

TECHNOLOGICAL DETERMINISM AND MEDIUM ONTOLOGY
IN FILM AND EARLY VIDEO

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ABSTRACT

This dissertation examines the unexplored relationship between film and early video. While video and film cultures of the sixties and seventies frequently sought to separate themselves, I consider the two mediums in constellation to reveal a series of tandem concerns and effects. In their investigation of liveness and self-awareness with the forms and operations of video, seminal artists Frank Gillette, Ira Schneider, and Paul Ryan displayed a formalism that was contemporaneously theorized in avant-garde film and minimalism. The early work of Nam June Paik shares with the structural films of Paul Sharits a fascination with technological dysfunction and obsolescence. Jud Yalkut's exemplary videofilms probe the boundary between film and video mediums to investigate a cultural preoccupation with authenticity in an environment increasingly mediated by electronic communications.

In delineating these point of conjunction I make two arguments. First, I claim that this constellation of film and early video destabilizes traditional notions of an immanently defined medium, thereby making the film/video configuration a signal moment in the development of intermedia. By focusing on the shared operations and subject effects of film and early video rather than intrinsic qualities, I reconsider the medium as something contingently defined by its variable processes and results rather than its morphology. Contrary to some conceptualizations of intermedia as a fusion of mediums or a disregard for medium, the concurrence of film and video I research characterizes intermedia as a considered analysis of how differentiated mediums interact. To consider film and video together as intermedia is to recognize that while they both form and inform their objects in particular ways, their interaction reveals

something unique about their effects that could not be ascertained by considering them separately.

My second argument complicates the technological determinism that runs through these artists' work and has been used to criticize their practices. Immersed in the culture of McLuhan, information, and cybernetics, my artists often celebrated their technology as a powerful ameliorative to problems caused by the social, political, and economic order. For these artists, using and watching video was sufficient to alter and direct social and political processes. Though they never explicitly attack the socio-political order or structurally consider their technology's ties to the masters that developed and purposed the technology, they do refashion video with contrary intentions and ends. By drawing on film theory and considering film and video together as dominant cultural media that organize our perception and world, I show how the divergent practices of these artists meaningfully critique the socio-political order even as they work within the confines of that order.

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INTRODUCTION

A recent museum visit with my class conveniently reminded me why I undertook this research. Installed in the museum was a one-person exhibition consisting of works in a variety of mediums: paintings, sculptures, installations, large-scale photographs, and textiles. Tucked away in this proliferation of artistic forms was the requisite flat panel monitor and artist's video. The moving image appeared anemic and inconsequential amidst the other artworks on wall and floor. While my exposure to the artwork was admittedly brief and cursory, it seemed to me that the artist had instrumentalized the moving image. He treated the video screen as merely one more site to display his social message while ignoring over one hundred years of a rich historical and theoretical development that could have informed, even transformed that message. When artists do address the history of film, their artworks frequently quote particular films or directors as cultural artifacts rather than meaningfully engage with the forms, operations, and historical transformations of the moving image. I believe that artists and their digital clips should recognize that how we see and read a moving image today is indebted to a language developed in a long and complex filmic tradition and that our being in the world is beholden to how we see and read the moving image. In the same way that surgeons build upon decades of medical research and practice to perform their operations, progressive artists should also consider their practice within the lineage of the moving image, whether they seek to advance or reject that lineage.

This is the sentiment I bring to my study of early video. In the sixties and seventies, artists, curators, and critics were eager to claim video for the museum and as

a radical communications device. To a large degree, they argued for video's separation from film in order to advance these claims. For example, in a 1969 interview for the *East Village Other*, Frank Gillette announces video's difference from film: "Film people come to videotape as an extension of film; it's a relief for them. They see videotape in a large part as a means of making film easy, whereas tape is an entirely different realm, having many more bogus similarities to film than genuine ones."¹ Gillette's claim, however, becomes problematic when his artistic partner, Ira Schneider, recognizes that Gillette is speaking as a painter and good-naturedly laughs off his proclamation. Schneider, who is a filmmaker, goes on to describe his own involvement with video as an extension of his filmmaking: "What I wanted to do was environmental and very loose, and I found it much easier to work with videotape equipment than with film equipment because basically you got everything down..."² This tension between the specificities of film and video continues to assert itself to the present day while it also begs the question as to the nature of the relationship between film and video. Must film and video be considered as separate mediums each with their own distinct formal operations and effects or are they interdependent with their natures derived, to whatever degree, from the other?

As with my contemporary artist, these early commentators ignored the fact that the very legibility of the video image, from the semantics of its shots to the way an individual orients themselves to the image, is indebted to the dominant visual medium of the twentieth century. This ignorance is all the more noticeable when we consider

¹ Frank Gillette and Ira Schneider, "Parts I and II of an Interview by Jud Yalkut.," *Radical Software* 1, no. 1 (Spring 1970): 9.

² Ibid.

that the moment of video's genesis also saw a burgeoning of artist's film and critical attention to the New American Cinema, underground, and structural film in scholarly journals and other forums. These critics, impresarios, and director/artists were also noticing video by discussing it in their columns and writings or taking up a video camera themselves. How video's early reception avoided engagement with this culture of film is another topic, but what concerns me is how our understanding of early video might change were we to place it in this expansive and dense tradition of the moving image. As a moving image, the first videos necessarily participate in a discourse that has never been fully discussed.

In beginning this project I was faced with, and immobilized by, the innumerable ways in which film and video's association can be figured. A cursory scan of the film and art milieus during the sixties and seventies reveals a dizzying exchange among filmmakers, artists, and institutions associated with art and cinema. Artists like Andy Warhol, Bruce Nauman, and Nancy Holt made both films and videos. Powerful investigations of the filmic and videographic images were conducted by artists and filmmakers such as Bruce Conner, Stan Vanderbeek, and Scott Bartlett while Gerry Shum's *Television Gallery* sponsored films made specifically for television. Even Jonas Mekas, that indefatigable proponent of the New American Cinema, frequently ran articles and discussions about television and video art in his journal *Film Culture* and his columns for the *Village Voice*.

Another node of the video/film nexus is the inclusion of filmmakers and film advocates in the initial discussions of video art. Filmmakers Michael Snow, Hollis Frampton, and Stan Vanderbeek were invited to *Open Circuits: An International*

Conference on the Future of Television, an event sponsored by the Museum of Modern Art in 1974. John Hanhardt who had his training in film studies and began his career in the Museum of Modern Art's film department would become a great advocate and voice for video art. Mekas moved easily between film and art discourses. Frampton quotes Mekas as saying that "film is an art but video is a god" suggesting that Mekas seriously considered developments in the new moving image form.³ Mekas's *Cinematheque* drew not only filmmakers but artists such as Warhol and Joan Jonas who would go on to make films and videos inspired by the screenings at the *Cinematheque*.⁴ The *Cinematheque* also provided space for intermedia and video performances by artists like Robert Whitman, Robert Rauschenberg, and Jonas.⁵

Yet another potential area of research could focus on video's adoption of filmic operations and modes of address such as montage, camera movement, narrative, and performance. Early video artists purposefully avoided operations such as editing or camera work as a way to critique the dominant cinematic and televisual modes of production and open up other uses of video technology.⁶ Yet work by artists exhibiting

³ Hollis Frampton, "The Withering Away of the State of the Art," in *The New Television: A Public/Private Art: Essays, Statements, and Videotapes Based on "Open Circuits: An International Conference on the Future of Television" Organized by Fred Barzyk, Douglas Davis, Gerald O'Grady, and Willard Van Dyke for the Museum of Modern Art, New York City*, ed. Douglas Davis and Allison Simmons (Cambridge, Mass.: MIT Press, 1977), 24.

⁴ Susan Morgan and Joan Jonas, *Joan Jonas: I Want to Live in the Country (and Other Romances)* (London; Cambridge, Mass.: Afterall Books; Distribution by the MIT Press, 2006).

⁵ Andrea Jahn, "The Encounter with the Gaze behind the Mask," in *Joan Jonas: I Want to Live in the Country (and Other Romances)* (London; Cambridge, Mass.: Afterall Books; Distribution by the MIT Press, 2006).

⁶ Les Levine notes that video artists don't produce broadcast quality tapes for two reasons: first, they are trying to "express conceptual ideas" and not produce television programs and second, they don't have the equipment and budget to produce professional quality tapes. See his Les Levine, "One-Gun Video Art," in *New Artists Video: A Critical Anthology*, ed. Gregory Battcock (New York: Dutton, 1978); Hermine Freed, "Video and Abstract Expressionism," *Arts Magazine* 49 (December 1974); David Antin, "Video: The Distinctive Features of the Medium," in *Video Culture: A Critical Investigation*, ed.

in the *TV as a Creative Medium* show like Gillette and Schneider, whose *Wipe Cycle* is considered a seminal piece of video art, contradict these claims. Gillette's 1972-73 video *Hark Hork!* uses a wide array of camera operations such as zooms, pans, and framing to present a lyrical electronic collage of nature. Significantly, the editing in this early video work is highly refined both in its quality and its effect on the rhythm of the videotape. Schneider's interest in montage is evident in his multi-channel video installation *Manhattan Is an Island* of 1974. Not only do the multiple monitors function as a kind of spatial montage that require the viewer to combine the various images into a single, if fragmented, representation of New York City, but Schneider has also edited the work into a single tape version. This version skillfully uses editing to emphasize the dynamism of the city and elaborately stage a dialogue between image and soundtrack in much the same way as city symphony films of the 1920s and 1930s.

The rejection of narrative and the focus on performative aspects of artistic practice are other elements frequently discussed in early video. Yet, as with camera movement and montage, video artists complicated this claim by producing narrative or performative works that could be considered within a cinematic framework. Ilene Segalove made a series of videotapes entitled *The Mom Tapes* from 1973 to 1975 in which her mother stars as the protagonist in vignettes about domestic and family life. While Segalove explicitly states that her inspiration for these tapes was television of the fifties, which itself was dependent on the visual language of film, the cinematic

John G Hanhardt (Layton, Utah: G.M. Smith, Peregrine Smith Books, in association with Visual Studies Workshop Press, 1986).

codes associated with narrative, character presentation, and continuity are what make her tapes readable.

The static camera and long takes indicative of video artists like William Wegman, Bruce Nauman, and John Baldessari can easily be viewed against any number of Warhol's films, such as his *Screen Tests* or *Empire*, and structural films like Snow's *Wavelength* or Frampton's *Nostalgia*. The highly self-conscious and simplistic activities performed by these video artists in front of the continuously rolling and static camera are akin to early cinema's performative and exhibitionist qualities as theorized by Tom Gunning's "cinema of attractions."⁷ The videotaped activities of a Wegman, Nauman, or Baldessari rely on the viewer's "visual curiosity and desire for novelty"⁸ that was indicative of early film or use this visual curiosity to set up, in the case of Nauman's interminable activities, a situation where such visual curiosity and desire is adamantly denied. These artists' works suggest heretofore unacknowledged relationships between film and video's formal and perceptual operations and viewer address that need to be parsed.

This complex relationship between film and video I have been describing has been neglected as a topic of research. The discourse of art quickly recognized video's relationship to television, its "frightful parent" as one commentator has noted,⁹ but video's connections to film, what I would consider its "grandparent," have not been

⁷ Tom Gunning's theorization of a cinema of attractions cites the single take, the self-conscious look into the camera, and the absence of narrative as comprising an early cinema aesthetic. See his Tom Gunning, "An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator," *Art and Text* 34 (Spring 1989): 862.

⁸ Ibid.

⁹ Antin, "Video: The Distinctive Features of the Medium," 149.

adequately considered. Indeed, the relationship between film and video, even when acknowledged, is minimized or disregarded. For example, Bruce Kurtz, an early critic of video art, locates video's development within a matrix of artistic currents and beliefs, rather than within filmic discourse. He writes that video was influenced by artwork that had "...an interest in extending the formerly fixed boundaries of art-making activity...The earliest stimulation for video activity came *not from film* [my italics] but from happenings, performances, dance, theater, music and painting..."¹⁰ Rather than situating video within the lineage of the cinematic moving image, artists and writers conceptualized video as part of the burgeoning electronic media landscape or the artistic environment of mixed-media or intermedia to which Kurtz alludes.

The recent survey literature on early video has still not treated relationships between video and film histories in any sustained manner, including interactions between videographic and filmic perceptual and semantic logics or the effects of the video/film nexus on intermedia. While Michael Rush's 2007 survey of video art reiterates a history of video's development within a larger intermedia environment in the sixties and seventies, he does not describe filmic influences on video or how those influences might have influenced the intermedia environment.¹¹ Chris Meigh-Andrews comes the closest in recent survey texts to recognizing film's influence on early video, yet he does not elaborate except to say: "The influence of experimental film on video art is a complex and varied topic and to review it in detail would require a book of its

¹⁰ Bruce Kurtz, "Video Is Being Invented," *Arts Magazine* 47 (1973): 37.

¹¹ Michael Rush, *Video Art* (London: Thames & Hudson, 2003).

own.”¹² Catherine Elwes 2005 history of video art mentions film only in the context of recent video works, such as Douglas Gordon’s *24 Hour Psycho*, that appropriates the cinematic image for Gordon’s own temporal investigations.¹³

Exhibitions such as the Whitney Museum of American Art’s *Into the Light: The Projected Image in American Art 1964-77* of 2001 and the Guggenheim’s 2003 show, *Moving Pictures: Contemporary Photography and Video from the Guggenheim Collection* have taken up the film/video relationship in a more substantive way under monikers of the “moving image” or “projected image.” These discussions frequently focus on contemporary art, therefore leaving the relationship between early video and film unexamined, or they are biased toward an art rather than a film discourse. The terms “moving image” or “projected image” also run the risk of becoming a catch-all category that recognizes the multiple forms of film, video, and digital media within a kind of artistic convergence occurring in the gallery. This convergence effaces specific influences and transformations occurring between mediums and how these interactions might contribute to an ontology of intermedia.¹⁴

¹² Chris Meigh-Andrews, *A History of Video Art: The Development of Form and Function* (Oxford: Berg, 2006), 71.

¹³ Catherine Elwes, *Video Art: A Guided Tour* (London; New York; London; New York: I.B. Tauris ; in association with University of the Arts ; In the United States of America and in Canada distributed by Palgrave Macmillan, 2005).

¹⁴ In her essay for the Whitney’s 2001 exhibition, *Into the Light: The Projected Image in American Art 1964-77*, Chrissie Iles discusses the changing phenomenological and perceptual states of the gallery and movie theater but is more interested in understanding the moving image within a traditional art context instead of tracing the specificities of film history. See Chrissie Iles and Whitney Museum of American Art., eds., *Into the Light: The Projected Image in American Art, 1964-1977; [on the Occasion of the Exhibition “Into the Light: The Projected Image in American Art 1964-1977” at the Whitney Museum of American Art, New York, October 18, 2001 - January 6, 2002]* (New York [u.a.]: Whitney Museum of American Art, 2001); John G Hanhardt et al., *Moving Pictures: Contemporary Photography and Video from the Guggenheim Museum Collections* (New York; London; New York: Solomon R. Guggenheim Museum ; Thames & Hudson ; [Distributed by] D.A.P./Distributed Art Publishers, 2003).

On video's intervention in the intermedia environment of the 1960s, Rosalind Krauss famously describes the Portapak's challenge to modernist specificity and its instigation of a post-medium condition.¹⁵ While Krauss discusses structural film as a new mode of modernist practice, which video routed, she does not address the challenge to modernist doctrine from within cinema itself in the form of expanded or videographic forms of cinematic practice. The questions of subject and perceptual effects of the projected image in its various filmic and videographic forms are posed by Hal Foster in a roundtable discussion published in *October* in 2003. Foster peppers the group with a series of questions, which unfortunately go unanswered, requesting a "typology of these different experiences" of film, video, screens, and spaces.¹⁶ His questions point to the need not only for a better understanding of the projected image in contemporary art, but also a more nuanced and differentiating comprehension of film and video.

In his analysis of Warhol's *Exploding Plastic Inevitable*, Branden Joseph begins to answer Foster's questions.¹⁷ As if to complicate Krauss' modernist claims for structural cinema, Joseph positions those Warhol films, like *Sleep*, *Kiss*, and *Empire* that are traditionally seen as precursors to structural film, as expanded film practices that contribute to Warhol's intermedia space. By relating the *Exploding Plastic Inevitable* to televisual properties of an earlier Warhol installation at Lincoln

¹⁵ Rosalind E Krauss, *A Voyage on the North Sea: Art in the Age of the Post-Medium Condition* (New York, N.Y.: Thames & Hudson, 2000).

¹⁶ Malcolm Turvey et al., "Round Table: The Projected Image in Contemporary Art," *October* 104 (Spring 2003): 79.

¹⁷ Branden Joseph W., "'My Mind Split Open': Andy Warhol's Exploding Plastic Inevitable," in *Art and the Moving Image: A Critical Reader*, ed. Tanya Leighton (London; New York: Tate Pub. : In association with Afterall ; Distributed in the United States and Canada by Harry N. Abrams, 2008).

Center in 1964, Joseph suggests a way to differentiate filmic and televisual effects on the intermedia artwork while also investigating subject and phenomenological effects of the film/television node.¹⁸

My research demonstrates a different approach to interpreting early video, one that draws on the history and theory of the moving image in the twentieth century to better inform early video's claims for radical perceptual and subject effects. I show that there is a much closer relationship between film and early video that, for whatever reasons, has been overlooked. In particular, stylistics such as montage join the two mediums. Both mediums also work within technological strictures such as obsolescence and the threat of dysfunction. Filmmakers and video artists share an interest in subject effects of liveness and authenticity. But more than just a new approach to understanding video, by viewing film and video in constellation these commonalities reveal themselves as cultural preoccupations, concepts so important that both mediums utilize or attempt to address them. These shared concerns begin to reorient the concept of the medium so that it no longer focuses on essences or critical self-examination but on effects and consequences.

I have uncovered complex and manifold connections that make any singular conclusion about the relationship between film and video necessarily incomplete.

¹⁸ According to Joseph, Warhol's Lincoln Center installation for the New York Film Festival in 1964 consisted of four clips from Warhol's films *Sleep*, *Eat*, *Kiss* and *Haircut* that were looped and back projected onto small television-like screens. For Joseph, the installation's endless repetition and serialization of Warhol's films establishes the artwork as both a moment of modernist distancing as well as an engagement with the postmodern spectacle of television. The perceptual effects of the *Exploding Plastic Inevitable* were disruptive and disorienting, but, as Joseph explains, the disarticulative impacts one might expect on the subject experiencing such an event were actually transformative and appropriated as politicized identities by marginalized and countercultural groups such as drag queens, addicts, and hustlers.

Rather than attempt to reduce the nature of the video/film nexus of the sixties to a single thesis I make two arguments that I support with several instances in which film and video provocatively come together. First, I argue that the relationship between the film and video mediums in my case studies reveals the ontological uncertainty of the construct of medium and redefines that construct. Second, I challenge the technological idealism associated with certain video artists and practices by placing those practices in the different context of film.

By coupling film and video, a basic instability in the immanently defined medium reveals itself, an instability that requires us to rethink the concept of a medium. My artist's use of various and multiple mediums in what has come to be called intermedia evidences this ontological insecurity. Intermedia is a vexing term for its definitions are too manifold and diffuse to provide any critical handhold. Used in an attempt to label and explain the plurality and hybridity of art forms that emerged in the sixties, the term has a wide range of sometimes contradictory meanings. What does it mean to work between mediums? What does it mean to fuse mediums? What does it mean to work against the notion of a medium altogether? At times, intermedia seems nothing more than a catch-all for artistic practices and forms that don't seem to fit anywhere else or are not adequately investigated.

Yet there the term is and it seems to me that the mediums of film and video, especially when viewed in conjunction at the moment when video first confronts film, might provide some bony material for the flaccid body of intermedia. These are formats that disturb the very idea of a unitary and immanently defined medium. As mechanical devices, both film and video have many moving parts thereby making it

difficult to identify the medium with a single material device. As technological mediums, their forms, materials, and operations change over time and again complicate an ontology grounded in a single convention or practice. And as film theory shows us, the medium's ontological relationship to the world and viewer is also variable. Is film's nature in the way it reveals an existing reality or in how it synthesizes reality from its material operations of editing, camera work, etc.? This same identity crisis can be seen in the commercial relationship between television and film. With the advent of television in the fifties and video in the sixties, television broadcasters and film studios grappled with competing media forms. Eventually the entertainment and mass communication industry settled into an intermedia conglomeration in which content could be delivered in a variety of modes with each mode subsumed by a larger marketing and profit-making scheme. While film had already worried the notion of medium specificity, the confluence of film and video in the sixties suggests that the problem has more to do with the concept of the medium itself rather than just one particular media format.

The relationship between film and early video is a signal moment in the intermedia discourse. It is a time when not only artistic mediums rub against each other but a time in which the two technological and mass cultural behemoths of film and video trouble the distinctions that traditionally defined the commercial communications and entertainment industries. While others note television and video's instigatory role in the ensuing medium chaos both industrially and artistically, I show how film and early video begin to reform the associations between mediums. My approach to identifying distinct points of intersection between film and video

parses the particularities of intermedia and provides some specificity to the term. Rather than following in the footsteps of a high modernist essentialism, the video/film link reconceives the medium as relationally determined, coming into being through an interaction of different material properties and effects. The video/film nexus is exemplary of my notion of intermedia for while they both share the form of the moving image, they also have distinct phenomenological qualities and theoretical discourses. To respond to my initial question about the nature of intermedia, I answer that it is a considered analysis of how differentiated mediums interact; it is not a fusion or blurring of media boundaries or a wholesale rejection of the medium. To consider film and video together as intermedia is to recognize that while they both form and inform their objects in particular ways, their interaction reveals something unique about their effects that could not be ascertained by considering them separately.

I uncover another aspect of the medium's constitution by analyzing purported constants of liveness, reflexive awareness, and authenticity that were common to both film and video practices. These variables were less quiddities than they were effects perpetrated by the individual's interaction with the medium. Conversely, the concurrence of film and video in this particular historical moment demonstrates how the effects so closely associated with our sense of being are contingent on the medium. A post-structuralist subjectivity begins to emerge in my research in which an aware self is not immanent to the individual but constructed in interaction with the individual's environment and experiences. In my case the subject's sense of self, their being in the world, is produced through interaction with the film and video mediums performing in various ways. I do not mean to suggest that the self is illusory or that

reality devolves into simulacra, but that one's knowledge of oneself is intricately connected to the mediums with which we experience our world.

If the medium influences subjectivity, those subject effects in turn help to define that medium. My research into Gillette and Schneider's *Wipe Cycle* unveils a rigorously constructed work inflected by a flavor of formalism that was being eagerly pursued in film and art criticism of the time. This formalism was not defined solely by morphology or material properties, but also considered the medium as a set of changing operations, uses, and effects. This particular brand of formalism had a structuralist regard for the importance of the signifier itself in the chain of meaning. Meaning received by the subject was not just dependent on a literal communication conveyed via the sign but was inflected by the material qualities of the means of that communication and the conventions with which those material qualities were used. Two versions of the medium, both with a modernist pedigree, become apparent. There is the medium of essence that replays Enlightenment reason in the reflexive investigation of the medium's properties. There is also the medium of effect that uses the recognition of the medium in relation to a subject to generate consequences of shock, defamiliarization, or distanciation. Both seek a critical awareness but whereas one depends on its insularity from the subject, the other reaches out to that subject. This second kind of medium best fits the media effects I discover in my treatment of film and video.

I inform my interest in media effects and the relativity of the medium with several recent areas of scholarly pursuit. Research operating under the rubrics of mediality and media ecology recognize the truth in McLuhan's claims for the

constitutive effects of media while rejecting a rank technological determinism so often associated with the media theorist. The notion of mediality recognizes that “cultural artifacts and communicative processes are fundamentally organized by media.”¹⁹ Given this foundational principle, mediality approaches are not as interested in inherent properties of material mediums but rather in how those mediums function, the logic of their operations, and how those operations change when mediums interact.²⁰ The medium is also conceived in relation to historical specificities thereby making its effects variably contingent. Similarly, media ecologists recognize the primary role of mediums in that contents and messages are both instantiated by processes and materials and affected by those processes and materials. Media do indeed affect us, but not in a linear cause and effect relationship. Rather, media surround us and we move through them. As one media ecologist puts it: “As environments, media do not determine our actions, but they define the range of possible action we can take, and facilitate certain actions while discouraging others.”²¹

Recent scholarly projects in film and photography have attempted to reconfigure the medium and how we think about it. Challenging a high modernist essentialism while grappling with the relevance of outmoded media like film or photography, Karen Beckman and Jean Ma’s book, *Still Moving*, examines the space between the photographic still image and the filmic moving image. Placing these

¹⁹ Ludwig Jäger, Erika Linz, and Irmela Schneider, eds., “Preface,” in *Media, Culture, and Mediality: New Insights into the Current State of Research* (Bielefeld [Germany]; New Brunswick, NJ: Transcript ; Distributed in North America by Transaction Publishers, 2010), 12.

²⁰ Jäger, Linz, and Schneider, “Preface.”

²¹ Lance Strate, “Studying Media as Media: McLuhan and the Media Ecology Approach,” in *Transforming McLuhan: Cultural, Critical, and Postmodern Perspectives*, ed. Paul Grosswiler (New York: Peter Lang, 2010), 75.

disparate image types together smudges the border between mediums thereby drawing attention to their specificity and the ways that their relationship confounds those specificities. Rather than attending to a singular and particular medium, it is the interstice between interacting mediums that should hold our attention, or as the authors write, "...the hesitation between stasis and motion actually produces an interval in which rigorous thinking can emerge."²² It is also in these older, outmoded mediums' confrontation with new, digital image types that other concerns—Beckman and Ma cite temporality, history, and memory—can be reconsidered.

Rather than the interval between mediums, other historians have considered how notions of the filmic can be conveyed through non-filmic materials and means. Jonathan Walley complicates the notion of filmic medium specificity with works he considers as paracinema, "...an array of phenomena that are considered 'cinematic' but that are not embodied in the materials of film as traditionally defined."²³ Pavle Levi's cinema by other means similarly is "the practice of positing cinema as a system of relations directly inspired by the workings of the film apparatus, but evoked through the material and technological properties of the originally non-filmic media."²⁴ These scholars consider the medium of film as dialectically constructed between an idea of the filmic and particular, historical configurations of materials and processes. Because the concept of film exists prior to its material manifestation and is

²² Jean Ma and Karen Redrobe Beckman, "Introduction," in *Still Moving: Between Cinema and Photography*, ed. Karen Redrobe Beckman and Jean Ma (Durham: Duke University Press, 2008), 5.

²³ Jonathan Walley, "The Material of Film and the Idea of Cinema: Contrasting Practices in Sixties and Seventies Avant-Garde Film," *October* 103 (Winter 2003): 18.

²⁴ Pavle Levi, "Cinema by Other Means," *October* 131 (Winter 2010): 53.

realized through that manifestation, the medium's nature is endlessly variable and responsive to different conditions and arrangements.

In addition to providing new ways to conceptualize the medium, these approaches have creative and radical potential. For Beckman and Ma, Walter Benjamin's notion of obsolescence can "liberate the utopian possibilities" of film and photography.²⁵ The ambiguity of the still moving image is a productive force that like Benjamin's optical unconscious can "exceed rather than uphold systems of meaning."²⁶ For Levi, the dialectic of the concept of cinema and its technologies is a performative act that re-creates the medium in each instance. Not only does the enactment attempt to bring the material in line with the concept, but it also reveals the discrepancies, the instances where the instantiation fails to correspond with the idea. The instability in the medium generated by these deviations keeps the medium from being instrumentalized as a mere by-product of its materiality and processes. The medium, both as idea and material, retains an inventive vitality.

One of the things I realized in the course of this project was that the artwork that interested me was precariously balanced between technological determinism and radical social practice.²⁷ The editors of *Radical Software's* first issue lay out the terms of this ambiguity: "Power is no longer measured in land, labor, or capital, but by access to information and the means to disseminate it. As long as the most powerful

²⁵ Ma and Beckman, "Introduction," 9.

²⁶ *Ibid.*, 15.

²⁷ This determinism was criticized early on by Tom Brom in his review of *Guerrilla Television* published by Michael Shamberg and Raindance. Brom takes to task the technologically laden view of the world and proposed change strategies forwarded in the book as ignoring the material conditions of society: class struggle, ownership, and political economy. See Tom Brom, "Guerrilla Television/Community Access Video," *Cineaste* 5 (Spring 1972): 33.

tools (not weapons) are in the hands of those who would hoard them, no alternative cultural vision can succeed.”²⁸ The tools that these commentators refer to are the communication technologies of television and video and the means by which their content is produced and disseminated. The solution would be to “design and implement alternate information structures which transcend and reconfigure the existing ones.”²⁹ The editors recognize traditional Marxist conceptualizations of society as a struggle manifested through land, labor, and capital. Yet they forswear traditional structural forces that organize these societal elements and focus instead on a tactic of capitalist society, communication technology. While such technology is indeed a significant factor in industrialized societies, the *Radical Software* editors forget that such technologies were developed by and are in the service of those that control land, labor, and capital. According to these techno-artists, if such technologies could be used differently, then new modes of individual and social consciousness could emerge, with changes in material conditions to follow. By ignoring the framework that systematizes such tactics as electronic communications, they fall into Raymond Williams’ determinist trap in which technology is conceived to “set(s) the conditions for social change and progress.”³⁰ The specific material conditions, intentions, and needs that drive the development and use of such technologies are elided.

²⁸Editor’s introduction, “Radical Software.,” *Radical Software.*, 1970, 1.

²⁹ Ibid.

³⁰ Raymond Williams, *Television: Technology and Cultural Form* (New York: Schocken Books, 1975), 13.

The artists I discuss exemplify this determinist bent. They considered video, not as a product immersed in and beholden to political economy, but as a potentially radical communications device that could achieve personal liberation, communitarianism, and spiritual transformation. This metaphysics of information is most associated with McLuhan whose statement, “the medium is the message,” suggests the omnipotence of media to enact change at the perceptual and social level. According to McLuhan, electronic media’s ability to transmit information instantaneously across geographic boundaries would retribalize the world resulting in intersubjective consciousness. Steeped in Eastern spirituality and mysticism, McLuhan’s pithy aphorisms, and the strong metaphor of information that was applied to all domains of human existence at this time, the artists I examine see technology as a directly applied dose of medicine for the social, political, and environmental ailments of the time. For Gillette, Schneider, and Paul Ryan, the “information” conveyed through video transmutes the viewer from passive recipient to active producer and user or provides new psychological models for understanding the self. Nam June Paik conceives video as a means to humanize or aestheticize technology and unify the world’s people and cultures. Jud Yalkut believes that video and film can alter consciousness, like the LSD trip, and lead to spiritual insight and wholeness. I find this kind of idealism troublesome for it ignores the structural principles governing a technology’s use and development, one of the main criticisms leveled against the version of McLuhan that fascinated these artists.

Yet at the same time, my artists, especially when considered in the context of or in tandem with film, avoid an all-out determinism by using such technology in ways

that counter the objectives of television and video's corporate and political masters. The editors of *Radical Software*, even as they preempt the material structure and struggles of society with a technological panacea, advocate a social practice that could "design and implement alternate information structures which transcend and reconfigure the existing ones."³¹ They recognize that how technology is accessed, used, and distributed is as important as the technology itself and in many ways defines that technology. Williams also notes this as a possible way for technology to circumvent the controls under which it was developed as "other social groups, sometimes with other intentions or at least with different scales of priority...adopt and develop the technology, often with different purposes and effects."³² For Williams, determined technology, technology wholly contingent on and in service to social, political, and economic intentions, is as problematic as technology that completely ignores those intentions. So even as Schneider, Gillette, and Ryan celebrate video as an antidote for the world's crises, they do so by changing the way it is used, advocating for it as a device of personal communication and introspective insight, rather than an instrument for broadcasting propaganda. Nam June Paik investigates the creative potential of television as it falls apart and is no longer able to communicate the needs of political economy. Yalkut analyzes the imaginative and metaphoric responses that technological mediums such as film and video can impart when used in tandem and in purposefully conflicting ways.

³¹ "Radical Software," 1.

³² Williams, *Television*, 129.

While these artists may have been aware to varying degrees of the structures and controls in which their technology was developed and used, they never link their repurposing practices to an outright critique of those structures, intentions, and institutions. These artists use the technology logistically, to work from within the system to refashion the system's own devices and direction. They did not seek to abolish the structure all together, to rearrange the social, political, and economic matrix in which television, video, and film were embedded. This tactical rather than materialist approach separates these artists of the age of cybernetics and systems theory from those radical artists of the socialist revolution that I will discuss in chapter one. Both engage with the material practices and operations of their mediums, but the Soviets articulate how such interventions would affect the class struggle and material history. Sergei Eisenstein and Dziga Vertov use film's means to tell the story of the revolution, to display and celebrate the worker, to reveal the inequalities that socialism sought to ameliorate. At the same time their film practice trains the socialist subject in a dialectical form of perception and reason that further drives the revolution. My technological artists on the other hand focus on changing individual and group consciousness rather than overturning the structure in which such consciousnesses were rooted. Artists like Schneider and Gillette, Paik and Yalkut fail to see how their new uses and intentions for video and television were themselves subject to a greater social order whose "limits and pressures are real and powerful."³³ Without attacking the forms and motivations that control the development and uses of the technology, these artists leave their work open to co-optation by those forces. The vision of the

³³ Ibid., 134.

psychedelic revolution I discuss in chapter three is reduced to tie-dye t-shirts sold at Woodstock-inspired rock music concerts now fully commercialized by the music industry. This assimilation is most apparent in a 2010 reunion of some of the *Raindance* members, including Schneider, Gillette, and Ryan. In the panel, these artists continue to advocate for the technological panacea of video as if they were reading from the pages of their journal *Radical Software* published over forty years earlier. Their obliviousness to the larger political and economic questions was made humorously apparent when an audience member asked their view about Internet sites like YouTube that utilized user-generated content, the holy grail of early radical video, to drive traffic and advertising revenue. The Raindance members stared at each with dumbfounded smiles on their faces as if the concern, made so obvious by the audience member's eloquently stated question, had never entered their minds.

Even as these artists explored a wide range of effects with their artwork—distanciation, shock, and *ostranamię*; the liberating potential of obsolescence; and the creative use of metaphor—they did not always offer substantial explanations for or theorizing on the mechanics of these effects. McLuhan's inspiring yet equally frustrating aphorisms also did not provide an operational analysis of how media effected these changes, the paths, switches, and modes by which a technology might interact with the subject's perceptual and cognitive systems. Film enters this scenario by providing theoretical approaches and contrasting practices that elucidate these mechanisms and demystify the aura of technological determinism. In some cases film and art historians are developing these theories alongside video's emergence thereby suggesting an important, shared cultural thematic. In other instances, filmic models are

imported when video artists directly confront film in their artwork or work with filmmakers.

But McLuhan also claimed that different mediums affected the senses differently and this view resonates with the kind of formalism I have described, a formalism that considers the medium itself as an integral conveyor of meaning. In this way, the technological determinism I found so problematic in these artists' claims for their work could be modified with a rigorous formalist analysis. Such an approach also addresses the question of how an artist can confront the consequences of technology in capitalism while working with that technology. A technological medium may exist within the strictures of political economy, but it generates unique and highly subjective effects that do not always conform to the requirements of an administered society.

In what follows I will show how the posited technological effects on the subject prized by these artists result from a complex interaction of video's formal operations on the individual. In some cases we can understand this effect by recourse to film theory and in other cases the effect results from a carefully designed interchange between video and film. By focusing on this kind of formal structure, a structure that recognizes how the materiality of the medium and its conventions reach out to the subject with various results, these early video artworks can be recovered from a technological idealism that has marginalized them in modernist and post-modernist debates. These artworks function as a bridge between the two cultural formations. Their highly formal and critical nature grounds them in modernist doctrine

while their use of these formalisms to generate subjective effects engages with the deeply mediated perception of post-modernity.

This research leads me to conclude that even at the moment when technological formats disrupted conventional conceptions of the medium, mediums continued to be relevant. I have begun to delineate interactions between film and early video in which artists carefully considered the distinctions between the two mediums and the way these distinctions operate on common objectives. Yet these distinctions also require an expanded understanding of medium, one that includes its operations and subjective effects. In discussing the different filmic approaches of Bazin and Eisenstein, Annette Michelson suggests the importance of the medium. She writes: “Our two major theoreticians...elevated their chosen cinematic styles into filmic ontologies, proceeding then to hypostatize those filmic ontologies and the experiences afforded them into paradigms of ontological awareness...” Mediums do have natures based on their properties, conventions, and effects, and these effects ground us in a world. Yet these ontologies are as debatable, variable, and constantly changing as the effects they produce on different individuals. As Michelson points out, film has at least two versions of its own ontology, both of which are heavily dependent for their significance on how they affect the viewer. The confluence of film and video in the sixties and seventies demonstrates how we can refocus the medium’s nature on changeable, yet specific actions in the world rather than on particular properties or materials. In today’s increasingly virtual and electronically mediated environment, the medium of effect may be our most real experience.

Taking my cue from these theoretical domains and studies, I analyze the unique effects of video and film in interaction and how their interaction affects our idea of a medium. Allowing film and video to rub against each other, as Jud Yalkut would say, reflexively highlights their specificities, their operational logics and phenomenologies, while at the same time revealing the contingent nature of those specificities. In comparison, a particular characteristic attributed to the film or video medium can be interpreted differently. In some instances the medium can only be defined through its relationship to another medium. Similarly, the affective results arising from the collision of video and film cannot be arrived at by a simple calculus of each medium's operations and expressive potential.

In chapter 1, I join the mediums of film and video with a theoretical discourse. I trouble essentialist distinctions between film and video by showing how effects posited to be unique to video find an alternate explanation in film theory. My goal is not to conflate the film and video mediums or reduce video to a manifestation of the filmic but to begin parsing particular areas of intersection and similarity that have heretofore refused to be recognized. The artists I study, Frank Gillette, Ira Schneider, and Paul Ryan, heighten the stakes of my project for they were adamant about video's unique properties and its difference from film. As members of the video collective Raindance, they actively contributed through their journal, *Radical Software*, to an almost fetishistic treatment of the video medium that saw video and other information processing technology as direct interventions into social and psychological space. I counter this technological determinism with rigorous analyses taken from cinema studies that describe such social and subjective effects as perceptual and

epistemological artifacts of film's material operations. Schneider, Gillette, and Ryan believed that immediacy and presence obtained through closed circuit video and video feedback were unique properties of the video medium. Yet developing at this same time were film analyses that recognized similar effects generated by Soviet montage and some experimental filmmakers of the sixties and seventies. Montage was a filmic device eschewed by early video artists, but I show how notions of montage underlie these artists' artworks and claims for video's temporal and subjective effects.

In chapter 2, I consider the suggestive co-occurrence of films by Nam June Paik and Paul Sharits that picture breakdowns in the mediums of film and television. Paik is considered a progenitor of video artwork, yet his *Zen for Film* enacts the degradation of the cinematic medium. Widely known as a structural filmmaker, Sharits' imagines a malfunctioning television set with his film, *Dots 1 & 2*. I argue that film and television are brought together in these artists' works by the forces of obsolescence that threaten all media. Paik and Sharits make this obsolescence apparent in what I refer to as the dysfunctioning operational form, a visual manifestation of a technology's processes. In referencing the materiality and functions of a technology, the operational form has many similarities to the modernist notion of self-reflexivity. I modify the term however in order to connect it with the instrumental rationality that underlies all technological mediums and that, according to cultural critics of the time, pervades our culture. In a reading that counters interpretations of Paik's humanizing and aestheticizing use of technology and Sharits self-reflexive filmmaking, I argue for the destructive forces that imbue their television and film. These forces cause their operational forms to dysfunction thereby opening gaps in which the technological

order can be critiqued. Obsolescence also causes the mediums of film and video to be viewed relationally as each medium necessarily responds to changes in the media landscape. Such a relationship challenges the functionalism of medium specificity in which a medium is merely an aggregate of its own characteristic means.

Chapter 3 looks at several videofilms made in collaboration between Paik and Jud Yalkut. Consisting of both filmic and videographic images the videofilms provide an exemplary object for studying the interaction of the two mediums. I propose a model of creative differentiation for the videofilms in which a careful discrimination between the two mediums elicits the viewer's imaginative response. I pose the videofilm against media models of the psychedelic counterculture. These models sought ego dissolution and the prerational subjective state, frequently associated with the LSD trip, in the chaotic simultaneity of the multi-media environment and light show. Rather than confusing mediums and stimuli into a sensory assault, Yalkut and Paik's videofilms meticulously differentiate both the perceptual effects and representational modes of film and video. In the context of the counterculture's pursuit of the authentic subject, an individual that could throw off the strictures of an imposed and false rationality for the more pure experience of their sensations, the videofilm locates this authenticity in the viewer's imaginative interaction with the discrepancies between video and film images. Again, the videofilm's notion of a medium is variable and relational, the specific qualities of film or video in constant flux as they interact with each other.

VIDEO AND FILM FORMS IN THE WORK OF FRANK GILLETTE, IRA
SCHNEIDER, AND PAUL RYAN

The Howard Wise Gallery's 1969 exhibition, *Television as a Creative Medium*, brought together the artwork of Frank Gillette, Ira Schneider, and Paul Ryan, artists who adamantly asserted the technological differences between film and video and their effects. For Schneider, video's immediate playback technology "fosters a life quality that I didn't always get on film."¹ For Gillette, seeing oneself feedback using video technology is much different than seeing oneself feedback on film. Feedback on tape is "the first genuine view from the outside of what the inside is like." Gillette points out the potential of two-way communication with television that is not possible with film: "Television is something you feedback with as much as you receive with—which is a symbiosis—which works both ways." Ryan also considers video to be a unique method for investigating the self and its environment:

Film edits the experience of others for you. With videotape, on the other hand, you can pre-edit your own experience simply by setting down your script on audiotape and following it in front of a camera. Film is the packaging of information in cans... Videotape can feed back into a given situation and enrich experience.²

These artists' beliefs would lead them some months later to become founding members of the Raindance video collective. The participants of this group considered video almost solely as a technological instrument for intervening in the crisis of ecology and consciousness that had come to light in the sixties and seventies. The

¹ Gillette and Schneider, "Parts I and II of an Interview by Jud Yalkut."

² Paul Ryan, "Cable TV: The Raw and the Overcooked," in *Cybernetics of the Sacred* (Garden City, N.Y.: Anchor Press, 1974), 21.

editorial statement from the group's first issue of its influential publication, *Radical Software*, characterizes the technological bent of the collective inflected by information theory and computer science:

Power is no longer measured in land, labor, or capital, but by access to information and the means to disseminate it. As long as the most powerful tools (not weapons) are in the hands of those who would hoard them, no alternative cultural vision can succeed. Unless we design and implement alternate information structures which transcend and reconfigure the existing ones, other alternate systems and life styles will be no more than products of the existing process...Our species will survive neither by totally rejecting nor unconditionally embracing technology—but by humanizing it; by allowing people access to the informational tools they need to shape and reassert control over their lives...Only by treating technology as ecology can we cure the split between ourselves and our extensions.³

Much of the commentary that framed video art in its early stages of development addresses video's capacity to break through the communications and consciousness logjams erected by video's metaphorical parent, broadcast television. For video artists like Gillette, Schneider, and Ryan, changes in personal and social consciousness just naturally followed seeing yourself on the television screen or distributing homemade videotape in order to circumvent the imposed messages of network television. Following the prescription written by McLuhan, watching the mosaic of the TV screen would lead to increased levels of involvement and hence, changes in psychological state. Similarly, the reach and instantaneousness of electronic communications would unify and retribalize the world. The effects determined by technology were sufficient to achieve personal and social goals.

By latching onto video's technologies and its purported technological effects, these artists not only nominate a unique video medium but also separate video from a

³ Editor's introduction, *Radical Software* (1): 1 (1970).

field of concepts that grounded and theorized much art of the time.⁴ Practices as diverse as minimalism, avant-garde film, and systems art all aspire to realize a new subject, one that intensely interacts with an environment activated by the art object. The subject's basic awareness of self results from confronting the object's formal operations and the perceptual stimuli it operates. We can track this developing thread in the pages of *Artforum* during the sixties and early seventies. From 1966 to 1969, Robert Morris was publishing his highly influential "Notes on Sculpture" in which he argues for the contextualization of the art object, viewer, and environment. At the same time, film historians such as Annette Michelson and Noël Burch were developing a phenomenological theory of film in which the viewing subject's perceptual engagement with the filmic medium provides awareness of both the self and the self's position in a socio-political environment.⁵ Jack Burnham takes up these themes as well in his articles for the journal, but from the perspective of systems theory and cybernetics. Here, the subject exists in an interacting web of forces. Feedback, a kind of technological reflexivity, provides the mechanism by which the individual comes to understand themselves as part of and defined by signals received from their surroundings. Awareness of the self and social environment through a

⁴ This singular focus on technology is criticized by Tom Brom in his review of *Guerrilla Television* published by Michael Shamberg and Raindance. Brom takes to task the technologically laden view of the world and proposed change strategies forwarded in the book as ignoring the material conditions of society: class struggle, ownership, and political economy. "Guerrilla Television/Community Access Video," *Cineaste* 5 (Spring 1972): 33.

