VIDEO IS A PERCEPTUAL PROSTHETIC

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The Centre for Art Tapes is pleased to present a new critical text on video, the medium and art form, by Tom Sherman. *Video is a Perceptual Prosthetic* lays out a scientific sense of video as it relates to human perception, exploring a medium that has the ability to literally provide us with a replay of our experiences as we are living them. The artist begins with an analysis of perception and its historical relevance to the evolution of video technology from analogue tape to HDV through to cybernetic technology. Sherman also analyzes the impact of video technology on other media technologies, in particular tracing the devolution of television, a topic explored throughout his writing over the years, such as his *Video 2005: Three texts on video.*

Sherman, as an artist and writer, has been contributing to the discourse on video art and technological culture for over four decades. In his video art, he attends to many areas of research; to patterns, physical and psychological, found in our environment, to the behaviour of insects, and studies in human (micro) communication, and social-networking, to name a few. In his writing, he disambiguates the fabric of technology used for making art; and decidedly anchors it in what could be called experimental science. Within the realm of social research, this essay helps us understand that societal experimentation with technology operates simultaneous to our subconscious perception, and that technocultural evolution is a result of this experiment.

In an expanded version of her 1989 Massey Lecture *The Real World of Technology*, Ursula M. Franklin writes about the cornerstones of reality. *Vernacular reality* is that which we experience on a quotidian basis, eating, breathing, and walking to the corner store, while an *extended reality* is one that we perceive through others; a friend’s travel, ancestral knowledge or artifacts are examples of this. *Reconstructed reality*, however, Franklin says falls under propaganda, as the cultural fabric we create while trying to be representational but that rather falls under the archetypal experience. Lastly, a *projected reality* is how we see ourselves in the future, based on what we know today. All of these realities can now (in 2012) be expressed and documented via some sort of digital media, and in fact propel the different types of
realities as described by Franklin.

With this questioning of *reality*, comes the question of what place technology and science have in a discussion on human perception. Franklin believes we should trust the human experience as a method of scientific experiment, and not give in to pure data when attempting an experiment on our environment. She also states: “...it has often been assumed that science is a prerequisite for technology. ...However, today there is no hierarchical relationship between science and technology. Science is not the mother of technology. Science and technology today have parallel or side-by-side relationships; they stimulate and utilize each other.” If technology is becoming more and more a real time experience of our lives, and if science and technology operate side by side, then it would be true that our minds are learning to operate with science and technology cognitively.

In *Video is a Perceptual Prosthetic*, Sherman speaks on similar lines, however he posits that the use of video can affect cognitive behaviour; the way we see and look for “pattern” as it relates to our environment. In this case, we see that video is not only allowing us to experience our lives at a pace as quick as reality, but it is actually affecting our perception as opposed to “expressing” it. Sherman’s essay presents a needed alternative to the traditional view of video used both as a documenting, and art-making tool, proving the evolution of technology and personal perception.

Mireille Bourgeois
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NOTES
1. Three Texts on Video,” in Canadian Art (Toronto, Ontario), Volume 22, Number 1, Spring 2005.
VIDEO IS A POWERFUL PERCEPTUAL PROSTHETIC DEVICE.

Perceptual prosthetics is a field usually defined by immersive, virtual reality systems; perceptual systems completely artificial and functioning beyond the sensitivities of our biological sensorium. Or the field describes perceptual systems used in remote sensing, such as sensing systems for robotic devices in deep sea or extraterrestrial exploration.

This paper describes video as a less exotic technological instrument and ubiquitous medium that nonetheless alters the way we experience the world. Video allows us to describe the world in a relatively high-resolution visual and acoustic data stream, an audiovisual display at electronic speed. Video memory is written (recorded) electronically, instantly, at a speed exceeding our own bioelectric perceptual apparatus. Video is a cognitive accelerator; it enhances the speed of cognition. Our perception and experience (consciousness) lags behind the speed at which the video instrument translates the world into digital electronic data and writes this data into memory. The articulateness and read-and-write speed of video makes the medium extremely powerful as a perceptual prosthetic.

Perception is disambiguation. Perception is a process of sorting things out, of making sense of the raw data we draw from our environment through our senses. As we perceive the world we discover patterns within the torrents of data. Video, with its extremely fast read-and-write time and instant replay, assists us in perceiving our immediate environments. In an era when common-sense ‘perception’ is programmed and force-fed into populations by corporations and government agencies, the prosthesis of video is necessary to fill the absence of independent, individual perceptual reasoning. The missing capacity for perceptual independence in our societies is the result of increasing roboticism engineered by commercial and political interests.

