ Frampton, "Talking about *Magellan*: An Interview," p. 236.

helmeted Yvonne Rainers performing a piece called “works and days on a grass field demarcated by chalk.”³⁰

Finally, a quote from an 1869 essay by someone named Samuel Highley called “Photography and the Magic Lantern Applied to Teaching History”: “He would be a bold man who would venture to suggest to the Dons of Oxford or Cambridge the introduction of a magic lantern for illustrating ... History.”³¹ I would say that the infinite film’s polymorphous camera may well be the magic lantern of Hollis Frampton, that veritable Oxford Don version 2.0. Presumably, he had faith that even his own history would be protected and cherished under the polymorphous camera’s adaptive eye.

³⁰ P. Adams Sitney reminded me at the conference that it was Maya Deren who was obsessed with American football and wanted to make a film about it.

³¹ Samuel Highley, “Photography and the Magic Lantern Applied to Teaching History,” *Journal of the Society of Arts* (January 22, 1869): p. 140.