⁵ Gregory Taylor identifies this trend in film criticism in the sixties and seventies and calls it "reflexive phenomenology." Naming Annette Michelson as the foremost advocate of this interpretational approach, Taylor describes how it was applied by both historians and filmmakers to analyze a wide range of Soviet, Hollywood, and structural films. See his Gregory Taylor, "'The Cognitive Instrument in the Service of Revolutionary Change': Sergei Eisenstein, Annette Michelson, and the Avant-Garde's Scholarly Aspiration," *Cinema Journal* 31 (Summer 1992): 42–59.

perceptual encounter with that environment, often distilled into the art object and its formal operations, was a goal highly valued by many artists, filmmakers, and critics.

In what follows, I propose a reconciliation of sorts that considers relationships between film and video in this larger field of shared aspirations and values. Drawing on the phenomenological film theories and artistic applications of cybernetics and systems theory being developed at this time, I consider Gillette, Schneider, and Ryan's artwork as a purposeful display of video's operational mechanisms and accompanying perceptual effects. Accordingly, the personal and social outcomes posited by these video artists are the results of highly formal operations and patterns of stimuli rather than an idealist extension of technology into the psychic and social domains. For Schneider and Gillette, I expand film's formal operation of montage to explicate the effects of immediacy or liveness considered to be a hallmark of the video medium, an effect also valued by film and art critics at this time. In the case of Paul Ryan, I relate his use of video recording to the phenomenological reflexiveness being pursued by film theorists. In both instances, cybernetics and systems theory provides a bridge between the technological bent of the Raindance artists and the formal and phenomenological concerns of film theorists. By placing video back into this larger field of shared goals and values, I minimize the technological specificities that artists like Ryan, Gillette, and Schneider used to define their medium. Instead, video, film, and other artistic practices interact as different means to effect commonly held goals and values.

VIDEO IMMEDIACY AND MONTAGE

Schneider and Gillette's contribution to the *TV as a Creative Medium* exhibition was a television wall called *Wipe Cycle* (fig. 1.1). While multiple-monitor or screen displays were not new to the public, *Wipe Cycle* is one of the first multi-channel video installations to capture the public's attention in an art context. As such, *Wipe Cycle* stands as an exemplar of video art installation to the present day. The wall consists of nine monitors arranged in a three by three matrix. Each monitor displays one of three different kinds of images: a camera feed of people in the gallery, images prerecorded and edited by the artists, and transmissions from network television. The camera feed has multiple delays so people would see confusing representations of themselves in the present and at eight and sixteen second intervals from the past. Images jump from one screen to another and with precise timing, each screen is wiped blank in counterclockwise, sequential order.

One of the most important aspects of *Wipe Cycle* for Schneider and Gillette, was its sense of immediacy or liveness, a quality they believed to be a hallmark of the video medium. In an interview, Gillette describes the realness of the video image: "People see videotape and what they read in their skulls is 'real'—it seems live, and has an unstored quality—like the live immediacy of even Walter Cronkite on the 7 o'clock news."⁶ Schneider references video's ability to operate in the here and now when he states in the same interview that "the most important facet of *Wipe Cycle* was the notion of information presentation, and the integration of the audience into the

⁶ Gillette and Schneider, "Parts I and II of an Interview by Jud Yalkut.," 10.

information.”⁷ For Schneider, video is not a contemplative medium but actively incorporates the audience into the mediascape as the audience views the installation. Yet how can this liveness be explained? If what people watch on videotape and consider to be real is always a re-presentation of that reality—even when they see themselves in real time—how is the effect of immediacy produced?

Wipe Cycle is more than just a visualization of video’s liveness and the subject’s place in the information landscape. It is a highly formalized display of the forms available to video: broadcast, pre-recorded and delayed tape, and real-time monitoring. The rigidly composed matrix of monitors not only displays images but also serves as a ground upon which the different image types and temporalities can be compared, further emphasizing the different video processes that construct each one. In this way, *Wipe Cycle* asserts the video medium as constructed by its various means of image generation. Rather than being an effect of the video medium’s instant playback capability, I believe *Wipe Cycle*’s liveness results from the formal dissonance between these processes and their resulting images, a dissonance or shock theorized in a particular style of filmic montage and in systems theory formulations of the individual in the environment. The viewer’s perception of this dissonance in turn generates a sensate awareness of a present and living moment.

To better understand Schneider and Gillette’s construction of the video medium and its effects, we can turn to film scholars writing around the time of *Wipe Cycle*’s exhibition. These commentators considered how the stylistics and operations of the film medium were instrumental to its effects and how these operations and

⁷ Ibid., 9.

effects in turns expanded the notion of a medium. Formal devices such as montage, superimposition, reverse motion, and the working of the film's machinery were seen not just as image making tools but as contributing at a structural level to the semantics of the film image. For example, in 1969 Noël Burch published his influential *Theory of Film Practice* in which he reorients film's meaning from literary forms to its formal operations. Responding to a field of criticism and production steeped in narrative and continuity editing, Burch envisions a time when film's "semantic function will be intimately joined with its plastic function to create a poetic function."⁸ In particular, this plasticity is a function of film's articulation of space and time through editing.

In his analysis of Eisenstein's *October*, Noël Carroll investigates a particular manifestation of Burch's poetic function. For Carroll, the film not only tells the story of a revolutionary moment but causes the viewer to think in a revolutionary manner. Eisenstein's discordant montage requires the viewer to make inferences between images that represent spaces and times that are not easily assimilable. Eisenstein's attention to film form not only transmits an idea, but, "in the maieutic tradition, attempts to draw from and educate the audience in an analytic form of reasoning."⁹

This close reading of the form of the film to elucidate film's semantics and its effects on the viewer was capitalized on by many interpreters of the structural film. These writers conceived the foregrounding of film's mechanisms and materials as an elicitation of existential awareness. Regina Cornwell considers the reference to the intermittent shutter device in Paul Sharits' flicker films for how it produces effects of

⁸ Noël Burch, *Theory of Film Practice.*, trans. Helen R Lane (London: Secker & Warburg, 1973), 12.

⁹ Noël Carroll, "For God and Country," *Artforum*, January 1973, 56–60.

illusionary motion. Sharits' stuttering frames reveal the lie behind the illusion of motion so that "...the viewer becomes more conscious of the fact that he is facing an illusion, and paradoxically, at the same time, this illusion is an immediacy in time."¹⁰ For Cornwell the formal operation made visible by Sharits replaces the recorded illusion of motion and re-replaces the viewer in a state of presentness. For these writers, film's various operations and stylistic devices are central to understanding how we read and respond to the filmic image.

In the case of *Wipe Cycle*, images might be read as live or broadcast or taped, but in bringing them all together, Schneider and Gillette foreground the video operations by which these images are made possible. While resulting from electronic technology rather than the chemical and mechanical technologies of film, these operations constitute what Burch would call a medium's plastic functions. If a medium's plastic functions leads to its poetic results, then the subjective consequence of liveness isn't so much a result of the viewer seeing themselves on a monitor in real-time as it is a result of the viewer focusing on and being aware of the possible operations of the video medium. The artists underline the different means by which the video image can be produced making the viewer highly conscious that what they are seeing is the result of a set of technological operations, the forms of video itself.

Attention to how the film medium functions constitutes a different approach to the flavor of medium ontology that held sway in the sixties and seventies, a formalist ontology that reduced an artwork to its morphology of shape and material. Such formalism was derived from a particular strain of Clement Greenberg's influential

¹⁰ Regina Cornwell, "Paul Sharits: Illusion and Object," *Artforum* 10 (September 1971): 57.

criticism in which the medium precipitated into an irreducible limitation that strictly separated form from any content. In his essay “Towards a Newer Laocoon,” Greenberg makes clear that such content had to do with ideas and subject matter, “which were infecting the arts with the ideological struggles of society.”¹¹ Instead modernist art sought “essence,” “irreducibility,” and “purity,” and for painting, that essence was the flatness of the picture’s surface.¹² While Greenberg’s approach so narrowly received caused even his most ardent supporters to chafe, his “reductionist and modernist conception of the modernist enterprise”¹³ still held sway in some considerations of film and early video. In the rankest applications of Greenberg, the mediums of film and video were reduced to a kind of list structure of its materials with particular films and video valorized for the way they called attention to these materials.¹⁴ The notion of medium specificity became synonymous with the elucidation of and reference to a medium’s physical, and in the case of film and video, their mechanical qualities.

Yet, embedded in Greenberg’s reductive essentialism is another, and seemingly contradictory, dimension in which the medium’s essence depends on how it is used and how the viewer responds to its use. In his essay “Collage,” Greenberg

¹¹ Clement Greenberg, “Towards a New Laocoon,” in *Pollock and After: The Critical Debate*, ed. Francis Frascina (New York: Harper & Row, 1985), 39.

¹² See Clement Greenberg, “Modernist Painting,” in *Modern Art and Modernism: A Critical Anthology*, ed. Francis Frascina and Charles Harrison (New York: Harper & Row, 1982); Clement Greenberg, “‘American-Type’ Painting,” in *Art and Culture; Critical Essays*. (Boston: Beacon Press, 1961).

¹³ Even while he expresses his admiration for Greenberg, Michael Fried recognizes some of the more problematic dimensions of his project. See Fried’s “How Modernism Works: Response to T.J. Clark,” in *Pollock and After: The Critical Debate* (New York: Harper & Row, 1985), 68.

¹⁴ See for example, Tod Lippy, “Disappearing Act: The Radical Reductivism of Fluxus Film,” in *Fluxattitudes*, ed. Cornelia Lauf, Susan Hapgood, and Nancy Dwyer (Gent, Belgium: Imschoot Uitgevers, 1991); Eric Cameron, “Structural Videotape in Canada,” in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt Brace Jovanovich, 1976); Eric Cameron, “The Grammar of the Video Image,” *Arts Magazine* 49 (December 1974): 49–51.

relates how the essential flatness and reality of painting is not so much immanent to the medium as it is realized through the tension between illusionism and literalness and the viewer's awareness of illusionism as such. The problem that Braque and Picasso attempted to address in their paintings was how to keep the depicted flatness of shaded Cubist facets separate from the literal flatness of the canvas. A modicum of illusionism had to be maintained so that flatness could be made all the more apparent. In his analysis of Braque's paintings, Greenberg shows how the trompe-l'oeil nail or the painted letters function as "tokens" or suggestions of illusionism, the creation of a three-dimensional space on a two-dimensional surface, without tipping over the cliff of all-out representation. Painting's essence is not so much a given as it is enacted by "a constant shuttling between surface and depth, in which depicted flatness is 'infected' by the undepicted. Rather than being deceived, the eye is puzzled; instead of seeing objects in space, it sees nothing more than—a picture."¹⁵ Illusionism is hinted at as a potential representational device in order for painting's flatness to be convincingly realized. The viewer's own disturbed cognizance of this interplay is as much a part of the medium's essence as its morphological characteristics. Such an approach reorients the medium's nature from a static, innate quality to one that is actively built through the representational devices available to a medium and the viewer's perception of those devices. What a medium is depends on what a medium does and how it is seen.

¹⁵ Clement Greenberg, "Collage," in *Art and Culture; Critical Essays*. (Boston: Beacon Press, 1961), 74.

Scholars and critics like Burch, Cornwell, and Annette Michelson seized on this structural analysis of representational modes to understand the film medium. By considering devices like montage as integral to the semantics of film, the film medium becomes more than just a material substrate such as celluloid, or morphology such as projected light on a screen. It evolves into a set of operations or formal procedures put into use in particular ways. These procedures operationalize film's substrate and morphology with powerful consequences for how we understand the content of the film and how that content affects us. For Michelson, the realization of film's forms, or the possibilities of film's use in devices like montage, slow-motion, superimposition, or reverse motion, is imbricated with the definition of the medium and its effects. In essays concerning Dziga Vertov's *Man with a Movie Camera* and Stanley Kubrick's *2001: A Space Odyssey*, Michelson demonstrates how these formal operations, the potential uses of film, undergird a self-reflexive knowledge of the medium itself. The ellipses in spatial and temporal locations, the slowing down of motion or its reversal, the layering of images, disorient one's normal training in reading narrative films, thereby thrusting on the viewer an awareness of film itself as a set of operations and effects. These formalisms serve not to reduce the filmic medium to a differential essence but expand the medium into a set of operations and viewer effects.

This attention to the formalisms that structure film both expand the notion of a medium and complicate the belief in an essential nature for film. Michelson was acutely aware of questions of film's ontology and while she never definitively stated her own answer, the nature of film was imbricated with its stylistics, how the film articulated itself using the formal procedures at hand. For example, in discussing the

viewer's oscillation between belief and disbelief when confronted by the seamlessness of *2001: A Space Odyssey's* special effects, Michelson argues that these effects make us both aware of the medium while transforming its possibilities. In a parenthetical aside she then suggests that, "If one were concerned with an 'ontology' of cinema, this film would be a place in which to look for it."¹⁶ Here she hints that the answer to film's ontological question is a product of its forms and effects, even while she evades an ultimate definition. For Michelson, even though a medium's ontology is dependent on its processes, such an ontology is manifold and this multiplicity is at the heart of film studies. In discussing Bazin and Eisenstein Michelson writes: "Our two major theoreticians...elevated their chosen cinematic styles into filmic ontologies, proceeding then to hypostatize those filmic ontologies and the experiences afforded them into paradigms of ontological awareness..."¹⁷ Here she acknowledges the debate about film's ontology while grounding that debate in film's operations. But in bringing up two versions of film's nature she recognizes the potential variability, the ambiguity, in the very notion of a medium's ontology.

A film scholar like Carroll, or as he would probably say, moving image scholar, dismisses the whole question of medium specificity as the basis for ontology. In his attack on the uniqueness of the medium and the theorem that every artwork expresses its singular medium, he points out that some artforms like painting are composed of multiple mediums: oil, watercolor, etc.¹⁸ The idea that a medium

¹⁶ Annette Michelson, "Bodies in Space: Film as 'Carnal Knowledge,'" *Artforum* 6/7 (1969): 56.

¹⁷ Annette Michelson, "Screen/Surface: The Politics of Illusionism," *Artforum* 11 (September 1972): 61.

¹⁸ Noël Carroll, *Engaging the Moving Image*, Yale Series in the Philosophy and Theory of Art (New Haven: Yale University Press, 2003).

expresses itself in a style derived from some immutable set of laws that inhere in the medium is also suspect, for as he illustrates, film has manifested itself in a variety of styles such as wider screen formats, effects produced by different lenses, or different lighting effects depending on the commercial needs of the time. The medium rather than manifesting its specificity in the form is in-formed by the way it is used: “the ‘medium,’ so-called, is modified or adapted or re-invented in order to serve stylistic purposes.”¹⁹ Like Michelson, Carroll sees a medium’s ontology, to the degree that the medium is modified, adapted, or re-invented, to be variable and open. Film’s ontology does not reside in an *a priori* quintessence but is constructed over and over again.

Stanley Cavell also locates the medium’s nature in, what are his words, the “significance” of the medium’s “possibilities.”²⁰ Like Carroll, Cavell sees film’s nature as manifested in its stylistic outcomes such as the genres of farce, melodrama, or comedy. But these outcomes are also the result of an intention, the idea that using film in such-and-such a way will be meaningful or significant to an audience. It is not possible to talk about a medium without also seeing how that medium has been realized:

...the aesthetic possibilities are not givens. You can no more tell what will give significance to the unique and specific aesthetic possibilities of projecting photographic images by thinking about them or seeing some, than you can tell what will give significance to the possibilities of paint by thinking about paint or by looking some over. You have to think about painting, and paintings; you have to think about motion pictures²¹

¹⁹ Ibid., 8.

²⁰ Stanley Cavell, *The World Viewed: Reflections on the Ontology of Film* (New York: Viking Press, 1971).

²¹ Ibid., 31.

Again, contra-some strains of Greenberg, a medium is realized through how it is enacted in specific instances, how its possibilities are thought and realized in form. While Michelson, Carroll, and Cavell might agree that a medium's ontology can be discussed, such ontology is changeable and various depending on the devices, operations, and effects that a medium uses at different times and in different situations.

For these thinkers, the awareness of the film's medium is an awareness of its formal operations and it is through the viewer's consciousness of this iterative process, the foregrounding of the medium as its formal operations, that film has its effects. Schneider and Gillette may have differentiated video from film based on video's presumed liveness, yet *Wipe Cycle* constitutes this liveness through the formal operations of video, the way it can be present as a real-time, broadcast, or taped image. In turn, these formal operations constitute the video medium itself. Video's technological operations of real-time monitoring or instant replay are still valid ways to consider the nature of the medium, but they are now seen as formalisms, just like filmic montage or slow-motion. As such the social, political, and ecological effects of video espoused by Gillette, Schneider, and Ryan are a result not of some technoutopian extension of humanity enacted by video but the simple actions of these basic video forms on the viewer.

If a medium's ontology for scholars like Michelson and Carroll is variable, then the construct of liveness provides an excellent example of this mutability in video. Liveness was an important property of the video medium in discussions of early video, a property that was often believed to differentiate the medium from film and

give video an ontological specificity.²² To argue for liveness as a specificity of the video medium is problematic however, for liveness, as construed by Gillette and Schneider in *Wipe Cycle* and as it was considered in the early video literature is itself a multivalent construct. The matrix of monitors displays three kinds of liveness: the real-time image of the viewer, the broadcast image coded as live, and the viewer's own sense of presence in the media landscape touted by Gillette and Schneider. While each moment might be described with recourse to the liveness rubric, their construction of the live experience is unique based on cognitive, semantic, and phenomenological differences. Indeed, given the many related yet semantically nuanced terms used by Gillette and Schneider to describe this quality such as "real," "live," or "immediacy," the construct of liveness evades quick or incisive definition.

The posited causes of liveness in writing on early video and television were various. Given video's close association with television, an association that some like David Antin believed provided the background against which video had to be considered,²³ video's liveness was derived from television's ability to instantaneously transmit and display events such as presidential conventions or moon landings. Of course, by the 1960s, television content was mostly prerecorded but the texture and feel of the live broadcast still pervaded the medium. Other writers believed that liveness was a result of video's immediate playback capability, the fact that a user could record for themselves something that could then be instantly replayed. Bruce

²² William Kaizen notes that immediacy was "the one distinguishing characteristic claimed more frequently for video than any other." See his William Kaizen, "Live on Tape: Video, Liveness and the Immediate," in *Art and the Moving Image: A Critical Reader*, ed. Tanya Leighton (London: Tate Publishing, 2008).

²³ Antin, "Video: The Distinctive Features of the Medium."

Kurtz ascribes to video, through its relationship with television, a “present tense,” citing its ability to “transform even the events of ancient history into the flowing present, whether or not what is being telecast, or what appears on the monitor, is actually live, taped, or filmed.”²⁴

But the construct of liveness was also contested as false, an illusion, or equivocal. Les Levine explicates three temporal modes of television: live, in which what you are seeing is occurring as you watch; live analysis, in which the image is constructed so as to make the viewer believe it is happening live; and theatrical analysis, in which the viewer is under no impression that what they are watching is live.²⁵ According to Levine, with theatrical analysis, the viewer is very much aware that they are watching something through the medium of television, the appearance is secondhand; whereas live analysis makes the medium disappear:

A good TV producer tries to erase entirely the space that the viewers are living in. The TV program has got to pull the viewers' minds out of their own living space and pull them into TV space. Now they are in the air. Floating the same way that the TV signal is. A TV producer understands that what he has to do is to get the viewer inside the TV set mentally. It has to seem to be happening directly in your mind.²⁶

²⁴ For Kurtz, this presence has multiple causes. Unlike film, television is viewed in more intimate, domestic spaces, spaces that provide not only closer proximity to the image but also a sense of privacy and psychological closeness. We are also in control of the video image. With a flick of the switch we can turn on or off the television depending on our personal preference. Kurtz also considers video and television in a larger cultural milieu, one that he believed emphasized the impermanence of the event and object, requiring one to attend to the here and now. He suggests that the improvisational quality of a film like Andy Warhol's *Chelsea Girls* creates a sense of an actual event instead of a prerecorded event. Similarly, the earthworks that address entropic natural processes, processes that will eventually erode the artwork, also thematize impermanence, thereby thrusting the viewer into a present awareness of the environment. Bruce Kurtz, “The Present Tense,” in *Video Art: An Anthology*, ed. Ira Schneider and Beryl Korot (New York: Harcourt Brace Jovanovich, 1976), 234.

²⁵ Levine, “One-Gun Video Art.”

²⁶ *Ibid.*, 87.

Live analysis is highly valued by producers because it is better able to promote viewer believability even though the television's content is clearly constructed.

For Jane Feuer, the conscious construction of live analysis as illuminated by Levine and the purposefully hidden divide between live television and recorded television enacted by live analysis makes television an ideological device.²⁷ Liveness is ascribed as television's essence so that the viewer believes themselves to be immersed in the real and the myth of liveness can be used to overcome television's inherent fragmentation. Analyzing a segment of *Good Morning, America*, she shows how televisual techniques of setting and editing position the viewer in the same "live" space as the television show anchor and promotes beliefs in family and national unity. Antin also recognizes that the claims for television's liveness are false but that this falseness may be what defines the medium:

But just as the photographic reproduction capacity of the camera is essentially equivocal and mainly significant as mythology, so is the fabled instantaneity of television essentially a rumor that combines with photographic duplicity to produce a quasi-recording medium, the main feature of which is unlikeliness in relation to any notion of reality.²⁸

The video artists that Antin concerns himself with engage with this equivocation between the real and the recorded by parodying the television system or by reenacting all the things that television does within the impoverished limits of video systems accessible to artists.

²⁷ Jane Feuer, "The Concept of Live Television: Ontology as Ideology," in *Regarding Television: Critical Approaches--an Anthology*, ed. E. Ann Kaplan ([Frederick, MD.]: University Publications of America, 1983).

²⁸ Antin, "Video: The Distinctive Features of the Medium," 151.

Gillette and Schneider's own use of the diverse and disputed construct of liveness was influenced by the then-highly popular research areas of cybernetics and systems theory, particularly as these domains were applied to the electronic communication landscape. A systems perspective that constituted the individual in a web of reciprocating events and consequences drove the Raindance members' artistic and social practices. According to cybernetic theory, such systems were self-regulating, using signals, or feedback, exchanged between different elements of the system to change those elements' behavior and the behavior of the system in general. Part of feedback's allure was the more active and proximal relationship between the subject and their ecological context. One of the foremost theoreticians of cybernetics, Norbert Wiener, would relate this to the human body:

Man is immersed in a world which he perceives through his sense organs. Information that he receives is co-ordinated through his brain and nervous system until...it emerges through effector organs, generally his muscles. These in turn act on the external world...and the information received by the kinaesthetic organs is combined with his already accumulated store of information to influence further action.²⁹

In the same way that the body functions in the world based on the immediate interchange between it and environmental stimuli, Raindance members believed an individual's actions in a social or ecological system could have real-time, urgent effects.

Artists like Gillette and Schneider looked beyond the monadic individual and devised means to reconstitute the subject in a larger environmental, political, and social context, thereby making apparent the relationships between the individual and

²⁹ Norbert Wiener, *The Human Use of Human Beings: Cybernetics and Society* (New York, N.Y.: Da Capo Press, 1988), 17.

the larger system. Given its speed and reach, electronic communications technologies like television manifest the extent of these relationships as they happen in the moment of broadcast. In keeping with the language of technology, information becomes the coin of this systems perspective, that which is exchanged in the ecological matrix.

Gillette sums up this matrix of systems, information, and feedback when he writes in

Radical Software:

Fundamental to his own ecological inter-relationships is the manner in which he collects, assimilates and distributes information. This manner will determine the configuration of his survival or extinction... Media Ecology has to do with analysing and developing methods for the interaction of modes of communication with their concomitant means of access to information.³⁰

There is a timeliness in this information exchange that shapes video's posited liveness. In their interview with Yalkut, Gillette and Schneider find fault with commercial television's one-way mode of delivering information. The allure of videotape and cable TV is that individuals can produce their own information and disseminate it through distribution systems, thereby feeding back into the information environment in a much quicker fashion. As the artists point out, *Wipe Cycle* is meant to enact this kind of feedback in the most immediate way by putting real-time images of the viewer into the visual information landscape while the viewer watches.

Also interested in the immediacy of electronic systems, art critic Jack Burnham bridges the seeming divide between Raindance's technological orientation and the film critics and scholars previously mentioned. While Burnham never made it into the pages of *Radical Software*, his essay "Real-Time Systems" was written at the same

³⁰ Frank Gillette, "Random Notes on the Special Case or (loop-de-Loop)," *Radical Software* 1, no. 1 (Spring 1970): 6.

time as the journal's inception and would have found a welcome home there. He also published this essay, and others with a similar technological focus, in *Artforum* around the same time that researchers like Carroll and Cornwell were advancing their own theories about the intense and present interactions between film and its viewing subject. In his writing, Burnham gives technological voice to these film theorists' interest in the exchange between individual and medium. In "Real-Time Systems" Burnham uses information technology's distinction between hardware and software as a hermeneutic for post-formalist art. Such art not only consists of its hardware or material qualities but also the institution of art's software or means by which the object is produced, authorized, and given value. The software's action on art's hardware happens in real-time in order to "gather and process data from environments, in time to effect future events within those environments."³¹ Artist who make this art are giving the public "real time information, information with no hardware value, but with software significance for effecting awareness of events in the present."³² For Burnham then, one of the signature qualities of this kind of art is that it allows the viewer to see actions and to be affected by the immediate consequences of those actions.

This "awareness of events in the presence" informs Schneider and Gillette's notion of liveness in *Wipe Cycle*. Schneider's statement about integrating the audience into the information suggests that not only does the viewer see live shots of themselves in the gallery mixed with broadcast and taped images, but that the viewer's

³¹ Jack Burnham, "Real Time Systems," in *Great Western Salt Works: Essays on the Meaning of Post-Formalist Art*. (New York: G. Braziller, 1974), 29.

³² *Ibid.*, 30.

involvement, at least on the visual level, in the media environment is similarly live. They gain a temporally proximal awareness of interacting relationships with other images in the *Wipe Cycle* matrix and the promise of immediate agency in which they can affect events as they see them happen. While it is not clear exactly what viewers at Howard Wise's gallery would be able to do while they stared at the monitors, the artwork was meant to give the viewer the idea that immediate or live action could be taken in the information ecology.

Included in all these dimensions of *Wipe Cycle's* liveness was a kind of immediacy enacted by the formal arrangement of the images across the three-by-three matrix of monitors. The fact that all these images were placed in close proximity to each other and meant to be perceived in relation to each other casts *Wipe Cycle's* proliferation of images as a type of montage. While montage by the sixties was hardly a new concept in filmmaking and the particular brand of montage in which I am interested was theorized in the twenties, the operation holds special significance for *Wipe Cycle* both as a mode of perception as well as a mode of representation in the avant-garde of the sixties.

At its most basic, montage refers to the sequential relationship of two images on a filmstrip, but David Bordwell augments this conventional definition to include any formal operation in which connections must be made between juxtaposed, heterogeneous fragments.³³ Such juxtaposition is not only a technical method of representation, but it also reflects a way of perceiving the world, especially a modern

³³ David Bordwell, "The Idea of Montage in Soviet Art and Film," *Cinema Journal* 11 (Spring 1972): 9–17.

world in which breakage and disjunction, the clashing of individual subjectivity with an explosive proliferation of visual, aural, and tactile stimuli are the norm. Montage gives form to a kind of perception required of the modern subject. As Mathew Teitelbaum writes of the 1992 exhibition, “*Montage and Modern Life* invokes the discontinuous and the ruptured as the talisman of our century.”³⁴ In this way, montage embodies a cultural perspective, manifesting a new way of being in the world. Teitelbaum also suggests that through this new way of experiencing perceptual phenomena, the nature of reality itself can change. We see things differently and hence see them anew or perceive qualities that went previously unnoticed. He cites, for example, the compilation of multiple perspectives as a way of making present the flow of time.

Wipe Cycle's circus of imagery clearly qualifies it for this expanded definition of montage. Themes of multiple images and image types and temporal and spatial displacements dominated the commentary on this artwork when it was first displayed. In his review for *Arts Magazine*, Jud Yalkut focuses on the kinds of images displayed and the time of their presentation: “*Wipe Cycle* instantly integrated the spectator's images in the immediate present and in delayed playback, switching with cyclic patterns of broadcast transmission and preprogrammed videotape, delay change cycles and alternations activating the nine screen matrix.”³⁵ Joseph Schwarz writing for the *Jersey Journal* notes the regular shifts in time and space represented by the artwork: “There is a constant alternation of images in a locational sense (the images are always

³⁴ Maud Lavin et al., *Montage and Modern Life, 1919-1942* (Cambridge, Mass.; Boston: MIT Press ; Institute of Contemporary Art, 1992), 7.

³⁵ Jud Yalkut, “TV as a Creative Medium at Howard Wise,” *Arts Magazine* 44 (October 1969).

jumping from screen to screen) and a translocation in time (the live show is seen in real time then with a progressive delay of four, eight, then sixteen seconds).³⁶

Michael Shamberg, while also noting the different kinds of images switching across the monitors, makes much of the confusing and disorienting effects this play of visuals has on the viewer.³⁷

In his book *Expanded Cinema*, Gene Youngblood connects this perceptual multiplicity with filmic montage and subjective experience in certain forms of cinema in the sixties.³⁸ In a section of his book entitled “Montage as Collage,” he defines this cinema as synaesthetic, a cinema that removes the barriers between concept and percept, content and form, or rather makes content and form the same thing. In this way, synaesthetic cinema creates a consciousness devoid of abstract reasoning and based in the pre-linguistic senses. While he does not explicate the psychology involved in such a consciousness effect, he does elaborate the means of this effect as the superimposition of images so as to reduce, “depth of field to a total field of nonfocused multiplicity.”³⁹ We surmise that the loss of detail in the superimposed image leads to a confusion of recognition, a dispersal of cognitive concentration that short-circuits higher order and linguistic conceptualizations. For Youngblood the image’s obfuscation fuses the inside and outside. He further characterizes the form of synaesthetic cinema as one of syncretism or collage, “...the combination of many

³⁶ Joseph Schwarz, “TV Success, Failure in Exhibit,” *The Jersey Journal*, June 12, 1969.

³⁷ Michael Shamberg, “The Medium,” *Time*, May 30, 1969.

³⁸ Gene Youngblood, *Expanded Cinema*. (New York: Dutton, 1970).

³⁹ *Ibid.*, 85.

different forms into one whole form,”⁴⁰ and it is here that he introduces the notion of montage.

In his partial reading of montage theory, a reading inflected by Bazin’s criticism of the technique, Youngblood focuses on montage’s analytic forms most associated with linear narrative. He even invokes the montage theories of Eisenstein and Pudovkin, but claims that these theories are not sufficient to describe his cinema, and are subsumed by his idea of superimposition, collage, and syncretism. One can understand how Pudovkin’s editing of separate sequences into a continuous narrative would be too discrete and linear for Youngblood’s melding of forms and senses or how Eisenstein’s attention to higher cognitive effects in his intellectual montage would invalidate the primacy of perceptual experience. But Youngblood neglects the fact that Eisenstein expands the concept of montage to include various kinds of conflict or counterpoint in different dimensions.⁴¹ It might be the relationship between sound and image, between visual elements in the same frame, or even the superimposition of the current film image over the image retained on the viewer’s retina to create the illusion of movement. Additionally, the effect of Eisenstein’s montage of attractions would be a visceral shock, a perceptual event evoked by the film rather than narrated by the film. What Youngblood is describing in his synaesthetic cinema and the visual trope of superimposition, is in fact a form of montage more broadly defined by Eisenstein.

⁴⁰ Ibid., 84.

⁴¹ Sergei Eisenstein, “A Dialectical Approach to Film Form,” in *Film Form: Essays in Film Theory* (New York: Harcourt, Brace, 1949).

Part of the issue is that Youngblood is fixated on the notion of a single image in which multiple images are combined or collaged, thereby eliminating montage's edit, the physical process of consecutively joining two shots together, from his consideration. Yet Youngblood does discuss Schneider and Gillette's *Wipe Cycle* as a manifestation of the perceptual effects he advocates even though *Wipe Cycle* is clearly not a single image of superimposed shots:

...in *Wipe Cycle* several levels of time and space were synthesized into one audio-visual experience on many simultaneous frequencies of perception. What is, what has been, and what could be, were merged into one engrossing teledynamic continuum and the process of communication was brought into focus.⁴²

It is here that montage and Youngblood's syncretic collage come together for *Wipe Cycle* suggests the multiple, yet discrete, shots that Eisenstein's montage would edit together while at the same time it presents Youngblood's "one audio-visual experience."

As both a formal and social principle then, montage clearly occupied the cultural consciousness of the period. In fact, montage can be seen as a latent tendency in early video art such as *Wipe Cycle*. The art historical story goes that because of video's poor image quality and the expense and difficulty of editing videotape, artists turned to presentations of the technology itself and its operations of feedback or time-delay to generate visual interest. Yet, as any viewer can point out, practices considered to set video apart from film rely heavily on the presentation of multiple images in particular relationships. In superimposition or feedback, multifarious images lie on top of each other. In a time-delay installation the viewer might see two different images

⁴² Youngblood, *Expanded Cinema.*, 343.

from different times or have to maintain a mental image of a previous temporal moment in order to make sense of the current image on the screen. Even in a single-channel work that displays a person's face in real-time, the novelty comes from comparing the image on the monitor to what that person conceives themselves to look like in their mind's eye. In the case of *Wipe Cycle*, images arrayed on the nine monitors demand a montage-like relational reading.

The style of montage that best explains the production of liveness in *Wipe Cycle's* panoply of images is most associated with the Soviet filmmaker Sergei Eisenstein and his rejection of traditional editing construction. In the conventional editing pattern known as continuity editing, two different shots or images are joined in such a way as to lead the viewer through a series of cause and effect relations that narrate an event or story. The difference between the two images is erased so that the experience of moving from shot to shot, image to image, appears seamless and logical. We effortlessly follow a story that appears to naturally unfold on the screen in front of us.

In contrast, Eisenstein theorized and practiced a montage style based on fragmentation, juxtaposition, and conflict. He criticizes what he refers to as the "old school" of filmmaking's notion of montage as a linkage of shots that are built brick-by-brick to create the idea.⁴³ Instead, Eisenstein compares the shot to an organic cell capable of generating new forms that exceed its original character. The principle that governs the relationships between these cell-shots is not assemblage or linkage but

⁴³ Sergei Eisenstein, "The Cinematic Principle and the Ideogram," in *Film Form: Essays in Film Theory*, ed. Jay Leyda (New York: Harcourt, Brace, 1949), 36.

dissonance: “By what, then, is montage characterized, and consequently, its cell-the shot? By collision. By the conflict of two pieces in opposition to each other. By conflict. By collision.”⁴⁴ This kind of montage conceives the joining of two images, not as a linear sequence, but as an explosive concatenation.

Drawing on his experience with live theater and his passion for popular entertainments such as the circus and music hall that engaged the viewer through live performance, Eisenstein embodies this explosiveness in what he calls the “attraction.” The attraction is “any aggressive moment in theatre, i.e. any element of it that subjects the audience to emotional or psychological influence, verified by experience and mathematically calculated to produce specific emotional shocks in the spectator...”⁴⁵ In his theater productions, Eisenstein sought an immediate reality, a factuality, that would directly excite the viewer rather than mediating emotion through acting or thematically-laden narratives. He even proposed firing shots under the seats of spectators as a way to reach an audience in an actual rather than representational register. For Eisenstein, cinema’s photographic indexicality gave it the same factuality as the live theater event⁴⁶ and through a montage of collision and conflict, the attraction’s real-time and immediate physical and emotional charge could be delivered to the viewer.

Wipe Cycle operates through a similar montage of conflict and dissonance.

Attention to any one image in which continuity editing techniques might be used to

⁴⁴ Ibid., 37.

⁴⁵ Sergei Eisenstein, “The Montage of Attractions,” in *The Film Factory: Russian and Soviet Cinema in Documents*, ed. Richard Taylor (Cambridge, Mass.: Harvard University Press, 1988), 87.

⁴⁶ Sergei Eisenstein, “Through Theater to Cinema,” in *Film Form: Essays in Film Theory*, ed. Jay Leyda (New York: Harcourt, Brace, 1949).

construct a recognizable story becomes difficult with eight other monitors vying for the viewer's attention. Attempts to construct conventional narrative meanings from the monitors are impossible, mainly because there is no narrative. Semantic resolution is further confounded by the different image types, each with its own visual texture and criteria for viewing. Time-delay disrupts temporal continuity with one monitor showing the viewer in real-time while other monitors display disorienting views of the subject at various points from the past. Finally, the viewer is not even able to fix their attention on any one particular image before it is switched with another image or erased by the wipe cycle.

As previously noted reviewers of the artwork in exhibition emphasized these qualities with terms and phrases such as “switching,” “cyclic patterns,” “alternations,”⁴⁷ or “constant alternation of images in a locational sense and a translocation in time.”⁴⁸ Gillette comments on this theme when he states that “...the information on the programmed tapes juggles and re-combines elements within the gallery and its immediate environment, with portraits, landscapes, montages and video distortions.”⁴⁹ The only way a viewer could understand *Wipe Cycle* was to turn its inherent conflict into an end in itself.

Conflict is also the foundation of Gillette's philosophy and aesthetic practice. In his book *Between Paradigms: The Mood and Its Purpose*, he poses a dichotomy

⁴⁷ Yalkut, “TV as a Creative Medium at Howard Wise.”

⁴⁸ Schwarz, “TV Success, Failure in Exhibit.”

⁴⁹ Richard Skidmore, “TV as Art,” 1969, http://eai.org/user_files/supporting_documents/TVasArt.pdf. Accessed July 3, 2013.

between what he refers to as the continuous and discontinuous.⁵⁰ Writing to both analyze and offer solutions to the environmental crisis that seized public attention in the sixties and seventies, Gillette casts the problem as an inability of humanity's calcified mental models to accommodate new information. Any solutions to the ecological problems would be ineffective because old frameworks and data are being used to respond to new problems. Like Thomas Kuhn's paradigm,⁵¹ these frameworks interpret all new data based on conventional criteria and limit the admission of new experience to that which can be understood by these criteria. Gillette characterizes these mental models as "linear sequential continuity which define themselves as identical with what is, with what is real, (and) cannot tolerate the experience of discontinuity they engender."⁵² The continuous is the rigid, cause and effect chain that matches and describes the world's functionality so well that data that calls into question the paradigm are refuted as inconsequential or extraordinary. As Gillette's statement suggests, the unconscious of the continuous and Gillette's solution to the continuous' necrotic grasp on humanity, is the discontinuous. While Gillette never explicitly defines the discontinuous, the term exists in a nexus of ideas that include the randomness of ecological patterning, dislocation of previous relations, juxtaposition, and "a constant trafficking in variables."⁵³ In contrast to the continuous, the

⁵⁰ Frank Gillette, *Between Paradigms: The Mood and Its Purpose*. (New York: Gordon and Breach, 1973).

⁵¹ In addition to the reference in his book's title, Gillette also lists Kuhn's book, *The Structure of Scientific Revolutions* in his bibliography and quotes Kuhn in the text.

⁵² Gillette, *Between Paradigms: The Mood and Its Purpose*., 51.

⁵³ Gillette, *Between Paradigms: The Mood and Its Purpose*. See pages 26, 41, and 57.

discontinuous is a state of openness, of productive conflict between what is known and what the environment is newly presenting.

While Schneider and Gillette may have eschewed filmic rhetoric for the technological, the conflicting relationship between frames and visual incident at the heart of montage has parallels in cybernetic and systems theory's reciprocal and interacting relationship between a system's components. In many ways, the artists were thinking montage from a systems perspective. Gillette invokes cybernetic theory to describe a system that is always and naturally in a state of tension, a system that endlessly accepts new information to feedback into and modify its operations. Gillette alludes to these generative tensions when he writes: "Cybernetics becomes descriptive of an attitude of mind characterized by a discontinuous range of expression sharing a sense of connection and juxtaposition."⁵⁴ In a section of the book entitled "Discontinuous Disconnection," Gillette notes that humanity itself is in a discontinuous state of in-betweenness. Our consciousness separates us from nature while at the same time generating technologies that poison our living environment. This discontinuity is both bane and salvation for "to be in-between is to recognize this condition but also to garner an effective response to it."⁵⁵

By the time *Wipe Cycle* is exhibited and Gillette publishes his book, Burnham had already considered how cybernetics and systems theory was reconfiguring art in his 1968 essay "Systems Esthetics." Like Gillette, Burnham recognizes the conflictual relationship as central to both human/environmental and artistic systems. As

⁵⁴ Ibid., 37.

⁵⁵ Ibid., 3.

previously discussed, if Burnham conceived of art as composed of hardware and software interacting in real-time, then he also considered art as a dynamic conceptual process, an exchange of information or stimuli, rather than an object. For Burnham, systems esthetic art “does not reside in material entities, but in relations between people and between people and components of their environment.”⁵⁶ When art is conceived as a system it is in order to reveal conflict and tension rather than balance.

Burnham quotes Morse Peckham:

Art, as an adaptive mechanism, is reinforcement of the ability to be aware of the disparity between behavioral pattern and the demands consequent upon the interaction with the environment. Art is rehearsal for those real situations in which it is vital for our survival to endure cognitive tension, to refuse the comforts of validation by affective congruence...⁵⁷

If as Burnham claims that art contains survival value, it is in its ability to reveal discrepancies between actions and outcomes rather than maintain existing relationships or harmonize new ones. The system itself has a desirable instability, a necessary openness to negentropic feedback. For Burnham, such feedback, while disconcerting, keeps the system vital, its boundaries permeable, and vectors of interaction constantly changing. The formalist object is static and fixed in shape, a container of established ideas and relationships. Systems esthetic art on the other hand uses these inherent tensions to drive new perspectives and function as a means for research and investigation rather than idealist contemplation. Like Eisenstein’s

⁵⁶ Jack Burnham, “Systems Esthetics,” in *Great Western Salt Works: Essays on the Meaning of Post-Formalist Art*. (New York: G. Braziller, 1974), 16.

⁵⁷ Morse Peckham, *Man’s Rage for Chaos; Biology, Behavior, and the Arts*. (Philadelphia: Chilton Books, 1965), 314; Burnham, “Systems Esthetics.” 17

dissonant montage, the systems perspective that interested Gillette and Burnham relied on discord to propel effect.

For Gillette, the best way to hypostatize this uneasy state of constant openness and reception is to present visual stimuli in a way that short-circuits old relationships and forges new ones. Gillette appreciates Duchamp for this very reason because in Duchamp's work "an elegant random-logic of connection dislocates relations by carrying the connotations of one context into another."⁵⁸ The task for art is to formalize the effects of this shuffling of contexts, to in some way represent and evoke the differences and conflicts inherent in the modern ecology of nature and information. For Gillette, art is the embodiment of the conflicted discontinuous and "...it's from that disorientation, reorientation, that flux between disorienting and reorienting, that the stuff of aesthetics derives its force."⁵⁹

It is this disorientation and flux in Gillette's aesthetic theory and the juxtaposition of filmic fragments in Eisenstein's attraction, that returns the subject to their senses and makes them aware of a living and present moment. Leo Charney's investigation of the relationship between the unique perceptual experience of the early modern subject, filmic montage, and a new kind of temporal awareness is useful in this context.⁶⁰ Charney notes that the early industrialized city was often characterized as a chaotic and overstimulating perceptual environment. For example, Georg Simmel claims that the denizen of the metropolis had a psychology different than earlier

⁵⁸ Gillette, *Between Paradigms: The Mood and Its Purpose.*, 41.

⁵⁹ Frank Gillette et al., *Video: Process and Meta-Process.* (Syracuse, N.Y, 1973), 23.

⁶⁰ Leo Charney, "In a Moment: Film and the Philosophy of Modernity," in *Cinema and the Invention of Modern Life*, ed. Leo Charney and Vanessa R Schwartz (Berkeley: University of California Press, 1995).

societies in that it was characterized by an “intensification of emotional life due to the swift and continuous shift of external and internal stimuli.”⁶¹ Walter Benjamin would famously describe the experience of the city and its traffic as one of conflict as “moving through this traffic involves the individual in a series of shocks and collisions. At dangerous intersections, nervous impulses flow through him in rapid succession, like the energy from a battery.”⁶² The sensual experience of urban life, its perceptual and physical jolts, charges the individual in previously unknown ways.

