Aporias of the Digital Avant-Garde

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Abstract

This article maps two divergent trajectories within a narrowly defined sphere of short-form, time-based digital media created between 1995 and 2005. Works discussed include music videos, design-oriented short films, and motion graphics by directors Michel Gondry, Virgil Widrich, Mike Nourse, Barbara Lattanzi, Rico Gatson, and design firms Logan, Ramon & Pedro, and H5. These works are considered in relation to the historical avant-garde – particularly the Structural film movement of the 1960s and 70s – and analyzed as responses to a range of cultural concerns specific to the digital age. The analysis identifies movement toward two terminal points: first, a mode of remix-based montage inspired by open source programming communities and peer-to-peer networks; and second, the emergence of a mode of imaging termed the "digital analogue," which foregrounds the material basis of digital production.

Aporias of the Digital Avant-Garde

This article maps two divergent trajectories within a narrowly defined sphere of short-form, time-based, digital media – specifically: music videos, design-oriented short films and motion graphics – created during the past ten years. Despite the fact that the work under consideration here has rapidly proliferated and resonated with many of the key theoretical issues in cinema and visual culture studies of the past three decades, it has been largely neglected by theorists and critics of digital culture.[1] Part of the reason for this neglect is practical. The works themselves are often ephemeral or difficult to access and they tend to occupy a liminal position between what is called "experimental" or "avant-garde" film and video, and the equally broadly defined field of practice termed "new media." These works therefore do not fit into any consistent curricular or publishing niche, are rarely a part of mainstream culture, do not receive theatrical distribution or broadcasting, and are often regarded with suspicion as proper objects of study within an academic context.[2] Nonetheless, I will argue that much of this work may be productively understood as a processing ground for some of the most compelling issues in digital culture, as seen across the broad spectrum of contemporary media.

I am particularly interested in considering this work's potential for understanding emergent approaches to the perception and construction of space, time, and bodies; the status of narrative; and relations between technology and material culture. As a point of entry, I propose to ask whether this work may be meaningfully understood in relation to the historical avant-garde, particularly the Euro-American Structural film movement of the 1960s and 70s, and to explore resonances with a range of cultural concerns of relevance to the digital age. I do not, however, wish to spend much time justifying my use of the term "avant-garde," which admittedly carries specific historical connotations which are not all applicable to the present discussion.[3] I will argue that these questions guide us toward two primary terminal points. The first is the movement toward a kind of "open source" video authoring modeled after the combined practices of open source programming communities and peer-to-peer file sharing networks – two practices that have significance for the future of digital media across a wide range of production and distribution practices. The second is the emergence of what I call the "digital analogue," a mode that foregrounds material aspects of production seemingly in defiance of the conventional wisdom that digital media are characterized by dematerialization and disconnection from the physical world.

Because the title of this essay features the rather glaring oxymoron "digital avant-garde," it may be useful to

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define these two terms in isolation in order to frame the use I hope to make of them in juxtaposition. First, the term "digital" rarely denotes a set of cohesive practices. Digital media are notoriously hybrid, often bringing together images, sounds, and objects that are computer-generated or mediated with others that originate in the analogue, photochemical, or textual worlds. There is, however, a certain utility to "digital" as a historicizing term, particularly as it implies its own eventual obsolescence. I am less interested, therefore, in defining "digital culture" in terms of technology, than in attempting to identify the social practices and preoccupations that are particular to the digital age. One of the things at stake within the consumer culture that surrounds digital media is the growing invisibility of its underpinning technology. This is of particular relevance given the current movement toward ubiquitous computing and wireless networks; even flat panel monitors and microprocessors that are embedded in everyday objects seem to negate the physical infrastructure of the computer and by implication, its socio-industrial base.

Within visual culture, digital imaging has come to signify a parallel ontological shift away from the indexical trace of the photograph. Where photochemical imaging could lay claim to a direct relation to the physical world, both conventional wisdom and our own experience tell us that digital images are differently disconnected from the world they purport to represent. Although the problematic of representing reality long predates the appearance of digital technology, the early 1990s marked a point-of-no-return for the representational capacity of images. In his 1991 book *Representing Reality*, documentary film theorist Bill Nichols offered this almost sheepish disclaimer:

> [through digital sampling] The image becomes a series of bits, a pattern of yes/no choices registered within a computer's memory […] There is no original negative […] against which all prints can be compared for accuracy and authenticity. There may not even be an external referent. The implications of all this are only beginning to be grasped. They clearly set a historical framework around the discussion presented in this book, which continues to emphasize the qualities and properties of the photographic image.[4]

The previous year, in his influential book on 19th century visual culture *Techniques of the Observer*, Jonathan Crary noted that digital imaging constitutes a categorical break from the photographic processes that were developed in the early 19th century. With digital imaging, Crary asserts, vision is relocated to

> a plane severed from a human observer […] Most of the historically important functions of the human eye are being supplanted by practices in which visual images no longer have any reference to the position of an observer in a "real," optically perceived world.

> If these images can be said to refer to anything, it is to millions of bits of electronic, mathematical data.[5]

The problem with digital images, as Crary defines them, is that they are not linked in an indexical relationship to the "real world" – which he revealingly equates with the "optically perceived" world.[6] What is at stake here are not merely the technical affordances of competing technologies of vision but a philosophical metaphor describing the way we attain knowledge about the world. But in characterizing the ontological shift represented by digital imaging in terms of loss, it is all too easy to find ourselves in a nostalgic desire for the prelapsarian authenticity of the photograph – a concept that is itself dubious at best.

