From XeroX PARC to the Kitchen Table: Playing the Artistic Stakes in Cyberspace

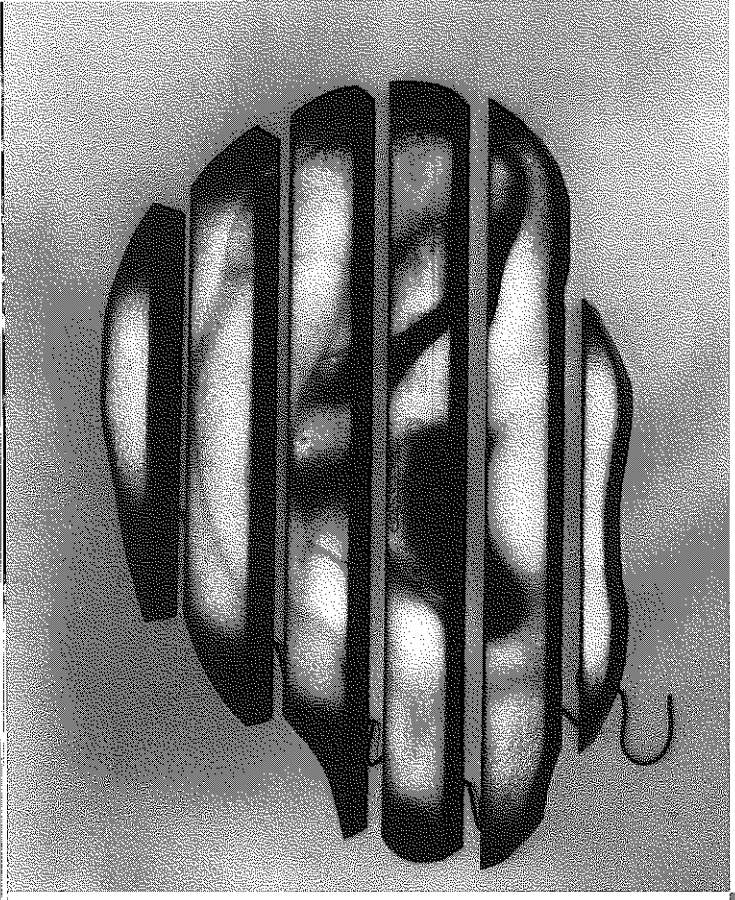
by DOT TUER

The other night I dreamt I was in a meeting with an information systems manager. Culture was on the table, literally: novels and poems and films and videos retrieved from the Internet, downsized into digestible microchip bits of information, and served up in a glass bowl. With a menacing glint of conviction in his eye mirroring the silicon edges of the glass bowl, the information systems manager leaned over the table towards me. Carefully stating the obvious in the measured tone of someone talking to an uncomprehending child, he urged me to consider the importance of embracing a "new dynamic ecology of communications." Beginning to sound like a parrot repetition of *Wired* magazine articles I had been reading, he told me that a co-evolution is taking place between the consumer as the receiver of information and the corporation as retriever of information. "In the past," he suggested without a hint of nostalgia in his steely voice, "technology served to enhance the effectiveness of the individual mind. In the future, the focus will be on the expansion of the organizational mind."

As I looked around the room, I realized that we were in a meeting at the Canada Council. A video camera was recording our conversation. On computer screens behind us, I saw ourselves dissected and reconfigured as minute body parts. Looking at these images, I noticed that his earlobe was dirty, that my eye twitched nervously. On other monitors, I could see meetings taking place in other rooms. Here the image data bank was no longer a window on the world, or parking lot surveillance footage, but an interactive office pool. Suddenly, the features of the information systems manager began to change, transforming into a combination of a bit-chip character out of a Bruce Sterling cyberpunk novel and Ontario Conservative Party leader, Mike Harris. (Odd, I thought to myself, that Harris should appear in my dream, since his proposed solution to a fiscal cultural crisis has less to do with new technologies than a nineteenth-century idea of cultural charity. Only days ago, at a forum on the arts, a spokesperson for the Conservative Party announced that the arts funding infrastructure in Ontario could easily be replaced by a system of volunteer patrons paid a dollar a year to administer and disperse cultural funding.)

