



MATERIAL PRACTICE
FROM SPROCKETS TO BINARIES



BRADLEY EROS - HOLLIS FRAMPTON - JANIS CRYSTAL LIPZIN
MICHAEL SNOW - JODI - TACITA DEAN



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MATERIAL PRACTICE
FROM SPROCKETS TO BINARIES

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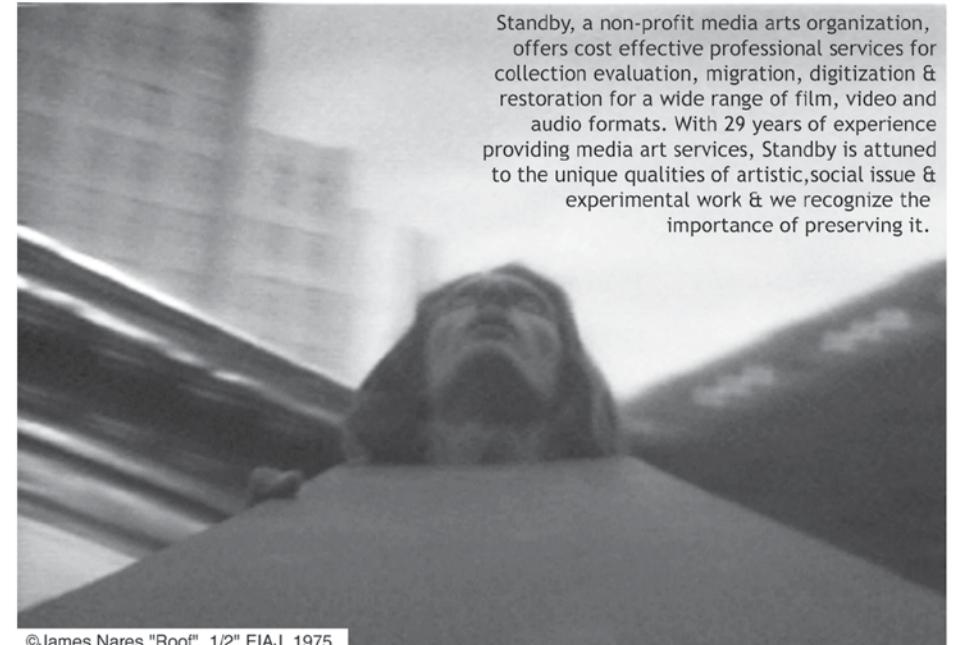
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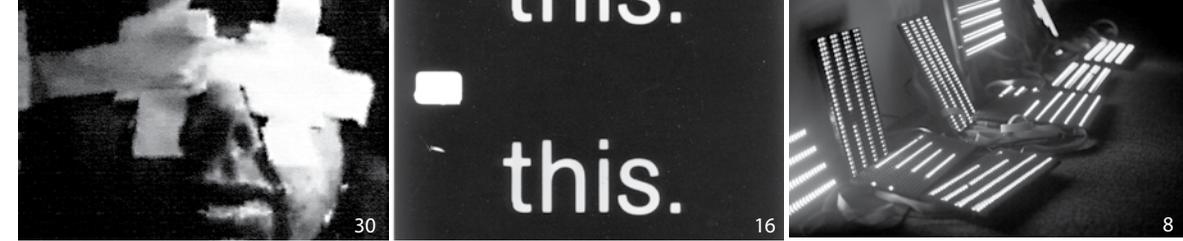
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Bradley Eros, *magenta space* (1999), 35mm slide collage. Courtesy the artist.

Title Page
Sandra Gibson and Luis Recoder, *Light Spill* (2005), 16mm film projector, 16mm film, screen; *Lonely at the Top: Graphology Chapter 4*, curated by Edwin Carels, MuHKA, Antwerp, Belgium, August 25 – September 25, 2011. Photo Courtesy of MuHKA.

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INTRODUCTION

With the bankruptcy of Kodak, the movie industry's embrace of 'the digital', the reduction of services by some film labs and the closing of others, the photochemical cinema appears to be in free-fall. However, moving image artists around the world continue to use film with commitment and enthusiasm, many of them producing works that foreground the material substrata of the medium in one way or another. In a parallel move, artists working with electromagnetic media seek out ways to ground their explorations in bits and bytes, developing homemade technologies that expose the material (or immaterial) underpinnings of digital media.

Tacita Dean has become a high-profile spokesperson for the necessity of maintaining the technologies and materials of the photochemical. Her recent installation, titled *FILM* (reviewed in this issue), was a two-story high, portrait-format projection in the cavernous Turbine Hall of the Tate Modern, funded by the global mega-corporation Unilever. The accompanying catalogue is an impassioned, multi-vocal argument for the perpetuation of celluloid and the photochemical, as a medium for artistic endeavors above all else. And the idea of film as a medium primarily for artists is one of the themes of this issue of the journal.

The center of Dean's personal commitment to film is in the regiments and methodologies the medium demands from its practitioners, with the implication that the practices of the artist are essentially communicated in the 'aura' of the work. Her description of editing on a Steenbeck flatbed highlights the significance of the working process to her: "to cut something in or take something out and then spool backwards to the beginning to watch how it has worked, is the time of film and the time of film edited, as well as a time of deep thought, concentration, and consideration. I need that material resistance to my ideas and that is what I am most afraid of losing." (Tacita Dean, *FILM*, ed. Nicholas Cullinan [2011: London, Tate Publishing] p. 20)

Janis Crystal Lipzin, who has been working in film for over three decades, also describes the medium as a collaborator in the artistic process, but in different terms. The optics, mechanics and chemistries of the photographic apparatus and processing required (which Lipzin often undertakes herself) function like a dance partner, sometimes leading, sometimes following, but always contributing to the work in ways beyond the artist's control. Several of Lipzin's images, as well as her own description of her working process, are included in this issue. Katherine Bauer, whose images also appear in this issue, describes her attitude in these terms: "Film is now able to free itself to become something new now that the entertainment industry is abandoning it. It's like what happened to painting when photography came around...it freed up the medium to explore the true nature of its materialism." (Katherine Bauer, personal communication).

It is certainly the case that for some artists, the embrace of the photochemical is motivated, at least in part, by a rejection of the menu-restricted, market-driven, rapidly obsolescent production processes and costly tools produced by Sony, Apple, Adobe and other corporate giants, the whole package (at least on the low end) sustained by almost a paint-by-number aesthetic. On the plus side, the ease of use of these tools has provided practically universal access to the once arcane procedures of movies production, and, along with millions of hobbyists and dilettantes, many serious artists from non-cinematic disciplines have taken advantage of the lightweight equipment and the availability of technologies formerly requiring the expensive expertise of film labs, mixing studios, and post-production facilities. Many artists with long-established film practices have also moved over to digitally based media. Some of them, such as Bruce Elder, whose work is discussed in Jihoon Kim's article, and others who never used film, have produced works exploring the foundations of digital media, even if there are no physical materials to be found in the abstract domain of binary numbers, data, algorithms, and codecs.

For many artists, however, the medium of film, with its specific visual qualities and technical requirements, remains the preferred means of personal expression, and one of the reasons may be the desire to distinguish their work from the endless swamps of YouTube, Vimeo, etc. Along with the commitment to personal expression, there has always been a powerful current of subversion in the sea of experimental cinema. Bradley Eros notes "the politics of resistance often involved in analog culture. Some, not all, see it as a critique of consumer capitalism and the seductive

marketing of the 'always new' . . ." An allegory of resistance underlies Eros' explorations of the breakdowns and limits of photochemical production the cracks and fissures of film baked or burned in the projector gate, the beauties that emerge at the snags and stoppages of cinematic production.

One of the foundations of the materiality of film is its processing chemistry. We are honored to be able to include a previously unpublished lecture by Hollis Frampton on that subject. Gerald O'Grady provided the transcription of the three-hour lecture, delivered without notes in 1976 at Media Study Buffalo, the influential institution O'Grady started in 1972. Frampton's legacy is an undercurrent throughout this issue, most explicitly in Evan Meaney's video *ceibas: epilogue – the well of representation* (discussed by Chris Kennedy), which reconceives Frampton's final work *Gloria* as a lo-fi video game. Frampton's work is both reference and inspiration for both photochemical and electromagnetic practitioners who take the materiality of their media as subject-matter, including some of the filmmakers analyzed in Martin Rumsby's essay: Steven Woloshen, who buries sugar-coated archival footage in the earth as a supplementary form of processing; Richard Tuohy, who works with lens flares, superimpositions and specific chemical processes and Greg Biermann, who applies systematic (digital) post-production techniques to scenes from classic movies, bringing out qualities that would otherwise be unnoticed.

However . . . a comparison of film and 'digital' as if they were alternative production media is fundamentally unsound. Unlike celluloid film, with its clearly defined photochemical architecture, the digital is not a *medium*. The term 'digital' covers multiple modalities, with the single common feature that at some stage in the transition from the perceptual through the computer and back to the perceptual, data has been encoded numerically (i.e. *digitally*) for transfer, storage, or transformation, and then decoded so as to be available for perception. Even when 'digital video' means 'captured with a digital camera', there is a wild range of visual qualities, encoding techniques, and methodologies—different capture devices produce images that can be either markedly distinct or visually indistinguishable from film, inferior in ways that can only be experienced, or superior in measurable terms such as resolution, color palette, and dynamic range.

Although the single definable feature of the digital is its numerical foundation, the generally accepted immateriality of the digital has been foregrounded and undercut by artists at least since the beginning of the 21st century, as Jihoon Kim points out in his analysis of the hybrid work of Bruce Elder. There is a range of approaches. Some artists embrace the areas of digital malfunction, exposing armatures of numbers, pixels, and pages of code, while others highlight such unwanted but frequently unavoidable effects as artifacts, noise, errors, crashes and out-of-control, hyperactive machine behaviors. The term 'glitch' is often used in descriptions of these artworks, even in the title of Peter Krapp's recent book, *Noise Channels: Glitch and Error in Digital Culture*, a survey of works by such artists as Cory Arcangel, Nick Montfort and JODI. Both this book and JODI's recent retrospective at the Museum of the Moving Image are reviewed in this issue. Another approach is to emphasize more neutral and necessary (though still non-material) aspects of the digital. Clint Enns' contribution is a history and analysis of algorithmic editing, looking closely at the work of several artists including Barbara Lattanzi (who published in the 2003 issue of this journal the source code to one of her algorithmic editing schemes). Lattanzi is among the current practitioners whose interventions include development of their own digital devices, both material and not.

It is close to impossible to bypass the digital completely, including for those most committed to photochemical media. Even Tacita Dean's *FILM* relied on digital design and implementation technologies employed for the camera aperture gate masks specially developed for the work by architect Michael Bölling. In the so-called digital age, binary technologies are embedded everywhere we look, but, as the artists discussed in this issue demonstrate, this does not eradicate the complex crossovers and fissures between the Analog and the Digital, between works grounded in the laws of optics and chemistry and those grounded in the laws of mathematics.

Over the 34 years of its publication, many issues of the *Millennium Film Journal* can reveal only the tip of the iceberg of their subjects. The topics discussed in this particular issue are so widespread, so integral in the current climate of artists' moving image culture, and so expansive beyond that culture, that the metaphor is more apt than ever. It is our hope that the discussions in *MFJ 56* will fan outward, like the wave patterns in the ocean generated by the newly formed iceberg, larger than Manhattan, that this year separated from one of the mainland glaciers of Greenland. We also hope and expect that these tides will continue to ebb and flow in future issues of this journal.

GRAHAME WEINBREN



TACITA DEAN *FILM*

Tate Modern, London
11 October 2011 – 11 March 2012

“Film is chemistry: chemistry that has produced the miracle of the moving image” — Tacita Dean

In February 2011, London-based Soho Film Lab, recently taken over by the American company Deluxe, announced that it was discontinuing its 16mm printing services with immediate effect. This had been the only remaining 16mm lab in the UK, and thus a vital resource for the British experimental filmmaking community. Days later, on February 22, the *Guardian* newspaper published an eloquent polemic by Tacita Dean, one of the UK’s most outspoken supporters of 16mm, that made clear the devastating consequences of such industrial decisions on film as an art form. An online petition, signed by 5,849 people, was presented to Ron Perelman, the owner of Deluxe, to no effect. As Dean pointed out in her article: “Printing 16mm is an irritant to them, as it is time away from printing

feature films, and features are the industry and all that matters.”¹ This is, of course, part of a much bigger picture, with which any artist working with celluloid is now only too familiar: as digital technologies render analog filmmaking obsolete, the gap between film as a commercial industry and film as an art form becomes dangerously pronounced. No matter that celluloid-based practice is as unique as oil painting, as the film industry makes its universal transition to digital, artists mourning the immanent loss of their medium are told to move on: “evolve or die.” Dean challenged this state of affairs beautifully in the *Guardian* piece, echoing the sentiments of artists, academics and film lovers the world over:

Many of us are exhausted from grieving over the dismantling of analogue technologies. Digital is not better than analogue, but different. What we are asking for is co-existence: that analogue film might be allowed to remain an option for those

who want it, and for the ascendancy of one not to have to mean the extinguishing of another.²

Dean’s commission for the Tate Modern’s Turbine Hall directly emerged from and responded to this context. It was, to all intents and purposes, a monument to film – one perfectly designed to both draw on and draw out the epic proportions of the Turbine Hall itself. The previous commission – Ai Weiwei’s *Sunflower Seeds* – had seen 100m hand-painted porcelain seeds spread across the surface of the Hall in a mind-boggling conflation of the micro and the macro. Dean’s *FILM* – the 12th commission in the Unilever Series, and the first to focus on the moving image – seemed like the perfect follow-up. Dean took inspiration for the project from René Daumal’s *Mount Analogue*, an allegorical novel first published in 1952 that centers on a mysterious mountain reaching into eternity, hidden from normal perception by the laws of time and space, but visible to those that believe in its existence. This became, for Dean, a metaphor for film itself, as it enters “the illusory domain of being there only for those willing to board *The Impossible*.”³ *FILM*, then, is Dean’s *Mount Analogue*: standing 13-meters-high at the far end of the darkened Turbine Hall, it easily conjured up feelings of awe and a sense of the sublime.

The space itself seems to have been turned into a sacred place of worship, as visitors consider the work with respectful silence and reverence. I detect an air of uncertainty about whether the immense space between the projection and the single bench at the other end of the hall is meant to invite interaction with the image or quiet contemplation from a distance. I note that, apart from a brave few, most of the visitors have chosen the latter; or maybe it chose them, it’s hard to say. An artist friend standing next to me on the balcony ruminates in hushed tones on Dean’s techniques. “I think I can work out how she did this,” she whispers – the “how” seems to be as important as the “what,” as much a puzzle to be untangled as a spectacle to admire. But I have to admit that I’m asking myself the same questions, and I let the 11-minute loop unravel multiple times before I reach anything like a satisfactory level of technical understanding. As it happens, *FILM* is the result of an extremely painstaking artistic process that draws attention to itself as a statement about the material possibilities, as well as the limitations, of photochemical film. As a reaction to the “fix it in post” mentality of digital, Dean opted for an artisanal approach that would emphasize film’s “burdensome physicality,” a quality that, as she explains, “most are happy to lose [...] but for me that

is precisely what is important.”⁴ All effects were created in-camera, using a digitally designed mask that would allow for multiple exposures, and would create that all-important impression that the whole image is one big floating filmstrip. The vertical form of the work was the result of a simple but imaginative 90 degree rotation of a 35mm anamorphic lens, stretching the film from top to bottom rather than left to right, and thus producing “a portrait format film for a portrait format space.”⁵ And space is the key consideration here, since the audience is not simply watching a film; they are experiencing “film.” As Dean explains:

I chose to have the film happen inside the notional cinematic space of the Turbine Hall itself: Turbine Hall as a filmstrip, and conflate the imagined with the real in the wonder space that is experimental film.⁶

Inside this “meta” reflection are contained poetic scenes of natural phenomena – flowing water, sunlight breaking through trees – juxtaposed with surreal compositions and brightly colored flashing mosaics reminiscent of Mondrian. It is at once playful and profound, evoking the magic of early silent cinema, as well as the aesthetics of experimental film, from Hans Richter to Paul Sharits. The film is intricately staged and breathtakingly beautiful, a metaphysical journey into another time and space. I feel carried away on a wave of contemplation, but then my attention shifts back to the edges of the frame and the lines of sprocket holes, and I can’t help feeling that this context of the Turbine Hall as filmstrip bestows a sense of artificiality on the piece, making it too contrived to be meaningful in the way that I want it to be. There is also something eerie and otherworldly about the experience that makes me uncomfortable, and I realize that Dean’s installation has, perhaps unintentionally, framed the celluloid experience as strange and “other.” I wonder, then, if this monumentalizing of film, this “museumification” one might call it, might not end up supporting the attitude that Dean herself is trying to counter: that film is already dead. A quote by D.N. Rodowick comes to mind:

Fabricated from a precious metal and installed in galleries and museums, where they are meant to be viewed in unique situations as autonomous artworks, films are regaining a sense of aura, and, finally, film is becoming Art.⁷

IMAGES OPPOSITE
Tacita Dean, *Film* (2011), Installation views, Turbine Hall, Tate Modern, London.

And it is here, I think, that the problem lies. This gorgeous spectacle in front of which we are all standing (or sitting), open-mouthed, amazed and mesmerized, is *packaged as film*, and it is the sheer scale of it – its “aura” – that prevents us from understanding and experiencing it as anything other than a precious relic, a rarified object of visual pleasure and a spectacle of epic proportions.

Dean’s installation is a paean to film, and, after several subsequent visits to the Turbine Hall, I have to say that I was sad to see it leave. But *FILM* raises more questions than it answers, particularly in terms of the relationship between film and the gallery space. Is it enough to gaze lovingly at a work of celluloid whilst the medium itself is being asset-stripped? Should museums and galleries be doing more to preserve our cinematic cultural heritage than simply basking in its “aura”? Nonetheless, Dean’s concluding statement in the catalog accompanying the installation (an object almost as beautiful and as valuable as the installation itself, and a kind of manifesto that incorporates various reflections on analog technologies by 50 artists, writers and musicians) should be a source of inspiration for anyone who cares about the future of celluloid:

This book and this film are not valedictory; they refuse to be. But they are, nonetheless,

a call to arms. Culturally and socially, we are moving too fast and losing too much in our haste. We are also being deceived, silently and conspiratorially. Analogue, the word, means equivalent. Digital is not the analogue of analogue. At the moment we have both, so why deplete our world of this choice? We must fight to keep a foothold on Mount Analogue.⁸

Perhaps, though, this fight is better played out on the streets of real life than in the safe space of the gallery.

KIM KNOWLES

1 Tacita Dean, “Save celluloid, for art’s sake,” *Guardian*, February 22, 2011.

2 *Ibid.*

3 Tacita Dean, “FILM,” in *Catalogue for the exhibition FILM, 11 October 2011 – 11 March 2012* (London: Tate Publishing, 2011) p. 27.

4 *Ibid.*, p. 20.

5 *Ibid.*, p. 16.

6 *Ibid.*, p. 29.

7 D. N. Rodowick, *The Virtual Life of Film*, Cambridge and London: Harvard University Press, 2007, p. 158.

8 Tacita Dean, “FILM,” p. 33.

ERROR AS CRITICAL PRACTICE

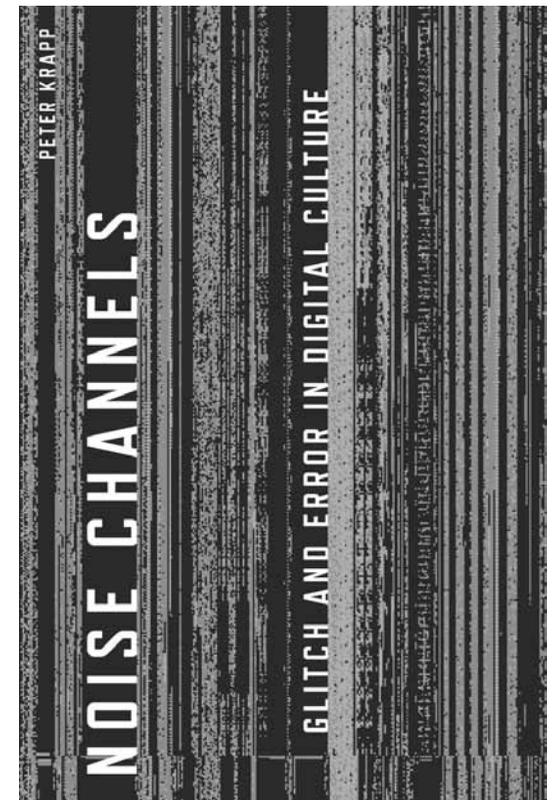
Peter Krapp's *Noise Channels: Glitch and Error in Digital Culture* (*Electronic Meditations*)

It is unfortunate that new media are, too often, presented, advertised, and displayed as clean and pure things in utopic spaces. Entirely transcendent and free from the dirt and grime of the fallen, material world – it would seem that these shiny new objects, in their equally seductive packaging, guarantee fun and pleasure without guilt, error, or frustration. And yet error, frustration, and breakdown are not only inevitable, with new media, they are definitive.

That we have forgotten the materiality and errors of new media arises in part through the long history of Western culture and its esteemed values of logic, reason, virtue, and truth. Functionalism and functional design rule the roost (how could effective businesses run any differently?). A second reason for forgetting the materiality of media is one specific to digital media: a field framed by discourses of streamlining and efficient processing, that is to say, the core principles of information theory and computer science.

In contrast, imagine a world of high technology ruled by the laws of error, glitch and failure. Welcome to Peter Krapp’s *Noise Channels: Glitch and Error in Digital Culture* (University of Minnesota Press, 2011) where the author argues that some digital dirt (glitch and noise) urgently need to be put back into our definition of information technology and digital computing. But what happens when noise – error, glitch, and static – become *constitutive* elements in computing, i.e. the “raw material” for critical and creative production? Don’t things begin to break down and stop working? Yes and no.

The line between information and noise is a precarious one. Historically this line has been drawn by scientists and theoreticians. In describing pioneering cyberneticist Norbert Wiener’s theory of communication, theorist Rudolf Arnheim explains, “information is defined as the opposite of entropy, and entropy is a measure of disorder.” (in Krapp, xv). This seems to be a logical distinction, but it is also an



arbitrary one, a result of “linear, historical, process-oriented thought,” as Krapp puts it. What then if we came to the understanding that “background noise is the ground of our perception, absolutely uninterrupted, it is our perennial sustenance, the element of the software of all our logic,” as French philosopher Michel Serres suggests? What then to make of any so-called distinction between signal and noise?

Consider also that the ideals of rationality, logic, and efficiency are just that: ideals. These long-held cultural fantasies and dreams of playing God or leaving the materiality of the body (uploading the brain into a computer), have nothing to do with how digital computers *actually* operate, are used, or are experienced. In our fast and sexy computer culture, we have arrived at a place where cold hard logic and immaterial information are dominant cultural axioms and definitive of what it means to “compute,” as such. In *Noise Channels*, Krapp shows how new media art dealing in glitch and error (also known as datamoshing, glitch aesthetics or low-fi net art) helps us to see *how* these values and ideals are historically constructed, or how they have abstracted the “material body” of information, as media scholar Katherine



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Hayles puts it. In the critical space of artistic and creative computer production, the so-called distinct terms of “signal and noise” are put into play. That is, their distinctions and differences collapse into each other to produce failure and errors, but failures that are equally productive of critical insights into the material workings of digital media. Krapp explores this paradox through a wide range of examples, including the work of JODI, Max Mathews, John Cage, Brody Condon, Nick Montfort and Cory Arcangel, all of whom are contextualized in a wealth of critical theory, philosophy, historical information, and game theory and fall into such art genres as hypertext and database narratives; media activism in the digital age; animation, machinima, hacking, and critical gaming. For these artists, noise, glitch, and “error” form the background *and* the foreground: the concrete and

material means for engaging politics and culture, and making critical interventions into dominant narratives and discourses about “clean and pure” information technology, consumer illusions of “seamless control” and mythologies of total “immersion” in digital worlds.

Noise Channels offers a timely approach to critical computing. Through accidental or computational “failures,” we are forced to see, even if for a moment, the sheer concreteness – *the material facticity* – of our human-computer being. “We are all naïve users at some point,” Olia Lialina notes, citing web pioneer Ted Nelson, “and we don’t need to be ashamed of this.” So too computers are, just like humans, prone to error and breakdown.

CAROLYN L. KANE

JODI: STREET DIGITAL

Museum of the Moving Image, New York
March 31 - May 21, 2012

“We are dead serious,” said Joan (with JODI’s usual deadpan affect) in response to the last question at their talk at EAI (Electronic Arts Intermix) in April. Joan Heemskerk and Dirk Paesmans make up JODI, the Dutch-Belgian art duo, whose work recently occupied a large gallery at the Museum of the Moving Image in Queens with several excellent pieces repurposing new technologies, entitled “Street Digital.” Struggling to find an end to the talk, JODI clicked on a link to one of their YouTube videos which had been taken down, producing an error message. This was appropriate, as JODI’s work emerged from the school of net.art in the mid 90s that embraced the ephemeral. Net.art artists (such as Alexei Shulgin and Vuk Ćosić) worked with specific moments of browser conventions, software, and interfaces as material, conditions that would exist for only a short time and then become obsolete.

When JODI first came onto the scene in the mid 1990s – called the “heroic period” of net.art by some – they were the mysterious hackers whose website of flashing and broken-looking source code appeared to take over your computer, creating a vortex of fascination that kept you clicking to see what would

happen next. Their off-kilter work offered a paranoia inducing but fresh reprieve from the more utopian expectations of the time that technology would be seamless, immersive and give the user total control over every task. As media theorist Florian Kramer has written, these works that foregrounded code, which was usually tucked neatly beneath the computer’s interface, “reflect the uncanny underbelly of network communication...” After infiltrating the Internet browser, JODI created their own misbehaving version of OSX and created formalist mods to popular video games. Beyond embracing the ephemeral, JODI’s work is guided by the urge to exploit the error or glitch. This reveals not what the computer can do, but an aesthetics of computing itself, an aesthetics that can be seen as both formalist and irreverent – irreverent like punk rock.

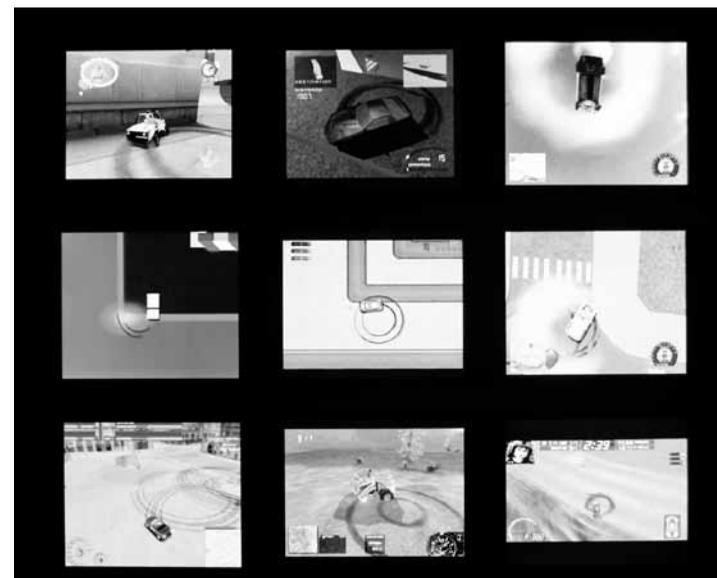
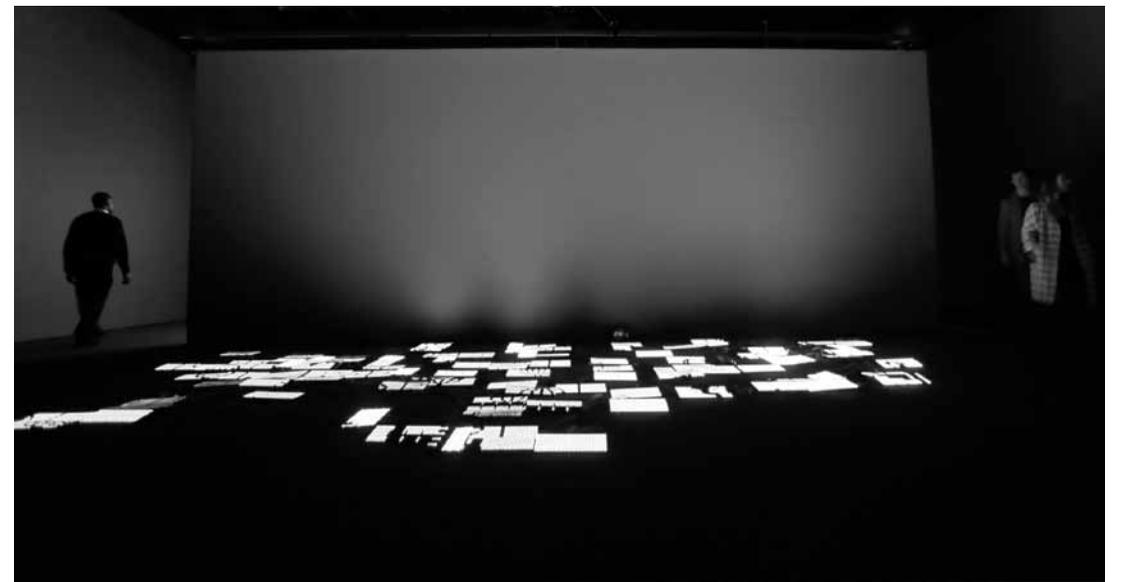
Unlike other art entities who made their name with net.art in the 90s, JODI has continued to hack their way through the cacaphony of successive technological innovations. Over the years, their playful and exhaustive reworking of hardware, software and popular media has led to a comparison with the work of Steina and Woody Vasulka. Since the 90s, computing has become more ubiquitous and integrated with the physical world, thanks to Wiis, mobile devices and smart architecture. Computing has also become more media rich, a condition enabled by broadband, consumer-friendly media making tools and social media. JODI has embraced these physical and popular aspects of computing, moving away

RIGHT JODI, *SK8Monkeys on Twitter* (2009/2012), A visitor performs *SK8Monkeys on Twitter*, an installation work.