While by the 1960s the hyperstimulation of the city described by Simmel and Benjamin was accepted as commonplace, a new kind of perceptual environment confronted the subject. The electronic media presented the viewer with an onslaught of information in rapid progression and fractious simultaneity. Gillette recognizes this new landscape when he states that “the volume of the information is so incredibly high, and the exhaustion and obsolescence with which the media information is used is a very high rate.”⁶³ *Wipe Cycle*’s array of rapidly flickering images from different sources could be considered a visual approximation of this volume of information. The information barrage affects the subject in a way similar to the emotional intensification or shock described by Simmel and Benjamin. The subject is faced with the need to process great amounts of information but then to quickly move on as information becomes outdated or is integrated into the environment. As Gillette states: “So the ideas have to be constantly generated in terms of always out-thinking the ideas

⁶¹ Georg Simmel, “The Metropolis and Mental Life,” in *Metropolis: Center and Symbol of Our Times*, ed. Philip Kasinitz (New York: New York University Press, 1995), 31.

⁶² Walter Benjamin, “On Some Motifs by Baudelaire,” in *Illuminations*, ed. Hannah Arendt (New York: Harcourt, Brace & World, 1968), 175.

⁶³ Gillette and Schneider, “Parts I and II of an Interview by Jud Yalkut,” 10.

that were previously generated—it's a spiraling process, leading to who knows where, and it's a direct result of the electronic process."⁶⁴

Charney argues that the fractious and stimulating environment of modern life found its aesthetic counterpart in the operations of filmic montage. He notes that Benjamin makes this connection between the fragmentary and startling quality of the city and the shots of multiple times and spaces that are brought together in film through editing. Benjamin even states that in film, shock is raised to a formal principle.⁶⁵ For Charney, the shock delivered by film's sudden shifts in temporal and spatial representations is a way for the viewer to gain a new kind of awareness of the present moment in the rush of modern life:

To experience shock was to experience a moment. Shock could occur only in a flashing, fleeting moment; more exactly, shock framed and defined a moment as a moment... The moment of shock returned to sensation, and then to consciousness, the immediacy of the present moment, even as it slipped away. Shock jolted the modern subject into tangible reawareness of the presence of the present.⁶⁶

Through montage, film's representational nature, often considered to lull the viewer into passive spectatorship, could deliver a visual jolt. The suddenness of the visual impact, in much the same way as a loud noise might startle you out of a daydream, would once again make the viewer cognizant of their bodily self. While the filmic image might not be live, the viewer is returned to a living present in front of the image.

⁶⁴ Ibid.

⁶⁵ Benjamin, "On Some Motifs by Baudelaire," 75.

⁶⁶ Charney, "In a Moment: Film and the Philosophy of Modernity," 285.

The viewer's awareness of themselves in confronting *Wipe Cycle* is an important goal for Schneider and Gillette. As has already been mentioned, the artists want the viewer to reposition and see themselves as part of a larger media environment, something that they can interact with rather than just receive passively. But videotape offered another way for the viewer to experience themselves that was based on the effects of real-time monitoring and feedback, effects that relied on a defamiliarizing montage of multiple images. Gillette notes that when people see themselves for the first time on video, they consider it an eerie experience because they are seeing a "view from the outside of what the inside is like."⁶⁷ While they are only seeing one image of themselves on tape, the strangeness of the experience comes from the viewer's comparison of the image on the monitor with a mental image of their metaphorical inside or what they imagine themselves to look like. In one of his own videotapes, Gillette describes the alienating experience of feedback in which images of himself looking at himself on tape are nested in each other. The multiple generations of the same image presented all at once on the monitor destabilizes the subject and Gillette wonders at what point in this funhouse of video the viewer will lose track of who they are.

Disorientation and defamiliarization are even more prominent in Schneider and Gillette's discussion of video time-delay. The artists imagine an "information strobe" installation in which a viewer would confront themselves in an array of time-delay images that sample their past in two-second intervals. The strobe light was a popular device in multi-media events of the time used to provoke different states of perceptual

⁶⁷ Gillette and Schneider, "Parts I and II of an Interview by Jud Yalkut.," 10.

awareness.⁶⁸ The brief flashes of light undermine one's orientation to space based on traditional visual tracking. The strobe light provoked a different awareness based on one's attempts to reorient their body in a perceptually confusing environment. In the same way, the montage of Gillette and Schneider's information strobe would attack the temporal coherence underlying one's identity.

The clash of these multiple images, contained in our mind's eye or displayed on monitors, coupled with the sudden shock of their strangeness or inexplicability diverts attention from the image onto our tangible awareness of dissonance and confusion experienced in the present moment. One could imagine trying to make sense of even two or three time-delayed images. As one asks which monitor displays the real me, we become poignantly aware of ourselves in the immediate moment, that present self searching for the correct representation. Similarly, we are often struck by how photographs or video recordings of ourselves look nothing like or are different from our imagined expectations. In that flash of dissonance we become conscious again of ourselves as something separate from the image, a sense of our immediate self brought back out of subconscious abeyance.

Gillette and Schneider understood the tangibility and immediacy of the video image, although they considered it be a quality of the medium itself. The video image has a spatial wholeness that for Schneider cannot be achieved with the two-dimensionality of film. Vividness characterizes the taped image, according to Schneider, thereby allowing the viewer to relate to themselves immediately. Gillette

⁶⁸ For an analysis of the decohering effect of the strobe light in multi-media installations of the sixties and an analysis of Andy Warhol's *Exploding Plastic Inevitable* as spatial montage, see Joseph, "My Mind Split Open": Andy Warhol's *Exploding Plastic Inevitable*."

elaborates that a subject's kinetics are revealed on videotape and that "videotape sends a volume and tactility—a sense of touch, the texture of the volume."⁶⁹ Gillette suggests that the taped image is a more genuine view of the self and that techniques like feedback present a "redefined image of oneself."⁷⁰ Authenticity, tactility, and spatial presence feed the liveness and immediacy that these artists consider to be inherent in the video medium. But as I have argued, these qualities can also be understood with recourse to the history and theory of film. The shock of montage conceptualized by filmmakers and theorists, undergirds much of early video art practice. Through this shock, video's latent montage creates a temporal awareness of the present, an awareness that pervades the video image.

INFOLDING AND REFLEXIVITY

Paul Ryan's contribution to *TV as a Creative Medium was Everyman's Moebius Strip*. In this video installation, a technician videotapes the subject responding to a series of prerecorded instructions that ask the participant to think about something and physically respond to their thoughts. The participant then watches themselves performing the instructions on tape, after which the tape is erased. The exercise is intended to objectify the internal state of the viewer through bodily gestures and the video image. As Ryan writes in the exhibition brochure, "Here the power of Video Tape Recorder (VTR) is used to take in our own outside. When you see yourself on tape, you see the image you are presenting to the world. When you see yourself watching yourself on tape, you are seeing your real self, your 'inside'."⁷¹

⁶⁹ Gillette and Schneider, "Parts I and II of an Interview by Jud Yalkut," 10.

⁷⁰ *Ibid.*, 9.

⁷¹ *TV as a Creative Medium* (Howard Wise Gallery, 1969).

If Gillette and Schneider used video's forms to investigate liveness, Ryan uses video's forms to begin a phenomenological investigation of video and the self that would span his career. His writing and practice over the years cast video as a medium that does more than mirror reality and the individual; rather, the activity of using the video equipment and watching the video image intervenes in and transforms psychological and ecological states. For Ryan, perceptual interaction with video initiates a deeper awareness and understanding of one's self and one's place in the environment. Steeped in Gregory Bateson's psychological applications of cybernetics and systems theory, Ryan posits video as a device that makes these systems' relationships visible while at the same time feeding information back to the individual and system. For Ryan the individual's interaction with the system constitutes the subject.

Ryan describes video as if it has almost magical powers to alter perception and, hence, reality and is often remiss in explaining how video's form enacts this phenomenology.⁷² In *Everyman's Moebius Strip*, we do not see stylistics like montage or superimposition; instead, it is the technological operations that define video's novelty at this moment—manipulative control, immediate playback, and erasure—that are on display. While Ryan does not theorize these operations *per se*, he does address

⁷² Indeed, Nam June Paik, also an exhibitor in the TV as a Creative Medium exhibition, would state, "Video has immeasurable magical powers." See his essay Nam June Paik, "La Vie, Satellites, One Meeting-One Life," in *Video Culture: A Critical Investigation*, ed. John G Hanhardt (Layton, Utah: G.M. Smith, Peregrine Smith Books, in association with Visual Studies Workshop Press, 1986), 222. Ryan's claim is not extraordinary given his year-long research assistance-ship with Marshall McLuhan. A technological determinism influenced by McLuhan's approach to media pervades much of Ryan's theoretical writings. Another reason for Ryan's inattentiveness to the form of video and the mechanisms of subjective change could be his lack of artistic training. Ryan would repeatedly express his trepidation over displaying his work in an artistic context. Ryan was never sure that art was an adequate response to the political, ecological, and social concerns of the time.

the participation they generate and this participation's effect on the viewer's awareness of themselves. Film theory being developed at the time of *Everyman's Moebius Strip's* exhibition provides a more structural understanding of how video's forms can generate psychological responses in the viewer. Ryan's cybernetic construction of the viewer in an all-encompassing matrix of interactions has many correspondences with phenomenological theories of film that considered a similar interchange between film's form and awareness in the viewing self.

I believe that Ryan's technological operations correspond with film's stylistics. These operations direct attention away from the video image in order to reveal the image's underlying forms, the means by which the image becomes legible as a specifically videographic image. This in turn feeds back to the viewer as a series of displacements in their normal expectations for the passively received televised image and endows the image with the materiality of its own making. The image moves from mere transparent representation to something that has been constructed through the viewer's labor, while the viewer moves from passive spectator to active user. It is this feedback circuit between formal revelation and the subjective discontinuities it produces that generate the psychological insights that Ryan values.

Ryan is most interested in using videotape for psychological analysis, yet he does so through a potent mixture of content and form. As the subject observes themselves contemplating a variety of topics via the video equipment in *Everyman's Moebius Strip*, Ryan also makes a point of clearly displaying the specific functions of video that make it so appealing to its advocates: its ability to record, playback, and erase, all in the immediate moment. Ryan makes a strong connection between the

viewer's knowledge of their own image and the formal operations that make such an awareness possible by showing the viewer the recording and playback equipment and allowing them to watch the process in action. He also offers the viewer the chance to erase the tape, giving them ultimate control over their image and any psychological insights the whole process may have afforded.

The artwork's appeal would have been not only in displaying the operations of a technology only recently available to the public, but also the novelty of using equipment and processes that would previously have been solely available in television studios. The individual's own immediate experience with recording, playback, and erasure gives them a working knowledge of television, thereby adding a fresh level of understanding and interest to the ubiquitous television image. In much the same way that Gillette and Schneider advocate that the subject newly appreciate themselves as part of the information environment in *Wipe Cycle*, participants in *Everyman's Moebius Strip* would have been thrilled to see themselves on TV, a thrill that has long been absent for those of us growing up with this technology.

Given the poverty of Ryan's video image in *Everyman's Moebius Strip*—its lack of dramatic movement, the singular and unchanging subject, the rather dull script and soundtrack—the only thing that would provide anything compelling would be the revelation of the technology's role in creating the user's image. As argued previously, it is not only the morphologies of the visual image, but it is also the processes that construct those morphologies, such as montage in film, that help define a medium. Ryan shifts the focus from a stylistics or morphology of the image to a stylistics of the video equipment and the way its three operations of recording, playback, and erasure

work in tandem to produce the effects of the video picture. While it can be argued that film has its own operational processes of filming, chemical development, and projection, these processes do not have the immediacy, the ease, or the reversibility of the video image. For the average film watcher, shooting the film and developing the film are all hidden and distant both in their temporality and in their complexity. In the case of viewing the film, even the means of projection is concealed from the viewer. Ryan brings these processes, hidden in filmmaking, into the light thereby asserting them as fundamental to the video medium and its image.⁷³

While Burch was most interested in the plastic functions of film, its visual stylistics, his understanding of how these functions work together to produce a film's poetic effects informs Ryan's exhibition of video's operations. For Burch, the structure of a film becomes apparent when its visual forms clash. He theorizes film as contrasting relationships between the possibilities of its plastic functions so that "...structures almost always seem to occur in dialectical form—that is to say, a structure necessarily evolves within a parameter defined by one or more pairs of clearly delineated *poles*."⁷⁴ For example, the plastic function of movement could be analyzed by contrasting slow motion or static images with normal or fast motion shots. Similarly, shots taken in soft focus could be contrasted with sharp focus shots. Burch argues for a kind of filmmaking in which these structural or dialectical forms are put into active play so that they become both form and content of the film. Film's plastic functions might semantically correlate to the film's narrative, but they can also be

⁷³ Structural film would make these "hidden" processes of film's shooting, development, and projection apparent and consider them as integral to the medium of film.

⁷⁴ Burch, *Theory of Film Practice*, 66.

used in a more structural and organic way to create effects solely based on these abstract qualities.

Burch's dialectical tension organizes Ryan's installation and the viewer's deeper understanding of video's forms. It is not just the viewer's face and voice or one of video's three constituting operations of recording, playback, or erasure that are exhibited, but all of them at once. By creating a kind of television studio in the gallery that allows the participant to participate in each of video's operations, Ryan ensures that the subject is aware of the three part form of the video image, each operation different and contrasting in its function yet working in tandem to produce the end result. Including the video technology's ability to both record and erase tape as part of the installation provides a particularly powerful contrast that adamantly defines the medium's immediacy and transience. As Burch would argue, it is only by contrasting a medium's various functions that those functions become visible and useful in structuring the medium.

For Ryan, this reflexive awareness of video's forms constitutes video as an epistemological and ontological tool, something that can produce knowledge and awareness of self and the world. Ryan derived his understanding of the individual in interaction with external stimuli from cybernetics and Gregory Bateson's theory of the self as a cybernetic system. Ryan met Bateson in 1971 and his relationship with the philosopher would result in published dialogues and presentations in Bateson's seminars at Santa Cruz. Based on his relationship with and learning from Bateson, Ryan distinguishes his humanistic version of cybernetics from cybernetic applications to mechanical systems. Ryan would even derive the title of his book, *Cybernetics of*

the Sacred, from Bateson's essay, "The Cybernetics of 'Self': Toward a Theory of Alcoholism,"⁷⁵ an essay that plays heavily in Ryan's purported relationship between video and the self.

In this essay Bateson attacks the Cartesian split between mind and matter or, for the purposes of his analysis of alcoholism, "between conscious will, or 'self,' and the remainder of the personality."⁷⁶ Instead Bateson attempts to show how the self is a manifestation of interacting parts of a larger system. These parts may be the physiobiology of the brain, the brain in interaction with the subject's body, or the brain and body in interaction with the environment. For Bateson, the concept of the self is a reification of these interactions and, "the mental characteristics of the system are immanent, not in some part, but in the system as a whole."⁷⁷ He critiques the notion of a human subject composed of a singular mind in separation from the world when he writes: "The total self-corrective unit which processes information, or as I say 'thinks' and 'acts' and decides,' is a system whose boundaries do not at all coincide with the boundaries either of the body or of what is popularly called the 'self' or 'consciousness'..."⁷⁸

Ryan agrees with Bateson's diagnosis and channels the philosopher when, in introducing a video exercise, Ryan warns that the exercise, "is not designed to peel your own skins off until you find some fiction called the true you."⁷⁹ In fact, Ryan

⁷⁵ Paul Ryan, "Cybernetics of the Sacred," in *Cybernetics of the Sacred* (Garden City, N.Y.: Anchor Press, 1974).

⁷⁶ Gregory Bateson, "The Cybernetics of 'Self': A Theory of Alcoholism," in *Steps to an Ecology of Mind* (Chicago, Ill: University of Chicago Press, 1972), 313.

⁷⁷ *Ibid.*, 316.

⁷⁸ *Ibid.*, 319.

⁷⁹ Paul Ryan, "Self-Processing," in *Cybernetics of the Sacred* (Garden City, N.Y.: Anchor Press, 1974), 27.

notes how using video as a mere documentary tool runs the risk of bolstering claims to a separate self: “The cybernetic extension of ourselves possible with videotape does not mean a reinforcement of the ordinarily understood ‘self.’ Total touch with one’s cybernet precludes the capitalism of identity at the expense of understanding process that the West has habitually engaged in.”⁸⁰ Video’s ability to record and display an image becomes problematic if there is no injunction to deepen the relationship between the viewer and what is viewed.

If Ryan’s cybernetic leanings requires the subject to be mindful of their imbrication with a larger system, Burch begins to explain how a medium’s plastic functions can produce this state of mindfulness in the viewer. Burch’s main concern is elucidating film’s forms and their dialectics, yet he is clear to point out that these dialectics, if they are to be used organically, must reveal themselves to the viewer, make the viewer aware in some way that they go beyond mere devices to support a literary narrative. In discussing the edits’ transition between shots, Burch describes a “mutual interference” in which the continuity of an edit is interrupted when the two shots that constitute the edit deal with different and contrasting spatio-temporal locations.⁸¹ As he explains, our initial assumptions about what the edit will show us is erroneous and we must realign our expectations, thereby making this realignment “a much more complex process of awareness...”⁸² Burch conceives this realignment as an aesthetic belligerence in which surprise and discomfort elicited by confounded expectations lead the viewer to a new kind of apprehension. In discussing the formal

⁸⁰ Ibid., 31.

⁸¹ Burch, *Theory of Film Practice.*, 12.

⁸² Ibid., 13.

organization of the images and shots that comprise the humorous violence of American slapstick comedy, Burch writes: "...the viewer feels that he is the direct victim of a *structured aggression*, and his somewhat strained laughter is accompanied by a very pure aesthetic satisfaction."⁸³ It isn't so much the gag that affects the viewer as it is an awareness of how the plastic functions of film build and contribute to the gag's aggressive effects on us. Burch suggests that the dialectics of film's forms reorients the viewer to the film so that they are not only more conscious of the film's forms but also how these forms create disorientation and surprise.

This is the kind of relationship between viewer and video's forms that Ryan constructs. It may be fascinating to see and hear oneself on television, but this is merely the gag. Awareness of the gag's construction, the formal properties of video, begins to open the viewer to the sort of subjective apprehension that Ryan desires. He does this by not only displaying the technology that constitutes the gag or the image, but by also allowing the subject to participate in the image's creation, either through actually working the equipment or through their close temporal and spatial proximity to the technician that is working the equipment. Processes that are traditionally hidden erupt into the viewer's consciousness, thereby disturbing the transparency of the television picture. The viewer develops a more affective and engaged response to the image because of their role in its production. Like Burch's viewer whose own cognizance of the plastic functions that construct the gag generates a subjective satisfaction, Ryan's participant's new level of awareness of video's forms creates a different kind of fascination with the image that goes beyond simple novelty. If Ryan

⁸³ Ibid., 130.

is interested in the video image becoming a tool for personal knowledge and self-awareness, it begins with the viewer's advertence to the forms of video itself and the more affective state the cognizance of these forms can generate.

While I have used film theory to elucidate Ryan's analysis of video's three part structure, film and video had a more dialectical relationship at this time, one in which the novelties and threats of video's form drove filmmakers' and film theorist's own deliberations of their medium. Rosalind Krauss famously considers video's fractiousness, the way it exists "...in endlessly diverse forms, spaces, and temporalities for which no single instant seems to provide a formal unity for the whole," as the end of medium-specificity.⁸⁴ Even though structuralist film had firmly established itself as modernist by expanding the idea of the medium into the more heterogeneously composed "apparatus," video's "hydra-headedness" made a similar comparison too difficult to conceive. Krauss recognizes that both film and video mediums can be conceived in expanded terms as apparatuses, but there was something about video, maybe its narcissistic use by video artists, that called into question the expanded modernist medium-specificity that structural film had achieved.

Yet we can consider this scenario in reverse. Given that television's fractiousness had already pervaded public and private lives by the sixties, video not so much pronounced the end of what film's investigation of its apparatus had achieved but *drove* film towards this investigation. Burch argues as much. In discussing the need for filmmakers to consider the structural or dialectical possibilities of film's

⁸⁴ Krauss, *A Voyage on the North Sea*, 31.

plastic functions in a more organic way, he calls out television as one of the mediums that has most contributed to this project:

By breaking down the barriers between genres and in particular by quite naturally introducing a mixture of the 'live' and 'staged,' television has encouraged the creation of new forms and new structures based on a deliberate mixing of genres and the material inherent in them and has begun to explore the multiple dialectics that can result from such mixtures."⁸⁵

Whereas Krauss sees video and television as destroying modernist medium-specificity, Burch considers television as a new way to consider a medium's formal functions.

Film theory like Burch's scrupulously elucidates the nature of a medium's dialectical structure so it is useful in analyzing the formality of Ryan's *Everyman's Moebius Strip*, a work whose form hides behind the utopian promises of its technology. Ryan's adamant display of video's apparatus suggests the importance of this approach to understanding a medium. It should be kept in mind however that television and video's multiple formats and modes of presentation may have done much to motivate filmmakers' and film theorists' into expanding their medium into an apparatus and then investigating the terms of that apparatus.

Film and video also function together in their response to various cultural preoccupations such as medium instability, liveness as investigated by Gillette and Schneider, and the phenomenological knowledge of the self. These constructs can only be completely understood when informed by both of these ubiquitous and populist mediums. In the case of the phenomenology of the self, film provides the first instance in which a moving image interacts with the perceiving subject, but television and

⁸⁵ Burch, *Theory of Film Practice.*, 59.

video's technology quickly expanded on what it means to perceive and exist in an electronic world. To understand liveness or the self in the media environment of the sixties and seventies, we must understand that the dominant mediums of film and video interact to produce these concepts in the cultural consciousness, that what each contributes to these concepts is always filtered through the other medium.

If Burch was mainly focused on the medium's intrinsic properties, its plastic functions, Ryan is more intent on video's extrinsic effects, its potential for personal and social transformation. To claim that *Everyman's Moebius Strip* allows us to "take in our own outside" or to see "your real self, your 'inside'," suggests that video can display aspects of ourselves and our environments that were previously hidden from us and that we can use these new perspectives for change. Ryan was immersed in the radical discourses of the time revolving around ecology, politics, and personal liberation. As a technologist, he was particularly interested in how information theory could be brought to bear on these problems and he considered video as a cybernetic tool that could both display and feedback into socio-political systems.

While Ryan came to the revolution via electronic technology, he shared with film scholars of the time a belief that individual consciousness and social practice can be radically altered through an intense encounter with the medium. Film critics and historians were busy considering not only the formal properties of film but also how a reflexive comprehension of these properties create self-awareness and a place for the viewing subject. Formal operations such as montage, reverse-motion, and superimposition, re-presented the world but through their transformation of that reality, altered one's perception of the self in that reality.

Ryan never explicitly elaborated on video's formal operations, but there is an underlying formalism in Ryan's work that begins with the foregrounding of video's technology and extends into the interaction between the video image's form and the viewer's consciousness. In *Everyman's Moebius Strip*, Ryan not only arrays the technology before the participant but establishes a series of reflexive comparisons between the participant and the participant's image on the monitor. It isn't just the fact that we see ourselves mirrored in the television monitor that provides psychological insight. It is the way in which we relate that image to internal visualizations of our self and the technology that in-forms that image. Cybernetics itself can be considered a kind of formal reflexiveness in which the system and its subjects are constituted by reciprocal relationships of feedback between the system's elements. Through recourse to then-contemporary film theory and its correspondences with cybernetics we can understand Ryan's desired effects of self-knowledge and environmental awareness as an interaction between video's forms and the subject.

In his editorial statement for Ryan's *Cybernetics of the Sacred*, Victor Gioscia relays the stakes for Ryan and video.⁸⁶ Gioscia describes a crisis of experience and environment to which Ryan's book responds. Humanity does not register the ecological catastrophe in which it is enmeshed because the experience of the world has in some way been obscured or negated. For Gioscia, we can no longer interpret the signals that we are given for "...man is living in an era of hurtling social change, which he cannot experience with worn-out categories."⁸⁷ The mental framework with

⁸⁶ Paul Ryan, *Cybernetics of the Sacred*. (Garden City, N.Y.: Anchor Press, 1974).

⁸⁷ *Ibid.*, v.

which we are imbued in our youth fails to adapt us to the current world. Accordingly, Gioscia believes that humanity is living without experience, closed off from the facts of environmental degradation and social dysfunction, or with the illusion of experience, a misinterpretation of what the facts are telling us. Ryan's book solves this crisis of experience by using video to think through these worn-out categories and make us more aware of our predicament and the paths leading out of the crisis.

Ryan's own description of the problems we face and his solutions are evident in his 1971 essay, "Guerrilla Strategy and Cybernetic Theory."⁸⁸ In this text, he recites a litany of "old forms" such as the nuclear family, the oil slick complex, the election of Nixon, educational institutions, and thermonuclear war which are "running us down, running down on us and with us."⁸⁹ For Ryan, videotape avoids an all-out fight that he believed would be ineffective; instead, video, like guerrilla warfare, would wage an "irregular and nonrepetitive" series of assaults instigated in the information environment. Engrossed in cybernetics and ecological systems theory, Ryan considered the solution to the world's crisis as an awareness of the subject as part of and, in fact, constituted by relations to the environment, both natural and social. Videotape would be the main agent of these skirmishes because of its posited cybernetic qualities. Through feeding back or replaying information, video shows how the individual is grounded in the world, how the world is a part of them as much as they are a part of the world. People would reject the soporific seduction of the old forms by generating their own information, returning their diverse and unique

⁸⁸ Originally published in spring, 1971 in *Radical Software*, the essay was republished in *Cybernetics of the Sacred*.

⁸⁹ Ryan, *Cybernetics of the Sacred*, 43–44.

perceptions to the information landscape. In this way, information is fed back “for human enhancement rather than feeding off people for the sake of concentration of power through capital, pseudo-mythologies, or withheld information.”⁹⁰ The result is what Ryan calls an infomorph, “an organism that relates to itself and its environment in a way that respects and optimizes all possible transforms of differences that make differences.”⁹¹ With videotape, people could develop a new experience of life on the planet, an experience in which they saw themselves not separate from, but part of a larger social and environmental nexus. For Ryan, video would generate “self-referencing modes of sharing life on planet earth.”⁹²

In her essay, “Film and the Radical Aspiration,” Annette Michelson iterates her own belief in film as a means for perceptual and social transformation. Looking to the early film avant-garde and film theory during that period, Michelson notes an enthusiasm among the medium’s adherents for film to embody the tightly intertwined aesthetic and social goals of the time:

Indeed, a certain euphoria enveloped the early film-making and theory. For there was, ultimately, a very real sense in which the revolutionary aspirations of the modernist movement in literature and the arts, on the one hand, and of a Marxist or Utopian tradition, on the other, could converge in the hopes and promises, as yet undefined of the new medium.⁹³

In keeping with the Soviet revolution, film could provide a similar “radical transformation of the very nature of spatio-temporal perception, of historical

⁹⁰ Ibid., 44.

⁹¹ Paul Ryan, “Toward an Information Economy,” in *Cybernetics of the Sacred* (Garden City, N.Y.: Anchor Press, 1974), 61.

⁹² Paul Ryan, “Cybernetic Guerilla Warfare,” in *Cybernetics of the Sacred* (Garden City, N.Y.: Anchor Press, 1974), 48.

⁹³ Annette Michelson, “Film and the Radical Aspiration,” in *Film Culture Reader*, ed. P. Adams Sitney (New York, N.Y.: Cooper Square Press, 1970), 407.

consciousness and process.”⁹⁴ In other essays, film becomes an investigative tool in response to the astonishingly novel and radical scientific theories taking root in the early twentieth century. As Michelson notes, “...we can discern a congruence of cinema’s epistemological euphoria with the fascination exerted by the analytical systemic of Freud, Marx, and Einstein.”⁹⁵ Partaking in the efflorescence of new scientific models for understanding the nature of time, space, and thought, theorists conceive film as a way to illustrate these theories and investigate the epistemology they entail.

Not only was film conceived as an investigatory scientific project like relativity or psychoanalysis, but its processes provided a way for filmmakers to reconsider, even remake, reality along the lines of these radical scientific ideas.

Michelson notes that:

The manner in which film’s elementary optical processes produced, through the use of acceleration, deceleration, freeze-frame and reverse motion, the visible suspension of causal relations within the phenomenal world gave hope that the cinema could be the articulate medium of the master theoretical systems of modernity: of psychoanalysis, historical materialism, Einsteinian physics.⁹⁶

In this way, Michelson will consider how Eisenstein’s films embody Marxist dialectical thinking, the films of Yvonne Rainer parse the psychologized self, and Stanley Kubrick’s *2001: A Space Odyssey* reveals the filmically represented body as the locus of knowledge. While Michelson and Ryan have different social concerns,

⁹⁴ Ibid., 408.

⁹⁵ Annette Michelson, “The Wings of Hypothesis: On Montage and the Theory of the Interval,” in *Montage and Modern Life: 1919-1942*, ed. Matthew Teitelbaum (Cambridge, Massachusetts: MIT Press, 1992), 64.

⁹⁶ Ibid., 65.

both these theoreticians consider their respective mediums as nothing less than tools to investigate and transform the world.

As discussed, one of the key formal operations of video that sets it apart from film is the relative ease and inexpensiveness with which a user can manipulate the equipment to record, playback, and erase something and then see the results of the user's efforts immediately.⁹⁷ This manipulative control as a means of involvement was particularly important for Ryan and derives from his experience working with high school youth and children in Montessori schools. Ryan takes issue with traditional education's directive for the student to sit, listen, and absorb what he considered to be the irrelevant information fed to them. This alienates the student for as Ryan writes: "Classroom space and clock time condemn them to a three-dimensional game of tic-tack-toe in which experience is blocked out by time schedules and movement from classroom to classroom, a game in which there is very little coherence."⁹⁸ Ryan even cautions against institutional efforts to include videotape in the classroom because it is

⁹⁷ As John Hanhardt would note, "The immediate appeal of video was the ease and flexibility of its operation. It did not require crews and specialists to operate; one could work with it by oneself in the studio/loft and out-of-doors; what was being recorded by the camera on videotape could immediately be seen on the monitor's screen. The electronic recording capability of video was such that, unlike film, there was no wait for the video videotape to be processed before seeing what has been shot with the camera." See his *Video Culture: A Critical Investigation* (Layton, Utah: G.M. Smith, Peregrine Smith Books, in association with Visual Studies Workshop Press, 1986), 16; Compare this statement to Paul Arthur's description of the filmmaking process: "The nature of film production is significantly different from that of other art forms in the number of successive interruptions—in which the material is separated from contact with the artist—between impulse and 'finished' artifact. At each of these stages (developing, printing, etc.), conception is subject to direct, external intervention: even when that intervention is not crucial it breaks, and in so doing mystifies, the inscription of continuity of process in the final work." See "Structural Film: Revisions, New Versions, and the Artifact. Part Two," *Millennium Film Journal*, no. 4/5 (July 1, 1979): 126.

⁹⁸ Paul Ryan, "Videotape: Infolding Information," in *Cybernetics of the Sacred* (Garden City, N.Y.: Anchor Press, 1974), 3.

based on the commercial model of television in which information is packaged to be consumed by the student.

Ryan is adamant that tape's utility is not in its ability to merely transmit information, but in its ability to turn the learner into a participant in their education, a "problem researcher."⁹⁹ The Montessori school's constructivist approach to education and its tactics for allowing students to explore their own interests through experience-based learning activities must have appealed to Ryan in the six months he spent videotaping the students. He would advocate allowing students a choice of medium like videotape, audiotape, or film and "let them find forms for their own experience and their own environs rather than the teacher taking the data, informing it, and presenting it as a precooked packet to be warmed over and consumed in the classroom."¹⁰⁰ Ryan does not discuss the content or quality of what is recorded, nor does he provide any detail on how video might be integrated into a curriculum or lesson plan, but what is most important is that students avoid passivity and engage in the learning experience.

Videotape is not only an assistive tool for conducting problem-based studies; it can also help students visualize themselves as an agent of their instruction. The image on the monitor becomes a marker for this involvement for not only does one see oneself but that self on the screen is the product of one's efforts. In describing his

⁹⁹ Ibid., 5. Ryan borrows this idea from McLuhan whom he quotes: "There are enormous possibilities for using an audience as work force in scientific research, or any other type of research. It is simply that we insist on beaming instruction at them instead of allowing them to participate in the action of discovery," *The American Scholar*, International Center for the Communication Arts and Sciences, New York.

¹⁰⁰ Ryan, "Cable TV: The Raw and the Overcooked," 20.

work with Youth Corps members in Brooklyn, Ryan relates a session in which one of the students who had been using the video equipment, enthusiastically presents a tape he had recorded that prominently displays the student's face. For Ryan, the glee with which the young man presented his recorded face suggests the power of the tape's image to provide "a kind of coherence and completeness hardly possible for him and his classmates in the present school system,"¹⁰¹ a coherence and completeness derived from the experience of producing the image themselves.

While film does not have the same ability as video to immediately involve the viewer in production and display, Carroll in his essay, "For God and Country," considers a different kind of viewer participation. Carroll analyzes Eisenstein's film *October* and the "God and Country" sequence in particular. This collection of shots begins with the title "For God and Country" which is then followed by a series of cuts that juxtapose different images of gods: a Baroque statue of a crucified Christ followed by the statue of an Eskimo idol, for example. As Carroll points out, Eisenstein's purpose is to use the relationship between the shots of different deities to trouble the concept of the divine. Recognizing Eisenstein's efforts to reeducate the proletariat with his films, Carroll goes one step further by showing how the editing structure does not just deliver a lesson but rather elicits the necessary response from the viewer based on the connections the viewer is required to make between the disparate shots:

The montage style is predicated on the excitation of the inference-making faculties of the audience. To render cuts intelligible the audience must make inferences...Montage then is a way to direct and to engender thought along new lines. The 'God and Country' sequence is a concrete example of the

¹⁰¹ Ryan, "Videotape: Infolding Information," 3.

restructuring and exercise of the spectator's thought processes. It not only attempts to direct the audience to the recognition that God does not exist; it also, in the maieutic tradition, attempts to draw from and educate the audience in an analytic form of reasoning.¹⁰²

According to Carroll, we are required to link disparate shots, engaging our cognitive faculties in active construction of the film's meaning. Additionally, through an intense engagement with the visual form of the film, the viewer learns how to think in contrasting ideas or shots, the dialectical thinking at the heart of the revolution.

Similarly, Michelson considers how the formal operation of montage reveals the underlying organization of a film sequence, thereby engaging the viewer at a more active level. In her essay "Camera Lucida, Camera Obscura," she also analyzes sequences from Eisenstein's *October*. In her analysis, Michelson expands on Burch by considering not only the disorienting effects of film's forms, but also how that disorientation can affect the viewer. She notes the disjunctive quality of Eisenstein's montage style in the splicing together of different angles and positions of a scene or the intercutting of temporal moments in non-linear chains. By disorienting the viewer's normal sense of narrative progression, realization of the operations themselves is heightened so that the viewer is thrown back onto the structuring process of the film. Michelson emphasizes the importance of this disorientation in that "Eisenstein's epic plasticity and clarity greatly depend upon the fostering of the spectator's sense of disjunction between shots, angles, movements and, in some cases, light sources."¹⁰³ She continues to consider the effect this has on the viewer by quoting Eisenstein on his montage:

¹⁰² Carroll, "For God and Country," 60.

¹⁰³ Annette Michelson, "Camera Lucida, Camera Obscura," *Artforum*, January 1973, 35.

The strength of montage resides in this, that it includes in the creative process the emotions and mind of the spectator. The spectator is compelled to proceed along the self-same creative road that the author traveled in creating the image. The spectator not only sees the represented elements of the finished work, but also experiences the dynamic process of the emergence and assembly of the image just as it was experienced by the author.¹⁰⁴

Through a dislocation in the normal mode of reading the film as occurring within a spatial and temporal linearity, Eisenstein evokes a sense of the viewer's participation in the film's construction.

While Michelson focuses on the disagreement between temporal and spatial orientation in the shot chain, Carroll addresses the conceptual space between the shots, the need for the viewer to close the gap between disparate images with an inferential leap. Both writers note the tension between irreconcilable shots as the motivation for the viewer's engagement and for both writers the ends of this engagement are perceptual and cognitive changes in the subject. Michelson sees Eisenstein's interest in making the viewer more aware of the creative means and processes as an investigation of truth. Carroll believes the inference-making function of Eisenstein's montage teaches the viewer how to think.

In Ryan's practice, the formal operations of video are used in a similar way, but in a different register. Instead of a visual articulation of the form like montage, in *Everyman's Moebius Strip*, Ryan foregrounds video's technological logic, the medium's ability to be used by an easily trained participant to generate and control an image in the present moment. As already mentioned, video stands apart from traditional recording technology such as film because of its ease of use, the relative

¹⁰⁴ Ibid.

inexpensiveness of generating an image, and the immediacy with which an image can be recorded, played back, and erased. As with Michelson's and Carroll's analyses, *Everyman's Moebius Strip* elicits participation from the viewer by focusing on video's formal properties: allowing the viewer/participant to manipulate the equipment themselves or by watching the equipment being manipulated and seeing the immediate results of the recording efforts. In the artwork, the tape would also have been erased, further demonstrating video's technical potential to in-form or, in this case, de-form an image, at the whim of the viewer/participant. A key discrepancy between the work installed in exhibition and Ryan's discussion of the concept after the gallery show in his 1970 essay "Self-Processing" emphasizes this level of engagement.¹⁰⁵ Knowing full well that a technician operated the recording, playback, and erasure features in the exhibited *Everyman's Moebius Strip*, in the essay, Ryan directs the viewer to record the audiotape of instructions, set up the camera, and record their response to their previously taped instructions themselves.

Much of Ryan's early work depends on a hands-on interaction with the technology. In *Guns, Knives, or Videotape*, two participants with video equipment face-off and begin to record each other with the resulting tapes to be played back later.¹⁰⁶ The proposed *Ego Me Absolvo* requires the participant to turn on an audio-recording that guides them through a confession. The participant then watches the recorded confession. The next "penitent" then erases the tape to begin their own

¹⁰⁵ Ryan, "Self-Processing."

¹⁰⁶ Paul Ryan, "Other Probes and Pieces," in *Cybernetics of the Sacred* (Garden City, N.Y.: Anchor Press, 1974).

confession.¹⁰⁷ In *Yes/No* the viewer does not manipulate the camera or recording deck but their taped “yes” or “no” response to their mood is fed back to them in a video image on five second delay. The viewer then responds to the image on tape-delay with another “yes” or “no,” and so on.¹⁰⁸

For Michelson and Carroll, the participation elicited by montage generates changes in the subject: knowledge of the creative process of the filmmaker or the act of thinking. Similarly, for Ryan interacting with the video technology enhances the viewer’s knowledge of themselves, a self that is not only displayed but constructed and given coherence through the acts of the participant. As with Ryan’s high school students, it isn’t watching an image of yourself that is important as much as being aware of the role you play in the production of that image, whether you make it yourself or were able to watch someone else make the image in real time. Ryan relates an activity in which an actress’ performance was both recorded and displayed on a video monitor so that she could see herself performing in real time.¹⁰⁹ Watching herself perform as she performed gave her a greater sense of security and more insight into her performance, whereas being merely recorded by someone for later playback did not generate the same informational keenness. As with the experience of the high school students, the agency of an individual in making their own tape or being involved in the production of their image in real time provides a “coherence and completeness” to their experience. In this way, the formal properties of video, its

¹⁰⁷ Ibid.

¹⁰⁸ Ibid.

¹⁰⁹ Ryan, “Videotape: Infolding Information.”

ability to have the viewer participate in the production and control of the image, generates not only an image, but a deeper awareness of one's self.

While the participant's handling and control of the video technology gives the image a personal clarity and wholeness, Ryan also posits a phenomenological exchange between image and viewer, particularly the image of the viewer's body, that deepens the viewer's perceptual awareness of self. Ryan does not link this subjective effect to the mechanics of the medium's form, but I argue that it is heavily dependent upon the quickness with which an image can be recorded and then played back. The viewer's body has a significant role in most of Ryan's work. In *Everyman's Moebius Strip*, not only is the viewer's own image put on display, but the body is purposefully activated through instructions to perform simple gestures or facial expressions, sometimes in response to thoughts. For example, Ryan directs the participant to "Relax and breathe deeply, just relax and breathe deeply," or "With eyes open give facial responses to the following people: Don Rickels, Your mother, You..." In a video exercise conducted with Victor Gioscia, Ryan and Gioscia record themselves talking to each other and afterwards try to imitate the other's bodily gestures when watching the replayed tape. Body imitation is repeated in the unexecuted *College is a High Chair* in which a room of college students is asked to mimic the taped movements of a baby in a high chair. In his later triadic tapes, participants are recorded as they move through a variety of bodily gestures meant to enhance interpersonal communication. The experience in these artworks and exercises does not end with the physical performance or the recording of the physical performance but is only completed when the participants watch the performance on tape. The subject

effect comes from a concentrated attention to the body on tape, made more present through one's body attempting to relive the performance on tape through mimicry. Ryan characterizes this reflexiveness as "self-processing" or "infolding," both of which are "...a tender way of getting in touch with oneself..." so that "one can learn to accept the extension out there on tape as part of self."¹¹⁰

The use of terms like "self-processing" and "extension," or "feedback" in other instances, reveals the technological and cybernetic flavor of Ryan's phenomenology as derived from Bateson. For Ryan, video's feedback function, its ability to playback what was viewed in real-time or as an immediately available recording, obscures the problematic separation of system elements that leads to the illusion of self that Bateson attacks. Ryan forwards an interaction in which inside and outside are not separate but are the same thing, only in different positions. For Ryan, the viewer and the image viewed are meant to operate as a topological surface, each term "infolding" into the other as a Moebius strip's inside becomes its outside. Ryan is quick to point out that video is not just a mirror for what is before the camera, merely reflecting back what one already knows is there. He relates McLuhan's interpretation of the Narcissus myth in which Narcissus' reflection numbs his body and mind, turning him into an automaton enslaved to and by his image.¹¹¹ Rather, video's capacity to both record and playback speaks to an active process that imbricates image and viewer. The subject of Ryan's work is not the video image but "a mercilessly revealing electric image of people and their own and others' relation to that image."¹¹² In other terms, video

¹¹⁰ Ryan, "Self-Processing," 29.

¹¹¹ Ibid.

¹¹² Ryan, *Cybernetics of the Sacred.*, xiv.

enacts a cybernetic system. The elements of the system inflect each other so that neither gains dominance and the product of the system, the self in Ryan's case, results from the terms' mutuality. To experience the video image is not just to see oneself from the outside but to recognize an active connection between yourself and what you are seeing. In this way, the knowledge of oneself is contingent upon the circulating relationship of the elements of the system and the viewing subject is "always part of the looping and balancing process."¹¹³

Film theorists like Burch, Michelson, and Carroll do not invoke cybernetics and systems theory or even metaphorically apply their tenets, but they share with Ryan and Bateson a reflexive understanding of the individual and material world mutually constituted through their interaction. In this way, film and video do not operate as separate mediums with different objectives as much as they articulate a singular cultural preoccupation with the phenomenology of the self. Both groups adamantly focus attention away from literary content of film or television towards the formal processes that underlie the film or video image. They consider confrontation with the material means that make up our experience of the world to be primary. Additionally, theorists interested in the phenomenology of film recognize the permeable boundaries between the viewing subject and those material means or plastic functions of film. Recognition of these formal functions equates with the very recognition of the self, a self always constructed in relationship to external stimuli. This reiterates the basic principle of a cybernetics system whose functioning, or in the case of the individual, its awareness, depends on interaction and exchange between all components of the

¹¹³ Ibid.

affecting network. The self is merely a hypostatization of this system of interacting stimuli.

While Ryan is keen to emphasize the cybernetic circuit's importance as a way to increase awareness, he does not elaborate on what happens specifically when the viewer sees themselves in the video image and the mechanism by which this moment translates into introspective understanding. Michelson also conceives the self as constituted in a reflexive relationship, but articulates to a greater degree the precipitant role of material form in the relay between viewer and viewed and how the relay functions. For Michelson the assertion of the material form and its dissolution of illusion generates an apperceptive consciousness.¹¹⁴ Dislocations between the

¹¹⁴ Much of Michelson's attention to materiality as the locus of meaning is derived from the Russian formalists and Michelson notes the debt owed by the Soviet filmmakers to formalists like Victor Shklovsky, Osip Brik, and Roman Jakobson. Reacting to the Symbolist belief that the meaning of a poem resides in its images rather than the language of the poem itself, the formalists investigated the material properties of language, the word as sound or the characteristics of a word when stripped from its semantic connection to a referent. For the formalists, meaning was not lost when the arbitrary relationship between the signifier and signified was revealed; rather, new meaning emerged based on the properties of the word. But these investigators also saw the material of language as a way to reinvigorate habituated perception, to make the familiar strange again. Through defamiliarization or *ostranenie*, Shklovsky asserts that art's purpose is to take back what had been lost to perceptual automatism: "Habitualization devours works, clothes, furniture, ones' wife, and the fear of war. 'If the whole complex lives of many people go on unconsciously, then such lives are as if they had never been.' And art exists that one may recover the sensation of life... The technique of art is to make objects 'unfamiliar,' to make forms difficult..." Michelson compares Vertov's project to that of Shklovsky's in that both seek to convert conventionally mimetic mediums into tools that in Vertov's words would capture "the feel of the world," or in Shklovsky's "make the stone stony." In the same way that Shklovsky would advocate that the literary devices from which a text was constructed should be revealed in this process of defamiliarization, Michelson notes that Vertov's assertion of the material's properties and the structure of the relations of these properties, is what destroys illusionism and directs the individual toward greater consciousness and truth: "...the certainty of accession to the 'world of naked truth' are grounded in the acceptance, the affirmation of, the radically synthetic quality of film-making..." For Michelson, the formalist's defamiliarization will be played out in the dislocation, disorientation, and disjunction synthesized by film's formal operations. For Michelson on the relationship between the Soviet filmmakers and Russian formalists see her "From Magician to Epistemologist: Vertov's *The Man with a Movie Camera*," in *The Essential Cinema: Essays on Films in the Collection of Anthology Film Archives*, ed. P. Adams Sitney (New York, N.Y.: New York University Press and Anthology Film Archives, 1975); On the Russian formalists see Roman Jakobson, *Language in Literature* (Cambridge, Mass: Belknap Press, 1987); David H Richter, *The Critical Tradition: Classic Texts and Contemporary Trends* (New York: St. Martin's Press, 1989); Fredric

experiencing body and what is represented makes the subject newly aware of their material form as the locus of experience and knowledge. It is in the confrontation with the medium that the generative mechanics of the viewer's consciousness are revealed.