In his essay "Avant-Garde as Software," Lev Manovich extends this loss to the failure of the avant-garde to sustain the convergence of formal and political interests:

> The old media avant-garde came up with new forms, new ways to represent reality and new ways to see the world. The new media avant-garde is about new ways of accessing and manipulating information […] The new avant-garde is no longer concerned with seeing or representing the world in new ways but rather with accessing and using in new ways previously accumulated media.[7]

Manovich aptly describes the development of database structures and recombinant media that are crucial to networked culture, but his model overlooks the potential of this new media avant-garde to engage new ways of seeing the world that are rooted not in optical perception but in the harnessing of data flows – a shift summarized by Peter Weibel as a move "from the ruins of representation to the practices of processing."[8] Part of the goal of this article is to understand the functioning of digital networks as not merely a vehicle for the transmission of data, but a means of "seeing" and understanding the world. At stake in this investigation is an emergent understanding of the ways media practitioners are enacting new forms of networked subjectivity and creativity that are specific to an "open source" authoring mode. I do not mean to uncritically privilege these networked practices, which are as readily deployed for evil as for good, but to highlight the transformative impact of networks on historical avant-garde tactics of appropriation and recombination.

Given the constraints of our present historical moment and the purposes of this essay, the "avant-garde" may be defined as a non-singular and contradictory range of minor practices that are dialectically related to – i.e, both resistant to and constitutive of – dominant media systems. These works are characterized by multiplicity, micro-politics and formal experimentation, and perhaps most disquietingly, they are often exo-commercial – that is, positioned in a marginal but necessary relationship to the economically sustaining infrastructure of the enter-

tainment and advertising industries. This definition is in sympathy with David James' work on American avant-garde film of the 1960s, which debunks the old avant-garde / commercial binary as both false and misleading.[9] At the level of both institutions and individuals, James argues for a historical model that acknowledges the fundamentally cross-pollinating relationship between commercial and experimental film practice.

My desire to reclaim the concept of the avant-garde for the digital age comes from a firm belief in the relevance of media to politics and culture, and the potential benefit of developing a critical apparatus for understanding these exo-commercial practices as embedded in a broader context with economic and social implications. Holly Willis has further argued for the value of seriously considering these works as symptomatic indicators of cultural obsessions, "Despite the general dismissal of

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these works, many music videos, as well as design shorts, offer a compelling examination of some of the central issues that we face as a culture, and indeed, one might argue that these rather disparate artworks offer a map of contemporary anxieties, fascinations and concerns."[10] What is ultimately at issue in both "digital and "avant-garde" is our ability to relate these terms to the exigencies and struggles of everyday life. Put more simply, the goal is to ascribe relevance to particular practices of digital culture in a historical context. Thus, I believe it is possible to treat the term "avant-garde" with respect for its historical specificity, but at the same time, to make a claim for its continuing usefulness with regard to contemporary art practices that have evolved in parallel with commercial-industrial media.

Modernism and Avant-Garde

In her book *The Originality of the Avant-Garde and Other Modernist Myths*, Rosalind Krauss challenges the discourse of originality on which the concept of the Modernist avant-garde was based, arguing that "the actual practice of vanguard art tends to reveal that 'originality' is a working assumption that itself emerges from

a ground of repetition and recurrence." Indeed, she argues, originality and repetition are often bound together through shared formal and structural constructs, and she identifies one such construct – the grid – as a privileged technique of spatial organization within the painted modernist frame. For Krauss, photography provided the final seeds of destruction of originality as the *sine qua non* of modernist art. Her argument turns approvingly to the photographic work of Cindy Sherman and Sherrie Levine as marking a break with the modernist notion of origin, moving instead into an era characterized by the postmodernist discourse of the copy. Now, the operative question is whether the "discourse of the copy" that so aptly described the Appropriationist movement of the 1980s (of which Levine and Sherman were a part) is still sufficient as a descriptor of what is at stake in digital media.

In digital media, the act of copying – a fundamental part of digital composition – has moved from figure to ground, whether at the level of the individual pixel, the sample, or the peer-to-peer network. The status of the copy is no longer at issue – it is as much of a given to digital composition as brush strokes are to painting. To further update Krauss' take on the dynamic interplay between originality and repetition, we must revisit her privileging of the grid as a structuring framework. The grid, for Krauss, marked Modern art's categorical withdrawal from representation and mimesis.

> *Flattened, geometricized, ordered, it is antinatural, antimimetic, antireal. It is what art looks like when it turns its back on nature. In the flatness that results from its coordinates, the grid is the means of crowding out the dimensions of the real and replacing them with the lateral spread of a single surface.[11]*

Krauss goes on to ruminate on the irony of the avant-garde artist turning, again and again, in a celebration of his own originality to the form of the grid for its realization. "That so many generations of 20th century artists should have maneuvered themselves into this particular position of paradox – where they are condemned to repeating, as if by compulsion, the logically fraudulent original – is truly compelling."[12] She further argues that nothing less than the discursive collusion of museums, historians, and makers of art has served to continually assert the superiority of originality over repetition in modern art, a conundrum that was left to postmodernism to outstrip.

Within digital media, however, it seems clear that the 2-dimensional X-Y axis of Krauss' modernist grid has given way to work that places equal if not greater fetish value on the Z-axis, and the possibility, if not the imperative of composing in depth using 3-D modeling software, video game engines, immersive and telepresent technologies, mobile media, etc. In his book *Snap to Grid*, Peter Lunenfeld identifies the 2-dimensional grid as the enemy of the digital designer, whose first act

upon opening an application is to turn off the snapping function so as not to be constrained by the quantum logic of arbitrarily imposed Cartesian coordinates. In the work under consideration here, it is possible to identify two responses to this tendency that suggest alternatives to the privileging of the Z-axis. Within the realm of the "digital analogue," there is frequently a gravitation toward work that foregrounds the tension between flatness and depth, a kind of resistance to immersion that arguably un-privileges 3-dimensionality. And in the zone of networked communication, a figurative Z-axis may be understood to signify the dimensional structure of the Internet or the datasphere of wireless media that concerns practitioners of mobile and distributed media.

Open Source Paradigm

Within the realm of what may be termed "open source video" – i.e., re-edited video files that are traded online and via file-sharing networks – it is possible to view the rhizomatic structure of the Internet as a corrective to the Cartesian coordinates of three-dimensional space. This is particularly realized in the structure of global peer-to-peer distribution networks, which can no longer be regarded as external and posterior to the digital artwork itself. Instead, I believe we are witnessing a transformation of the position of the digital artwork as fundamentally entangled with circuits of replication, recombination, dissemination, and along with them, endless potentials for productive mutation. Both Lunenfeld and Manovich have described this transformation as a shift to "information-based aesthetics," impacting a broad base of digital practices from art and architecture to film and computational media. When addressing works that emerge from the informational space of the network, we are dealing not with originals and reproductions but memes and mutants – circuits of data flow and transformation that assert their own ontological status. Perhaps most importantly, we must address these networks in both material and functional terms, as cultural formations that are the products of material and ideological necessity and not merely passive conduits for data.