BELOW JODI, *LED Puzzled* (2012), Installation view.

BOTTOM JODI, *Burnout (History of Car Games)* (2004-2012).

Part of “JODI: Street Digital,” at Museum of the Moving Image, March 31-May 20, 2012. Photos by Daniel Love, courtesy Museum of the Moving Image.



from the aesthetics of code to the aesthetics of other malfunctioning or misappropriated platforms. But as “Street Digital” reveals, JODI has drawn the delicious thread of irreverence practiced by earlier net.artists through these computing evolutions.

JODI may be not a part of the gaming community per se, but games are ‘fair game’ for their practice of *détournement*. In *Untitled Game* (‘96 – ‘01) they have made several mods to the game Quake by altering something which makes the game illegible in a usual way. Gone are the images of monsters and corridors and guns and in their place are streaming numbers or beautiful black and white patterns that look like an animated Bridget Riley op art painting. The four games are still playable and register the user’s participation (the mechanisms of shooting, moving through space and score keeping are audible and intact), but reveal the aesthetics of the computer beneath the representational mode of the commercial video game.

Some of the work in the show earns well the title “Street Digital” and gets the viewer/user/player/participant away from the computer almost entirely. In *Sk8 Monkeys* (2009), JODI takes on social media. A hybrid keyboard and skateboard that people step on sends texts randomly generated by the visitors’ feet to Twitter, alluding to the idea that monkeys typing for an infinite amount of time will eventually come up with a meaningful text like Shakespeare’s *Hamlet*. In *LED Puzzled* (2012), JODI has rearranged the parts of a low-res LED sign board so the original textual message is no longer legible. What we are left with is a pile of urgently flashing fragments that are dramatic and disorienting in the darkened room – a broken, epilepsy-inducing spectacle. Though still embodying JODI’s sardonic humor, these autonomous objects lack the synergy born of meeting the viewer/user/player/participant where they encounter computer technology more intimately, at home surfing the internet or clutching the controller in front of the video game. This synergy is reclaimed in *ZYX* (2012), JODI’s iPhone/iPad app. With the most minimal interface – a stick figure, an icon for the gyroscope, instructional text and the camera turned on you – the game convinces the player to become the embodied (and ridiculous) performer, acting out physical directions such as jumping up and down or spinning around ten times in order to get to the next ‘level.’

Recently JODI has turned their attention to networked, crowd-sourced video in *YCTC (Folksomy)* (2008/2010). “Folksomy” is a misspelling of the term folksonomy, which is the process of large groups of

people on the Internet developing a taxonomy through collective tagging. Here JODI shares an impressive quantity of videos they collected from YouTube of “people doing strange things with computers.” The few minutes that I watched included people of ‘web native’ age in suburban settings smashing things – hard drives, iPods, and other hardware – with a hatchet, skateboard, golf club, tennis racket, screwdriver, etc., transitioning into scenes of people putting electronic objects up their nose or in their mouth. Visiting their site folksomy.net myself later, I found a diptych of homespun music videos about the internet and email with a strong recurrence of keyboards, MySpace and Google logos, surreal dances and creative uses of text. The JODI filter for internet video reveals today’s absurdist underbelly of network communication that employs a recursion of narcissism and spectatorship. JODI’s proclivity for exploiting both the aesthetics of the amateur and the excess of available video media highlights their genius ability to respond to the latest techno zeitgeist.

Curator Michael Connor writes that JODI’s work updates structural film. Like structural film, JODI’s experiments with computing platforms privilege the materiality of the medium and champion the anti-representational. Unlike the bulk of structural film, which employs a durational aesthetic that can be torturous to the contemporary viewer, JODI’s aesthetic strategy is akin to the sensory rush of a casino – a different kind of flicker. Although it is very nice to see that with their museum show JODI is getting some of the attention they deserve, a major pleasure of their work is the sensation of a loss of control or unease prompted by the anticipated yet unexpected interruption, as in a horror film, and the museum setting has a neutralizing effect. I look forward to JODI’s hack for this platform.

RACHEL STEVENS



Evan Meaney, *the ceibas cycle: epilogue: the well of representation* (2011), frame enlargements. Courtesy the artist.

EVAN MEANEY: *the well of representation*

“The attraction and power, then, of computers is that they afford means to test and exercise our understanding of what we are doing with any tool, what we mean when we say that we make something, what we mean when we say that we know what we are doing.”

– Hollis Frampton, “About the Digital Arts Lab”

This statement by Hollis Frampton, written in reference to the Digital Arts Lab that he founded at SUNY/Buffalo with Woody Vasulka in 1977, is a perfect summary of the process of material inquiry into a medium’s characteristics. It also reflects Frampton’s own desire to move the material inquiry of film towards an inquiry into other modes of media, especially in relationship to the then-emerging possibilities of computers. This desire is reflected in the work of Evan Meaney, and his extremely clever *the ceibas cycle: epilogue: the well of representation* (2011) looks at how one translates the materialist practice of celluloid filmmaking into the realm of digital technology. In seven short minutes, he deftly addresses the idea of *generation loss*, in both the sense of the digital decay represented by the glitch and in the sense of the intergenerational transfer of cultural knowledge in experimental filmmaking.

The source text for *the well of representation* is Hollis Frampton’s *Gloria!* (1979), which Meaney reinvents as a 16-bit Nintendo-style videogame. The ghosts of the original film are there, including a MIDI version of the melody “Lady Bonaparte” (which Frampton’s grandmother described as “sounding like quacking ducks”) playing as background muzak. The drunken wedding fight that appears as found footage in *Gloria!* is played out videogame-style with the

husband’s life-points diminishing from each hit. Once the husband dies, the system crashes spectacularly, and he finds himself at his own wake, with the cartoon characters of his family rapidly fleeing when he miraculously awakes. Throughout, the images and sounds spasmodically glitch, with pixels changing colors frantically and every moment tinged with the sense that the videogame might break down.

Gloria! is known as Frampton’s first use of computer technology in a film, where the dominant image – beyond three pieces of footage recovered from old silent films – is a scrolling text written on a green computer screen. Frampton treats that text as a code, a series of logical checksums that are used to verify what he knows about his grandmother and to bring her to life for the viewer. These lines of code are an obvious point of entry for Meaney, who has developed his practice as a code-bender, using hex editors (which translate picture, sound or video files into text and numerical code) to get into the roots of the binary computer code to manipulate digital video and images through introduced glitches.

The glitch, as Meaney has described in artist statements, is a way to make visible the underlying code of digital technology – the zeros and ones that create an image or a sound. The glitches Meaney incorporates into his work share the reflexive nature of past materialist practices, this time working on computational processes rather than the physical properties of chemistry and light. The cartoon-like visual world that Meaney builds through 16-bit code is already separated from the “reality” that materialist

filmmakers who worked with photographic images routinely questioned. However, when the computer-based system completely breaks down, as it does at least twice during *the well of representation*, it similarly reiterates the instability of the digital technologies that we have been quick to embrace as shapers of our current audiovisual environments.

Meaney's work is particularly engaging due to his desire to create a lasting connection between his forebears and his explorations of digital technology. References in his past work include not only Frampton, but also Owen Land and Alvin Lucier (whose "I Am Sitting in a Room" is reperformed by Meaney via fax machine). Whereas other glitch video artists like Takeshi Murata repurpose pop cultural icons like *First Blood* and *The Price is Right*, Meaney's work takes direct inspiration from filmmakers and artists who worked primarily in the material tradition. Burrowing down beyond the representational language that many of his peers coat with irony and desire, he is working on the level of the code, exploring how the digital carrier holds onto memories and how those memories dissipate through the inevitable introduction of error.

Like *Gloria!*, which closed out Frampton's ambitious *Magellan* cycle, *the well of representation* is the epilogue for Meaney's 10-piece *the ceibas cycle*, and condenses the ideas of the entire project into a lucid and moving form. *the ceibas cycle* takes its name from a tree central to Mayan ideas of the afterlife – a tree beside which a deceased family member would wait for

their loved one to join them in their onward journey. Meaney understands that myth as a model of the passing down of meaning – much like film traditions – from generation to generation. His interest in this myth, however, also lies in how the act of passing stories down and their inevitable translation (or in his case, transcoding) introduces entropy and faultlines into the system. In many ways, those faultlines are a matter of each generation's reinterpretation, if not out-and-out refusal, of the work of the generation that went before. Still, Meaney is more of a traditionalist than his peers – *the well of representation* is a welcome look at how some of the historical concerns of experimental filmmaking can transfer across to new technological inquiry.

In the end, Meaney treats *Gloria!* in the same loving trajectory as Frampton treats the silent film footage he discovered in the Paper Print Collection of the Library of Congress. Frampton humorously reanimated those decaying fragments as a way to pay tribute to his forebears (in his case, a much-loved grandmother) but also to draw a parallel to his own project of investigating the structures of meaning that film and emerging information technologies shared. Meaney does the same through a videogame (in which "HF" appears as the high scorer), skillfully uploading the ongoing project to the next generation. And there the ghost waits, floating under a highly bit-mapped ceiba tree, waiting for a new player to select 'play again'.

CHRIS KENNEDY



Evan Meaney, *the ceibas cycle: epilogue: the well of representation* (2011), frame enlargements. Courtesy the artist.



MICHAEL SNOW: IN THE WAY

Jack Shainman Gallery, New York
January 7 - February 11, 2012

Michael Snow's recent show at the Jack Shainman Gallery featured digital-video polygons of synthetic color sliding briskly across the walls. The white walls carried the color and diffused it into the surrounding areas, creating rich, chromatic hazes. Six distinct, high-definition projections displayed colors approximate to those in the spectrum visible to humans: yellow, orange, red, green, blue, and light-blue, and a seventh that combines all the colors together into an electric teal. Two bounding boxes were in play: that of the maximum height and width of the projected light meeting the wall, and a rectangle of smaller but scaled dimensions. Within the second rectangle, the colors shifted in kinetic, fluid movement. Intuition or muscular reflex seems to propel their quick changes in shape and dimension. One sees concentrated color, but the defining parameters of their visible field ensure awareness of what has slipped from view. The animated shapes continuously reference their determining borders. Indeed, one regards the beautifully intermingling chromatic hazes beyond the edges of the directly projected light as, in a way,

equally substantive. Together they assert the arbitrary, contingent basis of cinematographic representation: each rectangle oscillates between object of regard and surface of support. These are shapes of color, and they are screens. Entitled *The Viewing of Six New Works*, the suite of projections deserves consideration among Snow's significant works.

The show is an important event in the on-going debates on the (im)material basis of moving image art and the various spaces (built and discursive) in which it is positioned. Snow's use of moving image technologies as a means to explore the physiological processes of perception is well-established and widely renowned. *The Viewing of Six New Works* presents beautifully ludic, and deceptively simple, iterations in the artist's delimitation of vision as an aesthetic program. Greg Hermanovic of Derivative studios in Toronto developed an application in TouchDesigner

Michael Snow, *The Viewing of Six New Works* (2012), Installation view. Courtesy Jack Shainman Gallery.

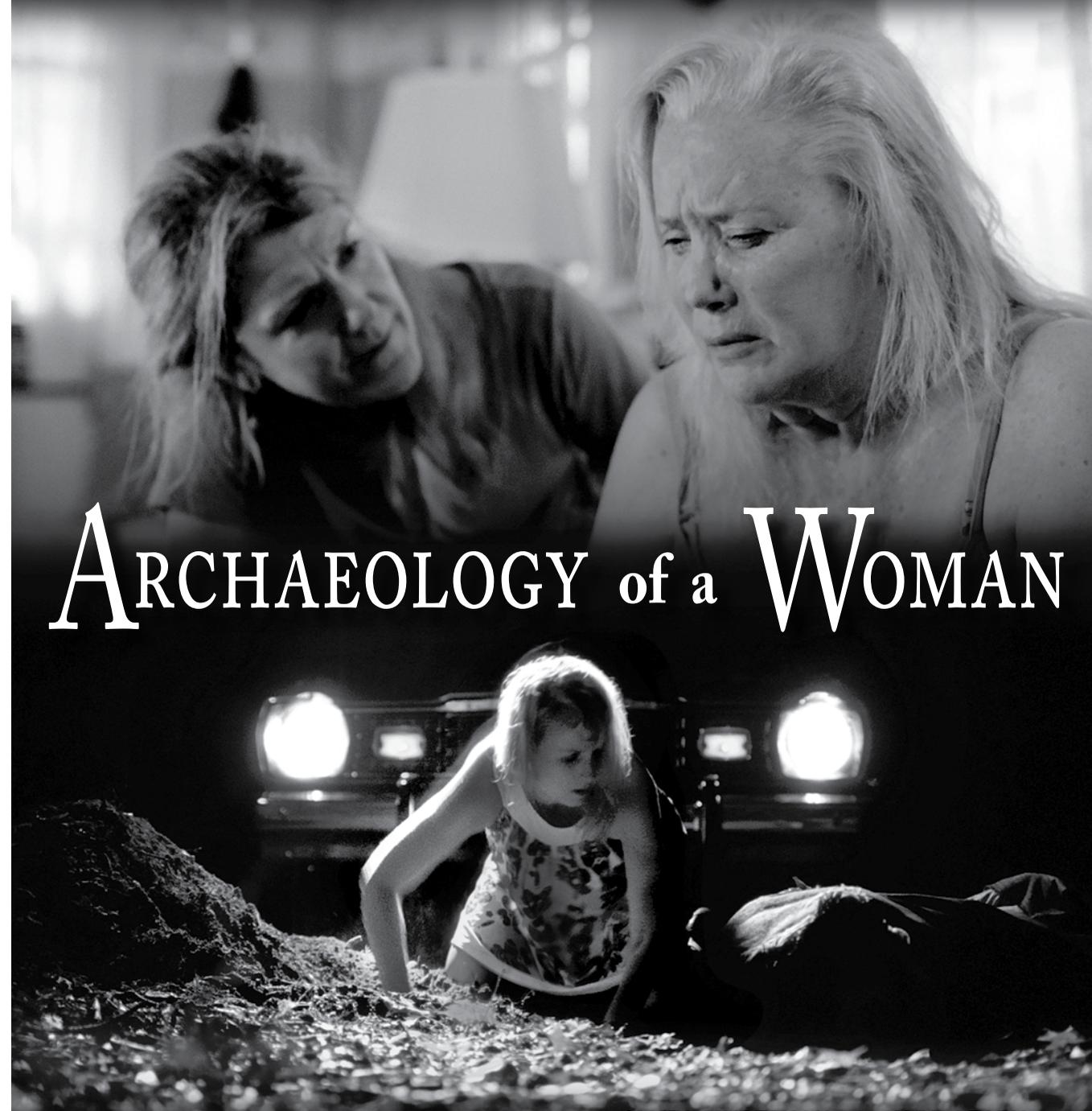
software especially for Snow. The application, entitled *V6 (Viewing of Six New Works)*, recorded Snow's two-finger movements on a 23-inch touchscreen. *V6* rendered the results as rectangles in 60 frame-per-second high-definition mp4 files. Through the work, we are reminded that a creative act is an aggregation of perceptual data by our biological systems. The data is motivated for a particular understanding of lived experience. For Snow this is "the art of looking at art." His audience's psycho-physiological experience of light, color, and shape is the site of his playfully ambivalent manipulation. Each momentary resizing is another possible perspective to a rectangle. The artist seems to move through all the potential points of view: an array of possible distortions are imposed upon each quivering rectangle of color. Snow enacts a kind of live anamorphosis.

The Viewing of Six New Works is a refreshing revisit to concerns that scholars of the mid-twentieth century avant-garde film collected under the rubric "structural/materialist film." In ways similar to Snow's early films, the suite of projections complicate cinematically mediated relations between perceiver and perceived. His "camera movement films" *Wavelength* (1967), \leftrightarrow ["Back and Forth"] (1969), and *La Région Centrale* (1971) were cited, most prominently and for divergent claims by P. Adams Sitney, Peter Gidal, Malcolm LeGrice, among others, as, broadly described, prime examples in discourses that privileged artists and works concerned with the basic operations of the cinematographic apparatuses. Structural/materialist discourses defined Snow's early reception as a filmmaker. However, the fraught history

of these discourses serves as a generatively unstable ground upon which to view his new projections. *The Viewing of Six New Works* asserts fundamental notions of that moment, but with a look awry.

The artist's camera movement films and *The Viewing of Six New Works* are alike in that they resist readings that exclusively favor the technological means of production. In *Wavelength*, for example, one may notice the irregularity of the zoom, or a momentary lift in a yellow gel loosely set over the camera lens seemingly caused by a breeze passing through the loft. Or the fact that Snow carried the soundtrack to *Wavelength* -- with its sine wave tone, Beatles track, and melodramatic performances by Hollis Frampton, Amy Taubin, and Lyne Grossman -- on a separate reel of magnetic tape: he expected to attend every screening of the film where he would cue the soundtrack by hand. These arbitrary, contingent circumstances of the art work reflect Snow's wish for "ecstasy and analysis." Through Snow's art, the site of production is shifted to our selves as sensing organisms. The perceptual faculties of the beholder are the matter of the work. Snow's high-definition color swipes are wonderful reminders that our bodies are the sources of aesthetic conceit.

KENNETH WHITE



ARCHAEOLOGY of a WOMAN

SALLY KIRKLAND

BEST ACTRESS, ACADEMY AWARD NOMINEE
GOLDEN GLOBE WINNER

VICTORIA CLARK

TONY WINNER

JAMES MURTAUGH

KARL GEARY

A film by critically acclaimed director
SHARON GREYTAK

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with support from the New York State Council on the Arts.

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SCULPTING TIME

AN INTERVIEW WITH MICHAEL SNOW

JUSTIN REMES

“Movies are supposed to move, stupid. Nobody can do a movie with still images.”

Thirty years after hearing his childhood friend utter these words, Chris Marker made *La jetée* (1962), a seminal science fiction film constructed almost entirely from still photographs. After its release, avant-garde directors became increasingly interested in challenging the hegemony of movement in cinema. Two filmmakers in particular would become the chief exponents of the cinema of stasis. One is Andy Warhol. His film *Sleep* (1963) features an immobile nude man sleeping for five and a half hours, while *Empire* (1964) consists only of a static shot of the Empire State Building that is held for over eight hours. The other is Michael Snow.

The first artwork that comes to everyone's lips when Snow's name is mentioned is *Wavelength* (1967), an undisputed classic of experimental cinema which pairs an escalating sine wave with a very slow 45-minute zoom from one end of a room to the other. While *Wavelength's* canonical status is well deserved, the film's fame has unfortunately tended to overshadow many of the other remarkable entries in Snow's oeuvre (which consists not only of films but also of paintings, photographs, sculptures, and jazz music). In particular, one of the most under-theorized elements in Snow's aesthetic is his fascination with stasis. In some of his films, movement is kept to a bare minimum (e.g. *Dripping Water* [1969], co-directed with his wife, Joyce Wieland, in which the only movement portrayed is water dripping into a dish). In other Snow films, however, there is no on-screen movement whatsoever. *One Second in Montreal* (1969) consists only of photographs; *Side Seat Paintings Slides Sound Film* (1970) offers only paintings; and *A Casing Shelved* (1970) is simply a color slide of a bookshelf

accompanied by Snow's voice describing the items on it. (Some critics have even questioned whether or not *A Casing Shelved* should be considered a film, since it offers no potential for movement. Of course, if one adopts a more Wittgensteinian approach to defining cinema, one can certainly see the 'family resemblances' between this work and more conventional films.) And one of Snow's most idiosyncratic static films is *So Is This* (1982), in which individual words appear on screen, one at a time, forming jocular self-referential sentences. Since I was interested in learning more about Snow's static films (especially *So Is This*) and the aesthetic that gave rise to them, I conducted an interview with Snow via e-mail. Our correspondence took place between October 2011 and March 2012.

Justin Remes: While many film theorists have seen motion as a necessary condition of cinema, many of your films challenge this view. What underlies your interest in cinematic stasis?

Michael Snow: The basis of cinema as a technology is stasis; the fundamental unit is the still photograph. Motion is made from the perception of fast stills.

Remes: Noël Carroll has argued that *A Casing Shelved* should not be considered a film, since it offers no possibility of movement. In his view, calling this static work a film would “turn family albums into cineplexes.” (Along similar lines, at the moment, *A Casing Shelved* is noticeably absent from your filmography on Wikipedia.) Do you agree with Carroll on this point? Or do you find his conception of what “counts” as cinema to be too narrow?

Snow: Yes, *A Casing Shelved* is categorically problematic. However, it *is* a projection on a screen from a 35mm transparent source. There is no movement on the screen, but the movements of the eyes



Michael Snow, “Rameau's Nephew” by Diderot (Thanx to Dennis Young) by Wilma Schoen (1974). Frame enlargement. All images courtesy the artist.

of the spectator are directed by the sound – my voice. That there is sound, which *is* a movement in time, is important in considering the work's cinema status. The ‘movie’ is made by the recorded voice guiding the spectator's eyes over the projected image.

Also, the experience of duration is unenforceable in gallery moving-image installations, so this work has to be shown in a cinema theatre. *A Casing Shelved*, *One Second in Montreal*, and *So Is This* are experienced within the social contract that a spectator makes in going to a cinema theatre. This, of course, comes from the theatre (plays, live performances) but the “contract” is: “Events which will have determined durations usually take place on the screen (stage), and I will sit here and experience these durations.”

A curator in Paris once told me that he would like to show *One Second in Montreal* as a looped gallery work. I had to remind him that this would destroy the particular perceptions that the work engendered: that of experiencing durations comparatively. To get anything out of it you have to experience it from its beginning to its end.

Remes: Do you feel there is any affinity between your films and those of Andy Warhol? I ask because he also seems interested in challenging the dominance of movement in cinema with films like *Sleep* and *Empire*.

Additionally, he talked about creating a film called *Warhol Bible* (which was never realized) that would have filmed each page of the Bible from beginning to end, essentially blurring the lines between written texts and cinema (in much the way you do in *So Is This*).

Snow: I don't think that there is much affinity. Though some of Warhol's films show something ‘theatrical’, they are basically documentaries, whereas my films are constructs. Incidentally (though there was definitely no influence), I shot every page of the Toronto Phone book (a total of 2,036 pages, one frame each) in *Triage*, a 2-screen collaboration with Toronto filmmaker Carl Brown in 2004.

The psychology of being filmed is an important part of Warhol's best work, like *Henry Geldzahler* (1964). Even the ‘acted’ ones draw on casts of eager-to-be-filmed people selected from the inmates of The Factory. Two of Warhol's films (which were actually directed by Ronald Tavel) are memorable: *Screen Test* (1965) and *The Life of Juanita Castro* (1965). They're theatrical documentaries. Most of Warhol's films are fixed camera ‘stares’; none of mine are. They're related to his silkscreen ‘paintings’, which put repeats of the same frame beside each other, whereas in the film, the repeats are shown sequentially.



Michael Snow, LEFT *A Casing Shelved* (1970).
 ABOVE *One Second in Montreal* (1969).
 OPPOSITE *So Is This* (1982). Frame enlargements.



He and I share some things: most importantly, we were painters. Working on a painting usually involves lots of time spent being static: you do something on the canvas, then you sit and look at what you've done. When the painting seems to be finished, then you look at it for a long time to decide whether it really is finished.

Remes: At one point in *So Is This*, the words on the screen read, "The decision has been made to concentrate on the distinctive capacity of film to structure time." This seems to be central to your cinematic vision. In *So Is This*, some words appear only fleetingly, for a split-second, while other words appear for lengthy periods of time (the word *length* remains on the screen for almost a full minute, for example). One also can't help but think of *One Second in Montreal* here, where the length that individual photographs remain on screen gradually increases, then decreases again. Can you talk about the role of temporality and duration in your films?

Snow: Yes, it'll take time, your time, as much time as you choose to give it. The film medium and its artifacts – camera, filmstrip, and projector – are mechanical clocks, 'ticking' 24 times a second. The base time unit is 1/24th of a second. Specifying durations is a fundamental 'shaping' in making films. Events can happen fast or slowly or in between, and the total length of the film is an important part of the aesthetic of a film. *La Région Centrale* (1971) is three hours, a 24-hour day compressed, but while working on that

film, I thought that duration is like weight in sculpture.

"*Rameau's Nephew*" by Diderot (*Thanx to Dennis Young*) by Wilma Schoen (1974) is 4½ hours long. It's a monologue/dialogue of talk that, by its temporal monumentality, can find its place in the continuous non-stop global talk. Talk, talk, which is constant everywhere, even here.

I hope that the spectators can savour the many duration forms that happen in *So Is This*. There are spicy ones, salty ones, sweet ones, etc. Durations were specified in the script, and *So Is This* was shot on an animation stand. The number of frames per word and spaces between was precisely indicated. It's composed.

Remes: Given your interest in cinematic duration, I wonder if you have any thoughts on the rise of the digital. Babette Mangolte has argued that digital film "is unable to establish and construct an experiential sense of time passing." Do you agree?

Snow: Depending on the speed and complexity of image movement in cinema, one can more or less see the pulse of 24 frames a second (and this is even clearer with 16 fps). So I think there is a 'clock' quality to cinema (which I hoped would help 'time' the experience of the holds in *One Second In Montreal*). HD video projection, by contrast, is 'timeless', so I agree with an aspect of Babette Mangolte's characterization.

However, about a year ago I saw *Rubr* (2009) by James Benning. I was very impressed. I've known and liked Benning's work for a long time, and I thought

that the 'timeless stasis' of the digital image made his characteristic holds-with-eventual-surprise-movement even more powerful.

Remes: How important is the photochemical medium to your cinematic practice? It strikes me that the images in a film like *One Second in Montreal*, for example, would be perceptually identical to photographs if it were not for the imperfections of the film stock – the aleatory scratches and splotches that occasionally intrude on the image. One might even argue that the stasis you frequently employ draws attention to these 'imperfections', and consequently foreground film's materiality. Is this a part of your aesthetic?

Snow: Ideally, I'd prefer that a screening of *One Second in Montreal* be a new unscratched print, but the little things that intrude usually refer to the passage of

the film through the projector. So I think that up to a point these imperfections can participate positively with the spectator's sense of his/her time passing and with filmic time passing.

The photochemical medium has been important to all my 'theatrical' films. But video (DVD, D-Beta, Blu-ray, and HD) has been important in the very different situation of projecting non-stop in an art gallery, where the potential audience is ambulatory.

Remes: I was somewhat surprised to see the prominence of computer-generated imagery in your film **Corpus Callosum* (2002). What prompted this?

Snow: My introduction to film came about from my having the incredible good luck (in 1956) of getting a job where I was learning how to animate. In 1980 I created a section (the first five minutes) of my film



Michael Snow, *SSHTOORRTY* (2005), frame enlargement.

Presents, wherein the entire image was slowly squeezed to become a vertical line, then un-squeezed back to a normal frame proportion. This was done electronically and it made me interested in perhaps making a film that would be composed of stretching and squeezing.

Over a few years, I kept thinking about and making notes for such a film. During that time I was also noting what was happening with electronic imaging. Eventually I saw that the ability to move individual pixels in the image meant that any realistic image could be modified in ways that weren't possible with film. A few more years of musing changed the original intention to the 'stretch and squeeze' of shapes within the image, not just the entire frame. After a few more years, **Corpus Callosum* got made. Its final shot is a little passage of drawn animation that I had done in 1956 which shows the 'impossible' stretching and twisting of a drawn character's leg. In **Corpus Callosum* that kind of shape changing is done to 'real' images, not drawn ones. But the drawn passage was a forerunner.

Remes: Another important element in many of your films is written text, which is often employed in challenging ways. For example, in *So Is This* the constant changes in duration and word size create a destabilizing and desultory reading experience. Further, in your more recent film *SSHTOORRTY* (2005) (or *SHORT STORY*), the superimpositions occasionally result in one subtitle being placed directly over another, making the translation of either expression impossible to make out. (And of course, the title *SSHTOORRTY*

itself can present enunciative and semantic challenges.) Can you speak a bit more about the role of written texts in your films?

