

global media, common ground,
and cultural diversity*

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Tokyo Dreamspace I'm standing at night in a public square in Shinjuku on my first visit to Tokyo. Down the machine-straight streets off the corners of the square, as far as I can see, neon pulses in vertical collages shoot animated afterimages off into the ambiguous sky. Perspective condenses the neon like sideways gravity. On the faces of buildings, diagonally right and left ten stories up, huge video screens paint the bare legs of hundred-foot women walking in slow-motion, randomly jump-cutting to spinning logos and sleek speeding cars. Half a head taller in my heels than most of the Japanese who pack the square at midnight, I am seeing the place as one who looks into an aquarium at precisely the waterline: above, the photon storm of neon-video light; below, people moving like fish, slowly, not looking up. I bob up and down, breaking and re-breaking the surface tension of the human sea, savouring the instant metabolic transformations. But I am left wondering why these people have made this space? Most of them are not even looking at it.

In *Understanding Media*, Marshall McLuhan offers the notion of media 'temperature' as a way to characterise sensory, cognitive, and cultural effects. He uses 'cool' in two senses: firstly in relation to media which invite participation through low-resolution and incompleteness; and secondly in relation to the 'cooling down' of one's senses in response to 'hot' media. He treats the former as a generally healthy state,

but the latter can become a kind of disease or numbness that is a side-effect of the body's strategy for surviving media assault.

On rereading McLuhan after more than a decade, I wonder what he would say about the phenomena that we now call interactive media. One of the ways he distinguishes 'hot' media from 'cool' is in terms of participation. High-resolution media are non-participatory in that there is not so much for us to fill in. In the 1980s, interactivity was hailed by many as the antidote to the numbing world of TV. But do interactive media necessarily enhance participation?

In Shinagawa we visit the bowling alley — two hundred lanes, each with a video monitor mounted overhead. As a woman approaches the line, the monitor displays her in a frontal long-shot. As she releases the ball, sensors alert the system to cut to a view of the pins. The ball makes contact and the video cuts again to a close-up reaction shot. The 'interactive' video processes the real-life interactivity out of the experience, like shining red light through a red filter.

When I return to Japan a few months later, electroclust draws me back to the neon-video square. The second experience is deeper, more viscous. Perhaps inner rehearsal has made me a better night-driver. There is the same strange and instant exhilaration, but now I am feeling it on my skin rather than in my head. I am inside the experience. I do not have ideas. Fragmentary messages drift by like flotsam in a phosphorescent sea. My senses are cetacean teeth, straining out bits of pattern. I sample indiscriminately. What was once 'hot' to the point of fusion is now the ultimate 'cool', seen and forgotten in the same instant because there is too much to see, too much to remember. Juxtapositions in the mysterious underwater mind make intimate ephemeral poetry out of what was once searing noise. I sweat and tingle, the exquisite feel of cooling off experienced as an inside-out creative act. This does not feel like anaesthesia.

What has changed? Have I popped out the other side of McLuhan's numbness? When we cool down, might the onslaught be transformed into a new form of inviting ambiguity? Or are we acting out a larger evolutionary pattern, emerging from and diving into stranger and stranger seas?

Many recent writings about 'virtual reality' invoke Lewis Carroll's looking glass as a way to describe the nature of the medium. I am reminded, like McLuhan, of Narcissus — the reflective surface traps us in an anaesthetic trance. The deeper power of telepresence awaits below the waterline. One can imagine a transformation spawned by sensory immersion, like the Tokyo night, where the burning sky collapses in upon its content, driving meaning down into a realm that is entirely unsuspected, intimate, and vast.

I am reporting these experiences because they have caused some radical shifts in my thinking. Similar shifts have probably happened to others in their own wanderings through urban landscapes, or perhaps through

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immersion in the brain-defying pace of some of the better stuff on MTV. Some things happened to me in Tokyo that led me to a new line of inquiry about the nature of media and experience. As new media enter early adolescence, their distinctive traits begin to assert themselves, pushing through the vestiges of their predecessors.

