



LEONARDO ELECTRONIC ALMANAC

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What is the relationship between contemporary digital media and contemporary society? Is it possible to affirm that digital media are without sin and exist purely in a complex socio-political and economic context within which the users bring with them their ethical and cultural complexities? This issue, through a range of scholarly writings, analyzes the problems of ethics and sin within contemporary digital media frameworks.



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LEONARDO ELECTRONIC ALMANAC, VOLUME 19 ISSUE 4

Without Sin: Freedom and Taboo in Digital Media

VOLUME EDITORS

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NSA: No Speaking Aloud, Anonymous, 2013.

Post-Society: Data Capture and Erasure One Click at a Time

"Oh, in the name of God! Now I know what it feels like to be God!"

Frankenstein (1931)

They must have felt like gods at the NSA when they discovered that they were able to spy on anyone. What feels ridiculous to someone that works with digital media is the level of ignorance that people continue to have about how much everyone else knows or can know about 'you.' If only people were willing to pay someone, or to spend a bit of time searching through digital data services themselves, they would discover a range of services that have started to commercialize collective data: bought and sold through a range of semi-public businesses and almost privatized governmental agencies. Public records of infractions and crimes are available for 'you' to know what 'your' neighbor has been up to. These deals, if not outright illegal, are characterized by unsolved ethical issues since they are a 'selling' of state documents that were never supposed to be so easily accessible to a global audience.

Concurrently as I write this introduction, I read that the maddened Angela Merkel is profoundly shocked that her mobile phone has been tapped into – this is naive at best but also deeply concerning: since to not understand what has happened politically and technologically in the 21st century one must have been living on the moon. Perhaps it is an act or a pantomime staged for the benefit of those 'common' people that need to continue living with the strong

belief or faith that their lives are in good hands, that of the state.

Nevertheless it speaks of a 'madness' of the politician as a category. A madness characterized by an alienation from the rest of society that takes the form of isolation. This isolation is, in Foucauldian terms, none other than the enforcement of a voluntary seclusion in the prison and the mad house.

The prisons within which the military, corporate, financial and political worlds have shut themselves in speak increasingly of paranoia and fear. As such the voluntary prison within which they have sought refuge speaks more and more the confused language that one may have imagined to hear from the *Stultifera Navis*.

Paranoia, narcissism and omnipotence, all belong to the delirium of the sociopaths, who push towards the horizon, following the trajectory set by the 'deranged minds.'

It is for the other world that the madman sets sail in his fools' boat; it is from the other world that he comes when he disembarks.

This otherworldliness – this being an alien from another world – has increasingly become the characteristic of contemporary political discourse, which, detached from the reality of the 'majority' of people, feeds into the godlike complex. Foolishness and lunacy reinforce this perspective, creating a rationale that drives the

Stultifera Navis towards its destiny inexorably, bringing all others with them.

Having segregated themselves in a prison of their own doing, the politicians look at all others as being part of a large mad house. It is from the upper deck of a gilded prison that politicians stir the masses in the lower decks into a frenzy of fear and obedience.

Why should it be in this discourse, whose forms we have seen to be so faithful to the rules of reason, that we find all those signs which will most manifestly declare the very absence of reason?

Discourses, and in particular political discourses, no longer mask the reality of madness and with it the feeling of having become omnipotent talks of human madness in its attempt to acquire the impossible: that of being not just godlike, but God.

As omnipotent and omniscient gods the NSA should allow the state to 'see.' The reality is that the 'hands' of the state are no longer functional and have been substituted with prostheses wirelessly controlled by the sociopaths of globalized corporations. The amputation of the hands happened while the state itself was merrily looking somewhere else, too blissfully busy counting the money that was flowing through neo-capitalistic financial dreams of renewed prosperity and Napoleonic grandeur.

The madness is also in the discourse about data, deprived of ethical concerns and rooted within perceptions of both post-democracy and post-state. So much so that we could speak of a post-data society, within which the current post-societal existence is the consequence of profound changes and alterations to an ideal way of living that technology – as its greatest sin – still presents as participatory and horizontal but not as plutocratic and hierarchical.

In order to discuss the present post-societal condition, one would need first to analyze the cultural disregard that people have, or perhaps have acquired, for their personal data and the increasing lack of participation in the alteration of the frameworks set for post-data.

This disregard for personal data is part of cultural forms of concession and contracting that are determined and shaped not by rights but through the mass loss of a few rights in exchange for a) participation in a product as early adopters (Google), b) for design status and appearance (Apple), c) social conventions and entertainment (Facebook) and (Twitter).

Big data offers an insight into the problem of big losses if a catastrophe, accidental or intentional, should ever strike big databases. The right of ownership of the 'real object' that existed in the data-cloud will become the new arena of post-data conflict. In this context of loss, if the crisis of the big banks has demonstrated anything, citizens will bear the brunt of the losses that will be spread iniquitously through 'everyone else.'

The problem is therefore characterized by multiple levels of complexity that can overall be referred to as a general problem of ethics of data, interpreted as the ethical collection and usage of massive amounts of data. Also the ethical issues of post-data and their technologies has to be linked to a psychological understanding of the role that individuals play within society, both singularly and collectively through the use of media that engender new behavioral social systems through the access and usage of big data as sources of information.

Both Prof. Johnny Golding and Prof. Richard Gere present in this collection of essays two perspectives that, by looking at taboos and the sinful nature of technology, demand from the reader a reflection on

the role that ethics plays or no longer plays within contemporary mediated societies.

Concepts of technological neutrality as well as economic neutrality have become enforced taboos when the experiential understanding is that tools that possess a degree of danger should be handled with a modicum of self-control and restraint.

The merging of economic and technological neutrality has generated corporate giants that have acquired a global stronghold on people's digital data. In the construction of arguments in favor or against a modicum of control for these economic and technological giants, the state and its political representatives have thus far considered it convenient not to side with the libertarian argument, since the control was being exercised on the citizen; a category to which politicians and corporate tycoons and other plutocrats and higher managers believe they do not belong to or want to be reduced to.

The problem is then not so much that the German citizens, or the rest of the world, were spied on. The taboo that has been infringed is that Angela Merkel, a head of state, was spied on. This implies an unwillingly democratic reduction from the NSA of all heads of state to 'normal citizens.' The disruption and the violated taboo is that all people are data in a horizontal structure that does not admit hierarchical distinctions and discriminations. In this sense perhaps digital data are violating the last taboo: anyone can be spied upon, creating a truly democratic society of surveillance.

The construction of digital data is such that there is not a normal, a superior, a better or a worse, but everything and everyone is reduced to data. That includes Angela Merkel and any other head of state. Suddenly the process of spying represents a welcome reduction to a basic common denominator: there is no

difference between a German head of state or a blue collar worker; the NSA can spy on both and digital data are collected on both.

If anything was achieved by the NSA it was an egalitarian treatment of all of those who can be spied upon: a horizontal democratic system of spying that does not fear class, political status or money. This is perhaps the best enactment of American egalitarianism: we spy upon all equally and fully with no discrimination based on race, religion, social status, political affiliation or sexual orientation.

But the term spying does not quite manifest the profound level of Panopticon within which we happen to have chosen to live, by giving up and squandering inherited democratic liberties one right at a time, through one agreement at a time, with one click at a time.

These are some of the contemporary issues that this new LEA volume addresses, presenting a series of writings and perspectives from a variety of scholarly fields.

This LEA volume is the result of a collaboration with Dr. Donna Leishman and presents a varied number of perspectives on the infringement of taboos within contemporary digital media.

This issue features a new logo on its cover, that of New York University, Steinhardt School of Culture, Education, and Human Development.

My thanks to Prof. Robert Rowe, Professor of Music and Music Education; Associate Dean of Research and Doctoral Studies at NYU, for his work in establishing this collaboration with LEA.