Snow: Usually the tempo of reading depends on the reader, so it seemed interesting to use film to control the duration of reading because control of duration is a capacity of film, not of a book. Each word in *So Is This* is framed within the same frame so that a short word like *as* is much bigger than a long word like *psychoanalytical*. Though there are lists, most of the text consists of 'normal' sentences with a subject, verb, and object. The hope was that the changes in scale from word to word will help the spectator to see each word as an individual shape, a pictograph, a picture – but also as a shot. Reading, as we learn it, is not 'seeing', not 'regarding', so I wanted to introduce pictorial/design perception as well as 'reading'. The superimposed words in *SSHTOORRTY* are also pictorial – 'shapes' made from words. One level of perception of it and, I guess of all my films, is the understanding that this is a 'construct', that this is a 'picture'.

Remes: You have mentioned your interest in the writings of Ludwig Wittgenstein in several interviews, and his influence seems especially prominent in the "language games" that you play throughout *So Is This*. What is the relationship of Wittgenstein to your films?

Snow: I can't say that there is any relationship to my films in general. I was particularly interested in his writing during the years I was working on *Rameau's Nephew*. His book *On Certainty* is often hilarious,

and his portrayals of little play-events to illustrate the relationships between speech, meaning, and action were influential – as was the aphoristic style of *Zettel*, for example (but I like that in Nietzsche, too). (Your question had me looking at my bookshelf. I haven't examined the several books by Wittgenstein that I have for many years.)

There's no doubt that *Zettel* was an influence on *Rameau's Nephew*. The book is made of fragments of "propositions," which are similar to the series of "propositions" in my film. In *Zettel* each paragraph is an investigatory statement into the nature of language and memory. His discussions often take the form of little 'plays' of quotidian incidents and common speech, much like *Rameau's Nephew*.

One of the aphorisms in *Zettel* which is really pertinent to *Rameau's Nephew* is: "The question: 'What do I mean by that?' is one of the most misleading expressions. In most cases one might answer: 'Nothing at all...I say!'"

Remes: Another passage in *So Is This* states that "there have been several films or videotapes that concentrate on texts, for example Richard Serra, Tom Sherman, Su Friedrich, John Knight and Paul Haines have made excellent use of texts." I find it curious that you do not mention Hollis Frampton here, since his *Poetic Justice* (1972) seems to be one of the most salient examples of text-based cinema. Was *So Is This* inspired at all by *Poetic Justice*? Or are your concerns in *So Is This* qualitatively different from Frampton's?

Snow: The list in *So Is This* was intended to be of films (and videotapes) that featured only text, that had no pictorial element. I'm not conscious of *Poetic Justice* being influential –perhaps because at the time I thought that it worked better as a book ("wouldn't a book be better?")

Hollis and I were close friends. For two or three years, Hollis, me, and my wife, Joyce Wieland, met frequently. He liked her films a lot. Undoubtedly our ideas affected each other's, but this had more to do with direction than specifics. I will say, though, that his starting to use sound (all his films are silent up to 1973 – as were most after 1973) is partly due to my blabbing about sound/image during the four years I was obsessed with *Rameau's Nephew*. Hollis' (*nostalgia*) (1971), a film for which he asked me to record my reading of his text, uses a very *Rameau's Nephew* sound/image idea.

Remes: As far as I know, your last film was released in 2005. Are you still in the business of filmmaking? Are there any artistic projects (cinematic or otherwise) that you are currently working on?

Snow: Yes, after *SSHTOORRTY* (2005), I made *Puccini Conservato* (2008). Although it's a DVD, it is a cinema film. Otherwise, what I've been making are not cinema films, but video installations: *In the Way* (2011), *Piano Sculpture* (2010), *Serve/Deserve* (2010), *The Corner of Braque and Picasso Streets* (2010) and *Condensation: A Cove Story* (2009). Also, from 2002 there's *Solar Breath (Northern Caryatids)*, which is a video installation, too – and I hope you know about *That/Cela/Dat* (2000) because it's a tri-lingual video installation, son-of-*So-Is-This*. There's also a public commission, *The Windows Suite*, which consists of large plasma screens in several windows of a new building here in Toronto. It's a two-hour loop of many varied scenes that has been shown every night from sunset to 2am since it was installed in 2006.

Amongst the things I'm working on at present: a 60-storey high permanent light installation that will be part of a new skyscraper here in Toronto – The Trump Tower. And in other recent news, I prepared some new (as well as old) work (mostly video installations) for a show at the Jack Shainman gallery in New York, which opened on January 7th, 2012. That show featured a new seven-projection video work, *The Viewing of Six New Works*. Then, from February to April 2012, I had a one-man show at Secession in Vienna consisting of video installations and photographic works (one of which is 8ft. x 32 ft.). I also played a solo piano concert and did four evenings of film screenings at the wonderful Filmmuseum there.

In a year the marvelous Philadelphia Museum will present a retrospective of my photo-works. As of this writing we're working on the selection. In July 2012 the Art Gallery of Ontario in Toronto will show a retrospective of my sculpture. And the New York MoMA recently acquired two 1970 carousel slide works of mine.

Justin Remes is a Special Lecturer in Film and Literature at Oakland University. An article of his on avant-garde film—entitled "Motion(less) Pictures: The Cinema of Stasis"—was recently published by the British Journal of Aesthetics. He has also published essays in *Film-Philosophy* and the *Journal of Religion and Popular Culture*.

PHOTOGRAPHIC MEMORY

DIARY OF A VIEWER

MARTIN RUMSBY

Imagine a theorist¹, following the Argentinean writer Jorge Luis Borges, postulating a lost civilization whose sole purpose was photography. Under its regency every photograph that ever needed to be taken was taken. The camera was as ubiquitous as Cocteau's pen had been in writing our culture. After every possible photograph had been taken the civilization disappeared. This civilization was later hypothesized by a doctoral candidate in Rochester, New York.

Next, photography became a resource to be mined. Any number of happy family photographs could be found to represent such. The tourist destinations had been covered from all angles, wars documented, and the future appropriated by science fiction. Nothing was sacred.

The entire history of world cinema now similarly seems to have covered all the bases, there may no longer be any need to pick up a camera, create a scenario or even employ actors. Still, the sheer abundance and craft of industrial productions has created a resource of raw materials to be mined for the exercise of artistic process.

American film artist Gregg Biermann appropriates sections from classic Hollywood movies, digitally restaging them to create dark interior psychologies and histories of cinematic space, extracting new meaning from within meaning.

"My work comes out of the avant-garde tradition of film as a visual art... Avant-garde cinema is an important and relatively young artistic project [(in which)] the development of new tools has often determined artistic innovations. Consequently, I've looked to new technologies to discover vast unspoiled frontiers."²

In *Labyrinthine* (14 min., 2010) Biermann transforms Alfred Hitchcock's *Vertigo* (1958) into such a frontier, using digital imaging technology to restage the film as an architectural work, something constructed within a spatially enclosed whole. Biermann's cinema is algorithmic, in that his films follow a set of commands to their conclusion.³ Here, narrative progression is replaced by a formal reconstruction of the picture and sound elements. The episodic coagulates into simultaneous instants of time, almost as a moving still-life picture. The source material is reduced to its essence as an experiential rendering of the dysfunction at the core of the original, transforming the source from neurosis to an infinite sublime, a sublime reached through mechanical computation.

"In *Labyrinthine*, forty-one shots are excised from their original sequence in *Vertigo*. They are reorganized so that there are five repetitions of each shot moving from the first shot forward and then two repetitions coming from the end of the sequence backwards ... I set something in motion and the work very much propels itself. I love the feeling that some sort of overarching design or organizing intelligence that we don't quite grasp is responsible for the progression."⁴

Here, the tidal relentlessness of endlessly advancing frames of appropriated images, jump cuts and fluid transformations lend the aural and visual qualities of a seascape to an urban landscape where space and time are distorted from linearity toward parallel infinities. Such a place, as a prison officer in Chicago once told me, is easier to get into than out of.

The matter from which *Labyrinthine* arises is a photoplay that conforms to nineteenth century narrative conventions, which are not in themselves inherently cinematic. Industrially produced commercial narrative films merely appropriate cinematic processes for the purpose of mass entertainment. They are melodramas that do not entertain speculation of their immediate cinematic space. Biermann admits such speculation by re-setting *Vertigo* in non-linear time. As Jimmy Stewart's character grasps for something already lost, we are drawn into a time shift, a momentary blip drawn out over 14 minutes, in which time may stop and replay itself, advancing and repeating in discontinuous steps. We enter an arena of cinema as a philosophically speculative medium. Are time and motion continuous or discontinuous? One is reminded of Zen Buddhist notions of art occupying a discontinuous continuity with the everyday, of creating a cut between worlds from which new paradigms or descriptions of the world may appear.⁵ Here Biermann cuts a digital hole through cinema through which we may see it anew, as a revisionist's history of American cinema.

He peels back the narrative and character aspects of commercial cinema to create new relationships within the film. The character of *Vertigo* is changed from entertainment to a cine-magic that brings forth elements of the world. A film worthy of an active imagination that may re-collect vision toward the surprise of seeing things anew.

Believing that the future of film lies in its antiquity Steven Woloshen actively damages and decays film footage he rescues from Montreal pawnshops in order to highlight its organic quality. He believes that through such processes the true nature of film will be revealed. His alchemical revisions, those of an errant anthropologist, create new associations as a play for the eye as images break down or dissolve into a moving palette of earthy color abstractions, lifting them from the mundane to other realms.

Locating film in the world of the living, Woloshen believes that with time and decay celluloid may reveal its true nature in the patina of its own materials.

"As the motion picture industry tries to resell restored film classics like new paint splashed on a condemned house, I have chosen to embrace the philosophies of perception and direct experience of the 'old school' analogue filmmaker: that time and space are inseparable ... from the memory and experience of film projection. From this

perspective, it is possible to see the beauty that time has created as an evolution of the living matter of film."⁶

By which he means that, discarded and left for long enough in a musty basement subject to mould, moisture, bugs and rodents, the film will take on a life of its own, generating blobs, blisters, and random bubbles which overlay the images that once formed its content - an illusion overlaid by a veil of reality.

The Homestead Act (8min, 2009), part three of Woloshen's *Dead Sea Scrolls* series, equates soil erosion with cinematic decay. The title is based on a nineteenth-century American law that gave homesteaders freehold title to 160 acres of undeveloped land. Their zeal and inexperience, however, lead to unsound farming practices, which resulted in erosion. Woloshen believes the history of film is now similarly eroding before our eyes as poorly stored prints and negatives deteriorate. Ironically, in the process of its own organic decay the film gives rise to startling biomorphic abstractions — shrouding images in living matter and chemical imbalance.

All in all *The Homestead Act* reminds one of a latter-day Brakhagian direct film, or even an early Harry Smith cine- abstraction. The soundtrack, John Adams's *Shaker Loops*, initially evokes feelings of loss and nostalgia before building to a crescendo and then trailing off again. Rotted images and sprocket holes, fragments of a ruined narrative (one of Edison's silent westerns) are glimpsed behind the multi-layered,

¹ Hollis Frampton, "Digressions on the Photographic Agony," in *Circles of Confusion* (Rochester: Visual Studies Workshop Press, 1983), p. 177-191.

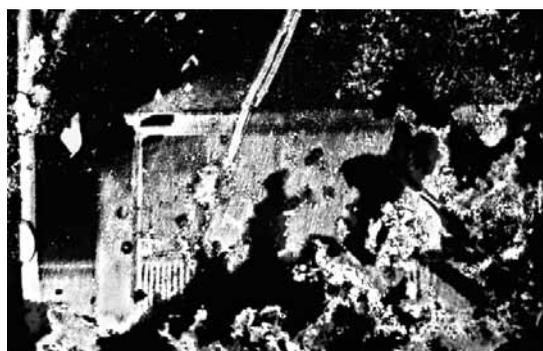
² Email communication with the author, January 18, 2011.

³ Laura U. Marks, *Enfoldment and Infinity* (Cambridge: MIT Press, 2010), p. 135.

⁴ Email communication with the author, January 18, 2011.

⁵ Ohsashi Ryosuke, "The Hermeneutic Approach to Japanese Modernity," in *Marra, Japanese Hermeneutics* (Honolulu: University of Hawaii Press, 2002).

⁶ Steven Woloshen, *Recipes for Reconstruction* (Montreal: Scratchtopia Books, 2010), p. 11.



THIS PAGE

Steven Woloshen, *The Homestead Act* (2009),
frame enlargements.

OPPOSITE

Richard Tuohy, *Centrespot* (2005),
frame enlargements.

All images courtesy the artist.

dancing abstractions caused by sprinkling the film with icing sugar, and then burying it in soil. Once buried, the film's emulsion layer was subject to decomposition and regeneration by the activities of worms and enzymes. This is *actual* science fiction, a demonstration of natural life processes creating precise and particular cinematic visions of the future of film.

For Woloshen, the life of the film is transformative. In actively stressing found footage, he aims to reassemble the visual information on the film surface almost as an archaeologist would reconstitute shards of pottery or poetry into vessels of meaning. But rather than reconstructing in the literal manner of an anthropologist, Woloshen engages in a process of transformative resurrection:

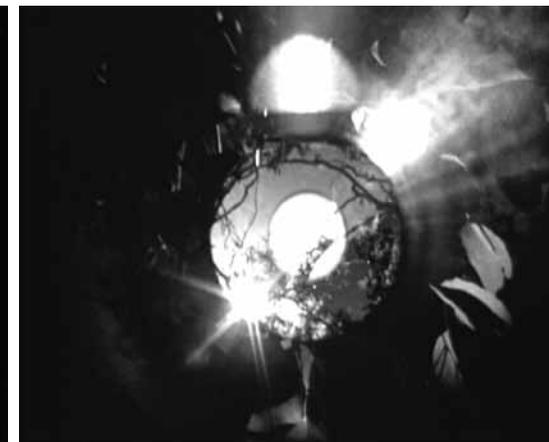
“Whenever I find images, I want to resurrect them, not as artifacts, but as new experiences.”⁷

In highlighting organic transformational processes, Woloshen produces works that may not necessarily be conceived of as ‘finished’ but rather non-hierarchical groupings of elements representing a natural order of things.

In this he may be in agreement with the German philosopher Friedrich Schelling (1775-1854), who believed that Nature was a constantly evolving totality, a process into which humans are intricately intertwined and in which life is not separate from matter. A human culture being an integral part of Nature would imply that in artistic productions Nature becomes self-aware.⁸

Long after Schelling, in the 1960s, Marshall McLuhan in the 1960s advanced various theories about the human relationship with technology and how technology enables new social environments, making real the visions of artists and philosophers.

According to McLuhan, the role of the artist is to articulate the subliminal realm of human experience.



“The civilized man imagines that he is going to help the native by stripping off the native’s world of myth and legend, ritual and superstition. The paradox is that in the electric age we are [...] returning to the [...] world of simultaneous involvement and awareness, experiencing the surfacing of the subliminal life.”⁹

Advances in technology now extend human capabilities from the fragmented and discontinuous rationality of mechanism to a transformational cybernetic awareness that is unifying and integrating. For McLuhan, technology has brought us to the dawn of post-literacy.

Australian film artist Richard Tuohy began working with the Super 8 film medium in 1990 before taking a seven-year break to study philosophy. After discovering the Daylesford Super 8 group he returned to filmmaking in 2004 and now runs a film laboratory in Melbourne. His work evokes an earlier era of experimental filmmaking, maybe even the time of his youth. Tuohy’s films, the cinematic adventures of a wild colonial boy, also illustrate, in a clear and simple way, McLuhan’s doctrine that technology enhances humanness.

Centrespot (5 min., 2009) is a gentle, colorful film of light emissions and flares from hand-held images, zooming in and out of the Australian bush. Employing a wide-angle lens, masking and superimposition, the landscape images appear as circular motifs echoing the work’s title and creating associations of centeredness.¹⁰

In the act of filming Tuohy’s perception is focused into an experience that is somehow more real than an unmediated vision. His is the simple joy of encountering a landscape that he loves and heightening that experience by concentrating it through a lens and photochemical process. Although the intensity that Tuohy evokes is more akin to documentary than Brakhagian lyricism, it is still visionary and intensely personal.

Photographic technology has enhanced our experience and perception of the world and how we may represent that perception.

Of his ecstatic cinematic experience of nature, of finding one’s own nature within nature, Tuohy says:

“Mostly I film natural features or environments. I try to distill from my subjects certain features that take my fancy. I like to

⁷ *Ibid.*, p. 111.

⁸ Bryan Magee, *The Story of Philosophy* (New York: DK Publishing, 2001), p. 156.

⁹ Marshall McLuhan, *Understanding Me: Lectures and Interviews* (Cambridge: MIT Press, 2002), p. 296.

¹⁰ One also thinks of the notion of the ‘hot spot’ at the center of a projected film frame.



Ben Russell, *Let Each One Go Where He May* (2009), frame enlargements. Courtesy the artist.

see my approach as a kind of cine -Cubism attending to and abstracting certain features from my subject ... Ultimately, they are not about 'thinking', they are about looking."¹¹

In the 1980s the anthropologist James Clifford theorized that both the avant-garde and ethnography had been at their strongest when they paid close attention to and even cross-fertilized each other.¹² Sharing procedures of collage, juxtaposition and estrangement, as well of notions of identity as being mixed, relational and inventive, each contributed to the other's relevance. Both practices were at their strongest as active intruders whose interventions served to provoke responses. Their lives were to be found in the fallout of their provocations. Ethnography and the avant-garde had declined in influence since they had gone their separate ways. It would only be in their re-embrace, Clifford asserted, that their potential might be consummated.

While generally seeming to accept Clifford's thesis, anthropologists have been squabbling ever since over how they may effect such a re-embrace. A useful starting point would be their attendance at avant-garde film showcases and other forms of critical visual culture. Certainly, film artists such as Chick Strand, Trinh T. Minh-Ha and Kevin Jerome Everson have attempted to bridge the intercultural divide since at least the 1980s. Ben Russell's *Let Each One Go Where He May* (135 m., 2009) is a recent example of such work.

Russell, an itinerant American artist, sometimes found in Chicago, first went to Suriname, a former Dutch colony on the northeastern coast of South America, as a volunteer aid worker in 1998. A decade later he returned to Suriname to make a film featuring two brothers he had befriended while living there.

Russell's film consists of 13 understated ten-minute takes following Monie and Benjen Pansa from the outskirts of Paramaribo along a path their Saramaccan ancestors blazed 300 years earlier whilst fleeing their Dutch slave masters. Their journey is a quest to a mythic nirvanic freedom, their *region centrale*.

Let Each One Go Where He May looks like an ethnographic documentary, but it offers no commentary about its characters, their location, or historical context. It is purely experiential, each shot unfolding in real time as we follow the brothers through the jungle, along waterways, to remote rural villages.

To whatever extent the setting may appear paradisiacal we soon come to see it as a fallen Eden, brought down by the human interventions of slavery,

slash-and-burn agriculture, mining, and firearms. The human heart from whence these sprang is one of darkness.

Let Each One Go Where He May opens on a shot of a small clearing around a muddy waterhole in an equatorial jungle setting. Monie, smoking a cigarette and carrying a plastic container, walks into the scene. He pours liquid from the container onto some foreground vegetation and then, inexplicably, sets it alight: the liquid is an accelerant. He walks out of the frame, leaving the fire to burn unattended. Next, his brother Benjen, carrying a radio and a pail, walks into the frame, past the burning vegetation, to the edge of the pool. Seemingly indifferent to the fire, he scoops the pail into the pool, disrobes, and then commences washing himself. Birds and dogs are heard off-screen. He then picks up the pail and walks toward the camera which begins receding, leading him back to his nearby rustic habitation.

In the third shot the two brothers follow a pathway from their small settlement, through the partially cleared jungle, to a larger settlement set on a single-lane dirt highway. From here they ride in a small, crowded bus to the city. A young woman gets onto the bus and sits prominently in center frame. She seems pleased to be included in what seems to be a film shoot. But as the journey and the shot continues she becomes an increasingly self-conscious participant, glancing furtively at the camera, trying to ignore it as the bus continues its rolling, bumpy ride along the back roads of the twenty-first century. When Monie alights, the woman moves onto his seat so that she is no longer the central focus of the camera she appears to be beginning to resent.

In the following shot Benjen walks along the bustling sidewalks of a ramshackle third world town, an outpost of civilization. One senses that the camera apparatus and filming process singles Benjen out as somehow special and unique from his fellow citizens. But in what way? Why is he subject to this attention, and how is the filming process affecting 'real' life? To what extent is contemporary life mediated by media? What giving and taking is involved in his process? (The

¹¹ Personal email to the author. 2011.

¹² James Clifford, *The Predicament of Culture, Twentieth Century Ethnography, Literature and Art* (Cambridge: Harvard University Press, 1988).



Lisa Reihana, *In Pursuit of Venus* (2012), frame enlargements. Courtesy the artist.

brothers were paid to appear in the film.) There are no 'primitives' or 'innocents' here but rather a third world distantly intertwined with the first world via media, consumerism and resource extraction. There is no purity, nothing to protect, nothing to defend. The New World is no more than a 500-year-old ruin in progress. Benjen walks through the town, then gets into a white van.

His pedestrian trek continues along another jungle pathway to a large clearing of red earth mounds that turn out to be the trailings of mining activity. The trailings appear as scabs of human industry amongst the lush equatorial setting. The camera comes across an excavating machine, and then Benjen appears pushing a wheelbarrow. He has picked up some work along the way. We follow him deep into a canyon of trailings where three men toil manually at the face of

the open-cast pit. In what name and for what purpose can such industrial squalor and its attendant labor be rationalized? Particularly in an environment seemingly not too far removed from Eden. This activity seems anything but natural.

We next see two men panning at a waterhole. Monie walks through the shot, after which the two brothers travel deeper into the interior by longboat canoe, upstream along a waterway to another village, before venturing further into the jungle on foot, Monie carrying a rifle, Benjen a chainsaw. Later, Benjen cuts down some trees.

They arrive at a remote rural village, a settlement originally founded by runaway West African slaves, and participate in a masked ritualistic festival of dance and erotic display.

Finally, the two brothers paddle back downstream in a canoe.

That the film is virtually wordless, with neither subjective nor objective readings provided by the filmmaker, speaks to Russell's refusal to categorize his subjects. This stems partly from his ambivalence toward the past role of ethnographers who exploited and objectified the subjects they studied.¹³ Indeed, Russell introduces staged or fictitious scenes into his cinematic treatment. He allows for what may be known, rather than seen, to be admitted into the account and, in so doing, broadens the potential scope of the film. It is neither purely fictitious nor documentary but rather an experimental hybrid arising from the ambiguities of intercultural experience.

Such experience is tackled from an indigenous point of view by the New Zealand Maori artist Lisa Reihana in her current work in progress, *In Pursuit of Venus* (a.k.a. *P.O.V.: point of view*), which reconstructs a nineteenth-century French wallpaper design, *Les Sauvages de la mer Pacifique*, resetting idealized South Sea scenes in the form of a contemporary moving image work. Conceived of by Reihana as an installation piece for several projectors, *P.O.V.* utilizes images from *Les Sauvages* as a backdrop for live Polynesian performers, refiguring the wallpaper within a sensual post-colonial discourse of indigenous politics and reality. Beyond both Clifford and Russell, Reihana may be telling us that we have reached a point in history in which artistic representation of "exotic" peoples is best left to those peoples themselves.

In posing questions that cannot be answered by relationships of character and plot, or by those of measurement and description, the works discussed in this essay are interesting in a way that many conventional narrative and documentary films are not. It may be that they pose questions and relationships, paradoxes even, that are inherent in their very form and content.

This work is furthermore united by a cyclical notion of regeneration, of going back and revisiting things from new perspectives, creating new contexts within which to situate art, thought and life. And by

the nature of experimental film itself, a continuing work-in-progress as artists such as Reihana, Biermann, Woloshen, Tuohy and Russell continue to work in and progress the medium, keeping it alive as a form of perceptual and speculative expression.

While representational truth may be impossible, an allusion can nonetheless infer the complexities and ambiguities of experience, bringing about the intimation of something that we may know. Alternately, we may travel with an artist and his or her subjects but never fully get to grips with them. We may have entered a mystery in which reality and appearance are confused. Our journey has taken us from perception to speculation. The question, for the colonial, being not only, "Who am I?" but also, "Where am I?" and "Where is here?"¹⁴

13 Lawrence McDonald cites the French ethnolinguist Jacques Lizot's sexual abuse of Yanomamo boys under the guise of compiling a dictionary of Yanomamo sexuality, as well as Napoleon Chagnon's complicity with the Atomic Energy Commission in researching immune system responses to a measles vaccine introduced into the isolated Yanomamo community. See Lawrence McDonald, "Disappearing Worlds and Disappearing Careers," *Illusions* #42 (Winter 2010), p. 36-37.

14 Northrop Frye, *The Bush Garden: Essays on the Canadian Imagination* (Toronto, Anansi Press, 1971), p. 220.

Martin Rumsby is an independent filmmaker, writer and curator. His films include *American Sketchbook* (2000), *For Dots* (2003), *Brown's Barbeque* (2006), and *Landscapism* (2008). He is currently making a digital video entitled *Outsider Trading*. Excerpts from his earlier work may be viewed on Youtube.



BRUCE ELDER'S

FILM-DIGITAL HYBRIDS

&

MATERIALIST HISTORIOGRAPHY

JIHOON KIM

Avant-garde cinema in the last decade has witnessed a considerable growth of digital experimental filmmaking, which has been represented by both such veteran practitioners as Ken Jacobs, Michael Snow, Ernie Gehr, Phil Solomon, to name just a few, and numerous filmmakers of younger generations. A notable tendency of digital experimental filmmaking is hybrid uses of film and digital video in ways that explore and bring into relief the materiality of both mediums. Filmmakers such as Jürgen Reble, Dietmar Brehm, Kerry Laitala, Johanna Vaude, Stephanie Maxwell, Marcy Saude, Aaron F. Ross and Anna Geyer all physically manipulate film stocks (Super-8, 16mm, 35mm) in various ways, including painting, etching, and chemical treatments, and then digitize the stocks in order to further reorganize and transform them, or vice versa (that is, to take on video footage as their source images and transfer them to film for hand-processed, frame-by-frame manipulation).¹ These combinatory techniques largely result in the ever-changing flux of highly complex, abstract shapes that testify to the

coexistence of, and the continual interaction between, the material traces of both mediums: emulsions, tints, and grains as markers of celluloid on the one hand, and pixilated colors, geometric forms, and the unreal surface textures derived from different (high or low) definitions of digital video on the other.

More than taking their inspiration from the traditions of abstract imagery in the history of avant-garde film and video, these filmmakers push to the limit the boundaries between film and the digital and thereby resist a couple of dichotomies that have still loomed large over the current climate of avant-garde practices and criticism: first, the opposition between film's recalcitrant materiality and the immateriality of the digital that has been known as eroding it²; and second, the contrast between the filmmaker's artisanal treatment of celluloid and digital software's automated, algorithmic procedures whose simulation of hitherto meticulous and time-consuming techniques to alter images has been deemed as threatening to the filmmaker's physical intervention.³ For one thing, the

filmmakers who have sought to produce the hybrid images of film and digital video run parallel to "digital materialism." As noted by critics Ed Halter and Steve F. Anderson, "digital materialism" is a mode of practice that defies the conventional assumption of the digital as immaterial by making visible its physical materials and supports (pixels, codes, networks, etc.) through mutation, accident, and malfunction, and in this sense it is compared to the self-reflexive investigation into the material components of film or video technology within the spheres of avant-garde art in the 1970s, ranging from the US and UK structural/materialist filmmaking (represented by Peter Gidal, Malcolm Le Grice, Paul Sharits, etc.) to the trope of image-processing video (lead by Steina and Woody Vasulka, Nam June Paik, Stephen Beck, etc.).⁴ Seen in this light, the images produced by the filmmakers, which I am calling "film-digital hybrids" often present noises and glitches – in the forms of aberrant pixels, ghostly distorted figures, and degraded lines – as demonstrating and symbolizing the "constantly mutating materiality" of the digital as a medium.⁵ The filmmakers' embracing of "digital materialism," too, challenges the general assumption of the digital as totally automated and non-human tools, inasmuch as their uses of it are made in close dialogue with their hand-processed techniques of treating film and a range of aesthetic effects that the techniques make. In this sense, the filmmakers' hybrid deployment of film and digital video in the light of materiality, along with the work of Jacobs, Gehr, and Solomon, reflect "a broader trend toward the incorporation into video of concerns and pursuits first explored and undertaken with photochemical film."⁶ Malcolm Le Grice, one of the experimental filmmakers who extended his filmmaking to digital systems earlier than others, argues that the systems' developments are driven by "a desire to produce a time-based auditory and visual capacity which is more or less continuous with the forms and language developed from the history of cinema."⁷ In this sense, Le Grice coins a term "hydra-media" in order to suggest a possibility for deploying film and the digital in combinatory ways and thereby redefining the limits of both.⁸ Considered this way, the filmmakers' hybrid uses of film and digital video suit Le Grice's concept of "hydra-media," in the sense that the viewer can see the two "heads" of both mediums simultaneously: namely, the components of the original film that are able to be dissected, assessed, halted, and reassembled in various ways on the one hand, and the inscription of visual effects, such as signal-based transformation or pixel-based compositing, that confer upon the original film a range of spatiotemporal

OPPOSITE Bruce Elder, *Crack, Brutal Grief* (2001), frame enlargement. All images courtesy the artist.