A recent cultural object to emerge from this space is the *Grey Video*, which was created and released anonymously in October 2004, only to be shut down by the record label EMI as part of its continuing efforts to enforce their control over copyright of the Beatles' *White Album*. The background to this story is widely known: on February 24, 2004, a group called Downhill Battle organized a day-long electronic civil disobedience action called Grey Tuesday. Downhill Battle sought to protest the legal action taken by EMI to suppress a remix by DJ Danger Mouse that combined rhythm tracks from the Beatles' *White Album* with vocal tracks from Jay-Z's *Black Album* to create the underground sensation *The Grey Album*. During the 24 hours of Grey Tuesday, over 100,000 copies of the Grey Album were reportedly downloaded from hundreds of sites across the Internet

and an estimated million more copies were traded over file sharing networks. At the same time, hundreds more websites demonstrated their support by converting their home page color palette to all grey. Although its impact has been largely symbolic, Grey Tuesday is still regarded as the most successful instance of organized civil disobedience against the music industry's actions to protect its copyright against fan re-mixes. Nine months later, the Grey Album was followed by the *Grey Video*, which was created and released anonymously by the design firm Ramon & Pedro. [Fig. 1] The "official" *Grey Video* website[13] was predictably shut down within a few weeks of its launch, although the video continues to circulate on mirror sites and peer networks across the Internet.

Figure 1. Ramon & Pedro, *Grey Video*.

The *Grey Video* begins with a performance by the Beatles before a live television studio audience. Just moments into the song, images of the rapper Jay-Z begin to encroach on the performance and his own lead vocals are added to the background music of a cut-up Beatles song. Images of bumbling and ineffectual broadcast engineers may be understood as a metaphorical jab at the RIAA, who are powerless to recover control of the images being disseminated, first as Jay-Z's image appears on one and then all three television monitors in the control booth and later as the musical remix causes a breakdown of both artists' performance. As Ringo's drum kit is replaced by a set of turntables and the words "DJ Danger Mouse," the now vestigial musicians Paul and George are perfunctorily replaced by dancers; and John performs a virtuosic break dance punctuated by a protracted round of spinning on his head and a screen-exiting backflip that leaves the singer's signature mop-top wig lying symbolically on the stage. On one level, all of this amounts to little more than a parodic gesture, but the electronic civil disobedience of Grey Tuesday and the visuals of the obviously hastily produced *Grey Video* eloquently speak to both consumer frustrations with increasingly restrictive copyright laws and the growing power of peer networks to subvert their enforcement.

Apart from the barely noticeable R+P logo that flashes on screen at the end of the video, Ramon & Pedro

nowhere acknowledge responsibility for the *Grey Video*, which was made with no possibility of direct profit for the design team. Indeed, a disclaimer at the head of the video announces that it was made as an experiment and not for commercial purposes. But the video was also made in full knowledge that the official site would be shut down and based on the trust that a decentered grassroots network would step in and take over distribution of the video. I don't necessarily want to offer Ramon & Pedro[14] as outlaw media hackers – they are rather savvy entrepreneurs who understand the economy of value in viral marketing and the power of aligning themselves (albeit slightly disingenuously) with the anti-industry, anti-commercial sentiments of today's remix culture. Taken in aggregate, however, I believe the Downhill Battle protest, coupled with the widespread, illicit circulation of the *Grey Video* may be seen as exemplary of a mode of practice that is defined by the logic of the open source network at the level of production, distribution, and reception. At stake here is not so much the functioning of a representational system or the capacity of digital technology to create impossible images, but the broader alignment of network technologies with cultural movements around intellectual property and copyright reform – all of which has significant implications for questions about globalization and corporate media conglomeration.

Digital Resistance?

Among the most vocal advocates of the concept of a digital avant-garde that is directly engaged in resisting corporate domination of media is the Critical Art Ensemble (CAE), which argues unabashedly for work that places "a high value on experimentation and on engaging the unbreakable link between representation and politics."[15] In their 2002 manifesto *Digital Resistance*, CAE elaborate on their call for a critically engaged "electronic civil disobedience"[16] that explicitly works to bridge the formal and political dimensions of avant-garde practice. CAE argues that, just as capitalism has become increasingly nomadic, mobile, dispersed and electronic, artists and activists must respond in kind, modeling forms of digital resistance that are equally liquid but preferably operating by means that are less compatible with the status quo functioning of the entertainment industries:

> After all, an avalanche of literature from very fine postmodern critics has for the past two decades consistently told us that the avant-garde is dead and has been placed in a suitable resting plot in the Modernist cemetery alongside its siblings, originality and the author. In the case of the avant-garde, however, perhaps a magic elixir exists that can reanimate this corpse.[17]

The elixir they refer to is, of course, digital technology and the increasing dependence of late capitalist eco-nomics on global communication networks and their vulnerability to cultural hacking. "The avant-garde today cannot be the mythic entity it once was. No longer can we believe that artists, revolutionaries, and visionaries are able to step outside of culture to catch a glimpse of the necessities of history as well as the future." In practical terms, CAE propose "cellular constructions aimed at information disruption in cyberspace." They thus advocate hacking as both an art form and political weapon, which points to the importance of thinking not just in terms of media objects and practices but their evolving contexts of distribution and exhibition. Unfortunately, the vocabulary of Hollywood film distribution obscures the functioning of networks and communities – some physical, some online or virtual – within which digital files are copied, reproduced, and traded. Within such a network, distinctions between viewers and producers are irretrievably blurred and the one-way logic of television broadcasting and theatrical distribution becomes the multi-directional, many-to-many dialogue of the BitTorrent network.