Taking a notepad and a pencil from the table, the information systems manager began to draw a graph that simultaneously appeared on one of the computer screens. With his tools of corporate wizardry in hand, he launched into a stern lecture on the foibles of the public purse. "I understand," he said, "that there has been some hostility in the arts community against the decision to dismantle the Art Bank. But it's a simple issue of economics. As you can see from this graph, we have measured the potential rentals of art works against the predicted loss of governmental and corporate office space through restructuring and cost efficiency measures. Future projections point to a radical reduction in the need for objects to fill a radically reduced work space. With everyone working at home on contract and attached to a computer screen surfing the Net, there will be no demand for material objects of contemplation. Besides, I don't see why artists don't sell their work on-line. There has just been an agreement reached that will allow direct credit card purchases through the Internet. It makes much more sense to have artists explore home shopping networks and direct consumer access than to continue with a cumbersome and inefficient system of individual grants. The information highway, my friend, leads to direct democracy in the arts."

Sylvie Belanger, *The Silence of The Body*, Detail, 1994. Photo by Barri Jones.



Sylvie Belanger, *The Silence of The Body*, Detail, 1994. Photo by Barri Jones.

A dream is just a dream . . . or is it?

Last February, I toured Xerox PARC (Palo Alto Research Center), which recently initiated an artist-in-residence program pairing local San Francisco Bay artists with staff researchers to provide what Xerox describes as "interventions into a contained community." Funded by Xerox Corporation to explore and study technological innovations in the workplace, PARC prides itself on its visionary investment in the development of ubiquitous computing. Its teams of scientists, anthropologists, and engineers have already realized prototype models of cybernetic interactivity. Mark Weisner, the head of its Computer Science Laboratory, extols a future in which computers are incorporated into the walls and surfaces of the work environment. Writing in *Scientific America* about Xerox PARC's research philosophy, Weisner proposes that "the most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it" ("The Computer for the 21st Century," 265, no. 3 [Sept. '91]).

When I arrived at the entrance of PARC for my tour, security was tight. I filled in an identification form that would have made the Pentagon proud. Once inside, cameras recorded my every movement and conversation. Yet despite the Orwellian implications of the environment, the atmosphere was relaxed. Collegiality prevailed. Everyone I met was eager to demonstrate his or her wares, opening computer screen windows from one office into another, calling up files, pointing out the virtual blackboards in conference rooms, activating the computerized tabs that track the movement of the employees through the complex. Enveloped within an hermetically sealed technological wonderland, I was struck at how benign the whole project seemed, gently nestled in the rolling green hills of Palo Alto and populated by scientifically sheltered minds.

Jim Campbell, *Digital Watch*, Detail, 1991. Photo courtesy of the artist and the San Francisco Museum of Modern Art

Far removed from the enclosed sanctuary of Xerox PARC, however, I have the uncanny feeling that the myriad strands of technology infiltrating my consciousness are not so benign. As I look around my own office at paper cascading from the fax machine, e-mail piling up into a metaphorical mountain in a virtual mailbox, the voice-mail button blinking on my telephone, daytime talk shows blaring a cacophony of television neuroses, I have the sensation that technology has invaded everyday life. Producing a constant debris of interference, technology wraps its tentacles around the thin line between the plausible and the absurd. Blurring the boundaries between reality and the imagination, it usurps my sense of being in the world in ways that are as fantastical as the hallucinatory interconnectivity of my dream, and as ideologically opaque as the seamlessness of ubiquitous computing.

It is this sensation, a sensation of technology as pervasive, invasive, a "desiring machine" penetrating vision, dreams, politics, passion, that has come to stalk me. It follows me into bank machines, corner stores, apartment lobbies, government offices. It trails me like a secret agent who is discreet in his distance, but nevertheless persistent in his task of shadowing my every activity. Its discursive omnipresence ranges from the cover of *Newsweek* announcing "TechnoMania: The Future Isn't What You Think" (Feb. 27 '95) and *Utne Reader*'s wrap-up summary of "Cyberhood vs. Neighbourhood" (no. 68 [Mar./Apr. '95]) to *The Globe and Mail*'s incessant chatter about the far-ranging implications of the Internet and the looming transformation of an information-based economy that will be akin to the Industrial Revolution in its consequences. On television, it has found a permanent home as a visual projection: computer screens within television screens becoming indispensable aids for an endless parade of commentaries explaining life and religion and science and technology on the new cable channels.

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Sylvie Belanger, *The Silence of The Body*, Detail, 1994. Photo by Barri Jones.

With the recent flurry in the Toronto art world to champion the semiotic coupling of art and technology, it seems that the sensation of technology as the desiring machine of late capitalism is also stalking artists. In contrast to the art world of the 1980s that heralded strategies of appropriation, media deconstruction, gender analysis, and identity politics, the art world of the 1990s has become a launching pad for an embrace of technology qua technology as the object of investigation. From Public Access's high profile lecture series in February 1995, *Retouch: Art, Gender, Technology*, to the more modest and ongoing investigations sponsored by Inter/Access, an artist-run centre, and from the Science Centre's interactive new media *TechnoArt* show in the fall of 1994 to The Power Plant's splashy *Press/Enter* exhibition in April 1995, artists and writers who can "talk the talk" about technology are in demand.