The emerging characteristics of what I call the supermedia environment demand our attention in new ways. One unanticipated and exhilarating effect of my encounters with Tokyo Dreamspace is that sensory immersion led to submersion into a new interior landscape. It provided me sudden and deep entry into an intimate realm that has been only rarely accessible to me in the past, and never through anything but the most personal, solitary media experiences and contexts. In 'Through the Vanishing Point', McLuhan talks about the revolutionary impact of the development of the vanishing point in perspective painting. The supermedia in Shinjuku accomplishes a revolution of similar magnitude by replacing my old experience of point-of-view with the experience of being *inside-the-viewpoint*.

Being 'inside-the-viewpoint' is not only a perceptual phenomenon, but a cognitive and contextual one as well. It was used (along with other now-familiar overload techniques) by Mark Pennington and his associates in the production of an extraordinary series on MTV called *BUZZ*. There were only six episodes, all produced in 1990, and the series was cancelled ostensibly due to its high production costs. The series' themes were global in nature — racism, sexism, war, and the environment — but the techniques used to present them gave the series a profoundly personal emotional impact.

Another arresting effect of supermedia, whether it be Tokyo's landscape or media productions like *BUZZ*, is the collapse of an overwhelming array of sensory particulars into larger patterns. Our brains dutifully try to interpret sensory data as pieces of information which may, if the transformation is successful, lead to their integration as knowledge or understanding. But in a superabundant sensory environment, this strategy simply cannot work. Naturalist writer Barry Lopez observes that the same holds true in our attempts to apprehend non-technological environments and landscapes¹. Sense data must be coalesced or collapsed into larger patterns before they can be integrated (before the question of meaning can emerge). In Lopez's view, such patterns replace content with relationship as the dimension of meaning. It could well be that this fundamental shift reveals the essential nature of the landscape of global media, giving us our first view of the common ground of global consciousness.

A third observation demonstrates that the shared experience of this new supermedia landscape has the capacity to call forth both dimensions of participation simultaneously: the deeply intimate and the super-personal. It is a form of experience unmediated by the self-conscious individual sitting inside a sack of skin, intentionally formulating and interpreting communication acts. But the idea of supermedia need not result in breakdown and numbness — it may lead to the perceptual and cognitive transformations

that create the conditions for global consciousness: namely, the linkage of intimate inner experience to the huge electrical hand print of collective experience.

Interactivity What does the notion of supermedia do to the idea of interactivity? Typically, interactive media require a high degree of precision at the interface level in order to enable a human-computer 'conversation.' In contrast, the phenomenon of 'sensory collapse' that I've been describing emphasises ambiguity and imprecision. In a way, specific 'content' becomes unknowable — although like the invisible gene, it has its influence on the shape of the whole. One cannot participate with the specifics in order to derive their meaning; rather one must collapse the multitudinous specifics into a suitably ambiguous whole, cooling them down enough to enter in.

This goes a long way towards explaining why interactivity as it is manifest in contemporary human-computer interaction has not been able to produce a satisfying successor to pre-computer art forms. Interactivity — in the form of menus, soft buttons, metaphorical tools, or even embedded 'user constraints' — ultimately-trivialises the dimension of participation and objectifies it, over-specifying what people can do in relation to images or environments. As Rachel Strickland observes, interactivity usurps the kind of deep participation that we have in paintings, films, poetry, or landscapes — the experience of the free imagination collaborating with the work. Overly constrained, overly explicit interactivity stuffs cotton into the portals of imagination. Deep participation is, I believe, an indisputably human need; interactivity is often a counterfeit solution.