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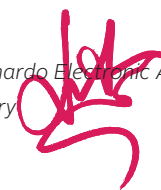
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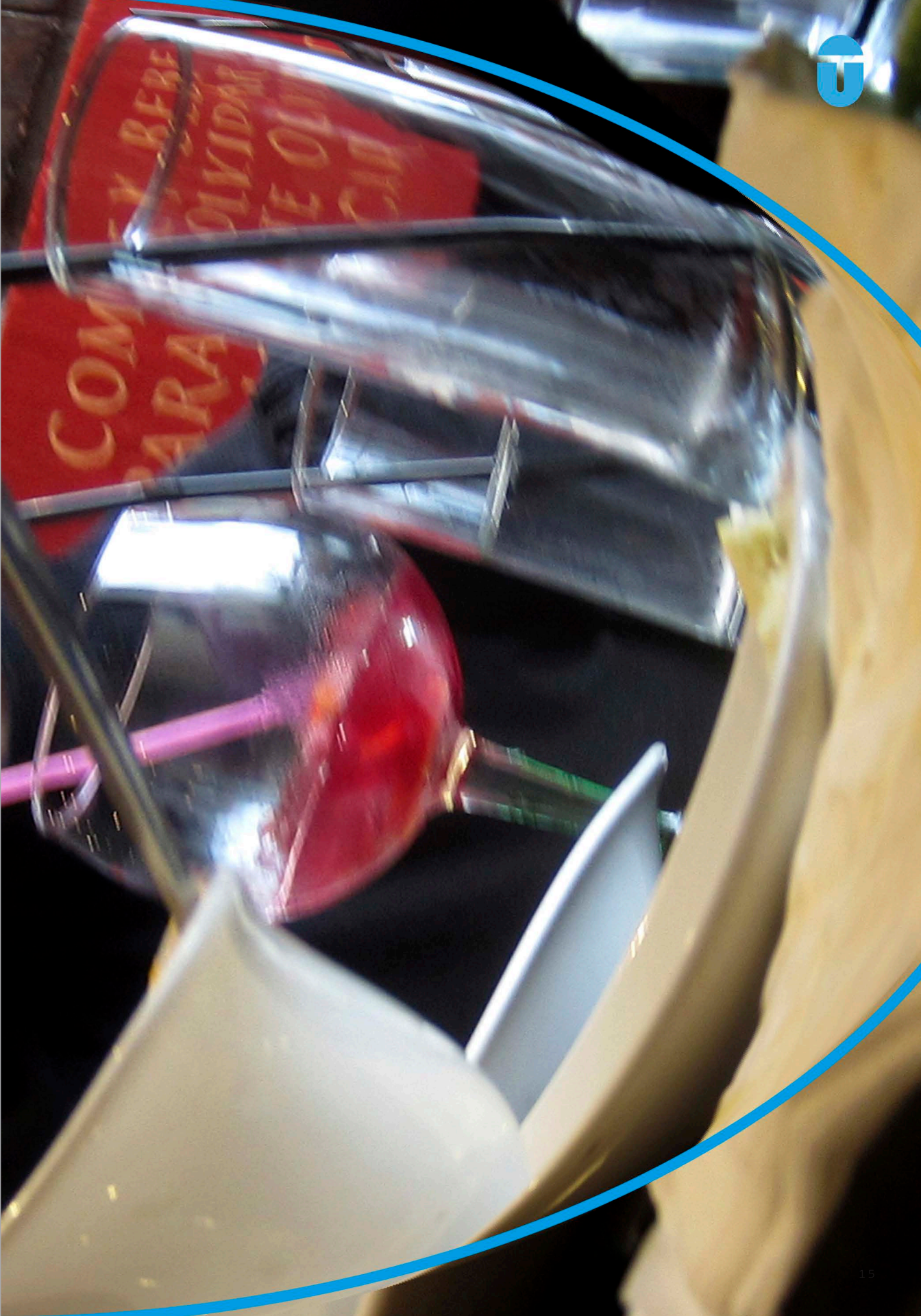
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Lanfranco Aceti

Editor in Chief, *Leonardo Electronic Almanac*
Director, *Kasa Gallery*



1. Clive R. Boddy, "The Corporate Psychopaths Theory of the Global Financial Crisis," *Journal of Business Ethics* 102, no. 2 (2011): 255.
2. Michel Foucault, *Madness and Civilization: A History of Insanity in the Age of Reason*, trans. Richard Howard (London: Routledge, 2001), 11.
3. *Ibid.*, 101.



NSA: No Speaking Aloud, Anonymous, 2013.

Without Sin: Freedom and Taboo in Digital Media

INTRODUCTION

“Without Sin: Freedom and Taboo in Digital Media” is both the title of this special edition and the title of a panel that was held at ISEA 2011. The goal of the panel was to explore the disinhibited mind's ability to exercise freedom, act on desires and explore the taboo whilst also surveying the boarder question of the moral economy of human activity and how this translates (or not) within digital media. The original panelists (some of whom have contributed to the this edition) helped to further delineate additional issues surrounding identity, ethics, human socialization and the need to better capture/understand/perceive how we are being affected by our technologies (for good or bad).

In the call for participation, I offered the view that contemporary social technologies are continuously changing our practical reality, a reality where human experience and technical artifacts have become beyond intertwined, but for many interwoven, inseparable – if this were to be true then type of cognizance (legal and personal) do we need to develop? Implied in this call is the need for both a better awareness and jurisdiction of these emergent issues. Whilst this edition is not (and could not be) a unified survey of human activity and digital media; the final edition contains 17 multidisciplinary papers spanning Law, Curation, Pedagogy, Choreography, Art History, Political Science, Creative Practice and Critical Theory – the volume attempts to illustrate the complexity of the situation and if possible the kinship between pertinent disciplines.

Human relationships are rich and they're messy and they're demanding. And we clean them up with technology. Texting, email, posting, all of these things let us present the self, as we want to be. We get to edit, and that means we get to delete, and that means we get to retouch, the face, the voice, the flesh, the body – not too little, not too much, just right. ¹

Sherry Turkle's current hypothesis is that technology has introduced mechanisms that bypass traditional concepts of both community and identity indeed that we are facing (and some of us are struggling with) an array of reconceptualizations. Zygmunt Bauman in his essay “From Pilgrim to Tourist – or a Short History of Identity” suggests that:

One thinks of identity whenever one is not sure if where one belongs; that is, one is not sure how to place oneself among the evident variety if behavioral styles and patterns, and how to make sure that people would accept this placement as right and proper, so that both sides would know how to go on in each other's presence. 'Identity' is the name given to the escape sought from that uncertainty. ²

Our 'post-social' context where increased communication, travel and migration bought about by technological advances has only multiplied Bauman's conditions of uncertainty. Whilst there may be aesthetic tropes within social media, there is no universally accepted

authority within contemporary culture nor is there an easy mutual acceptance of what is 'right and proper' after all we could be engaging in different iterations of “backward presence” or “forward presence” ³ whilst interacting with human and non-human alike (see Simone O'Callaghan's contribution: “Seductive Technologies and Inadvertent Voyeurs” for a further exploration of presence and intimacy).

Editing such a broad set of responses required an editorial approach that both allowed full expansion of each paper's discourse whilst looking for interconnections (and oppositions) in attempt to distil some commonalties. This was achieved by mentally placing citation, speculation and proposition between one another. Spilling the 'meaning' of the individual contributions into proximate conceptual spaces inhabited by other papers and looking for issues that overlapped or resonated allowed me formulate a sense of what might become future pertinent themes, and what now follows below are the notes from this process.

What Social Contract?

Hereby it is manifest that during the time men live without a common power to keep them all in awe, they are in that condition which is called war; and such a war as is of every man against every man.
(Thomas Hobbes in chapter XIII of the *Leviathan*) ⁴

Deborah Swack's “FEELTRACE and the Emotions (after Charles Darwin),” Johnny Golding's “Ana-Materialism & The Pineal Eye: Becoming Mouth-Breast” and Kriss Ravetto's “Anonymous Social As Political” argue that our perception of political authority is somewhere between shaky towards becoming erased altogether. Whilst the original 17th century rational for sublimating to a political authority – i.e. we'd default back to a war like state in the absence of a binding social contract – seems like a overwrought fear, the capacity for repugnant anti-social behavior as a consequence of no longer being in awe of any common power is real and increasingly impactful. ⁵ Problematically the notion of a government that has been created by individuals to protect themselves from one

another sadly seems hopelessly incongruent in today's increasingly skeptical context. Co-joined to the dissipation of perceptible political entities – the power dynamics of being 'good' rather than 'bad' and or 'sinful' appears to be one of most flimsy of our prior social borders. The new reality that allows us to transgress and explore our tastes and predictions from a remote and often depersonalized position feels safer (i.e. with less personal accountability) a scenario that is a further exacerbated space vacated by the historic role of the church as a civic authority. Mikhail Pushkin in his paper “Do we need morality anymore?” explores the online moral value system and how this ties into the deleterious effect of the sensationalism in traditional mass media. He suggests that the absence of restrictive online social structure means the very consciousness of sin and guilt has now changed and potentially so has our capability of experiencing the emotions tied to guilt. ⁶ Sandra Wilson and Lila Gomez in their paper “The Premediation of Identity Management in Art & Design – New Model Cyborgs – Organic & Digital” concur stating that “the line dividing taboos from desires is often blurred, and a taboo can quickly flip into a desire, if the conditions under which that interaction take place change.”

The Free?