Back in the mid-1960s, when low-cost, primitive video technology became available to artists and independent media producers, it was evident that video was a very powerful perceptual technology. The author of this text
considers artists as primary researchers in the field of perception. Independent media producers also control their productions from content to aesthetics. Artists and innovative independent media producers practice the science of video message design, a discipline governed by multiple levels of perceptual awareness. Media literacy, like print literacy, is exemplified by those who can read and write in the medium or media of their choice. The electronic, nearly speed-of-light translation of the world into a video signal, and the instant replay feature of the medium, alters the perception of users in a dramatic fashion. Although electricity theoretically travels at the speed-of-light, in electronic circuits electricity is slowed by capacitance and resistance within the circuit—half the speed-of-light is a reliable estimate. Half light-speed (electric or electronic speed) is vastly quicker than human sensory cognition.

The capacity to replay recordings instantly or to simply be able to see an instantly fashioned depiction of the world on a video monitor (essentially a doubling of the world simultaneous with an event or action in an environment in real time) is revolutionary. Perception is shaped in the cognitive process by learning, memory and expectation. The cybernetic, feedback-based medium of video is a magnificent tool for learning, manufacturing memory and stimulating expectation.

Video erased the illusionary mission of narrative cinematic film as soon as the first video recorders were turned on. Video’s longstanding claim as a medium of reality is still based on its instant, electronic, half light-speed transcription and replay. Video technology has proliferated and is now nearly completely transparent, i.e. common to the point of invisibility. Video in the 21st century no longer appears to be magic. This transparency does not mean its power to alter perception has been diluted or diminished. Video, in its ubiquitous state, now distributes its transformative perceptual power across the broadest social and physical environments.

Video technology developed as a visual expansion of audio tape recorders. Video technology did not arise from film-based motion picture technology. Video evolved from audiotape, electromagnetic sound recorders.
Film technology evolved from still photography, where filmstrips were made with motion picture cameras as sequences of images were ‘burned’ into the medium of photochemical film. The celluloid-based motion picture was first silent and then had sound added as a separate technological component. With video, moving visual images and synchronous sound were recorded simultaneously, literally on the same medium, initially as analog electronic signals recorded onto magnetic tape.

The first video recorders were analog electronic machines. The audio/visual (AV) machines of analog video were the offspring of television technologies. Television was fundamentally a centralized form of video, but focused on the transmission of image and sound via high frequency radio and eventually cable. The AV techniques of television, once the exclusive domain of corporate broadcasters, were eventually made available to individuals and media cooperatives through the development of low-cost video technologies. With this devolution of television (horizontal versus vertical technological development), a grassroots perceptual revolution began in earnest.

Artists and independent media producers attempted to start a revolution, but engineers and major equipment manufacturers like Sony (with their ‘prosumer’ strategies, serving and creating professional consumers, begun in

Tom Sherman on the cover of Video by Artists, published by Art Metropole (Toronto), 1976.
the early 1980s) were ultimately successful in turning the media environment upside down. Artists and independent media producers had a vision of a world where the production and distribution of video data would be in the hands of everyone. Early in the 21st century video transmission is not confined to the top-down, one-to-many communications model of television. We now live in a one-to-one, many-to-many transceiver culture.

Marshall McLuhan, the literary historian and media environmentalist extraordinaire, once said that the greatest invention of the 20th century was the instant replay. McLuhan was fully aware of the groundbreaking work of Norbert Wiener, resulting in the birth of the field of cybernetics, the science of control through feedback. McLuhan understood the unparalleled cultural acceleration that would occur through feedback at electronic speed very early. Artists and independent media producers simultaneously understood the power of video through their hands-on work with video systems. Video magnified the power of learning for all those who used it. Video memory permitted the quick objectification of experience and established aroused expectations as automated pre-perception (again, video can be seen to ‘perceive’ and transcribe faster than bioelectric human perception) and with its transmission and transcription of reality to low-cost memory, a new era in the exchange of data, the sharing of experience, was initiated. We literally chase video recordings cognitively while they are being made. Video thus speeds up cognition, the recognition of pattern, and assists us in distinguishing information, those differences that make a difference, from massive fields of data. The video instrument lures us to experience the world with electronic speed and machine-enhanced focus.