Remix as Politics

Mike Nourse's short remix video *Terror Iraq Weapons* is one of many short, "open source" videos to appear during the lead-up to the 2004 American presidential election. [Fig. 2] To create the video, Nourse extracted each occurrence (or variation) of the words "terror," "Iraq" and "weapons" from a single speech by President George W. Bush and grouped them in the order in which they occurred. Nourse's deceptively simple conceit poses a surprisingly effective critique of both the Bush campaign's mendacious association of al Qaeda's attack on the World Trade Center with the regime of Saddam Hussein and the central canard of the administration's advocacy of war, namely the existence of weapons of mass destruction in Iraq prior to the American military onslaught in 2003. At the same time, Nourse's video invites us to think about the functioning of the news media as a passive echo chamber for campaign and administration talking points. The low-tech simplicity of Nourse's process invites viewers to imagine creating their own variations on this project, transforming virtually any electronic broadcast into potential raw materials for re-editing and redistribution.[18]

The other thing that I find particularly interesting about Nourse's video is the move toward thinking in terms of keywords as the primary means of understanding and reprocessing the content of a media broadcast, which is peculiar to the database age. The attribution of metadata, such as keywords, to any media set constitutes a similar process – the distillation of key concepts from a field of possibilities. The result, as with the information-handling capacity of a database system, is to amplify the power of recombination and use of the data set, in this case, turning media consumers into producers of alternative or resistant meanings. I view the linguistic

mutation of Nourse's video as distinct from other appro-priative practices in politically engaged documentary and avant-garde film, such as Emile de Antonio's In the *Year of the Pig* (1968) or Charles Ridley's *Panzer Ballet* (1940), in which propaganda images are given opposi-tional meanings through reediting and recontextualiza-tion.
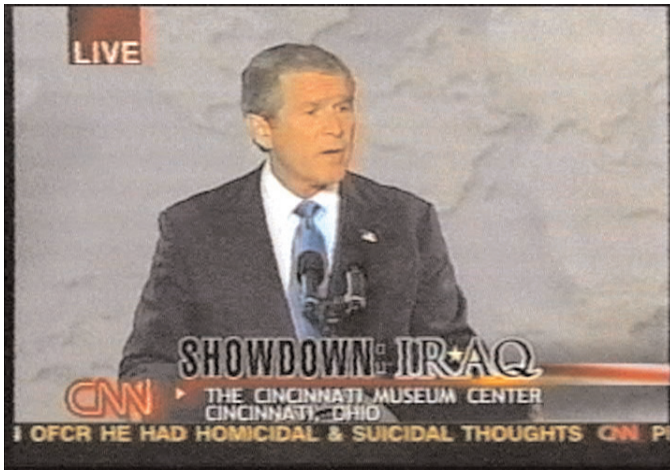

Figure 2. Mike Nourse, *Terror Iraq Weapons*.

Nourse's film and many others like it, including Lenka Clayton's *qaeda quality question quickly quickly quiet* (2002), operate in a specifically linguistic realm, with almost total disregard for the visual. Clayton's film, which has also been released in audio-only format on LP (thereby underscoring its relation to DJ culture), takes every one of the 3814 words in Bush's infamous "Axis of evil" State of the Union speech and simply re-edits them into alphabetical order. In both Nourse's and Clayton's videos, the image of the president jumps spastically around the screen, enslaved by the syntactic rearrangement taking place in the verbal register. This welcome reversal of the usual image-sound hierarchy has its most disruptive impact on the performative aspects of the political speeches, whose constructed inflections and cadences are simultaneously subverted and revealed by the imposed structure of the re-edit. Part of what interests me here is the fact that this reor-ganizing principle is based on mathematical or alphabet-ical algorithms that might appear to operate independ-ently of an ideological imperative.

Structural Film as Archetype

This type of systematic, algorithmic manipulation strong-ly resembles the Euro-American Structural film move-ment of the late 1960s and early 1970s, which was associated with filmmakers such as Michael Snow, Hollis Frampton, Ernie Gehr, Paul Sharits, Joyce Wieland, and Peter Kubelka, and which finds an active legacy in the continuing work of filmmakers such as James Benning, Su Friedrich, Morgan Fisher, and Martin Arnold. Although highly influential among experi-mental filmmakers, this work was deservedly criticized for its makers' decision to pursue a set of artistic inter-

ests that were fundamentally apolitical and inward-look-ing, even in the midst of the cultural turmoil surrounding the Vietnam war and civil rights movements. For David James, this movement aligns seamlessly with the con-ceptual and minimalist movements in the art world – posing an institutional critique of the art world's persist-ent effacement of the materiality of its objects. "Pure film," as James calls it, constituted cinema's response to Clement Greenberg's call for medium specificity, draw-ing attention to the surfaces and planes of the film image and its unique, artistic properties by using tech-niques such as scratched emulsion, loop printing, and mathematically derived editing structures.

Structural film is often misunderstood as a fundamental-ly reductive and solipsistic practice when, in fact, much of the most interesting work is engaged in broader questions of historiography, narrative, memory, percep-tion, and cognition in the cinematic processing of space and time. Ernie Gehr's work is exemplary in this regard, fulfilling both the rigid structural impulse of the move-ment's most extreme adherents, while simultaneously engaging in broader philosophical, historiographical, and perceptual concerns. Likewise, Morgan Fisher's body of work, which offers cinema's most esoteric and monoma-niacal examination of the processes and mechanics of the cinematic apparatus, also constitutes one of the most erudite commentaries on otherwise too-easily-sup-pressed aspects of the Hollywood film industry.