The issue of freedom seems to be where much of the debate continues – between what constitutes false liberty and real freedoms. Unique in their own approach Golding's and Pushkin's papers challenge the premise that is implied in this edition's title – that 'Freedom and Taboo' even have a place at all in our contemporary existence as our established codes of morality (and ethics) have been radically reconfigured. This stance made me recall Hobbes's first treaty where he argued that “commodious living” (i.e. morality, politics, society), are purely conventional and that moral terms are not objective states of affairs but are reflections of tastes and preferences – indeed within another of his key concepts (i.e. the “State of Nature”) ‘anything goes’ as nothing is immoral and or unjust. ⁷ It would 'appear' that we are freer from traditional institutional controls whilst at the same time one could argue that the borders of contiguous social forms (i.e.

procedures, networks, our relationship to objects and things) seem to have dissipated alongside our capacity to perceive them. The problematic lack of an established conventional commodious living such as Bauman's idea that something is 'right and proper' is under challenge by the individualized complexity thrown up from our disinhibited minds, which can result in benign or toxic or 'other' behaviors depending on our personality's variables.⁷ Ravetto describes how Anonymous consciously inhabits such an 'other' space:

Anonymous demonstrates how the common cannot take on an ethical or coherent political message. It can only produce a heterogeneity of spontaneous actions, contradictory messages, and embrace its contradictions, its act of vigilante justice as much as its dark, racist, sexist, homophobic and predatory qualities.

Perception

Traditionally good cognition of identity/society/relationships (networks and procedures) was achieved through a mix of social conditioning and astute mindfulness. On the other hand at present the dissipation of contiguous social forms has problematized the whole process creating multiple social situations (new and prior) and rather than a semi-stable situation (to reflect upon) we are faced with a digital deluge of unverifiable information. Perception and memory comes up in David R. Burns's paper "Media, Memory, and Representation in the Digital Age: Rebirth" where he looks at the problematic role of digital mediation in his personal experience of the 9/11. He recalls the discombobulating feeling of being: "part of the digital media being internationally broadcast across the world." Burns seeks to highlight the media's influence over an individual's constructed memories. From a different perspective Charlie Gere reminds us of the prominence (and shortcomings) of our ocular-centric perspective in his discussion of "Alterity, Pornography,

and the Divine" and cites Martin Jay's essay "Scopic Regimes of Modernity"⁸ which in turn explores a variety of significant core concepts of modernity where vision and knowledge meet and influence one another. Gere/Jay's line of references resurrect for the reader Michel Foucault's notion of the "Panopticon" (where surveillance is diffused as a principle of social organization),⁹ Guy DeDord's *The Society of the Spectacle* i.e. "All that once was directly lived has become mere representation"¹⁰ and Richard Rorty's *Philosophy and the Mirror of Nature* (published in 1979).¹¹ The latter gave form to an enduringly relevant question: are we overly reliant on a representational theory of perception? And how does this intersect with the risks associated with solipsistic introjection within non face-to-face online interactions? The ethics of 'looking' and data collection is also a feature of Deborah Burns's paper "Differential Surveillance of Students: Surveillance/Sousveillance Art as Opportunities for Reform" in which Burns asks questions of the higher education system and its complicity in the further erosion of student privacy. Burn's interest in accountability bridges us back to Foucault's idea of panoptic diffusion:

He who is subjected to a field of visibility, and who knows it, assumes responsibility for the constraints of power; he makes them play spontaneously upon himself; he inscribes in himself the power relation in which he simultaneously plays both roles; he becomes the principle of his own subjection¹²

In panoptic diffusion the knowingness of the subject is key – as we move towards naturalization of surveillance and data capture through mass digitization such power relationships change. This is a concern mirrored by Eric Schmidt Google's Executive Chairman when considering the reach of our digital footprints: "I don't believe society understands what happens when everything is available, knowable and recorded

by everyone all the time."¹³ Smita Kheria's "Copyright and Digital Art practice: The 'Schizophrenic' Position of the Digital Artist" and Alana Kushnir's "When Curating Meets Piracy: Rehashing the History of Unauthorised Exhibition-Making" explore accountability and power relationships in different loci whilst looking at the mitigation of creative appropriation and reuse. It is clear that in this area serious reconfigurations have occurred and that new paradigms of acceptability (often counter to the legal reality) are at play.

Bauman's belief that "One thinks of identity whenever one is not sure if where one belongs"¹⁴ maybe a clue into why social media have become such an integral part of modern society. It is after all an activity that privileges 'looking' and objectifying without the recipient's direct engagement – a new power relationship quite displaced from traditional (identity affirming) social interactions. In this context of social media over dependency it may be timely to reconsider Guy-Ernest Debord's 'thesis 30':

The externality of the spectacle in relation to the active man appears in the fact that his own gestures are no longer his but those of another who represents them to him. This is why the spectator feels at home nowhere, because the spectacle is everywhere.¹⁵

Underneath these issues of perception / presence / identity / is a change or at least a blurring in our political (and personal) agency. Don Ritter's paper "Content Osmosis and the Political Economy of Social Media" functions as a reminder of the historical precedents and continued subterfuges that occur in mediated feelings of empowerment. Whilst Brigit Bachler in her paper "Like Reality" presents to the reader that "besides reality television formats, social networking sites such as Facebook have successfully delivered a new form of watching each other, in a seemingly safe

setting, on a screen at home" and that "the appeal of the real becomes the promise of access to the reality of manipulation."¹⁶ The notion of better access to the 'untruth' of things also appears in Ravetto's paper "Anonymous: Social as Political" where she argues that "secrecy and openness are in fact aporias." What is unclear is that, as society maintains its voyeuristic bent and the spectacle is being conflated into the banality of social media, are we becoming occluded from meaningful developmental human interactions? If so, we are to re-create a sense of agency in a process challenged (or already transformed) by clever implicit back-end data gathering¹⁷ and an unknown/undeclared use our data's mined 'self.' Then, and only then, dissociative anonymity may become one strategy that allows us to be more independent; to be willed enough to see the world from our own distinctive needs whilst devising our own extensions to the long genealogy of moral concepts.

Somewhere / Someplace

Perpetual evolution and sustained emergence is one of the other interconnecting threads found within the edition. Many of the authors recognize a requirement for fluidity as a reaction to the pace of change. Geographer David Harvey uses the term "space-time compression" to refer to "processes that . . . revolutionize the objective qualities of space and time."¹⁸ Indeed there seems to be consensus in the edition that we are 'in' an accelerated existence and a concomitant dissolution of traditional spatial co-ordinates – Swack cites Joanna Zylinska's 'human being' to a perpetual "human becoming"¹⁹ whilst Golding in her paper reminds us that Hobbes also asserted that "[f]or seeing life is but a motion of Limbs"²⁰ and that motion, comes from motion and is inextricably linked to the development and right of the individual. But Golding expands this changing of state further and argues where repetition (and loop) exist so does a different experience:

The usual culprits of time and space (or time as distinct from space and vice versa), along with identity, meaning, Existenz, Being, reconfigure via a relational morphogenesis of velocity, mass, and intensity. This is an immanent surface cohesion, the compelling into a 'this' or a 'here' or a 'now,' a space-time terrain, a collapse and rearticulation of the tick-tick-ticking of distance, movement, speed, born through the repetitive but relative enfolding of otherness, symmetry and diversion.

Golding's is a bewildering proposition requiring a frame of mind traditionally fostered by theoretical physicists but one that may aptly summarize the nature of the quandary. The authors contributing to this edition all exist in their own ways in a post-digital environment, anthropologist Lucy Suchman describes this environment as being "the view from nowhere, detached intimacy, and located accountability."²¹ Wilson and Gomez further offer a possible coping strategy by exploring the usefulness of Jay Bolter and Richard Grusin's "pre-mediation" as a means to externalize a host of fears and reduce negative emotions in the face of uncertainty. The imperative to create some strategies to make sense of some of these pressing issues is something that I explore in my own contribution in which I offer the new term *Precarious Design* – as a category of contemporary practice that is emerging from the design community. Precarious Design encompasses a set of practices that by expressing current and near future scenarios are well positioned to probe deeper and tease out important underlying societal assumptions to attain understanding or control in our context of sustained cultural and technological change.

Embodiment

In theory our deterritorialized and changed relationship with our materiality provides a new context in which a disinhibited mind could better act on desires

and explore the taboo. Ken Hollings's paper "THERE MUST BE SOMETHING WRONG WITH THIS, SALLY... Faults, lapses and imperfections in the sex life of machines" – presents a compelling survey of the early origin of when humans began to objectify and try live through our machines starting with disembodiment of voice as self that arose from the recording of sound via the Edison phonograph in 1876. Golding and Swack mull over the implications of the digital on embodiment and what it means now to be 'human' as we veer away from biological truth and associated moral values towards something else. Sue Hawksley's "Dancing on the Head of a Sin: touch, dance and taboo" reminds us of our sensorial basis in which:

Touch is generally the least shared, or acknowledged, and the most taboo of the senses. Haptic and touch-screen technologies are becoming ubiquitous, but although this makes touch more commonly experienced or shared, it is often reframed through the virtual, while inter-personal touch still tends to remain sexualized, militarized or medicalized (in most Western cultures at least).