In her 1969 essay for Robert Morris' exhibition at the Corcoran Gallery, Michelson pursues a direction that will be also be taken by Ryan. For Michelson, Morris' work instigates a crisis in a criticism that continues to maintain vestigial Idealist beliefs. In the same way that Ryan proclaims the separation between mind and matter a myth, Michelson also criticizes the Idealist separation between perceiving subject and object with its concomitant belief in knowledge as antecedent to and apart from the perceiving subject.¹¹⁵ To mitigate this condition, Michelson urges greater attention to the materiality of the object and its formal qualities as integral to meaning, rather than just a conveyor of meaning. In analyzing Morris' sculpture, Michelson notes how the comprehensiveness of his forms, the anonymity of the forms' features and textures brashly declare the object's materiality:

This sculpture...began, from roughly 1964 on, to present in its unity of contour and innocence of textural and structural accident a resistance to prevailing critical techniques founded on notions of aesthetic metaphor, gesture or statement. If you asked yourself, 'What is the 'statement' made by or in or through, a form, a sculpture, such as *Cloud*,' you were led to the conclusion that it was saying, as in a celebrated phrase and if anything at all, 'itself'.¹¹⁶

Jameson, *The Prison-House of Language; a Critical Account of Structuralism and Russian Formalism*. (Princeton, N.J.: Princeton University Press, 1972).

¹¹⁵ Annette Michelson, "Robert Morris: An Aesthetics of Transgression," in *Robert Morris* (Washington, D.C.: Corcoran Gallery of Art, 1969).

¹¹⁶ *Ibid.*, 16.

Michelson continues to take to task Idealism in her essay on Kubrick's *2001* while again pointing to the medium's presence: "Everything about it is interesting; it proposes, however, nothing of more radical interest than its own physicality, its formal statement' on the nature of movement in its space."¹¹⁷ This obstinacy of form, its adamant denial to say something, challenges philosophical notions that find meaning existing prior to the object, with the object in some way communicating intentions, creative gestures, and expression. Rather, Morris's artwork and Kubrick's film are what they are and nothing more.

With the concrete fact of the artwork resisting attempts by the viewer to read a given meaning, the viewer is left only with their experience of being confronted by the object. Again, in considering *2001*, Michelson notes how, "...the film as a whole performs the function of a Primary Structure, forcing the spectator back, in a reflexive gesture, upon the analytic rehearsal of his experience."¹¹⁸ The form's muteness, its refusal to express, diverts the viewer's focus onto the act of perceiving the form. A meta-position is established in which we become acutely aware of the act of perception itself: "Conceived as one term of a situation in which the spectator constitutes another, the work of art, through a certain stringency of form, redirects *attention*, heightening consciousness of what it is to attend and to perceive."¹¹⁹

Whereas Morris' assertion of the form in his obdurate sculptures troubles usual patterns of reception and activates the reflexive relay, it is the display of film's synthetic operations that upset film's illusion and calls the viewer back to themselves.

¹¹⁷ Michelson, "Bodies in Space: Film as 'Carnal Knowledge,'" 57.

¹¹⁸ *Ibid.*, 56.

¹¹⁹ Michelson, "Robert Morris: An Aesthetics of Transgression," 68.

In her analysis of *2001*, Michelson argues that the disorientation produced between what one sees on the screen and one's lived experience initiates the apperception of the reflexive circuit. As Michelson points out, film is a dissociative medium in that it indexically presents the real yet manipulates that reality through filmic operations such as montage or slow-speed projection. The viewer of a film is constantly called upon to navigate this discrepancy between the real that has been photographed and the new reality that is synthesized by the formal possibilities of the medium. The special effects of *2001*, effects whose very construction disappears in the high finish of the production, make this gap palpable. The film becomes almost solely about that attempt to reconcile our lived experience with the illusion on the screen. Yet that difference is what draws our attention to the film's illusion as such and to our own awareness of the role we play in that revelation. As Michelson writes: "The dissociative economy of film viewing heightens our perception of being physical to the level of apperception: one becomes conscious of the modes of consciousness."¹²⁰

The physicality of body represented in cinematic space is what the film complicates and hence returns us to a contemplation of that same body. Michelson notes the representation of weightless conditions in the film as the means by which our own sense of bodily weight and the ways in which our bodies move in gravity become apparent to us. The progress of the attendant moving up the wall and exiting the corridor upside down and the floating pen retrieved with a ponderous intensity of movement by the stewardess gain their pleasure and import by foregrounding the difference between how we feel in our gravity and what we see in the weightless

¹²⁰ Michelson, "Bodies in Space: Film as 'Carnal Knowledge,'" 59.

illusion. As Michelson writes, it is the awareness of discrepancy and our readjustment in the face of the disturbance that produces the heightened awareness of ourselves:

A weightless world is one in which the basic coordinates of horizontality and verticality are suspended. Through that suspension the framework of our sensed and operational reality is dissolved. The consequent challenge presented to the spectator in the instantaneously perceived suspension and frustration of expectations, forces readjustment. The challenge is met almost instantaneously, and consciousness of our own physical necessity is regenerated. We snap to attention, in a new, immediate sense of our earth-bound state, in re-possession of those coordinates, only to be suspended, again, toward other occasions and forms of recognition. These constitute the 'sub-plot' of the Odyssey, plotting its action in us.¹²¹

This is the mechanism by which Ryan's self-processing occurs. Through a confrontation with the forms of the video medium, that in turn generates a disturbance between a lived experience and visualized one, Ryan returns the viewer to a consideration of themselves and the role the video medium plays in their knowledge of themselves. While Ryan does not theorize the dislocation at the formal level of video, difference as engendered by video is a constant theme. Ryan clearly intends works like *Everyman's Moebius Strip* to show the participant a novel view of themselves and to show how with video, "...we can know the difference between how we intend to come across and how we actually do come across."¹²² But displaying difference is not enough, for difference also implies the potential for change. Taking another page from the cybernetic playbook, Ryan uses the cybernetic system's regulating processes as a metaphor for human action. In its attempt to achieve an objective, a cybernetic machine senses differences in its environment that will affect its performance. Responding to these differences, the machine system can adjust its mechanisms to

¹²¹ Ibid., 60.

¹²² Ryan, "Self-Processing," 30.

ensure proper functioning.¹²³ Ryan summarizes this as “differences that make a difference.”¹²⁴ Video reveals differences so that in turn the participant can make a difference in their behavior.

In other artworks, Ryan sharpens this difference by playing back an image in slow motion or requiring the participants to mimic what they are seeing on the monitor. In the exercise conducted with Gioscia, the tape is played back in slow motion while Ryan and Gioscia attempt to imitate what the other was doing on the screen. Slow-motion provides a different register for viewing familiar action, a register that opens the gesture up to be viewed in a level of detail not possible in real-time or a register that transforms the originally purposeful gesture into an abstract movement unfolding in the monitor’s space. The sense of disorientation is further heightened by the participants having to imitate each other. These are not their bodies or actions they see on the monitor, yet they must strive to traverse that difference by assuming the gesture as their own, initiating the movement into their own experience. The result, as Ryan points out, is that knowledge is gained of that other person based on the relationship between the image and the kinesics the image prompts. Ryan describes his experience the day following the exercise: “...when I woke up the next morning, I felt like I was wearing his body. That I had it on...For the next few weeks I found I could recall the sense of his body when I wanted.”¹²⁵

¹²³ See Wiener, *The Human Use of Human Beings*.

¹²⁴ Originally conceived by Gregory Bateson in his essay, “The Cybernetics of ‘Self’: A Theory of Alcoholism,” this phrase and idea is used repeatedly by Ryan in multiple essays. For example, see “Toward an Information Economy,” “Guerilla Strategy and Cybernetic Theory” in Ryan, *Cybernetics of the Sacred*; and “Metalogue: Gregory Bateson, Paul Ryan” in Paul Ryan, *Video Mind, Earth Mind: Art, Communications, and Ecology* (New York: P. Lang, 1993).

¹²⁵ Ryan, “Other Probes and Pieces,” 33.

In Ryan's *Yes/No* exhibited in 1970 at the Rose Art Museum, the subject of the work is the dislocation, or the "ambiguity" in Ryan's words, between a participant's mood and the video representation of that mood seen in playback. Ryan places the subject in front of the camera and the subject is recorded saying "yes" or "no" as they consider their current affective or cognitive state. The tape is then run through a second machine that displays the participant's response five seconds later. The participant responds to the delayed image with another "yes" or "no," and so on. Again, the image on the monitor is not as important as its ability to generate an uncertainty or ambiguity in what the viewer believes they are experiencing. Of course, such an experience would not be possible without video's playback function. In his conceptual diagram for the artwork, Ryan further emphasizes this difference (fig. 1.2). He makes a point of not only schematizing the viewer and video image, but also the gap between them. He represents the two moments in time, live and recorded, as parallel lines, with the viewer's subjective response to the moments represented as an undulating sine wave traversing the two lines. The space in between the parallel lines, the area of difference or ambiguity, is called out with a two-headed arrow. As the diagram suggests, it is not the image or viewer's response that is as important as the difference between the two temporal moments.

What is on display in a work like *Everyman's Moebius Strip* is not only the image, but the ability of video's recording and immediate playback operations to provide a comparison between the participant and the participant's image on the monitor. Having already invested the image with a sense of agency by constructing the image itself, the viewer now sees their body almost instantaneously displayed before

them. What is disorienting isn't the representation of weightlessness as in *2001* but the perception of difference between what one remembers doing and what one now sees. Subtle cognitive displacements occur between our recollection of the previously lived experience and the representation that we now see in playback. The two experiences can never be the same for they are of qualitatively different natures, a memory and an electronic representation; yet, the participation of the viewer in the performance and creation of the image binds the two experiences together. The viewer becomes both performer and observer, both live and recorded.

The temporal proximity between recording and playback heightens the comparison's acuity. The experience of performing in front of the camera is fresh in one's mind, including the subjective moods and the mind's eye view of the body's gestures in response to the instruction. Because of this immediacy, the comparison achieves a sharpness not possible with the delayed presentation mediums of photography or film. The import shifts from viewing an image to analyzing the similarities and differences between what one recalls and what one sees represented.

In another register, Ryan also sets up a comparison between two equivalent yet different experiences: an affective state elicited by the instructions and the physical gesture that expresses that state. A directive such as, "Now let your face be sad," calls on both an emotional response to the concept of sadness and the concomitant physical expression of the subjective state of sadness. While the construct of sadness remains the same, the responses, one affective and the other physiognomic, differ in kind. The recording and playback of the participant performing this instruction further enhances the distance between the emotional and physical terms for now the viewer can

compare the construct of sadness as psychologically experienced with the formalization of sadness on the video monitor. The viewer might ask, “Is this what sadness looks like?” or “Do I look as sad as I was feeling?” Dislocation between temporal moments and affective or perceptual states is built into video’s recording and playback form.

With tongue in cheek, Ryan makes explicit the connection between video’s transformation of difference and the subject’s experience and knowledge of themselves in his proposed *College is a High Chair*. In this artwork, college students at desks are to imitate the movements of a video projection run at half speed of a baby in a high-chair. Again, slow motion is involved both to heighten awareness of the intricacies of a normal movement and to abstract such movements from their regular context. But there is another dimension of this artwork that contrasts knowledge associated with the pre-verbal, kinetic functioning of the infant with the highly abstract and symbolic knowledge of higher education. The title of the artwork makes this comparison obvious and, while taking a swipe at the pretentiousness of the university as perceived by Ryan, also suggests his desire to moderate symbolic knowledge with the haptic, experiential knowledge of infancy.

By harnessing some of the developments in film theory of the time, I have revealed an underlying formalism in the work of Ryan, Gillette, and Schneider. This formalism expands on, or even counters, interpretations that only consider these artworks as radical modes of electronic communication and information transfer. While these artists extolled newly available technologies as a means to intervene in the electronic landscape, the technology’s effects depended on highly composed

arrangements of images and processes, the same kind of attention to the medium and its materialities that was being theorized in film studies. It isn't the technology itself or what the technology communicates that affects personal and social awareness as much as how the technology arrays its images, expresses the images' different temporalities, and allows video's processes to interact with the viewer. I have also brought film and video discourses closer together by examining how they address in tandem the cultural concerns with liveness and the phenomenology of the self. Both of these culturally pervasive mediums contribute to our understanding of immediacy and self-awareness in an electronically mediated age. In the next chapter, I continue to analyze film and video as they relate to another shared construct, the threat of technological obsolescence.

NAM JUNE PAIK, PAUL SHARITS, AND THE DYSFUNCTIONAL
OPERATIONAL FORM

There occurs a confluence of broken mediums in the anthology of Fluxfilms that George Maciunas created, collected, or produced in the 1960s. Nam June Paik has pride of place with his Fluxfilm Number One, *Zen for Film* (1962), a most severe breakdown of the medium into an increasingly grimy leader and white light projected through that leader onto the screen. Because of Paik's reference to the basic materials of film, *Zen for Film* and other Fluxfilms, are considered precursors to the structural film. But this genealogy is troubled by the fact that *Zen for Film* also breaks with the specificities of structural film by concurrently being a performance in which Paik gestures in front of the projector and casts his shadow on the rectangle of light (fig. 2.1). Paik continues to thematize this medium destruction when in his 1963 exhibition *Exposition of Music-Electronic Television* in Wuppertal, Germany, he causes a series of televisions to malfunction by changing their electronic circuitry. The broken mechanism distorts the broadcast signal into a kind of coherent noise that appears as dancing waves, flickering patterns, or lines of light (fig. 2.2). In his performances of the sixties and seventies, Paik disorders the human figure by joining his televisions to collaborator Charlotte Moorman's body.

Paul Sharits, considered in film history to be an originator of the structural film,¹ similarly imagines a breakdown of mediums. Sharits contributes five films to

¹ The term "structural film" is problematic for several reasons. Like any label, it is contested by both critic and artist as inadequately or inaccurately describing the group of films it has come to designate. It also has a variety of definitions and interpretations, most notably those forwarded by P.Adams Sitney in

the Fluxfilm collection: *Dots 1 & 2* and *Sears Catalogue 1-3* were made in 1965 and *Wrist Trick*, *Unrolling Event*, and *Word Movie* were made in 1966.² *Dots 1 & 2* bears a provocative resemblance to an enlarged television screen, especially that screen famously described by Marshall McLuhan as a mosaic or collection of visual elements that the viewer must combine into a coherent, if low-resolution, image (fig. 2.3). Sharits animates images of dots held in a tight half-tone matrix so that they grow and shrink, brighten and darken, and appear to pulse on the screen in a fantastical three-dimensional space. But unlike the smooth motion of the animated figure, Sharits' transitions between dot configurations are not seamless and the whole film flickers with slight hiccups of motion. Sharits becomes adept at using single frames of different images to produce a flickering effect and the "flicker" will gain currency in the codes of structural film as a reflexive operation pointing to the specificities of the film medium. What I am interested in is not so much the self-referentiality of Sharits' film, but how the flicker interrupts the dots' coherence. What we get is a dysfunctional television set that can't quite orchestrate the picture elements into recognizable forms.

his original formulation of the term and the Marxist inflected interpretation of the "structural/materialist" film by filmmakers associated with the London Co-Op like Peter Gidal and Malcolm LeGrice. See P. Adams Sitney, "Structural Film," *Film Culture*, no. 47 (Summer 1969): 1–10; Peter Gidal, "Theory and Definition of Structural/Materialist Film," in *Structural Film Anthology*, ed. Peter Gidal (London: British Film Institute, 1976); Malcolm Le Grice, "Abstract Film and Beyond," in *Structural Film Anthology*, ed. Peter Gidal (London: British Film Institute, 1976). I also run the risk of suggesting that Sharits was working in an already determined structural film idiom when in fact he was just making films that came to be described as structural films after the fact. With these considerations in mind, I use the label because it is convenient and because it continues to be a valid designator in art and film historical discourse.

² The literature titles some of these works differently. In my essay I refer to the films as they are titled in Bruce Jenkins', "Fluxfilms in Three False Starts," in *Art and the Moving Image: a Critical Reader*, ed. Tanya Leighton (London; New York: Tate Pub. : In association with Afterall ; Distributed in the United States and Canada by Harry N. Abrams, 2008).

Another theme that brings these artists' works together is the emphasis they place on giving the operations of their technology a visual shape. Paik's distorted televisions and Sharits single frame films are what I will call operational forms, images that overtly reference the technology's machinery and processes. Sharits' flicker figures the projector's intermittent mechanism while Paik's wavering images envision the noise of television's electronic circuitry. Paik's TV/body hybrids reiterate television's spectatorial regime as the human figure becomes a site for viewing. Commentators frequently interpret these operational forms as a celebration of their underlying technology and its logics. According to these readings, Paik's dancing patterns push television to aesthetic and creative ends while his spectacular hybrids humanize and naturalize television. Sharits' flicker becomes a self-reflexive investigation of film that utilizes instrumental logic to reveal cinema's nature as an aggregate of its means.

The fact that Paik and Sharits, two highly regarded practitioners in their respective mediums of video and film, come together through works that reference breakdowns in each other's medium may be circumstantial, but is highly suggestive. What is missing in the progressive accounts of these artists' works, but what is alluded to in the Fluxfilms, is an examination of the entropic forces that join Paik's televisions and Sharits structural films, forces that haunt all media when they no longer communicate with understanding subjects. We can consider Paik's failed TVs and his accretions of television sets on human bodies as destructive acts as much as liberating or humanizing ones. Similarly, Sharits' flicker signals a breakdown in the filmic apparatus as much as a self-reflexive elucidation of film. In this way, Paik and Sharits

cause their operational forms to dramatically dysfunction. This destructive impulse symptomizes the obsolescence that unifies all mediums but is made particularly apparent in the interacting constellation of Sharits' films and Paik's TVs. Sharits can be seen as dismantling film in the face of television and video's usurping ubiquity while Paik proleptically enacts video's own outmodedness predicted in film's passing. The obsolescence envisioned in Paik and Sharits' dysfunctioning operational forms redirects their works' reception. To the extent that the operational form reiterates the functionalist rationality of a technologically-driven society, their dysfunctioning operational forms subvert that technology and its logics.

THE OPERATIONAL FORM

As technologies, film and video function according to a set of parameters determined by the mechanics of their particular apparatus. To use the projector and camera, the television, or video equipment one sets in motion the operations defined by the mechanical specifications of each device, which results then in their characteristic image and sound. It is the nature of broadcast television or industrialized cinema to conceal these mechanical and electronic functions so that the illusion of the broadcast or projection can be maintained. Paik's prepared TVs and Sharits' structural films however precipitate the operations from their conventional illusionism and make apparent the operation's role in structuring what the viewer sees on the screen. I refer to the purposeful imbrication of the mechanical and electronic functions of film, video, and television with their visual and aural outcomes as an operational form. What we seen on the television or movie screen envisions in some way the mechanics that produce the image. Such visualization may be an imaginative rendering of the

invisible technological processes or an observable interruption in those processes. Paik pictures the operational form in the scattered and dancing phosphorescent elements resulting from his malfunctioning television circuitry. The flicker and its reference to film's stuttering passage through the gate and shutter of the projector is Sharits' version of the operational form.

As seen in its use to define the Fluxfilms, structural film, and the newly emerging video, the operational form is central to certain conceptions of the medium's nature. In a 1969 *Film Culture* article entitled "Structural Film," P. Adams Sitney announces the emergence of a "cinema of structure."³ He defines the structural film "wherein the shape of the whole film is predetermined and simplified, and it is the shape which is the primal impression of the film."⁴ He goes on to describe numerous films in which what we see is determined by a simple operation such as a static camera shot, a pan, or a loop. What is viewed is not as important as the operation that constructs what we see, what gives the film its characteristic shape, or as Sitney would elaborate: "The structural film insists on its shape and what content it has is minimal and subsidiary to the outline."⁵ Peter Gidal's elucidation of the structural/materialist film more forcefully states the relationship of what is seen to the operations that produce it: "The structuring aspects and the attempt to decipher the structure and anticipate/recorrect it, to clarify and analyse the production-process of the specific image at any specific moment, are the root concern of Structural/Materialist film."⁶

³ Sitney, "Structural Film," Summer 1969, 1.

⁴ Ibid.

⁵ Ibid.

⁶ Gidal, "Theory and Definition of Structural/Materialist Film," 1.

For Gidal, such a filmmaking practice must discover ways to present a filmic image so that the material conditions that constructed it can be revealed and a dialectical tension sustained between what is represented on the screen and its operations of production.

From the beginning Sitney's concept of structural film is associated with the FluxFilms. Initially, Sitney does not recognize the FluxFilms in his "Structural Film" essay. Instead, he identifies the cinema of Andy Warhol, Peter Kubelka, and Robert Breer as forerunners of the structural film. While Sitney does discuss three films by Sharits: *Ray Gun Virus* (1966), *Piece Mandala/End War* (1966), and *N:O:T:H:I:N:G* (1968) for their use of the flicker effect, he does not discuss any of Sharits' Fluxfilms that also utilize the single-frame construction.⁷ Maciunas, the self-proclaimed leader of Fluxus, takes exception to Sitney's genealogy and vociferously corrects him in an article published in the same issue of *Film Culture* in which "Structural Film" appeared. Responding in the form of a chart, Maciunas details Sitney's errors and offers alternatives to Sitney's proposed ancestry of structural film. Among these additions are Sharits' Fluxfilms, which Maciunas adds to Sitney's chronology of single-frame films, and Paik's *Zen for Film*, which Maciunas sees as a precursor of the found footage film. Even though Maciunas does not appear to always fully or correctly grasp Sitney's elaboration of the structural film—for example, Maciunas' corrective category of the found footage film is only of concern to Sitney in as much as the footage is used structurally or as "a found object extended to a simple structure"⁸—Maciunas does evocatively expand the potential antecedents of Sitney's

⁷ Tod Lippy notes Sitney's perplexing omission in his Lippy, "Disappearing Act: The Radical Reductivism of Fluxus Film."

⁸ Sitney, "Structural Film," Summer 1969, 6.

categorization. Sitney is aware of these Fluxfilms and in a postscript to his *Film Culture* article written in response to Maciunas' concerns he gives some ground by stating that the films he calls structural and the Fluxfilms do not differ in kind but only in degree.⁹ For Sitney, the Fluxfilms do indeed project their material operations but lack the complexity necessary for inclusion in his structural category: "If we think of the structural films as cinematic propositions in a rigorously ordered form, the 'Fluxus' films would be tautologies."¹⁰

Regardless of Sitney's early dismissal, other commentators have seriously considered how the operational form relates the Fluxfilms and structural film.¹¹ Tod Lippy notes several elements of Fluxus' films that align with the typology of the structural film. The simple structure of the Fluxfilm corresponds to the minimal shape of the structural film as defined by Sitney. Many of the Fluxfilms are only minutes long with a single action or event photographed such as a mouth chewing, a face smiling, leader running through the projector. The camera is static and many of the films are silent. Boredom and duration become aesthetic principles due to the unexceptional nature of the films' subject matter and, in at least one case, the film being looped into an hours-long projection event.¹² For Lippy the reductiveness of these films in which mundane actions are recorded in simple presentations causes the

⁹ P. Adams Sitney, "Structural Film," in *Film Culture Reader* (Lanham: Cooper Square Press, 2000), 345–346.

¹⁰ *Ibid.*, 346.

¹¹ In addition to that which is discussed here, see Jenkins, "Fluxfilms in Three False Starts"; David E James, "Pure Film," in *Allegories of Cinema: American Film in the Sixties* (Princeton, N.J.: Princeton University Press, 1989).

¹² According to Lippy, Jonas Mekas attended one performance of Dick Higgins' *Invocation of Canyons and Boulders for Stan Brakhage*, a looped close-up of Higgins' mouth chewing. The screening started at 8:00 pm and the film was still being shown at 1:00 am when Mekas left.

viewer to become aware of the apparatus itself, one of the modernist hermeneutics applied to the structural film. Such reflexiveness is compounded by those films that take the material of film for the film's content. Paik's *Zen for Film* runs clear leader through the projector so that one only sees the white light and whatever dirt or debris collects on the filmstrip or in the projector gate. Maciunas' film, *Artype*, was created by pressing Artype letters onto the filmstrip, thereby making a camera-less film and asserting the filmstrip as the object of most importance. Sharit's contribution, *Sears Catalogue*, is composed of single frames photographed from a Sears catalogue. In projection, the viewer would catch glimpses of objects and figures that evade complete recognition and whose relationships to each other are impossible to determine. The only way to read the film legibly is to view the filmstrip itself, again making the materiality of celluloid as important as the projection and foreshadowing Sharit's work with future filmstrip presentations.

The operational form's elucidation of filmic elements and its self-referentiality would be one approach to interpreting video in general and Paik's work in particular. In two articles, Eric Cameron applies the modernist paradigm of self-reflexivity and the rhetoric of structural film to video. His "The Grammar of the Video Image" published in 1974, analyzes videotapes produced in and around 1971 at the Nova Scotia College of Art and Design. In 1976, he publishes a longer version of the article called "Structural Videotape in Canada." While Cameron never mentions structural film in these papers, references to the "structure of video-recording" in his 1974 article and the transposition of structural film into structural videotape in the title of his 1976 essay clearly indicate his knowledge of the filmic practice. In "Structural Videotape in

Canada,” he even includes a reference to the back and forth pans of an unspecified film by Michael Snow, another prominent structural filmmaker. Throughout “The Grammar of the Video Image” Cameron uses the metaphor of language to show how the videotapes under study investigate the basis of the video image. These tapes constitute “an exploration of the structure of video-recording that is wide-ranging in its perception of salient features...They spell out, in effect, a grammar of the language of videotape.”¹³ Cameron doesn’t engage with video’s semiotic functions as much as use the language comparison to suggest underlying units that organize the video image. He is more concerned about inventorying these properties of video in the same way that Snow makes films to delineate film’s issues¹⁴ or Sharits believes that “...a taxonomy of its (film’s) basic elements seems a more appropriate beginning for analysis than propounding rashly abstract, speculative ‘reasons’ for its existence.”¹⁵ Cameron goes on to demonstrate how the primary subject matter of these works is their reference back to the means and material of videotape production.

In his second article the reductivism associated with structural film’s elucidation of filmic elements is repeated in his naming of the basic components of videotape: “The richest vein of video art has been that which marks most precisely the abutment of reality of image content with that of screen, tape, and camera.”¹⁶ This statement echoes Sharits’ earlier enumeration of film’s properties from 1966: “I wish

¹³ Cameron, “The Grammar of the Video Image,” 49.

¹⁴ Michael Snow quoted in P. Adams Sitney, *Visionary Film the American Avant-garde, 1943-2000* (Oxford; New York: Oxford University Press, 2002), 355.

¹⁵ Paul Sharits, “Words per Page,” in *Paul Sharits*, ed. Yann Beauvais (Dijon: Presses du réel, 2008), 107.

¹⁶ Cameron, “Structural Videotape in Canada,” 188.

to abandon imitation and illusion and enter directly into the higher drama of: celluloid; two-dimensional strips; individual rectangular frames; the nature of sprockets and emulsions; projector operations; the three-dimensional light beam...¹⁷ Cameron further channels the structural film into two subsets of the structural videotape: the structural-analytic and the structural-narrative. Without making the link explicit, Cameron borrows structural film's investigation of its own materiality and processes as an interpretive schema for video.

In addition to some considering Paik's *Zen for Film* as a progenitor of the structural film, his television manipulations and his later videotapes have also been interpreted according to the operational form. John Hanhardt repeatedly emphasizes how Paik's work with television reveals its constituent elements: "In the experimental pieces that Paik created at Bell Laboratories, he explored the radical and reductive quality of the basic characteristics of the video image...Paik went to the core material, light and digital information, to explore the basis of the video image."¹⁸ Others have seen in his prepared TVs' manipulation of the broadcast signal a reorientation of that signal so that the function of television as a social-political institution can be reconsidered or radicalized.¹⁹ His videotapes such as *9/23/69; Experiment with David*

¹⁷ Paul Sharits, "Notes on Film," *Film Culture* 47 (Summer 1969): 13.

¹⁸ Hanhardt repeats this claim, first for the exhibition, *The Worlds of Nam June Paik* in 2000 and then again in the *Global Groove 2004* exhibition. See John G. Hanhardt and Solomon R. Guggenheim Museum, *The Worlds of Nam June Paik* (New York: Guggenheim Museum, 2000), 214; John G. Hanhardt and Deutsche Guggenheim Berlin, "Paik for TV and Video: Global Groove 2004," in *Global Groove 2004* (Berlin : New York: Deutsche Guggenheim ; Guggenheim Museum Publications ; Available through D.A.P./Distributed Art Publishers, 2004);. Christine Mehring similarly notes how Paik's indeterminism in his prepared TVs was used to explore the televisual form. See her "Television Art's Abstract Starts: Europe Circa 1944-1969," *Part of a Special Section on Television and Video Art* no. 125 (Summer 2008): 29–64.

¹⁹ David Joselit, *Feedback: Television against Democracy* (Cambridge, Mass.: MIT Press, 2007).

Atwood function at one level to catalog the effects that are possible when using video in a graphic way.²⁰ At another level, a tape like *Global Groove* is a self-conscious meditation on the reality created by media. In the words of one writer on *Global Groove*, “Paik opposes the unordered structure of the program flow in television with an external perspective...The visible and audible intervention into existing ‘material’ demonstrates video’s more diverse possibilities in contrast to television and its program structures.”²¹ By dismantling video into its basic components, Paik’s video figures another similarity with structural film and all emerging media: its dialectical imbrications with a preceding practice and form. In the case of structural film, the predecessor was the industrialized institution of cinema and its modes of signification, production, distribution, and display.²² With Paik’s prepared TVs and video, he is responding to a highly commodified broadcast television.

What sets the operational forms of Paik and Sharits apart from these other practices is the degree to which the form is embedded in the technology of their mediums. While it can be argued that any artistic form is merely the result of its own technology—a painting is the result of the technologies of paint, canvas, brushes, and their practiced uses—film and video differ from traditional mediums in their use of mechanical and electronic technologies. As such, the operational forms of Paik and Sharits open onto a whole discourse of science and the role of technology in society.

²⁰ John G. Hanhardt, “Nam June Paik: From Avant-Garde to Post-Video Art,” in *Nam June Paik: Global Visionary*, n.d., 83.

²¹ Yvonne Spielmann, *Video: The Reflexive Medium* (Cambridge, Mass.: MIT Press, 2008), 154.

²² James, “Pure Film.”

In particular, these artists' disarticulation of the operation engages with critiques of the technological society prevalent at this time.

THE OPERATIONAL FORM AND TECHNOLOGICAL ORDER

Both Paik and Sharits' work are regarded as rejections or redirections of traditional, institutionalized modes of television and film production and viewing. Paik's prepared TVs are recognized for how they divert the received television signal from its usual purpose.²³ Especially in those televisions where the broadcast image remains at least somewhat identifiable, a tension exists between how the broadcast signal was intended to be received and the user's control and manipulation of that signal. Paik's purported criticality resides then in how he liberates the television apparatus from its communicative mode of one-way passivity and redirects it toward aesthetic and political ends. Film scholars similarly saw the American underground and European avant-garde cinema as "the evaluation and redefinition of the nature and role of narrative structure."²⁴ In general, American avant-garde filmmakers rejected the industrialized modes of filmic production for a more artisanal and independent method of working. More specifically, structural filmmakers replaced commodified interests in illusionism and narrative with an investigation of the material and means of cinema.²⁵

What these arguments do not account for is the relationship of the operational form to the functionalist logic that undergirds technology's development and

²³ See for example, Joselit's *Feedback* and his "No Exit: Video and the Readymade," *October* no. 119 (Winter 2007): 37–45.

²⁴ Michelson, "Film and the Radical Aspiration," 410.

²⁵ James, "Pure Film."

application, including the technologies of film and television. Such an operational logic is also theorized to pervade and order all dimensions of an administered society. Even though Paik and Sharits use these operational logics toward unconventional ends, they still exploit their basic and intended functionality, thereby walking a thin line between immersion in the technological order and a critical response to that order. In the end, it is the violent destruction visited upon the operational form, the outmoding of the operational form by making it malfunction, that not only negates that form in the work of these artists but also disrupts the technological order. In this regard, Paik and Sharits run into critiques of the relationship between technology and society developed by theorists affiliated with the Institute for Social Research in the 1930s and 40s and popularized in the 1960s through the highly influential voice of Herbert Marcuse.

Marcuse's vision of society in the thrall of technology and the terms of a rationality that technology would engender begin to take form in his essay "Some Social Implications of Modern Technology" published in 1941. The full voice and impact of Marcuse's thinking would emerge in his 1964 book, *One-Dimensional Man*, in which he lays out the characteristics of a society where any form of critical opposition has been silenced by technological reason. In these texts, Marcuse distinguishes between technology as a social process and the technological implements themselves. While the implements still hold the potential to liberate humanity from the toil of survival, the social order of technology produces and perpetuates false needs that maintain the individual's obeisance to that order. Technological rationality, the rationality of the machine and assembly line in which all

effort and means are molded toward efficient and productive function, replaces the individual's critical rationality, their capacity to determine and address their needs through an enlightened self-interest:

The facts directing man's thought and action are not those of nature which must be accepted in order to be mastered, or those of society which must be changed because they no longer correspond to human needs and potentialities. Rather are they those of the machine process, which itself appears as the embodiment of rationality and expediency.²⁶

Any consideration of ends associated with ethics or truth has been replaced by functionality. To the extent that the processes associated with industrialization have improved standards of living, Marcuse notes that to reject the terms that have provided such comfort would be unreasonable, thereby further cementing the individual's existence in an "irrational rationality."

While my gloss provides the social stakes of Marcuse's critique of technological rationality, it is the foundation of this rationality in the scientific and machine process itself that bears on Paik and Sharits' work. In particular, the functionalist mode that underlies scientific empiricism concerns Marcuse the most.

Marcuse describes the urge toward one dimensional thought and behavior:

The trend may be related to a development in scientific method: operationalism in the physical, behaviorism in the social sciences. The common feature is a total empiricism in the treatment of concepts; their meaning is restricted to the representation of particular operations and behavior.²⁷

For Marcuse, concepts can no longer be thought other than in the terms of the logical interaction and progression of events that science prides itself on discovering.

²⁶ Herbert Marcuse, "Some Social Implications of Modern Technology," in *Technology, War, and Fascism* (London; New York: Routledge, 1998), 46.

²⁷ Herbert Marcuse, *One-Dimensional Man; Studies in the Ideology of Advanced Industrial Society* (Boston: Beacon Press, 1964), 12.

Concepts become reified expressions of aggregates of functions. Marcuse quotes P.W.

Bridgman's analysis of the concept to make his point:

To adopt the operational point of view involves much more than a mere restriction of the sense in which we understand 'concept,' but means a far-reaching change in all our habits of thought, in that we shall no longer permit ourselves to use as tools in our thinking concepts of which we cannot give an adequate account in terms of operation.²⁸

This functional outlook reorients questions of values from metaphysical concerns with what is and should be to procedural questions of how things operate. The scientific approach that is so effective in understanding and exploiting matters of instrumental operations subsumes all other forms of rationality—what is rational becomes only that which can be instrumentally described. The objects of technology embody this rationality so that, “nature, scientifically comprehended and mastered, reappears in the technical apparatus of production and destruction...”²⁹

Marcuse's analysis provides a sinister subtext for artistic developments in the sixties that sought to bridge the divide between art and technology, including Paik and Sharits' artwork, or aestheticize technology. While exhibitions like *Cybernetic Serendipity* (1968), *Software* (1970), or *The Machine: As Seen at the End of the Mechanical Age* (1968) highlight what was seen as evolving linkages between the often antagonistic domains, some commentators investigated an aesthetics that could be instrumentalized along the lines of the machine process. In an article for the *Studio International* special edition to accompany the *Cybernetic Serendipity* exhibition, Kenneth Knowlton elaborates on a computerized system for film animation that both

²⁸ P. W. Bridgman, *The Logic of Modern Physics* (New York: Macmillan Co., 1927), 31. Quoted in Marcuse, *One-Dimensional Man*, 13.

²⁹ Marcuse, *One-Dimensional Man; Studies in the Ideology of Advanced Industrial Society*, 166.

visualizes the computer's logic and improves the efficiency of filmmaking. The computer functions first as a drawing implement, but also as "a calculating machine which determines the consequences of mathematical and logical statements."³⁰ These consequences are arrived at by "following differential equations or other laws supplied" and then visually rendering these results.³¹ As with many of the cybernetic and computer-driven projects of the time, the music,³² poetry, or visual art created is celebrated as the result of the machine or computer operations. In this rather conventional conceptualization of art and artistic practices, the machine's ability to act as an ersatz artist is seen as a great advance in the relationship between art and technology with no considerations for the implications that underlie this logic of creation. Knowlton further enmeshes this kind of artistic practice in the technological order by citing decreased costs and increased speed of production as benefits of the use of computers. These measures of efficiency are precisely those values associated with improving the "how" of production that Marcuse believes preempt the more important values of the metaphysical "what should be."

While projects such as Knowlton's instrumentalize artistic practice as an accumulation of machine processes, others conceive of art and aesthetics as a set of operational codes that could be elaborated and form the basis of computer functions. The questions over which Herbert Franke ruminates reveal the instrumentality he

³⁰ Kenneth Knowlton, "Computer-Animated Movies," in *Cybernetic Serendipity: The Computer and the Arts*, ed. Jasia Reichardt, 2d ed., rev (London: Studio International, 1968), 67.

³¹ Ibid.

³² In the same *Studio International* issue Herbert Brün would write about how "Structural analysis and synthesis of compositional logistics and logics and their reduction to, or expansion into, computer programmes" was one of three areas of investigation in computer-assisted musical composition. See Brun, Herbert, "Composition with Computers," in *Cybernetic Serendipity: The Computer and the Arts*, ed. Jasia Reichardt, 2d ed., rev (London: Studio International, 1968), 20.

subscribes to: "...the question becomes ever more insistent: how far can we go in programming the beautiful? Are there superior multilevel programmes that incorporate general laws of aesthetics?"³³ Franke conceives of "an exact science of art, in which those practicing computer graphics are of course more at home than artists who confine themselves to intuition and spontaneity."³⁴ No better example of the threatening nexus of science, technology, and instrumental values that Marcuse identifies could be given. For Franke, art must be conceived of as a science, an exact science like that of physics or chemistry, if it is to be properly theorized in the context of computer operations. This move to the exact has already bolstered, according to Franke, some of the softer sciences like psychology or sociology so that the introduction of the computer requires discussions to be more precise, observations more rational, and perceptions more formularized.

Franke's point is that improvements are to be had by making these realms of inquiry more rigorous through the application of functionalized models, but it is also sobering to realize how quickly a field's *raison d'etre* can be subsumed by the technological order. To a layman already immersed in a culture of technology and unfamiliar with the fields themselves, who wouldn't want these areas of study to be enhanced through greater specificity and rigor of approach? As Marcuse observes, competing values that do not fall within or cannot be measured or interpreted by the technological order are expelled. This applies to art as well, for even though conventionally prized values such as intuition or spontaneity have been complicated or

³³ Herbert W. Franke, *Computer Graphics, Computer Art*, 2nd, rev. and enl. ed (Berlin ; New York: Springer-Verlag, 1985).

³⁴ *Ibid.*

rejected by the historic avant-garde and progressive art of the time, the values are clearly a problem for Franke and his operational view of aesthetics. What makes these values so desirable for humanists, but so difficult from a scientific perspective, is that they are subjectively determined and unquantifiable and hence, resistant to objective observation. As such they fall outside the operating parameters of the computer and any further consideration. The submission of the artistic sphere to the tenets of technological rationality finds material expression in the operational device most associated with the computer, the algorithm: “Since the setting of the stylistic laws in an algorithmic form is a precondition for the generation of computer art, each of its products may serve as a preliminary study for investigations in the science of art.”³⁵ The procedural formulations of the algorithm’s artistic output embody the scientific logic that Marcuse identifies as the basis of technological rationality.

In many ways the operational forms of Sharits’ structural films and Paik’s TVs and performances dangerously align with Franke’s “exact science of art.” To consider the structural film as an enumeration of its processes and materials, even as a modernist immanent critique, partakes of the functionalist logic that so appealed to Knowlton in his computerized film animation. Sharits’ films become aggregations of film properties and processes, an algorithm that generates its “shape” from its constituent elements. Sharits alludes to this means/ends rationality when he reduces the “higher drama” of film to its concrete properties and functions: “celluloid, two-dimensional strips; individual rectangular frames; the nature of sprockets and emulsion; projector operations; the three-dimensional light beam; environmental

³⁵ Ibid.

illumination; the two-dimensional reflective screen surface”³⁶ Such an approach to filmmaking firmly embeds Sharits’ films in the technological order so that the film are only comprehensible within a functionalist rationality.

Similarly, the operational form that Paik displays on his prepared TVs and which meld with the body in his collaborations with Moorman can be seen as joining with and exalting the functionalist logics of technological regimes. His prepared televisions enter an artistic domain through their aestheticization of its technologies. Christine Mehring considers Paik’s interest in television as purely visual, “not as a means of broadcasting and reaching out, but rather...as a way of creating electronic pictures.”³⁷ Paik places his technology in a conventionally optical domain when he writes: “As collage technique replaced oil-paint, the cathode ray tube will replace the canvas. Someday artists will work with capacitors, resistors & semi-conductors as they work today with brushes, violins & junk.”³⁸ His TV/body hybrids created with Moorman place the human individual within the spectatorial operations of television. The body becomes something to be looked at and consumed, like the commodified programming of television. Paik attempts to humanize this logic of technological seeing by joining it with the human figure in order to “stimulate viewers NOT for something mean but stimulate their phantasy to look for the new, imaginative and humanistic ways of using our technology.”³⁹

³⁶ Sharits, “Notes on Film,” 13.

³⁷ Mehring, “Television Art’s Abstract Starts,” 45.

³⁸ Nam June Paik, “Electronic Video Recorder.” Reproduced in *Nam June Paik: Videa “n” Videology, 1959-1973*. (Syracuse, N.Y.: Everson Museum of Art, 1974). n.p.

³⁹ *TV as a Creative Medium*.

In these readings the operational forms that join these artists' mediums firmly grounds them in Marcuse's technological order either by relying on its logics for their work's comprehension or by reifying those logics into a natural symbiosis between human and machine. Such is the plight of all technological mediums whose basic functions operate autonomously from human intervention. The machine is by nature a functional collection of elements that can only operate in linear and logical ways. To reveal that operation rather than submerge it in the illusion of image or narrative is one mode of modernist critique. For Sharits to display how film operates to generate illusions⁴⁰ or for Paik to visualize the workings of the television breaks with the soporific effect of the image and technology and shocks or distanciates the viewer thereby defamiliarizing our relationship to that technology. Yet these critiques do not challenge the operational form itself. We are aware of it and we recognize how it functions while we still remain subject to the instrumental rationality that organizes how it works and our understanding of the form. Additionally, to reveal the operations and materials of the technology continues to instrumentally associate the nature of the medium with its constituent elements. Another approach to challenging Marcuse's order would be to negate the operational form altogether, to cause the technology to malfunction, thereby diverting the technology to ends that are not determined by its proceduralism.

⁴⁰ Several authors have considered Sharits' rejection of illusionism. See, for example, Regina Cornwell, "Paul Sharits: Illusion and Object," *Artforum* 10 (September 1971): 56–62; and Stuart Liebman, "Apparent Motion and Film Structure: Paul Sharits' Shutter Interface," *Millennium Film Journal* 1 (Spring/Summer 1978): 101–109.