While Structural film has been largely regarded as a footnote within film studies, it has resonated with remarkable tenacity in certain sectors of digital media art. Lunenfeld's decision to include a chapter on Structural filmmaker Hollis Frampton in *Snap to Grid*, for example, has been much commented upon as a bizarre anachrony in a book ostensibly devoted to digital culture and design. But Lunenfeld's gravitation toward work by Frampton and other Structuralists is not merely idiosyn-cratic. The majority of Structural films are themselves mathematical or algorithmic in conception – characteris-tics that are consonant with the workings of digital media. Indeed Lunenfeld argues, "the ascendancy of the digital image has rendered experimental film ripe for a renaissance […] the experimental cinema can serve as a model for computer-inflected art. I believe, in fact, that the most interesting new media works aspire to the condition of the experimental cinema without quite real-izing it."[19] In her book *New Digital Cinema*, Holly Willis likewise identifies Ernie Gehr's Structuralist classic *Serene Velocity* (1970) as a key progenitor of digital media's fascination with space as "our era's primary focus of concern," noting that *Serene Velocity* was cre-ated within a few months of the prototype network that would become the Internet.[20]

A somewhat more literal case in point may be found in the work of artist Barbara Lattanzi, who has created a series of image processing systems that function as handlers for online media she calls "idiomorphic soft-

ware."[21] These include *EG Serene*, which is named after Ernie Gehr's *Serene Velocity* and which takes any piece of Quicktime video and provides controllers that allow users to approximate the editing patterns found in *Serene Velocity* (1970);[22] and *HF Critical Mass*, which operates on the same principle in order to mimic the editing structure of Hollis Frampton's *Critical Mass* (1971).[23] Part of the reason I find this interesting is that Structural Film's attention to its material substrate, which represented the apotheosis of cinematic medium specificity and attention to materiality, is precisely the kind of relationship to the apparatus of production (the computer as object-machine) that is largely denied to makers of digital media who are forced to operate in a field of zeroes and ones. In Lattanzi's work, however, the emphasis is on interface; on constructing systems that handle and reconfigure pre-existing media into new patterns.

A handling system such as Lattanzi's offers users a form of empowerment and control that is of an entirely different order than conventional interactive narratives. It also suggests ways to talk about the specificity of digital media that do not simply replicate the formalist impulses of Structural film. While these projects openly pay homage to their Structural film predecessors, the connection is relatively superficial and certainly ahistorical. A more vibrant and deserving legacy of certain aspects of the Structural film project may be found in the work of artist Rico Gatson, who, in the last few years, has created a series of videos using a simple form of digital manipulation performed on sequences drawn from Hollywood films.

Figure 3. Rico Gatson, *Gun Play.*

Gatson's *Gun Play* (2001) extracts the scenes of violence from two Hollywood genre films – *Foxy Brown* and *The Good, the Bad, and the Ugly* – and composites them into kaleidoscopic patterns around a central axis. [Fig. 3] His work honors the rigid mathematical schema of a Structural film through the symmetrical repetition of images, while simultaneously engaging thematic issues of race, colonialism, and violence in Hollywood. Gatson's multiplied frames (which are ideally presented

as large-scale installations) and condensed soundtrack speak to the formal seduction of the Hollywood spectacle, which too often fascinates when it should repulse. Gatson shares with Nourse the alembic process of reducing image sequences to their essence. Both projects are also heavily dependent upon viewers' access to pre-existing, extra-textual knowledge – the significance of Nourse's keywords in a presidential speech, for example, or the perversity of merging Pam Grier's most famous blaxploitation character with the steely-eyed gunslingers of a spaghetti Western.

But Gatson's work, which emerges from the worlds of sculpture and installation-based studio art, has a different relation to physical presence than the film images he appropriates. As a result, *Gun Play* and other structurally similar works such as *Jungle Jungle* (2001), and *Celebration* (2001), do not overtly address the transformation that this work enacts on its original materials. Indeed, the straightforward mirror-imaging effect almost seems calculated to be non-labor-intensive, exploiting the ease with which digital image processing software performs tasks such as the multiplication and inversion of images. Gatson's work thus engages its subject primarily at the level of ideology and dispenses with the materialist fixations of Structural film. For a critique of Hollywood stereotypes and structural repetition that is also concerned with the physicality of film images, we must turn to a mode of practice that is diametrically opposed to Gatson's. Perhaps the most remarkable example of this is the work done in the last few years by Austrian experimental filmmaker Virgil Widrich.

The Digital Analogue

Widrich, along with the filmmakers Peter Tscherkassky and Martin Arnold, is part of a "3rd generation" of Austrian experimental filmmakers who all share an obsessive interest in fragmenting and decomposing film frames and working with movement and repetition within the frame. Until recently, Widrich was the only one of the three to work digitally. Both Arnold and Tscherkassky have prided themselves on rejecting digital technology, even as they create works that are deeply imbricated with the logic of digital media in terms of repetition and recombination. Part of the reason I am interested in Widrich is that he is making hybrid films that include the return to paper as a substrate for the moving images he creates. In the last three years Widrich has completed two films in this mode, *Copy Shop* (2001) and *Fast Film* (2003), both of which are based on a method of production that requires thousands of digital video frames to be printed out on paper, folded, torn, and then re-animated. [Fig. 4] On one level, this work constitutes a return to primitive cinema, the kind of frame-by-frame hand-made production described by Lev Manovich as characteristic of digital cinema[24] – but on another level, it demonstrates a process that calls a genuinely unusual degree of attention to the material substrate of cinema. The result for viewers is an acute awareness not only of the

materiality of the film they are watching but the layering of moments in time that is allegorized through the production process.

Figure 4. Virgil Widrich, *Fast Film*.

Fast Film also presents an extreme and literal use of intertextuality, in which characters from nearly three hundred different films move seamlessly through a single narrative space. The film suggests a re-assertion of the individual subject as the associative consciousness of the narrative and assures that each viewing experience will be different, as viewers recognize different clips, characters and moments from each sampled film. The structure of *Fast Film* is that of a recombinant database that serves as both homage and parody in its affectionate pillaging of Hollywood history. Arguably, it is the anxiety attending the ethereality of digital technology that occasions this extreme foregrounding of material processes – namely the crazy, obsessive work of printing, numbering, folding, tearing and then re-photographing tens of thousands of film frames. Another factor is our immersion in an era when questions of copyright and intellectual property have moved from the expert discourses of litigation and technology into the forefront of many people's everyday lives.[25]

Widrich's rejection of the ease of digital compositing in favor of laboriously captured, printed, torn and folded origami animations provides part of the justification for its existence. This labor, in fact, gives the lie to contemporary discourses about the ease and simplicity of digital piracy and the lack of creativity among those who violate the copyright of others. The underlying labor is self-consciously referenced only once in the film, when a train chase ends by plummeting off the side of a cliff. After plunging downward through space, the animated cutouts crash through the Mardi Gras cemetery scene from *Easy Rider*. The chaotic trains puncture this moment of relative calm, burrowing down through the film plane into a thick stack of animation cels as if descending through the earth's core. In this moment, Widrich lays bare the part of his filmmaking process that would ordinarily be suppressed.