Within her paper Hawksley provides an argument (and example) on how the mediation of one taboo – dance – through another – touch – could mitigate the perceived moral dangers and usual frames of social responsibility. Swack raises bioethical questions about the future nature of life for humans and "the embodiment and containment of the self and its symbiotic integration and enhancement with technology and machines." Whilst Wilson and Gomez's go on to discuss *Biopresence* by Shiho Fukuhara and Georg Tremmel – a project that provocatively "creates Human DNA trees by transcoding the essence of a human being within the DNA of a tree in order to create 'Living Memorials' or 'Transgenic Tombstones'"²² – as an example of a manifest situation that still yields a (rare) feeling of transgression into the taboo.

CONCLUSION

In the interstices of this edition there are some questions/observations that remain somewhat unanswered and others that are nascent in their formation. They are listed below as a last comment and as a gateway to further considerations.

Does freedom from traditional hierarchy equate to empowerment when structures and social boundaries are also massively variable and dispersed and are pervasive to the point of incomprehension/invalidation? Or is there some salve to be found in Foucault's line that "'Power is everywhere' and 'comes from everywhere' so in this sense is neither an agency nor a structure,"²³ thus nothing is actually being 'lost' in our current context? And is it possible that power has always resided within the individual and we only need to readjust to this autonomy?

Conventional political power (and their panoptic strategies) seem to be stalling, as efforts to resist and subvert deep-seated and long-held governmental secrecy over military/intelligence activities have gained increased momentum while their once privileged data joins in the leaky soft membrane that is the ethics of sharing digitally stored information.

Through dissociative strategies like online anonymity comes power re-balance, potentially giving the individual better recourse to contest unjust actions/laws but what happens when we have no meaningful social contract to direct our civility? It seems pertinent to explore if we may be in need of a new social contract that reconnects or reconfigures the idea of accountability – indeed it was interesting to see the contrast between Suchman's observed 'lack of accountability' and the Anonymous collective agenda of holding (often political or corporate) hypocrites 'accountable' through punitive measures such as Denial-of-Service attacks.

Regarding de-contextualization of the image / identity – there seems to be something worth bracing oneself against in the free-fall of taxonomies, how we see, how we relate, how we perceive, how we understand that even the surface of things has changed and could still be changing. There is no longer a floating signifier but potentially an abandoned sign in a cloud of dissipating (or endlessly shifting) signification. Where once:

*The judges of normality are present everywhere. We are in the society of the teacher-judge, the doctor-judge, the educator-judge, the 'social-worker'-judge; it is on them that the universal reign of the normative is based; and each individual, wherever he may find himself, subjects to it his body, his gestures, his behaviour, his aptitudes, his achievements.*²⁴

There now is no culturally specific normal in the diffuse digital-physical continuum, which makes the materiality and durability of truth very tenuous indeed; a scenario that judges-teaches-social workers are having some difficulty in addressing and responding to in a timely manner, an activity that the theoretically speculative and methodologically informed research as contained within this edition can hopefully help them with.

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MEDIA, MEMORY, AND REPRESENTATION IN THE DIGITAL AGE: REBIRTH

Reflecting on Lossless Imagery, Mediated Memories, and the Terrorist Attacks on 9/11

by

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INTRODUCTION

The more than twelve years that have passed since the September 11, 2001 (9/11) terrorist attacks on the United States have provided a meaningful space to reflect on those events and examine the media's influence in forming memories of the events. While corporate media outlets have commemorated 9/11 in a journalistic context, both my article and my lossless digital media artwork, *Rebirth*, offer a personal remembrance of, and reflection on, the tragic events that took place on 9/11 in New York City. In my article, I explore the influence of the media industry's representation of important events on our personal and collective memory formation of these events. I examine *Rebirth* as an example of a digitally mediated memory that acts as a site of resistance against the hegemonic media industry's repeatedly broadcast lossless imagery.

HEADING: MEDIA AND MEMORY

9/11 was a perfect example of a paradigm shift in the way real-time memories are processed using digital media technology. It illustrated the expansive reach

ABSTRACT

*In my paper, I explore the relationship between the media industry's representation of important events and our personal and collective memories of these events. Through my investigation of what happens when an important personal and collective event is recorded to digital and neuronal memory systems, I examine the spaces between an individual's personal memories of real-time events and media's influence over an individual's constructed memories of these events. With digital sequences of images being broadcast in real time across media outlets worldwide at the same time as important events unfold, an international consciousness is informed and influenced by these images both during and after these events. On 9/11, I watched the fall of the World Trade Center in New York City outside my apartment in lower Manhattan while simultaneously watching this tragic event digitally broadcast to my television in real time and, after over a decade of reflection, I examine the effects that the repeated broadcast of lossless digital imagery has on the individual and collective consciousness. Through my examination of my lossless digital media artwork, *Rebirth*, as a site of resistance, I argue that digital media art offers alternative perspectives to the hegemonic media industry's dominance over memory formation.*

of digital media technology and its importance on memory formation. On 9/11, United States civilians experienced an attack on U.S. soil via digital broadcast in real time as the events were unfolding outside their homes. This catastrophe was an example of a larger shift at the intersection of technology and memory. Digital media technology allows viewers to experience events as never before possible because the archived digital recordings of memorialized events do not dematerialize each time they are recalled. Instead, the digital, lossless memorialized events remain intact and preserved, irrespective of the number of times the digital memories are replayed. Before exploring the dramatic effect of digital media technology on mem-

ory, it is helpful to examine some of the differences between using analogue and digital media technology to mediate memories.

Analogue, Lossy Media and Memory

The nature of analogue and digital media technology affects its quality and accessibility and, therefore, its mediation of memories. Analogue, lossy media is used to record and playback audio-visual content, but because the storage medium is analogue, it is degradable and will deteriorate over time with each playback. For example, analogue film and video cameras record images to physical film stock and magnetic tape respectively and these images are projected or played

back on a physical screen. Each time an analogue film or video is played, the film or video's images decay losing clarity and definition.² When an important event is captured on analogue film or video and recalled many times, the quality of the imagery and the media itself degrades and, because analogue data is based upon and encoded in "physical quantities"³ with measurements such as length physically representing numbers, the film and video itself degrades over time.⁴ Over time, the analogue images dematerialize and fade, even without playback, because of the physicality of the medium. Ultimately, after multitudinous viewings of the film or video over time, the film or video becomes illegible to the viewer rendering the imagery of the event illegible and less useful for the viewer's memory creation and recall.

Analogue, lossy media is a less accessible media than digital, lossless media for inscribing and recalling memory. Individuals have been largely left out of the inscription process because large media institutions have predominantly controlled the costly and specialized tools that are needed to record and decode analogue media.⁵⁶ The hegemonic institutional control over media content can be traced to the late Middle Ages when institutional actors beginning with the Church and later the media industry constructed a "monopoly of knowledge."⁷ These institutions control and influence analogue media technology and limit people's access and contributions to memorialized information.⁸ This institutional control and influence over analogue media technology has traditionally made it challenging for individuals to record and recall important events to add to the institutional and collective memory archive.⁹¹⁰

Digital, Lossless Media and Memory

In contrast to analogue, lossy media, digital media is a lossless form of communications technology that is used in the mediation of memories. As Sturken and Cartwright point out:

*Whereas analog [sic] images, such as photographs and most video images, are defined by properties that express value along a continuous scale, such as gradations of tone (or changes in intensity through increasing or decreasing voltage in video), digital images are encoded as information.*¹¹

Since digital media is coded as discrete, digital information, the audio-visual information that is recorded and played back on digital media does not degrade over time. In fact, "the idea of the difference between a copy and an original is nonexistent" in lossless, digital images.¹² Because digital media does not degrade over time regardless of the amount of times the media is played back, the content is lossless and retains all of its original qualities as if played back for the very first time. For example, when a digital video camera records an event, the digital video can be replayed an infinite amount of times without losing picture or audio quality.¹³ Whereas our organic memories, those that we archive in our minds, and our analogue film and video recordings, the recordings of our past, degrade over time and are lossy, digital recording of raw material remains both intact and preserved in its entirety irrespective of the number of times the memory is recalled and played back and is therefore lossless.

Digital, lossless media is also distinct from analogue media because it is far more easily accessible than analogue media. Indeed, the "value of a digital image is derived in part by its role as information, and its capacity to be easily accessed, manipulated, stored in a computer or on a web site, downloaded, etc."¹⁴ Digital content can be inscribed using a wide array of inex-

pensive and easily accessible authoring tools including free or low-priced software. For example, Autodesk, a global software company, provides students and educators free licenses for its content-authoring software.¹⁵ Unlike the expensive and largely inaccessible analogue hardware of the past, such as unwieldy analogue film projectors and cumbersome Beta magnetic tape audio-visual cameras and players, the hardware necessary to author digital content is compact, widely available, and already in use by people worldwide. For example, in societies ranging from the most privileged to those in the Global South, mobile phones are popular devices to record content using the mobile phone's camera and microphone as well as distribute content by accessing the Internet.¹⁶ Consumer digital audio and video recorders, digital cameras, and digital mobile devices have become inexpensive and widely available in North America, Europe, and many parts of Eastern and Western Asia. This broad access to digital media technology has allowed viewers to personally and collectively experience events as never before possible because the archived digital recordings of memories do not dematerialize each time they are recalled. Instead, the digital, lossless memories remain intact and preserved, irrespective of the number of times the digital memories are replayed.