¹ See Reble's *Materia Obscura* (2009), *Zagreb Tram Station* (2009), and *Liquid Movements* (2011), Brehm's *Praxis* series (amongst them, *Praxis 1-3 Scenes* (2007), *Praxis 3-7 Scenes* (2007), *Praxis 8-12 Scenes* (2010)), Laitala's several "Chromadepth" films since 2009 (including *Chromatic Cocktail Straight-Up* (2009), *Chromatic Cocktail Extra Frenzy* (2009), and *Chromatic Revelries* (2011)), Vaude's six films included in her compilation DVD *Hybride* (Lowave, 2007), Maxwell's *terra incognita* (2001) and *passé-partout* (2002), etc.

² Some panelists who participated in the round table discussion on digital experimental filmmaking also share this dichotomy, which can be found in numerous writings related to the "death of cinema" discourses since the mid-1990s. See Malcolm Turvey et al., "Roundtable on Digital Experimental Filmmaking," *October* 137 (Summer 2011), pp. 51-68.

³ For a study that argues for this dichotomy, see Tess Takahashi, "'Meticulously, Recklessly Worked-Upon': Materiality in Contemporary Experimental Animation," *The Sharpest Point: Animation at the End of Cinema*. Eds. Chris Gehman & Steve Reinke (Toronto: YYZ Press, 2006), pp. 166-178.

⁴ Ed Halter, "The Matter of Electronics," *Vague Terrain*, last modified February 3, 2010, online at <http://vagueterain.net/content/2010/02/matter-electronics>, accessed on May 5, 2012. Steve F. Anderson, "Aporias of the Digital Avant-garde," *Digital Humanities Quarterly* (online journal), Vol. 1, No. 2 (Summer 2007), online at <http://digitalhumanities.org/dhq/vol/1/2/000011/000011.html>, accessed on May 1, 2012. For the broader discussions on the materialist approaches to digital technology, see Matthew Fuller, *Media Ecologies: Materialist Energies in Art and Technoculture* (Cambridge, MA: MIT Press, 2005).

⁵ Rosa Menkman, "Glitch Studies Manifesto," *Video Vortex Reader II: Moving Images beyond Youtube*, Eds. Geert Lovink and Rachel Somers Miles (Amsterdam: The Netherlands, Institute of Network Cultures, 2011), p. 346.

⁶ Federico Windhausen, "Assimilating Video," *October* 137 (Summer 2011), p. 78. Malcolm Turvey, too, has examined Michael Snow's and Jacobs' uses of digital video effects to continue and extend their desires that had long been developed since their pre-digital avant-garde filmmaking, such as Snow's desire to control space and time, and Jacobs' desire to reveal what lies beneath the forgotten frames of early cinema. See Turvey, "Dr. Tube and Mr. Snow," *Millennium Film Journal* 43-44 (Summer 2005), pp. 131-140; Turvey, "Ken Jacobs: Digital Revelationist," *October* 137 (Summer 2011), pp. 107-124.

⁷ Malcolm Le Grice, *Experimental Cinema in the Digital Age* (London: BFI Publishing, 2001), p. 283.

⁸ *Ibid.*, pp. 308-309.

plasticity and multidimensionality not acquirable from it on the other. In this way, their works as “film-digital hybrids” evoke both the digital in the filmic apparatus or the filmic in the digital algorithms or operations on their material and technical levels.

Canadian experimental filmmaker R. Bruce Elder is one of the filmmakers who have produced “film-digital hybrids” by developing his own “hydra-media.” Since the 2000s, Elder has made a series of found footage works in which film and digital video are thrown into a dynamic circuit of intersections – not just an interpenetration between each medium’s material properties but also a combination of the two mediums’ technical processes: film’s chemical-mechanical process and a process derived from the pictoriality and transformativity of the digital. For Elder, the algorithmic automation of the computer-based image processing does not obliterate two key aspects of experimental filmmaking which serve to establish it as an artisanal practice: the filmmaker’s direct contact with film, grounded in his creative intent and technical virtuosity; and the medium’s chemical change of state marked by its surface qualities (colors, tints, grains, glitches, emulsion, and even damages). Rather, he revamps his material and technical concepts of celluloid-based practice by incorporating them into image processing and database methods given by the computer. To this end, he devised his own computer program that could operate a database containing a set of reference images classified according to a number of criteria (form, texture, figure, etc.), as well as information about various methods of image processing appropriate to those images. The program’s applications then “choose which image processing methods to apply to the images by measuring the similarity between the target images (the images to be processed) and the reference images – target images that closely resembled the reference images were treated with processing methods.”⁹ While the choice of the image processing methods follows what Elder calls the “chance operation,” they are at the same time constrained by the similarity between the target images, which include Elder’s manual-chemical treatment of film, and the reference images constituted by his conceptual design. In this way, he succeeds in making analog and digital technologies coexist, in such a way that one does not negate but affects the other.

In what follows I shall examine Elder’s two feature-length, film-digital hybrids since the 2000s, *Crack, Brutal Grief* (2001) and *The Young Prince* (2007), in terms of how his attempts at intersecting the materiality of digital video with that of film are extended into his found footage filmmaking. To be sure, found footage

filmmaking is a compelling category to which the hybrid materialist filmmakers aforementioned pertain because these filmmakers often appropriate various formats of celluloid film in order to explore and expose its material effects and the ways in which celluloid can be transformed by the material and technical influences of the digital. Despite this common ground, however, Elder’s found footage practices are distinct from those of the other hybrid materialist filmmakers. For Elder’s hybrid materialism applied to found footage filmmaking does not simply represent the materiality of found images and its aesthetic forms, his practice also channels the materiality of film and digital video into an investigation of the cultural and historical dimensions of the images. In this vein, with this essay, I will illuminate a deeper implication of Elder’s hybrid materialism by situating his found footage works within the framework of “materialist historiography,” a concept of Walter Benjamin that found footage filmmaking since the pre-digital age has been seen to explore and incorporate. In so doing, I suggest that Elder’s venture into hybrid filmmaking brings the materialist approach of found footage filmmaking to a new realm by putting film and digital into a dialectical relation.

The concepts of Walter Benjamin, such as the “allegorist” and “literary montage,” have broadly entered theoretical discourses on the aesthetic and formal principles of found footage cinema, as exemplified by the works of Catherine Russell, William C. Wees, Jeffrey Skoller, and Scott Mackenzie.¹⁰ In particular, the concept of the “dialectical image” as a specific form of the encounter between past and present legitimizes the great variety of found footage filmmaking as a broader method of Benjaminian historiography that is antithetical to the notion of history as the progression of linear time: namely, the “materialist historiography” that is “registered in that blasting of historical continuity with which the historical object first constitutes itself.”¹¹ Seen from this perspective, found footage filmmaking as “materialist historiography” is a practice of rewriting history through the discarded, fragmented, or forgotten material of the past in ways that the material is able to speak for it and thereby open up possibilities for the fresh view on both the past and the present.

While the existing theoretical views on found footage filmmaking have mainly focused on the celluloid-based cinema, its “dialectical” aspect, I argue, is also derived from the critical situation that the celluloid-based cinema has increasingly been thwarted by the overriding power of new digital technologies. This situation deeply echoes Benjamin’s own dialectical thought on the impacts of present technology on the past.

Benjamin demonstrates that an array of technological changes – for instance, the invention of photography, panorama, and film – restructured the ways in which humans unpacked and grasped traditions, cultures, or objects of the past: “The perceptual world breaks up more rapidly; what they contain of the mythic comes more quickly and more brutally to the fore... This is how the accelerated tempo of technology appears in light of the primal history of the present – awakening.”¹² In this view, technology threatens to destroy an old regime of human perception at the same time it sparks a renewed awareness of the “primal history” that might otherwise remain hidden under the logic of historical progress. Benjamin’s dialectical view on technology is also maintained in his famous thesis of the “destruction of aura.” Whilst the technological development in artistic production and reproduction, including the invention of photography and film, collapses a spatiotemporal distance that endowed the work of art with the atmosphere of uniqueness and inapproachability, this “destruction of aura” brings about both a new form of art and the structural change in the way that all previous artworks are produced and perceived.¹³ As I shall discuss below, Elder’s hybrid filmmaking that investigates the intersections between the materiality of film and digital video in allegorical manner suits not simply the materialist undertaking of found footage filmmaking as a method of alternative historiography but also Benjaminian dialecticism. His employment of digital video serves to offer a poignant critique of the ways in which celluloid-based found footage in the present loses some of its aura as it is transferred to the electronic signal or digital pixel and thus subject to the relentless flow of image consumption in contemporary network culture. At the same time, this auratic demise provides many opportunities to revitalize found footage filmmaking when the materiality of digital video manifests its own contemporary temporality while simultaneously serving to bring the materiality of film and its traces of the past to new light.

CRACK, BRUTAL GRIEF

A found footage film grounded in extremely sophisticated montage, *Crack, Brutal Grief* (2001) pushes the viewer into a complex barrage of the scenes of violence culled from still images and audiovisual clips found on the World Wide Web – the imagery existing as digital data. Angered by the banalization of suffering provoked and diffused by the culture of the Internet, Elder navigated through the Web for searching the data that matched such keywords as “suicide” and “power saw,”¹⁴ and amassed a wide variety of abject images,

including hardcore pornography footage since the birth of cinema, pictures of torture, bodily mutilation, and deformed babies, screaming figures coming out of B-horror movies, images of war such as fighter-bombers, explosions, ruins, and the mushroom cloud of the atom bomb, etc. Encompassing sensational early cinema, documentary footage from the World War I and II (mostly from German newsreels), and the detritus of the postwar-American media culture (the fragments of science fiction films, television news and pop videos), the image data are processed with the computer first, then transferred to film, and undergo manual and chemical processes. Those overabundant images neither are organized into a coherent narrative of the history of violence nor document the political and cultural forces that motivate the historical events inscribed in them. Rather, they are viewed as allegorical in Benjamin’s sense, in that they take on the extremely

⁹ Aysegul Koc, “An Interview with R. Bruce Elder,” *CineAction*, No. 61 (Spring 2003), p. 38.

¹⁰ Catherine Russell, “Archival Apocalypse,” *Experimental Ethnography: The Work of Film in the Age of Video* (Durham, NC: Duke University Press, 1999), pp. 238-273; Jeffrey Skoller, *Shadows, Specters, Shards: Making History in Avant-garde Film* (Minneapolis, MN: University of Minnesota Press, 2005); William C. Wees, “From Compilation to Collage: The Found Footage Films of Arthur Lipsett,” *Canadian Journal of Film Studies*, Vol. 16, No. 2 (Fall 2007), pp. 2-22; Scott Mackenzie, “Flowers in the Dustbin: Termite Culture and Detritus Cinema,” *CineAction!*, vol. 47 (1998), pp. 24-29.

¹¹ Walter Benjamin, *The Arcades Project*, ed. Rolf Tiedemann, trans. Howard Eiland and Kevin McLaughlin (Cambridge, MA: The Belknap Press of Harvard University Press, 1999), p. 475.

¹² *Ibid.*, p. 462.

¹³ See Benjamin, “The Work of Art in the Age of Reproducibility [Third Version],” *Walter Benjamin: Selected Writings Vol. 4: 1938-1940*, eds. Howard Eiland and Michael W. Jennings, trans. Edmund Jephcott et al. (Cambridge, MA: The Belknap Press of Harvard University Press, 2003), pp. 251-283.

¹⁴ This information is quoted from filmmaker Brett Kashmere, see his “In the Realm of Mystery and Wonder: R. Bruce Elder’s *Book of Praise*,” *Take One*, No. 45 (March-June 2004), pp. 36-39, online at <http://www.brettkashmere.com/elder.htm>, accessed on April 3, 2012.

fragmentary, fleeting form that reveals the debris of the human civilization in the twentieth century – while maintaining ambiguity. In this sense, *Crack, Brutal Grief* also recalls the films of Craig Baldwin (*Tribulation 99: Alien Anomalies under America* [1991] and *Spectres of the Spectrum* [1999]) and Johan Grimonprez (*Dial H-I-S-T-O-R-Y* [1998]) in a few ways: the images' source is assumed as the garbage bins of the popular culture; the film privileges the iconic and metaphoric power of the images over the historical factuality of the record; and finally, *Crack, Brutal Grief* updates Baldwin's and Grimonprez's critique of the arbitrary manner in which televisual media appropriate, link, and discard the records of the past, by taking as its subject and its starting point of montage the Internet's accelerated and disastrous system of circulating information. In these senses, Elder's fragmentary, hallucinatory yet sophisticated use of montage, as in the cases of Baldwin and Grimonprez, establish *Crack, Brutal Grief* as a kind of "metahistorical" project that seeks to find "ambiguity and revelation in both the recognizable iconic image, resonant with cultural and historical connotation, and detritus, the seemingly inconsequential footage whose very banality and ubiquity is made resonant of mass media."¹⁵

Through the combination of optical printing and video-based effects, Elder transforms a multiplicity of human figures into something like liquid entities, depriving them of their solidity, stability, and even beauty. Those figures come from both lesser-known or unknown sources (for instance, an acrobat in a vaudeville-like primitive film, naked dancers, a training boxer, a half-buried cadaver on a deserted ground, screaming people at the attack of a monster in a science-fiction film of the 1950s, torturers who abuse a female victim in an exploitation movie, etc.) and familiar scenes drawn from classical films (such as the climactic conflict between Bette Davis and Joan Crawford in *What Ever Happened to Baby Jane* and the murder scene of Janet Leigh in *Psycho*). Along with the film's fragmentary, disjointed trope of montage, the total meltdown, which surfaces the screen with blurs, blotches, and dissolves, renders all the figures extremely dense and degraded, while at the same time forcing their iconic details to be hardly discernable. In this way, Elder channels the viewer not simply into the moments of terror, fear, death, and loss which return from the forgotten past ceaselessly but into a correlation of film and video in the material dimension of the images. The continuous fluidity and pixilation of video signal merges with film's emulsion effects in such a way as to intensify its inherent process of decomposition.

For this reason, the image's visual texture in some sense evokes film's physical and chemical factors that determine its decay, such as faded colors, washed-out tints, blots, stains, flickers, and dusts, all that lead film archivist Paolo Cherchi Usai to proclaim that "cinema is the art of destroying moving images."¹⁶ For Usai, it is film's material mortality – that film cannot prevent both destruction from external causes and its internal degradation – that makes the ontology and historicity of cinema possible. For if there is an image that is immune to decay, it "can have no history."¹⁷ All the elements shaping the materiality of celluloid demonstrate that each film possesses an individual life span, or an organic life from birth – from the moment it is first printed and projected – to death.

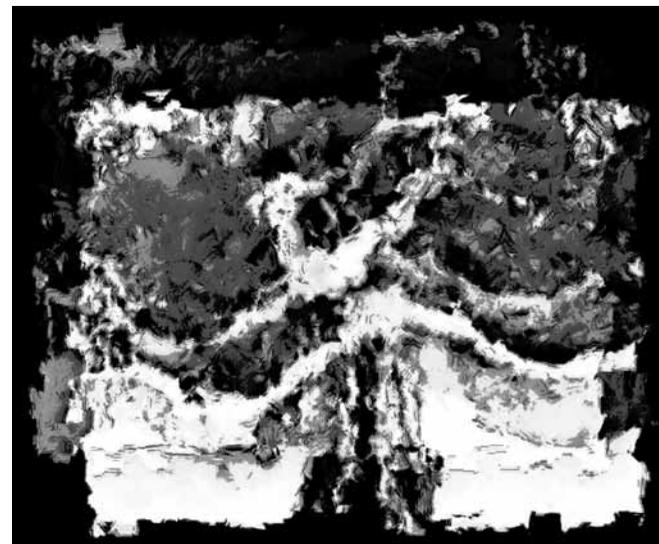
Due to its foregrounding of decomposition on the material level of the images, *Crack, Brutal Grief* is in parallel to a series of recent found footage films that dramatize Cherchi Usai's idea of "the death of film," films made of the gradual disintegration of celluloid by virtue of the excavation of the archive and the use of the optical printer: for instance, Peter Delpet's *Lyrical Nitrate* (1991) and several films by Bill Morrison, such as *The Film of Her* (1997), *Decasia: The State of Decay* (2002), and *Light is Calling* (2003). André Habib classifies those films in terms of Benjaminian "aesthetics of ruin," which are made up of the "impression of a rediscovered aura at the intersection of its disappearance, plus the fragmentation of sequences, the mismatches, the construction of uncanny continuities between different styles and time periods, and the evanescence of the medium, the stains and scorias on the celluloid."¹⁸ For Habib, what the aesthetics of ruin invoke to the viewer is a multiplicity of temporalities at work: "To the first layers of historical time (the profilmic time, the time of the image's construction, the time of the image's projection) has been added another time: time's

¹⁵ Michael Zyrd, "Found Footage Film as Discursive Metahistory: Craig Baldwin's *Tribulation 99*," *The Moving Image*, Vol. 3, No. 2 (2003), p. 51.

¹⁶ Paolo Cherchi Usai, *The Death of Cinema: History, Cultural Memory, and the Digital Dark Age* (London: BFI Publishing, 2000), p. 7.

¹⁷ *Ibid.*, p. 41.

¹⁸ André Habib, "Ruin, Archive and the Time of Cinema: Peter Delpet's *Lyrical Nitrate*," *Substance*, Vol. 35, No. 2 (2006), p. 132.



Bruce Elder, *Crack, Brutal Grief* (2001), frame enlargements.



Bruce Elder, *The Young Prince* (2007), frame enlargement.

passage. This time, eroding the film material, does away with the interval between the (man-made) filming process and the (natural) chemical process that subverts and transforms the initial imprint.¹⁹ Habib's insight can easily tap into Elder's "aesthetics of ruin," inasmuch as his images suggest the material traces of decay as the reminder of the process from their initial inscription on celluloid to its inevitable deterioration.

But what makes Elder distinct from Delpout and Morrison in terms of the "aesthetics of ruin" is the complexity of the temporalities that operate in his images of decay. Given that the images of disaster and violence exist and circulate in the form of digital files, they may maintain the "proflimic time" as a layer of "historical time" but lack the passage of time that only celluloid's material mortality is expected to contain. Then Elder brings the images dispersed throughout the dataspace to their possible origins, origins that had been stripped of them since they were placed into digital formats, by transferring them to film and subjecting their figural changes to its chemical-material life and death. It is only by allowing for the chemical decomposition that the reflection on and the

redemption of those forgotten or wasted images are fulfilled. Here the fluid transformation and pixilation of digital video functions to generate two senses of degradedness simultaneously: it pushes the images into the ruin of celluloid while at the same time rendering them to be the poor image, images that lost their original visual abundance in the course of their countless circulation, compression, ripping, and repurposing in the digital realm. Filmmaker and theorist Hito Steyerl provides a compelling view on the latter aspect of digital degradedness. The poor image, Steyerl notes, testifies to "the violent dislocation, transfers, and displacement of images – their acceleration and circulation within the vicious cycles of audiovisual capitalism," and for this reason, they contain "experimental and artistic material but also incredible amounts of porn and paranoia."²⁰ Seen in this light, Elder's achievement is to attest to the exploitative operation of capitalist media assembly and thereby to appropriate its images in such a manner as to disrupt it. Then the images become what digital materialism strives to produce and manifest, glitch that serves as a "persistent reminder that the perfection-oriented goal and desires of mainstream media are

all too easily fucked up."²¹ It is in this way that Elder succeeds in making the materiality of digitized images reveal their own time and simultaneously amplify the materiality and time of celluloid that their original sources suggest.

THE YOUNG PRINCE

The Young Prince (2007) provides a complicated interpenetration of life and death, of Eros and Thanatos. This time, Elder elaborates on his amalgamation of film and digital video by simultaneously utilizing two sorts of transformations: "electrical transformations" produced by the latter and "chemical transformations" brought about by the manual and mechanical processing of the former. More than establishing the dialogue between the two technologies at their material and technical levels, the two interwoven transformations relate to a set of formal and thematic interests that Elder assigns to the work: "The film is...about history as transformation, about Eros as a transformative power, about that old Eisensteinian idea of collage and montage as transformation, but most of all, about transformations of the self."²² All the transformations take place in the images of bodily postures and movements, varying from the sacred to the profane, from Greek and Roman statues as consummations of the odea of human beauty to grotesque portrayals of human bodies in Cubist and Fauvist painting, and from Muybridge's chronophotography to still and moving pictures of eroticism drawn from vintage pornography and pinup pictures. In this sense, Elder follows what Paul Arthur has called the "conceit of film apparatus as human body," a tendency of American avant-garde film to mobilize sensory impressions through an artisanal endeavor to foreground and transform film material.²³ At the same time, those transformations, in tandem with the arbitrary and fragmentary trope of montage, present the erotic, sensual images as Benjaminian allegories of the human being's beauty that discloses itself only through a process of breaking their corporeal boundaries.

Elder's use of the erotic images as the main target of his "electrical" and "chemical" transformations is predicated upon his interest in the relation between corporeal and aesthetic experiences. In *The Young Prince*, the relentless mutation of various body parts sparks the viewer's vision in such a way that the viewer's way of seeing is grounded in his embodied condition. Elder illustrates this aesthetic position through his appreciation of Stan Brakhage, who "maintains that all changes in one's body affect one's faculties of sight": "Indeed, [Brakhage] seems to believe that the organ of

sight is ultimately the entire body. The most important implication of his belief is the notion that all emotional experiences register in sight."²⁴ Elder extends this view into his own aesthetic definition of film medium. For him, cinema is a medium that has its own corporeality and aesthetically affects the phenomenological dimension of human perception: "Flesh is the medium that opens us towards the world, for it is the medium through which that which addresses itself to us emerges...The cinema is disposed to flesh...[It] imprints itself on all that we perceive – and on our body (the worldly representation of the earthly element) and the body of the object alike."²⁵

In Elder's "electrical transformations," the pulsating, fluid movement of electronic signal continually penetrates the female figures' shapes, thus exhibiting its own material texture and thereby rendering the figures barely indistinguishable. A high degree of electronic and digital manipulations deepen the deformation of those figures, metamorphosing them into an array of abstract forms like a free-floating bundle of lines or a whirling vortex of amoebic patterns. Although some figures – for instance, pin-up girls – are still legible, the photo frames surrounding

19 *Ibid.*, p. 134.

20 Hito Steyerl, "In Defense of the Poor Image," *e-flux journal*, No. 10 (November 2009), online at <http://www.e-flux.com/journal/view/94>, accessed on May 6, 2012.

21 Hugh S. Manon and Daniel Temkin, "Notes on Glitch," *world picture 6* (Winter 2011), online at http://www.worldpicturejournal.com/WP_6/Manon.html, accessed on May 3, 2012.

22 R. Bruce Elder, "The Young Prince: Project Description," online at <http://www.ryerson.ca/~belder/filmsprojects/2005YoungPrince/youngprince.html>, accessed on April 2, 2012.

23 Paul Arthur, *A Line of Sight: American Avant-garde Film Since 1965* (Minneapolis: University of Minnesota Press, 2005), p. 157.

24 Elder, *A Body of Vision: Representations of the Body in Recent Film and Poetry* (Waterloo, Ontario, Canada: Wilfrid Laurier University Press, 1997), p. 312.

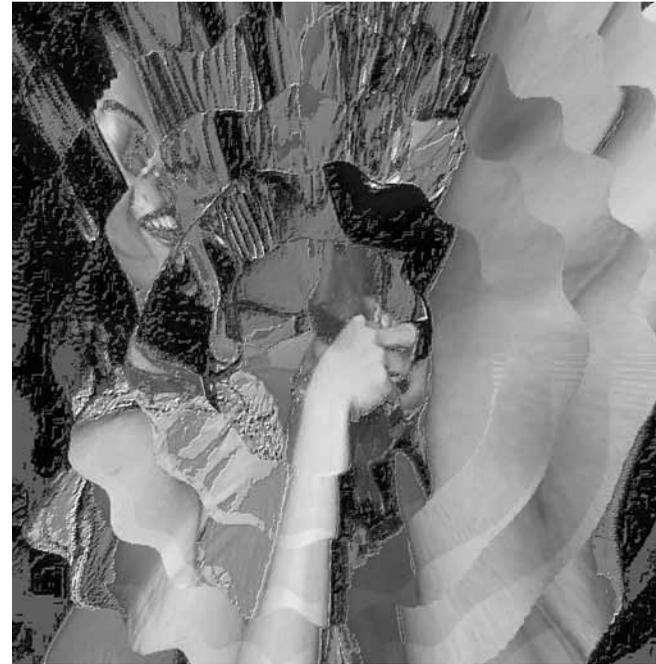
25 Elder, "The Foreignness of the Intimate, or the Violence and Charity of Perception," *Subtitles: On the Foreignness of Film*, eds. Atom Egoyan and Ian Balfour (Cambridge, MA: MIT Press, 2000), pp. 472-473.

them are turned into computer-generated imagery, whether curved like rolls of paper or reorganized into a three-dimensional cubic form. All those “electrical transformations” obliterate some key constituents of transparent optical visuality, such as depth of field and the clear separation between figure and ground, with such extreme complexity and subtlety that the viewer is forced to pay attention to the surface of those figures. In this respect, Elder capitalizes on what Laura U. Marks has identified as video’s medium-specific characteristics that transform the image’s surface and its texture into the field of multisensory visuality (in her own words, “haptic visuality”), such as “the constitution of the image from a signal, video’s low contrast ratio, the possibilities of electronic and digital manipulation, and video decay.”²⁶

In her brilliant analysis of Peggy Ahwesh’s *The Color of Love* (1994), a 16mm found footage film that subjects the fragments of outdated pornographic film to complex treatments of optical printing and coloring, Elena Gorfinkel illustrates how the decomposition of film’s material surface “is able to evince arousal out of ruin, re-eroticizing the allegorical image through the logic of [film’s] own fatality.”²⁷ Gorfinkel’s discussion on the film by way of illustrating the correspondence between pornographic footage and its materiality subjugated to decay and historicity is relevant to examining the pornographic imagery undergoing “chemical transformations” in *The Young Prince*. The most pervasive material traces on the surface of this work are scratches, glitches, and blotches, all of which bear witness to film’s inevitable deterioration. In addition, there are granular patterns on the close-ups of human bodies, as well as liquid forms that suggest those bodies’ organic change of state. All those decomposing patterns, attenuated by the drained tone of the film’s color, are overlaid with the human bodies so opaquely that they tend to neutralize the viewer’s perception of the bodies on the basis of optical visuality. Both those bodies’ extreme approximation to the viewer and the fragmentary montage that interweaves them heighten the effect of disintegration. After all, the erotic representation of the pornographic footage becomes obscure and is elevated to the phase in which, as in the case of digital video’s “electrical transformation,” the human bodies become indistinguishable from an abstract play of light and emulsion that takes the viewer to the universe of explosive colors and unknown shapes. This is where the viewer’s sensuous perception is activated. Then it remains to be further asked whether the two intersecting transformations have to do with Benjaminian “materialist historiography.”

For one thing, Elder’s “chemical transformation” embodies the idea of materialism as it is concerned with the pornographic film footage as the ruin of film. The footage allegorizes the representation of sexuality that lost its erotic weight, and, more significantly, the impending disappearance of film medium that has been alerted by the growing decay of celluloid. For since the tradition of pre-cinematic motion study pioneered by Eadweard Muybridge and Etienne-Jules Marey, pornographic portrayal of body and sexuality had been a driving force for the production of moving pictures and for the visual pleasure of their spectators. As Linda Williams writes, the cinematic apparatus allowed for the unprecedented visibility of the female body while at the same time reinforcing the mastery over the threat of castration aroused by it, through the illusion of movement (on the level of the collaboration between a filmstrip and a projector) and the dismemberment and reunification of the filmed body (on the level of framing and editing).²⁸ In *The Young Prince*, extreme close-ups gleaned from porno movies – faces of a kissing couple, a male’s hand caressing a woman’s skin, fragments of a woman’s handjob – function to indicate the longstanding bond between the body of the film and the filmed body, thereby positioning themselves as an archival record. Yet Elder confirms this historicity not by redeeming the pornographic footage as it was, but by subjugating it to the various processes of disintegration. Not only are the bodily fragments decolorized (the evidence of chromatic decay), but they are also covered with the densely granular patterns and scratches. These effects of emulsion recall the passage of time, and Elder’s attachment to the film’s material texture validates his love of the disappearing image as “finding a way to allow the figure to pass while embracing the tracks of its presence, in the physical fragility of the medium.”²⁹

Elder, however, appears not to be satisfied with resting on melancholia that Marks assumes as a dominant mode of the filmmaker’s emotional engagement with the dissolution of film: for the fragments of the pornographic footage in Elder’s case run past the viewer’s eye so quickly that it is immediately brought to the onslaught of other complex transformations, both chemical and electronic-digital. The melancholic attachment is replaced by the sense of ephemerality, which substantiates the status of the footage as a lost object and at the same time helps the viewer to separate himself from the loss. Thus, unlike the cases of the films (*Lyrical Nitrate*, *Decasia*, *Light is Calling*) that historicized cinema through directly exhibiting the fatal destruction of celluloid,



Bruce Elder, *The Young Prince* (2007), frame enlargement.