We may view this as a return to Krauss' modernist grid, which has been deliberately tipped over and laid on its side along the Z-axis while a similar violence is done to the frame – that other inviolable rectangle of modern art: nearly every image is torn, folded, sawed or crinkled and thereby committed to a new context before being rephotographed. Fast Film is perhaps the quintessential instance of the "digital analogue" – a small but growing subset of work that attempts to renegotiate the basic terms of digital representation as something that requires attention to the material substrates of even the most ephemeral practices.

Foregrounding the Physical

While Widrich is the most virtuosic figure in this submovement, perhaps the most influential one is the French director Michel Gondry, who has taken low-tech materialist aesthetics to new heights, famously constructing animations out of everyday objects such as Legos (White Stripes, *Fell in Love With a Girl*), cardboard cutouts (Chemical Brothers, *Let Forever Be*) and the yarn figures that run amok, attacking a knitted icon of the Capital Records building – itself an icon of a former age in analogue music technology – in Steriogram's *Walkie Talkie Man*. [Fig. 5] Likewise, Gondry's brother, Olivier "Twist" Gondry created a video for the French jazz ensemble Les Fils de Teuhpu's Bricoleur, which replicates Widrich's animation method, while simultaneously parodying the labor-intensive process of animation by portraying a beleaguered worker who is forced to manually sort thousands of unruly images that comprise the musical performance.

Figure 5. Michel Gondry, *Walkie Talkie Man.*

It is not yet clear whether this fetishization of the material is simply an inventive backlash against the excesses of digital image manipulation, or a straightforward pastiche of previous forms. However, the Gondry brothers continue to be responsible for some of the most innovative music videos of the present decade, in part thanks to their attention to film history. Michel Gondry's homage to Busby Berkeley dance sequences in *Let Forever Be*,

Figure 6. Michel Gondry, *Let Forever Be.*

for example, relentlessly parodies the repetitive overuse of digital effects in music videos, especially the kaleidoscopic multiplication of bodies and mechanically choreographed dance moves. [Fig. 6] The video seamlessly traverses the boundaries of analogue and digital representation, interlacing digital images with cardboard cutouts and computer-duplicated figures with look-alike dancers. More esoteric is Gondry's (perhaps unconscious) homage to Hollis Frampton's *Zorn's Lemma* (1970) in the video for Jean-Francois Coen's *La Tour de Pise*. Like the protracted alphabetic sequence in Frampton's film, the video presents images captured from signs and text fragments in commercial culture. This visualization of the language in precise synchronization with Coen's song serves to materialize the text of the vocals, in effect elevating the subtitles to the primary content of each image.
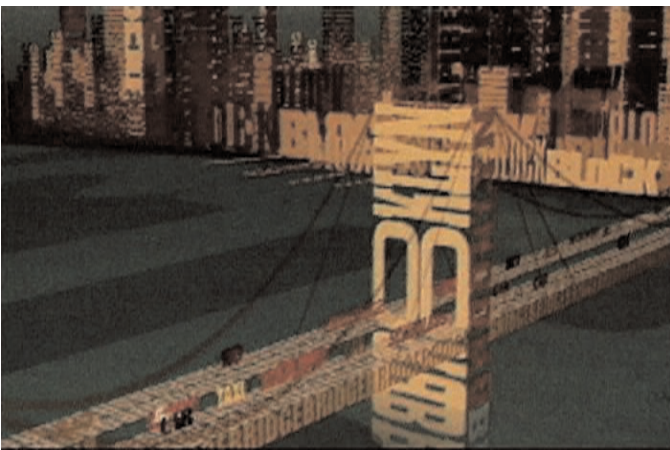

Figure 7. Antoine Bardou-Jacquet's video for Alex Gopher's *The Child*

The materialization of text in an urban landscape is nowhere more in evidence than in French designer Antoine Bardou-Jacquet's video for Alex Gopher's *The Child*. [Fig. 7] Bardou-Jacquet's all-textual rendering of New York city borrows its basic concept from Jeffrey Shaw's *Legible City* project from the late 1980s, while stripping narrative volition away from the viewer. Whereas Shaw's project allows reader-users to simulate moving through geographically and architecturally cor-

rect streets of Amsterdam, Manhattan, or Karlsruhe on a stationary bicycle while reading the text of a story mapped onto buildings in the city, *The Child* delivers a high-speed chase through the streets of New York City with both landmarks and people rendered as all text. The tension that exists in these works hinges on the conflict between real and constructed environments, as well as the insistent interplay of surface and depth. This stylized dimensional tension is taken to new heights in LA design firm Logan's Information Contraband video for DJ Money Mark. [Fig. 8] Eschewing even the minimal narrative of *The Child*, *Information Contraband* revels in pure stylistic excess, drawing its inspiration from the colorful visual aesthetics of Thai movie billboards, where two- and three-dimensional characters interact, moving seamlessly between stasis and action. Also at issue in much of this work is an ongoing negotiation of the lines between live action and animation, and photographic and digitally generated space.[26]

Figure 8. Logan, *Information Contraband*.

Against Convergence; For Syncretism

It is a truism of the digital age that media have lost their specificity, that art history's cherished formal properties have been consigned to the dustbin of history, replaced by elaborately sequenced but otherwise undifferentiated combinations of zeroes and ones. The rhetoric of digital convergence began in the research laboratories at Xerox PARC in the late 1960s and has been a dominant trope of digital culture ever since. The concept proved agreeable to the computer and entertainment industries as they sought to articulate a vision of technology to consumers eager to purchase each successive generation of media technologies en route toward one vast interoperable digital system. Convergence also works effectively at the level of practice by describing the multifunctional software tools for digital designers who often move fluidly across boundaries of sound and image editing, visual effects, CGI, interface design, and animation. Finally, convergence offers a useful model for understanding what is happening at the corporate level

in terms of mergers and the vertical conglomeration of media and technology industries.