OBSOLESCENCE, FILM, AND TELEVISION

Sharits' flickering films and Paik's distorted TVs are as much a result of dysfunctioning apparatuses as they are creative and investigative responses to the artists' mediums. This dysfunctioning operational form that joins Paik's televisions and Sharits' films symptomizes the obsolescence that threatens all media. If Paik and Sharits' mediums are defined according to a functionalist logic that reduces them to constituent elements, then their outmodedness breaks with that logic. Given that obsolescence is determined by associating mediums based on their relative "newness" and "datedness," the medium's ontology must be considered relationally rather than immanently. To the extent that the technological order is defined by the efficient functioning of its machines and processes toward the ends of industry and capital, obsolescence and the dysfunction of those machines and processes interrupt, even undermine, that order. The malfunctioning machine does not function according to its originally designed procedures and its products can no longer be predicted by those procedures. Sharits' stuttering films are an index of that obsolescence. Similarly, in the constellation of Paik's video and Sharits' film, Paik's malfunctioning TVs dream their own obsolescence in the way that "the new is permeated with the old" to borrow from Walter Benjamin.⁴¹

As my reference to Benjamin suggests, his conceptualization of the outmoded as a critical force to counter capitalist culture provides some traction for the analytical

⁴¹ Walter Benjamin, "Paris, The Capital of the Nineteenth Century," in *The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media*, ed. Brigid Doherty, Thomas Y Levin, and E. F. N Jephcott (Cambridge, Mass.: Belknap Press of Harvard University Press, 2008), 98.

work of Paik and Sharits' dysfunctional operations. Benjamin recognizes how Andre Breton:

...was the first to perceive the revolutionary energies that appear in the 'outmoded,' in the first iron constructions, the first factory buildings, the earliest photos, the objects that have begun to be extinct, grand pianos, the dresses of five years ago, fashionable restaurants when the vogue has begun to ebb from them. The relation of these things to revolution—no one can have a more exact concept of it than these authors. No one before these visionaries and augurs perceived how destitution—not only social but architectonic, the poverty of interiors/enslaved and enslaving objects—can be suddenly transformed into revolutionary nihilism.⁴²

The radical force of the outmoded obtains in how it disrupts the totalizing effects of capitalist culture. As Hal Foster has pointed out, the handcrafted object is outmoded next to the industrially produced commodity, but its return reminds us that mass production and its associated cultural consciousness is just a historical fact, not an absolute.⁴³ Even without reference to forms of production, the difference of the outmoded from current conventions can still be disruptive through an "eruption of contradiction within the real,"⁴⁴ a conflict within the existing order.

Within the Fluxfilms, Benjamin's notion of the outmoded's passing out of style or becoming extinct brings Paik and Sharits' mediums of TV and film into close orbit. Obsolescence establishes a basic comparative framework. For a technology to be new or obsolete it must attain that quality by way of comparison with a second technology. Benjamin's revolutionary energies erupt from and in relationship to that

⁴² Walter Benjamin, "Surrealism: The Last Snapshot of the European Intelligentsia," in *Reflections: Essays, Aphorisms, Autobiographical Writings*, ed. E. F. N. Jephcott and Peter Demetz (New York: Harcourt Brace Jovanovich, 1978), 181.

⁴³ Hal Foster, *Compulsive Beauty* (Cambridge, Mass.: MIT Press, 1993).

⁴⁴ Louis Aragon, *Paris Peasant*, trans. Simon Watson Taylor (London, 1971); Foster, *Compulsive Beauty*. 173.

which has established itself as contemporary or conventional. Obsolescence therefore requires us to consider the new medium through the lens of the medium that it is replacing or to examine how the old medium modifies itself in response to the new. For Jay David Bolter and Richard Grusin this dialectic of obsolescence defines the construct of the medium itself as “that which appropriates the techniques, forms, and social significance of other media and attempts to rival or refashion them...”⁴⁵ Mediums delineate themselves through remediation in which one medium is represented in another. A medium may directly refer to an earlier medium such as the computer’s graphical user interface using painting or typewriting to visualize computer functions. A medium may also assert itself according to the rules and logics of the medium it is trying to supercede as when computer games use the editing and point-of-view shots created by film. If a medium “can never operate in isolation, because it must enter into relationships of respect and rivalry with other media,”⁴⁶ then the dialectic of obsolescence radically attacks the functionalism of medium specificity that describes the medium as a linear accumulation of unique qualities. We are now required to acknowledge how mediums reciprocally define each other rather than occupying their “own separate and purified space of cultural meaning.”⁴⁷ By considering the mediums of film and television in this matrix of obsolescence, Paik and Sharit’s works resist Marcuse’s technological order as the functionalist definition of the medium must be replaced with a dialectical one.

⁴⁵ Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, Mass.: MIT Press, 2003), 65.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*, 55.

Viewing Paik and Sharits' televisions and films in a relationship of obsolescence reveals the instability of immanent definitions of film and television mediums. Film has always been subjected to significant ontological changes throughout its history. In fact, it could be argued that film is a highly contingent medium, an amalgam of advances in other fields whose material support and presentation constantly changes in response to social and technological vagaries. Any textbook of film history relates how the moving image is based on earlier advances in the science of vision, projection, and photography.⁴⁸ The flexible celluloid of the filmstrip was originally invented by George Eastman for still cameras and the intermittent mechanism that Sharits analogizes in his work is based on the technology of the sewing machine. Significant morphological changes in film included the introduction of sound in the late 1920s, color in the 1940s, and wide screen formats in the 1950s. To suggest that film has a definitive and particular material manifestation or mode of presentation is problematic.

Television has gone through similar changes that challenge its specificity. The low-resolution television that McLuhan recognized as the impetus for a new kind of viewer participation has been replaced with high-definition technology. A definition of television based on its use of emitted light rather than the projected light of film is complicated by video projection. While television started with live broadcasts, thereby giving the medium a quality of immediacy, those broadcasts were quickly replaced with film and later video recordings. Recorded content available on DVD or digital

⁴⁸ See for example Kristin Thompson and David Bordwell, *Film History: An Introduction* (London: McGraw-Hill Education, 2003).

video recording confuses the notion of television as a medium of presence different from the past-tense medium of film.

A media constellation that links and remediates all mass-market formats like radio, film, television, and the Internet increasingly muddles film and television's ontology. Frederick Wasser argues in his study of the video cassette recorder's impact on cinema that film has always had close ties with broadcast media beginning with radio in the 1920s.⁴⁹ Radio not only advertised cinematic releases and launched the careers of film actors but also expanded film's presence into the home through radio plays based on popular movies. In a circuit of influences, television in its post-war advent both necessitated changes in the film industry and developed in response to the film industry. With attendance at movie theaters ebbing and flowing in the fifties and sixties, movie studios sought ways to increase and stabilize their earnings. Television was used to both advertise movie releases and as another market for the studios' products with films being broadcast on TV since its inception. While audiences declined at the movie theater, broadcasts of film's on television received high ratings. Distributors began leasing their libraries to television broadcasters and the first prime-time film program was established in 1961. In turn, television used visual and entertainment standards established by film to attract audiences while recognizing film content as a significant draw for viewers and a targeted strategy for advertisers. Movie studios leased their lots for television productions and even sought to make movies specifically for the smaller television screen. Obsolescence of past practices in the face

⁴⁹ Frederick Wasser, *Veni, Vidi, Video: The Hollywood Empire and the VCR* (Austin, TX: University of Texas Press, 2001).

of new technological and audience trends and the uncertainty that goes along with a constantly changing media environment were built into film and television since their inception. Clearly, the notion of a unique or differentiated film or television medium is complicated by the history of their development.

More significantly, Wasser investigates how video and the video cassette recorder's introduction and full acceptance in the home and office affect the total media environment. According to Wasser, video's rise instigates program development across media platforms, thereby challenging the notion of medium specific content and presaging today's digital environment. The corporation plays out this content convergence at the organizational level as it acquires and collects various media formats such as film, broadcast, cable, and print, under one company umbrella. Such strategies of conglomeration contextualize individual media within a larger media environment so that any one particular media event, such as a film release, initiates events across the media spectrum. A film is now seen as an opportunity for record or CD sales of its soundtrack, future DVD sales, a videogame, and merchandising licensing. Media such as radio and television are brought to bear to promote the film. Television shows can be based on film franchises and video games can be transliterated into films. The ontological challenges to the mediums of film and television based on their history of development are repeated in an economic and cultural register where such mediums matter only as different ways to deliver content.

Wasser's boundary-bending media constellation is figured in the confluence of mediums in the Fluxfilms anthology. Fluxus itself is an intermedial formation in which participating artists engage in a variety of artistic forms including

performances, films, television, graphic designs, and mass produced commodities. The films of the anthology are only one aspect of the Fluxus artists' richly varied practices. To fully comprehend Fluxus and these artists' works necessarily requires us to move back and forth between the various forms and mediums in which the artists operated. No greater example of this is Paik and his *Zen for Film* that exists as a film, performance and, in its active degradation of the film leader, presciently refers to his prepared TVs. While Sharits is regarded mainly as a filmmaker, his practice will push the boundaries of the cinematic experience into the space of the gallery and his *Dots 1 & 2* references the televisual medium in its approximation of the picture elements on the cathode ray tube. The hybridity of Fluxus and Maciunas' anthology stages Bolter and Grusin's remediation and challenges us to understand these artworks in consortion with the other mediums they reference.

That these mediums come together under a threatening obsolescence is evident in various ways. Given the dominance of television in the 1960s, film can be considered as that which has "begun to be extinct" and the impetus for structural film was frequently attributed to this endangerment. Structural filmmaker Hollis Frampton, registers the outmodedness of film that drives his practice when he writes: "What I am suggesting, to put it quite simply, is that no activity can become an art until its proper epoch has ended and it has dwindled, as an aid to gut survival, into total obsolescence."⁵⁰ Frampton notes that the end of film's era, or more generally the age

⁵⁰ Hollis Frampton, *On the Camera Arts and Consecutive Matters: The Writings of Hollis Frampton*, ed. Bruce Jenkins (Cambridge, Mass.: MIT Press, 2009), 136.

of machines, is commonly believed to have been instigated by video, although he locates the demise more concurrent with radar.

Sharits' grounds his own filmmaking in a compassionate consideration of film's death. Sharits recognizes the end of film when he states: "I think it's interesting that I'm doing it with a dying medium, as I think cinema is, in the form that we're working in, technically obsolete, and will eventually be looked upon as quaint gizmos."⁵¹ But Sharits takes this moment of film's obsolescence as the motivation for his project:

I care for film; it creates a lot of problems that I don't enjoy, but I care for it as a medium. I think of it as a sort of primitive, vulnerable medium. I know it's going to disappear and I almost look upon it with certain empathy... However, I do feel a certain empathy for the film, and in a way it's a bit tragic; it signifies the end of film and an attempt to caress the film before its death.⁵²

Both Frampton and Sharits consider their practice as a response to the end of film with structural film a final strategy for preserving an idea of cinema threatened by the juggernaut of television and video. Structural film becomes an autopsy on the filmic corpse so that Sharits' elucidation of the elements composing the "higher drama" of film quoted earlier reads like a post-mortem listing of the deceased's effects.

Film scholars have also considered structural film as an ending in which film can no longer perform according to the requirements of a commodified society.

According to David James' interpretation, structural film is a kind of suicide that is the only way for filmmakers to critically position themselves in capitalist culture. In his account of the social conditions that he believes determine and are allegorized in the

⁵¹ Paul Sharits, *Mental Funerals: An Interview with Paul Sharits* by John Du Cane and Simon Field, 1970, <http://mikehoolboom.com/?p=39>.

⁵² *Ibid.*

structural film, James articulates a variety of levels of negations that position structural film in opposition to the dominant industrialized cinema. Structural film's stringent reductivism, its stripping away of extraneous elements that would diffuse the focus from the singular element of film's technological and conceptual apparatus, is "an implicit critique of illusionist narrative."⁵³ He recognizes that the Fluxfilms originated this approach and the resulting self-reflexiveness of the structural film.

These negations are driven by an enforced obsolescence by which the structural film refuses to make itself relevant to mass culture. In these ways, structural film broke cinema, and made itself outmoded so that it could not be instrumentalized by capitalist functions. James notes that structural film is the least assimilable media practice in postwar culture, resisting all attempts by consumer culture to appropriate it for profit-making ends. Structural filmmakers also refused to have their films operate socially. Whereas a filmmaker like Dziga Vertov's attention to the material means of the image engage with production relations of the socialist revolution, the structural film's reflexiveness participates in the wider post-war artistic retreat into artistic autonomy theorized by Theodor Adorno and the early writings of Clement Greenberg. The structural filmmakers' formalisms and reductivisms are signs of their refusal of all things political and social, including industrial cinema and its ties to the culture industry.

James more closely associates structural film's refusal to be instrumentalized socially or politically with the notion of obsolescence by somewhat melancholically heralding an end of cinema. The formal reductions instantiated by the structural film

⁵³ James, "Pure Film," 241.

as negations of industrialized cinema “set in motion a dialectical reduction that, once initiated, could never retrieve stability this side of absolute negation—the refusal to make films at all.”⁵⁴ In the British theorization of the structural film, capitalist film production infiltrates the image to such a degree that only the most radical of surgeries, the reduction of the film to the light of the projector, can remedy the situation. This ultimate reduction would be an end of cinema: “The contradictions in capitalist cultural production are irreconcilable and ineluctable, and they force the most extreme responses upon those filmmakers who most love the art. In order to save film, they had to destroy it.”⁵⁵ Given James’ argument and the comments of filmmakers like Sharits and Frampton, film’s obsolescence pervades the structural film.

Paik’s own career is a forceful outmoding of his previous practices and mediums. He abandons his classical music studies for the electronic music of Karlheinz Stockhausen’s studio. These electronic musical compositions are then replaced by his action music performances in which he combines setting and bodily action with his recorded tapes. His action music is made obsolete when he begins working with his prepared televisions and his TV/body hybrid performances. And finally, the manipulated and indeterminate TVs are sacrificed for the carefully constructed images, compositions, and messages of synthesized tapes like *Global Groove* (1973). The most radical rejection of previous practices can be seen in his patricidal treatment of John Cage, one of Paik’s most significant influences. Paik

⁵⁴ Ibid., 278.

⁵⁵ Ibid., 279.

borrowing Cage's notion of prepared instruments, but takes their preparation to the end stage by destroying the instrument in performance. Paik's prepared pianos could not be played and his *One for Violin Solo* (1963) smashes the violin on the table. In *Etude for Pianoforte* Paik symbolically murders Cage, who is sitting in the audience, by slashing at Cage's shirt, cutting off his tie, and then pouring a bottle of shampoo over Cage's head.

While television is the force that brings film's demise according to Sharits and Frampton, in the never-ending decay of the new into the old, television contains its own seeds of obsolescence. As they say, obsolescence is built into technology and as a preeminent technology, television is proscribed by that history of decline and replacement. If as Benjamin believed that the outmoded erupts into the present then the specter of past technologies as they wither away would haunt any new technology, including television. The chronological bracketing of Paik's *Zen for Film* around his prepared TVs—*Zen for Film* was conceived in 1962 and performed in 1964 while Paik's first exhibition of prepared TVs occurred in 1963—enacts this interpenetration of the new and old. Paik's splintering of the apparatus and degradation of the celluloid that eulogizes the end of film is played out again in the malfunctioning televisions and their helter-skelter installation on the floor of the *Exposition of Music-Electronic Television*. As I have related, Paik's earliest experiments with television, their reduction and self-reflexive analysis of the components of TV and video, have been interpreted according to a structural mode, using the terms of the "old" structural film to investigate the "new" television. Cameron's previously cited analysis of video as structural is also an application of the terms of film's dismantling to the barely

emergent medium of video.⁵⁶ Even in the emergence of video and Paik's television work there is the ghostly recurrence of the obsolete medium of film and a premonition of things to come.

OBSOLESCENCE AND THE DYSFUNCTIONAL OPERATIONAL FORM

Benjamin's notion of the outmoded as that which has "begun to be extinct" or whose "vogue has begun to ebb" has another dimension. In his description of the objects to be found at the Saint-Ouen flea market, Breton writes: "I go there often searching for objects that can be found nowhere else: old fashioned, broken, useless, almost incomprehensible, even perverse..."⁵⁷ Breton's "broken" and "useless" qualities inflect obsolescence with a loss of functionality in addition to the sense of the object passing out of style or relevance. While Paik and Sharits engage technology at the level of Marcuse, Franke, and Knowlton's functionalism by taking up the basic operational processes of their mediums, they purposefully break those processes and make them useless for conventional ends. Paik presents broken and failing television sets whose signals are reduced to meaningless static on the screen. His collaborations with Moorman display a body invaded and imprisoned by technology. Sharits' flicker films simulate a disordered film projector whose flashing images and light assault a viewing subject that cannot cohere around the lapses in continuity and meaning.

Rather than celebrating their work as a new electronic aesthetic or self-reflexive investigation of the medium, the dysfunctioning operational form of Paik's TVs and Sharits' films makes apparent the uselessness that threatens all media when

⁵⁶ Cameron, "Structural Videotape in Canada"; Cameron, "The Grammar of the Video Image."

⁵⁷ André Breton, *Nadja* (Paris, 1928), trans. Richard Howard (New York 1960), 52; quoted in Foster, *Compulsive Beauty*, 159.

they no longer command the public's attention and are surpassed by newer, more engaging, media. These artists break their mediums, destroying not only the functionalism underlying the technological, but also how that technology communicates with subjects under the strictures of an administered society. If Marcuse is concerned that the operational point of view usurps our power to think outside of the machine's rationality, then the operational form's dysfunction, the place where machine rationality ceases to operate, opens a space within the technological order in which new thinking can emerge. For Marcuse, such thinking entails those concepts and values that cannot be ascertained via the logic of technology. This consists of highly subjective qualities that refuse to be measured or determined by a calculus of variables. It is the subject themselves that emerges from dysfunctioning operational forms, a subject that responds in ways outside of the technological order's rationality.

Paik's *Zen for Film* illustrates the dysfunctional operational form and how such a breakdown compromises the medium's ability to interpellate a coherent subject. The film consists of approximately one thousand feet of clear leader with a resulting screening time of one-half hour. As has already been noted, *Zen for Film*'s operational mode suggests an interrogation of the medium itself: film's reliance on light and the celluloid running through the projector. But this interrogation is only possible because Paik elides the photographed image usually associated with movies. The film has also been considered as a meditation on the Zen concept of nothingness that denotes not an absence but openness to the usually ignored qualities of everyday existence, an attitude Paik would have learned from his relationship with and study of Cage's

work.⁵⁸ According to this reading, the projected square of light registers not blankness but fields of possibilities in which the vagaries of life such as dust, shadows, light itself, become the subject of attention. But unlike Rauschenberg's *White Paintings* or Cage's *4'33"* to which it has been compared,⁵⁹ Paik's film is the result of a modern technology, the film apparatus, a technology that has highly determined modes of viewing established by more than a half-century of industrialized production. In his projection of nothing but light and dirt, Paik forcefully rejects these codes, refusing the illusionistic representations and narrative conventions by which the film medium traditionally communicates.

While it could be argued that Rauschenberg's *White Paintings* and Cage's musical composition are also rejections of the codes associated with visual art and concert hall musical performance, their rejections do not have the same vehement quality. Theirs is a passively imposed stasis on the medium, a holding back of the form so that it does not unfold into visual or aural incident under control of the artist. Paik's *Zen for Film* on the other hand is an active degradation of the medium, a breaking of conventions of production and display at the level of the filmstrip. Equally significant as the square of nothingness projected in the film's performance is the intended accumulation of dust, debris, and scratches through subsequent screenings of

⁵⁸ Edith Decker-Phillips, *Paik Video* (Barrytown, N.Y.: Barrytown, Ltd., 1998).

⁵⁹ Hanhardt notes that Cage himself compares *Zen for Film* to his own *4'33"* and Rauschenberg's *White Paintings*; see "The Cinematic Avant Garde," in *The Worlds of Nam June Paik* (New York: Guggenheim Museum, 2000). But Cage's comparison, while it notes similarities, also points out Paik's focus on the film rather than just the ambient sound or dust of the two other artworks. See Cage, "On Nam June Paik's 'Zen for Film.'" Reprinted in Toni Stooss and Thomas Kellein, eds., *Nam June Paik: Video Time, Video Space* (New York: H.N. Abrams, 1993). For a brief explanation on the relationship between Rauschenberg's paintings and Cage's *4'33"* see Walter Hopps, *Robert Rauschenberg: The Early 1950s* (Houston: The Menil Collection : Houston Fine Art Press, 1991).

the work. Such grime degrades not only the filmic image but also the material support for the image making it a film conservator's nightmare. Paik reportedly directs technicians at screenings "to throw the film on the floor and step on it."⁶⁰ By visualizing the natural wear and tear on the film and by promoting its destruction through intentional acts, Paik does more than just allow life to become part of his film. He undermines the film itself, breaks it down, so that an ambient violence, a threat to the medium's ability to perform as expected, pervades the work.

In its failure to communicate, *Zen for Film* calls on a similarly compromised subject. To the degree that the illusion of the filmic apparatus has been theorized to elicit a coherent and immanent subject through identification with the film's characters and the omniscient eye of the projector,⁶¹ the blank screen of *Zen for Film* dissolves that subject. Of course, it could be suggested that the unconventional image of *Zen for Film* destroys this illusionism and distanciates the individual. This approach is complicated however by the fact that what the viewer sees has a particularly strong connotation, the active destruction of the film leader as it accumulates dirt and scratches over time. *Zen for Film* is an abject act that immerses the viewer in its formless state. In the photodocumentation of Paik's *Zen for Film* performance, this empty subject is figured by Paik's blank silhouette that is thrown onto the white screen as he stands in front of the projector beam. The recognizability of the shadow as human is countered by the lack of physiognomic details that usually animate a fully-

⁶⁰ Hanhardt relates this anecdote from a screening of *Zen for Film* at the Guggenheim's exhibition, *The Worlds of Nam June Paik* (2000). Hanhardt, "Nam June Paik: From Avant-Garde to Post-Video Art," 58.

⁶¹ Jean-Louis Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," *Film Quarterly* 28, no. 2 (Winter -75 1974).

realized subject. This is a subject impoverished by anonymity and psychological formlessness.

It can always be said that the avant-garde by definition rejects conventions, but my reading of *Zen for Film* incorporates a thematic of violence and destruction seen in Paik's early performances. Indeed, both Paik and Sharits have destructive psychological dimensions that emerge in their incoherent subjects and broken objects. Cage characterizes the destructive edge of Paik's performances when he says, "It is hard to describe why his performances are so terrifying. You get the feeling very clearly that anything can happen, even physically dangerous things."⁶² Karlheinz Stockhausen's account of Paik's role in the 1961 production of *Originale* gives a representative description of Paik's out-of-control performance style. Paik's gestures would alternate frequently from movements "as quick as lightning," which would shock the audience, to slower actions.⁶³ Paik's affect would also change rapidly, one moment screaming and throwing beans and the next sobbing gently into a roll of paper.⁶⁴ Such rapid and variant changes in dynamics and mood suggest a highly labile body bereft of an ability to regulate or stabilize its actions. While his movements and affective states are disordered, Paik also inflicts a range of more or less violent actions upon himself. Stockhausen describes Paik covering himself in shaving cream, head to toe, then dumping a bag of rice over his head. Paik would immerse himself completely in a tub of water and, dripping wet, proceed to the piano where he would bang his

⁶² Calvin Tomkins, "Video Visionary," *New Yorker*, May 5, 1975, 48.

⁶³ Karlheinz Stockhausen, *Texte zu eigenen Werken. Zur Kunst Anderer: Aktuelles*. vol . 2 (Cologne, 1964), p. 109. Quoted in Decker-Phillips, *Paik Video*, 29.

⁶⁴ *Ibid.*

head several times against the piano keyboard. While one might not consider immersing oneself in shaving cream, rice, and then water, as particularly destructive or dangerous there is a transgression here both in the propriety of the action—polite bodies don't do that sort of thing—as well as in the unconventional activities that are visited upon the body. However, banging one's head on whatever surface always suggests the potential for bodily harm and doing this to oneself, whether in the register of a threat or sincere intention to crack one's skull, signals not only a body in physical danger, but a body that lacks control.

Paik also turns this violent attack on the intelligible subject towards the functionality of objects. Paik derives his prepared pianos from Cage, but there is a great difference between the two that turns on Paik's violent ruination of the instrument and the traditional ideas for which it stands. Photographs of Cage's prepared pianos show a delicacy and purposefulness both in the act of preparation and the almost aesthetic nature of the completed piano. Cage is shown gently reaching into the piano's soundboard with a care and precision reminiscent of a watchmaker (fig. 2.4). While the actual sound that will be produced is unknown, Cage's tense deliberateness suggests forethought and knowledge of possibilities, a kind of probabilistic intentionality. The soundboard itself glitters with the accumulated objects (fig. 2.5). Small and compact, the screws, silverware, and other hardware gingerly and gently interrupt the metallic striations of the piano strings. The modifications have their own visual appeal and the subtlety of the intervention suggests a graceful alteration to the honored instrument.

Compare this to one of Paik's prepared pianos, the *Piano Integral*, from his Galerie Parnass exhibition (fig. 2.6).⁶⁵ This is not the concert hall's grand piano but the music hall's upright piano. Instead of delicate and small modifications to the instrument's soundboard, this piano has become an assemblage. Toys and other small objects inhabit the keyboard; a brassiere is attached to the case which is also covered with foreign objects. Barbed wire is strewn about the exposed soundboard. Depressing a key results in the triggering of a variety of non-musical functions.⁶⁶ It is not clear if such a piano can even produce any semblance of conventional sound. This piano digresses from Cage's preparations that are designed to expand the conventions of music by eliciting new sounds from the musical instruments. Paik's piano could be said to also expand the possibilities of music and its performance, but such expansion was done at the expense of the instrument rather than through its enhancement. Whereas, Cage's preparations can be undone, returning the piano to its former state, Paik's interventions end the piano's original functioning with no possibility of conversion.

As with Paik, threads of hostility weave their way through the motivations, mechanics, and consideration of the medium in Sharits' oeuvre. In his writings and interviews, Sharits frequently describes himself as a subject under duress.

Commenting about the collection of his texts published in an issue of *Film Culture* in 1978, Sharits attributes them in part to a problematic moment of his life: "The writings

⁶⁵ Many sources recount this exhibition. For the most extensive and descriptive accountings see Decker-Phillips, *Paik Video*; Tomas Schmit, "Exposition of Music," in *Nam June Paik: Exposition of Music : Electronic Television : Revisited*, ed. Susanne Neuburger (Köln; New York: Verlag der Buchhandlung Walther König ; D.A.P. Distributed Art Publishers, 2009).

⁶⁶ Decker-Phillips, *Paik Video*, 34.

of mine which follow issue from a tumultuous two-year period in my life which I view as pivotally transitional.”⁶⁷ He goes on to label that moment as “characterized by anxiety,” being that he was both “tormented by the implications of film as a physical strip” and the coincidental “collapse of my seven-year marriage.” In an interview, Sharits associates his films *N:O:T:H:I:N:G* and *T,O,U,C,H,I,N,G* with “several terrifying years in Baltimore” where there was a “great deal of crime and anxiety.” He describes the anxiety as “non-generative...it did not generate any forms, except more anxiety, and I was reacting to these kinds of things.” Whether difficult events in his personal life or just ambient tensions, Sharits is clearly sensitive to how these conflicts influence his filmmaking.

Sharits films address this troubled individual through a series of uneasy dualities. Whether in their form or their imagery, his films address “...the cosmic, dynamic unity of opposites, the orders of disorder, the sense of constant circularity...paradox as fundamental fact.”⁶⁸ In a film like *Piece Mandala/End War*, Sharits uses the metaphor of the mandala to express a circularity and simultaneity that are basic to the inward, meditative experience he is trying to achieve with the film. According to Sharits, the structure of the film itself, the linear directional color structure that implies a larger infinite cycle, is meant to express a natural conflict and tension.⁶⁹ The imagery of the film, a couple engaged in sex and several frames of an image of Sharits holding a gun to his head, also suggests a tension between generative and destructive forces. Sharits later discusses the image of suicide as both an act of

⁶⁷ Paul Sharits, “Postscript as Preface,” *Film Culture* 65–66 (Winter 1978).

⁶⁸ Sharits, “Notes on Film,” 15.

⁶⁹ *Ibid.*, 14.

destruction and an act of rebirth.⁷⁰ Sharits describes his film T,O,U,C,H,I,N,G, in a letter to Stan Brakhage as “the most clear statement of my nearly schizoid obsession with extreme polarities: sex/death, rebirth through death, etc.”⁷¹ In this film, according to Sharits, violent images such as a face being scratched or scissors poised to cut off a tongue address healing, or negating the negation of people, including himself (fig. 2.7).⁷² Sharits even considers his films as attacks on the viewer. The rapid flashes of color, the merging of after images, in his flicker films are a kind of assaultiveness that reminds him of Joseph Albers saying something about “art looking at you.” Sharits describes his film *Ray Gun Virus* as inducing the “sense of a consciousness which destroys itself by linear striving.”⁷³ He continues, “Just as the film’s consciousness becomes infected, so also does the viewer’s.” The projector is a “pistol,” the viewer’s eye a “target,” and the overall effect is one of “assassination of the viewer’s normative consciousness.”

Paik and Sharits turn these destructive tendencies towards the operational forms of their TVs and films. Sharits’ film practice engages a very particular operation of the filmic apparatus that controls the illusion of continuous motion. A conventionally conceived film is composed of single photographic frames whose images slightly differ from each other. As the frames run through the projector gate, a shutter is briefly placed in front of each frame. What we actually see in projection is an alternating sequence of photographic image and the screen blacked out by the

⁷⁰ Sharits, *Mental Funerals: An Interview with Paul Sharits* by John Du Cane and Simon Field.

⁷¹ Paul Sharits, “Letter to Stan Brakhage,” April 18, 1968, <http://mikehoolboom.com/?p=39>.

⁷² Sharits, *Mental Funerals: An Interview with Paul Sharits* by John Du Cane and Simon Field.

⁷³ Sharits, “Notes on Film,” 13.

shutter. This intermittent image combined with the subtle differences in each photographic image provides the illusion of motion while concealing the actual mechanics from which it is constructed.

Sharits refers to this process in his film by purposefully disrupting it. Along with filmmakers Tony Conrad and Peter Kubelka, Sharits is considered one of the foremost practitioners of what is called the flicker film. Instead of each photographic image only slightly changing from frame to frame, these filmmakers splice single frames of radically different images together, usually clear, black, or colored frames. Sharits constructs his Fluxfilms from these single-frame images that appear on the screen too briefly for the viewer to register anything more than a flash of light and darks that occasionally suggest the outlines of a recognizable object. Sharits' flicker is a virtual malfunctioning of the film machine that, by introducing a flaw in the projection regimen, makes visible one of the basic operations of film. In its presentation of rapidly alternating images, the flicker film reveals that what we see in projection is actually a series of discrete images, or photograms, that have been manipulated in such a way as to provide the false sense of continuity of form and movement. We arrive at this realization because our normal modes of apprehension and comprehension have been broken with the flicker preventing the stream of images from cohering.

The single-frame flicker film has often been considered as a reflexive investigation of the material and means of cinema's specificity.⁷⁴ This reading is

⁷⁴ Sitney claims the flicker as one of the characteristics of his structural film. See his "Structural Film," 2000. Sitney's formulation will be used by others to link the flicker to a modernist search for filmic specificity. See David James', "Pure Film."

complicated however by Branden Joseph's recent research in which he notes that Conrad considered his film, *The Flicker*, to be more of an experiment in "techniques of perceptual and neurophysiological simulation" rather than an investigation of film.⁷⁵ According to Joseph, one of the primary ways that *The Flicker* functions is to induce indeterminate responses in the viewing subject, responses that exceed operationally determined results. Given Sharits' underlying anxieties about the subject and the tensions he builds into his films, his flicker films should also be considered as more than a study on medium specificity. Sharits' Fluxfilms, while not as reductive and gritty as Paik's *Zen for Film*, are equally as intent upon breaking the apparatus and the normal semantics of viewing that associate it with Marcuse's technological society.

As I have noted, Marcuse argues that the technological order imposes its own "facts directing man's thought and action." True needs are replaced by false needs "to relax, to have fun, to behave and consume in accordance with the advertisements, to love and hate what others love and hate..."⁷⁶ For Marcuse, false needs embodied by devices such as advertising are instigated and maintained by the technological logics of productivity, efficiency, and improved economic well-being. In this way the functionalism of "mass production and mass distribution claim the *entire* individual, and industrial psychology has long since ceased to be confined to the factory."⁷⁷

⁷⁵ Branden Joseph W., *Beyond the Dream Syndicate: Tony Conrad and the Arts after Cage: A "Minor" History* (New York: Zone Books, 2008), 301.

⁷⁶ Marcuse, *One-Dimensional Man; Studies in the Ideology of Advanced Industrial Society*, 5.

⁷⁷ *Ibid.*, 10.

In his Fluxfilm *Sears Catalogue*, Sharits disassembles the connection between the false needs of the advertisement and commodity and the functionalist logic of the machine. Sharits constructs the film from single frame photograms of the models and products in a Sears catalogue (fig. 2.8). We see brief glimpses of the faces of men, women, and children and items like tires, typewriters, and scissors. To the degree that a catalog of items for purchase relies on the legibility of its products and the affective associations between goods and the models that display or frame them, Sharits' flickering single frames negate the comprehension and hence logic of this kind of sales technique. The barely recognizable images flow past us too quickly for us to examine them for purchase. Much like early photomontages such as Hannah Höch's *Cut with the Kitchen Knife through the Last Weimar Beer-Belly Cultural Epoch in Germany* that removes consumer items from their advertised contexts and reorients them on the page to create a semantic chaos,⁷⁸ Sharits' film also destroys reading conventions that turn the photographed object into an item for sale. Unlike the photomontage whose decontextualized chaos results from a spatial arrangement of images, Sharits relies on his dysfunctioning operational form, the flicker, to create his crisis of meaning. The single frames that emerge and disappear too quickly for us to comprehend correlate the apparatus' malfunction with the image's failure to cohere in expected ways. Marcuse's technological order and imperative to enforce its false needs through the logics of efficiency and functionalism fall apart as the projector's own operations malfunction.

⁷⁸ *Art since 1900: Modernism, Antimodernism, Postmodernism*, 2nd ed (New York: Thames & Hudson, 2011), 168–173.

Whereas *Sears Catalogue* breaks the semantic codes of advertising associated with the technological order, Sharits' *Word Movie* takes on the technological rationality that Marcuse argues embodies the language of total administration. For Marcuse the operationalism inherent in this kind of language strictly correlates the names of things with their function. In this way, administered language resists critical attempts to think about a word like "freedom" in ways that do not reduce the term to specific, enumerated qualities. According to Marcuse this is language that "orders and organizes, that induces people to do, to buy, and to accept."⁷⁹ In Sharits' film the dysfunctioning operational form disturbs the functionalization of language by preventing the closure between words and their meanings. Sharits builds *Word Movie* from single words photographed against a white background. His soundtrack carries male and female voices that alternately recite words that are different from those projected on the screen. Sharits carefully orients the words on the page so that in a set of several, consecutive words, a single letter remains in the same place (fig. 2.9). When viewed in projection, images, discernible as words even if any one particular word does not stand out, flash by, but a single letter, generally occupying the center of the screen, is clearly legible for a brief time until the next set of words takes over. Linguistic order breaks down on two levels. Firstly, the words generally flicker past too quickly for us to think about any one word's particular meaning. Occasionally, one word becomes discernible, which only keeps us immersed in a frustrating effort to make sense of what we see. Secondly, that we can infrequently make out a word or two and that we are also clearly hearing words on the soundtrack suggests to us that

⁷⁹ Marcuse, *One-Dimensional Man; Studies in the Ideology of Advanced Industrial Society*, 86.

there might be a relationship between words. This relationship is not to be functional however for the conventional linearity and syntax with which we place words in sentences do not apply. The words float on the screen inviting us to make original semantic associations. In Marcuse's terms, Sharits malfunctioning apparatus opens up the words to new meanings that exist outside instrumental relationships.

Sharits flicker also takes apart the word itself further releasing it from the language of administration. In later films such as N:O:T:H:I:N:G or T,O,U,C,H,I,N,G, Sharits uses lapses in the rules of punctuation to create titles that vibrate uncertainly between words and letters, between meaning and the material marks from which meaning derives. The letters clearly spell a word that refers to a signified, yet the capitalization of the letters and their separation by colons or commas emphasizes the letter as such. With a semantic fluttering that corresponds to the flickering light of the single frame film, the letter alternates between material mark and its syntactical role in the creation of meaning. *Word Movie* initiates this semiotic disintegration. Words flash past us, but the only thing that remains legible is a single letter that is also clearly a constituent element of the flashing words. As the only thing we can recognize with any certainty, the letter obtains a visual weight that opposes the ephemeral blur of passing words. Like the letters separated by punctuation in Sharits' film titles, the letter in *Word Movie* tantalizes us with the potential of semantic closure yet also maintains its status as a mute mark. Sharits' letters and words that flit past us as a result of the malfunctioning apparatus refer to the possibility of functionalized language but resist that order. These images remain open to our active attempts to produce new linkages of sense. Marcuse refers to these variable connections between

the word, letter, and meaning as “mediations.” Mediations keep language permeable to critical thought, “the process of cognition and cognitive evaluation”⁸⁰ that undoes the strictures of technological rationality.

Like Sharits, Paik also causes his technology to malfunction. In his afterlude to the Galerie Parnass exhibition, Paik proudly explains how he has manipulated the actual circuitry of the televisions to create the effects seen on the screen.⁸¹ At the level of hardware and wiring the circuit directs the flow of electrons in specific ways to produce particular results. The circuit performs according to a functional logic in which hardwired parameters determine the path the electrons will take. What one then sees on the television screen is an operational form that embodies the instrumentalization of Marcuse’s technological rationality.

Yet the operational forms of Paik’s prepared TVs have more to do with a misfiring of television’s communicative potential. While an extension of Cage’s prepared pianos, they are inflected by a disruptive rather than generative force. These televisions do not seem like extensions or permutations of the television as much as broken and malfunctioning TV sets. The installation itself, with television sets upended and scattered about the floor, is reminiscent of the disarray of broken sets and dismembered parts in a television repair shop. The technology and images of the prepared TVs reiterate the disorder and chaos of their installation. As he relates in his written afterlude to the exhibition, Paik is pleased that what he has done is more than just a turning of knobs that any television set owner could perform. Instead, he has

⁸⁰ Ibid., 85.

⁸¹ Nam June Paik, “Afterlude to the Exposition of Experimental Television,” in *Nam June Paik: Videology, 1959-1973*. (Syracuse, N.Y.: Everson Museum of Art, 1974).

broken the apparatus' working: "I am proud to be able to say that all 13 sets actually changed their inner circuits...Not one is the simple blur, which occurs, when you turn the vertical and horizontal control-button at home."⁸² The tone of the language in this section of the essay emphasizes this violent dimension. He calls these manipulations the "perfect crime," an untraceable act because anyone could perform the electronic modification and get the same thing. This is "negative Television" that destroys the image. And finally, the "13 sets *suffered* 13 sorts of variation" (my italics). Paik summarizes the malfunction thematized by the prepared televisions in *Rembrandt Automatic*, a television set that, already dismantled by Paik's meddlings, arrived unable to perform as Paik wished. Instead of excluding it from the exhibition, Paik merely turns its face to the floor, hence amplifying its multiple levels of dysfunction.

Paik disrupts the technological order by disturbing the underlying logics of television and causing them to function in ways other than the order's rank operationalism. According to David Joselit, Paik's "malignant procedures,"⁸³ what I refer to as the dysfunctioning operational form, reconfigure television's fundamental relationship between the network and the commodity. For Joselit, the television functions as both a commodity and an animator of the commodities it pictures while at the same time opening onto the networks of information being broadcast to the set. Through the lens of bio-politics and structuralism, Joselit interprets Paik's intervention as a virus that infects and reorganizes the relationship between network and commodity from within. Like Duchamp's readymades that turn commodities into

⁸² Ibid.

⁸³ Joselit, *Feedback*, 48.

signs of art, Paik's dancing patterns and waveforms embody a shuttling back and forth between the object and the immaterial network. The network's unstable motion impinges on the stasis of the commodity while the network itself becomes visible in the flickering waves on the screen. For Joselit, this is what Paul Virilio calls a trajectory act in which perceptual regimes switch between the subjective and objective. Paik's critical gesture is in how he "erodes distinctions between people and objects in favor of a situational theory of action."⁸⁴

While I agree with Joselit's reading, I would like to suggest that the trajectory is itself a critique of the technological order made possible by Paik's dysfunctional operational form. The commodity and network are squarely located in Marcuse's administered society. The commodity is Marcuse's false need or what Joselit describes as "the paradigm of consumer society...an objectified figure of desire."⁸⁵ Similarly, the network "as a centralized source of information that is uniformly broadcast to a multitude of individual receivers,"⁸⁶ operates according to the logics of productivity and efficiency while communicating those same principles. The two terms in the commercial institution of television are themselves linked in a functional relationship, the use of the network to sell the commodity and the use of the television set as a commodity to access that network. By breaking the electronic circuits that enact the functional relationship Paik also breaks that relationship. The commodity and network are no longer merely means that are instrumentalized toward the ends of the technological order. They become observable in themselves and their trajectory

⁸⁴ Ibid., 5.

⁸⁵ Ibid., 3.

⁸⁶ Ibid., 11.

association suggests an attention to the nature of the relationship rather than the end to which operationalism would drive that relationship. In this way, Paik's dysfunctional operational form allows for new kinds of associations and results to emerge from the medium's material and processes that surpass a rationalistic means/ends calculation.

INDETERMINACY AND THE DYSFUNCTIONING OPERATIONAL FORM

As stated earlier, one of Marcuse's concerns is that the machine process and its "embodiment of rationality and expedience" subsumes the individual's thought. Cognitions and the concept itself become identified with the technological order's instrumental rationality so that anything that cannot be thought according to this instrumentality is irrational and valueless. By causing the operations of technology to fail, Paik and Sharits divert those operations away from their highly ordered ends and introduce indeterminacy. Indeterminacy, the instability between the technology's processes and those processes' outcomes, is a way for unexpected results to emerge that cannot be dictated by the technological order. These anomalies correspond to Marcuse's "mediations" and are ways to both disturb the individual's instrumental relationship to that technology while seeding subjective responses that exceed regulation by the rational order. Indeterminacy caused by the breakdown in the operational form is an important factor in how Paik and Sharits engage their subjects.

Paik's indeterminacy is influenced by Cage's use of the technique to revitalize a subject controlled by traditional modes of composing and listening. Cage associates routine hearing with the thinking imposed by conventional composition and concert attendance, a kind of cognition that might have troubled Marcuse. Cage sought to remove sound and hearing from a tired rationality and to hear sound as such, or as he

says in his “Lecture on Nothing,” “to hear the old sounds—the ones I had thought worn out, worn out by intellectualization,” so that “if one stops thinking about them, suddenly they are fresh and new.”⁸⁷ In order to stop thinking about and hearing sound in this limited mode, Cage develops a variety of aleatoric compositional techniques that free sound from worn out, intellectualized musical conventions and raise so-called “noise” to the level of aesthetic appreciation. His attempts culminate in a work like *Winter Music* (1957) in which every moment of the performance is decided at the time it is actually played. The musician is free to select both the page of the score and the notes on that page that they will play. In this way, not only is the work’s composition freed from predetermined ideas but the audience will also hear something different each time the work is played.

Paik engages with Cage’s indeterminacy through the Fluxus event score, which itself has a highly suggestive relationship to scientific rationality. The event score is a notation that produces the action or outcomes in Fluxus performances. Derived in part from Cage’s own indeterminate musical scores, George Brecht links the score to the Fluxus event in 1959.⁸⁸ As Liz Kotz has pointed out, Brecht’s training as a chemist resonated with the scientifically grounded practice associated with electronic music of the time. Brecht would graph and diagram sonic phenomena into corresponding mathematical symbols causing a “scientific breakdown of sound properties into

⁸⁷ John Cage, “Lecture on Nothing,” in *Silence: Lectures and Writings* (Middletown, Conn.: Wesleyan University Press, 1961), 117.

⁸⁸ Kristine Stiles, “Between Water and Stone: Fluxus Performance: A Metaphysics of Acts,” in *In the Spirit of Fluxus: Published on the Occasion of the Exhibition*, ed. Janet Jenkins, 1st ed (Minneapolis: Walker Art Center, 1993), 66.

quantifiable spectra...”⁸⁹ Such an approach suggested a new way of compositional notation that depended on the measurable properties of sound such as frequency or intensity level and can be seen as contributing to the event score’s “quasi-instrumental forms of lists and instruction...”⁹⁰

Paik created his own event scores and performed event scores composed by others. For example, his *Serenade for Alison* (1962) is a list of directives to take off variously colored panties and do different things with them such as putting them on the wall or stuffing them in the mouth of a music critic. Paik’s *Zen for Head* (1962) in which he dunks his head in paint and drags it across a long sheet of paper is a performance of La Monte Young’s *Composition 1960 #10 to Bob Morris* that consists of a single instruction: “draw a straight line and follow it.” In its directions, the event score participates in a functionalist logic that directs the performer in their action. But the simplicity and brevity of the score leaves the action open to countless interpretations. Because the score does not call out the specifics of its execution, e.g. the materials to be used, the place of the performance, the performance time, or even the particular gesture to enact the score, these elements must come from outside the score’s limitations. Within the operations of the instructions a gap emerges in which the performer must insert their own ideas in order for the performance to be realized. The subject emerges as not only enactor but also a creative force behind the work.