Elder’s melancholic recycling of the decaying image is dialectically balanced by mourning as a psychical gesture to embrace its disappearance and invest himself in new chains of found images.³⁰ The dialectics of these two psychic states is inseparable from the collision between the two transformations, as he states:

Some of the transformations leave the image in a state close to the original; some change it so radically that the image is an image which cannot be discerned. Our response to this is curious: sometimes we long to hold onto what the image represents, and when it is lost, when it recedes behind those transformations, we are sad; but equally, we long to hold onto the abstract forms that the transformations produce, and when the representation comes to the fore, we mourn the loss of the abstraction. Thus, the subject of the film is what is gained, and what is lost, through these transformations: while we appreciate the ultimate richness such transformations bring, we also mourn what is lost in the process.³¹

The dialectics of melancholic “loss” and “mourning” is in parallel to the way in which the “electrical transformation” and the “chemical transformation” interpenetrate each other. While complicating its own figural changes,

each transformation goes beyond its material limit by pervading the other. The changing patterns of film’s decomposition such as blotches and fibrillations spill over the digital visual field, making its texture more dynamic and opaque, and thereby strengthening the acute sense of the haptic contact with the erotic figures in the field. At the same time, the digital transformation has a sweeping impact on any kinds of the found images, whether painterly, photographic, or filmic, to the extent that their figures are left to the varying degrees of dissolution and morphogenesis both formally and materially. The video signal’s extreme plasticity is manifested when male and female bodies are almost reduced to the shimmering and flickering

²⁸ See Linda Williams, “Film Body: An Implantation of Perversions,” *Narrative, Apparatus, Ideology: A Film Theory Reader*, ed. Philip Rosen (New York: Columbia University Press, 1986), pp. 507-532.

²⁹ Laura U. Marks, “Loving a Disappearing Image,” *Touch*, p. 96.

³⁰ For the difference between mourning and melancholia, see Sigmund Freud, “Mourning and Melancholia,” *On Murder, Mourning and Melancholia* (New York: Penguin Classics, 2005), pp. 201-218.

³¹ Elder quoted in Koc, “An Interview with R. Bruce Elder,” p. 38.

wave of electrons, on which different colors are conferred. Besides this painterly abstraction, digital visual effects multiply each of the bodies (particularly female bodies) or slice it into different sections while at the same time liquefying them. These manipulations bestow on the bodies new forms (curves and cubes, for instance) and dimensions, therefore suggesting that the beauty of the figures consents not to the ideal of classical beauty, which had privileged formal perfection and eternity, but to the infinite possibilities for the violent corruption of their iconic forms and for the reconfiguration of them into the corporeal forms that exceed and renew the viewer's perception.

It is in this way that Elder's project of *The Young Prince* echoes Benjaminian dialectics of the "destruction of aura." Unleashing its transformative force, the digital assault activates the sensational forces of the old figures, ranging from the Greek era to the modern period in which both non-figurative paintings and cinema flourished, through infusing into them its own material dynamism. This is also grounded in Elder's idea of what cinema is: "The cinema has the ability to show process...by emphasizing speed which liquefies, by stressing dynamism's ability to dissolve boundaries and lay form to ruin, by animating light's searing destructive power...which is the domain of mutability, instability, and ambiguity."³²

Due to the chemical transformation's dialectical relation to its electrical and digital counterparts, *The Young Prince* is in line with the films of Delpout and Morrison and yet, more significantly, is distinct from them. Like Delpout and Morrison, Elder dramatizes how the deterioration and fragmentation of film's chemical base bears witness to its historical trajectory, from its state as a new audiovisual technology at its inception to its status as an obsolete medium as of now. In this sense, his film mirrors what Mary Ann Doane has praised Morrison's *Decasia* for: "What is indexed here is the historicity of a medium, a history inextricable from the materiality of its base. In the face of the digital, the image is rematerialized in its vulnerability to destruction."³³ At the same time, *The Young Prince* radicalizes Morrison's achievement by considering digital video as material as much as filmstrip, and by opening up the dialectical interpenetration between the two. For this intermedial exchange challenges digital media's "fantasy of immateriality [and] the dream of the perfect archive,"³⁴ the utopian fantasy that Doane sees as annihilating the material historicity of celluloid. Instead of satisfying the demand for the perfect storage of the found images and for the systematic ordering of them, Elder's hybrid materialism propels the viewer's

embodied contact with the heterogeneous temporalities of the images through revealing and transforming their material textures. In doing so, it encourages the viewer to make new associations between the images as a way of transcending their historical origins and thereby rewriting the memory of the past in alternative fashion.

Elder's creative employment of the effects of digital video does not simply serve to explore and confirm its essential qualities in self-reflexive manner. Rather, the effects constantly hybridized with film-based effects validate that Elder is certainly among those avant-garde filmmakers who have rigorously used digital technologies to continue and update their aesthetic and technical interests that originated with their celluloid-based filmmaking, much like Jacobs, Snow, Gehr, and others. That is, Elder's investigation into the mutating materiality of digital video expands the longstanding tradition of found footage filmmaking as a mode of practice driven by Benjaminian "materialist historiography," as he employs digital technology as a medium that has a dialectical relation to celluloid-based cinema: Elder's digital technology continues to invoke the cinema's ongoing catastrophe by destroying some of its celluloid-based qualities, but it is also through this destructive impact that the technology opens up new possibilities for the viewer's awakened appreciation of it as the material archive of pasts.

32 Elder, "The Foreignness of the Intimate," p. 341.

33 Mary Ann Doane, "The Indexical and the Concept of Medium Specificity," *Differences: A Journal of Feminist Cultural Studies*, Vol. 18, No. 1 (2007), pp. 145-146.

34 *Ibid.*, p. 148.

Jihoon Kim is assistant professor in the Division of Broadcast and Cinema Studies at the Wee Kim Wee School of Communication and Information, Nanyang Technological University. His essays have appeared in *Screen*, *Film Quarterly*, *Animation: An Interdisciplinary Journal*, *Leonardo Electronic Almanac*, and the anthologies *Global Art Cinema: New Histories and Theories* (Oxford University Press, 2010), and *Taking Place: Location and the Moving Image* (University of Minnesota Press, 2011). Currently he is working on a book manuscript entitled "Between Film, Video, and the Digital: Hybrid Moving Images in the Post-media Age."

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MATERIAL FILM: t here & no w here

BRADLEY EROS

*Nothing distinguishes me ontologically from a crystal, a plant, an animal, or the order of the world; we are drifting together towards the noise and the black depths of the universe, and our diverse systemic complexions are flowing up the entropic stream, toward the solar origin, itself adrift. Knowledge is at most the reversal of drifting, that strange conversion of times, always paid for by additional drift; but this is *complexity itself, which was once called being*. Virtually stable turbulence within the flow. To be or to know from now on will be translated by: see the islands, rare or fortunate, the work of chance or of necessity.*

~ Michel Serres, *Hermes: Literature, Science, and Philosophy*

Thermodynamics or information. What is material in motion? Is it a thing when it moves? The nature of cinema is kinetics, movement, but also graphics, writing, marks, that is, moving signs. Or moving visual thinking. But thermodynamics is irreversible, material in entropy; movement in decay, even as thought creates new thought, birth rises from destruction. This material can coax new material from its death throes. Like a night-blooming flower that opens as it dies.

Marcel Duchamp is speaking: “Given: 1. The waterfall; 2. The illuminating gas.” (Who listens and understands?)

A waterfall is not a “thing,” nor is a flame of burning gas. Both are, rather, stable patterns of energy determining the boundaries of a characteristic sensible “shape” in time and space. The waterfall is present to consciousness only so long as water flows through it, and the flame, only so long as the gas continues to burn. You and I are semistable patterns of energy, maintaining in the very teeth of entropy a characteristic shape in space and time. (Hollis Frampton, *A Pentagram for Conjuring the Narrative*)

...As is the material of film, a coiled body of snakeskin, the tattooed and stained glass ribbon we experience as the dancing hieroglyphs of thought and/or feeling, record or hallucination, shadowed icon or distorted info. Always true and always false. T.here and no.w.here.

What are the irreducible axioms of that part of thought we call the art of film? In other words, what stable patterns of energy limit the “shapes” generated, in space and in time, by all the celluloid that has ever cascaded through the projector’s gate? Frampton asks. *Beyond this “plausible” “frame” of “illusion,” I want to know, what distinguishes this material, as it drifts through the shutters, between blackness and light: sodium or silver, chlorophyll or bacteria, gelatin or marrow, or the gravitational weight of solar rays; ultimately, eros out of chaos, the becoming-being, or inversely, that which vibrates: erosion. The matter that runs through the machine: the moving swarm of material-film & film-material.*

We’re matter. The stars are matter.
But it doesn’t matter. ~ Captain Beefheart.

ALL IMAGES Bradley Eros, slide and frame enlargements.
Courtesy the artist.



“Materialism. Utter the word with horror, stressing each syllable.”
 ~ Gustave Flaubert, *The Dictionary of Accepted Ideas*

One person’s “materialism” becomes another person’s “romanticism.”
 ~ Robert Smithson

There is a romanticism in the material surface, for both are philosophical fictions & both contain myths of artifice.

This is especially true if “materialism” becomes the esthetic motive of the artist. The reality of materialism is no more real than that of romanticism & both are fictions in the chance minds of the people who perceive them. ~ Smithson, again, from “Inverse Meanings,” found in *A Museum of Language in the Vicinity of Art*.

Materials, subject to cataclysms, express the cruelty of matter. The mind reels in defense as it recognizes its own inevitability.

•

Shall I describe the material condition without idealizing or expressing preference for its qualities. Analog vs. digital. Physical vs. virtual. Material vs. immaterial. These distinctions, sometimes antagonistic, sometimes false, often culturally divisive, may be irrelevant as we enter and embrace the non-Cartesian (ghostly machines, anyone?) irreality of the computerized universe of code.

“It came to him with a great shock that not one of the robots had ever seen a living thing. Not a bug, a worm, a leaf. They did not know what flesh was. Only the doctors knew that, and none of them could readily understand what was meant by the words ‘organic matter’.” ~ Michael Shaara, *Orphans of the Void*

Though we could fear our own death, we could also celebrate it as transformation. Though our bodies often ‘know’ what our minds reject: Death embedded in matter. The sensuous vibration of material in all its friction & pleasure, that also marks its degeneration, exactly what we cherish about being alive. Others tend to believe that ‘entropy is the cause of time in man.’ Thus time is a material condition & material is a condition of time. So as we strive to alter this present into a future, materiality rises to the surface of our thinking & ‘things’ shall haunt their own disappearance. But there is often metamorphosis in entropy: materials changing into other materials, something to embrace with wonder, like the heat death of the universe.

fixated / on / material / film

There’s a material aspect of cinema, celluloid film, that makes it resonate as an experience of live media, ephemeral, parallel to the physical theater, oral poetry & musical vibration of acoustic instruments. Light passing through translucent plastic threaded through a lubricated device of sprockets and gears with its moment by moment flickering, imperfections, tension & the supreme possibility of failure.

(((circulatory systems)))

This physical pressure, subject to gravity, this volatile substance, vitalized in the action where chemical, optical and mechanical meet, is uniquely resonant as the nexus of elements, not infinitely repeatable, but felt in the presence of a dark room, a theater of operations, where each patient’s breath and blood rhymes with the heaving of the motor and the circulation of a coiled skein through the system, blinking as it flickers, arrested by splices, and pulsating with each chromatic fluctuation.

~ spectrum ~

As the light passes through the myriad densities of lucid skin, whether greyscale or color dyes, it’s grazed by the haptic kiss of chemical stains and the luminous distortion of ocular lens as only this era of experience can claim. Trans-film, analogous to a human life, a presence that comes into being, decays and dies, it could be embraced as anima incarnate, that is, conscious of its own mortality and celebrated for its precious existence of material vulnerability.

“From death to death, I see the many hues, as she comes & goes in colours”

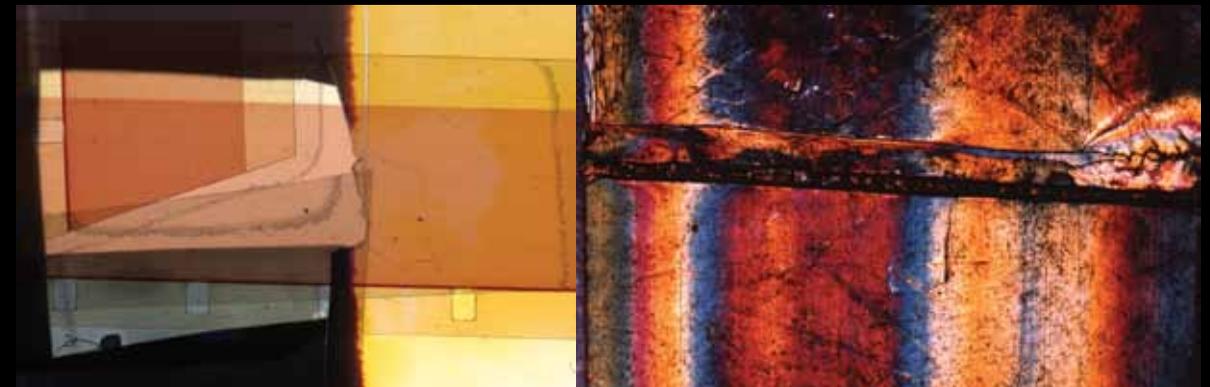
<> temperature valve <>

Like Fahrenheit 451, some of us will memorize and some memorialize this preciousness as an act of resistance, as the ghost dance of a dying spirit, as a rite of species extinction, as a dead link in media evolution, that may never repeat or reoccur in this life on earth. *Did you live during the celluloid-cinema era, grandmother? Tell us, if you can, how to philosophize with a shutter & a claw? Is it true that film was once a material & projection a live event?*

{fine wine}

Physical material has the surface memory of the experience of time.

(not the ersatz simulation of a ‘textured’ veneer nor the pseudo-decasia of ‘rapid-aged’ cheese.) This character, whether desired or not, is the record of analog ambience, a sign of the properties of a body in space, the temporal trace of an object in a gravitational forcefield, & ultimately, the mark of a conscious maturity against the plastic surgery of eternal youth.





ANALOG (arguments & affirmations)

“But as for the resurgence of *analog*, or the resistance to its obliteration, I believe that part of it is an urge for the authentic, the real deal; part is pure nostalgia, or a fetish for the obsolete; some is just fashion, for cool gear and geek posing with a patina of the “space-age bachelor pad mystique”; but for those who have a deep experience with analog technologies, the realization is that a certain human sentient & sensual consciousness comes through these machines & materials that can’t be reproduced otherwise, and that may soon be *lost forever*. It may be the high point of certain technological art forms from the 20th century that are disappearing from the spectrum of the experiential, but most people won’t know what they’re missing. I could say “you just had to be there”, but some subtle perceptions in the texture, the tone & the ephemeral touch or friction of these mediums can not be duplicated. Something raw & direct, yet precise & mysterious is contained in analog art. An arcane secret that humans tapped into with these rare recording & creating devices, like the skin of consciousness.”

“There are specific qualities emphasized by the analog, though some of these are, I think, qualities of the living physical body that also decay & die. Qualities and aspects like transparency (the eye), emulsion (the skin), mechanical gears & shutters (the nervous system & pulse), and vinyl (the grain of the voice), magnify the human delicacy of our inventions. Some embrace these very attributes, while others are reminded of our vulnerability and potential for death. The digital is perhaps closer to synaptic brain processes, & the speed of thought, but more distant from the body that suffers, in its animal-sexual complexity.”

“I could say it’s an environment one wants to live in, an integration with technologies that carry a trace of nature, a hybrid nature with a resonance and an aura of lived experience, without obliterating the memory of our primal past. That may be true, but each technology carries a trace of its prior incarnation, but the analog has a strong physical presence, making one aware of its elemental origin, through chemistry, optics, mechanics, flickering light & sonic vibration.”

“I also want to stress the politics of resistance often involved in analog culture. Some, not all, see it as a critique of consumer capitalism and the seductive marketing of the “always new”, along with the ability to refuse the dictates of a perceived planned obsolescence and to choose inventions from any period that satisfy the quality of experience, however subjective or unpopular. It’s often a “*fuck-you*” to contemporary fads by discriminating artists who have experienced the difference. Tools of self-determination & definition. A form of preservation & psychic resistance. Besides, *some things were just made better.*”

Shutters & Claws

The *octopusmachine* oozes into sight in the grotto-booth, its monstrous presence ignored by the horse-blinded staff, but is secretly enamored & slobber-obsessed over by the geek-pirates called projectionists. The hard-candy shell shields the lacquered guts of the mollusk-plastique of this *cephalopod-celluloid*, that is, its insectoid-slime secretions that constitute the **cinema-viscera**. This intestinal skein is dragged through the digestive track of rotary blades & greased gears scratched by the lobster arm of the stuttering *shuttering-claw* that blinks incessantly through its **Cyclops-orb**. These frissons of horror admit to the sublime ejaculate of eruption as the tentacled lights sputter & spill all manner of haunted danse-macabre on the milky cave wall of our dark nautilus chamber. From the oily **Medusa-machine**, our *optical-optipus*, illuminations expell through the orifice like a vacuum in reverse, a chimera shitting its inky spew in *sphinctal-negative*. Here the light-jets entangle the crystallized veins of subterranean eyes caught in the catacombs of the **ocula-beast**.





A MATERIALIST FILM PRACTICE IN THE DIGITAL AGE

JANIS CRYSTAL LIPZIN

My media practice always begins with some tangible phenomena. For this reason, I prefer to use methods that allow me to reflect on the ‘real’ while at the same time reshaping it. Light-sensitive emulsion is my gateway to re-imagining and re-experiencing the physical world in a tactile and connected way, even as digital processes engulf contemporary art and commerce with virtual disconnected ease. My conscious decision to begin with film is based on that medium’s unduplicable and capricious response to light. I use darkroom processes to produce outcomes that allude to, but don’t truly describe, color in the natural world – the outcomes become the visible evidence of a direct, yet surreptitious, conspiracy between artist, materials, and photochemical occurrences.

In the photochemical process, when an exposure of the film is made, light makes a physical impact on sensitized gelatin and a genuine light mold is created. André Bazin even likened this phenomenon to the making of a death mask or a fingerprint in his essay “The Ontology of the Photographic Image,” in *What is Cinema?*¹ On this basis, he argues that “photography actually contributes something to the order of natural creation instead of providing a substitute for it.”

Upon close examination of the surface of the side of a piece of film that carries the emulsion, a tactile sculptural relief is apparent. It is something like an impression, a pattern made by one thing being pressed into something softer. This process underscores the sense of physical fidelity that film possesses for me because there is a corporeal encounter between subject and material. Light is physically sculpting the gelatin material. This is an actual palpable, sensory incident.

As I understand it, a digital camera has, in place of film, a grid of sensors that converts light into electrical charges, which are recorded as digital data. This method of recording light electronically seems to me to be in all respects inherently synthetic. This digital data, representing what was a camera’s exposure to light, is expressed as numerical values and subject to manipulation into entirely new breeds of imagery. These resultant images carry strong significations of invented rather than authentic images.

My ongoing Starflex Series, initiated over 30 years ago, exploits the ‘faults’ of a simple Kodak Brownie Starflex camera and size 127 color negative roll film.

The camera’s limitations; a shutter that sticks open unpredictably producing unusually long exposures; its plastic lens that diffracts light in unexpected ways; the manual film advance that overlaps frames on the roll film – provide me with endless creative discoveries. I edit ‘in the camera’ keeping the original negative roll intact. Even the paper backing on the roll film provides new creative possibilities: exposing film through the small red filtered window on the back of the camera by leaving the camera in bright sun for hours draws light rays through the textured paper backing before reaching the film emulsion. In this way printed numbers and paper fibers contribute in surprising ways to other images that enter through the front lens resulting in unpredictable double exposures. Until recently, I enlarged the entire filmstrip in the darkroom and printed it directly onto color roll photo paper; now, after scanning the film, I print the unedited roll on computer photo paper with a digital printer. In either case, the results resemble slow, life-size, six-foot-long, cinematic processions.

Janis Crystal Lipzin, TOP *Pennsylvania Diner* (2012), photograph. LEFT *Temporal Vision - Yellow Springs* (1978), photograph. All images courtesy the artist.

¹ André Bazin, *What is Cinema? Volume 1*, University of California Press, 1967. Originally published in *Problemes de la Peinture*, 1945.





A recent hybrid film/digital video series, “De Luce” was prompted in 2009 by my re-discovery of the Robert Grosseteste (1170-1253) text that Hollis Frampton drew upon in his key film *Zorn’s Lemma* (1970).

“In the beginning of time, light drew out matter along with itself into a mass as great as the fabric of the world” (from *On Light [De Luce] or the Ingression of Forms*).

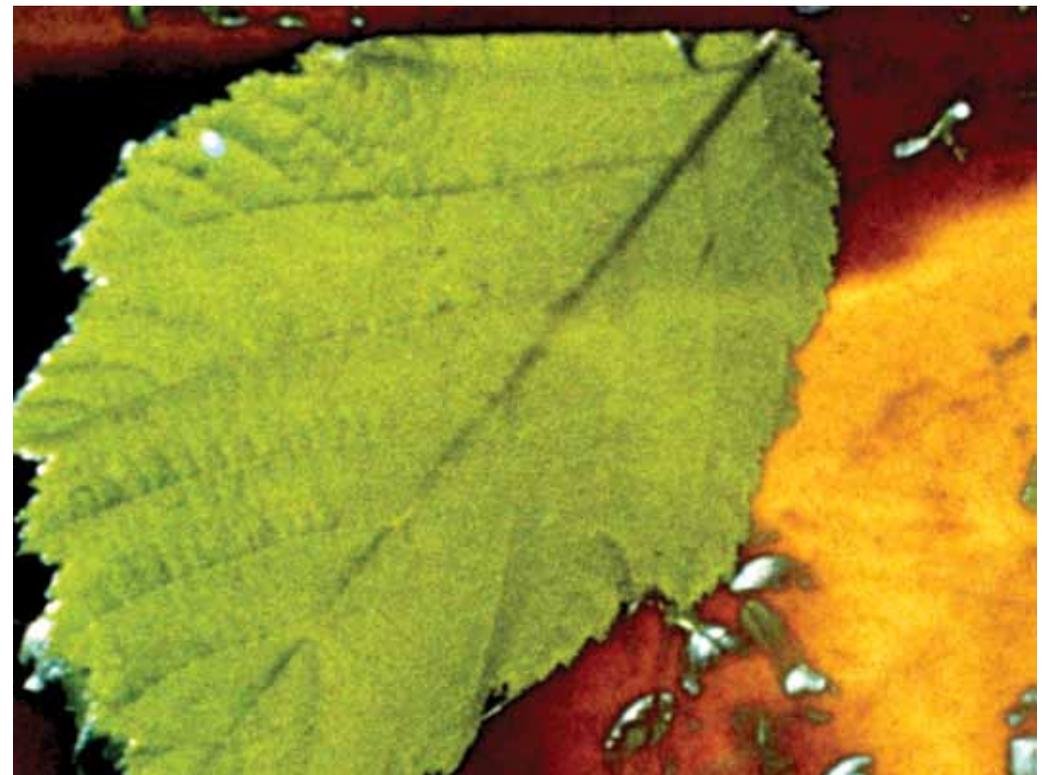
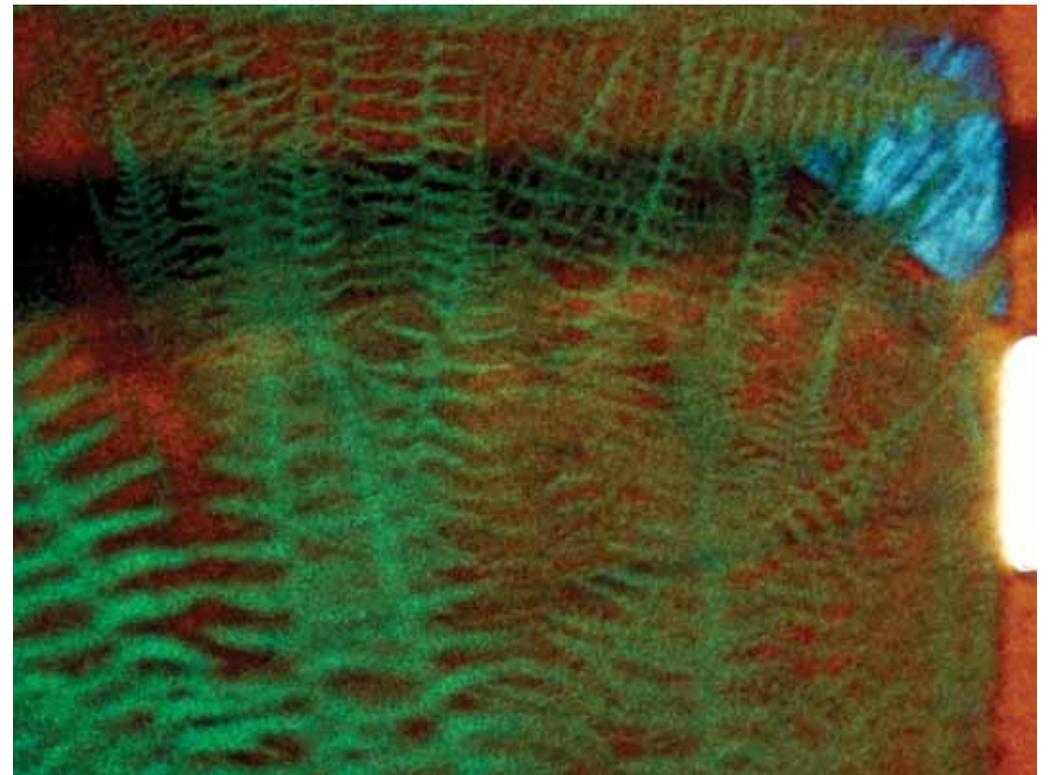
My process in making the “De Luce” works was, in no small way, facilitated by Kodak’s unexpected introduction in 2005 of Ektachrome 64T (7280) and its successor, Ektachrome 100D (7285), super-8 camera stocks, both of which could be hand-processed using available E-6 photo chemistry. *De Luce 1: Vegetare* blends my enduring interest in nature’s volatile events with my sympathy with film’s unpredictable response to light. I learned that exposing the film to quick bursts of light, during the first developer sequence, unleashed volatile color shifts, that, while still grounded in the real world, vastly expanded the Kodak palette of color.

Coincidentally with my growing artisanal film practice, I discovered that students at the art college where I taught for over 30 years, in defiance of short-sighted pressure from the school’s administration to exclusively embrace digital media, demanded

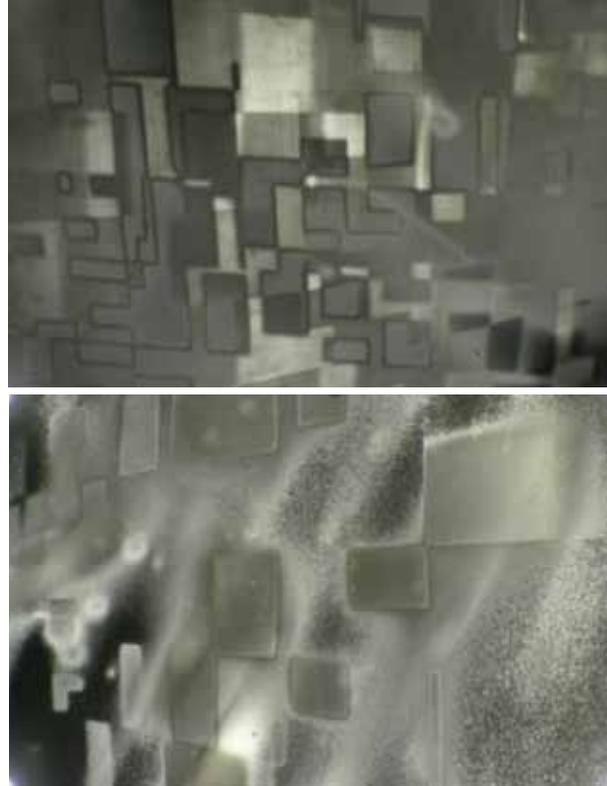
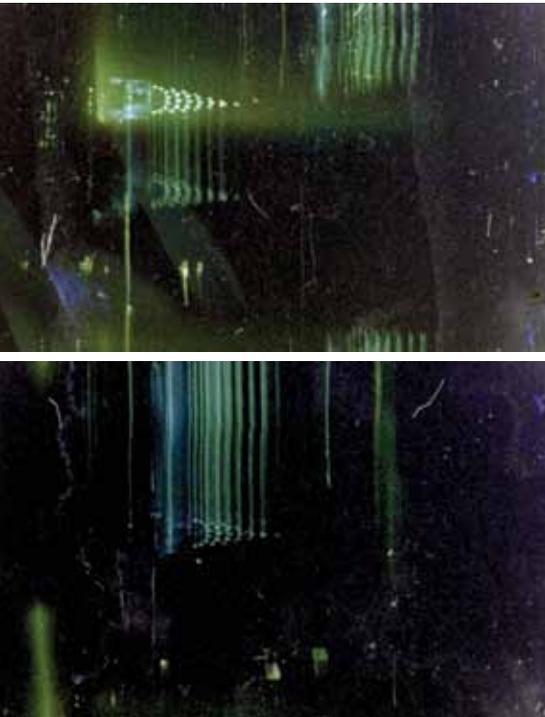
instruction in hand-made or materialist film approaches. These 20-to-30-year-olds, although raised in a digital world, were drawn to create an intimate physical relationship with moving image material.