In new forms and with new interfaces, computers and video can create a strong connection between inner experience and collective ones. Another example can be found in a little piece of Tokyo experience called *Hyperdelic Video*, produced by two young Australians — Andy Frith and David Richardson — who currently live and work in Tokyo. They give their performances names like *Brainwash TV* and *Spacemen Wear Their Gas Masks*. Describing themselves as 'video disc jockeys', they combine scratching and mixing techniques with real-time video. Their stated goal is "MAXIMUM INFORMATION OVERLOAD":

The modern generation of TV children, having grown up on a diet of fast-cut commercials, rapid fire news and increasingly larger amounts of compressed information relate well to the concept we call INFORMATION OVERLOAD. This concept parallels the movement in dance music of ever-increasing tempos in conjunction with layers of 'borrowed' information — sound samples, vocal edits, and complex mixing and production techniques.²

I saw *Hyperdelic Video* in a smallish basement bar in Roppongi, packed to the rafters with a mostly Japanese, mostly under twenty audience. Only at Grateful Dead shows have I seen a crowd move so much like a single organism. Despite my obviously excessive age, I was easily absorbed into

the hypersensual centre of the scene. A video image of the dancers is woven into the live presentation of their work, creating a downright Dionysian effect (especially when you are one of them). As McLuhan scholar Derrick de Kerckhove observes in the *Art Futura* catalogue, 1991: “computers have created a new kind of intermediate cognition, a bridge of continuous interaction, a sort of ‘corpus callosum’ of exchanges between the outside world and our inner selves.”

Common Ground How can new media serve as the common ground for a global consciousness? The notion of common ground is employed by cognitive psychologists like Herb Clark and Susan Brennan to mean “mutual knowledge, mutual beliefs, and mutual assumptions”³. In distant times and more grounded cultures, real places served as some kind of common ground: the kiva, the agora, the plaza, the marketplace. As landscape is in constant relation to the ecology of mind, so such gathering places are the foundations of both external community and internal belongingness. In America, as in other places around the world, it is no secret that the idea of place is disappearing. Small towns — once connected to rivers, mountain passes, and oases — vanish into the proto-Gibsonian sprawl of suburban development and the artefacts of commerce. One town either comes to look and feel like another, or else it disappears. As John Barlow observes, any street five miles from the centre of any city in America is indistinguishable from any other. Place is an office with standard cubicles, a home of predictable proportions, a freeway, a fast food restaurant. The marketplace is an infinitely interchangeable shopping mall. Yet the sense of place is another of those indisputable human needs, and the surrogate places of the modern world once again plug our receptors with cotton.

If you spend time on computer networks you know that people gravitate to net conferences and special interest groups as if they were places. In 1987, Lucasfilm developed a graphical computer network called *Habitat* that features a two-dimensional graphical universe with thousands of virtual places in it. This system was originally developed for the QuantumLink network, and a version of it called *Club Caribe* still runs in America. But the more complete version runs in Japan on Fujitsu FM-Towns machines. People gather at agreed-upon venues to engage in conversations, games, and other social activities. In a new kind of text-based network system called MUDs (multi-user dungeons), people collectively invent places, complete with qualities, objects, and connections to the larger virtual landscape. As the geographical notion of place fades in American culture, it is enthusiastically revitalised in virtual worlds, but with this difference: the communities that gather in these virtual places do not depend upon accidents of geography to bind them together. These are volitional communities of interest, affinity, and emboldened curiosity. McLuhan foresaw the retribalisation of people through electronic media. Virtual places are both cause and effect of a new kind of ad hoc tribalism in global culture.