PARADIGM SHIFT AND MEDIATED MEMORIES

The shift from analogue to digital media has therefore created a paradigm shift in personal and collective memory formation. The increased quality and broader accessibility of digital media has shifted the paradigm in personal and collective memory formation because digital media enables people to more economically inscribe, access, distribute, and preserve lossless memories across a wider range of platforms and geographies than ever before in recorded history. The progression from using analogue media to using digi-

tal media to receive and inscribe memory has resulted in an increase in individual and public accessibility to and distribution of inscribed memories.

Indeed, the move away from the analogue, lossy media to digital, lossless media is significant because of digital media's quality and wide accessibility.¹⁷¹⁸ Since digital media is lossless and the content inscribed on and recalled from digital media retains its original quality without degrading over time, people recalling memories from digital media will receive and experience inscribed memories in their most unadulterated form. This stands in stark contrast to people recalling memories from analogue media that dematerialize each time they are recalled. While all memories do not need to be part of the personal and collective memory, when important events like 9/11 are inscribed using lossless digital media, they can be transferred to future generations with unmatched clarity. Detailed records are crucial to the inscription of memory and the recall of "life as it was before."¹⁹ It is important to remember the substance and experience of existence before major transformative events in history.

Lossless digital images are detailed records and serve as permanent "acts of witness and sites of memory"²⁰ and it is crucial to curate "a traumatic personal and generational past" that links people to meaningful events and allows them to perform "intergenerational acts of transfer."²¹ In fact, this intergenerational transmittance is a distinguishing trait that differentiates humans from all other members of the animal kingdom.²² Memorialized information stored on digital media is especially suited to intergenerational transmittance because it can be accessed globally and across a wider range of platforms than analogue media. In contrast to static, analogue media that is difficult to access, digital media is dynamic and easily accessed over the Internet by a myriad of personal

digital devices including laptops, tablets, and mobile phones.

The shift to easily accessible lossless, digital media to inscribe and recall memorial information resulted in the burgeoning of personal memory sites being created and added to form collective memories.²³ van Dijck explores how individuals mediate digital media for memory inscription and recall, and add to and reflect on collective memory. She examines the importance of using media as a tool for “reflection and self-reflection.”²⁴ An example of a digital platform that provides individuals with easily accessible means to add to collective memories is the Internet. Individuals who inscribe their memories onto digital media can share and reflect upon their mediated memories globally using the Internet and easily accessible portals such as laptops, mobile phones, and tablets.

9/11 AND THE MEDIA INDUSTRY

With its repetitive television broadcast of lossless digital images, the media industry's representation of the tragic events on 9/11 influenced individual and collective memory formation of these events. The digital TV broadcast was so pristine and repeatedly disseminated that it took on a hyperreal existence; it took the place of the actual 9/11 event in the personal and collective memory. The differences between the broadcast of the event and the real event collapsed and the representations, the digital TV broadcasts, were the simulacra that preceded, defined, and became reality. The hegemonic media industry's broadcast of lossless digital images of the terrorist attack on the World Trade Center were literal, hyperrealistic images that had a visceral effect on individual and collective memory formation.²⁵ Because the lossless images did not dematerialize each time they were recalled by the media industry for broadcast on television, the digital

images took on a hyperreal, unnatural appearance. Unlike older analogue broadcast images that degraded each time a magnetic tape encoded with memorialized information was used, the digital lossless images that inundated people's televisions appeared more real than the event itself. Viewing these pristine, vivid digital images repeatedly created a hyperreal audio-visual representation of the tragic events.²⁶

The media's constant barrage of pristine, lossless digital images of two hijacked planes slamming into the World Trade Center in New York City and the resulting fall of buildings in the World Trade Center complex in addition to the repetitious coverage of the event by news anchors around the clock added to hyperreal colonization of the collective memory. Dan Rather in the CBS studio and Byron Pitts reporting in New York City gave a play-by-play televised recall of the terrorist attack on U.S. soil via digital broadcast while the events were taking place. After the events

Figure 1. America Attacked 9/11, n.d., by unknown author. Still image from digital video. Image in public domain.



took place and for several days thereafter, the media industry continued to deluge audiences with the same audio-visual information for memorialization. In fact, the Internet Archive recorded over “3,000 hours of international TV News from 20 channels” covering 9/11 during the week of 9/11.²⁷ This is a striking amount of digital media collected during one week centered on one event. The volume of mediated media containing memorialized information that the media industry broadcast had a profound effect on memory formation. Audiences were not given time to reflect on the events that took place on the morning of 9/11 before being inundated with the repeated broadcast of similar and nearly identical digital, lossless images across a wide band of the globally networked media industry.²⁸

There is no mystery as to why similar and nearly identical digital footage was used globally; consolidated hegemonic media empires controlled and broadcast 9/11 digital, lossless imagery.²⁹ Since the first U.S. national live television broadcast took place in 1951, the global hegemonic dominance of the television media industry has strengthened as Western media companies have consolidated and captured the lion's share of international markets.³⁰ For example, Rupert Murdoch's News Corp. broadcasts to people in over thirty Asian countries, “from the Western Pacific to the Persian Gulf.”³¹ The U.S. television media industry's overseas impact has been enhanced in recent years through the use of “direct broadcasting satellite (DBS) networks in Europe, Asia, and Latin America.”³² This consolidation has limited the amount of alternative inscriptions of memorialized information available to individuals and the public. Audiences' memories of 9/11 were influenced and mediated by the hegemonic media empires through the monopoly of digital images that were chosen for global distribution to memorialize 9/11 on a global scale. This limited people from freely forming their individual and collective memories of the event.

PARADIGM SHIFT AND 9/11

The tragic events on 9/11 exemplify the paradigm shift in personal and collective memory formation. The shift from analogue, lossy media to digital, lossless media changed the way people experience and mediate memories. The digital media technologies used to record and recall the events on 9/11 are lossless and stand in stark contrast to older, lossy analogue media technology used to record other important events such as the 1986 space shuttle Challenger disaster.³³ The representations of the events of 9/11 are also more instantly accessible to influence collective memories than they were in 2001. Digital media technologies that were unavailable a decade ago connect millions of people with each other's memories of important events in real time increasing access to individual and collective memories. The global accessibility of high-speed Internet connections and mobile media networks has enabled individuals separated by great geographic distances to access individual's representations of events and memories in real time. This instantaneous access to individual memory is shaping a collective global memory that is constantly updating and expanding.

The media coverage of Osama Bin Laden's death in 2011 is an example of the way digital media technologies that were unavailable a decade ago are now used to augment a collective global memory that is constantly updating and expanding. Osama Bin Laden's death saturated media beyond traditional forms of print, television, and radio broadcast communications. News of Bin Laden's death immediately inundated social media and mobile media platforms including Twitter and Facebook as well as broadly accessible websites formatted for mobile phones.³⁴ In fact, the White House announced Osama Bin Laden's death with a tweet and a Facebook post immediately after President Obama's first formal announcement of the event in his television address.³⁵

The immediate access to real-time information is a further move in terms of the paradigm shift in the way real-time memories are processed using digital media technology. Digital media technology and social and mobile media platforms enable participants to experience events that inform their memories in real time on a scale never before possible.

IMPACT OF LOSSLESS DIGITAL MEDIA ON DIGITAL MEDIA ARTWORK

Because lossless digital media does not degrade over time, it is a good choice of medium for artists who create memory work designed for audience's ease of access, repeated screenings and permanence. When artists use lossless digital media to create projects that mediate memories online, the public has the opportunity to gain access to the artists' lossless imagery; this imagery does not degrade over time regardless of the amount of times the public accesses and screens the memory artwork. Furthermore, digital media is an economical choice of media for artists who inscribe and disseminate memory work because it is easy to format for and globally disseminate over the Internet. By using both digital media and the Internet together, artists provide the public with the opportunity to gain wide-ranging accessibility to artists' lossless memory works for personal and collective memory formation.

Providing easily accessible sites for digital media memory work, for example making memory projects available online for screening, enables the members of the public to use their computers, smartphones, and tablets as extensions of themselves to connect with artists' memory work. Marshal McLuhan believed that media technology should be easily accessible to people and that media technology was a natural extension of one's self.³⁶ As an extension of one's self, McLuhan asserted that media technology opened doors

to providing greater access to information.³⁷ The organic connections between individuals and media technology are important components of mediating digital media memory works that are easily accessible to people.