Other prior media technologies had such cataclysmic impacts. Photography, phonography (music recording), film, radio and telephony, were, and continue to be, huge, transformative technologies. Photography, born in the mid-19th century, became and remained the people’s personal archival medium throughout the 20th century. Film and cinematic storytelling were the predominant cultural form of the 20th century. Television swept through technologically advanced societies reaching levels of saturation at an unprecedented speed in the late 1940s, early to mid-1950s. But video was the first accessible electronic audio/visual technology. Video was the beginning of the devolution of television. Television had provided access to huge audiences for corporate broadcasters in a rigid one-to-many, top-down communications structure. Video was a decentralized, off-air, audio/visual technology. It allows the ‘reading and writing’ of video data and in its ubiquitous presence and utility, facilitates a massive dispersal of video data, encouraging the development of multiple points of view and the ‘banking’ (in memory) and exchange of same.

Video exceeds the influence of photography, phonography, telephony, radio and film because of its real time audio/visual sensory base. Video ‘sees’ and ‘hears’ the way we do as a species, engaging the senses of sight and hearing, describing actions and environments in visual and acoustic space simultaneously, in real time, in the exact same time it takes things to happen outside the domain of video. Video engages the two primary ‘windows’ of our sensorium and also resonates with our senses of time and balance. While it is true that video is no less synthetic a reality than photography, phonography, film, telephony, radio or television, we perceive the immediate sonic and visual display of video as an augmented, enhanced reality, not as a mediated,
more obviously displaced depiction of reality. Video seems very real, indeed.

A lot has happened since the late 1960s and early 1970s. Video is no longer exotic. Besides becoming ordinary and common (transparent), video has been engulfed by a flood of so-called ‘new media.’ The digital transformation of all analog technologies, begun in the early 1980s, has permitted the convergence of previously discrete technologies to the extent that now our smart phones are jukeboxes, photographic cameras, movie theatres, text generators, teletype machines and video transceivers. And yes, we can talk on our mobile phones. Wireless telephony is radio.

Video as a technology and medium is on its ascent, nearly fifty years after its emergence in the mid-1960s. Digital video simulates all of the principle qualities of analog video, without the signal degradation inherent in analog video postproduction, distribution and exhibition. The proliferation of video production tools, the ‘digital SLR revolution’ and the use of point and shoot still cameras and mobile phones as video camcorders have put video production capabilities into an unprecedented number of hands. Webcams and the use of teleconferencing technologies like Skype have ushered in the long anticipated picture-phone or videophone.

Video, as a perceptual instrument, is most effectively used as a process-based technological device, not as a tool for producing finished works. Video is an instrument for examining a field of data in real time. It is a tool for discovering information, not making it.

When video became an accessible technology in the late 1960s with the introduction of portable ½-inch analog tape machines, it was a primitive audio/visual technology that could not compete with other more advanced technological media in terms of resolution of image and sound. It paled in comparison with 16 or 35mm film or photography in terms of image resolution. In other words, video did not do a very good job in representing the world in high fidelity. Photochemical media were very mature when video was born. When one looked and listened to a video recording, he or she saw the medium in its opacity and initially it was not a pretty sight. The image
was black and white and grainy. Its audio was narrow in frequency spectrum and the signal-to-noise ratio was very poor. But video had electronic speed and real time as attributes from the very beginning. To capitalize on what the medium did well, its users stressed the importance of process (engagement) over product (the resulting recordings).

An emphasis of process over product amplified the strengths of video as a tool for documenting idea-based art during the birth of conceptual art (1966-70). Conceptual or idea art was dependent on its manifestation in language, in written text and/or in combination with still and moving image. The live performance of a conceptual work was often recorded in 8mm, Super8 or 16mm film, or with the emergence of video in the mid-to-late 1960s and early 1970s, with video. Video was an excellent, low-cost, tool for documenting performance-based conceptual art. Video was also attractive to artists because of its technical simplicity. Technique and craft-time were deemphasized during the conceptual period. The idea, in its stark clarity, was paramount, during this era. Video, as an art form, was born during the emergence of the conceptual movement. Video recordings, emphasizing process-based art, an art of ideas, were generative in that they distributed, substantiated and evoked such ethereal work.