Cinema’s physical identity was too sensual to be subsumed in a transparent carrier of information. Chun-Hui (Tony) Wu was one of the first of these students to fully embrace such a practice and pushed the concept to its limit. Like his contemporaries, he was interested in subverting the monopoly of filmmaking machinery by foregrounding the visual artist’s hand and touch. In 1998, he created his remarkable s-8 film *More Intimacy* by quite literally taping found footage of bodies in intimate embraces directly in contact with unexposed plus-x reversal film which he exposed with a photo enlarger and later hand-processed. His *Europe Resurrection* of 2006 in 35mm continued in this vein.

In the absence of the instant digital image, the students and I discovered or re-discovered the feeling of eager expectancy while a latent image was allowed to reveal itself in its own time and often on its own terms. Shrieks of wonder and amazement at unexpectedly exquisite results were not uncommon in the screenings that culminated these courses in materialist film practices. And to our surprise, we had recovered a space of time that is filled with anticipation, expectation and authenticity.



OPPOSITE and ABOVE Janis Crystal Lipzin, *De Luce 1: Vegetare* (2009), frame enlargements.

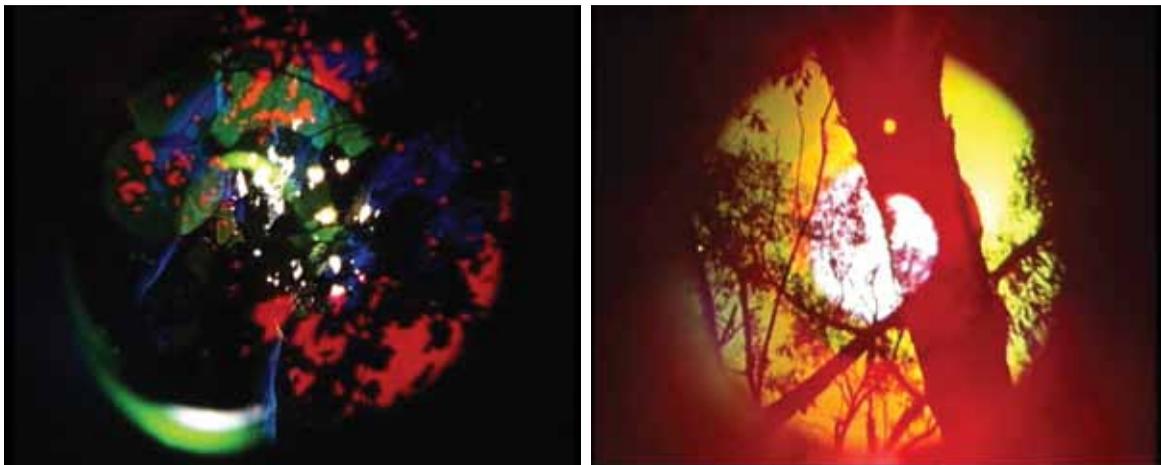


LEFT Katherine Bauer, *Crystallus Astral City Phase Four* (2012), ABOVE Katherine Bauer and Agnes Lux, *39.8280, 76.0121* (2012). Frame enlargements. Courtesy the artist.

PHOTOGRAPHIC MEMORY, PAGE 22.



Steven Woloshen, *The Homestead Act* (2009), frame enlargements. Courtesy the artist.



Richard Tuohy, *Centrespot* (2005), frame enlargements. Courtesy the artist.

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Eunhye Hong Kim (BFA 2012), *Discommunication*, 2011, video installation

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ellen zweig

selected works

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- (The Chinese Room)* John Searle
2002 trt 07:32
- (tongue tongue stone)* G.W. Leibnitz
2003 trt 09:36
- (unsolved)* Robert van Gulik
2004 trt 18:03
- a surplus of landscape*
2004 trt 08:52
- (flick flight flimsy)* Ernest Fenolosa
2006 trt 09:32
- (the origin of bitterness)* Joseph Rock
2007 trt 15:30

堆

"Just as the serious-minded traveler to a foreign land sacrifices certainty and ease of understanding to derive fresh insight, viewers of Ellen Zweig's video works must jettison their expectation of narrative in order to embrace Zweig's fragmentation—its disorientation and truthfulness."

—Kevin Langston
San Francisco Bay Guardian

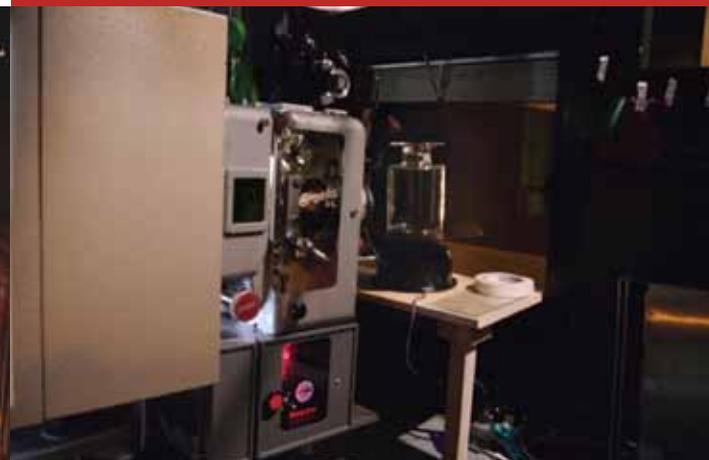
available through the artist

- My Landscape, Your Language*
2010 trt 12:50
- Observatory*
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PERFORMATIVE CONTRADICTIONS PERFORMATIVE CONTRADICTIONS

BY LUIS RECODER

CONCEPTUAL SPECIFICITIES

The project (if we can call it that) is to question the “expanded” cinematic forms that argue in favor of a certain crisis and perhaps overcoming in the concept of medium-specificity. What we desire is nothing more, and nothing less, than to inhabit the concept of medium-specificity as if it had never been inhabited before. With our closed-in systems, we imagine that the conceptual-structural integrity of the whole is a simple looping device or mechanism that is by no means *merely* repetitive and boring but *precisely* repetitive and boring. In brief, the concept of medium-specificity, when specifying its concept, is a performative contradiction that keeps looping back upon the impossible impasse of its symptomatic aporia as it infinitely approaches the closure of an inexhaustible exhaustion.

CHANGE-OVER SYSTEM

To perform the “changeover” system in the 35mm theatrical projection of celluloid film is to disclose a performative contradiction that is embedded in the cinematic organization of the materials themselves. What is simultaneously projected and thus superimposed in a kind of double-projection is the intermittent play of cinematic illusion and disillusion. However, the maintenance of this material-immaterial dialectic (perhaps embodied in the figure of the projectionist) quickly transpires in the dissolving forgetfulness of an audio-visual seduction. As there is absolutely nothing to “grasp” or “grip” in the

conceptual void of an ambiguous theatrical effect, the viewer is automatically rendered helpless to the coming attraction of an enigmatic abduction. An enigma, moreover, whose radical absence is the mere formulaic precondition of an imaginary presence barely hanging on the threads of light and sound waves unthinkable outside the narrow spectrum of a certain projective anthropomorphism. The cinematic effect that discloses the shock of an utterly indigenous heterogeneity entangled in the projective thread is no contradiction at all, but the phantasmagorical persistence of an infernal material-immaterial dialectical machine.

DARK CHAMBER DISCLOSURE

Dark chamber disclosure performs the concealed contradiction of the cinematic apparatus within the apparatus itself. For it cannot be pried open, teased out, or unveiled in any other fashion. The contradiction resists its representability in a spectacle-within-a-spectacle, as in meta-cinema’s catastrophic attempts at medium-specific self-reflexivity, but must be performed within a site-specific domain that is itself the very medium of a fundamental performativity always already performed. The living agency of medium-specific performative contradictions is merely the obtrusive materiality of a subject slipping into the cinematic caesuras to perform a medium stripped bare to nothing but the specificity of itself which is, paradoxically, everything but specific.



Sandra Gibson and Luis Recoder, *Aberration of Light: Dark Chamber Disclosure* (2011), 35mm dual projection changeover performance with sound artist Olivia Block; Conversations at the Edge, Gene Siskel Film Center, Chicago, April 14, 2011. Photo courtesy of Conversations at the Edge.

PROJECTING PROJECTION PROJECTING PROJECTION

BY SANDRA GIBSON + LUIS RECODER



Sandra Gibson and Luis Recoder, *Light Spill* (2005),
16mm film projector, 16mm film, screen; *Lonely at the Top:*
Graphology Chapter 4, curated by Edwin Carels, MuHKA,
Antwerp, Belgium, August 25 – September 25, 2011. Photo
Courtesy of MuHKA.



Film projection exceeds the limits of its concept as a mere functional apparatus for the mechanical performance of cinematic works. A concept of “projection performance” is, therefore, inherent to the medium, which *performs* not only the negation of its mediation and thus subordination to the celluloid material but also its resistance as a passive carrier. (Projection projects its ambivalence to the material, intermittently hesitating between its slavish animation of a dead object and its absolute indifference as to whether the object is already dead or missing.) To perform the already performed is to raise this element of resistance to a second degree awareness. In light of this awareness, the concept of projection performance becomes a tautological concept in which “performance” merely doubles and thus foregrounds the specific functioning of the projective apparatus.

To work as an artist within a certain tautological understanding of projection-as-performance is precisely to perform and re-perform *ad infinitum* the already performed. Film projection has always relied on a projectionist to perform and re-perform *ad infinitum* (*ad nauseum*) the already performed and preformed functioning of the projective apparatus. An aesthetics of projection performance is an apprenticeship to this dedicated custodian of darkness (of nothingness, of disappearance, of invisibility, of transparency). To work or labor in utter darkness is one thing (i.e., to make a bare something out of a bare nothing), but to shape and reshape the intermittent im/palpability of this void through the tyranny of cinematic time is another thing, one which incessantly haunts in its stubborn resistance to the resistance. To break free from this temporal tyranny of narrativized time – or at least to slip beneath its gaze – a shift in the projective location presents itself as a possible exit, though by no means an escape.



LAURE PROUVOST: INCORRECT SYNTAX ●

LUCY REYNOLDS

'Look there! Look!'

Viewers of Laure Prouvost's films must be on their mettle, alert to the instructions directed to them, sometimes *sotte voce*, in whispered tones of French inflection, other times as white text on black, alternatively solicitous, cajoling, flirting and admonishing us with their messages: 'I've made you a cup of tea', 'I hope you are not too cold.' 'I'm sorry I was horrible', 'you have 6 minutes to ...' These on-screen texts are often misspelled, their excess of consonants and scrambled syntax muddled up in the manner of someone writing in a second language. The words appear between images that flash onscreen at a subliminal pace, adding visual assault to textual insult. The pictures have an artful DIY quality: queasy handheld close-ups of food, domestic interiors, bric-a-brac, carpet, pavements and pets whose quotidian details resemble a YouTube home movie.

They are video snatches that function as an errant *mise-en-scène*, a series of clues that never cohere into overall narrative shape, remaining a visceral onslaught of information, framed by the artist in an address to the viewer off-screen that is simultaneously alluring and creepy.

At first Prouvost's intimate, confessional style holds out the promise that the significance of these image fragments will be explained to the perplexed viewer. It becomes clear, however, that the video glitches, and progressively disjointed voice-overs, text and images, do not signify an amateur grasp of video technology, but rather, the artist's intention to disorient by creating deliberate misconstructions of meaning through her progressive fragmentations of sound and image. In *OWT* (2007), for example, a video lecture to camera with the curator Michael Connor is increasingly



derailed by Prouvost's mistranslations of his words, which are relayed in subtitles underneath, even though he is speaking English. In Prouvost's subtitles, Connor's discussion of his interest in artists' film is transformed into a cryptic narrative with an intriguing sexual subtext, based on her faux-mistaken understanding of his pronunciation. Thus, Walter Benjamin becomes Benimi and his famous concept of 'aura' becomes "the less moral he has and the less oral he was," or a comment on the experience of the auratic is translated from "the closer you can get to something the more accessible it is," to "the closer Martin got to Benimi's wife, the more accessible she became."

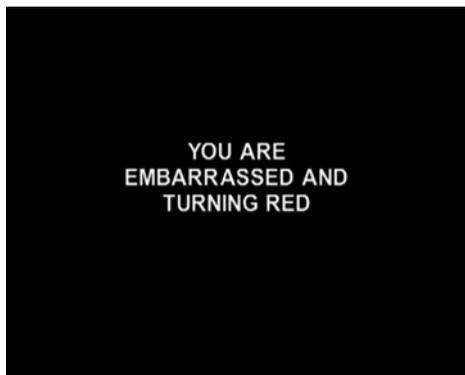
Like John Smith, the filmmaker to whom she is often compared, the French-born Prouvost is interested in this perceptual play of language and how ruptures in the coherence of sound and image synchronicity can expose new readings and call into question old assumptions. However, it could be argued that Prouvost's word games enact a form of malapropism that differs from the elegant spatial/linguistic displacements of Smith's *The Girl Chewing Gum*, or even his rambling nocturnal conversations to camera in the hotel rooms of *The Hotel Diaries* series. Instead, building on her experience of English as her second language, Prouvost is interested in language at the point of failure, and the misunderstandings that occur when communication breaks down. In her witty literalization on the Freudian slip of the tongue in *OWT*, Benjamin's concept of the

aura of the art object, held in such high regard as a tenet of modernist thought, thus translates as a squalid story of infidelity which pokes fun at both Connor's serious tone and Benjamin's theory.

At the same time, *OWT* does not appear to be an attack on high art high-mindedness, so much as an exploration of how the authority of language can be undermined by attacking its hegemony. Her sly interventions in the film return us to Roland Barthes' famous assertion that it is the reader rather than the author who acts as the primary agent, and point of convergence, for language, and his argument that "[A] text is made of multiple writings, drawn from many cultures and entering into mutual relations of dialogue, parody, contestation, but there is one place where this multiplicity is focused and that place is the reader, not, as was hitherto said, the author" (*Image-Music-Text*). As Connor's monologue is progressively invaded by seemingly unrelated text, images and whispered asides by the artist, *OWT* (in common with many of Prouvost's films) reflects Barthes' definition of language as a dynamic space of flux and multiplicity, and one that evades a singular authorial voice, whether it be Connor's or that of Prouvost herself. Barthes' notion of multiplicity might also be extended to encompass Prouvost the author, not as one who stands apart from her creative process but one who is deeply implicated in it and refracted through it. In *OWT*, for example, she is among us as a member of the audience, albeit a disruptive one, who interrupts with her distracting mistranslations, projecting herself simultaneously through voice and text in a further witty play on the notion of the *aura*/ 'aural', while also alluding to the meditations on distance and proximity that lie at the heart of Benjamin's explorations of the *aura*.

Prouvost's deft interplay of voice and text might thus be said to project an audiovisual omnipotence that asserts her presence yet remains strangely fugitive. On the one hand she acts as presenter and guide, navigating the viewer through the convoluted sequence of apparently disconnected images and texts that crowd her films, pointing out objects and characters along the way, while on the other hand, she is beside us in the audience, whispering asides – as confused as we are. Her role as guide is often literalized, particularly in *The Artist* (2009) where her pointing finger on-screen alerts us to

Laure Prouvost, *OPPOSITE OWT* (2007),
ABOVE The Artist (2009), frame enlargements.
Courtesy the artist.



Laure Prouvost, *Monologue* (2009), frame enlargements. Courtesy the artist.

objects which have a specific, often bizarre, narrative or significance attached to them (“I’ll point things out so you can see them – look this way! Regard!”), such as the china ornament of an Alsatian who has lost his tail, or the space under the table where grandmother is tethered. As the camera follows her pointing finger around an improvised interior of hanging blankets, mirrors, uncompleted paintings and miscellaneous objects, she delineates the *mise-en-scène* of what could be an artist’s studio, or a half-finished exhibition.

Yet, where mainstream cinema relies on material clues such as these to suggest the character traits of the protagonist in question, Prouvost’s apparent act of transparency, as she explains her motley collection of objects, is ultimately an act of disarming obfuscation. The purpose of Prouvost’s tour here, as with many of her films, is revealed as a form of solicitous disorientation. Like a lost tourist being given the wrong directions by a helpful local, her fragmented directions and explanations send us off up other unsuspected avenues and lines of thought, diverting us from her central role in creating this confusion, while at the same time opening up unexpected adventures.

Whether tour guide or translator, it is important to stress that although Prouvost uses the language of the presentation as her primary mode of address, the different personas that deliver it most often remain out of sight. In this way she asserts her presence from the margins: as a whispered aside, an incorrectly spelled subtitle, a pointing finger, or (in the case of the award-winning *Monologue* [2009]) a disembodied torso; all of which are due, so she tells us, to the inadequacies of the video equipment that has framed out her head. This example is characteristic of the half-truths that litter her films, another knowing form of miscommunication to undermine the authority of the video/televisual address, inviting the viewer to question – yet not completely disregard – the trustworthiness of their guide and the truthfulness of their utterances. Like the evocations of sexual activities in Vito Acconci’s suggestive speech to the camera in *Undertone* (1972), in which he suggests that a woman is stroking his thighs under the table from which he addresses the viewer, Prouvost creates a potent space of uncertainty between her own assertions and what the viewer perceives on-screen. Indeed, Acconci could be seen as an important antecedent to Prouvost’s provocative games of word and image, as she engages similar strategies of direct and personalized address to the viewer imagined on the other side of the fourth wall.

It is also not surprising to find that Prouvost’s most recent and ambitious project takes a Kafka short story entitled *The Wanderer* as its starting point. However, this is no direct transcription of the original novella. Instead, she bases her scenario on a translation into English by the artist Rory McGrath, made without any knowledge of the German language in which the original is written. As with all Prouvost’s works, this willful (mis)reading sets up ample spaces of slippage from which the original text can be reimagined and opened up to new potential. Lost with the protagonists in a self-storage unit, or clinging to a bar stool in a dingy nightclub, this feels like familiar Prouvost territory. For like Kafka, it could be argued that the games of solicitous disorientation which characterize her films usher in a host of imagined encounters and personas as intriguing as they are sometimes grotesque whether this is the ghost of her conceptual granddad (the artist John Latham), the lascivious Benimi whom she uncovers in Benjamin’s text, or the dismembered artist herself – still giving us directions and making us tea from the other side of the screen.

Lucy Reynolds has published extensively about artists’ moving image work. She runs the Moving Image pathway on the Postgraduate Research Program at Central St Martins School of Art and is Features Editor of MIRA, the Moving Image Review & Arts Journal.

NAVIGATING ALGORITHMIC EDITING

ALGORITHMIC EDITING
AS AN ALTERNATIVE
APPROACH TO
DATABASE CINEMA

CLINT ENNS

Ideas are not separable from an autonomous sequence or sequencing of ideas in thought that Spinoza calls concatenatio. This concatenation of signs unites form and material, constituting thought as a spiritual automaton.

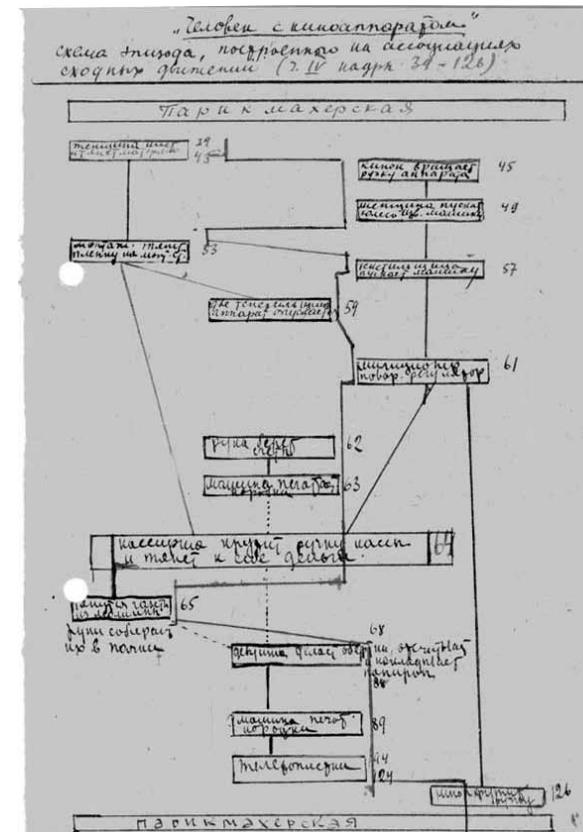
- D.N. Rodowick, *The Virtual Life of Film*

Database cinema, as introduced by Lev Manovich in *The Language of New Media*, is a new media form that takes advantage of the computer's ability to manipulate, analyze, organize and arrange multimedia data. Being less than efficient, traditional video editing software is not the ideal platform for producing database cinema. Despite the fact that video editing software systems allow for direct access to any frame without requiring the sequential navigation through adjacent footage, they are still heavily rooted in a film-based editing paradigm. Database cinema borrows one of its key concepts from computer science: namely, how the computer accesses its database – algorithms. Many artists are already learning from and exploiting the computer's relationship to the database through the use of a technique called algorithmic editing.

As with most new media, algorithmic editing is not new and its roots can be seen in the earliest attempts to formalize/theorize the practice of cinematic editing. Programming software to interact with and manipulate the digital file and the database provides the artist with direct access to and insight into the files themselves, naturally connecting algorithmic editing to the aesthetic tradition of materialism. In addition, theorizing about algorithmic editing offers new critical cultural insight and the practice of algorithmic editing offers the potential to address, re-invent and subvert the medium.

Algorithmic editing is a term that was first coined by Lev Manovich in an artist statement for *Soft Cinema* (2002), a collaborative project with Andreas Kratky that attempted to navigate the database in new and innovative ways. In the artist statement, Manovich theorizes about algorithmic editing without providing a concrete definition. Explicitly, algorithmic editing refers to any method of editing based on direct procedural approaches. In other words, algorithmic editing can be seen as a technique for cutting and reassembling raw footage by following a schema or score. Here is an example of a simple, one line algorithm that could be used to algorithmically edit a film. *Sequentially use every odd frame from one sequence of film and every even frame from another sequence of film to assemble a new film which alternates between the odd and the even frames.* The resulting algorithmically edited flicker film would rapidly alternate between the two sequences. Creating this film using two filmstrips would be difficult without the labored use of an optical printer. On the other hand, producing this film from two video sequences would be difficult without the use of a script or specially made plug-in; nevertheless, a script for this algorithm would only consist of two or three lines of code.

In a broader context, algorithmic art is produced by following an algorithmic process, that is, it is art produced by following a finite list of well-defined instructions or by following a procedure. Although the use of computers is usually associated with algorithmic art, computers are not an essential part of the process. On the other hand, algorithms are essential to computer operation. That is, computer software is merely a collection of computer programs, and computer programs are simply computer algorithms that process and manipulate data.



Editing chart employed by Dziga Vertov.

Despite the fact that algorithms follow a step-by-step procedure, the user cannot expect the same output every time; this is because algorithms often contain random or pseudo-random processes. Equally important, the computer can be programmed to produce results that are unexpected, a feature that is often exploited by artists creating algorithmic art. Finally, algorithms are often designed to require input from the user in order to perform their tasks, allowing the user to maintain at least the semblance of control and providing the computer artist with a sense of authorship – which some might suggest has been lost in the transition from film to the digital.

Though Manovich coined the term, it can be argued that algorithmic editing traces back to Soviet montage theory and was later developed through the work of structural filmmakers in the late '60s and early '70s. By treating film as a countable and measurable entity, filmmakers such as Sergei Eisenstein and Dziga Vertov used rhythm, as well as formal content,

to develop simple editing structures. In the late '60s and early '70s, many experimental filmmakers began to use simple schema to edit their films. In addition, filmmakers were beginning to experiment with the optical printer, a device that, in some cases, allowed for the creation of slightly more complex schema through the use of a programmable sequencer.

Currently, through the use of a computer, artists are able to create database works using fairly complex schema by combining algorithmic editing with found footage practices. Algorithmic editing allows the artist to take advantage of the computer's other functions and abilities, in addition to the enormity of digitally available databases. Moreover, many artists are designing software to algorithmically edit footage, both original and found. In this article, the advantages of algorithmic editing, relevant examples of algorithmic editing software, as well as database cinema created using digital algorithmic editing will be thoroughly examined and discussed.

In *The Language of New Media*, Manovich asks, “how can our new abilities to store vast amounts of data, to automatically classify, index, link, search and instantly retrieve it lead to new kinds of narratives?”¹ In order to answer this question, I propose that we need an intermediate step – a method for converting the database structure into a narrative structure. As Manovich has suggested, “once digitized, the data has to be cleaned up, organized, and indexed. The computer age brought with it a new cultural algorithm: reality -> media -> data -> database.”² By developing Manovich’s cultural algorithm further, I suggest expanding this diagram to: reality -> media -> data -> database -> algorithmic editing -> a new narrative form. To Manovich, cinema “is the intersection between database and narrative,”³ therefore, the expansion of the database must lead to more innovative and complex narratives. By using a computer, the artist is able to create editing schema that is far more complex than those of his/her predecessors including filmmakers like Eisenstein, Vertov, Kubelka, Sharits, Imamura and Kren.

As early as 1974, Malcolm Le Grice noted that computers “are ideally suited to dealing with complex relationships of data precisely and very rapidly, and they are being developed towards highly efficient indexing and retrieval capability.”⁴ In fact, this trend has continued and is precisely the reason computers are ideal for creating database cinema. Currently, we are at the point where computer users have the ability to retrieve multimedia information from enormous, well-indexed databases. In *Experimental Cinema in the Digital Age*, Le Grice conjectures that the three most important functions performed by the computer in relation to cinema are “systems of incrementation, permutation and random number generation.”⁵ To this I would add, the computer’s ability to access large amounts of data; its ability to manipulate and analyze data; and its ability to efficiently copy and paste. On the other hand, efficient and effectively made cinema isn’t necessarily cinematic. This brings me to a question raised by Barbara Lattanzi in her essay of the same title, namely, “what is so cinematic about software?”⁶

Lattanzi is a new media artist who develops her own original, open-source software to algorithmically edit films from a database. Lattanzi uses software consisting of “simple, dynamically-modifiable algorithms” to encode and emulate editing techniques of seminal avant-garde films.⁷ Her software, *AMG Strain* (2002), *HF Critical Mass* (2002) and *EG Serene* (2002), emulates the editing schema of Anne McGuire’s *Strain Andromeda The* (1992), Hollis Frampton’s *Critical Mass* (1971) and Ernie Gehr’s *Serene Velocity* (1970) respectively. By referencing other work, Lattanzi

observes that “the simulation of film structure in a software algorithm – where the software becomes **referential** to a specific film experience – *paradoxically registers a narrative in the algorithm*, a narrative with concrete reference within an abstraction.”⁸ I would argue that reference to another film’s structure is not enough to produce narrative (although it is enough to enter into a cultural dialogue with the original artists). On the other hand, the clips the software is referred to – the database – are extremely important and play a key role in contributing to the narrative or content of the film. In other words, as Lattanzi observed, the “Software is not narrativising in itself.” She continues, “Software is not about something. Software *performs* something.”⁹ In the case of Lattanzi’s software, it performs something to a specific video clip from a database of video clips, and the choice of the clip is significant. For instance, *Critical Mass*, *Serene Velocity* and *Strain Andromeda The* are considered works of cultural significance precisely because the artists took careful consideration of the content to which they applied their editing schema. The editing schema in and of itself was not enough.

One of the first works explicitly considered to be algorithmically edited is Manovich and Kratky’s *Soft Cinema*, which can be viewed as a theoretical investigation into the different types of narratives database cinema offers. Despite being one of the first artworks to explicitly make use of algorithmic editing, the work ultimately fails due to the seemingly arbitrary nature of the editing. Although the clips are associated through keywords that describe and account for their content and formal properties, it is impossible for the viewer to decipher the underlying logic being employed, thus making the clip selection appear arbitrary. On the other hand, experimenting with database cinema allowed Manovich to theorize about the potential of algorithmic editing:

Different systems of rules are possible. For instance, one system selects clips closest in colour, or type of motion to a previous one; another matches the previous clip in content and partially in colour, replacing only every other clip to create kind of parallel montage sequence, and on and on.¹⁰

In this description, Manovich alludes to the computer’s ability to edit according to specific analyzable properties in the clips, for instance, color, motion, sound, etc. An example of an algorithmically edited work that takes advantage of this ability is Cory Arcangel’s *Drei Klavierstücke op. 11* (2009).



Cory Arcangel, *Drei Klavierstücke op. 11* (2009). Screen grab.