For some theorists, however, convergence marks a dangerous turn away from the specificity of individual media. Friedrich Kittler, in *Gramophone, Film, Typewriter* (1999), describes the situation with what seems to be a rising sense of panic:

> *Before the end, something is coming to an end. The general digitization of channels and information erases the differences among individual media. Sound and image, voice and text, are reduced to surface effects, known to consumers as interface. [...] And once optical fiber networks turn formerly distinct data flows into a standardized series of digitized numbers, any medium can be translated into any other. [...] a total media link on a digital base will erase the very concept of medium.[27]*

For Kittler, these undifferentiated streams of digital information threaten to obviate not only discrete media, but the human bodies once capable of perceiving them. The euphoric dissolution of media and bodies resonated in late 90s digital theories that emphasized the transition from atoms to bits, and the celebratory figuring of digital media as ethereal, disembodied, cyber. The ideology of dematerialization – what Lunenfeld calls "vapor theory" – divorces the products and practices of digital culture from their position in history and the socially and materially grounded circumstances of their construction.

According to this model, not only is it impossible for non-specialists to understand the workings of digital technology, a concomitant "myth of transparency" identified by Laura Marks renders the material substrates of computer technology invisible.[28] The promise of transparent, ideally functioning technology, Marks argues, taps into latent desires for virtual immortality. When we are reminded of the physical-ness of computers (e.g., via their propensity for crashing), we are also reminded of their imminent obsolescence and with it our own mortality. As a corrective, Marks suggests looking for "digital artworks that refer to the social circumstances in which they were produced, or that draw attention to the physical platforms on which they were built."[29] For Marks, one such response lies in the fetishization of older, deliberately low-tech art forms such as ASCII art that draws attention to the physical shapes of letters on the printed page.[30]

An alternative to the homogenizing effect of convergence may be found in the language of cultural anthropology. The term syncretism, which is used to describe the layering of cultural practices brought about by colonialism or immigration – the pantheistic worship of Catholic saints in the Santeria religion, for example – may also be repurposed to designate the layering of technological practices within digital culture. Unlike convergence, a syncretic relationship does not imply the

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erasure or collapse of distinct practices. Rather, it describes the combination of disjunctive elements into a functional relationship that bears the continued traces of each object's former existence. One consequence of the rhetorical shift from convergence to syncretism is the potential foregrounding of historicity. Where convergence tends to be ahistorical, syncretism emphasizes the temporal gaps between objects and artifacts that remain embedded in their historical and cultural moments – not simply on a technological register, but in terms of their original cultural resonance. The concept of technological syncretism, then, permits an understanding of digital media with respect for the material elements of which they are constituted.

Aporias of History

Whereas the Modernist avant-garde privileged materiality as a means of exploiting the formal potentials of medium specificity, the privileged objects in this essay preserve a relation to the material world that grounds them historically. I believe we come closest to a meaningful engagement with the past through media when those media preserve a sense of their own embeddedness in a historical moment and their material systems of representation. Syncretic media, by definition, retain traces of the various competing and sometimes contradictory forms of which they are composed. In the process, these hybrid works announce a relationship to their medium that invites us to ask the right questions about how they are constructed and the potential relevance of medium specificity to understanding their importance. Arguably, it is through the foregrounding rather than the effacement of the material substrates underlying certain instances of digital media, that we find the most suggestive and historiographically relevant traces.

The title of this paper pays homage to Hans Magnus Enzensberger's essay "The Aporias of the Avant-Garde" from 1962, a cautionary tale and critique of the dangers of the ideology of the "avant-garde" being tied to radical social agendas. Enzensberger warns against the pretensions of movements like Futurism that were so easily swept up into the political ideology of fascism and the avant-garde's general tendency to slip toward variously doctrinaire forms of political sloganeering. As Enzensberger argues, an avant-garde that is unconscious of its aporias – its internal contradictions and obfuscations – is even more dangerous than the reactionary politics that inevitably surface to resist it. It is particularly important to be realistic about the limitations of the work under consideration here; to see where we are in our historical moment and to recognize the fact that the vast majority of this work, for example, recapitulates the gender, racial, and geographic biases of the entertainment industries on which it depends. Likewise, we should question this work's implication in the technology industry's discourses of democratization while remaining in service to the interests of media conglomerates and global technology industries.

But as lines between categories of digital art making continue to blur, it is necessary to re-examine outmoded distinctions between the practices and tools of cinema, video, music, animation, graphic design and motion graphics. Just as digital practitioners move fluidly across these boundaries, theorists and historians of new media must develop similarly mobile strategies of critical practice unencumbered by the burden of past media and analytical paradigms. It is not an avant-garde free of contradictions that we seek, but one that illuminates the position of digital media in relation to systems of control – including the rules of representation, technology, and history.

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References:

[1] Of course there are notable exceptions, especially Holly Willis' recently published *New Digital Cinema: Reinventing the Moving Image* (Wallflower, 2005). This is as good a time as any to acknowledge my indebtedness to Holly Willis' thoughtful engagement with this body of work during her tenure as editor-in-chief of *Res Magazine* and co-curator of the ResFest, a traveling festival responsible for promoting and exhibiting some of the most interesting short form media of the past decade. Also of interest is Andrew Darley's *Visual Digital Culture: Surface Play and Spectacle in New Media Genres* (Routledge, 2000), which dealt with a previous generation of music video, and Scott Bukatman's *Matters of Gravity: Special Effects and Supermen in the 20th Century* (Duke, 2003), which is particularly useful for its commentary on the problematic role of pleasure for academics who are concerned with popular media.

[2] The primary cultural vehicles for this work have been limited to festivals and trade publications, such as the US's *Res/fest*; the UK's *onedotzero* and *Ninjatune*; and Japan's *Gas TV*.

[3] I would argue that this term is capacious and porous enough, even acknowledging its previous uses, to suggest a type of media art practice that is formally or politically experimental, innovative or provocative and I ask the reader's indulgence in accepting this as an operational definition of "avant-garde" media art.