Independent media artists, whether they saw themselves as electronic journalists or political activists, were also drawn to video in the mid-to-late 1960s. Video could be a very effective tool for social animation. A video document of a community could be made and shared with the community itself within an hour or two. This quick turn-around would provide feedback to strengthen a community’s perception of itself. Problems within a community could be exposed and clarified. Solutions could be identified through discussion and actions initiated. Communities could share their video recordings and ideas could be spread. While early video was not as easily distributed as video is today through file-sharing networks or personal telecommunications, the earliest manifestations of video were distributed on multiple, duplicate recordings sent around by parcel post or cablecast on the public access channels of cable television.

networks. The cybernetic potential of electronic, grassroots media was established with process-based video.

Once the capital cost of video production equipment is secured, producing video recordings is inexpensive and unrestricted. In the earliest days videotape stock cost twenty or thirty dollars a tape or cassette. Video purists, from the birth of the medium, were not obsessed with archiving their quickly growing libraries of video recordings, but instead recycled videotape by recording repeatedly over previous recordings and reusing the videotape until it literally wore out, becoming noisy to the point of dysfunction.

The technological evolution of video has been breathtaking. Consumer level ½-inch reel-to-reel recorders gave way to VHS and ¾-inch U-matic cassettes and then 8mm and Hi8 formats and the complete transformation to digital video, including DV cassettes and HDV and solid-state memory. Cassettes gave way to DVDs and USB keys and on-line distribution, the sharing of video files via the internet. Professional level video equipment has evolved even more quickly and is extremely complex in terms of formats and compatibility. Individuals and organizations are left with generations of large libraries of recordings they cannot play. Technological obsolescence has reemphasized the process orientation of the video medium. The video medium remains unstable and finished video productions must be constantly updated format-wise to continue to function decades in advance.

Analog video, the precursor to digital video, had its own inherent problems with the idea of product. Analog video degraded in the postproduction process as there was an inherent degeneration of signal integrity when recordings were copied. Dubs from dubs became very noisy quickly. This is why VHS dubs look so soft and blurry and sound muddy and take on hiss. The primary advantage of digital video is the capacity for reproducing recordings ad infinitum without introducing noise. Digital video is also unlimited theoretically in terms of image resolution in camcorders. High definition video (HDV) is currently defined as 1280 (width) x 720 (height) pixels or 1920 x 1080 or as 2048 x 1536 (2K) or as 4096 x 3072 (4K). It is hard to imagine photochemical

WE LITERALLY CHASE VIDEO RECORDINGS COGNITIVELY WHILE THEY ARE BEING MADE. VIDEO THUS SPEEDS UP COGNITION, THE RECOGNITION OF PATTERN, AND ASSISTS US IN DISTINGUISHING INFORMATION FROM MASSIVE FIELDS OF DATA.
media recapturing the lead in the resolution game, although biological and light-based computing has tremendous potential. In short, the evolution of video technology has been explosive in its development over the past four decades, a meteoric rise to a powerful, magnificent, ubiquitous electronic audio-visual instrument for perceptual enhancement.

Even though video’s resolution has and will continue to improve, it remains a process-oriented perceptual tool, in part because of its strengths as a technology and also because of how the medium is productively used. In an era marked by the proliferation of AV technologies and an abundance of organized data, it should be obvious that all video recording and transmission is research into perceptual processes. Making video art and all forms of video message design are investigations and notations on the changing nature of human perception.

The ‘products’ of video are like snapshots in a high-speed evolutionary time-span. Media archaeologists will pull out exemplary finished ‘products’ from the video era, but these examples of how the medium was used effectively will likely be raw video recordings and not edited, finished video programs. My point is that the power of the video medium has always been the electronic mediation at the instant or razor-thin proximity to the moment they were made. The reality of transmitting a live video feed across continents in such a common act as a Skype transmission gives every video recording the juice, the electronic vitality, the immediacy of the real. Sure, video can be fictionalized, the way photography’s reality has been subverted through darkroom ‘tricks’ and eventually through Photoshop. But the most important use of video is in raw, evidential recordings of audio-visual data akin to being there at the moment.