In *Drei Klavierstücke op. 11*, Arcangel humorously reassembles Arnold Schoenberg’s 1909 *Drei Klavierstücke, Op. 11* from various videos of cats playing piano found on YouTube. *Drei Klavierstücke* is considered to be among the very first true pieces of atonal music – a form of music that does not conform to any particular key signature. Despite the technical knowledge required to both perform and compose atonal works, to the unsophisticated listener, atonal works may sound like a cat playing the piano, an act that is undeniably cute and hence requires recording and uploading to YouTube. Ironically, the act of creating an atonal work from videos of cats playing the piano is a fairly sophisticated process which Arcangel informally described on his website as follows:

So, I probably made this video the most backwards and bone headed way possible, but I am a hacker in the traditional definition of someone who glues together ugly code and not a programmer. For this project, I used some programs to help me save time in finding the right cats. Anyway, first I downloaded every video of a cat playing piano I could find on YouTube. I ended up with about 170 videos. Then I extracted the audio from each, pasted these files end to end, and then pasted this huge file onto the end of an audio file of Glenn Gould playing *op. 11*. I loaded this file into Comparisonics. Comparisonics, a strange free program I found while surfing one night, allows users to highlight a section of audio, and responds by finding “similar” sounding areas in rest of the audio file. Using Comparisonics [*sic*]

I went through every “note” (sometimes I also did clusters of notes) in the Gould. I then selected my favourite “similar” section Comparisonics suggested and wrote it in the score. After going through the 1000’s of “notes,” the completed scores were turned into a video by some PERL scripts I wrote which are available here¹¹ if you wanna do something similar.¹²

Cory has since improved this technique for his most recent video *Paganini’s 5th Caprice* (2011) – a video composition of Paganini’s early 19th century musical composition *Caprice No. 5* reconstructed from hundreds of different instructional videos for guitar found on YouTube. By re-using his code for *Drei Klavierstücke op. 11*, Arcangel demonstrates the importance of code reusability to algorithmic editing. As previously observed, these works also demonstrate another important aspect of algorithmic editing, the computer’s ability to analyze clips. Arcangel analyzes the sound found in various YouTube clips and edits

1 Lev Manovich, *The Language of New Media* (Cambridge: MIT Press, 2001), p. 237.

2 *Ibid.*, p. 224.

3 *Ibid.*, p. 237.

4 Malcolm Le Grice, *Experimental Cinema in the Digital Age* (London: BFI, 2001), p. 220.

5 *Ibid.*

6 Barbara Lattanzi, “What Is So Cinematic About Software?” (Presented at “Connectivity,” Connecticut College, New London, CT, March 31-April 1, 2006).

7 *Ibid.*

8 Barbara Lattanzi, “Critical Mass, the Software,” (Presented at “Gloria! The Legacy of Hollis Frampton,” Princeton University, Princeton, NJ, November 5-6, 2004).

9 *Ibid.*

10 Lev Manovich, *Soft Cinema* (Karlsruhe: TKM, 2002-2003), p. 5.

11 http://www.coryarcangel.com/wp-content/uploads/2010/07/Gould_Pro_v.01_PreAlpha.zip.

12 Cory Arcangel, “Drei Klavierstücke Op. 11 (2009),” <http://www.coryarcangel.com/things-i-made/dreiklavierstucke/>.



the appropriate clips together according to a schema, namely, a musical score. Expanding on this, it is possible to analyze clips from extremely large databases, like YouTube, for other properties and then algorithmically edit the clips together according to a schema.

Finally, Doug Goodwin's *Mersenne Devil Twister* (2011) is a simple video sketch that edits together four to twelve frame sequences selected randomly from a clip in a process Goodwin describes as "desequencing."¹³ By writing code to algorithmically edit a video segment, in this case a clip from Peter Yates' *Bullitt* (1968), Goodwin produces a segment whose movement is jarring and unusual yet strangely memorizing, compelling and beautiful. The title itself refers to Nic Collin's album *Devil's Music* (1985), which was created using a similar technique applied to sound clips and the Mersenne twister – an algorithm for generating pseudo-random numbers. In using this title, Goodwin reveals both his influence and the process involved in the making of the video. Finally, Goodwin made the code available on his website, thereby encouraging others to further develop this technique.¹⁴

As observed by Amos Vogel in *Film as a Subversive Art*, the "avant-garde offers no solutions or programmatic statements, but a series of intricate challenges, hints, and coded messages, subverting both form and content."¹⁵ Despite involving programmatic statements in the form of code, algorithmic editing in the digital age can be seen as one technique extending contemporary avant-garde practices and concerns. I'd like to explore some of the contemporary issues that artists are engaging with, either implicitly or explicitly, by applying the techniques of algorithmic editing to the database.

There are some theorists who believe that the interfaces imposed by digital practices restrict creativity. Although this may be true of commercial editing

software, it is certainly not true for artists writing their own software and experimenting with algorithms and code. The computer, like the optical printer, is a powerful tool that in the hands of a creative artist can be used to generate engaging work. It would be considered ridiculous to argue that the interface imposed by the optical printer or the Bolex restricts creativity, and it is equally ridiculous to argue that all digital interfaces restrict creativity.

Through writing code and video editing tools the artist is able to critique industrial modes of filmmaking, both in terms of the tools they employ and in terms of content they are generating. Most commercial video editing software attempts to hide the algorithms it employs and is unmodifiable. As Barbara Lattanzi states in an interview with artist Keiko Sei:

I would rather make my own software (what I term idiomorphic software), because the commercial software that I use comes at a price. That price has less to do with money and more to do with a different process of abstraction: the active framing of my work within considerations dictated by irrelevant practices of Design. I make clear with students that I am not interested in their Design clarity and precision, but in their discovering productive ambiguities.¹⁶

In this statement, Lattanzi points out the role that errors and mistakes play in the artistic process, something commercial software tries to eliminate. This implies that, in spite of embracing a systematic approach to film, algorithmic artists are also embracing errors and imperfection. This simple act can be seen as subversive since our society historically and presently strives for perfection. In fact, this is one of consumer myths that capitalism is based upon, namely, the myth that newer and sleeker is better.

Knowledge sharing is also an important part of the culture. As observed by Tom McCormick, "...glitchers seem eager to share their strategies. Part of this probably has to do with the fact that many new media artists are code junkies who come directly out of the open source movement; but then the open

source movement may have equal roots in functional programming and media art."¹⁷ This sentiment is reinforced by Arcangel and Goodwin's eagerness to share their processes and Lattanzi's strictly open source policies. Conceptually, this act carries with it all of the political motivations of the open source movement, however, it also reveals the importance of content since everyone potentially has access to the same processes and techniques. Open source as a pragmatic methodology, is inherently a subversive practice because it promotes cooperation, collaboration, community and removes profit incentives.

Despite the cheapening of process-based work due to the reusability of code, the database takes on a new and heightened value since the content of an artwork is, at least partially, dependent on database choices. Database cinema is planted firmly in the continuum of found footage filmmaking. Although there are many positive aspects to this – as Michael Zryd, for instance, suggests in his article *Found Footage as Discursive Metahistory*: "the etymology of the phrase [found footage] suggests its devotion to uncovering 'hidden meanings' in film material" – it also raises questions about copyright/ownership of the sources being employed.¹⁸ Many artists blatantly ignore copyright issues. For instance, it can be assumed that Arcangel does not ask individual users for permission to use their clips when he uses YouTube as database, though he does acknowledge his source videos, transforming the original authors into unknowing collaborators.

In our society, algorithmic editing as an approach to the digital database is actually constantly being used in invisible ways. For example, it is the current template for many television news channels. News stations bombard the screen with information obtained from different databases. Current world news, in the form of text, runs across the bottom of the screen, in addition to information about the weather, time and the stock market. It can be assumed that the station is accessing this information from various databases and that the station does not research all of the stories they are broadcasting, despite presenting these stories as news. Finally, many news stations are potentially accessing the same databases, thus the news being provided only represents a single perspective.

Algorithmic editing techniques are also being applied to internet search engines in an attempt to provide user-specific content. In *The Filter Bubble: What the Internet is Hiding From You*, Eli Pariser developed and explored a controversial concept sharing the same name. This concept addresses some of the negative effects of generating user-specific content based on

our past viewing behaviours. Through the filtering of information, determined by capitalist interests, Pariser is suggesting that a bubble is formed around individual users, which inhibits intellectual growth by not exposing the user to ideas conflicting with their own ideology and by not necessarily providing the user with the most accurate information.

By experimenting with algorithmic editing, the artist is investigating a concept that is informing and framing the culture in which they live. Through this exploration, artists are able to provide insight into these processes, and, at the very least, are able to reveal and demystify them. By understanding algorithmic editing, the artist is able to provide social and cultural critique. As noted by Barbara Lattanzi:

The Cultural Producer who samples form the raging flows of media detritus – endless satellite feeds, cable and broadcast transmissions, and the sedimentary layers of these through the past 25-50 years – becomes the heroic Luther, wresting deconstructive (re)form(ation)s out of the desultory, formless industrial wasteland. Deconstructive film and video-making demonstrate the inherent formlessness of mass media by making it into the "New Nature."¹⁹

¹³ Doug Goodwin, "mersenne video twister," <http://cairn.com/wp/2011/03/04/mersenne-video-twister/>.

¹⁴ <http://cairn.com/wp/2011/03/04/mersenne-video-twister/>.

¹⁵ Amos Vogel, *Film as a Subversive Art* (London: Distributed Art Publishers/CT Editions, 2005), p. 308.

¹⁶ Keiko Sei, "Productive Unclearities: Interview with Media Artist Barbara Lattanzi," *Springer|in 4* (2001).

¹⁷ Tom McCormack, "Code Eroded: At GLI. TC/H 2010, RHIZOME, Oct. 2010," in *GLI.TC/H READER[ROR] 2011*, eds. Nick Briz, Evan Meaney, Rosa Menkman, William Robertson, Jon Satrom and Jessica Westbrook (Chicago: Unsorted Books, 2011), p. 16.

¹⁸ Michael Zryd, "Found Footage as Discursive Metahistory: Craig Baldwin's *Tribulation 99*," *The Moving Image*, Vol. 3, No. 2 (Fall 2003), p. 41.

¹⁹ Barbara Lattanzi, "We Are All Projectionists," *Millennium Film Journal*, No. 39/40 (Winter 2003), p. 84.

To expand on this, it is not only the database that artists are deconstructing, it is also the techniques used to access the database. Furthermore, by technically understanding algorithmic editing, artists can reinvent and subvert the role that it plays in traditional applications.

CONCLUSION

Algorithmic editing as an alternative approach to the digital database is still in its infancy and the examples explored in this paper demonstrate the potential these techniques have, not only in terms of aesthetic considerations, but also in terms of social and cultural critique. By experimenting with algorithmic editing, observing the use of algorithmic editing as it functions in the world around us, and theorizing about algorithmic editing, especially in its relationship to the digital database, artists and theorists are able to

offer new critical insight into the effects of algorithmic editing upon our society. By addressing the social effects of the medium and by understanding the medium itself, artists possess the ability to transform our society by demystifying, recontextualizing and potentially reinventing the medium itself.

Clint Enns is a video artist and filmmaker from Winnipeg, Manitoba, whose work primarily deals with moving images created with broken and/or outdated technologies. His work has shown both nationally and internationally at festivals, alternative spaces and microcinemas. He has recently completed a master's degree in mathematics at the University of Manitoba, and will continue his studies in cinema and media at York University.

THE ALGORITHMIC EDITING MANIFESTO

```

while (u != understand) do
{
    read{
        (i) no gui
            script editing only

        (ii) open source
            code embedded coding || externally

        (iii) reuse & rework
            u'r own code & others code

        (iv) encode the avant garde
            algorithmitize previous schema

        (v) credit
            title || code || externally
            u'rself & others
    }
}

```

While you do not understand, read and re-read the following:

1. No graphical user interface, use only script based editing.
2. Embrace an open-source philosophy. Share your code either in the work itself or make the code available externally.
3. Borrow code from others and continue to re-work your own code. This is the benefit of embracing an open-source philosophy, that is, you are able to modify the code of others.
4. There are many interesting algorithmic editing techniques used by filmmakers in the past. Encoding their techniques not only enables you to use their techniques, it also allows you to engage in a cultural dialogue with that filmmaker and it revitalizes their work, in essence further preserving it and its cultural significance.
5. Credit your work and cite your references either in the title of the work, in the code used or externally. This contributes to a positive community attitude and re-enforces points 2-4.

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Founding Editor
Catherine Elwes
University of the Arts London
c.elwes@arts.ac.uk

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PROCESSING PARAMETERS

A LECTURE BY **HOLLIS FRAMPTON**

INTRODUCTION BY GERALD O'GRADY

Hollis Frampton delivered this lecture, "Processing Parameters," at *The Materials of Film: A Conference on the Basic Elements of the Medium and Its Operations*, presented by the Center for Media Study, State University of New York at Buffalo, and Media Study/Buffalo, at 147 Diefendorf Hall on the South Campus (Main Street) of SUNY at Buffalo, on Friday and Saturday, April 30 and May 1, 1976.

"Many contemporary film students learn to attend to genres, psychology of characters, narrative forms and even camera placement and montage, but they are given very little opportunity to aesthetically apprehend the basic elements of the medium. It seemed necessary to bring together a group of distinguished practitioners to address the aesthetics of the lens, the film stock, printing, processing, and projection." – Gerald O'Grady

On Friday, Tony Conrad lectured on "Light Instruments" and Jon Rubin on "Images and Grain Structures." On Saturday, Hollis Frampton spoke on "Processing Parameters," Standish Lawder on "Printing," and Paul Sharits on "Film Projection – Problems/Systems in Special Spaces."

In the Program, Hollis' talk was described in this way:

"Frampton's talk will center on both normal and modified processing procedures as creative tools. His long-standing interest in color manipulation and other techniques leads him to speak on the nature and role of the film laboratory."

On that occasion, Hollis talked continuously, without notes, for almost three hours. At the outset, he refers to it as a "tech talk." It was also a "chalk talk"; accompanying every part, one can hear on the audiotape the scrapings and screeches of the chalk as he wrote on the blackboard behind him. He had arrived with his own supply of colored chalks. He wore a neck microphone, which provided excellent amplification for his own voice, and for its fidelity on the recording machine, even for his asides to himself and his laughter at himself, but did not faithfully record the several questions from the audience, all of which are noted in the text.¹

I was tempted to provide explanatory notes for his references to the scientists, Linus C. Pauling, Max Planck, and James Clerk Maxwell; to those

contributing to the early development of the technology of photography, Joseph Nicéphore Niépce and Louis Ducos du Hauron; to the painter Ellsworth Kelley; to his fellow filmmakers, Tony Conrad, Paul Sharits and Jon Rubin; to James Joyce's character, Leopold Bloom; to the novelist Nikolai Chernyshevsky who wrote *What Is To Be Done* (1963), responded to by Vladimir Lenin in his political pamphlet of the same title in 1902; and to comic book and movie serial characters such as Buck Rogers. But this was a public lecture, and it was Hollis' manner to assume that the audience possessed a store of general knowledge, that his listeners were as intelligent and allusive as he himself. If one were to accuse me of the rhetorical trick of apophasis, I would plead guilty.

Before he became a professor, Hollis supported himself by working in processing laboratories in New York City. In the first curriculum vitae he wrote for me, he stated:

In 1961, I took up full-time employment as a laboratory technician, and continued in that work until mid-1969, alternating between still and cinema laboratories, specializing in dye-inhibition color processes and, incidentally, designing and building two entire professional facilities in the course of rising to the managerial level ... something I had never intended.

As readers will notice, the enormous number of technical, chemical and scientific terms, as well as his own erudite vocabulary, made the transcription of this audiotape a patient and arduous labor of love and ingenuity, research, and scholarship, always with dictionary and encyclopedia in hand. With my great gratitude, it was accomplished by John Minkowsky, the Founding Curator of Video, Electronic Arts and New Music at Media Study/Buffalo, who had himself taken courses at the Center for Media Study in its first years, and later was a Visiting Faculty Member.

Some of the terms were still difficult to decipher, and I myself consulted the *McGraw-Hill Encyclopedia of Science and Technology*, Volume 13, 10th Edition (New York: McGraw-Hill, 2007 – "Photography," pages 415-432), and three of the books cited in its bibliography: G. T. Eaton, *Photographic Chemistry in Black-and-White and Color Photography*, 2nd edition (Hastings-on-Hudson, New York: Morgan and Morgan, 1965); Sidney F. Ray, *Photographic Chemistry and Processing* (Boston: Focal Press, 1994); and L. D. Stroebel, ed., *Basic Photographic Materials and Processes*, 2nd Edition (Boston: Focal Press, 2000).

When there still remained a few terms that I could not track down, I appealed to my friend Dr. Anthony Bannon, Director of the George Eastman House for International Photography in Rochester, New York. Tony himself had taken a Master's Degree in Media Study at SUNY at Buffalo. He had known Hollis during his stay in Buffalo, had often written about his work as a film critic, and his own institution holds Hollis Frampton's book library and other materials. Tony graciously referred me to the services of Mr. Mark Osterman, the Process Historian at George Eastman House, and he in turn referred me to Mr. Doug Nichimori, Research Scientist at the Image Permanence Institute at the Rochester Institute of Technology. They resolved the remaining lacunae and referred me to two more books:

Richard D. Zakia and Leslie Stroebel, ed., *The Focal Encyclopedia of Photography*, 3rd Edition (Boston: Focal Press, 1969); and E.J. Wall, *The Dictionary of Photography*, 14th Edition (Boston: The Focal Press, 1937).

My method throughout was to match a phonetic transcription with an orthographic representation, and then to find a citation in a similar context. No hapax legomena here, and no nonce words either. A few indecipherable words, indicated in the transcription by _____, were due to throat clearings or microphone movement.

This transcription, then, is finally, I hope, adequate to Hollis' own severe standards of composition, exposition and comic department, and I think it accurately represents him as he would have wished – and insisted upon. Hollis' great gifts as a performance artist have been little attended to. His deliberately slow, resonant delivery, a skill honed on a radio program which he created at an Oberlin College station near his home in Cleveland when he was in his early twenties, as his friend and correspondent Reno Odlin has pointed out, meant that his thought process, being developed and edited as he vocalized it, was in perfect consonance with the instrument of his voice as it modulated his ideas. Usually, the ideas were of such interest that the creative element of delivery, what the classical and medieval rhetoricians called "elocution," went unnoticed.

I shall conclude with one memory of my own from my attendance at that talk, largely because it illuminates one of the few remaining cruces in the text.

There is a passage that reads somewhat mysteriously: "Cartouche. A moment – important man." At that point in the talk, Hollis was writing on the blackboard with his back to the audience, and it is

clear from the tape that these words were spoken as an aside to himself while he drew a diamond-shaped figure and placed the name of Max Planck in its center.

A "cartouche" is "a structure or figure in the shape of a shield or oblong scroll, used as an architectural or graphic ornament, or to bear a design or inscription." After the talk, because he had indicated near its end: "I am losing my voice," I mentioned, to his delight, that the word for lozenge (cough drop) was derived from the medieval Old French *louze* or *losenge*, a term for the "praise" written on a deceased's tombstone in the shape of a diamond – the dates of birth and death, the name of the person, and a brief phrase of praise. The tombstone and the cough drop had been yoked together not by meaning but by a spatial analogy, what in film would be "a cut on form." Hollis' own tombstone would be written:

1936 – 1984
Hollis Frampton
Gloria!

The word is related to the Middle English *laude*, and in the Roman Catholic Church, was used as "lauds," a canonical hour of psalms of praise, usually recited at matins in the monasteries. It is related to *applause* (ap + plaudere). Hollis' talk, on this occasion, ended, as John Minkowsky records, with "EXTENDED APPLAUSE."²

I dedicate this transcription to Bill Brand who supervised the development of Hollis' own films through the New York laboratories, and kindly allowed me to copy several hundred pages of the notes that he kept about this processing. He later prepared all of Hollis' films for the Museum of Modern Art archive, recently restored *Hapax Legomena*, and is beginning to prepare a DVD edition of Hollis' films.

1 The editors have chosen to leave out the Q&A because all audience questions were inaudible.

2 Editors' note: this section has also been removed from this publication of the manuscript.

Gerald O'Grady was the Founding Director of Media Study/Bufalo, a free-standing community regional media center, and the academic unit, The Center for Media Study at the State University of New York at Buffalo. See *Media Study, Media Practice, Media Theory*, edited by Woody Vasulka and Peter Weibel (Cambridge, MA: MIT Press, 2008).

● PROCESSING PARAMETERS

Hollis Frampton, Media Study Buffalo, 1976

It works, or I think it works. I think I'll just introduce myself, and we'll get started. I'm Paul Sharits [audience laughter], and I'd like to speak a few words on the virtues of the single-screen presentation in a fixed amount of time [HF laughs]. For those of you who suffer from myopia, I would point out the rubric under which I propose to present my meditations this morning – a quote from Vladimir Ilyich Ulyanov, popularly known as Lenin, to the effect that the vessel of science is the bourgeois intelligentsia. I thought it appropriate, first of all, because this is, of course, May Day, and second because we are, all of us, make no mistake, bourgeois intelligentsia. Given that much, then, there should be the minimum embarrassment about a little of what we are the vessel of, since this side of a set of operations that we are probably unwilling to undertake at this hour of the day, an inescapable condition. I am not going to show any movies, any slides. This will all be tech talk. I will try to define my terms as I go along. If I begin to speak either lab jargon or sensitometric gibberish to the point where it becomes completely incomprehensible, just interrupt. That's all.

The first question I would like to examine, however, does not have to do with tech talk at all. It's simply the question: Why should we be interested? Why should we be interested? [Can I have a little more gain? (Blows into microphone) It's on; I'm not on.] I don't want to get any feedback here; this is not video, this is film. Why should we be interested in film processing? Anybody who has ever tried it, anyone in particular, who has spent any time working in still photography, where it is a convention that the artist or the worker undertakes the wet end as well as the dry of the making process, very quickly, in most cases, comes to regard the darkroom as the pits, the salt mine.

● The operations of processing tend, of course, to be extremely repetitive. They take place in an environment that, for the sake of the materials, approximates a kind of sensory deprivation experiment.

[audience laughter] Sensitive materials, of course, must be handled either in total darkness or something like total darkness. It is, in a word, at its normal level, a very dull and boring thing to do. So that, quite naturally, we have tended, not only for that reason, but certainly also for that reason, to export that whole part of the process. We have exported it, of course, into a place called a film laboratory typically, and we have exported it to the people who work in the film laboratory, who are somewhat like the people who work in places like slaughterhouses or Guatemala: an invisible – in this case, literally invisible – proletariat. At the same time, there is a suggestion that comes to me from the history of film, especially in the last 30 years, about why it might be

worthwhile to re-import that part of our making process. At a certain time, the convention, of course, was that films were made by large numbers of people, that they were made in 35mm, that they cost hundreds of thousands or millions or what have you, that it was necessary if you were going to make a film somehow to sidle up to the viscount of so-and-so or the baron of so-and-so, some patron who could spend a lot of money, without ever questioning the essential coherence of a system that included production and distribution in one inextricable mass. At a certain point, then, a part, a small part of the means of production were hardly wrested away, but let us say, acquired with fear and trembling and over-abused charge accounts or theft or what have you, filmmakers began to take charge, to a degree, of the means of production. And the results of course are, as we know – and they have been relatively astonishing. Last night, we saw the beginning, I think, of the unforeseen consequences of seizing yet another small part of the means of production.

● Very few people have begun to work with the parameters of film processing as intimately as we now expect to work, say, with the camera or with rewinds or what have you, and typically, the results are of a richness, of a level of the problematic, that immediately begins to reward the effort, almost with more than we want to know.

It was very interesting to hear Jon [Rubin] say last night that he was already, what was it, technically overburdened? Anyway, what it amounted to was there was a sense of being – not only of there being a very great deal to do and to be responsible for, but also of being very much awash in a flood of information that had cascaded out of this rather simple and direct gesture, of extending the control of the process and responsibility for it into a slightly larger ring. If we were to pursue that, of course, and the question that elicited that reply from Jon tended to pursue it, we would begin to think, for instance, about coating our own materials, about growing our own beef cattle to make our own gelatin [audience laughter], and eventually, since all technologies interpenetrate one another, are porous to one another, what we would have done, of course, was what the Irish revolutionary movement once proposed to do with the British post offices – we would have set up, as it were, alongside, a second nation. This, palpably, is a wasteful idea. If that is not to be done, then I leave to your imagination “what is to be done.” Just thoughts for the First of May. It needs not, I think, too much to imagine.

A brief recapitulation: I think probably it is, for the moment, back to gelatin, and a few historical notes and hypotheses about gelatin. Gelatin does, of course, have a predecessor in the emulsion field and that predecessor is albumen – egg white – as the possibility of a flexible support suggested itself, became economical. Then immediately the problem was what do you do with the silver halide. Obviously, it must be attached to its support, whether that support be paper or glass or polyester or cellulose triacetate or what have you. At the same time it must be, as it were, accessible. Albumin seemed to be a decent choice because, like gelatin, it's a... not quite a... [whistles]... Albumin, in fact, is not like gelatin, because gelatin is a polypeptide and albumin is a protein. I'll get back to this in a moment. The albumin molecule is much too large and tends to polymerize with itself much too easily. So it didn't really turn out to be a very good choice. But what was much more important, and what is paramount above all in any process, in any material, that is going finally to permeate the culture is that, since it will be used in enormous quantity – really quantities of stupefying magnitude – then everything that goes into it must be cheap, must be readily available. And this will apply, as we will see, essentially all the way down the line in the construction of photographic materials and in their processing.

● So that, at the present time, virtually everything that goes into film or has to do with film is cheap and plentiful with the exception of silver, which has always been a rare element to begin with and, for the first time, of course, since the beginnings of the 19th century, there is competition with photography for the dwindling world supply of silver, because electronics is now using a lot more silver than photography does.

That is the manner in which they will bury us, if they do not do so earlier. One set of connections made of silver, which happens to be conductive as well as light sensitive, will, of course, suffice eventually to the production of many more images than the same quantity of silver will in photography. It is probably ultimately, socially, more economical to use silver to build stable machines that will produce electronic images than it is to incorporate that metal into unstable matrices that will perpetuate for a while single images in a photographic rather than electronic mode. At this point, of course, you can see a large tear commencing to form in the corner of my eye [audience laughter] because I have a certain kind of commitment... [inaudible remark from audience] Don't do it under a pile of old monitors, if you please.

Gelatin, then. The best gelatin – they didn't give you the whole story at Kodak Park, Jon – the best gelatin comes from selected cheek and ear clippings of bull calves slaughtered for veal in Argentina. They must, however, have been weaned and fed on vegetation for a certain period of time (at least a couple of months), and ideally that diet will have included mustard greens. [audience laughter] There may or may not be reasons for this. The fact is that it is with photography or with photographic processes and materials, somewhat as it is with cooking. We like to think that there is such a thing as a science of chemistry. There is, and that science, of course, exists only in laboratories. In the laboratory, there is a chemistry of hydrogen, there is a chemistry of cobalt, and so forth. In nature, that is to say, outside the laboratory, there is only a chemistry of dirt, a continuum in which, of course, every chemical reaction and interaction that we know of, and of course a great many that we do not know of, is happening all the time.

● Consciousness, in one way or another, can handle the parameters of such things as emulsion making along 30 or 40 or 50 channels at a time without too much trouble, as long as we don't try to rationalize it excessively.

However, it is possible, to a degree, to rationalize gelatin. There is, for instance, a reason that the ears and cheeks, and, indeed, for low grade gelatin, hides and bones and hoofs, are allowed to mould for a certain amount of time and also to rot. Bacteria tend to cleave the long chains of the protein collagen; collagen is more or less the substrate of mammals and birds – it's the connective tissue that probably constitutes 40 or 50 percent of our dry body weight at any time. And the mold tends to cleave the fats that are left over from the shambles to which the carcass has been reduced, to break them down into their component sugars so that they're easier to get rid of. It's a lot easier to let friendly mold and bacteria do that work than it is to attempt to do it yourself. At the end of the leeching out of fats by the mold, that are being devoured, and the cleaving of the long chain of collagen into short chains, polypeptide chains, with molecular weights of around five or six thousand, the whole thing, of course, is cooked to disinfect it, to murder the friendly organisms, it's filtered, washed, combed, curried, cleaned up and polished. And what we then have is roughly speaking a loose pile of cordwood or a kind of straw stack, if you will, in which the gelatin molecules, the polypeptide molecules, are arranged pretty much in a random array. They also have, mixed with them, if the gelatin is good and the cattle has fed on mustard greens, a hypothetical or fictitious compound. And that compound – I'll just write the name because it's

amusing – is allo-iso-pyro-cyanate. It's probably fictitious because no one has ever succeeded in synthesizing it, and the nomenclature indicates that it has a sulfur on both sides of the molecule: that is, it is as if one said sulfur sulfide or something like that. If it exists, it certainly exists only in the dirt state and not in the laboratory state. But there's a certain amount of unstable free sulfur. At a certain point in the manufacture of the emulsion – that is, of the colloidal suspension that includes not only gelatin but silver bromide, sulfur from that fictitious compound enters into the crystal structure of the silver bromide as it's being formed. Now, silver bromide, in its crystalline state at least, and it's not very soluble in water, takes the form of...[writing on board] Ag is silver, Br is bromine...a symmetrical hexagonal lattice in three dimensions. The typical crystal varies from a triangle, highly truncated triangle, to a full hexagon, and it's like most crystals of inorganic compounds, it's quite stable. In that state, if it were very pure, it would not be very sensitive to light at all. But because of the presence of a certain amount of free sulfur in the gelatin, occasionally a strain as a foreign inclusion that doesn't quite fit is introduced into the crystal structure. At that point, at that point of strain, it is possible...that's a proton...for a proton, a unit of light energy, of energetic, of actinic electromagnetic radiation (actinic simply means something that will produce a latent image in the photographic emulsion, by the way, so it's an operational definition) can enter the crystal lattice, can contribute a free electron, can be jumped up, as it were, into an electron, which reduces the dependency of an atom of silver upon its adjacent bromines.