Digital media artists can use these liminal, online artistic spaces as sites of resistance to challenge the hegemonic media industry's control over the memorialized depiction and metanarrative of historical events. These online artistic spaces are liminal because they are situated at the border and outside the mainstream of the media industry's representation of information; the artistic spaces offer an alternative reading of important historical events to counter the hegemonic media industry's collections of memorialized information and encourage the public to resist the repetitious broadcasting of media industry controlled information. By using the same online, lossless digital media delivery mechanisms as the hegemonic mass media industry and providing an alternative perspective to those of the hegemonic mass media, these artworks occupy liminal sites of resistance to both the hegemonic mass media industry's dominant use of lossless media and its hegemonic media presence.³⁸

HEADING: SITE OF RESISTANCE: REBIRTH

Artistic Reflection and Digital Media Artwork: Rebirth

Applying the thesis that media technology can be viewed as an extension of man, I use the Internet to combine audio-visual with textual memory work as easily accessible sites of resistance against the hegemonic corporate media industry's constructed memories of 9/11. As an artist, I use lossless digital media to create memory work so it can be easily and repeatedly accessed without dematerializing. I have found lossless digital imagery to be instrumental in inscribing, re-

calling, and adding my personal memories of the tragic events of 9/11 to the collective memory. For example, I used digital media art technology to create *Rebirth*, an abstract 3D computer animation examining my memory of the fall of the World Trade Center in New York City on 9/11. *Rebirth's* lossless digital imagery and accompanying narrative are freely accessible to the global public on my website.³⁹

My digital animation, *Rebirth*, associated images, website, and narrative work are sites of resistance against the hegemonic corporate media industry's constructed memories of 9/11. They comprise an alternative mediated memory archive that is not under the influence of or funded by the corporate media industry. The *Rebirth* online artistic space does not use media industry's produced and overexposed audio-visual work from 9/11. This is an important form of resistance to the hegemonic media's archives and influence over individual and collective memory construction. My digital animation, *Rebirth*, associated images, personal textual narrative, and website offer liminal spaces with alternative, lossless digital imagery from a non-corporate owned and manufactured perspective. The online *Rebirth* artistic space provides the public with an alternative, abstract representation of the events of 9/11 that challenges the corporate, media industry's perspective and control over the media and memories of the this tragic event.

Rebirth is a liminal site of resistance because it encourages the public to resist the dominant media industry's metanarrative and representation of the tragic events of 9/11 to inform their personal and collective memories. *Rebirth* offers the public an alternative perspective of the tragic events of 9/11 countering the hegemonic media industry's collections of memorialized information. The online platform provides a site of resistance supplying the public with an alternative perspective to the media industry's monolithic voice.

The *Rebirth* site expands the public spaces available for resisting the hegemonic media industry's dominance and control over the memorialization, depiction, and metanarrative of the events of 9/11.

Rebirth, through using the same online, lossless digital media delivery mechanisms as the mass media industry and providing an alternative perspective to those of the mass media, subverts both the mass media industry's dominant use of lossless digital media and its hegemonic media presence.⁴⁰ As an independent artist, my representations of the fall of the World Trade Center on 9/11 provide the public with the opportunity to view sites of resistance to the media industry's repeatedly broadcast representation of 9/11.

Rebirth differs from the graphic, literal, lossless digital media repeatedly broadcast by the media industry on 9/11 because my 3D animation is abstract, reflective, and more receptive to audience's multidimensional interpretations for inclusion into the personal and collective memory than the media industry's literal imagery of 9/11.⁴⁰ In contrast to the literal, similar and nearly identical, digital lossless, imagery of the fall of the World Trade Center that was repeatedly broadcast by the media industry, *Rebirth's* abstract imagery is more open to viewers' interpretations so that viewers can form their memories of 9/11 with an alternative to the media industry's literal, lossless images for inclusion into the individual and collective memory. The animation is representative of my experiences on 9/11 as I watched the tragic events unfold outside my apartment in lower Manhattan while simultaneously watching the events digitally broadcast to my television in real time. Viewing the abstract representation of this event in *Rebirth* opens up a dialogue between individual and collective memories of 9/11 and my memory and representation of the fall of the World Trade Center in New York City on 9/11.