The creative indeterminacy and its effect on the viewing individual drives Paik’s interest in his malfunctioning televisions. Paik is fascinated by the visual

⁸⁹ Liz Kotz, “Post-Cagean Aesthetics and the ‘Event Score,’” *October* 95 (Winter 2001): 65.

⁹⁰ *Ibid.*, 61.

output that his errant manipulations of the TV's electronics produce, especially their unpredictable and indeterminate nature. Paik clearly states this when he writes: "INDETERMINISM and VARIABILITY is the very UNDERDEVELOPED parameter in the optical art, although this has been the central problem in music for the past 10 years..."⁹¹ He goes on to define the specifics of this variability in his prepared television sets as resulting from both the changing nature of the broadcast image and his manipulations to the television circuitry that would change the broadcast signal in unpredictable ways. The broadcast image would have been recognizable in a group of four televisions that variously inverted or rotated the image and distorted it with sine-wave vibrations.⁹² Pictures recognizable as coming from a television station could not be seen on the other television sets, even though the broadcast signal provides the basis for their variations. *Zen for TV* shows nothing but a luminous white stripe across the center of the tube set on end (fig. 2.10). Paik introduced a second kind of variability that changes the broadcast signal through external sources such as tape recorders, radio receivers, microphones, and the tuning and volume controls on the TVs. In these cases, changes in the inputs, like volume level or the presence of sound coming through a microphone, precipitate changes in what is seen on the tube. Variability here occurs at two points: the fluctuating input signal and the morphing image on the screen as a result of the input. For example, the volume control of an attached radio increases or decreases the size of a white dot on the screen of *Point of*

⁹¹ Paik, "Afterlude to the Exposition of Experimental Television."

⁹² Decker-Phillips, *Paik Video*, 36.

Light. Kuba TV includes an audiotape that changes the size of the picture based on the amplitude of the signal from the tape.

Paik's TV/body hybrids can also be read as a kind of indeterminate relationship between technology and the body. Many readings of Paik's collaboration with Moorman see the TV/body hybrids as an effort to harmonize technology and the human body, to extend the human body by melding it with the logics of the machine. Given Paik's own performances as an unbalanced individual with tendencies to harm himself, it is easy to provide a counter-reading of the Paik/Moorman collaborations in which the body is troubled by technology rather than fused with it.⁹³ What is striking about these hybrids and performances is the burdensome and uncomfortable nature of the fit between body and television and the difficulty of the performance's execution. *TV Bra for Living Sculpture* uses straps of clear vinyl wound about Moorman's chest and safety pins to affix the two small television sets to her bosom (fig. 2.11). The straps and safety pins have an amateur and decidedly non-technological quality to them while they imprison and constrict Moorman's body. Similarly, the small monitors that compose *TV Glasses* (1971) perch precariously on Moorman's face. The eyeglasses seem to require a great deal of effort on Moorman's part to balance them while they appear to impede her vision and movement as much as enhance it (fig.

⁹³ The most severe example of Paik's tendency toward bodily destruction would be his *Cutting My Arm* performed at the Judson Gallery's *Twelve Evenings of Manipulations* in 1967. In this action, Paik cuts small lines on his arms with a razor blade until blood seeps through. While Paik does this, Moorman plays cello lying on her back. Here, the harmed body imagined or threatened in Paik's performances is fully realized in the lacerations on his arms. It is also interesting, that Paik involves Moorman as an artistic collaborator in and witness to his self-destructive behavior. Even though there is no television or video technology involved, Paik makes explicit in *Cutting My Arm* the theme of bodily harm and destructive change that will tacitly pervade his more technological collaborations with Moorman. See Elly Dickason and Geoffrey Hendricks, "Geoffrey Hendricks," in *Remembering Judson House* (New York: Judson Memorial Church, 2000) for an accounting of the performance.

2.12). *TV Cello* is an accretion of three television cathode ray tubes, two of them larger than the third (fig. 2.12). Moorman would play the contraption as she would play a traditional cello making it necessary for her to support the weight of three cathode ray tubes against her body, balance and manipulate the large Plexiglas boxes that enclose the tubes, and coax sound from the device. Clearly the equipment is cumbersome and unwieldy turning what would usually be a graceful collaboration between performer and the light-weight-by-comparison cello into a laborious task. The physical addition of power sources, cables, and reception or recording equipment to make the *TV Cello* function would further complicate the performance apparatus. One can also imagine the technical difficulties inherent in these amateur inventions. Just getting them to work would have entailed a large amount of effort, trial, and error.

Writers like Katherine Hayles and Donna Haraway offer an alternative reading of this naturalized fusion of human and machine. For these critics, the cyborg is an entity that productively troubles the space of possibilities between humanity and its technologies. The cyborg is a place where new subjects can emerge that no longer have to conform to outdated theories of individuality and self-presence. Cyborgs offer a “pleasure in the confusion of boundaries”⁹⁴ between such dichotomies as human/machine, natural/unnatural, physical/non-physical that seek to resolve themselves into an ideological unity or wholeness. By challenging these distinctions, the cyborg provides the subject with new models for thinking difference and fusions.

⁹⁴ Donna Haraway, “A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s,” in *Feminism/Postmodernism*, ed. Linda J Nicholson (New York: Routledge, 1990), 91; Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago, Ill.: University of Chicago Press, 1999).

Paik's and Moorman's hybrids point to these unsteady spaces between the technological and the human. The imprecision and messiness of Paik's straps and fasteners suggest an instability in the relationship between body and technology, a connection that has yet to be finalized and that needs to be tested. The uniqueness of Paik's and Moorman's TV/body cyborg makes it more of an experiment than a design ready for the assembly line. As an experiment, the cyborg can fail as easily as it can succeed. The subjective element of the cyborg is called upon to constantly negotiate the fit between body and hardware, to adjust, experiment with, and modify the various connections in order to make the contraption work. This negotiation is always indeterminate in the same way that any experiment may reveal unpredicted results.

There is an effort and labor in Moorman and Paik's interaction with the technology that calls attention to a constantly evolving connection between body and machine. The individual human subject must toil to make the connection a success. Moorman's efforts to balance *TV Glasses*, to manipulate and play *TV Cello*, emphasize the work that is necessary on the subject's part to realize an effective coordination of human and technology. Unlike the labor of the production line that has been analyzed, perfected, and generalized to a large and anonymous workforce, the Moorman/Paik hybrids depend on a single individual to constantly struggle through the relationship between cumbersome and foreign materials and the fragile human body. Whereas technology may have led to the alienated labor of the factory, this is technology that returns control to the individual. Again there is indeterminacy here in the same way that an individual worker may come up with new ways of interacting with materials and processes. In their experimental hybrids, Moorman and Paik labor

to make adjustments from moment to moment with the results never assured or expected. While the subject engages with technology and its necessary operational logics, their active experimentation introduces new variables that can divert such technology from its preconceived ends.

In Sharits' films, the flicker introduces the element of indeterminacy, that like Paik and Moorman's cyborg, destabilizes the technological order. Joseph points out how the variable effects of the flicker can be used to circumvent determined modes of communication. In his discussion of Tony Conrad's film *The Flicker*, Joseph notes Conrad's interest in the flicker as a neuro-physical intervention that aligns it with a "post-Fordism, characterized by informatization, automation, immaterial and affective labor, and the flexible managerial involvement of the worker's entire personality."⁹⁵ Within the administered society, the flicker itself could be instrumentalized to control subjects. But as Joseph points out, the purpose of the flicker and devices such as the Dream Machine were meant to present a sensate experience that would exceed regulated perceptual norms associated with other forms of media and "open up a complex, variegated, and differential form of perception and, ultimately, thought that would effectively counter perceptual and ideological standardization."⁹⁶ The subject that is called forth by the flicker or flashing lights of the Dream Machine is able to remove themselves from technological regulation because the effects are indeterminate and variable. If as Joseph points out, the flicker was meant to produce its effects within the viewer's physiology, then different people would experience

⁹⁵ Joseph, *Beyond the Dream Syndicate*, 303.

⁹⁶ *Ibid.*, 312.

different results based on their unique perceptual frameworks and physiology. Devices such as the Dream Machine allowed the user to modify and interact with it in unlimited ways. Here the subject could contravene the management effects of media through their own variable actions and responses to the flicker. Conrad saw his flicker as promoting new modes of attention that would lead to new modes of thought.⁹⁷

Sharits recognizes that the techniques of his films, like Conrad's, could be operationalized as a form of control, they "could be used as propaganda or brainwashing techniques if they were forced upon people in situations where the person didn't have the option to withdraw from them, and in that sense it's a bit dangerous."⁹⁸ But Sharits evades this threat through the indeterminacy introduced by the flicker. As already described, his Fluxfilms *Sears Catalogue* and *Word Movie*, use the flicker to produce a semantic disturbance rather than the neuro-physical disturbance of Conrad's film, yet the results are just as variable. As conventional codes of advertising and language are dissolved by the dysfunctioning operational form of the flicker, the viewer is thrown back on their own devices for making meaning of what they are seeing. In the same way that Conrad's flicker, according to Joseph, elicits unique responses from the viewer, then Sharit's viewer would also come up with highly personal interpretations of what they are seeing. These individualized responses cannot be determined by any instrumental logic as they would vary from person to person. Accordingly, the flicker's dysfunctioning

⁹⁷ Ibid., 349.

⁹⁸ Paul Sharits and Jean-Claude Lebensztejn, "Interview with Paul Sharits," in *Paul Sharits*, ed. Yann Beauvais (Dijon: Presses du réel, 2008), 93.

operational form contravenes functionalist communications with new possibilities for meaning.

Sharit's use of the flicker in *Dots 1 & 2*, and his later flicker films use indeterminacy at a perceptual level in much the same way as Joseph argues for Conrad's *The Flicker*. Like Conrad, whose opening title card of *The Flicker* warns viewers about the possible negative effects of an epileptic seizure, Sharits is also interested in how his films project and elicit perceptual and affective states. While Sharits does not intend his flicker to produce seizures he recognizes their emotional valence when he states in an interview that "the flicker films are partly about anxiety; about my own anxiety. Aside from being interested in perceptual realities, perceptual thresholds and the possibility of creating temporal chords of color, a lot of it has to do with the projection of internal feelings."⁹⁹ *Dots 1 & 2* begins to hint at the potential drama of these perceptual effects. Whereas *Sears Catalogue* and *Word Movie* work at a symbolic level, the abstract nature of *Dots 1 & 2* addresses sight itself. The dots cannot be read as anything but pattern, a pattern whose strobe-like intensity and constantly changing configurations challenge the viewer's ability to coherently grasp the images as anything more than flashing light.

The perceptual instabilities begun with *Dots 1 & 2* are emphasized even more in later film installations such as Sharits' *Epileptic Seizure Comparison* (1976). Here he not only pictures the self out of control but also approximates that experience at a perceptual level for the viewer. Sharits intercuts solid and clear frames with images of patients in the throes of epileptic seizures. The contortions of the patients are reiterated

⁹⁹ Ibid., 83.

by the projection that flashes light and images of the disorderly body onto the screen in fragmentary and barely legible moments. The soundtrack consists of the aphasic utterances of the patients during their episodes. In installation, the film fragments itself into two projections, one over the other. The walls in the triangularly shaped room are covered in foil further scattering the light and images. This is not merely a representation of perceptual and cognitive changes in the clinical subjects of the film, but an elicitation of a perceptual experience in the viewer.

In these films, it may seem that Sharits is trying to represent and elicit a subject out of control, one whose conceptual grasp of the strobe like environment has become compromised. This is part of Sharits' goal but it is used toward a greater end. Sharits claims in an interview that:

I want to structure these works; not just to portray somewhat negative feelings, but also to create the conditions where a kind of ecstatic transcendence of normal, daily consciousness is available. I want to make something that I can look at that can affect me and create a world for me that for a while is refreshing, invigorating and stimulating...I have several inclinations—to portray the tortured self and provide also an experience for ecstatic feelings and transcendent emotions.¹⁰⁰

Sharits real objective is to return the viewer to a personal and subjective experience evoked by the flicker's dysfunctioning operational form. Both at the level of bodily sensation where the flicker might create a somatic disorientation, but also at an affective level in which the viewer might experience an ecstatic state. Like Conrad's flicker that evaded the technological order by making its effects on the viewer indeterminate, Sharits also seeks a viewer response to his malfunctioning operational form that is as varied as the individual and as ineffable as the transcendent. In this way

¹⁰⁰ Ibid., 89.

the viewer's interaction with the technology is no longer determined by its functionalism but is "refreshing, invigorating, and stimulating."

Paik and Sharits' inclusion in the Fluxfilms and their use of the dysfunctioning operational form reveals how obsolescence causes us to consider film, television, and video in constellation rather than separately. While obsolescence threatens all media, such a threat is particularly active during this period of Paik and Sharits' production given the cultural and economic dominance of film and television in American culture at the time. It is also the historical moment in which the threat of video reorganizes industrial patterns of production and social modes of viewing media. Obsolescence as symptomatized by the dysfunctional operational form also provides a path by which the technological order under which film and video necessary function can be resisted. This critique questions functionalist definitions of the medium itself and provides new ways for the individual to engage with technology in highly subjective and individualized modes. Film and television's interaction in a matrix of obsolescence requires that the medium's nature be considered in relationship to newer or older mediums rather than as an instrumental ordering of immanent qualities. Indeterminate results emerge from the dysfunctioning operational form that generates variable and personal responses on the part of the viewing subject. In the next chapter, I continue my investigation of the medium's nature and its subjective effects by turning to the videofilm, an object whose inclusion of both filmic and videographic imagery insists on the imbricated nature of the two mediums and elicits a highly creative response from the viewer.

JUD YALKUT'S VIDEOFILM AND THE SEARCH FOR AUTHENTICITY

Jud Yalkut met Nam June Paik in 1965 at Paik's Gallery Bonino exhibition. Over the course of a decade the two artists produced numerous videofilms, a term Yalkut uses to describe the artwork's combination of filmic and videographic images and processes. In *Turn, Turn, Turn* (1968), Yalkut's first collaboration with Paik, Yalkut includes manipulated film footage of a kinetic light sculpture by Nicholas Schoffer, a "lumia" light display by Julio LeParc, a stroboscopic light sculpture by USCO, and Paik's distorted televisions. Even though the images retain their filmic and videographic nature and are clearly recognizable as deriving from light sculptures and television broadcast content, the videofilm tends toward the delirious abstraction of the multimedia events frequently associated with the psychedelic counterculture of the time.

The videofilm's complexity is evident in Yalkut's curiously paradoxical statement about *Turn, Turn, Turn*: "There's a kind of sensory overload that happens to people when they first see that film, quite often; but once you see the film again another time I think you can get into a kind of meditative experience with it."¹ Yalkut's contradictory observation points to the variability and complicated nature of the altered state of consciousness so highly valued by the counterculture of the sixties. How can an audiovisual experience both overwhelm the senses *and* produce a sustained and focused concentration? It would seem that the experience either

¹ Seth Thompson, *Jud Yalkut on Immersive Environments*, 2005, <http://vimeo.com/15473151>. Accessed December 8, 2013.

immerses the subject in sensations believed to dissolve the ego into a pre-verbal or non-rational state or the experience makes the subject acutely aware of those sensations thereby heightening psychological coherence. Yalkut also tangles the role of mediums in his statement. Are the mediums meant to assault and overwhelm the subject in a wave of disorienting stimuli or should they be carefully composed in order to elicit the attention and attitude required for sustained concentration?

With this statement about his videofilms, Yalkut engages in one of the significant pursuits of the sixties, what I will refer to as the search for authenticity.² Immersed as he was in the counterculture, both as participant and interlocutor, Yalkut would use his technologically mediated art to investigate the nature of authenticity. In various guises, the search for the authentic self and experience arises in domains as diverse as the counterculture, psychology, and techno- and media cultures. Authenticity in the counterculture had two dimensions: a belief in a primary self liberated from socially imposed controls and an accompanying lucid and incisive perception of one's reality. Driving this search for the authentic was a pervasive sense that the political, ecological, and cultural problems of the moment were both cause and effect of a clouded consciousness. The political economy through its instruments of the media and commodification produced a false reality to which the unwary subject succumbed. In turn, our inability to see through this illusion propagated and maintained this ersatz existence. The editors of the inaugural June 1963 issue of the

² In this chapter, I consider the videofilm predominantly as an expression of Yalkut's artistic sensibilities. While the videofilms are generally described as collaborations between Paik and Yalkut with Paik providing the video distortions and Yalkut providing the filmed footage, Yalkut claims responsibility for editing the videofilm's overall structure. I believe that the relationships between the filmic and videographic imagery that interests me are a result of Yalkut's own concerns.

Psychedelic Review recognized the despotic and warped nature of society when they describe the psychotropic drugs being researched as “a means of transcending and overcoming many of the distortions which operate in the very society that has brought about such substances. It is now possible to affirm the general character of our social technocracy without succumbing to its totalitarian demands.”³

Penetrating the distortions leads to a new, more authentic subject state. The German poet and physician, Gottfried Benn, whose writings influenced the counterculture, describes a preconscious state of being in which the ego dissolves as a “defense against the beginnings of consciousness, its senseless imperative projects.”⁴ For Benn, reality is apocryphal, nothing more than a separation of our true self from the world and a result of the insufferable tensions such a division engenders. He cites various cultures and substance-provoked experiences in which this separation of the true self from the world is absent so that “...prelogical worlds still capable of giving fulfillment” can be realized.⁵

The removal of distortions and a return to an egoless state was accompanied by a more genuine perception of the world characterized by intense clarity and insight. The authentic experience allows the individual “to rise above his everyday self and achieve either some higher insight or some release from mundane concerns—or both.”⁶ Drugs like LSD could “raise the mind to high lucidity and yet at the same time

³ “Editorial,” *Psychedelic Review* 1 (June 1963): 3.

⁴ Gottfried Benn, “Provoked Life: An Essay on the Anthropology of the Ego,” *Psychedelic Review* 1 (June 1963): 49.

⁵ *Ibid.*, 50.

⁶ Editor’s introductory comment to Gerald Heard’s, “Can This Drug Enlarge Man’s Mind?,” in *The Psychedelic Reader. Selected from the Psychedelic Review. Edited by Gunther M. Weil, Ralph Metzner and Timothy Leary.*, ed. Timothy Leary, Ralph Metzner, and Gunther M Weil (New Hyde Park, N. Y.: University Books, 1965).

make the world it views appear fraught with an intensity of significance that everyday common sense cannot perceive.”⁷

The trend in psychology toward “self-directed goals in human motivation” and psychiatry’s “call for authentic existence, personal freedom, individual responsibility and self-determination” resonated with the advocates of the psychedelic experience.⁸ This was the moment of the encounter group and client-centered therapy, strategies that envisioned an authentic subject that could not only reveal hidden and often painful emotions, but could also accept those emotions as integral to the genuine person.⁹ This sincerity of perception and acceptance transferred to interpersonal relationships. Psychotherapists advocated that their own interactions in the therapeutic relationship be as honest as possible, acknowledging and accepting problematic issues like boredom or dislike as a way to arrive at sincere interactions. The encounter group also sought this authentic relationship between individuals with the belief that the more people could trust each to be real and genuine, the more one could find and accept their true self. Psychological acceptance of oneself and others as a realization of our authentic nature echoed in the countercultural tactics of be-ins, non-Western contemplative and spiritual practices, and the LSD trip.

Paradoxically, this search for a primary subject and experience free from the strictures of society turned to one of the most pervasive administrative instruments of that society, its technology. Technological intercession between the world and human

⁷ Ibid., 3.

⁸ “Editorial,” 2.

⁹ See, for example, Carl R Rogers, *Carl Rogers on Encounter Groups*, Harrow Books (New York: Harper & Row, 1973); Carl R Rogers, *On Becoming a Person: A Therapist’s View of Psychotherapy* (Boston: Houghton Mifflin Company, 1961).

perception of that world has its own contradictory relationship to the authentic. Authenticity of experience may be defined as the complete and transparent presence of the subject to their perceived object so that interceding mediums are invisible. But awareness of the medium may have its own reality and authenticity, an honesty born from the understanding of and investigation into how mediums intervene in our knowledge of the world.¹⁰ This conundrum was rehearsed time and again in the counter- and technocultures of the time. For researchers of the psychedelic experience, the authentic, pre-logical state of being was actually the result of a heavily mediated encounter with technological advances in pharmaceuticals, "...one of the most outstanding achievements of technological society."¹¹ With references to the "neopsychedlic" or "cyberdelic" techno-house parties of the 1990s, Erkki Huhtamo links our fascination with immersive environments to the counterculture of the sixties, including its use of drugs to achieve states of pure bodily sensation. For Huhtamo immersive environments produce authenticity through "the annihilation of the difference between reality and its representation."¹² Technological mediums vanish in order to produce an illusion of immediate contact between the subject and their surroundings. Yet as we saw in chapter one, artists like Gillette, Schneider, and Ryan flaunted such mediating devices in order to expose how they emplaced the subject in the mediasphere. The authentic experience for these artists is the revelation of

¹⁰ Jay David Bolter and Richard Grusin argue that this search for authenticity joins the two contradictory logics of media culture, what they refer to as immediacy and hypermediacy. See their *Remediation: Understanding New Media* (Cambridge, Mass.: MIT Press, 2003).

¹¹ "Editorial," 3.

¹² Erkki Huhtamo, "Encapsulated Bodies in Motion: Simulators and the Quest for Total Immersion," in *Critical Issues in Electronic Media*, ed. Simon Penny (Albany: State University of New York Press, 1995), 160.

technology's role in our personal and social awareness and how such technology can enhance that awareness.

Yalkut's probing of the authentic experience in his videofilms also opens onto the debate within artistic discourse at the time as to the nature of the medium and the kind of viewing experience the subject should have in front of the artwork. The high modernists posited self-presence as the authentic experience while minimalists and post-minimalists argued for the phenomenological and relational nature of true experience. The medium could be that which contained the experience, whose own immanent critique constituted the immediacy of the encounter between viewer and artwork, or it could be an expressive device interpenetrated by material processes and cultural and social concerns. It was also at this time that a search for new ways of thinking about the medium became necessary as its very nature was thrown into disarray in what Rosalind Krauss would term the post-medium condition.

Yalkut's videofilms address this thorny problem at the heart of media culture: how does an individual have an authentic experience in a mediated world? It is almost impossible to understand our lived reality without the direct or indirect intercession of electronic media. As the most dominant experience filters in the sixties, the lensing of events, knowledge, and values through film and video's representations not only present reality, but fundamentally alter the way the individual lives and thinks their life. While all of our perceptions and experiences of the world are mediated in some way, if nothing else by our own sensory organs and cognitive apparatuses, questioning the relationship between the mediated and the authentic is particularly relevant at this

moment in the sixties when artists like Yalkut were attempting to use electronic mediations to elicit seemingly unmediated effects.

Like other constructs I investigated in previous chapters, the answer to the question lies in rethinking the construct itself. The contradictory nature of Yalkut's videofilms and his divergent comments suggest an instability in defining and realizing an authentic experience. While these videofilms partake of the delirious abstractions and disorienting motion of the multimedia show thought to result in pure experience, they also contrast the perceptual regimes of film and video to show how each medium constructs their experience differently. Yalkut reveals authenticity as contingent, transforming the construct from an immanent quiddity into a subjective effect built through the interplay of media, perception, and discursive beliefs. Yalkut still believes in an authentic experience but such an experience results from a perspicacious analysis of the qualities of differing medium combined with a balancing of physical stimuli and analytical cognition. Authenticity lies in the viewer's own engaged and imaginative response to the differing representational experiences presented by video and film.

I consider three videofilms in this chapter, each with a different approach to analyzing and constructing the authentic. *Turn, Turn, Turn* is the most clearly indebted to multimedia show norms of ecstatic motion and light; yet the videofilm is also a careful analysis of the different qualities of film and video, what I call a creative differentiation, in which the affective and cognitive components of the film are carefully balanced. Yalkut was closely associated with ambassadors of the psychedelic experience such as Alan Watts and Timothy Leary and the multimedia environment group USCO, entities that contributed significantly to the psychedelic experience and

its aesthetic. I analyze the contradictions in these group's ideas and practices to elucidate Yalkut's own divergent claims and begin to explain how he resolves the conflict. László Moholy-Nagy, an influence on Yalkut as seen in the footage of a kinetic light sculpture in *Turn, Turn, Turn* and Yalkut's own statements, was also interested in the weighing of affective and cognitive domains in his artwork and education. Like Yalkut, Moholy-Nagy saw art as a means to affect consciousness, yet his theory was grounded in a socialist materialism that focused on the effects of mediums in interaction as a way to avoid the overspecialization of industrialized society. I use Moholy-Nagy's vision in motion, the interplay of medium and their effects, to analyze Yalkut's own creative effects in *Turn, Turn, Turn*.

Electronic Moon does not have the rapturous and bewildering dynamisms of *Turn, Turn, Turn*. It is a quieter film that meditates instead on the differing representational logics of the filmic and videographic image: film's indexical realness and video's electronic simulation. Through its imbrication of filmed images of water, electronically generated artificial moon, and shadows that play across the video monitor, *Electronic Moon* troubles the distinction between the real and the simulated while building an authenticity that resides in the interplay of the two. I draw on Andre Bazin's theory of film as a contiguous extension or modeling of reality to explain the indexical reality posited by film. But I also show how this indexical reality is itself unstable. Rosalind Krauss' theorization of the shifter, the linguistic term like "you" or "I" that points to a real entity but whose delineation varies with context, demonstrates how fraught with uncertainty the index can be. If Yalkut troubles the notion of an authentic nature by showing us two versions of it, filmed water and shadows and an

electronically generated moon, Ralph Steiner's film *H2O* suggests a different kind of authenticity generated by the viewer's own subjective response to what they are seeing. Steiner's film, whose shots of water bear a remarkable resemblance to the opening shot in *Electronic Moon*, again reveals the uncertainty lurking behind the indexical authentic in the way its images shuttle between recognizability and abstraction. What is authentic for Steiner and Yalkut is the viewer's subjective pleasure in watching the real transform into something else.

In *Beatles Electroniques*, Yalkut considers the ambivalent nature of authenticity by examining the different logics used to represent and construct the identity of one of the most heavily mediated performers of the sixties, the Beatles. Here the logics of film and video representations assist with the projection of the Beatles as authentic artists even as they are known almost solely through their mediated images and music. Philip Auslander theorizes liveness in rock culture as a dialectical and constructed relationship between the electronically mediated and live performance. The bona fide rock group is a curious circuit of studio recordings made authentic by live performance, a performance that then authorizes as real other studio recordings. Yalkut uses film and video in *Beatles Electroniques* to play out this same relationship in which one medium's "artificiality" is used as a foil to project the other medium as real or authentic. If the authenticity of the Beatles and their images is merely an effect, then is there anything honest or genuine about our response to them? Scholars who have written about our relationship to the mediated image like Richard Dyer and Thomas Crow answer this question by saying that these images, no matter how constructed or removed from actual experience, still generate deeply subjective

responses in the viewer. Emotions and ideas that are meaningful to the perceiving subject are contained in and elicited by these representations. Again, as with *Turn, Turn, Turn* and *Electronic Moon*, Yalkut reveals authenticity as a construct in *Beatles Electroniques* while suggesting that the real authentic experience always lies in our imaginative and creative response to the mediated image.

AUTHENTICITY AND PSYCHEDELIC MULTIMEDIA

Turn, Turn, Turn is a curious artifact of the psychedelic era. As Yalkut's description of the videofilm suggests, its images and structure allude to the sensory stimuli of the multimedia shows so closely associated with the psychedelic experience; yet the videofilm mutes the delirious outcomes thought to emerge from the show's sensorial bombardment. What most likely equates the videofilm in Yalkut's mind with the sensory overload of psychedelia is its use of superimpositions, abstracted shapes, glowing light and color, and the spinning and dancing movements of the light sculptures and electronically generated lissajous curves (figs. 3-1 to 3-3). Appearing in the space of the videofilm however, these devices are rather contained, circumscribed by both the film frame and their obvious derivation from sources such as light sculptures and television screens. The images' recognizability dampens any hallucinatory effects. Additionally, the videofilm is clearly organized and linearly progresses from filmic images in the first part of the videofilm to videographic images at the end. Rather than merging image types or displaying them simultaneously, Yalkut markedly distinguishes between the two mediums in the videofilm's organization by displaying them one after the other. Compared to a multimedia

environment of manifold and simultaneous types of projections, live performance, and sound, *Turn, Turn, Turn*'s single channel format appears static, even boring.

In this section, I consider *Turn, Turn, Turn*'s phenomenological interaction of images and mediums in relation to the multimedia environment and the psychedelic experience's claims for authenticity. Yalkut's videofilm reveals the complexity and contradictions of the counterculture's theory of the authentic subject and how sensory phenomena are supposed to elicit that subject. Do sights and sounds overwhelm the subject's conceptualizing functions thereby thrusting them into a preverbal and prerational state? Or do they present themselves as objects of contemplative meditation that cohere in heightened awareness and understanding? Yalkut's own antithetical position are echoed in other significant members of the counterculture such as Alan Watts, Timothy Leary, and USCO. While these figures are frequently touted for their celebration of the hyperstimulating effects of LSD and the multimedia show, they also considered a more contemplative and coherent subject within the psychedelic experience. Yalkut was equally influenced by László Moholy-Nagy's highly rational and pedagogical analysis of the effects of materials on the individual and society. Through recourse to these figures and their attempts to level the purely sensual with the cognitive as a way to define an authentic response, I argue that *Turn, Turn, Turn* operates through a creative differentiation in which mediums and their images' qualities are clearly displayed and compared. Rather than submerging the individual in a tidal wave of sensation, the videofilm seeks a response that balances the individual's cognitive and affective faculties. The authentic experience emerges

from the viewer's imaginative interaction with the videofilm that elicits new perceptions and thoughts from the relationship between mediums and images.

Yalkut aligns himself with the countercultural movements of the fifties and sixties when in an interview he states, "I've been a bohemian, I've been a beat, I've been a hippie..."¹³ His description of his oeuvre as a spiritual process of transformation and "a possible means of conveying the transcendent nature of life and the observed universe through the media"¹⁴ is in keeping with the counterculture's own rhetoric of self and world. Yalkut was also on the forefront of constructing and documenting the psychedelic era. In 1965, Yalkut became the resident filmmaker for USCO, one of the groups whose light shows and multimedia environments defined the psychedelic aesthetic. In his collaborations with USCO and their multimedia events, Yalkut performed with Timothy Leary and at the LSD conference at the University of San Francisco.¹⁵ His film *Metamedia* (1972) includes footage of Leary's psychedelic celebration *The Resurrection of Christ* and Ken Dewey's *Red, White, and Blue* car collision happening in Woodstock.¹⁶ Direct references to the psychedelic experience are made in Yalkut and Paik's videofilm *Electronic Fables* in which we hear Leary reciting from one of his writings. Current curatorial practice continues to locate Yalkut's videofilms in relationship to "the psychedelic sensibility of the 1960s."¹⁷

¹³ Keith Pandolfi, "The Beat among Us: Jud Yalkut," *Impact Weekly* 8, no. 15 (2000).

¹⁴ Seth Thompson, "Jud Yalkut: A Video Beachcomber," *Afterimage* 32, no. 2 (October 9, 2004): 8.

¹⁵ Pandolfi, "The Beat among Us: Jud Yalkut."

¹⁶ Chrissie Iles, *Dream Reels: Videofilms and Environments by Jud Yalkut*. (Whitney Museum of American Art, 2000).

¹⁷ *Ibid.*

Given Yalkut's participation in the counterculture and its multimedia events, we can consider *Turn, Turn, Turn* in the context of multimedia show interpretations derived from theorists and chroniclers of the psychedelic experience. These writers conceived the psychedelic experience as an authentic state in which the subject becomes acutely aware of the relationship between their sensing body and the body's environment. In fact, as we have seen with Ryan and Bateson's cybernetic subject, the self was actually the intersection of the body and its surroundings. Alan Watts' "field theory" of man's behavior describes the individual:

...not as a freely moving entity within an environment, but as a process of behavior which is the environment...If we reduce the whole business simply to the process of doing, then the doing, which was called the behavior of the individual, is found to be at the same time the doing which was called the behavior of the environment."¹⁸

Psychedelic substances elicited such an awareness characterized as "depersonalization, loss of ego-boundary, or regression to the oceanic feeling."¹⁹ Timothy Leary similarly describes the psychedelic experience, as a subjective dissolution, a "transcendence of verbal concepts, of space-time dimensions, and of the ego or identity."²⁰ Since it is the "symbolic drives and mental connections" that bind us to an anodyne reality,²¹ the authentic consciousness is necessarily asymbolic and devoid of intellection.

¹⁸ Alan Watts, "The Individual as Man/World," in *The Essential Alan Watts* (Berkeley, Calif.: Celestial Arts, 1977), 41–42.

¹⁹ In the prefatory note to Alan Watts, "The Individual as Man/World," in *The Psychedelic Reader. Selected from the Psychedelic Review.*, ed. Timothy Leary, Ralph Metzner, and Gunther M Weil (New Hyde Park, N. Y.: University Books, 1965), 47.

²⁰ Timothy Leary, *The Psychedelic Experience: A Manual Based on the Tibetan Book of the Dead*, Psychedelic Monograph 1 (New York: University Books, 1964), 11.

²¹ Timothy Leary, "The Molecular Revolution," in *Turn On, Tune In, Drop out* (Berkeley, CA : [S.I.]: Ronin ; Distributed by Publishers Group West, 1999), 135.

Yalkut means for the “sensory overload” of *Turn, Turn, Turn* to trigger this consciousness of the self as environment. One of the tenets of the multimedia show was to use audiovisual bombardment to preempt conception and semiosis, thereby leaving the subject floating in a sea of pure sensation. Sheldon Renan connects the light show’s genesis to the advent of LSD and its use to experience altered modes of consciousness.²² For Renan, the overwhelming stimuli of the lightshow are the key to approximating the LSD trip. Thomas Albright also posits the light shows of the San Francisco Trips Festival as expressions of the drug-induced visions of mind altering substances, but he is more specific in the consciousness effects it has. Albright relates the art and light shows of the psychedelic era to the pervasive effects of television and McLuhan’s claim that TV’s non-linearity would produce “a new vision governed by the principles of tapestry, mosaic, or collage.”²³ Taking up this theme, Gene Youngblood considers the light shows as a manifestation of synaesthetic cinema, a cinema of simultaneous perception that functions in “the nonuniform, nonlinear, nonconnected electronic atmosphere of the Paleocybernetic Age.”²⁴ According to these accounts, the multimedia show’s speed and multiplicity of images, its somatic impacts of noise and light, make linear rationalization impossible thereby throwing the participant into a state of primal, direct sensate experience.²⁵

²² Sheldon Renan, *An Introduction to the American Underground Film*, 1st ed., Dutton Paperback (New York: Dutton, 1967), 229.

²³ Thomas Albright, *Art in the San Francisco Bay Area, 1945-1980: An Illustrated History* (Berkeley, Calif.: University of California Press, 1985), 169.

²⁴ Youngblood, *Expanded Cinema.*, 77.

²⁵ The belief that imagery and sound can elicit or produce the altered state of the LSD trip developed in part at Leary’s retreat in Millbrook, New York where artists used visual imagery to enhance the trip and soften the drug’s effect as it began to wear off. Allen Atwell covered the walls of the house with murals meant to convey the inexpressible experience. Projected light and images soon replaced Atwell’s static and one-dimensional paintings. Arnie Henden, for example, experimented with multiple slide projectors

Turn, Turn, Turn's spinning and delirious patterns of light disorient the viewer in much the same way as the multimedia show would, but it also provides a means by which the viewer could examine the workings of the experience. The videofilm's differing modes of perception and Yalkut's conflicting claims for the videofilm as both sensory overload and meditative experience uncovers the counterculture's and the multimedia experience's own confusion over what constituted the authentic subject and how that subject could be realized. The vision of a self afloat in a wash of sensation that provided the hermeneutic for the multimedia show was only one part of the psychedelic subject. Proponents of the trip coupled this pre-logical, sensory self with an analytical component in which the individual conceptually scrutinized their trip and cognitively integrated the experience into their conscious lives.

From the beginning, researchers of the psychedelic experience maintained a strong logical dimension in their work. In the best traditions of the scientific method

that bounced images off of mirrors and blurred and overlapped them, thereby creating bizarre juxtapositions and spatial dimensions. The movement and multiplicity of the reflected lights and images, the light's room-filling spatial qualities, and the way that projected images dissolve and merge in superimposition or juxtaposition was considered to be a much better approximation of the trip. See Alastair Gordon, *Spaced Out: Radical Environments of the Psychedelic Sixties* (New York: Rizzoli, 2008). According to one viewer the light images function as "re-creating and acid experience without the drugs," Michael Hollingshead, *The Man Who Turned on the World*. (New York: Abelard-Shuman, 1974, quoted in Gordon, *Spaced Out*, 26. With these light and slide projections at Millbrook, audiovisual phenomena make the leap from representing or creatively reimagining the visions and sensations of the trip to actually eliciting that experience through sensory bombardment. USCO visited Millbrook and "used strobe lights, kinetic sculptures, prisms, smoke and loud screeching sounds to create states of sensory overload" that would "vaporize the mind by bombing the senses," Gordon, *Spaced Out*, 29.

While stimuli can produce somatic effects—flashing lights inducing epilepsy or immersive moving images causing dizziness—it is hard to believe that such stimuli could produce the same effects as a psychoactive substance. It is more likely that trippers grasped and exaggerated the strong correspondences between the images and sounds of the multimedia presentation and their own LSD trips. The multiple, simultaneous stimuli of the light and image environment can easily be interpreted as a fusion of the senses into an undifferentiated sensorial experience. This could then be correlated to the synaesthesia of the trip, how "light, sound, touch, taste, and smell become a continuous warp," Alan Watts, *The Joyous Cosmology: Adventures in the Chemistry of Consciousness*. (New York: Pantheon Books, 1962); quoted in Gordon, *Spaced Out*, 20.

they skeptically asked, “Can trance-like insight produced by chemicals be the source of higher wisdom and creativity, like a kind of Instant Zen?”²⁶ Their investigations were driven, like all good researchers, by a need for proof that was lacking “especially since so many persons coming back from LSD can describe their experience only as indescribable.”²⁷ Already the search for the authentic subject was embedded in rationalist explanations. There was also some discrepancy in how such a state could be elicited. The sensory bombardment of the multimedia show thought to approximate or induce the trip was contradicted by researchers who advocated quiet and comfortable settings for the taking of LSD. Gerald Heard suggested that the ideal setting for the voyager should be “an environment that is neither aggressive nor austere, and in which he may feel at home, perhaps a quiet house surrounded by a garden.”²⁸ Leary also conceives the setting for the experience to be one that facilitates a positive, serene reaction with someone who can be trusted spiritually and emotionally:²⁹ “Unforeseen distractions and intrusions” should be minimized and “trust in the surroundings and privacy are necessary.”³⁰ In fact, most of Leary’s techniques for achieving expanded consciousness—sensory deprivation, yoga exercises, religious or aesthetic ecstasies—rely on the mind and body’s internal resources and minimize interaction with external

²⁶ Editor’s prefatory note to Heard’s, “Can This Drug Enlarge Man’s Mind?,” 1.

²⁷ Ibid.

²⁸ Ibid., 4.

²⁹ Timothy Leary, “M.I.T. Is T.I.M Spelled Backward,” in *Turn On, Tune In, Drop Out* (Berkeley, CA: Ronin ; Distributed by Publishers Group West, 1999), 71.

³⁰ Leary, *The Psychedelic Experience: A Manual Based on the Tibetan Book of the Dead*, 106.

stimuli.³¹ These devices depend on a muted sensory environment in which sense experience, to the degree that it is there, is carefully perceived and considered.³²

In addition to countering the sensory bombardment of the multimedia show with more meditative environments, these researchers also counterposed the sensation of the trip with the cognitive scheme necessary to transform the trip into something that can be used in day to day existence. Heard argues that by remembering and rationally processing the insights achieved during the trip, the individual can incorporate the experience “into his or her everyday living to bring it a ‘better order’.”³³ Heard’s use of the term “order” suggests a return to rationality inflected by the individual’s LSD-induced acuties. Indeed, it is the laborious processing of the experience that is most important for if the subject does not “...work with this enlarged form of reference, this creative schema,” then “the experience remains a beautiful anomaly, a gradually fading wonder...”³⁴

Leary also carefully differentiates and balances sensation and intellection in his rendering of the psychedelic experience. If his first directive is to turn on, to refuse the symbolic, TV-stage illusions of American social life and enter the realm of bodily

³¹ Leary, *The Psychedelic Experience: A Manual Based on the Tibetan Book of the Dead*, 11.

³² To the degree that the environment uses mass communication media such as film or video, Leary might be particularly wary. Leary is critical of television using it as simile and metaphor for the undesirable state of society. He instructs the reader to “detach yourself from the external social drama which is as dehydrated and ersatz as TV” and he uses the “fake-prop TV studio stage set” over and over again as a metonym for American reality. See his, “Start Your Own Religion,” in *Turn On, Tune In, Drop out* (Berkeley, CA: Ronin; Distributed by Publishers Group West, 1999), 3. Leary’s own experience with a multimedia environment suggests an aversion to the form. In his collaboration in 1966 with USCO at the New Theater in New York, Leary did not appear to appreciate the raucousness of the multimedia show in which the recitation of his “Tune in, turn on” speech was drowned out by an amplified Antonin Artuad recording. Leary must have been expecting something more structured or formal as USCO recalls Leary’s thinking to be outmoded and linear. See Gordon, *Spaced out*.

³³ Heard, “Can This Drug Enlarge Man’s Mind?,” 3.

³⁴ *Ibid.*, 10.

energies and sensation, he also directs the individual to tune in. In this stage, the subject will reenter “the fake-prop TV studio and initiate small changes.”³⁵ This is a return to rationality in which the non-rational, asymbolic experience of the trip is processed through the subject’s conceptual frameworks so that action in the material world can be taken and change enacted. Leary pairs highly rational and purposeful concepts with the pure sensation of the trip. According to Leary “the key concept of the psychedelic revolution is work...” so that “the more freedom, the more responsibility. The more energy released, the more structure is required.”³⁶ He frequently contrasts the work required of psychedelic drugs like LSD to “turn off” or escapist drugs like narcotics, alcohol, or nicotine and differentiates the requisite discipline of the psychedelic subject from the pleasure-seeking acidhead. Leary advocates balancing the rational with the primal state of pure sensation so that worldly action is informed by the sensory freedom of the trip.³⁷

³⁵ Leary, “Start Your Own Religion,” 5.

³⁶ Leary, “The Molecular Revolution,” 127.

³⁷ In his manual for the psychedelic experience, Leary describes another way in which the domain of pure sensation and rationality interact. Based on the *Tibetan Book of the Dead*, Leary formulates the psychedelic experience into three phases or *bardos*. The first *bardo* is the phase of pure awareness, free of conceptualizations and cognitions. The second *bardo* mixes the pure state with fragments of thoughts from what Leary refers to as the “external game reality.” In the third *bardo*, the subject reenters normative modes of thinking. It is in the second *bardo* that the individual achieves a delicate equilibrium between the primordial state of pure consciousness and the categories of conceptualization. Much like the dream, a product of unknowable desires and fantasies colliding with describable events and images from the individual’s lived experience, the second *bardo*’s hallucinatory pleasure results from the fanciful interaction of pure sensory phenomena and cognition. The elements of sensation and intellection interact creatively in unknown ways leading to the state’s “unlimited possibilities for...delightful sensuous, intellectual and emotional novelties” The voyager assumes a meta-conscious position in the second *bardo* for they must control the impingement of rationality on the free flow of experience. As Leary explains, “The experienced person will be able to maintain the recognition that all perceptions come from within and will be able to sit quietly, controlling his expanded awareness like a phantasmagoric multi-dimensional television set...” Far from an overwhelmed ego that loses coherence, the individual in the second *bardo* must exert control in order to creatively blend highly differentiated experiences of the rational and the irrational, the preconscious and the conscious. *The Psychedelic Experience: A Manual Based on the Tibetan Book of the Dead*, 47.