● So that in the latent image, in the crystal lattice that has been acted upon by a photon of light, there is an atom of silver that is no longer bound to a bromine or a pair of adjacent bromines or what have you.

That is to say, within the lattice, suddenly there is a tiny speck of metal, of metallic silver. And it is from that center that the development process proceeds.

Now, what has happened here, taking another path across the action, is that it has required a certain amount of energy to shake the silver loose from the bromine. It is possible, and of course the effect was first discovered in this way, to continue supplying that energy with light. That is to say, if you left the emulsion out in the sun, or even, of course, a modern fast material, if you left it here, it would darken, it would tend slowly but inevitably to be entirely reduced to metallic silver. This, of course, is why even silver nitrate, which is very insensitive, is kept in amber bottles; it's simply to shield it from light, and especially from actinic light, from energetic radiation it will tend to fog it. But, there are other sources for the energy, that is to say, for the free electrons, that will be needed to close the orbits of the silver atom, to cast them loose from their dependency on bromine, to reduce them to opaque black silver metal. The simplest source of such energy, or the most readily available, is chemical. That is to say, free electrons are much more easily available from chemical reactions than they are from attempting to accumulate enough photons of radiant energy to jump them down into electrons to free the silver. If time were not of the essence, there would be essentially no development process. Time is, as in all contracts, of the essence. We do not particularly feel that we would like to wait around for an hour and a half for the image to appear. It would make certainly for a cinema beloved by Tony Conrad [audience laughter], but he is perhaps not the only person to be served in the situation. So that the contribution of chemical energy, of free electrons from chemical sources, can enormously speed up this process. All you need, let's say, is just a few atoms of silver in an entire crystal as nuclei around which to form a network of silver particles, which means you need very few photons, which means, essentially you need very little light in comparison to what you would need if you were just going to print the whole thing out in the sun. There

are still materials, of course, that are designed along these very archaic lines. None of them are cinema materials, but there is still around something called printing-out paper – POP in still photography – which yields a red image; photographers, especially portrait photographers like to use it because it saves, which means that you can't keep your proof, you see. The whole thing is very much economically determined at the present time. Is it reasonably clear so far? Okay.

● We have, then, a situation analogous to that of a fish caught in a net. The net is the random or probabilistic arrangement, the haystack, as it were, of gelatin molecules, and trapped within that net are the insoluble fish – essentially the silver bromide grains or crystals.

The holes in the net, although it appears to be compact to us are, of course, relatively large. They are, in particular, much larger than the molecules of things like water, most developing agents, most fixing agents, and so forth. So that the crystal, which is not soluble, caught in the net, may be dipped in and out of the water, as it were, repeatedly to process the fish. You cook the fish in the net, rather than taking it up. Water runs right through the whole thing and out again, leaving the skeleton, as it were, the metallic silver remains or carcass of the exposed crystal where it was. It's not free to wander, in other words. [sighs] Okay, let me have a drink of coffee here.

The question then is what passes through the net and what are its microscopic and gross effects upon the fish, our exposed silver bromide crystals. We need, first of all, some agent, some source of chemical energy, that will contribute free electrons to the crystal lattice to isolate the silver. That agent is known in chemical terminology as a reducer, and that stage in the process of development is, actually, the paramount developing stage. Having done that, however, we still have to cope with those portions of the crystal lattice, with those crystals of silver bromide, that have never received any photons of light. They are still there and, of course, they are still sensitive to light. If we were to stop at this point, and we easily could do that, then they would continue to be sensitive, eventually light would fall on them, they would, through the action of light, spontaneously darken. We would lose our image. Not wishing to lose it, rather wishing to stabilize it, to get rid of all that is not the image, we desire a second step, and that is the step of fixation. And essentially, every silver-based process can be divided into those two steps and those only. Everything else, essentially, is accessory.

● Developers. Well, there are probably thousands of them. Ascorbic acid – vitamin C – is a weak reducer. It's possible to entertain a fantasy of exposing your film at night and developing it the next morning in your orange juice.

It's, as it happens, an extremely expensive and not very efficient developer. It yields about one tenth of the normal ASA speed of the film; that is to say, you lose about two and a half stops, three stops, no, more than three stops – I'm still not awake. So I've done it, but I can't really recommend it – not in orange juice, but in vitamin C. Linus Pauling should be living at this hour – yet another use for vitamin C.

Another rather curious one that is occasionally useful for particular reasons is glycine, and glycine is, of course, an amino acid, and one of the basic building blocks of protein, or of many proteins at least. Glycine's chief advantage is that, again, that it's extremely weak. It is to be used for processing things like photomurals – very large pieces of paper – in small tanks, where one

did it by dipping the big piece of paper in and out of the little tank to save solution, because it doesn't tend to produce aerial fog. The developer itself doesn't break down in the air. Old movie film-processing formulas in the days, the early days of Hollywood in New Jersey, when film was processed on very large open cages, also tended to incorporate glycine and for the same reason.

But, more recently, there has been a tendency to use developing agents with more free electrons available, that is to say, developing agents that are stronger reducers, that we speak of as having a higher reduction potential. Virtually all such developing agents are coal-tar derivatives – again, it is a cheap and plentiful material – that is the precursor – and it's left over, of course, from the coking process, which is fundamental to the making of steel. So that we have already a by-product of the steel industry and the meatpacking industry. I might also as well say about cellulose triacetate as a support with one of its chief advantages is that it can be digested out of cellulose cotton, ordinary cotton, in staple too short to yarn. The stuff that's left over on the cotton seeds after Mr. Whitney's gin gets through with it is a formerly useless byproduct that is now used in enormous quantities for film base. So we have the leavings of the textile industry to deal with as well.

Developers, of course, are complex mixtures. In fact, and typically, a developer will contain at least the following things. It will contain a developing agent, an activator [writing on chalkboard] – we'll go back over these in a moment – and a restrainer. A typical developing mixture or developer very often will contain more than one developing agent. Reversal first developers or negative developers ordinarily contain two, and they are both extremely cheap and common. One is hydroquinone which is, again, it's a ring compound, a rather unstable northeast corner. And another compound that I won't bother you with the chemical nomenclature for – Kodak calls it Metol, Dupont calls it Elon, Fisher Scientific calls it something else, but they buy it from Eastman Organic Chemicals in Tennessee, so it hardly matters. Hydroquinone is a material with a very high reduction potential, Metol is a developer with a relatively low reduction potential. What that means in fact is that hydroquinone, left to its devices, will tend, and rather quickly, to reduce all the halide in the emulsion to silver, whether it was exposed or not. Metol is rather quieter; it also, if allowed to go infinity in its reaction, will tend to do that, but it's slow, it takes a longer time. There are, believe me, dozens, and even hundreds, of others. Those are the commonest.

An activator is usually simply a base, that is, an alkali, and that alkali can vary from a simple buffer like Borax, which, depending on the circumstances, can act like an acid or a base, through sodium carbonate, a relatively weak base, through sodium hydroxide, which is, of course, a strongly ionized base – it is lye, in a word – and in high concentrations and high temperatures, it can activate a developing agent with a high reduction potential to such an extent that there was a time when a processing machine was devised that would process 35mm movie film at the rate of 90 feet a minute.

● That used a virtually unrestrained hydroquinone developer – the pH at around 11 – at about 100 degrees Fahrenheit, and a very large drying box, and a whole lot of sodium sulfate in the mixture to keep the gelatin from swelling too much. It was used, curiously, as a kind of closed-circuit TV, for prizefights. A movie camera ran continuously in the auditorium where the prizefight was taking place, ran right out of the camera into a processing machine, through a dry box, into an arc projector, where a much larger audience that had paid much less could immediately have a mediated view. [audience laughter]

Needless to say, the contraption that did this was both bulky and balky [HF laughs], and wasn't used very often. But it is possible to kind of goose the whole process up to levels that high. Now, of course, with modern equipment, it's possible to do it much faster than that, if need be.

A restrainer is simply an ingredient, again, in this mixture, this dirt, that will restrain the developing agent in its hedonistic and facile desire to contribute as many electrons as possible to reduce the whole crystal lattice, whether it has received one or more photons of light or not. The most typical restrainer in most mixtures is potassium bromide, and, of course, in solution, that is dissociated into potassium ions, which don't really affect us, and bromide ions, which do. Now, of course, as this reduction process takes place, bromide ions float free in the water anyway. As more and more silver is reduced, there's more and more free bromide in solution, so that the development process itself tends to be self-restraining. It is this, by the way, which accounts for the fairly rapid deactivation of developers in still photography. They need to be replenished not to supply more developing agent, typically, but rather to get rid of the excess bromide that's slowly leaching into the solution from the emulsion during the development process, so that a replenisher usually is the same thing as the developer minus the restrainer, or less bromide. There are, of course, other restrainers – anti-fogging agents. For high temperature development a certain amount of free sulfate is worthwhile, and that's usually introduced as a sodium salt. It tends to keep the emulsion, the gelatin, from softening and floating away, from going from the continuous phase of the colloid, so to speak, to the dispersed phase, which is what essentially happens when it's developed. And there are various other ways to dope it up. A certain amount of free chloride, which can be supplied as table salt – sodium chloride – will tend to enter into a complex circular reaction with the bromide to produce momentary collusions of silver chloride, and silver chloride reduces to a different, how to put it, the structure of metallic silver from the silver chloride crystal is slightly different in its physical shape from that of the metallic silver from reduced silver bromide. That shape, on the sub-microscopic level, produces a different color, so that the chloride image tends to be colder in tone. Okay.

We have now developed the image; that is to say, we have reduced the desired amount, no more and no less, we hope, of exposed silver bromide to metallic silver, and we would now like to get rid of the unexposed bromide, and that is the fixation process, the current word for which, of course, is hypo. It has a characteristic odor, which penetrates the mind and permanently deforms and corrupts it. [audience laughter] Hypo is a nickname for a piece of obsolete chemical nomenclature that was called sodium hyposulfite. It is now sodium thiosulfate. The action is rather simple.

● Sodium thiosulfate simply enters into an exchange reaction with silver bromide, silver chloride, or what have you, produces sodium bromide, sodium chloride or what have you, which are soluble in water, and a series of complex chlorosulfates of silver, which, and this is what is important, are also soluble in water. That is to say that finally there is a soluble and an insoluble part to the fish, and the soluble part, as it were, can be washed out through the net by the influx of seawater, leaving the bones of the fish still in the net, so to speak.

Again – we'll just call it hypo, it's honored by time – hypo itself may be sodium thiosulfate; it washes out faster. If it's ammonium thiosulfate (the rapid fixers tend to use the ammonium simply because the molecular weight of the compound is smaller and it disappears faster), it works best in an acid environment, an environment with relatively low pH, and, most typically, that acid is acetic acid, which is very cheap and common because it is two steps farther along

the east Krebs cycle from ethyl alcohol, which means, of course, that anytime the wine goes bad, so to speak, you can just let it go a little farther and, of course, you will have vinegar, and, essentially, that's vinegar. Other acids obviously can be used but they're expensive, they tend to be stronger oxidizing agents – why bother?

Okay, those are the two fundamental steps. However, it gets complicated. There are et ceteras. First of all, we are dealing with a confrontation between two mixtures, one of relatively high pH, a developing mixture, an alkali, a base; one of relatively low pH, a fixer. And they are meeting, furthermore, in the midst of a relatively fragile support. In particular, if the activator, if the cheap and common base – sodium carbonate's nice to use, of course, again because it's a byproduct of the sulfate process – if those two meet within the emulsion and the activator is sodium carbonate, as it so often is, then the reaction that ensues yields carbon dioxide. Carbon dioxide is a gas, that gas tends to form itself into bubbles, those bubbles tend to burst the emulsion and produce what the British, in their prints, like to call "sparkle" [HF laughs]: what we tend in the United States simply to call "pinholes." That is to say, points where a bubble has formed within the emulsion, has burst, and has left a clean hole through all the layers. That means, of course, that you will have a little white dot, or a white snowstorm. If it's exaggerated in black and white, you may have a bubble that will burst only the yellow and magenta layers, leaving the cyan. There are endless possibilities for charm in this situation. If you're going negative to positive, you will have little black dots instead of little white dots. So that usually there is incorporated in the process a step to get rid of the developer – in particular to neutralize the activator. That may be a slightly acid stop bath, that simply has a more neutral pH – 6.5, even, is enough with neutral being settled – or it may simply be a water wash. And typically water, and water is a subject that we'll get back to, is the interposed step. After fixation, there is also the question of getting rid of all those wonderful soluble silver thiosulfate complexes, the excess hypo, and so forth. And that, in itself, can be a fairly complex problem.

● Thiosulfates are soluble, but they're not soluble enough. They tend to cling, to be absorbed to the surface of the gelatin strands – the polypeptide molecules. If they're not gotten rid of, they will in time degenerate, they will surrender free and active sulfur within the emulsion layer, that free and active sulfur will tend to combine with the metallic silver particles. Silver sulfide, of course, has a color of its own; it can go anywhere from an extremely obnoxious egg yellow to an almost equally obnoxious rotten egg chocolate brown.

It doesn't work evenly; prints tend to mottle and to fade, so that it must be gotten rid of. The ordinary system, of course, particularly with cinema materials, with film, since they are made for rapid consumption, is to give a very brief wash; and to hell with it. [HF laughs] Let them stay in there and fade. Original negative, of course, is always washed much more carefully, at least in Hollywood, where it will go into the vault, in the thought not that anyone will ever be interested in it again, of course, but that it can be re-released and another buck can be milked out of it. But it is much commoner now, and, again, as you come to think about processing of your own, especially with materials that leave some metallic silver in the emulsion, to speed up the wash process, to make it more efficient. Water, itself, of course, is an expensive compound. Water at the right temperature, say in the range of 68 to 100 degrees, is doubly expensive because it has to be heated. And that process can be sped up, the entire wash process, by any of a couple of means. The old standard method involves a mixture of ammonia and hydrogen peroxide, both of them, of course, quite unstable. How that might interact with complex silver

thiosulfate to produce yet smaller and more soluble molecules probably would cover an entire blackboard. I wouldn't want to have to write out those equations. But more recently [writing on blackboard] – and this, curiously, is fallout from an entirely other technology – the tendency has been to use an organic compound, and there are many kinds of them, called alkali. It comes from a Greek word that means "claw." Alkali typically is a kind of hollow cage within which an atom or a molecule of some other substance will fit, get caught, as it were, physically, and simply be carried away, so that all the new goodies – Permawash, of course, has been around for some time. There's something called Hustler that's supposed to give archival permanence. With a 30 second immersion and a one minute wash, it's good for 500 years, so that should please anybody. See your local bottler of Hustler. [Frampton laughs] Work by chelation, and the notion of chelation as a way of getting rid of metallic compound is, in fact, fallout from medicine, from therapy for heavy metal poisoning, or particularly poisoning with mercury, copper, and lead, which are extremely difficult to eliminate from the body. The image literally is of a claw grabbing something and frisking it away.

The process we've been describing, of course, is essentially the negative or positive process. That is to say, the image that is yielded out of all this...where's my color chalk?...goody... if we take this to be the base material...let's pick another nice one... if we take this to be the base material, and this the emulsion, and if a round spot of light, let's say, a white against a black background, is our target, our pretext, so to speak, then this process of exposure and development will have yielded, when it is complete (the green, of course, is virtually invisible), a round opaque spot of black silver in the midst of a clear base. In other words, the image is, as we say, in negative, or it is reversed. Wherever light struck the material, it will darken; wherever it did not, it will not darken. Negative, being comparatively difficult to read, we desire then to make fun with in some way an image in which the distribution of light and dark will more closely correspond to our fiction of reality. There are two ways to do this, two general ways. One of those ways is simply to take the negative image that we have made and to print it, to use it as a pretext for exposing yet another generation of film. If this is a black spot of silver and we print it emulsion-to-emulsion...oh my...the second material, base again...and let our light shine in this direction, then it will not pass through, or it will pass less through, the opaque area of our negative image; it will pass through the transparent or unreduced image, thus it will produce opacity where there was transparency and vice versa, and we'll end up, if anyone were interested in such a thing, with a round white spot on the black ground. Is this still going clear, so far? Okay.

Now, first, the fact is that most of the time, we are not dealing with a target of such simplicity, with situations that are quite as neatly binary as this, and that probably will be the substance of the next thing we get to. The other way, however, to get a positive image, one in which there is a seemingly normal distribution of light and dark values, is to reverse the material. And reversal is slightly more elaborate, but only very slightly more elaborate than the negative for positive concept. Let's take as an example again an emulsion – we'll leave the base out this time...here is some magenta...an emulsion that has been exposed to a white spot target, okay? So we have here a latent image of a white disc, which if it were to pass through negative-positive processing would be black on a clear ground. And let us develop that image to yield a disc of metallic silver within the emulsion. Once we have done that, there's still something left. What is left, of course, is a lot of unexposed and undeveloped silver bromide in the areas that were not acted upon by light. In other words, this is a negative and there is, as it were, a latent positive surrounding it. Suppose then we bleach away – after this first development step – the metallic

silver. Now at this moment, we are not literally removing it. What we're doing is converting it into a compound that will dissolve or will interact with hypo to become soluble, but that is not sensitive to light. Typically, that's done with...oh, there are two standard bleaches, one is more acid than the other. It's possible to use a mixture of potassium bichlorate and sulfuric acid, which yields a complex set of silver chromates and sulfates and so forth, or a somewhat weaker treatment with a ferro-cyanide, which yields complex silver cyanides. Both of them are soluble with hypo. We have now a soluble colorless bleached negative image and still a latent positive surrounding it, okay? The next step involves supplying energy to fog, to expose the latent positive. And this again can be done in a number of ways. The old way was – and it still works fine – was simply to expose the material to light – thus far, it has been in the dark – in such a way as to produce a sufficient number of atoms of metallic silver in the crystals of this latent positive that they can be reduced with a second developer. So that again, it's possible to do it with photons or it is possible to supply that energy chemically. The material we're talking about, by the way, TBAB, the proprietary pill or powder that they don't want to sell you – and it isn't really good stuff to keep putting around the darkroom because if it gets loose, it does conquer the world – the solid part of it, really, is just to make it convenient for handling. What is really doing the job is hydrazine.

● Hydrazine, of course, is an unstable material, with lots and lots of potential electronic activity on the chemical level. There was a certain amount of experimentation with hydrazine and oxygen as rocket fuel for a certain amount of time. It tended to be too explosive; it was a little like using nitroglycerine to run your automobile.

It's a very concentrated energy source [HF laughs], but don't drop it. TBAB, anyway, is, in fact, simply a solid organic alkali that, when it gets wet, releases hydrazine, and hydrazine is the fogging agent in the anti-fog process still and most of the others, where the entire process comes through in the dark. The advantage of using a fogging agent is very simply that it is not necessary to have a high energy reversal step in which the emulsion is pulled, as it were, up into the air, irradiated with light, with banks of lights typically, and then continues through the rest of the process.

Okay. This is a reversal step, in any case, whether that energy comes from photons or from hydrazine or what have you, at the end of which we have an exposed latent positive and an essentially inert soluble negative image. The next step is redevelopment, and this developer, typically, is extremely vigorous, the point being, of course, to reduce all of the silver that's still available in the exposed latent positive. After this step, we have a metallic silver positive image and, again, the no longer light sensitive remnant of a soluble former negative image. And then, through fixation, which is just the same as it is of course in the negative-positive chain, we find ourselves with a metallic silver positive and a transparent negative – that is to say, something that corresponds to our original target. Depending on who you are and where you stand in relation to the current production and distribution cycle, you may find yourself either in black and white or in color – we haven't even gotten to color yet – either using a negative to positive process or cycle, or working with reversal material. Reversal material – it's possible, of course, theoretically, to reverse any emulsion – it's more than theoretically, it can be done – the results are not always that happy because it takes a relatively silver rich material to reverse satisfactorily. Reversal materials were first invented for amateurs; they were first associated, essentially, with 16mm, which was, of course, “spaghetti”: the cheapo way to go. [HF laughs]

● When I first started working in film labs, it was customary still in some of the bigger places like Movie Lab and so forth to refer to 16mm contemptuously as spaghetti. I don't know now what they call 8mm in similar places – “vermicelli”?

[audience laughter] Something like that. It was, of course, not the amateur market for things like Kodachrome and old Plus-X and so forth, but rather the Second World War that gave 16mm its essential impetus. Somebody came up with the bright idea that film could be used for didactic purposes. [audience laughter] That fog itself may be fallout from World War II; I hope not. [...I never put cigarettes in that pocket...] But the fact was that very suddenly during that period in the early 1940s that was called “mobilization,” it was necessary to train a lot of untrained people to do a lot of relatively complicated things, like telling people to screw and so forth. There was a sudden and tremendous demand for instructional films. At the same time, of course, again, for electronic purposes especially, there was a particular strain upon the available supply of silver – 16mm, of course, uses less of that, indeed, uses less of everything, than 35 – so that the technology of choice at that time was 16. At that time a few standards were finally solidified concerning 16mm machinery, which includes also the dimensions of the support and perforation intervals and so forth, and reversal technology tended more and more to come to the fore. So that now in 16, the standard of the industry is reversal material; in 35, the standard of the industry is negative-positive. They are, of course, two entirely different worlds technologically, and, indeed, of course, only on the level of the chemistry and construction materials as well. We're about to change horses. Do we have questions so far? Yeah.

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AMOS VOGEL
(1921-2012)

I do not remember exactly when I met Amos Vogel, but it must have been when I was working toward *Cinema 16: Documents toward a History of the Film Society*, somewhere in the late 1970s. At the time, Amos was transitioning into retirement. He still loved to go to the movies and to talk about them, but he no longer needed to be the mover and shaker he had been during the previous decades. He and Marcia took great pleasure in hanging out, seeing old friends and talking to a younger generation stopping by 15 Washington Place to pay their respects and enjoy the Vogels' company.

Of course, by the time I began stopping by, Cinema 16 had been forgotten by most everyone other than those who had been the beneficiaries of Amos and Marcia's adventure in transforming the passion for cinema that had brought them together into a lifestyle. The idea of a film society wasn't new when Amos and Marcia began Cinema 16 in 1947; Amos himself had been a member of a cine-club in Vienna before he emigrated to the States and by 1946 Frank Stauffacher had Art in Cinema going in San Francisco. What *was*

new was their decision to make running an American film society a way of life, a full-time occupation.

Amos's strategy as a programmer was to "edit" varied forms of film into emotionally and intellectually stimulating experiences and to build an audience for these programs. He sought no grants, had no secret angel financiers, and while it cost money to attend Cinema 16 screenings, membership was affordable for most New Yorkers (cineastes who couldn't pay the fare were usually admitted by Marcia for free). At its height Cinema 16 boasted 7,000 members and filled a 1,600-seat auditorium at the High School of the Fashion Industries twice a night for monthly screenings, plus sometimes three 500-seat theaters at various Manhattan locations. For the better part of 17 years, Cinema 16 was a financially self-sustaining service to the cultural life of New York City and an inspiration to the many movers and shakers who bought memberships.

For Amos, cinema was many things: artistic expression, scientific reportage, feature entertainment, historical research, a way of confronting complacency, a history of experiments, a revisiting of forgotten classics, freedom of "speech" in action – an opportunity for dialectical thinking about the world and our place in it. But most of all, it was training in good citizenship for the thousands who became Cinema 16 devotees, training in being committed *world* citizens in an era (not so different from ours) when many Americans feared the influence of other peoples, other nations, other histories (as well as their own) – the era of Joseph McCarthy and other fanatics who could make life a hell.

Amos's commitment to the wide world of cinema involved importing the work of major talents from around the world (Werner Herzog, Alain Resnais, Roman Polanski, Kurosawa, Robert Bresson, Buñuel,

so many others); becoming an early distributor of many forms of avant-garde film (including the work of Maya Deren, Marie Menken, Stan Brakhage, Bruce Conner, Kenneth Anger, Robert Breer, Gregory Markopoulos, Sidney Peterson, James Broughton...); challenging his fellow New Yorkers with programs calculated to offend their sensibilities (an ex-Zionist Jew who came to New York to escape Hitler after the Anschluss, Vogel believed in showing Nazi propaganda as a means of educating Americans about fascism); modeling visionary programming for what developed into a nationwide network of film societies; and creating a ground against which Jonas Mekas and the New American Cinema could figure itself.

And when Cinema 16 was no longer financially viable because of changes in screening options in New York and across the nation, changes which Amos had helped to create, he teamed with Richard Roud to found the New York Film Festival; then authored *Film As a Subversive Art* (1974), a still-remarkable text-image book that influenced a generation of cineastes, teachers, filmmakers and programmers as cinema worked its way into American academe. And throughout the Cinema 16 years and afterward, he taught a generation of students at the New School, Harvard, and the University of Pennsylvania, and brought his passion for innovative cinema to the selection committees for the Cannes, Moscow, Berlin, and Venice Film Festivals.

Amos had to be courageous, tough, and resilient to keep Cinema 16 alive and growing, year after year, dealing on the one hand, with the prudish U.S. Customs office of that era, as well as with those who were frustrated by Amos's choices of what to show: as New York City's foremost creative film programmer, he was a gate-keeper and gate-keepers inevitably frustrate those who don't get through the gate. But by the time I knew Amos, what was most obvious was his unabashed friendliness, his utter unpretentiousness, his always

lovely relationship with Marcia, and his sweet good humor.

Among the most surprising things about Amos was his invariably optimistic nature. A lifelong leftist, he remained upbeat even during politically conservative eras. As he said in an interview in 1995:

When people ask me how I can be optimistic now about the possibilities of progressive politics or for subversive art, I have a saying: "I have more confidence in my enemies than I have in my friends." I'm convinced that my enemies will continue to do the most outrageously repressive things and therefore will again, inevitably, evoke a revolt on the part of those who are being kept out or kept down artificially and by force. The power of the artistic impulse that creates what we call the avant-garde *cannot* be overcome; it will always rise again.

Even as his memory began to fail, Amos's good spirits remained intact. Karen Cooper told me that when she and George Griffin were paying Amos a visit not so long ago, they were talking about an Ingmar Bergman film they had recently re-seen for the first time in years. Amos, seemingly at a loss, said "Ingmar *who?*" Then waited a moment or two before saying, "Had you going, didn't I?"

Amos gave life to American film culture by giving it his life. To say that those of us who knew the Vogels will miss them and cannot forget what they did for American film culture doesn't begin to express what we feel.

SCOTT MACDONALD

Image courtesy Paul Cronin.



CHRIS MARKER

(1921-2012)



Chris Marker died on his 91st birthday, July 29, at his home in Paris's 20th arrondissement (métro stop: Maraîchers). To his countless correspondents, the only admission of failing health was what we might deduce from the emailed images he began to send a few months earlier: portraits of nurses, smiling at the camera, and often taken from the point of view of someone in a bed, the nurses stationed at the other end. Sometimes the portraits would be identified by name, other times not; one in particular he described as the face of "human kindness." After I'd seen about two dozen of these images, I summoned the nerve to ask him outright about his health, knowing already that he wouldn't say, but I felt I had to ask. He did respond (he always did), but not to my question. I suppose one day we'll know, though that won't be a day that Chris would like.

Virtually every obituary of Chris pegged him as a mythic 'recluse', presumably due to his not wanting to be photographed or interviewed. I never quite understood why those two eminently reasonable aversions should be taken as signs of eccentricity, but in Chris's situation, they were. In any case, he was hardly a recluse; as his last film, *Chats Perchés*, demonstrates, he thrived on the street, amidst the crowd, and he continued that well into his 90th year. But his deepest nature directed him to be both private and modest, and if that caused others to regard him as 'enigmatic' or 'mysterious', he couldn't be bothered to argue.

I make no claim to have been an intimate; or, rather, I would include myself only among the hundreds of others who all felt that we were (including the countless young filmmakers he encouraged). He and I corresponded for two decades – faxes, email, and real mail – and I was lucky to spend time with him in Paris during many of those years, either visiting his living/working studio spaces or meeting in a café. Some of those meetings were related to the artistic projects I was developing with him, but most of them had no agenda. These were convivial occasions, nothing 'mysterious' about them, although I have to admit that the environment of his studios on the rue Courat was invariably overwhelming. A riotous elaboration of ordered clutter – thousands of books, documents and photos and drawings, videotapes, *objets*, both exotic and mundane, mechanical and whimsical cats and owls, piles of newspapers – Chris's studio also noticeably had the latest in video and digital equipment, now sharing space with the technologies it had displaced. As evidence of that, I'd simply offer this image, a picture taken in 2008 by Jason Simon on a visit we made to Chris's studio, and during which Chris showed us what had been his very first computer. That's his hand holding it. He encouraged Jason to take the picture.

BILL HORRIGAN

Images courtesy Bill Horrigan.



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Photo: Isaac Julien, Small Boats Series, 2007. Courtesy the artist, Victoria Miro Gallery, London and Metro Pictures, New York.



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IMAGE: A visitor performs *SK&Monkeys on Twitter* (2009/2012), an installation work by **JODI**.
Part of "JODI: Street Digital," at Museum of the Moving Image, March 31-May 20, 2012.
Credit: Photo: Daniel Love / Museum of the Moving Image.