Catapulted from relative obscurity to centre-stage in less than a decade, the technologically focused art comes gift-wrapped in a discourse of utopian futurism that is as expansionist and visionary in its conquest of consciousness as the corporate sector's conquest of a global information economy. What is at stake here, according to the gurus of new technologies such as Sandy Stone and Jaron Lanier, is the transformation of identity, sexuality, eroticism, and the self: in short, the end of humanity as it has been historically comprehended in time and space. For Stelarc, an Australia-based performance artist who has built himself a computerized Third Arm and fights cybernetic robots gladiator-style, the body is an outmoded container of physical impulses and genetically programmed obsolescence. In a bid to replace biology with artificial intelligence and to reformulate the body "not as an object of desire but as an object for design" ("Phantom Body/Fluid Self: Images as Post-Human Entities," unpublished paper, nd.), Stelarc imagines his physical presence as no more and no less than an interface between machine and image. "Images are immortal, bodies are ephemeral" proclaims Stelarc, and promises that the tiresome binaries of body/soul and female/male haunting human existence will be swept away by the emergence of "hybrid image-machine systems."

the great appeal of cyberspace lies in its lack of... historical constraints

With the popularization of "cyberspace" through *Neuromancer*, cyberpunks and virtual sex achieved cultural notoriety. Hackers were elevated to the status of the new cowboys of a virtual Wild West, and artists from the now passé eighties, such as Robert Longo, found new careers in cinematically adapting images from the future rather than photographically appropriating images from the present. Gibson's vision of a cybernetic future also served as a grab-bag rubric for academic studies, spawning a growth industry in books, journals, and conferences devoted to the promise of an endless horizon of virtual interactivity. In an inverse relationship to the media slogan "Coke – it's the real thing," where metonymy constructs a commodification of experience, Gibson's dystopic coinage of cyberspace succeeded in constructing a metaphoric commodification of the simulacrum.

So ubiquitous is Gibson's vision of a technologically saturated future that in M.I.T.'s 1991 anthology on new technologies, *Cyberspace: First Steps*, Michael Benedikt introduces his rapturous descriptions of cyberspace with a nod to *Neuromancer*. Noting that in Gibson's novel cyberspace is an "unhappy word," Benedikt then proceeds to dissociate it from its unfortunate lineage, redesignating Gibson's cyberspace as a word "that gives a name to a new stage, a new and irresistible development in the elaboration of human culture and business under the sign of technology." In the same anthology and in a similiar vein, Michael Heim, a classical philosopher, uses Gibson's novel to construct a phenomenology of cyberspace that smoothes over Gibson's dystopic edges. Built upon the chimera of "jacking in" to virtual worlds, Heim's philosophical musings upon the material perfection of Platonic ideals within virtual reality are illustrative of how elastic the parameters of cyberspace have become.

In one breathless holistic swoop, cyberspace is now expansive enough to accommodate the referential collapse of Paleolithic paintings, fractal graphics, feminine *jouissance*, ancestor worship, and Zen Buddhism into a picture-perfect vision of the omnipotent grip of new technologies over old categories of art and consciousness. Since cyberspace does not yet exist, apparent contradictions that arise from Heim's glorification of ideal forms, and the simultaneous celebration of their dissolution by theorists such Sadie Plant in her writings on cyberspace's feminine fluidity, are rather beside the point. After all, the great appeal of cyberspace lies in its lack of materialist and historical constraints. To plunge such a utopian projection into a discussion of global economic inequities, multinational corporate concentrations of knowledge and resources, and military intensification is seen as a crass attack on imagination. Within the discursive realm of cyberspace, positions should be argued with rhetorical grace and messianic conviction, unsullied by the mundane realities of eating, shopping, sleeping, racial tensions, sexual anxiety, losing one's employment to restructuring plans, etc.