Yalkut's claim for *Turn, Turn, Turn* as both hyperstimulating and contemplative, both irrational and rational, infuses the tradition of the multimedia environment itself. Not all formulations of the audiovisual immersion ended with the dissolution of the ego. Some designers considered their settings as a new kind of coherent communication that spoke in the fractious and swift language of contemporary audiovisual media. Information was to be received simultaneously from different sources to approximate a more modern mode of perception and conception. Nonlinear models of communication were not meant to throw the analytical faculties into irreparable disarray as much as to rewire the subjects reasoning abilities. For example, the Eames' multimedia environments used the onslaught of images and sounds to establish new connections and generate new insights that could not be attained with single channel models of information transmission.³⁸ Viewers were supposed to be confused, but this confusion heightened awareness and promoted new modes of rational understanding for utilitarian ends. The Eames' displays were meant to be "visual models for matters of practical concern where linear description isn't enough."³⁹

Multimedia environments were also conceived to promote what Fred Turner calls a democratic personality, an enlightened citizen who could freely select from the rush of stimuli of the modern world and integrate those stimuli into a diverse, yet

³⁸ Beatriz Colomina, "Enclosed by Images: The Eameses' Multiscreen Architecture," in *Art of Projection*, ed. Stan Douglas and Christopher Eamon (Ostfildern, Germany: Hatje Cantz, 2009).

³⁹ Partial transcript of Norton Lectures. Box 217, folder 10, The work of Charles and Ray Eames, Manuscript Division, LOC, Washington, D.C. Quoted in *ibid.*, 44.

reasoned and unified, vision of society.⁴⁰ In order to counter authoritarian models of communication in which the subject passively receives a tightly controlled message, the multimedia surround liberated the viewer, allowing them to make rational choices about what and how to view. For instance, the array of photographic panels that filled the galleries of Edward Steichen's *Family of Man* exhibition theoretically invited the viewer to wander the space on their own, picking the images they wished to view, and establishing their own connections between images. The outcome would be a viewer individuated by their choices, yet much more aware of and embedded in a larger world. Far from overwhelming the subject, these types of environments used large numbers of images in immersive settings to elicit the viewer's cognitive faculties.⁴¹

Yalkut's statements about *Turn, Turn, Turn* and the videofilm's euphoric, yet measured, imagery reveal, even as they participate in, this seemingly contradictory figuration of the authentic subject in the history of multimedia presentations and theories of the psychedelic experience. Researchers of psychedelia harnessed the derealizing effects of the trip in order to produce a cognitively aware, even rational

⁴⁰ Fred Turner, *The Democratic Surround: Multimedia & American Liberalism from World War II to the Psychedelic Sixties* (Chicago: University of Chicago Press, 2013).

⁴¹ Even when the immersive surround was purposefully designed to disintegrate the ego, it could still elicit a newly integrated and rational subject. In his study of Andy Warhol's *Exploding Plastic Inevitable*, Branden Joseph suggests a subject position somewhere between dissolution and coherence. While he recognizes that the chaotic atmosphere of the EPI and other of Warhol's interventions were designed to disrupt traditional mores and identities, "identifications were not disarticulated entirely into some kind of postmodern flux." Rather, Joseph argues that new, and even political, subjects emerge from Warhol's environment. David Joselit argues that the avalanche of strobing light and projected images that dissolved the contours of space and partying figures of the EPI destabilizes the very distinction between ground and figure upon which ego subjectivity is based. This is a political act that dissolves the subject beholden to authority and government, thereby allowing the creation of other subjects, what Joselit refers to as counterpublics. See Branden Joseph W., "'My Mind Split Open': Andy Warhol's Exploding Plastic Inevitable," in *Art and the Moving Image: A Critical Reader*, ed. Tanya Leighton (London; New York: Tate Pub. : In association with Afterall ; Distributed in the United States and Canada by Harry N. Abrams, 2008), 110; and David Joselit, *Feedback: Television against Democracy* (Cambridge, Mass.: MIT Press, 2007).

subject. Similarly, designers of multimedia immersions utilized the destabilizing effects of the rush of image and sounds to reconfigure the subject's perceptual and cognitive abilities. In both cases, the authentic subject was a balancing act between the prelogical sensual and the conceptually rational self. In fact, what is most important and authentic is discerning the difference between the two states of being and allowing them to inventively interact in new patterns of thought and behavior. This is the model that Yalkut harnesses for his exploration of the authentic in *Turn, Turn, Turn*. Media and mediums, images and sound, maintain their differences rather than blurring into a homogenous onslaught of stimuli. The subject is in turn called upon to imaginatively conceptualize these differences as the basis for the sensory and emotional experience. To better understand how such a process operates we can turn to two forces that influenced Yalkut's practice: his partnership with USCO and his interest in László Moholy-Nagy.

YALKUT AND USCO'S "FANTASTIC JUMP"

In *Turn, Turn, Turn* we see two seemingly contradictory forces at play, the same forces that psychedelic researchers and multimedia practitioners attempted to reconcile in their versions of the authentic experience. On one hand the film's rapturously spinning and abstract patterns of light that glow, flash, and burst into phosphorescent color bombard, even disorient the viewer. On the other, Yalkut carefully differentiates the mediums and sources that produce these effects. We are never far away from a rational understanding of how these effects are generated. These contradictions also underlie USCO's multimedia practice, a group with which Yalkut closely worked. By considering their artistic response to these contradictions,

we will see how USCO's own balancing of the affective and rational through a creative differentiation of images and mediums underlies Yalkut's videofilms. Formed in 1964, USCO's core members include poet Gerd Stern, painter Steve Durkee, and electronic technician Michael Callahan. USCO's artistic output encompasses both approaches to the use of sensorial phenomenon. In the initial phase of their work, a primal, collective unity is to be achieved through the dissolution of ego boundaries under sensory assault. USCO took a much more studied approach in later stages when collective awareness would be based on contemplation of symbolic imagery presented simultaneously with other images and media.⁴²

In their artwork and multimedia presentations, USCO seeks to unify social and perceptual experience. Such a unity is to be found both in subjective states and communal practice. Like the psychedelic experience, USCO also wants to reduce the individual to a state of immediate and authentic presence that preempts symbolic cognition. Their mantra, "...Then take the No out of Now, then take the Ow out of Now, then take the Then out of Now..." whose text appears in their artwork and a recitation of which Yalkut includes on the soundtrack of *Turn, Turn, Turn*, relates the importance of experiencing the immediate moment without resistance and trepidation and without any considerations for the future. The purpose of their performances was to create a sense of common immediacy, a shared authenticity, in which "it becomes a question of human beings sharing time, of making the material productions in this world into an environment in which this becomes feasible."⁴³ For USCO such a

⁴² Michel Oren has divided USCO's practice into several phases. See his "USCO: 'Getting Out of Your Mind to Use Your Head,'" *Art Journal* 69, no. 4 (Winter 2010): 76–95.

⁴³ Gerd Stern, "USCO: Interview with Gerd Stern by Jonas Mekas," *Film Culture* 43 (Winter 1966): 3.

presentness relates to non-categorical modes of consciousness and ego-less states.

Their belief that “you’ve got to go out of your mind to use your head,” a saying they attribute to Leary,⁴⁴ aligns this present tense to non-cognitive experience in which mental categories are voided in order to achieve true understanding. Adopting Meher Baba’s dictum “We are all one,” USCO believes that the intersubjective experience of wholeness relies on removing the ego boundaries that differentiate the subject.

In the initial phase of their multimedia work, USCO purports to achieve this goal of oneness through sensory overstimulation. As Durkee relates Stern’s intentions:

He thought that if you could put enough stuff out there, you could kind of blow people away, that they would get to a point of openness by overwhelming them. Somebody once said, 'Paradox is the tear in the fabric of time and space which allows us to experience the eternal.' The purpose of the overload experience, whether acid or media, was to break through that linear time and space dimension so that you could go someplace else.⁴⁵

Durkee’s recollection sums up nicely the path leading from hyper-stimulation to subject state. The avalanche of sensory stimuli produced through media effects like film, slides, light, and television, exceeds the psyche’s ability to process and convert the sensations into symbolic concepts. The subject without recourse to their cognitive capacities that organize time and space realizes pure sensation devoid of ego boundaries or differentiation.

Combining mediums into a juggernaut of overwhelming sensation contradicts a more delicate understanding of medium effects also espoused by Stern: “The idea that you had to look at media in terms of their effect rather than their content took me

⁴⁴ Oren, “USCO.”

⁴⁵ Telephone interview with Nooruddeen Durkee, September 14 1988. Quoted in *Ibid.*, 78.

on an immense jump which wound up with poetry, with lights, and sound and film.”⁴⁶ Stern’s statement appears to preclude fusing mediums and images into a hyper-stimulating assault for to understand their effects one must be able to differentiate the mediums and images in some way. Rather, Stern proposes an ekphrastic model in which one medium is thought through another medium. In discussing his early work, he relates how audiovisual media extend his poetry’s interest “... of holding an image in time—reflection and focus and perspective—as well as multiplying the image.”⁴⁷ For Stern, his poetic concerns are realized in comparison to another medium at the same time they are transmuted into that medium. In this way, the mediums’ interactions produce Stern’s desired effects.

The effect of a medium then lies in an experience *between* the two mediums, an experience that a single medium cannot achieve or describe.⁴⁸ Comparing the effects of mediums rather than fusing them provides a means for understanding USCO’s use of images and media in their second phase. In December 1965, USCO changed its tactics when the members grew concerned that overstimulation might in fact be harmful and did not correlate with their current meditative practices. They turned from their hyper-stimulating, chaotic shows to quieter and more introspective

⁴⁶ Stern, “USCO: Interview with Gerd Stern by Jonas Mekas.”

⁴⁷ Richard Kostelanetz, “USCO,” in *The Theatre of Mixed Means; an Introduction to Happenings, Kinetic Environments, and Other Mixed-Means Performances*. (New York: Dial Press, 1968), 249.

⁴⁸ Stern’s interest in poetry is not in its literal capacities, its textual representation of ideas, but in its ability to “hold an image in time,” to function as an imagistic medium. How one form or medium can yield an experience that exceeds its functional structure—words of a poem are not pictures yet they can operate as such—and in turn generate indescribable and imaginative effects fascinates Stern. When he began working with film he realized that to hold and look at a filmstrip is to recognize that “there’s *time* and experience of time that has nothing to do with verbalizing about it.” His interest in film is not the literal meanings of its images or sounds, but the way it exceeds literal meanings to produce a wholly different effect, time itself and the experience of time. Reading one medium in relationship to another generates results in surplus of each medium’s particular mode of expression. Kostelanetz, “USCO,” 249

environments. These spaces still use multiple image and media sources, but are designed as places in which to spend time. Here their approach to using mediums becomes much more symbolic and contemplative. While still interested in the unified consciousness, such authentic oneness will not be produced by a perceptual assault that makes cognition impossible, but rather through deliberate and imaginative contemplation of contrasting media and modes of representation in the multimedia environment.

If the immediate experience of USCO's first phase was achieved by blasting the subject into a pre-symbolic state, the imagery used in the meditation rooms of their latter phases is purposefully symbolic. Rather than re-place the viewer in an arena of linear and rational cognition however, the interplay between the heavily connoted images and their layered and mediated presentation work against a purely symbolic or literal reading. USCO selects subject matter in the environments of their second phase for themes that would resonate with the viewer at an affective level. In talking about their environments at the Riverside Museum in 1966, USCO relates that, "What we had in that room, in short, was everything that is. The basic facts of existence, which are man, woman, man and woman and child, spheres, the stars, all create a meditation room. That's what it was."⁴⁹ The meditation rooms are filled with imagery meant to represent particular experiences that viewers could identify and identify with. Their power is an ability not necessarily to describe these experiences but to trigger affective

⁴⁹ Kostelanetz, "USCO," 263.

states. USCO member Barbara Durkee claims that the images go “deep in, those kind of key places where new people can be touched in their hearts, you know, opened...”⁵⁰

The images were also carefully chosen to have a group legibility, to show things that people would recognize as shared experiences:

On one screen is a baby being born; on another screen a man is dying in a room. On a third is a child going through a garden picking flowers...In one channel of sound is a space ship lifting off. In another channel is a baby crying, and so on and so forth. These are all experiences and perceptions which we all have in common.⁵¹

As opposed to the incomprehensibility and fragmentation of the first phase shows that were meant to lead to an undifferentiated oneness, the legibility and commonality of the second phase images elicit this wholeness as a kind of “group harmony.” USCO collaborator Judi Stern recalls these shows, at the end of which the audience would sit quietly and still for ten minutes, as “the most unifying experience we had had.”⁵²

Callahan relates what it was like for USCO’s members: “It was a shared vision and it was all of us putting ourselves up on the screen the best we could.”⁵³

To prevent these images heavily burdened with cultural and religious codes from being read literally and miring the viewer in symbolic categorization, USCO superimposes images, different mediums, and different modes of representation such as photographic realism and graphic abstraction. The tension between the connoted images and their stylized representations leads past a purely analytic interpretation of their symbolism to a more fanciful reception in which the images’ meanings are

⁵⁰ Oren, “USCO,” 78.

⁵¹ Kostelanetz, “USCO,” 257.

⁵² Oren, “USCO,” 79.

⁵³ Kostelanetz, “USCO,” 249.

creatively produced. In their Riverside show and their tabernacle at their converted church in Garnerville, New York, a series of wall-size paintings play a prominent role. The painting entitled *Shiva* is a complex layering of various recognizable forms, graphic patterns, and lighting effects. A painted mandala, a Buddha silk-screened in negative, and a standing man with arms raised at his sides are superimposed and centered on the shaped panel. A network of radiating lines, that change color as they cross the figure of the standing man, emanate from the middle of the mandala to cover the entire panel. Studded in the center of the composition and at its edges are lights. Installed in its environment at the tabernacle, the panel would also be seen under various lighting effects and in relation to six other similar compositions that covered the walls and enclosed the room.

While the images are ponderously marked with the spiritual significance of eastern religions and an existential humanism evident in the silhouette of the standing male figure, such blatant symbolism is tempered by the multiplicity of representational modes. The panel painting contrasts the static orientation of the images with the dynamism of the sunburst rays. Regimes of realism and geometric abstraction are superimposed while the flatness of the panel's surface is contrasted to the spatial and ambient qualities of the lighting effects installed in the panel and in the room. Even the mediums themselves, the handpainted mandala, the graphic radiating lines, and the screen-printed Buddha that is clearly photographic in nature, are displayed simultaneously. This layering of image types and mediums complicates any single semiotic code or reference associated with an image, causing the image to be read in relationship to other images, image types, and mediums. The effect does not lie then in

analyzing the symbolic content of any one particular image or in fusing sensation into an undifferentiated whole, but rather in distinguishing the nature of the various phenomena and reading them in relation to each other. The meditative nature of the room, in which carpets were laid on the floor so that viewers could spend time and contemplate what they were experiencing, suggests a more studied and deliberate approach to recognizing and understanding these differences and layers.

USCO's desired effects rest in recognizing the difference between mediums and forms and responding to those mediums and forms in a way that exceeds their literal meanings or symbolisms. Speaking about the entrance to their Riverside Museum show in which the viewer would pass underneath a very large painting of a tiger and the word "en/trance," they claim:

We insisted upon making a fantastic jump. Remember the image of the tiger at the Riverside show and the word "Entrance"? It was that kind of a jump from the visual to the word; and in between something else comes into existence—something that has nothing to do with either the image or the word.⁵⁴

With the "fantastic jump" something unexpected and new comes into being between the two different terms. In this way, the viewer's conceptualizing functions can be used on symbolic and mediated content, not to distance the subject from a direct or authentic experience, but to elicit that most authentic experience, the viewer's own imaginative reactions and interpretations.

While such responses may be based in referential content, they also surpass that content's literal meanings. USCO discusses this imaginative surplus resulting

⁵⁴ Ibid., 265.

from distinguishable and often-times dichotomous processes as poetic metaphor. In an interview with Richard Kostelanetz, USCO states:

The relationship we're interested in, one which is really basic to the last decade, is between digital and analog—between the discrete particle and the continuous process, as personified by the hybrid computer. . . . Applying a digital method to a constant process is very much related to mirrors and seeing an image of yourself between two mirrors, and also very much related to the medium-message, content-effect relationship. That brings you to poetry.⁵⁵

USCO acknowledges an essential discontinuousness in the awareness of the self that seems at odds with the unified, precognitive state of the psychedelic experience.

USCO understands the subject as an unending sampling of discrete images seen in the *mise en abyme* of the reflected mirrors that only approximates the durational continuity of our lives. How we can know ourselves when all we have are our discontinuous images is the same mystery encompassed by debates on how messages derive from mediums or how effects come from contents, how something emerges from something else materially and structurally different. But meaning does emerge from the structural differences between terms, metaphoric poetry bridges the gap. In this way, as USCO states, “the only reality has to do with metaphor.”⁵⁶

Yalkut's statement about *Turn, Turn, Turn* can now be understood in the context of USCO's own shift from a practice based on sensory overload to one based on creative differentiation. This difference is most pronounced when comparing Yalkut's earlier film, *Us Down by the Riverside* of 1966, to the later *Turn, Turn, Turn*. *US Down by the Riverside* is a compilation of mostly abstract images set to the Beatles' *Tomorrow Never Knows*. The song's opening drone and lyric, “Turn off your

⁵⁵ Ibid., 264.

⁵⁶ Ibid.

mind and relax and float downstream,” sets the stage for the film as an analogue to the psychedelic trip. Brightly lit and colored shapes whirl in and across the frame and frenetic zooms make the screen appear to pulse and throb, tossing the viewer backward and forward. The image dissolves substance through a dense weave of color and motion created with multiple superimpositions of shapes and oscilloscope waveforms. The strident drumbeat laid down by Ringo Starr energizes the film’s sharp edits and the spastic movements on the screen. *Yalkut* gives us a dizzying presentation of color and motion designed to uproot the viewer from any fixed orientation and propel them into the mindscape of the film.

While *Turn, Turn, Turn* also gives us spinning and abstracted forms and colors, the videofilm functions more as a study of these mechanics rather than an inducement or approximation of the psychedelic experience. Superimpositions still populate the film, but images are also distinctly displayed thereby allowing their singular visual qualities to be analyzed. Additionally, the film clearly demarcates the different techniques for generating light and motion such as Schoffer’s light sculpture or Paik’s television screen. The soundtrack loses the legibility and rhythm of the Beatles’ *Tomorrow Never Knows* to become an experiment in sonic production including an electronically manipulated version of the Byrds’ *Turn, Turn, Turn*, a voice reciting USCO’s mantra, and synthesized sounds. This videofilm, while drawing on *Yalkut*’ earlier delirious formal experimentation, is more of an experiment, a

progression of kinetic and luministic investigation,” according to the filmmaker,⁵⁷ into the technological means of generating particular effects.

Yalkut’s careful distinction between mediums and image sources in *Turn, Turn, Turn* operates as a creative differentiation through which “something else comes into existence.” Rather than the jump between word and image described by USCO, the jump occurs between the mediums of film and video and the various image sources captured by the videofilm. The metal sculpture, light display, and television screen each present the same subject matter of light and movement in different ways. Light and movement also have divergent qualities in their separate representations on film and television. Yalkut is careful to make the referent of the video or filmic image recognizable so that we must also leap between the identifiable referent and the abstractions that referent generates. Instead of being overwhelmed to the point of psychic exhaustion, the different ways that various mediums and sources translate light and movement mesmerize us. Like USCO’s environments in which we contemplate the effects caused by the overlapping of image types and mediums, the pleasure of *Turn, Turn, Turn* is the interplay of different kinds of images created by television screen and light sculpture, film and video. The “something else” that comes into existence is a change in how we might have originally perceived and understood the image, or even a completely new idea for that image. Like the operations of the metaphor, such a response cannot be produced through analysis of the separate images, but emerges from the space between the mediums and image types in our

⁵⁷ Jud Yalkut, *Nam June Paik: Art and Process-Jud Yalkut*, accessed October 28, 2013, http://www.youtube.com/watch?v=P_1sig3wwEE.

imaginative interaction with the videofilm. As USCO explains its own practice, “At some place in the human mind, these two things hit one another; and all of a sudden another thing arises—that’s the new thought.”⁵⁸

MOHOLY-NAGY AND THE MATERIALIST AUTHENTIC

Even though still indebted to the numinous dimensions of USCO’s practice, Yalkut’s deliberate investigation in *Turn, Turn, Turn* of the images’ qualities and the association of those qualities with particular techniques suggests a more materialist and less idealist reading of mediums and their differences, one more in keeping with another of Yalkut’s sources, László Moholy-Nagy.⁵⁹ Moholy-Nagy and Yalkut share similar interests: a unified individual and society and the use of material mediums and technology to achieve that unification. But instead of a McLuhanistic technological determinism and spiritualist idealism, Moholy-Nagy’s theories and practice offer an interpretation of the videofilm grounded in the analytics of socialist materialism. For Moholy, multimedia is a way for the subject to be more rationally aware of the myriad relationships that give meaning to industrialized life. Emotional effects result from the basic properties of mediums, the techniques used to work them, and the interaction between mediums within technologically-advanced society. If USCO provides a model of metaphor for understanding the imaginative force of Yalkut’s videofilm, Moholy-Nagy suggests how such a force is derived from the viewer’s combined

⁵⁸ Kostelanetz, “USCO,” 256.

⁵⁹ Fred Turner argues persuasively for Moholy-Nagy’s influence on the counterculture in general. In addition to his study of light that predicted the psychedelic light shows, the educator and artist’s belief in an integrated and whole subject to counter the specialization and fractiousness of industrialized culture would resonate with the sixties’ belief in self-actualization as a path toward social collectivity. See his, *The Democratic Surround*.

cognitive and affective response to the materiality of mediums and their differences.

Moholy's authentic experience is an integration of feeling and knowing, the balancing of emotion and intellect.⁶⁰

Yalkut readily acknowledges the pervasive effects of Moholy-Nagy on his life's work.⁶¹ According to Yalkut, his 2002, *Light Display: Color* is a digital meditation on Moholy-Nagy's vision and includes footage that Yalkut took of Moholy-Nagy's *Light Prop* in exhibition at the Howard Wise Gallery in 1970. Yalkut explains that *Light Display: Color* "is a visual fantasy of what Moholy might have realized in the new age of technology featuring video and digital technology."⁶² *Turn, Turn, Turn*, can also be read as an interpretation of Moholy-Nagy's interest in the simultaneous effects of light, color, and motion with footage of Schoffer's kinetic light sculpture a direct reference to Moholy-Nagy's *Light Prop*.

One of the aspects of Moholy-Nagy's aesthetic and pedagogical theory that must appeal to Yalkut is Moholy-Nagy's focus on integrated relationships in both human existence and artistic expression. Unlike the psychedelic experience's notion of wholeness and authenticity based on psychological models and eastern religion and mysticism, Moholy-Nagy bases his notion of unity on a socialist critique of industry and capitalism in which various specializations promulgated by industrialized society are reintegrated. While the science and technology that drove the industrial revolution open up new possibilities, "the realization of all-embracing relationships," according to Moholy-Nagy, industrialization enforces a series of specializations in the service of

⁶⁰ László Moholy-Nagy, *Vision in Motion*. (Chicago: P. Theobald, 1947).

⁶¹ Thompson, "Jud Yalkut."

⁶² *Ibid.*, 8.

profit: the division of labor to improve efficiency and the segregation and increasingly finer articulation of scientific and technological fields. Such segregation and specialization ignore the biological and communitarian needs of humanity so that “a ‘calling’ today means...something quite different from solidarity with the aims and needs of community. Everything functions—and functions alone—on the basis of a production system which only recognizes motives of material gain.”⁶³ In Moholy-Nagy’s diagnosis, technology is both cause and solution to this problem, not because of some deterministic change in human awareness or consciousness, but because technology changes material conditions by raising the standard of living.⁶⁴

As an antidote to life under the profit motive, Moholy-Nagy prescribes a unification of the human faculties of reason and emotion, so that an individual would “arrive at an integrated life in which he would function to the fullest of his capacities through a synthesis of the intellectual and the emotional, through the coordination of penetrative thinking and profound feeling.” While Moholy-Nagy believes that art is a primarily intuitive and expressive form that exceeds intellectual understanding,⁶⁵ hence its importance for industrialized humanity, art and art education can simultaneously exercise both the affective and rational human faculties. Moholy-Nagy refers to this integration as “vision in motion,” a reestablishing of relatedness as a “simultaneous grasp that considers seeing, feeling, and thinking in relationship and not

⁶³ László Moholy-Nagy, *The New Vision*, 1928., trans. Daphne M Hoffmann (New York: Wittenborn, Schultz, 1949), 15.

⁶⁴ *Ibid.*, 16.

⁶⁵ Moholy-Nagy writes that art’s “imagery is inherent in and connected with the sensory experiences which express a concept beyond the intellectual grasp, often the imponderable relationships of man as a biological and social species.” Moholy-Nagy, *Vision in Motion.*, 27.

as a series of isolated phenomena.”⁶⁶ Here again, as with my reading of the psychedelic experience and the later phases of USCO’s practice, is a unity and simultaneity defined not as fusion or dissolution but as integration of and balance between discrete parts, whether that be human faculties or visual elements. For Moholy-Nagy the relationship, the awareness of the interplay between distinguishable elements, is essential so that vision in motion becomes vision in relationships.⁶⁷

In his belief in research and experiment, Moholy-Nagy blends rationality with the expressive and intuitive potential of artwork and provides a format for the videofilm as research project. Moholy-Nagy takes up the language of the scientific method, admonishing artists not to be afraid of intellectually approaching their art for it is only through “laboratory experimentation” that the necessary integration of thought, sensation, and feeling can occur. The artist must consider themselves a researcher for “without experimentation there can be no discoveries.”⁶⁸ This motif of scientific experimentation is carried over into Moholy-Nagy’s pedagogical theory. As an educator Moholy-Nagy necessarily believes that training in the intellectual, perceptual, and the more elusive, emotional domain, can be operationalized in order for it to be delivered to and learned by students. The belief that these kinds of experiences can be taught is itself a result of scientific thought in which outcomes can

⁶⁶ Ibid., 12.

⁶⁷ Moholy-Nagy claims that the abstract artist recognizes in the cubist work that “not so much the representation of objects and the description of their motion was the most important feature but the visual force and emotional wealth of relationship, the constructive potential of the visual fundamentals.” The representation of the dynamics of relationships in abstract painting visually corresponds to the flexibility required to approach humanity’s problems, problems caused by the fixed viewpoint of the Renaissance that considers things in isolation rather in a “constantly changing moving field of mutual relationship.” Ibid., 114.

⁶⁸ Ibid., 31.

be predicted or generated from constituent stimuli and processes. In education, the lesson or exercise's predetermined set of instructions, guidelines, and materials effect the more ineffable subjective learning process.⁶⁹ Moholy-Nagy places this approach at the center of his experiential educational theory so that the student can "become conscious of the world and himself through exercises which simultaneously train the intellectual and emotion spheres"⁷⁰ In this way the rationality of standardized and operationalized exercises teach emotional content thereby relating these two human faculties. This process can even be reverse engineered so that "the contemporary artist's intuitive research can be applied, in a simplified version, to educational exercises."⁷¹ Effects achieved intuitively by cubist collages or Malevich paintings inspire planned lessons by which students can understand the more affective components of these artistic practices.

Turn, Turn, Turn's "exploration in the filmic translation of kinetic and luministic artworks"⁷² can be interpreted as an experiment in Moholy-Nagy's vision in motion. Rather than a dizzying and disorientating devolvement into irrationality, Yalkut's videofilm is a highly directed investigation into the phenomenological effects of different mediums. The investigation calls on the viewer to both rationally analyze the image's construction while appreciating the perceptually inventive spaces, forms, colors, and light patterns of the images. We see the experimental nature of *Turn, Turn,*

⁶⁹Moholy-Nagy recognizes the structure of the exercise as one that breaks "down complex tasks into fundamental components so that they can be digested one after the other and then brought into functional relationship." Ibid., 66.

⁷⁰ Ibid., 65.

⁷¹ Ibid.

⁷² Thompson, "Jud Yalkut."

Turn immediately in the visual correlation between Schoffer's light sculpture and Moholy-Nagy's educational space modulators. The space modulator is a pedagogical device used by Moholy-Nagy to teach students about the articulation of space rather than just traditional sculptural principles of mass and volume.⁷³ Additionally, it is to be built from various materials and in numerous configurations that allow the student to experience and analyze its different aesthetic and perceptual effects. By way of the space modulator, the student learns how to rationally direct the materials and their relationships towards affective ends.

In the videofilm, Schoffer's sculpture functions as a dynamic space modulator that creates a catalog of different spatial qualities, light patterns, and motion effects. Yalkut makes the sculpture clearly legible so that any abstract or dizzying effects recorded by the film are recognizable as having been derived from the sculpture, a machine whose presence grounds us in a more studied approach to the visual phenomena engulfing us on the screen. Of course, the light sculpture is captured on film and Yalkut uses the film medium in a similarly experimental way. Moholy-Nagy recognizes a kind of "photographic vision" in which the effects particular to film and the camera "opens up a new field of visual presentation, an extension of visual possibilities..."⁷⁴ Zooms, superimpositions, and the visual texture of the filmic image itself are all devices with which Yalkut explores Moholy-Nagy's photographic vision to creatively modify the original image source.

⁷³ Moholy-Nagy, *Vision in Motion*.

⁷⁴ *Ibid.*, 206.

As an experiment, *Turn, Turn, Turn* clearly distinguishes its various effects and the material means for producing those effects in the same way that the space modulator exercise requires students to study the different perceptual results created by various materials. Rather than considering *Turn, Turn, Turn*'s many-layered superimpositions as a fusing of differentiated boundaries into an inarticulate conscious,⁷⁵ we can read the superimpositions as a kind of balanced separateness in which each layer of the compound image are discerned and held in relationship. Divided into segments that clearly pronounce a particular type of light and movement generation, the structure of the videofilm reiterates this unity of the various distinctions. Each form of light and movement are meant to be differentiated so that they can be read as elements of a compound concept. The gentle rotation of Schoffer's light sculpture is compared to the spinning visuals of USCO's sculpture. This in turn can be compared to the phosphorescent light and electronically generated motion of Paik's video distortions. While any one segment's light patterns and dancing motion might be construed as the disorienting effects of a simulated trip, seen together, the structure of the film suggests a more rational study of the relationships between the images.

Yalkut uses the mediums of film and video as experimental materials in much the same way Moholy-Nagy's student would use materials in their space modulator. The first three quarters of the videofilm is footage of the various kinetic and light devices that is easily discernible as photographic. While the videofilm might revel in the abstract display of color and light patterns, we are always aware that what we see

⁷⁵ Youngblood, *Expanded Cinema.*, 85.

is a record of a profilmic reality captured via photography. By introducing Paik's video distortions toward the end of the videofilm, the comparison of the photographic and videographic images throws us back onto an awareness of the nature of each medium. Moving patterns of color and light may be the theme that runs throughout the videofilm, but the change in visual texture, the move away from an object recorded photographically to an image electronically generated, reveals two different technologies. In the same way that Moholy-Nagy's space modulator compares differences in materials and configurations as a means to rationally arrive at emotional effect, *Turn, Turn, Turn* is also a controlled experiment in how different imaging technologies can yield different affective results.

The film and video mediums themselves as presented in the videofilm can be defined according to this relationship of contrasts. Yalkut is particularly interested in how mediums differentially look and perform:

I highly enjoy an admixture of film, video, and digital manipulation, and the complex tactilities that this affords me...By tactilities, I mean the unique texture which each medium has, whether it is the beautiful reflected light of film, the direct eye-brain projection of electrons/photons in video, or the magical iterations of digital delay, feedback, and electronic coloration. The contrast between the 'real' color in imagery and the otherworldly richness of electronic color is highly beautiful and fascinating to me, as are the confluence of pixels in digital work, raster lines in video, and grain in film. They each have a unique beauty that cannot be found in other forms.⁷⁶

Yalkut's appreciation for the uniqueness of a medium's tactility and effect is also indebted to Moholy-Nagy. The Bauhaus educator is adamant that materials be treated according to their unique properties: "Every tool, every medium, every process,

⁷⁶ Sabrina Gschwandtner, "Between Film and Video—The Intermedia Art of Jud Yalkut: An Interview with Jud Yalkut," *Millennium Film Journal*, no. 42 (Fall 2004): 73.

whether it is technological or organic, has its intrinsic quality which, to understand and employ, must be listed among the main duties of a designer.”⁷⁷ What is interesting about this statement is that Moholy-Nagy does not just focus on the specificity of material but also on the unique and characteristic qualities of implements and methods used to work the material. He gives the example of a handle made with a lathe and a handle made with mass-production techniques of plastic molding. According to Moholy-Nagy, the shape of the handle should change to fully utilize the production technique. The object, whether artistic or designed, not only exists as matter, but matter that bears the marks of the particular process or tool that was used to work the matter and which have unique properties of their own. Produced objects should then “be understood as diagrams in space representing forces acting upon the varied materials plus the resistance of the materials to the impact of these forces.”⁷⁸ In Moholy-Nagy’s language of relationships, the object’s identity rests in a web of material, process, and implement. While each of these elements of the web has a specificity that provides the basis of their handling, those specificities necessarily interact with each other. What Moholy-Nagy describes is not confusion or fusion of mediums, but a relationship of particulars.

This interaction of specificities is key to understanding the ontology of the medium and its affective results in the videofilm. For Yalkut, a medium attains its uniqueness in relationship to another medium. Yalkut’s awareness of and adherence to

⁷⁷ Moholy-Nagy, *Vision in Motion.*, 36.

⁷⁸ *Ibid.*

then-current beliefs about medium specificity is evident in his discussion of the videofilm:

Then you take the film and put it back into video and do things that can't be done in film. And you work back and forth through a series of generations that way. You make use of the imperfections of the medium and you become more aware of what the limits of the medium are. I use the limit of the medium to define it at the end of the film.⁷⁹

His use of the notion of “limits of the medium” and the ability of the limit to define the medium directly refers to Clement Greenberg’s essay “Modernist Painting.” Given Yalkut’s development of the videofilm after the essay was published in 1960, Yalkut’s immersion in the art scene of New York, and his own experience as an art critic, Yalkut was most likely aware of Greenberg’s position. The term “limits” that Yalkut uses to define the medium is also that which Greenberg uses to characterize his notion of medium when he writes:

Modernism used art to call attention to art. The limitations that constitute the medium of painting—the flat surface, the shape of the support, the properties of the pigment—were treated by the Old Masters as negative factors that could be acknowledged only implicitly or indirectly. Modernist Painting has come to regard these same limitations as positive factors that are to be acknowledged openly.⁸⁰

Yalkut’s operationalization of the term in a kind of experiment in which one medium is literally worked through another in order to reveal what a medium can and can’t do places Yalkut in the high modernist tradition of making medium specificity the foundation of artistic practice. Yalkut nicely summarizes this essentialist viewpoint

⁷⁹ Thompson, “Jud Yalkut.”

⁸⁰ Greenberg, “Modernist Painting,” 6.

when he says that the videofilm was about “rubbing the two media against each other, and polishing each into its full essence.”⁸¹

But while Yalkut grounds his videofilms in the unique qualities of the film and video mediums, his statements also complicate the notion of a medium immanently defined by its characteristics. The limits of a medium not only define the medium but also describe what the medium is not, thereby pointing to a field of other possibilities in which the medium in question does not participate. Moholy-Nagy makes a similar argument in his book *Painting, Photography, Film*. With the advent of photography and its ability to reproduce the objective world, painting can embrace the investigation of pure color composition while photography can focus on representational composition.⁸² Moholy-Nagy separates the two mediums according to what he feels each can rightly do, yet that distinction is based on a comparison between the two. In fact, it is only with the advent of photography that painting is authorized to involve itself with pure color composition. Moholy-Nagy’s notion of the painting medium is invented by photography. Yalkut’s filmic and videographic specificity reveals itself in the relationship between the two mediums, in the way they must rub against each other in order for their essence to be realized.

The videofilm’s power comes from our analysis of its mediums’ interacting peculiarities balanced with our enjoyment of the mediums’ combined imagistic effects. While the materials must maintain and be used according to their unique properties, according to Moholy-Nagy, they can be combined in various

⁸¹ Gschwandtner, “Between Film and Video—The Intermedia Art of Jud Yalkut,” 78.

⁸² László Moholy-Nagy, *Painting, Photography, Film*. (Cambridge, Mass.: M.I.T. Press, 1969), 8.

configurations to produce manifold perceptual and affective results. Indeed, part of the pleasure of *Turn, Turn, Turn* is in relating the videofilm's creative imagery back to the various material means of its production and discovering how those means can yield such different outcomes. Yalkut points to the appeal of recognizing differences when he claims in the quote above to find beauty and fascination in the *contrast* between real color and electronic color, between digital pixels, video raster lines, and film grain. The videofilm does not fuse mediums into an onslaught of sensory stimuli, but calls on us to analyze the relational differences between mediums and the pleasure those differences provide.

ELECTRONIC MOON'S AUTHENTICITY BETWEEN THE PHOTOGRAPHIC AND SIMULATED.

Like *Turn, Turn, Turn*, Yalkut and Paik's videofilm *Electronic Moon No. 2* (1966-72) also displays and contrasts filmic and videographic images. *Electronic Moon No. 2* (hereafter referred to as *Electronic Moon*) opens with photographic footage of rippling water followed by a shot of a television monitor matted in a circle, the electronic moon of the title. Paik runs the simulated moon through a series of distortions that produce illusionistic and shimmering effects. To end the videofilm, silhouettes of Paik's profile, a hand, a fork and knife, and a breast, pierce the video moon one after the other and a lit match is thrust up between the videocamera and monitor. While *Turn, Turn, Turn* displays different kinds of images as an objective comparison of the different medium's treatment of light and motion, *Electronic Moon No. 2* establishes denser, symbolic relationships between its images and image types. Not only does Yalkut use the tactilities of the video and filmic image to create distinctions but he also brings into service the differing representational modes of film

and video, the perceptual and social logics by which we understand their images. Film critic Andre Bazin posits film's unique presence as deriving from its ability to mechanically record, to make an impression of reality. Semioticians refer to this kind of representation that is contiguous with observable nature as an index. This contrasts with video's mode of representation that synthesizes its images from immaterial electronic signals. Yet scholars like Rosalind Krauss and Tom Gunning question the stability of the index to unerringly always point to the authentic real. The authentic changes with context or discursive beliefs that model particular notions of what is real. A film like Ralph Steiner's *H2O* revels in the ambiguity of the film's indexical nature as its shots stutter between recognition and abstraction. For Gunning, it is this ambiguity, the way in which what we see transforms what we know to be, that creates the pleasure of the film. Like Steiner's mixing of the representational with the abstract, Yalkut's mingling of the different representational modes of film and television destabilizes notions of the real, unmediated, or authentic. In *Electronic Moon* Yalkut interrogates authenticity associated with nature and the natural and posits these dimensions of the authentic as effects generated by mediums and their particular modes of representations. Yalkut suggests a different kind of authenticity grounded in the viewer's imaginative response to the playful scuttling between representational modes.

Electronic Moon revisits one of Paik's earlier video installations, *Moon Is the Oldest TV* of 1965 in which Paik arranges numerous black and white monitors side-by-side and distorts their signal to produce circles and circle segments analogous to the phases of the moon. We can understand the installation as one of Paik's attempts

to bring technology into closer orbit with the natural world in the same way that Paik humanizes technology through the TV/body hybrid in his performances with Charlotte Moorman. In the case of *Moon Is the Oldest TV*, Paik naturalizes technology by correlating the luminous and mesmerizing effect of the moon with the phosphorescent spectacle of the television screen. In fact, according to the title, our technological fascination with light and seeing is in some way already part of our ancestor's moon gazing. The technology of TV is just another step in that evolutionary progression. By translating the installation into film, however Yalkut complicates Paik's theme by contrasting the film's indexical mode of representation with the simulated mode of the video image, thereby making suspect an autonomous notion of the natural. In Charles Sanders Peirce's theory of the sign, the index signifies through contiguity with the material world; it is a remnant or trace of the referent with which it had come into previous contact. Imaging methods such as photography, film, and digital image capture create their pictures in this indexical fashion: light strikes a photosensitive surface and the device inscribes the light pattern onto a material substrate or into an electronic code. The indexical nature of photography and film, part of their representational regime, is hypothesized to give these mediums a claim to truth unlike any other medium. As Mary Ann Doane notes, the photographic basis of film "invokes indexicality as the guarantee of a privileged relation to the real, to referentiality, and to materiality."⁸³

⁸³ Mary Ann Doane, "The Indexical and the Concept of Medium Specificity," *Differences: A Journal of Feminist Cultural Studies* 18, no. 1 (2007): 132.

Yalkut's opening sequence in *Electronic Moon* conflates the filmic image's indexical regime with the natural. After a brief moment of relative darkness punctuated by a barely discernible luminous shimmering and shadow of a hand, we are presented with black and white filmed footage of rippling water, light gently reflecting off the surface to create undulating striations of light and dark values (fig. 3-4.) The unmoving camera captures the rolling water full frame with no reference to a shore or other object. This is an almost documentary presentation of a profilmic subject, delivered with only enough stylization or modification to bring out the water's natural beauty and appeal. The photographic nature of the film's image connects it unmistakably with the real world and the subject matter itself, a pool of reflecting water, is highly connoted with a pristine natural environment.

In the simple subject, the static camera, and the sustained attention to a reproduced reality, Yalkut's opening sequence invokes a whole imagery and discourse in film history and theory that connects the photographic image with the lived world. Andre Bazin describes the photographic image as that which produces a true reality, "the need that is to give significant expression to the world both concretely and its essence."⁸⁴ For Bazin, photography has an objective nature because it is produced by a device separate from the subjectivities of human intervention. Because of this machine objectivity, "we are forced to accept as real the existence of the object reproduced, actually *re-presented*, set before us, that is to say, in time and space."⁸⁵ While he never uses the term index, Bazin describes the relatedness of the object and its photograph as

⁸⁴ André Bazin, "The Ontology of the Photographic Image," in *What Is Cinema? Vol. 1 Vol. 1* (Berkeley: Univ. of California Press, 2005), 12.

⁸⁵ *Ibid.*, 13–14.

the same as a fingerprint to the body that made it, thereby suggesting a commonality based on physical impression. In his particular version of filmic reality, Bazin also advocates a form of viewing that reality characterized by the in-depth shot. Here, montage is eliminated and a static camera frames and holds the scene. Actors and objects move within the camera viewfinder and the viewer wanders through the scene choosing where to focus their attention. In this way, “the image is evaluated not according to what it adds to reality but what it reveals of it.”⁸⁶ While Yalkut’s shot of water does not frame the complex in-depth scene that Bazin concerns himself with, it does borrow from Bazin the idea of a reality revealed through the camera’s sustained gaze and the shot’s ability to hold and focus our attention on the pool’s gleaming surface. For Bazin, our contemplation of the photographic image, a contemplation embodied by Yalkut’s continuous shot of the scattering ripples and light, brings the viewer “into a relation with the image closer to that which he enjoys with reality.”⁸⁷

We can also compare Yalkut’s simple subject and unmoving camera with early film’s actualities in which scenes of mundane life are simply framed and recorded. The thrill of these early films depended on their recognizability as actual events, combined with the revelation of dynamic details made possible by the camera and projected image.⁸⁸ A train coming alongside a station platform in *Train Arriving at La Ciotat*, or the rustling leaves in the background of *The Baby’s Breakfast* marveled viewers because they were recognized as everyday scenes derived from a lived world,

⁸⁶ André Bazin, “The Evolution of the Language of Cinema,” in *What Is Cinema?* (Berkeley: Univ. of California Press, 2005), 28.

⁸⁷ *Ibid.*, 35.

⁸⁸ Gunning, “An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator.”

but re-presented as an illusionary moving image. The dynamic re-presentation of quotidian experience in such a way as to reveal the marvel of previously hidden qualities is also seen in another work which Yalkut appears to directly quote, Ralph Steiner's 1929 film, *H2O*. In this film, Steiner photographs water excited by various forms of movement. Sequences of water flowing in creek beds or tumbling down waterfalls are intercut with moments of water splashing out of pumps or being ejected through pipes. *Electronic Moon's* opening shot could easily have been lifted from Steiner's photographic catalog of water.

Steiner's film is also useful as it points to instability in the photographic index that is played out in *Electronic Moon*. In *H2O*, Steiner luxuriates in the close and sustained observation of water, but he simultaneously takes as one of the film's subjects our shuttling perception between photographic recognition and formal abstraction. All of Steiner's scenes in their cropping of the visual field create image slices that vacillate between abstract collections of shapes and values and intelligible forms. Particularly in the second half of the film, Steiner's shots of watery reflections create swirls, zig-zags, and undulating shapes that defy easy recognition as reflections on water (fig. 3-5). Several instances in the film proleptically display reflections that roll and convulse through space like the diaphanous electronic forms synthesized by video. A new kind of fascination takes over that is removed from the photograph's reproduction of reality. We are mesmerized by the pure inventiveness of light and motion, the novel shapes and their dancing movements, the patterns that emerge, dissolve, and reappear again. After a few moments of confounded readability, we return to a legible photographed reality and we realize that part of the film's allure is

in how it exercises our perceptual and cognitive abilities to enact these shifts between the abstract and the photographic indexical. The photograph's authority as bearer of the real dissipates as that same photographic reality transforms itself into something unrecognizable.