There is nothing more instructive than being in an environment, recording the actions and surroundings with video, then replaying the recording and witnessing this environment and actions from a second point-of-view, a POV where our awareness is displaced ever so slightly by time and the depiction of this environment is rendered incomprehensively quickly. This POV is restricted by the frame af-

forded by the lens and frequency spectrum of the microphones and no matter how resolute the image and sound, the video version of the world is not yet as packed with data as the world defined by our unaided eyes and ears. The full fidelity of our natural eyesight and hearing is not possible in a video recording, but in this way the video description offers a second, paradoxically more essential version of the world, an other version where figure-ground relationships are enhanced, where light is seen differently by the camcorder’s chips and acoustic space is redefined by how the camcorder ‘hears.’ We are aware of these differences as we compare our perception with that of the machine through its LCD screen in real time.

In the process of replay, a video recording is examined in the exact time it took to be recorded, in another definition of real time. This memory of events and space/time is precise to the millisecond, beyond the capacity of our biological, cerebral sense of memory. Video is an audio-visual clock with a machine-precise, literal sense of what happened. It goes beyond the photographic image in evoking memory. It is full motion, concrete memory. This full-form memory is apparent in the viewfinder or side mounted LCD-monitor and headphones at the moment the video recording is being made. Then it is always surprising what one discovers in multiple passes of a video recording. Things are noticed that were not seen at the time of recording and different aspects of the recorded material rise and recede as the material is reexamined as long as the data is of interest for the observer.

I have been reluctant to use the word information in describing video recordings, because data is a better word for characterizing the video display. The world is translated by our sensorium, the sensory receptors of our body, into bioelectrical data that we process in our brains. We translate this data into information in our consciousness, the conscious awareness of the data that makes up our environment. Gregory Bateson, the great anthropologist, psychologist and cognitive theorist, said that information is any difference that makes a difference. For instance, we don’t pay much attention to temperature unless we are too cold or hot. When the

temperature is comfortable, it is data and not an issue. An awareness that one is ‘freezing to death’ or ‘boiling’ transforms temperature data into information. The world as a field of data becomes information as differences become significant. A video display is part of our overall environment, but of course it differs from a chair we sit in, the hair on our arms, or an automobile we drive. A video recording does not necessarily display data that is more significant than any other thing we may experience. Video data may in fact be far less significant than full-range physical data perceived by our sensorium. But the comparative differences between video depictions of the world and the unmediated world inherently yield insights into the perceptual process.

When we examine the world using the perceptual prosthetic of video, that technology that permits us to see and hear our environment as an electronic, simultaneous second world, in real time, we are involved in an altered state of consciousness. Video is a cybernetic technology, providing feedback to our conscious negotiation of reality. We become cyborgs, person-machine interfaces.

Our consciousness is altered as we become perceptual systems in tandem with video machines. We see and hear differently in such a sensual duality. We become aware of our perceptual processes when we see through video frames and listen through microphones. We experience the world as creatures involved in the process of perception while in partnership with video. We focus on different things because we are wielding camcorders. We see and listen differently as videographers. We become aware of our experiences through instant replay. We are intoxicated by our machine-assisted powers of description.

Video technology collapses perception (sensing), experience (being consciously aware of perception) and description (the articulation of perception/experience into memory) in milliseconds. Whereas our bio-electric consciousness is already digesting our environment and actions in a slight delay (we are aware of the words someone is speaking to us milliseconds after we actually hear those words being spoken), video actually senses and records environments and events faster than we can sense (perceive) them in
technologically unaided perception. Previous
to photochemical and electronic perceptual
technologies our species had to describe what
we perceived and experienced in drawings
and the spoken and written word. We were
descriving and feeding back what we found
significantly different at a much slower rate
of interaction. We chase video’s incredible
electronic perceptual speed as the human
flesh and blood component in a dynamic
cyborgian relationship. We are attracted to
video recordings because of their razor-thin
interval between sensing and description and
the posthuman precision of video memory.

Using video technology to negotiate the
world is a perceptual research methodology.
The process of sensing and describing the
world through video is a form of research.
Whereas telescopes are used to examine the
planets and stars, and microscopes microor-
ganisms, video is employed to study the world
as it is perceived. In a way it is a philosophical
medium. The questions raised by conscious-
ness itself are amplified by an awareness
generated by video. Video highlights the
experience of witnessing the environment
and events. It makes us self-conscious of
what we are interested in and why. It helps us
understand how we see and hear and it builds awareness through replay, the review and repeat performance of memory. It shapes our perception of reality through the cybernetic process of feedback and the refreshing of perception through replay. In a way, it is the supreme technology for learning how one sees, hears and thinks. It is forward looking as it transforms the past into the present. Instant video feedback has flattened our sense of history (a video document of something that occurred in the 1960s feels like it was recorded the morning it is being viewed, even nearly fifty years later) and video can predict the future by existing as it does so magnificently in the present.