What seems to be at stake in cyberspace, then, is less the transformation of metaphysics, identity, sexuality, and the self within a technological reality than an investment in the remapping of consciousness within a technological imaginary. Cathected through machines rather than through the body, desire for a future that will affirm the omnipotence of technology gives rise to an old dream of mastery masked as a new dream of liberation. When a respondent in a discussion of cyberspace at Inter/Access can argue with impassioned conviction that on the Internet one "floats above capitalism," and that, in the Gulf War, coverage of battles was simulated and "collateral damage" replaced causality statistics, what also seems to be at stake is a tenuous grasp of the conditions of technological oppression. The "free flow" of on-line information pales to insignificance when compared to the public-opinion net cast by Rupert Murdock, whose monopoly grip on a mass media empire reaches seven hundred million people daily. Virtual reality art projects are but the shadows on Plato's cave when compared to the virtual world of the American military offensive, where soldiers train on simulators, and "digital divisions" outfitted with high technology are the first step in the Pentagon's creation of a "synthetic theatre of war."

Given what the stakes are, artists seeking to explore this technological imaginary have entered a highly contested arena of power and representation. If the recent Power Plant exhibition, *Press/Enter: Between Seduction and Disbelief*, is any gauge of how the artistic stakes are being played out in cyberspace, however, art is less a site of contestation than one of capitulation to the allure of cybernetic interactivity and computer-integrated virility. It is not that the visible icons of technology's omnipotence were absent from the exhibition. On the contrary, the sensation of technology as a desiring machine stalking the self pervaded the viewing experience. At every turn, the viewer's image was dissected, projected, reflected, deflected through the looming eye of the surveillance camera and neat visual tricks of image interactivity. What was absent from the exhibition was a critical perspective that pointed to the ways in which technology constructs invisible economies of domination. Like the technological wonderland of Xerox PARC, the privileging of technology's hardware in the exhibition served to mask the ways in which the proliferation of software through computer networks and coaxial cables has constructed a politics of exclusion that no one can see.

While not all of the artwork included in *Press/Enter* lacked a conceptual framework that questioned technology's utopian gift-wrapping, the thematic grouping of the works around a curatorial position exploring "the dialectics of seduction and belief" neutralized the content of individual pieces. Lost in the curatorial shuffle were the subtleties of works such as Christine Davies' *Le dictionnaire des inquisiteurs (tombeau)*, in which the inscription on contact lenses of words from the dictionary of the Spanish Inquisition investigated ways in which the doubling of the eye and the body in technology embodies issues of language and power. Similarly, the questions raised by Jim Campbell and David Rokeby's works of the ways in which new technologies alter perception and memory in a time-space continuum were obscured by the overwhelming literalness of the technological metaphors used by most of the other artists in the exhibition. Like the preponderance of white, middle-class males on the Internet, whose enthusiasm for on-line exchanges does not extend to a consideration

of how consent is manufactured through a circular loop of "interactivity," *Press-Enter* offered an arid vision of a future that privileged access to technology over a critical assessment of its infrastructure.

Given the resources and publicity devoted to *Press/Enter*, I had hoped for a glimpse of a cyberspace future in which criticality and diversity were part of the picture. Instead, the net effect of the exhibition was one of repetition and self-referentiality, as if I had been transported back in time to a McLuhanesque spectacle of the 1970s. But while the first wave of enthusiasm for new technologies that prompted this sense of déjà vu was ushered in by the social and political upheavals of the 1960s, the context for the reception of art and technologies in the 1990s is radically different. In the "free-market" multinational capitalism of the post–Cold War era, a vision of a cyberspace future is more likely to be framed by a symbiosis between art, technology, and corporate partnership than by calls for technological autonomy and anti-imperialist platforms of self-determination. For as AT&T, the official sponsor of *Press/Enter*, clearly outlines in its catalogue introduction to the exhibition, the "valuable insights" and "new perspectives" that artists provide are "essential to the creative process in the R&D laboratory and to the innovation in the marketplace."

In AT&T's claim that its "association with the arts is rooted in our belief that the arts are an important form of communication – and, of-course [*sic*], communication is at the core of our business," a number of questions concerning the relationship of art, technology, and ideology are raised. In a free-enterprise equation of art and technology, who is complicit in setting the acceptable limits of dissent? The artists? The curator? The corporation? Will the helping hand of corporate funding and institutional support be as easily extended from the artists in *Press/Enter* to artists whose alliances lie with the lived experiences of past colonial oppression rather than in the future projections of "hybrid image-machine systems?" Will artists committed to exposing the ideological underpinnings of a post-industrial "desiring machine" disappear from the official face of culture, elided by the ascendancy of the private sector interests over state-brokerage funding of the arts?