[4] Bill Nichols, *Representing Reality: Issues and Concepts in Documentary* (Indiana University Press: Bloomington, IN 1991), p. 4.

[5] Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (The MIT Press: Cambridge, MA 1990), p. 2.

[6] From my perspective, both Nichols and Crary choose highly unfortunate terms for describing the *real* world. Where Nichols writes about the "historical" world; Crary opts for "optically perceived" world, both of which arguably raise more objections than they dispel.

[7] Lev Manovich, "Avant-Garde as Software," http://www.manovich.net/docs/avantgarde_as_software.doc (1999), p. 12.

[8] Peter Weibel, "Jordan Crandall: Art and the Cinematographic Imaginary in the Age of Panoptic Data Processing" in Jordan Crandall, *Drive*, (ZKM: Karlsruhe, Germany, 2002), p. 2.

[9] See David James, *Allegories of Cinema: American Film in the Sixties* (Princeton University Press: Princeton, NJ, 1989).

[10] Holly Willis, *New Digital Cinema* (Wallflower Press: London, UK, 2005), Chap. 2.

[11] Rosalind Krauss, *The Originality of the Avant-Garde and Other Modernist Myths* (The MIT Press: Cambridge, PA 1993), p. 158.

[12] Ibid, p. 160.

[13] http://www.greyvideo.com

[14] The design team of Ramon & Pedro are actually two Swiss designers named Antoine and Laurent.

[15] This position, of course, grows increasingly ironic in light of the case mounted by the Justice Department against CAE member Steve Kurtz as retaliation for the group's activism with regard to biotechnology.

[16] *Electronic Civil Disobedience and Other Unpopular Ideas* was also the title of CAE's previous book (Autonomedia, 2001).

[17] *Digital Resistance: Explorations in Tactical Media* (Autonomedia: New York, NY, 2002)

[18] Robert Greenwald's well-meaning but overwrought documentary about Fox News, *Outfoxed: Rupert Murdoch's War on Journalism* (2004), performs a similarly manipulative rhetorical maneuver in illustrating its critiques against the network with rapid fire montage sequences culled from hundreds or perhaps thousands of hours of recorded broadcasts. The result is a kind of temporary, rhetorical assault that might seem discursively dishonest and unconvincing to anyone who is not already aligned with the film politically. For me, what makes Outfoxed interesting is Greenwald's decision to release his original interview materials into the public domain to be freely used by others – which again underscores the importance of the peer network over the individual artwork as a primary site of political resistance.

[19] Peter Lunenfeld, *Snap to Grid: A User's Guide to Digital Arts, Media and Cultures* (The MIT Press: Cambridge, MA, 2000) p. 120-1.

[20] Ibid. [9], Chap. 2.

[21] http://www.wildernesspuppets.net

[22] The system works with any piece of video footage but Lattanzi recommends using pornography, surveillance footage, or home movies.

[23] Another example is Japanese filmmaker Sueoka Ichiro, who has completed a series of short films and gallery-based installations titled "Requiem for Avant-Garde film." Sueoka's body of work includes titles such as *A Film in Which There did NOT Appear Sprocket Holes, Edge Lettering without Dirt Particles*, which references George Landow's *Film in Which There Appear Sprocket Holes, Edge Lettering, Dirt Particles and etc.* (1966, 16mm, 4mins, US); *A flick film in which there appear Liz and Franky is composed under the score of ARNULF RAINER by P. Kubelka* on NTSC (2000), which uses footage of Elizabeth Taylor from *Elephant Walk* (1954) and Frank Sinatra from *Come Blow Your Horn* (1963) to substitute for the alternating white and black frames of Kubelka's *Arnulf Rainer* (1960); and *Studies for Serene Velocity* (2003), which offers a direct homage to Ernie Gehr's *Serene Velocity*, exploring the

length of a hallway through rapidly varying focal lengths.

[24] In *The Language of New Media* (MIT, 2001), Lev Manovich somewhat ominously predicts a day when "given enough time and money, one can create what will be the ultimate digital film: 90 minutes, 129,600 frames completely painted by hand from scratch, but indistinguishable in appearance from live photography."

[25] It is worth noting here that nearly every frame in *Fast Film* involves the infringement of not just one but several different copyrights. It is ironic that *Fast Film* shares a material mode of production with the films in the Library of Congress' Paper Print Collection. This collection was responsible for the preservation of about 3000 films made prior to 1912 when printing images on rolls of paper was the only way to register a copyright; and while the nitrate originals have long since disintegrated or combusted, the paper prints have remained in good condition. A related area to consider are the continuities with the paper base of early computing, including the Turing machine and the punch card-based Hollerith machine.

[26] For the most lucid and complete survey of this work with regard to digital media's impact on visual culture, see Holly Willis' *New Digital Cinema*.

[27] Friedrich Kittler, *Gramophone, Film, Typewriter* (Stanford University Press, 1999) p. 1.

[28] Another way to think about this is in terms of a shift, which has roughly straddled the turn of the 20th - 21st centuries, from a culture that was defined by visuality – e.g., the image saturation of television, movies and advertising – to one that is on its way to being defined, if not by invisibility, then by the tension between visibility and invisibility as intangible global networks and an information economy continue to serve as a staging area for cultural anxieties. This is perhaps most painfully apparent in the practice of color-coded terror alerts which seek to articulate the nation's fear of invisible "sleeper cells" and international terror networks in the visible register.

[29] Laura U. Marks, "Lo-Tek Media: Immanence Online," ISEA 2000 International Symposium on Electronic Art; http://www.art3000.com/actes_doc/07_marks.rtf

[30] Indeed a sub-genre of ASCII-based videos has appeared in recent years including the recent Beck video for Black Tambourine directed by Associates in Science; the all ASCII short film *The Case of the Eidetic Child* directed by Ryan McGinness and panOptic; and Yoshi Sodeoka's ASCII Bush, which converts George H.W. Bush's 1991 and George W. Bush's 2003 State of the Union addresses into online ASCII files; http://www.turbulence.org/spotlight/ASCII_BUSH