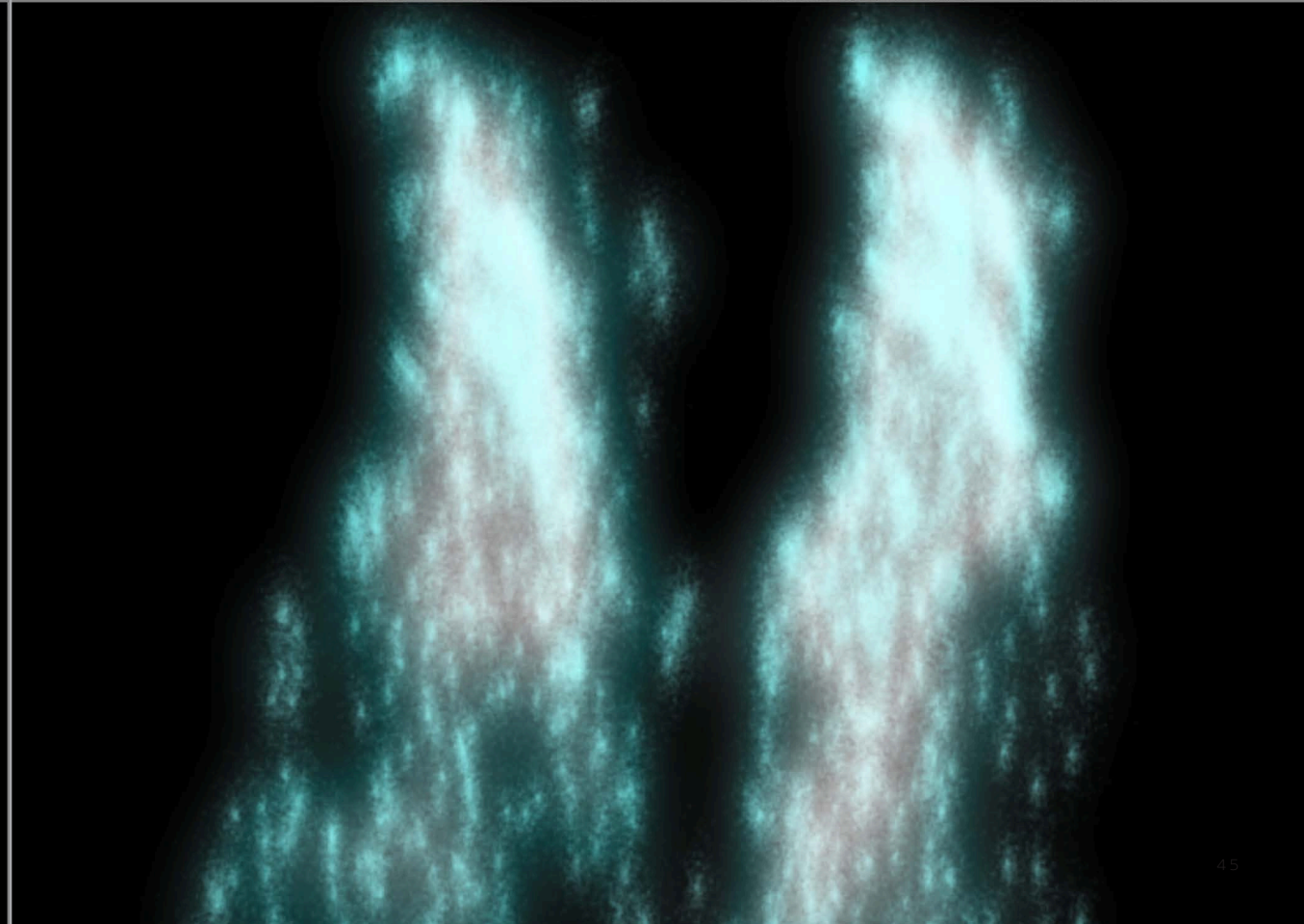
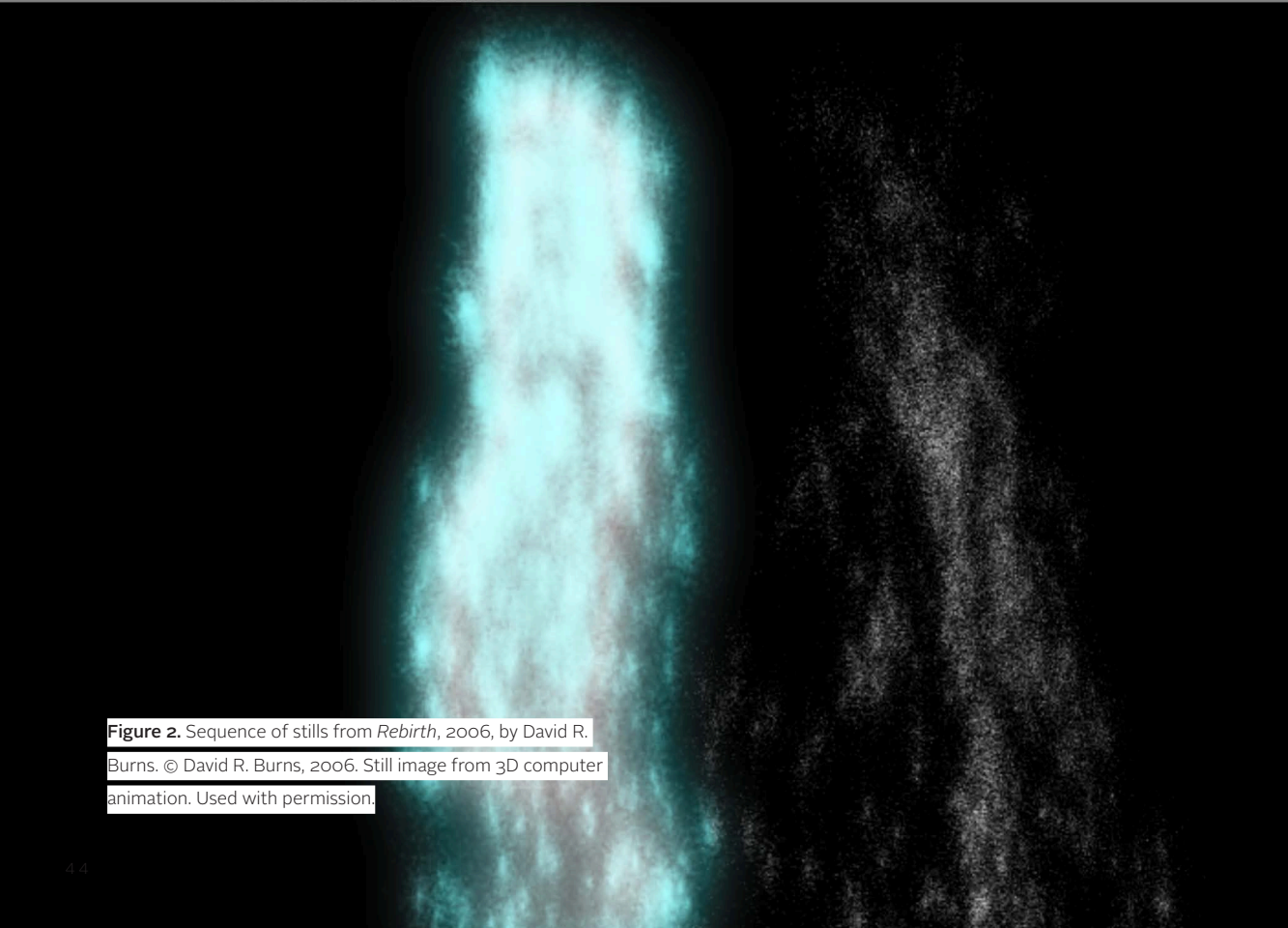
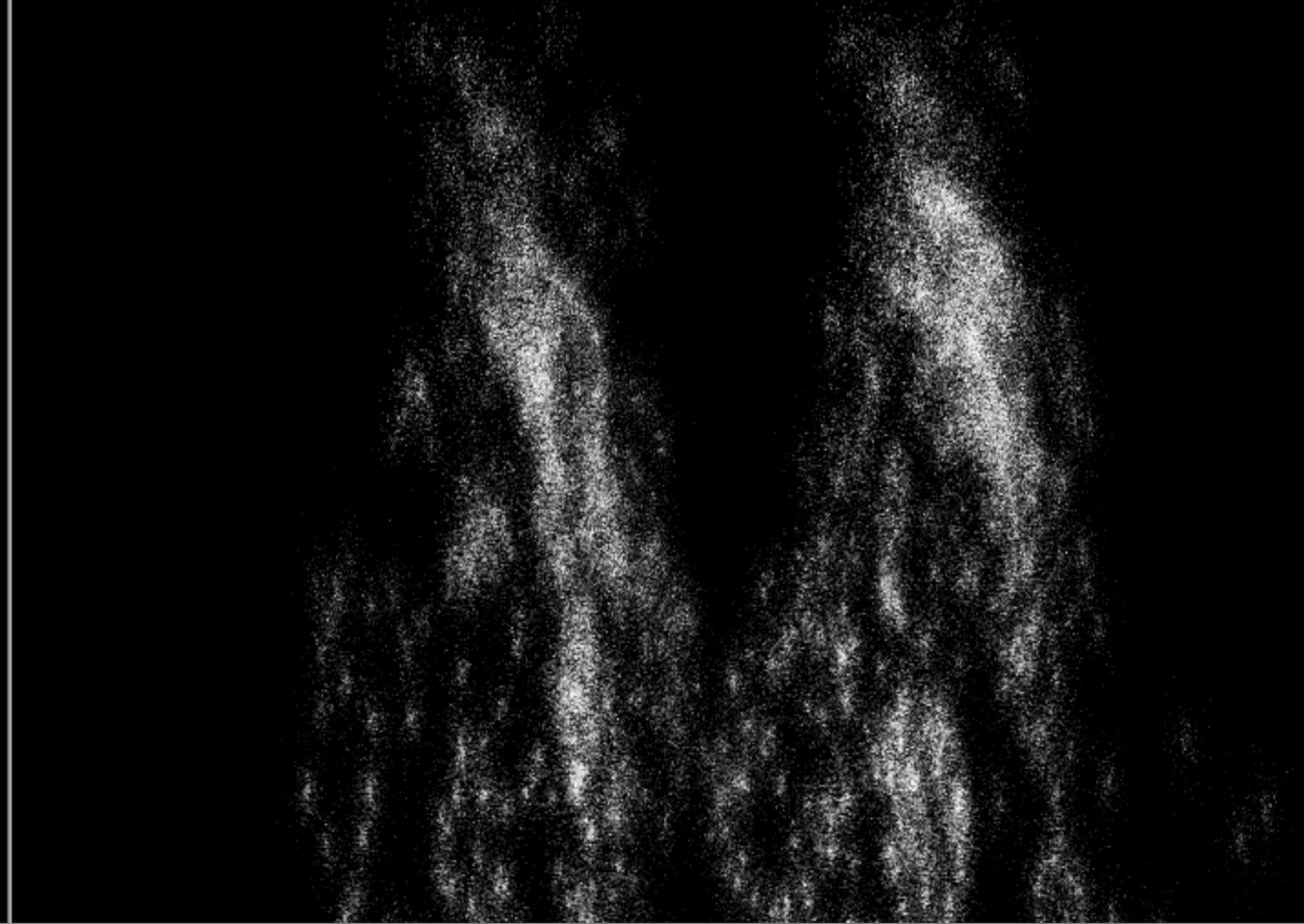
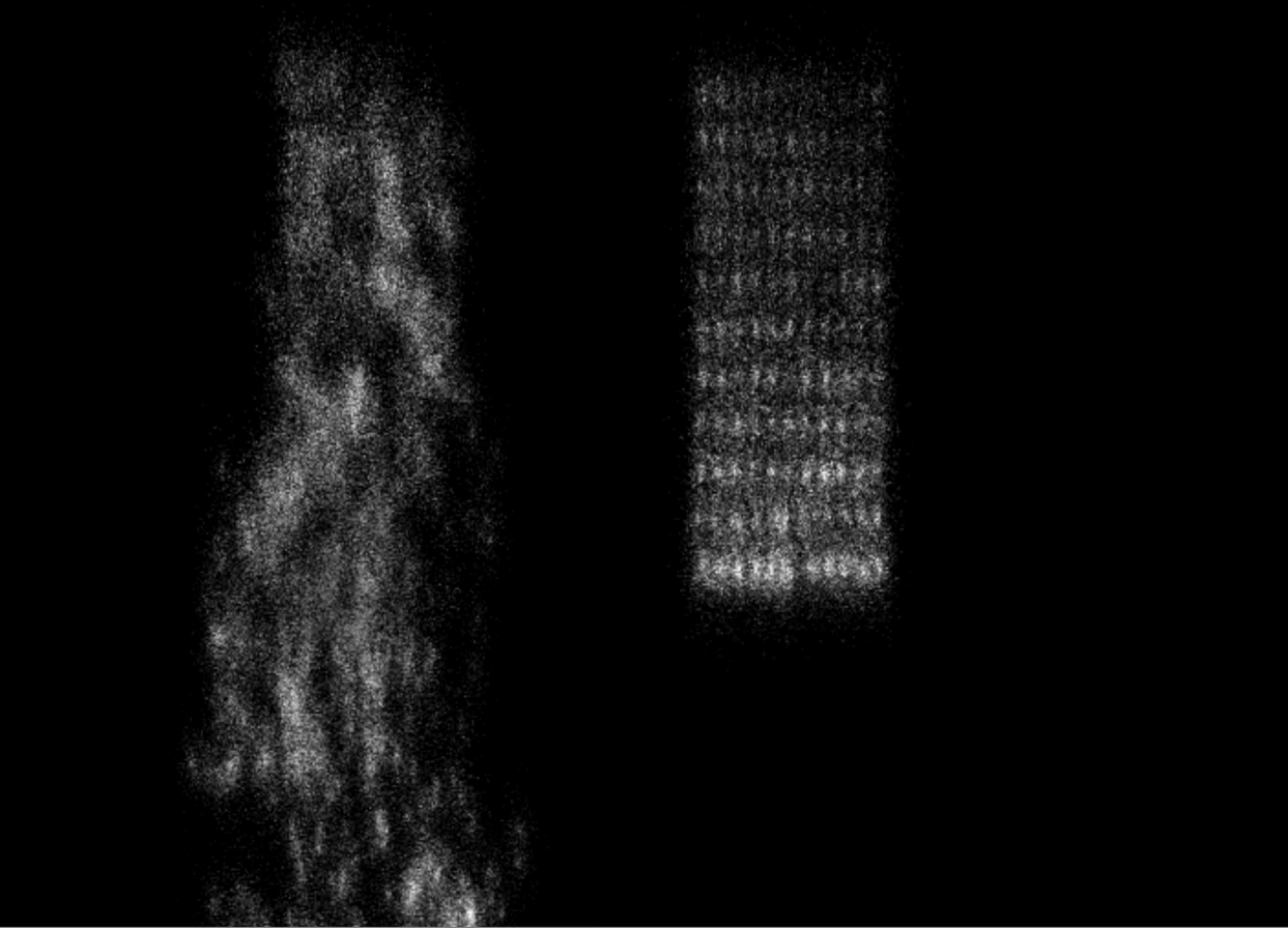