I mentioned earlier that video was born during the 1960s, when conceptual art and political activism were widespread. Video then was the new technology and utopian visions were associated with the inevitable collapse of mass media like television, commercial cinema and newspapers. Nearly fifty years later we live in a technological culture defined by the internet, where anyone with access to basic media tools and networks can have their own ‘television channel’ and publish their writing and digital multimedia through blogs. Video messages and messages in many other media are exchanged through mobile phones and personal digital ‘assistants.’ Social media are essentially photography and video file exchange sites.

Today video proliferates at phenomenal speed, affecting perception wherever it is employed to cultural advantage. Video is now ubiquitous and transparent, some would even say it is common and mundane. People focus on the things that video depicts, not on the way it is transforming perception. Content is king in an era characterized by the abundance of video data. Form becomes formulaic, especially when the instruments of production converge into all-purpose devices like ‘smart’ phones. As digital SLRs and point-and-shoot cameras and phones record video, video camcorder sales plummet.

Once it was important for artists and independent media producers to attack the monolith of television and other mass media outlets because they were being used to engineer social and political conformity. Creativity

**VIDEO IS AN INSTRUMENT FOR EXAMINING A FIELD OF DATA IN REAL TIME. IT IS A TOOL FOR DISCOVERING INFORMATION, NOT MAKING IT.**
and behavioural anomaly were marginalized by mass media. Now that mass media control structures have collapsed and corporate and government agencies are instructing us on how to perceive the world through ‘new media,’ it is more important than ever to focus on what video does well.

Video, as a transformative processor of data into information, does not necessarily look like art. Video data is ubiquitous, comprehensive and difficult to pigeonhole. As a perceptual instrument, video fosters pluralism, is fundamentally unstable, deceptively powerful, subversive, unruly and very good at creating altered states of consciousness and defining its users in terms of who they are and who they are not. Video creates an ongoing awareness of point-of-view; it defines POV as a process of developing awareness. The video instrument fosters creativity and rewards anomalous behaviour through representation and amplification—a sense of presence or existence. Video is an instrument for direct research into perception. Video is a powerful perceptual prosthetic device.

Still from “Alley 9,” Tom Sherman and Jan Pottie, video, 27 minutes, 2009.
ADDENDUM

Thanks go to philosophers Maurice Merleau-Ponty and Jean Baudrillard and environmental perceptualists Marshall McLuhan, Gregory Bateson, James Jerome Gibson and Brian Molyneaux for many of the principle ideas in this text. An additional thank you goes to Josh Guillaume, an undergraduate History of Art student who made a brilliant speech on perceptual prosthetics and the powerful future orientation of the video medium in a class discussion in my Video Art History class in the Spring semester of 2012 at Syracuse University. The passion and insights in Josh’s speech moved me to write this text. I also acknowledge that my former colleague, Professor Emeritus John Orentlicher, had the vision to develop Video Research studio courses within Experimental Studios at Syracuse University in 1978 and to embed these ongoing video-based research seminars within the Art Video MFA curriculum in SU’s Department of Art Media Studies in 1981. It is my privilege and honour to conduct graduate studio courses in video research at Syracuse University under the title of Video Research in 2012, just as relevant and vital a curricular initiative today as it was over three decades ago.

Tom Sherman, July 20, 2012

ARTIST’S BIO

Tom Sherman is an artist and writer. He works in video, radio and live performance, and writes all manner of texts. He represented Canada at the Venice Biennale in 1980. He founded the Media Arts Section of the Canada Council in 1983. His interdisciplinary work has been exhibited and screened internationally, including shows at the Vancouver Art Gallery, the Museum of Modern Art and the Musee d’art contemporain (Montreal). He performs and records with Bernhard Loibner (Vienna) in a duo called Nerve Theory. He collaborates on many video works with writer, activist and biologist Jan Pottie. His most recent book is Before and After the I-Bomb: An Artist in the Information Environment, The Banff Centre Press, 2002. In 2003 he was awarded the Bell Canada Award for excellence in video art. He received the Governor General’s Award for Visual and Media Art in 2010. Sherman is a professor in the Department of Transmedia at Syracuse University in central New York, but considers the South Shore of Nova Scotia his home.