While the answers to these questions lie in the yet undecided future of a cybernetic universe, playing the artistic stakes in cyberspace at the present time does not necessarily entail striking a Faustian bargain with technology that leaves artists as the initiates of a new magic cult, scientists as wizards ensconced in the corporate laboratories, and neo-liberalism as the arbitrator of technology's grip upon the cultural imagination. In the heart of Silicon Valley, a number of artists working on issues of art and technology have extended their investigation of technology from "seduction and disbelief" to a critique of its narcissistic infrastructure and its politics of domination. For instance, Gail Wight, a young San Francisco–based artist, has translated her interest in neurological video-imaging and biological mutation into an exploration of the intersections of poetry and science. In a piece entitled *Residual Memory*, mould is grown on discarded computer chips placed in petrie dishes on a bed of sand to suggest the biological fragility of the seemingly invincible silicon fantasies. Lynn Hershman, working with interactive video imaging, has constructed a model of an M-16 in which trigger-happy viewers witness the superimposition of their own images with archival footage of the weapon's historical targets. Entitled *America's Finest*, Hershman's work serves to remind the viewer of the invisible targets that lie within the shooting range of cyberspace's bodiless image plane. Natalie Jereminjenko, the coordinator at Xerox PARC's artist-in-residence program, deploys strategies of alterity in her artwork to construct site-specific architectural disruptions, turning the metaphors of cyberspace back upon themselves in real time and space. Jon Winet, as an artist who is currently in residence at Xerox PARC, has chosen to use the resources of the corporate laboratory to construct a WEB site that raises issues around the field of mental health.

Closer to home, there are also a number of Canadian artists, such as Nell Tenhaaf, Catherine Richards, Doug Back, and Norman White, who seek in their work to unveil the ethical implications and ideological cracks in the crystal ball of cyberspace. As Kim Sawchuck writes about Nell Tenhaaf's work in *Parachute* magazine, "rather than lamenting the current decline of knowledge in the era of micro-processing or victimization by doctors or scientists, Tenhaaf concerns herself with the limits – both ethical and epistemological – and the potentials of science, technology, and language" ("Biological Not Determinist: Nell Tenhaaf's Tecnological Mutations," no. 75). Deploying what Sawchuck has termed "strategies of occupation," Tenhaaf and other artists have found ways to operate "within the fissures of these hegemonic, extremely profitable and socially potent enterprises" of new technologies. In so doing, their interrogation of the issues raised by an embrace of a cyberspace future, such as Tenhaaf's examination of gender-typing in DNA research, Richards' critique of the virtual body, and Back and White's refusal to acquiesce to the seduction of technology's hardware in their investigations of cybernetic interactivity, offer an antidote to *Press/Enter*'s arid vision of the future.

A few weeks after my visit to The Power Plant, I was sitting at my kitchen table and contemplating another arid vision of a future: the landslide victory of Mike Harris's Ontario Conservative Party based on an election platform of fear-mongering against immigrants, gay rights, affirmative action, welfare recipients, high taxes, and photo radar. With me at the kitchen table were two friends having an impassioned discussion about democratization through the Internet. One argued ardently for the potential of the Internet to construct alternative communities and new on-line identities. The other responded by asking, "if a number of prisoners are given access to the Internet and believe themselves to be free in cyberspace, are they free?" Their conversation abruptly halted, and my mind began to wander. I began to think about the technological prisons that we have built, and that for all the talk of a utopian future, I have been unable to find concrete evidence of a new-found freedom. When *The Economist* can feature a sixteen-page spread on the use of information technology in war that leaves a discussion of deterrence to the last paragraph ("Defense Technology: The Information Advantage," 335, no.7918 [June 10–16 '95]), and Michael Benedikt can claim in his introduction to *Cyberspace: First Steps* (1991) that a realm of pure information will decontaminate and redeem natural and urban landscapes, I begin to wonder if the enthusiasm generated by the fantasy of cyberspace is not a shield that deflects our capacity to understand technology as both a pleasure principle and a death drive.

In *The Book of Embraces* (1991), Eduardo Galeano writes that "blatant colonialism mutilates you without pretense: it forbids you to talk, it forbids you to act, it forbids you to exist. Invisible colonialism,

however, convinces you that serfdom is your destiny and your impotence is your nature: it convinces you that it's not *possible* to speak, not *possible* to act, not *possible* to exist." As I look around at the world I live in, rather than at the projections of cyberspace, I think to myself that it is time to start speaking about, and acting upon, the realities as well as the dreams of a technological imaginary. To adapt Mark Weisner's claim that the "most profound technologies are those that disappear," the most profound ideologies are also those that disappear – through technology's invisible economies of domination. To challenge these invisible economies of domination is not to refuse technology, nor deny its potential for liberation, but to construct through technology a process of questioning the future. What is at stake is not only the means of production, but also the means of desire, and the means of consciousness.

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