Figure 2. Sequence of stills from *Rebirth*, 2006, by David R. Burns. © David R. Burns, 2006. Still image from 3D computer animation. Used with permission.

ARTISTIC REFLECTION AND PERSONAL NARRATIVE: REBIRTH

In addition to the abstract 3D computer animation, my *Rebirth* memory work includes the below personal textual narrative of my experience on 9/11. The personal narrative that follows was used to inform my abstract animation and digital media artwork within the context of my experience of living in New York City on 9/11. Providing my textual narrative in this article and including the link to my abstract 3D computer animation, *Rebirth*, offers audiences a holistic approach to mediating my memory of 9/11. This holistic approach uses textual and visual representations of my memory of 9/11 and provides the public with broader access to my memories across a variety of media. For example, the lossy analogue media of the printed text version of my memory work, the digital, lossless media version of my animation, and the written narrative viewed online are publicly accessible for the creation of personal and collective memories. The textual personal narrative of my memory of the events of 9/11 follows:

Personal Narrative 9/11: Rebirth

Early on the morning of September 11th 2001, this author was still asleep in his apartment in downtown Manhattan until being awoken by a phone call. I can still remember the phone conversation that jarred me out of bed. "Hello? What do you mean the World Trade Center was attacked? Stop joking around. I am going back to bed! Turn on the television? This isn't funny." To verify that this was just a bad joke my friend was playing on me, I turned on the television to watch the news. There it was, playing back over and over again: a plane crashing into 1 World Trade Center. In disbelief or shock maybe, I opened my window to stare downtown at the smoke that had by now begun to billow rapidly. This event was real! I was simultaneously watching 1 World Trade Center burning both on television and out of my living room window.

The feeling of watching in real time as the digitally represented World Trade Center and the organic

World Trade Center burned on both the television set and outside my living room window seemed to put my immediate world on public display, as if I was now a part of the digital media being internationally broadcast across the world. I hadn't realized yet just how powerful this connection between myself and society was in the context of what I call, a "memory footprint." Instinctively, I grabbed my digital video camera and headed for the roof. I wasn't sure why I was doing this; I just knew that something tremendous was underway that would be deciphered later.

Once on the rooftop, I used my natural, organic eyes to view the natural images of 1 and 2 World Trade Centers billowing smoke. These images were burned in real time into my organic neuronal memory systems. Not fully comprehending what was unfolding before my natural input devices, I switched over to taping the event using a digital video recorder. Looking through the viewfinder, it became difficult for me to discern what was real and what was my memory of the earlier television broadcast. The early morning 9/11 TV broadcast images that I viewed in my living room appeared more loosely edited and composed than the images that were broadcast later that day. The early, shaky broadcast images seemed to mirror what I observed through my handheld video camera in real time, but, as the day wore on, the lossless digital images broadcast to my TV appeared increasingly constructed, cinematic, and hyperreal. The well-composed shots broadcast to my TV blurred together with my shaky, more loosely composed handheld video camera imagery of the fall of the WTC in my mind's eye. The act of alternating between looking through my camera's digital viewfinder to compose my shots of the event and viewing the professionally-edited shots broadcast to my TV blurred the boundaries of the representation of the real event on TV and my experience of the event in real time at the location of the event. The feeling was very disorientating. I had not

yet processed the earlier televised images of the plane slamming into 1 World Trade Center. Now as I looked through my digital video recorder's viewfinder, I found myself looking at a composition built of digital bits similar to the memory I had of the images that were represented as color pixels on television. After staring through the digital viewfinder for a few minutes, my earlier memories that were recorded onto my natural storage device, my brain, began to be processed by my consciousness. The realization that the memory of the event I had experienced was, in fact, still taking shape and form in real time was so intense and confusing that I had to pause the digital recording and look away from the camera. I was caught somehow in a real-time memory of great destruction, but that memory was not able to pass. The memory of watching the destruction of 1 World Trade Center on television now merged into the real-time representation and memory of the destruction of both towers, 1 World Trade Center and 2 World Trade Center, that were in the process of being written to my analogue neuronal memory systems.

I was processing with my natural eyes and brain and simultaneously recording discreetly on digital videotape. What was a natural observation? What part of my understanding came from the digital representation I had just seen? Confused, I looked through the digital viewfinder again. I needed to confirm that I was in fact physically and mentally cognizant, that I was indeed on the roof of my apartment building experiencing and memorializing a real-time event. I needed to make sure that I was not trapped in the confines of my living room and stuck in front of the television set unable to differentiate what was real, what was recorded, and what was being digitally broadcast to society. I can only describe the feelings I had and the environment around me as chaos. It was as if I was trapped in a horrible film and everything that I watched through the camera's viewfinder made me a spectator of this

horrible film. As I peered through my camera composing my shots, I found that my rooftop vantage point gave me a longshot cinematic perspective. The tragic events unfolding before my eyes were beyond belief; at times, I felt lost in the rectilinear composition of the viewfinder and I would pull away from the camera, not sure if I could trust what my eyes revealed. Through my handheld digital video camera, I watched the World Trade Center buildings burn with people inside their doors and people falling outside their windows. I lost myself watching the darkness, dust, and destruction juxtaposed on the canvas of clear, blue skies and brilliant sunlight filtering through the city.

Snap! I became aware of the real-time events unfolding again. Other people on the roof were shouting as something fell in the distance and more smoke billowed up into the sky. I turned and left the rooftop. Not sure what I was experiencing, I needed to sit down and process the events that had just unfolded before me. Later, I returned to the rooftop. There were many more people there now and we were all witnessing the same event. However, something had changed. The skyline looked emptier. There was more smoke now and it was coming from the smaller buildings that surrounded 1 and 2 World Trade Centers. Again, on went the digital video recorder... An almost identical sequence of images to what I had seen earlier when 1 World Trade Center and 2 World Trade Centers were burning was now being repeated multiple times as the rest of the World Trade Center network of buildings, World Trade Centers 3 through to 7 began to plume smoke.

I wonder now, looking back at the time of that event and the several days following it, if the memories that I recall are all my own. An unanswered question remains: How much have my experiences of the event and memories of that morning recorded by my organic, analogue memory banks been influenced by my

memories of the digital, lossless images broadcast by the media industry on television repeatedly hour after hour for days and weeks on end?

CONCLUSION AND FURTHER THOUGHTS: REBIRTH

The more than twelve years that have passed since 9/11 offer a unique opportunity to reflect on what can happen when a highly personal and collective event is recorded to the neuronal and digital memory systems. It has been over a decade since I put my 9/11 digital videotape back in its case, but my organic memories have not yet faded enough for me to feel comfortable watching the digital, and therefore lossless, representation of that day's events. Rather than screen the literal, lossless digital video footage that I recorded on 9/11, I exhibit my digital, abstract 3D computer animation, *Rebirth*, representative of my memory of that day, on my website so it is accessible to the public online for recall. *Rebirth* adds to the dialogue and the process of individual and collective memory formation of the tragic events of the destruction of the World Trade Center on 9/11. Although *Rebirth* represents my memory of my experience, the abstractions of the events on 9/11 in the 3D animation are left open for audiences' reflection and interpretation at my publicly accessible website.⁴¹ It is my hope that audiences will form personal and collective memories watching *Rebirth* online connecting them to my memory of the events of 9/11. Since the lossless imagery in *Rebirth* is abstract, I hope viewers will feel more liberated to interpret and reflect on the digital imagery in the 3D animation than they feel when viewing the media industry's literal, graphic, lossless imagery of the terrorist attacks on the World Trade Center on 9/11. ■

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