Electronic Moon enacts this same instability through similar shifts in the styles and representational modes of the image. Like the fluctuating perception in Steiner's film, Yalkut's pool of water shifts between a photographic realism and graphic abstraction. As we attend to the shot, its duration tires our attention so that the water's recognizability dissolves into the same patterns of moving light seen in *H2O*. The next segment of the film, rather than relying on the shift in image style, relies on a shift in image types. Yalkut cuts from the water's surface to a darkened circle, so faint as to be barely discernible against a black background. The circle gradually lightens onto unfocussed rippling movements of light and dark values that become clearer and more emphatic as the sequence progresses. The undulating water in the previous shot appears to have been matted into this circle. As the visuals in the circle become clearer, we realize that what we are seeing is not a photograph of waves but rather a television screen being manipulated to produce an electronic variation on static. The electronic moon appears.

The electronic moon is a simulation, something generated by a manipulated video signal and made to approximate our idea of the moon. If the indexical image of rippling water is submerged in a regime of the real, then the simulated moon relates to another regime opposed to the certainty of reality. Theorists often ascribe to television and video both cause and effect of reality's effacement in postmodernism. Fredric

Jameson, for example, considers a waning of affect to be a symptom of postmodern culture in which humanistic models of a coherent subject, capable of expressing an immanent identity are called into question.⁸⁹ Interpretive schemas of the world reliant on the certainties framed by dichotomous terms such as essence/appearance, authentic/inauthentic are also called into question. Jameson sees video as the cultural dominant for postmodernism. Unlike film's ability to record the past, to present a past to us, and stabilize temporal distinctions between past and present, video has no memory or critical distance but only the continual flow of programming theorized by Raymond Williams.⁹⁰ As flow, TV no longer participates in the real time of minutes ticking away one by one, represented in the climaxes and closures of filmic narrative. Instead TV simulates that time via the portioning of the TV broadcast into program segments punctuated by commercials. Video's phenomenology also lacks the density of the "manifest reality of the other images-in-the-world, the image objects" that are characteristic of Bazinian realism.⁹¹ It functions more as a sign or trace of these older forms so that "at this most attenuated point in the sign system the signifier has become little more than a dim memory of a former sign, and indeed, of the formal function of that now extinct sign."⁹²

What Yalkut gives us in *Electronic Moon* is a comparison of different representational regimes, the photographic indexical that confirms reality and the electronically simulated that undermines that reality. The nature of the comparison is

⁸⁹ Fredric Jameson, *Postmodernism, Or, The Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1991).

⁹⁰ Williams, *Television*.

⁹¹ Jameson, *Postmodernism, Or, The Cultural Logic of Late Capitalism*, 80.

⁹² *Ibid.*, 84.

important. Yalkut carefully relates the two image types through a match cut, a filmic technique by which a common graphic element connects two disparate shots. In this case the waves of the water also appear in the simulated moon's static, thereby associating the two image types. Given Paik's interest in humanizing technology and the romanticizing of technology in his earlier installation, it could be argued that *Electronic Moon* is just a continuation of this theme in which Yalkut and Paik assert the regime of the real in order to naturalize the simulated image. Opening the film with a photographic sign of nature, the body of water, and then carefully blending that image into the simulated moon via the match cut seems to affirm this interpretation. The filmmakers are asking us to consider the electronic moon as natural as the water or as a new kind of nature that now includes the technological.

Such an interpretation is troubled however by the variability of the moon's appearance and another shift in representational modes at the end of the videofilm. The electronic circle continues the shimmering video effect with variations consisting of masking the circle to make it appear as a half moon and an electronic distortion that looks like craters on the simulated moon's surface. These illusionistic techniques devolve into electronic wave patterns thereby disrupting the illusion and revealing the technological basis of the simulation. In much the same way as the shots in Steiner's film, the moon cannot hold its representational style, variably appearing as real and simulated. In the last thirty seconds of the film we see a return of the indexical in a shadowplay consisting of the previously mentioned silhouettes passing one after the other in front of the electronic moon (fig. 3-6). The silhouette is an excellent example of the indexical image constructed through a direct relationship with a material object.

Now we are in a hybrid realm where the image is a layered construction of the indexical and simulated representational modes. To add to this complexity, a lit match appears at the bottom of the frame. The performative quality of the gesture lends the match an immediacy that sets it apart from the past temporality of the earlier film footage. As an actual object made of light, it is also different than the immateriality of the silhouettes created by the absence of light. Finally, the introduction of the match reminds us that there is a “real” space of extension in front of the two-dimensional shadowplay, a space occupied by the match and the figures that are generating the silhouettes.

To the degree that a sense of the real is dependent upon photography’s indexical relationship to that reality, Yalkut and Paik’s playful layering of representational styles and modes disrupt that relationship. Indeed, photography’s own association with a stable and authentic preexisting world is complex. To critics that locate photography or film’s specificity in its indexicality, Tom Gunning counters that digital images, frequently contrasted with photo-chemical photography, are often based on indexical image capture while, on the other hand, the photographic indexical image does not always have to faithfully reproduce its referent.⁹³ Many indexical images have been modified—he gives the example of spirit photography. Recognizing the burden of truth that the photograph bears, Gunning suggests that the notion of truth is itself carefully constructed in social discourse and that photography only claims

⁹³ Tom Gunning, “What’s the Point of an Index? Or, Faking Photographs,” in *Still Moving: Between Cinema and Photography*, ed. Karen Redrobe Beckman and Jean Ma (Durham: Duke University Press, 2008).

truth in relationship to this discourse. Truth, when it comes to indexical photography, is more of an effect than a guarantee of an external reality.

In his allusion to Steiner's film and his own imagery of the rippling water, *Yalkut* displays the index' fragile hold on an authentic referent. As noted, both films begin with photographic shots that clearly represent water, but the interest of Steiner's film and the thematic thrust of *Yalkut's* videofilm is that such recognizable referentiality is easily distorted and unmoored from its apparently secure connection to a material world. We do not doubt for a moment that what we are looking at is photographic in nature, that it is an index of a profilmic reality, yet the artist challenges photography's posited verism as the referent loses its legibility, its identifiable form changing into a play of nonobjective values and shapes. The fact that our perception of the image as an index of water or a play of light and shape constantly wavers back and forth points to the attenuated relationship the index has with its referent.

Gunning recognizes that the index cannot wholly account for the photograph's allure, an allure that ultimately derives from how the photograph exceeds reality in various ways. For Gunning, the pleasure of the photograph is in the distortion of its iconicity, its ability to go beyond that to which it refers, rather than its material connection to reality. In the case of a straight photograph, we are thrilled by the mastery of its illusion whose re-presentation of reality already removes it one step from that reality. In the case of digital photographic manipulations, their attachment to the recognizable, their hinting at a "real" is what drives our interest: "Our delight in a clever digital manipulation of a photographic image in an advertisement or magazine

cover does not come from being fooled by the image but rather from the playful push-pull between its association with accuracy...and its obvious distortion...”⁹⁴ An indexical image that is not also recognizable to some degree would not have the same appeal, even if it does physically inscribe reality, since that tension between verisimilitude and manipulation is missing.

But the photograph’s phenomenology goes beyond its interpretation as an indexical or iconic sign. Gunning notes that for Bazin, frequently cited as a primary source for the indexical specificity of photography and film, the photograph has a presence all its own and is able to put the viewer in the presence of something.⁹⁵ Bazin writes that the photograph doesn’t just represent its object, “it is the object itself freed from the conditions of time and space that govern it...It shares, by virtue of the very process of its becoming, the being of the model of which it is the reproduction; it *is* the model.”⁹⁶ The photograph has an existence that goes beyond its semiotic referentiality. While produced in relationship to its object, it asserts itself as if it is an object itself with its own being. Gunning suggests that the photograph produces its own effects that cannot be reduced to their indexicality or iconicity, effects that make us wonder and imagine:

Photographs, then, are more than just pictures. Or rather, they are pictures of a special sort, ones whose visual reference invites us to a different sort of observation, to ask different questions and think different thoughts. The photograph does make us imagine something else, something behind it, before it, somewhere in relation to it.⁹⁷

⁹⁴ Ibid., 33.

⁹⁵ For another investigation of Bazin’s photographic phenomenology see Daniel Morgan, “Rethinking Bazin: Ontology and Realist Aesthetics,” *Critical Inquiry* 32 (Spring 2006): 443–80.

⁹⁶ Bazin, “The Ontology of the Photographic Image,” 14.

⁹⁷ Gunning, “What’s the Point of an Index? Or, Faking Photographs,” 35.

More than just asserting the distinctions between the representational modes of indexicality and simulation, *Electronic Moon*'s rippling water and simulated moon enact the photograph's pleasurable distortion's and imaginative phenomenology. The electronic moon fascinates in part because it actively distorts the filmic image of water via the match cut. The waves of the rippling pool transfer themselves to the shimmering surface of the moon drawing a creative connection between the indexical reality of the photographic and the simulated reality of the electronic. As Gunning argues, our wonder is in seeing the manipulated relationship between the two and in how each is derived from the other. We are not caught up in determinations of which image is real or not but rather in the elegance of the relationship, the way in which the simulation of the moon gains a visual and semantic weight through the authority of the indexical waves.

The shadowplay at the end of *Electronic Moon* reveals another wrinkle in the index' claim to truth. As Gunning points out, an index does not always look like its referent—a fluttering flag does not look like the blowing wind. Such is the case with the silhouettes of hands, breasts, and silverware in *Electronic Moon*. We recognize these objects from their contours, but the flattened and darkened shapes would not look like their referents were we to see the objects in full light. While these indexical signs are made through physical contiguity with an object, the actual object remains unspecified in that the silhouette of a hand could belong to any number of hands, the silhouette of the fork and knife could be made from any fork and knife. The index refers to a material reality but that particular reality is unknown, multiple, and

variable. This kind of index remains subject to interpretation allowing for an imaginative space to open between the image and its referent.

Krauss examines this ambiguity of the index in the linguistic shifter, a word that can refer to any number of persons or objects depending on its context.⁹⁸ The shifter, such as “he,” does not mean anything until the situation in which it is used refers it to a particular person. Analyzing Duchamp’s *Tu m’*, Krauss notes the shadows of bicycle wheel, corkscrew, and hatrack as indexes of his readymades. But as with the silhouettes of *Electronic Moon*, these shadows could refer to any bicycle wheel, corkscrew, or hatrack. As Krauss reveals, it is the pointing finger painted onto the canvas, a version of the deictic “this,” that refers the shadows to their referents. The breakdown in the certainty of meaning in the shifter becomes the subject of Duchamp’s work. Krauss notes the confusion of identity in the deictics that compose the title of *Tu m’*, the “you/me” dyad that agitates a stable and particular self. Duchamp’s alter ego, Rose Sélavy, similarly signals a destabilization of the coherent identity through an ambiguity in gender. Krauss then connects the instability of the index in Duchamp’s practice to photography:

The readymade’s parallel with the photograph is established by its process of production. It is about the physical transposition of an object from the continuum of reality into the fixed condition of the art-image by a moment of isolation, or selection. And in this process, it also recalls the function of the shifter. It is a sign which is inherently ‘empty,’ its signification a function of only this one instance, guaranteed by the existential presence of just this object. It is the meaningless meaning that is instituted through the terms of the index.⁹⁹

⁹⁸ Rosalind E. Krauss, “Notes on the Index: Part 1,” in *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, Mass.: MIT Press, 1985).

⁹⁹ *Ibid.*, 206.

In the use of the photograph as document in the art of the seventies, the index does not embody the fullness of a preexisting world but asserts the sign's hollowness. The artwork "involves the filling of the 'empty' indexical sign with a particular presence."¹⁰⁰

Like the shadows in Duchamp's *Tu m'*, the silhouettes in *Electronic Moon* function as shifters, meaningless until their referent is pointed out and established.¹⁰¹ The silhouette of Paik's face and the hand might even be considered as analogous to the pointing finger that Duchamp paints in *Tu M'* as Paik's shadow points to the other silhouettes as his specific creations. These silhouettes then, rather than firmly connecting the indexical to a lived reality suggest, an absence, a gap in that circuit between the real and the representational that waits to be filled. While they are clearly produced by something, their meaning grounded in a specific reference to an object is held in abeyance, floating like the moon that they pass before. The glowing circle on the screen is even more ambiguous for it has no immediate referent, literally or figuratively. It is a trace that completely relies on the context of the work's title and the viewer's own power of imaginative association to fill it with some sort of meaning.

BEATLES ELECTRONIQUES AND THE VIDEFILM'S "RICHLY IMAGINED PRESENCE THAT WAS NEVER REALLY THERE"

Rather than analyzing the interplay of indexical and simulated representational modes contained in *Electronic Moon*, *Beatles Electroniques* (1969) considers how the

¹⁰⁰ Ibid., 208.

¹⁰¹ Paik knew of and greatly appreciated Duchamp and his work. Duchamp would be the subject of many of his videoworks and the soundtrack of Yalkut and Paik's videofilm *Electronic Fables* includes Duchamp reading from his texts.

differing presences of film and video affect the possibility of authenticity in a mediatized celebrity culture. As Philip Auslander writes, the authenticity of rock culture is a construction, a careful and dialectical weaving of the mediated recording or image and live performance. The live performance is itself a reproduction of the studio recording while at the same time the performance's immediate presence authenticates the studio recording and the group that produced it. The Beatles, in their meticulously constructed persona and in the band's absence from the concert stage in the latter part of their career, is exemplary of this dialectic between the authentic and mediated. Yalkut deconstructs this authenticity in *Beatles Electroniques* by contrasting film's recorded realness with the immediate synthetic image of video. In doing so, he probes larger questions: Is it possible to relate to an always mediated reality in a sincere way? How can our responses be genuine when what elicits them is so heavily constructed? Richard Dwyer and Thomas Crow provide answers. Even as they filter and reconfigure reality, mediated experiences may still offer something meaningful to the subject. They can capture a cultural sentiment, convey aspects of social consciousness, or merely make us aware of the great divide between our lived experience and the mediated world. We can still have highly personal and deeply felt relationships with these representations and what they stand for. More importantly, how we relate to these images is an authentic choice. For Yalkut, the authentic experience lies in our creative response to the differing presences of film and video that build the media representation.

Beatles Electroniques is mostly distortions of the Beatles' broadcast image filmed off the television screen. Paik's warped and waving images of the Beatles are

frequently intercut or superimposed with his dancing patterns of lissajous wave forms (fig. 3-7). Intermittently, the photographic image erupts into the flow of the distortions. In the first minute of the film, a film clip, in which an iris shot opens onto members of the band playing an acoustic guitar, flashes on the screen. Later, Yalkut edits in two high angle shots of the band playing on a stage, their dark suits starkly contrasting with the white setting. Another clip from *A Hard Day's Night's* train scene shows a gesturing Ringo Starr. In the last part of the film, Yalkut superimposes footage from the Beatles concert at Shea Stadium with video distortions. Taking the Beatles as the subject matter for their videofilm, a group whose authenticity is carefully orchestrated by rock music culture's skillful weaving of live and mediated elements, Yalkut and Paik create a compound perceptual space through the interaction of film's purported past-tense temporality and video's posited liveness.

Given Paik's own interest in themes of unity and altered states of consciousness, *Beatles Electroniques'* video distortions of a band known for their countercultural values could be considered another analogue to the psychedelic experience. In an interview with David Ross, Paik notes the affinities his work might have with the Woodstock generation. His *TV Buddha* is successful, according to Paik, "because it was what the young generation was looking for, a protranscendent aesthetic."¹⁰² His early prepared TVs, a prominent subject in *Beatles Electroniques*, would also be appealing with their "slowly repeating patterns—all nongravity motion—that is related to smoking dope."¹⁰³

¹⁰² David Ross, "A Conversation with Nam June Paik," in *Nam June Paik: Video Time, Video Space*, ed. Toni Stooss and Thomas Kellein (New York: H.N. Abrams, 1993), 57–8.

¹⁰³ *Ibid.*, 58.

As representatives of the counterculture, Paik has a particular fascination with the Beatles. Both Paik and the Beatles were concerned with and opinionated about the social issues of the day. The Beatles opted for the countercultural approach to change based on “notions of universal love and enlightenment through intellectual, spiritual, and pharmacological experimentation...”¹⁰⁴ This same belief system infuses Paik’s work. The theme of meditative enlightenment underlies Paik’s early prepared TVs such as *Zen for TV* or *TV Buddha* and the minimal and static installations such as *TV Clock* and *Moon Is the Oldest TV*. Paik’s *Global Groove* embodies concepts of oneness and universality both in its suggestion that music and dance can unify humanity and in its belief that television can draw disparate cultures into communitarian wholeness. Through Yoko Ono, Paik knew John Lennon and he used the Beatles as subjects for several of his other video works. The soundtrack for *Video Commune (Beatles from Beginning to End)*, a four-hour broadcast on WGBH that used the video synthesizer for the first time, was the complete works of the Beatles.¹⁰⁵ The broadcast had still images of George Harrison and scenes from trailers for the Beatles’ films *A Hard Day’s Night* and *Help*. Portions of *Video Commune* were reedited to make *Nam June Paik on the Beatles*.¹⁰⁶

By inserting the various film clips, Yalkut alters a psychedelic reading of *Beatles Electroniques* associated only with Paik’s interest in the counterculture and the Beatles. The film segments have a different temporal presence that jar the viewer out

¹⁰⁴ Michael R Frontani, *The Beatles: Image and the Media* (Jackson: University Press of Mississippi, 2007), 18.

¹⁰⁵ Decker-Phillips, *Paik Video*, 154.

¹⁰⁶ “WGBH Description of Video Commune,” accessed November 23, 2013, <http://openvault.wgbh.org/catalog/ntw-mla000325-video-commune-beatles-from-beginning-to-end>.

of the dizzying sensations of the video distortions. The clips are in black and white, which next to the electronic, phosphorescent color of the video manipulations, appear static and outmoded. Viewers familiar with the Beatles will most likely recognize the segments as excerpts from a previously made source, *A Hard Day's Night*. Even if one is not aware of the film, the clips' lack of coloring and iconic legibility reveal them as film photography, a medium with a past-tense temporality given that it records and preserves previously occurring events. The carefully groomed and suited figures we see in these filmic snapshots are also outdated being from the rock group's Beatlemania past. By the time Yalkut and Paik make this videofilm, the Beatles will have jettisoned their mop-top style. The film clips in their visual texture and subject matter function then as a record of something that has already happened.

Compared to the past tense of the film clips, the video image speaks to the present. Like the Beatles playing in live concert, the electronic manipulation is a performance done in real time, the dancing waves and phosphorescent colors immediately marking the electronic signal as it passes through the changed circuitry or is diverted by an outside source. Even though the image might come from a previously recorded source that is later broadcast, the ongoing contortions created in the moment of the electronic signal have an immediacy that the filmic moving image lacks. Yalkut contrasts the dynamically created space of the video image with the static, spatial representation of the film clip. Whereas figures and objects in film occupy the preexisting space of the profilmic, the motion and patterning of distortions and electronic forms actively construct the video space. The wave forms undulate not just across the screen, but into and out of the screen. As they weave themselves around

each, they create complicated volumes from their overlapping contours. The dissolving forms of the layered images in superimposition assemble a constantly changing space built from the density of form and color rather than illusionistic perspective. The video distortions and lissajous waves in addition to suggesting an immediately created moment also reference the novel perceptual spaces of the light show. Even the image of the Beatles has changed to reflect this orientation to the new. One of the more recognizable distortions shows us an image of John Lennon who has replaced the mop-top hairstyle and suits of Beatlemania with the modish spectacles and long hair of the counterculture.

Through the film and video images, Yalkut stages a conflict between the two mediums' particular kinds of presence. In his analysis of live performance in a mediatized culture, Philip Auslander challenges the ontological distinctions that place the live performance against recorded or mediated forms of cultural production.¹⁰⁷ As live performance increasingly relies on mediated forms for its presentation, seen in sound amplification or video screens at large concerts and events, it becomes more and more difficult to define what live means with any certainty. Auslander also notes a more structural mutation of the live contained in the term "mediatization" theorized by Jean Baudrillard. Here, media becomes a perceptual formation through which all experience is filtered. For Baudrillard, mediatized objects are not just produced by the media but are experiences that are understood through the ideologies and semiotics of media: "What is mediatized is not what comes off the daily press, out of the tube, or

¹⁰⁷ Philip Auslander, *Liveness: Performance in a Mediatized Culture* (London ; New York: Routledge, 1999).

on the radio: it is what is reinterpreted by the sign form, articulated into models, and administered by the code.”¹⁰⁸ We increasingly comprehend our lived experience through the perceptual and logical frameworks of the media. For Auslander, to distinguish between live performance and mediated performance fails to recognize the complex interplay between the two forms.

Auslander investigates rock music’s highly valued quality of authenticity as a blend of the live and mediated. The construct of authenticity is “linked with the romantic bent of rock culture, in which rock music is imagined to be truly expressive of the artists’ souls and psyches and as necessarily politically and culturally oppositional.”¹⁰⁹ Rock music is considered to be expressive with original songwriting and virtuosic playing and these “authentic” qualities become dependent for their effects through contrasts with “inauthentic” musical forms such as pop. Yet, Auslander points out that the primary objective of rock music is the recording, not the live, authentic performance. Seeing as how most people experience rock music, or any music for that matter, in recordings and not in live performance, Auslander argues that liveness is actually an effect of mediatization. In order for the notion of liveness to make sense, there must be an antithetical notion of the reproduction. To listen to a recording in our mediatized culture is to recognize at some level that what you are hearing existed at some time, was performed in some place, in order for its sound to be inscribed on the recording medium. The live performance, even if the rock music

¹⁰⁸ Jean Baudrillard, *For a Critique of the Political Economy of the Sign* (St. Louis, MO.: Telos Press, 1981), 175–6. Quoted in Philip Auslander, *Liveness: Performance in a Mediatized Culture* (London ; New York: Routledge, 1999), 5.

¹⁰⁹ Auslander, *Liveness*, 70.

listener never attends one, authorizes the recording as authentic. Conversely, since rock music is made to be recorded, the live performance is itself nothing but a reproduction of music recorded in the studio. Following Benjamin's argument, Auslander notes that the musical reproduction necessarily dismantles the notion of an original that grounds the aura. Attendees at live performances judge how well what they hear conforms to the recording with which they are familiar so that the live performance becomes a copy of the recording. The aura of authenticity inheres in neither the mediated nor the live, but in a dialectical relationship between the two representational modes.

Rather than asserting the past-tense and live modes of film and video as dichotomous and antagonistic, or suggesting that one is more authentic than the other, Yalkut creates a different kind of authentic experience from the creative interaction of the two modes, one that acknowledges the imbricated relationship between the live and the mediated that Auslander delineates. It is important to realize that the "live" video image in *Beatles Electroniques* is actually recorded on film thereby making it a past-tense image. But the invisibility of the filmic support obfuscates the recorded status of the video distortions. The film that records the video image provides the unacknowledged vantage point from which we can read the video image's dancing distortions as performative and live.

A Hard Day's Night, quoted in *Beatles Electroniques*, presents a similar relationship between posited live and invisible recorded presences. At the end of the film, the band's many antics finally bring them to the studio for their televised performance. Many signs that code for liveness are included in this segment such as

the band performing on stage and the frenzied fans in the studio. Also included are shots of the television studio cameras, the control room, and images of the band on television monitors. These shots support the liveness effect because it is clear that what they record is concurrent with what is happening on the stage and in the studio. They also place us in the privileged position of watching the recording devices and processes working in real time. Of course, the “live” television studio images are themselves recorded by the film, but the effect of liveness depends on that recording mechanism remaining hidden and in the background so that the “live” transmission can be foregrounded. In this way, film acts as a foil against which the presence of immediacy emerges. *Beatles Electroniques* similarly constructs video’s liveness against the invisible background of film, but it reveals the nature of that construction. Yalkut interrupts the video distortions with the recorded film clips, breaking video’s illusion of immediate presence. With these interruptions we are reminded that the video image in the videofilm is itself a recording and is just as past-tense as the film clips from *A Hard Day’s Night*.

In addition to the temporal presences associated with the film and video mediums, Yalkut also considers the interplay of presence and absence that constructs the Beatles’ identity. The choice of the Beatles as the videofilm’s subject not only reflects Yalkut and Paik’s alliance with the counterculture but also engages with a group whose effect of authentic presence was carefully constructed through media representations built on the group’s absence. Given that the band performed live in only three summer tours, the vast majority of Americans would only know the Beatles through their recordings, films, televised appearances, and other media presentations.

The televised image itself played a significant role in their introduction to an American public with sixty percent of the American television-viewing audience, the largest TV audience ever assembled, tuned in to their performance on the *Ed Sullivan Show*.¹¹⁰ Any sense of the Beatles as a genuine group of young men was a carefully crafted illusion. In his analysis of the media's construction of the Beatle's image, Michael Frontani, notes how from the beginning, manager Brian Epstein molded the Beatles for public consumption. Epstein sanded off the rough-and-tumble edges of the working-class Liverpool group, groomed them into their signature haircuts, and dressed them up in suits and ties. The intent was to produce a safely rebellious rock and roll group, one that would appeal to youthful opposition without raising the eyebrows too much of the establishment. Frontani analyzes their early image as a blend of teen idol and working-class success story, themes that were intended to resonate with American youth and the myth of hard-working advancement.

Frontani contrasts the band of Beatlemania to the more "authentic" band that emerged in late 1966 and early 1967. According to Frontani the band sought to "make their public image more authentic and consistent with their perceptions of themselves."¹¹¹ The band's new genuineness depended on their image and music being perceived as truer to the band's own artistic vision and personal qualities rather than the demands of the profit-oriented recording industry. Band members disowned their mop-top, teen idol personas; more freely expressed their beliefs on social issues such as Vietnam and civil rights; and aligned themselves with the counterculture's

¹¹⁰ Frontani, *The Beatles: Image and the Media*, 31.

¹¹¹ *Ibid.*, 126.

values and behaviors, including psychedelic drug use. Such an image presented in the Beatles' recordings and the entertainment and news media, relied on the belief that the "real" Beatles had finally emerged, yet it was also at this time that the group stopped touring and performing live. Their presence as a live group was now authorized by two absences. The band's past history of performance and the possibility that they could perform again in the future if they so chose imbued their recordings with the requisite genuineness.¹¹² The band's many mediated representations as a truer-to-self group would now stand in for the group's actual presence.

By showing us the two different versions of the group, the Beatles of Beatlemania and the Beatles of the psychedelic counterculture, Yalkut destabilizes any belief in an authentic identity for the group and points to the artificiality of their nature. That this artificiality was produced via the media is made apparent by Yalkut presenting the band in the different mediums of film, broadcast television, and musical recording. The images of *Beatles Electroniques* scatter the group across a variety of mediums thereby fragmenting any notion of the group's coherent identity. We are left to ask in which version and medium the real Beatles reside. The videofilm further unsettles the group's presence as the images and sounds that could identify the band continuously slip away into Paik's distortions and Ken Werner's electronically manipulated and looped soundtrack of Beatles' songs. We recognize the bespectacled John Lennon seen in close-up, the cinematic device that is frequently used to scrutinize the celebrity's face for slight facial movements and physiognomic details that signify the individualized and real person. But Paik distorts that image, which

¹¹² Auslander, *Liveness*, 77.

Yalkut films, making the psychological interiority of the close-up a wavering and elusive entity.

Yalkut deconstructs the illusion of the Beatle's authenticity and in doing so suggests a kind of authenticity not wedded to dichotomous terms of absence and presence but built from the individual's own creative responses to these different modes of being. As Richard Dyer argues, the instability of the star's presence is an extension of uncertainties about the nature of our own identities. The star is a paradoxical entity that is known to us only through media representations in which they are absent, but that also summon us to believe in a real person behind all the representations.¹¹³ This ambiguity pervades Western thought on the nature of the individual subject. While we assert the individual as coherent and self-present, that notion is constantly troubled by theories of society and psychology such as Marxism or psychoanalysis that see the individual as contingent on external events and forces. The star enters this fray and:

constantly jogs these questions of the individual and society, the natural and the artificial, precisely because it is promoting ideas of the individual and the natural in media that are mass, technologically elaborated, aesthetically sophisticated. That central paradox means that the whole phenomenon is unstable, never at a point of rest or equilibrium, constantly lurching from one formulation of what being human is to another.¹¹⁴

Dyer suggests that the star's curious mode of being is the very nature of humanity and the star helps us to rediscover what it means to be human. So whether we understand the star as empty sign or as a coherent subject, "a star's image can work either way,

¹¹³ Richard Dyer, *Heavenly Bodies: Film Stars and Society* (New York: St. Martin's Press, 1986); On the complex presence of the star and their image, see also John Ellis, "Stars as a Cinematic Phenomenon," in *Visible Fictions: Cinema, Television, Video* (London: Routledge, 1992).

¹¹⁴ Dyer, *Heavenly Bodies*, 18.

and in part we make it work according to how much it speaks to us in terms we can understand about things that are important to us.”¹¹⁵ Both representational modes regardless of their value as true or false can engage us and tell us something about ourselves. As the stuff of our mediatized environment, these are the raw materials from which we must build our own mode of existence.

These representations can affect us in very personal ways, even if it is only trying to understand their emptiness. Taking up the early work of Andy Warhol such as the portraits of Marilyn Monroe and his *Disaster* series, Thomas Crow argues that the artist infuses these paintings with a depth of feeling contrary to their interpretations as acquiescent treatments of mass consumption and spectacle. The serial reproductions’ inability to convey the tragic nature of the events in fact highlights that affective content. Crow writes: “We cannot penetrate beneath the image to touch the true pain and grief, but their reality is sufficiently indicated in the photographs to force attention to one’s limited ability to find an appropriate response.”¹¹⁶ We recognize the poverty of the star or the spectacle in our commodity culture in conveying genuine emotions, yet those images still speak to us at a personal level by reminding us of those same emotions. We are forced to ask, as in the case of Monroe’s death, “How does one handle the fact of celebrity death?...how does one come to terms with the sense of loss—the absence of a richly imagined presence that was never really there?”¹¹⁷ Even though we know the nature of the celebrity to be nonexistent or

¹¹⁵ Ibid., 16.

¹¹⁶ Thomas Crow, “Saturday Disasters: Trace and Reference in Early Warhol,” in *Andy Warhol*, ed. Annette Michelson and B. H. D. Buchloh (Cambridge, Mass.: MIT Press, 2001), 57.

¹¹⁷ Ibid., 51.

fugitive, the accident to be elsewhere and far away from us, we have still invented a place for that absence, a place that is very real to us, even if only in our imagination.

Yalkut's videofilms remind us of how notions of the real, the present, and the authentic are dependent upon the contrary concepts of the simulated, the recorded, and the mediated. If Warhol's repetitive and reticent images remind us of the difficulty, even impossibility, of a representation to access the fullness of our emotional experience, the videofilm also questions the kind of relationships we can have with these disparate imagistic modes. In his juxtapositions of the real and simulated in *Electronic Moon* or the present and absent in *Beatles Electroniques*, Yalkut does not suggest that one mode is more authentic than the other. Rather the authentic experience exists in our realization of the incommensurate gap between the dichotomous terms and how we must always attempt to fill that gap, to interpret that space between representational modes in some way. Like Warhol's screened images that are variously "...powerfully selective, sometimes elusive, sometimes vividly present, always open to embellishment as well as loss,"¹¹⁸ the videofilm's image flow conjures disparate modes of representation and ways that we can respond to them. This is the authenticity that Yalkut seeks: the genuineness of our own richly imagined response to the mediated images he puts before us.

¹¹⁸ Ibid., 52.

CONCLUSION

While I believe that the relationship between film and video cannot be reduced to a single generalization, I have tried to show that analysis of such relationships provides new understandings of film, video, the medium, and intermedia. My approach has been far-reaching and eclectic, utilizing individual instances in which the association between film and video are particularly apparent as case studies for my investigations. In this way, the particular filmic and videographic connections drive the arguments, interpretational frameworks, and conclusions. While the Raindance artists' adamantly assert that video is different than film, their attention to the form of their medium and the use of spatial methods of montage suggests important areas of convergence with film. The conflation of Paik and Sharit's dysfunctioning mediums in the Fluxfilms anthology calls out for an investigation of the forces driving and joining this breakdown, forces that affect all media. Yalkut and Paik's videofilms reckon with and contain the interaction between film and video in a single object making us acutely aware that to understand such work the nature and effects of that interaction need to be adequately considered.

Contained within these artists' technological idealism is a solid grounding of purported effects in highly formal and perceptual methods and a critique of technology. The Raindance artists' expanded use of montage linked their video installations to theories of montage being elaborated at the time. These theories argued that the formal separations of montage and its collisions of images of time and space influence the viewer at a phenomenological level, returning them to a bodily state of awareness. To the degree that what we know is produced by what we sense, the

perceptual stimuli elicited by filmic montage and the spatial montage of Gillette, Schneider, and Ryan also produces knowledge of the self. Such a recipe turns these video artists' claims for video technology's immediacy and potential for self-knowledge away from a technological explanation to a formal and phenomenological one.

While Paik is known as a great champion of technology's aestheticization and naturalization and Sharit's structural films are frequently described using a functionalist logic of medium specificity, both these artists show how the technological rationality underlying these explanations is itself critiqued when the two mediums are considered together. These artists' use of the operational form links them to an industrial functionalism believed to underlie not only our economic and social structures but our very processes of thinking. Operating under a threat of obsolescence, the passing relevance of a medium as well as its loss of function, Paik and Sharits cause their mediums to malfunction in indeterminate ways thereby releasing the artwork and viewing subject from the determined ends of an administered society.

Yalkut and the counterculture posited that the onslaught of technology in the multi-media show erases boundaries between sense and cognition, self and other. The ego's loss results in metaphysical union and a pathway to uncover an authentic self that could resist the falseness of the television studio culture. What we see in Yalkut and Paik's videofilms is how technology complicates the notion of a real or authentic subject produced in a synaesthetic experience. Rather than immersing the subject in multi-sensory chaos, Yalkut's videofilms meticulously differentiate film and video

technologies and put on display the representational modes that produce effects of the real or authentic. The viewer's careful consideration of the technological differences observed in the videofilm releases imaginative insights that can be considered the most authentic response of all.

Film and video come together in the sixties to enter the fray on the nature of the medium. While expanded cinema sought to enlarge the scope of traditional film, my investigation of the relationships between film and video adds another dimension to this intermedia form. Film not only left the cinematheque and fractured itself into simultaneous projections, it also engaged with the technologies and phenomenologies of video in very particular ways. Far from fusing the two mediums into something like a total work of art or synaesthetic overload, my case studies show how the maintenance of boundaries between mediums, however permeable they may be, is necessary to understanding how these mediums influence each other. Essentialist or high modernist readings of the medium are necessarily complicated as the nature of the film and video mediums are viewed relationally. Phenomenological and epistemological theories of film illuminate Gillette, Schneider, and Ryan's claim for the presence and immediacy of video. Here, film and video draw closer together as theories of montage and viewer self-knowledge are applied to both mediums.

The collision of medium in artworks or artistic contexts constantly questions their natures. Such wavering ontologies may result from the transient nature of technology itself as in the example of Paik's televisions and Sharit's films when viewed together under the peril of media outmodedness. Particularly in the case of technological mediums, their development and definition has always been inflected by

prior and subsequent technological forms. In a process of remediation instigated by obsolescence, Paik and Sharits show how mediums are always dialectically situated.

In Yalkut and Paik's videofilms, regimes of representation and specific materials and perceptual effects associated with film and video are strictly delineated. Rather than assert the medium's specificity or essentialize video and film according to those characteristics, Paik and Yalkut show how differentiating mediums can yield variable forms and creative responses from viewers. They also point to how mediums are used in concert to produce effects of the real or authentic. For Yalkut and Paik the correspondence between mediums can be just as powerful as the assertion of a single medium's properties.

My study reveals important relationships between technology, film, and video and the drive toward intermedia. It is interesting to note that the moment of cultural and industrial tension between film, television, and video in the fifties and sixties also sees a more general questioning of medium boundaries in art discourse. This tension played out in the larger media landscape for all to see as the mass-media industry grappled with proliferating technological platforms. Corporate media interests devised new techniques and content to take advantage of multiple media outlets and conditioned consumers to an environment of exchangeable formats. The artists I have investigated were at the forefront of considering how such malleable media technology affected artistic formats organized around the traditional concept of the medium. In experiments that engaged with montage theories of immediacy, media obsolescence, and media effects of authenticity, these artists demonstrated specific ways that film and video interact to produce particular results. While they recognized

that the identity of film and video were provisional and remediated, they also asserted the boundaries between film and video in order to generate imaginative effects and consider premises common to all media. In this way my study not only points to new ways of considering the historical relationship between film and video in the sixties, but it also suggests a way of thinking the distinctions in today's culture of media convergence.

APPENDIX

FIGURES



Fig. 1.1. Ira Schneider and Frank Gillette, *Wipe Cycle*, 1969

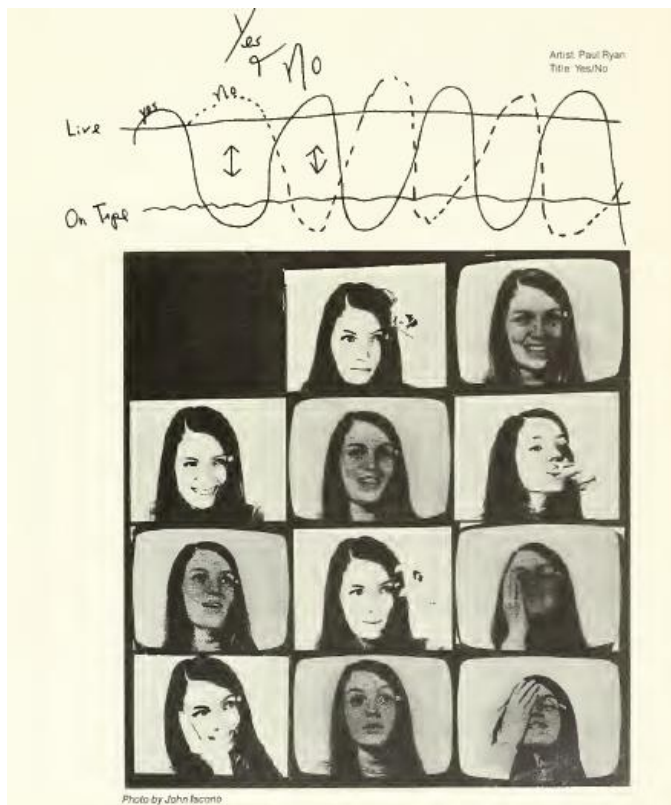


Fig. 1.2. Paul Ryan, *Yes/No*, 1970



Fig. 2.1. Nam June Paik,
Zen for Film, 1964



Fig. 2.2 Nam June Paik,
prepared TV from his
*Exposition of Music –
Electronic Television*, 1963

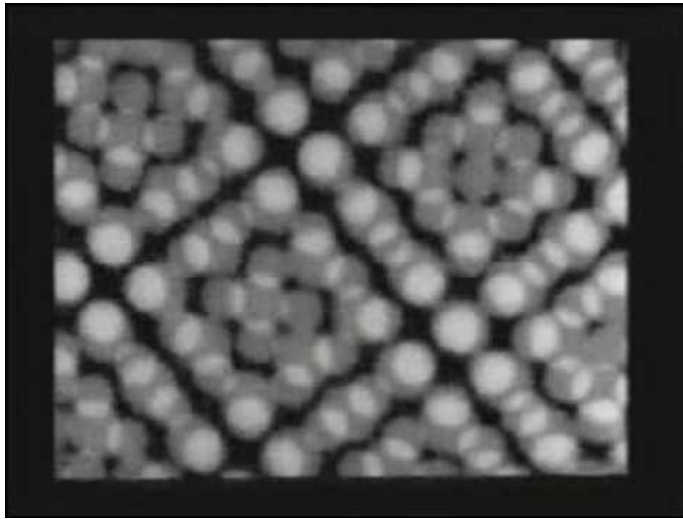


Fig. 2.3. Still from Paul Sharits' *Dots 1 & 2*, 1965



Fig. 2.4. John Cage preparing a piano



Fig. 2.5. Detail of one of John Cage's prepared pianos.



Fig. 2.6. Nam June Paik, *Piano Integral*, 1963.



Fig. 2.7. Stills from Paul Sharits' *T,O,U,C,H,I,N,G*, 1969.

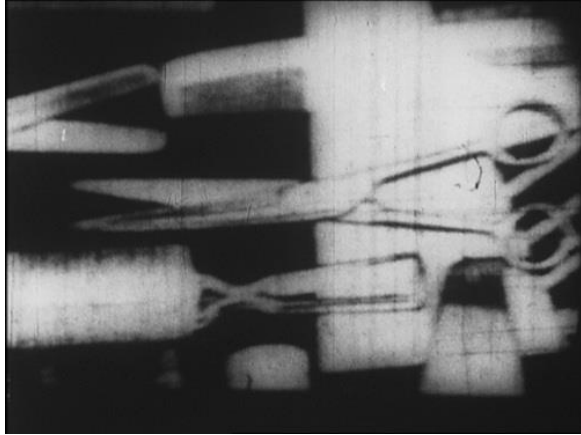


Fig. 2.8. Paul Sharits, still from *Sears Catalogue*, 1965.



Fig. 2.9. Paul Sharits, still from *Word Movie*, 1966.



Fig. 2.10. Nam June Paik, *Zen for TV*, 1963.



Fig. 2.11. Nam June Paik and Charlotte Moorman, *TV Bra for Living Sculpture*, 1969.



Fig. 2.12. Nam June Paik and Charlotte Moorman, *TV Cello and TV Glasses*, 1971

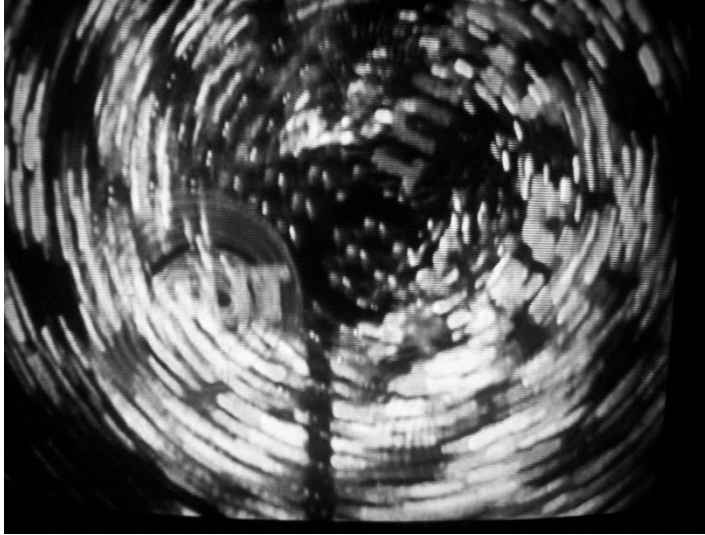


Fig. 3.1. Jud Yalkut and Nam June Paik, film still from *Turn, Turn, Turn*, 1968

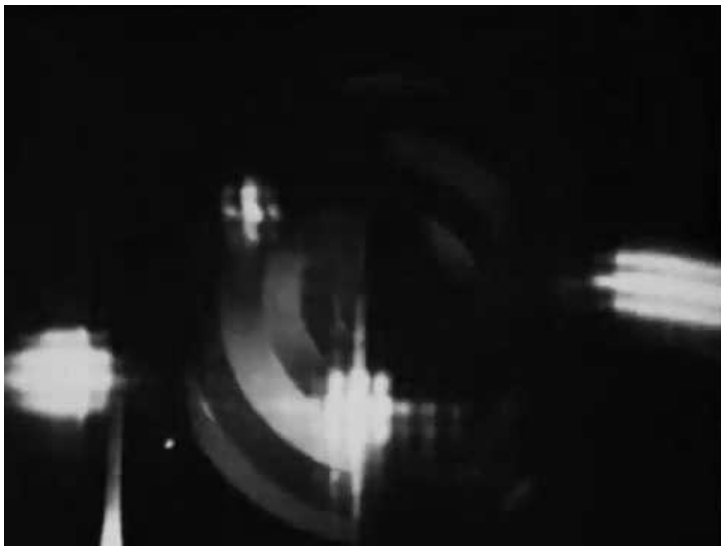


Fig. 3.2. Jud Yalkut and Nam June Paik, film still from *Turn, Turn, Turn*, 1968



Fig. 3.3. Jud Yalkut and Nam June Paik, film still from *Turn, Turn, Turn*, 1968



Fig. 3.4. Jud Yalkut and Nam June Paik, *Electronic Moon No. 2*, 1966-72



Fig. 3.5. Ralph Steiner, *H2O*, 1929



Fig. 3.6. Jud Yalkut and Nam June Paik, *Electronic Moon No. 2*, 1966-72



Fig. 3.7. Jud Yalkut
and Nam June Paik,
Beatles
Electroniques, 1969

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