Global Media and Cultural Diversity At the second international Cyberspace conference in Santa Cruz at the end of 1991, Randy Farmer

and Chip Morningstar, the principal designers of *Habitat*, reported on another dimension of life on the net that becomes crucial when we look at the cultural impact of the medium. Early on in the history of *Habitat*, there was unrest among the citizens. Criminals were afoot, stealing people's heads. When you first log on to *Habitat* you get to choose a body (and therefore a gender) and then you go to the Head Shop and buy yourself a head. In the early days, when you logged off from a session, your body would stay where it was. Part of the fun was wandering around trying to figure out which bodies had somebody ‘in there’. But since heads were detachable and had a market value, a certain element began stealing the heads of those who had logged-off. The citizens held a town meeting in the *Habitat* and decided by democratic vote that they wanted head-stealing to be prohibited, and then they got in touch with the system designers. Randy and Chip agreed to enforce a rule that outlawed head-stealing and other kinds of theft within city limits (the countryside, as usual, remained in the control of outlaws and guerillas). The penalty for stealing a head was to be confined to quarters — sent back to your own apartment in the *Habitat* — for the next several hours of log-on time.

The point here is that self-government had begun on the new frontier of Cyberspace. Here we are dealing with representations — of self, of place, and of society — that have more than a graphical reality. Another incident from the same conference reinforces this point. I gave a talk on artistic approaches to designing Cyberspace environments and tools. In the question-and-answer period I was challenged by one of the many radical feminists in attendance. She wanted to talk about access and colonialism, in part bouncing off of the *Habitat* presentation. She asked me what people were doing about making Cyberspace accessible to the ‘marginalised’ — women (who are classically disenfranchised in the techno-domain), ethnic minorities, and third-world cultures. I had to think carefully about my response.

First of all, I reminded her that I was a woman (I believe my exact words were, “What am I, chopped liver?”) and that one way for women to get into Cyberspace was to do what I had done — to get actively involved in the industry rather than sitting on the sidelines waiting for somebody else to make the way smooth. Then I asked her what she had in mind as far as the other groups she mentioned were concerned. Should first-world white heterosexuals build little virtual terrariums for Blacks, Latinos, gays and lesbians — based on their own ideas of what such cultures are like, saturated them with their own liberal hidden agendas? I wondered whether she wasn't preaching to the wrong group. Shouldn't she be evangelising with the marginalised themselves to persuade them to co-opt the technology? I was reminded of the traps I fell into as an idealistic young student trying to work in the Civil Rights movement. It was made clear to me then in a way that I never forgot that white liberals could be excellent spear-carriers in the battle for Black student rights, but it was entirely inappropriate and violently resisted when whites tried to assume leadership roles.

There is no easy way out of this conundrum. Over the last thirty years, awareness of the value of cultural diversity has steadily increased in America and much of the global community. The *hyphae* of Western urbanisation, advertising, industrialisation, and media are penetrating and destroying real and cultural landscapes around the world.

On the one hand there is value in a global culture that replaces nationalism and ethnic strife with a sense of membership in a global community. On the other hand, the mass destruction of the aesthetics, wisdom, and self-esteem of indigenous cultures is not unrelated to the global resurgence of fundamentalism and ethnic violence that could extinguish us as surely as an old-style superpower armageddon.

So here is the pivotal question: how can we empower people the world over through global technology without sacrificing cultural diversity? Can we produce and implement a vision of global media culture that is founded on the wisdom of what the Vulcans call 'Infinite Diversity in Infinite Combinations'? How do we empower people to use computer technology without confining them to the Western constructs that are so deeply embedded in our interfaces, computer languages and the architecture of the technology itself?

I have several observations. All can be derived from a term I learned from Ivan Illich: 'Conviviality.' "Convivial tools are those which give each person who uses them the greatest opportunity to enrich the environment with the fruits of his or her vision."⁴

A person ought to be able to be both an 'author' and a 'reader' in any given medium. An author shapes materials — whether it is clay, paint, pixels or words — into communicative forms in which others may participate. But even before we get to the problem of constructing environments, representations or tools, we encounter the problem of materials. This first crucial hurdle is the ability to assemble data; that is, to bring one's own materials — sounds, gestures, images or speech — into the digital domain.

The second hurdle is tools. In mainstream computing culture we have constructed tools that serve us relatively well. However these tools only work for the initiated — and the concepts and biases that are embedded in that initiation may pose the greatest threat of all to the visions of non-mainstream individuals and cultures. We can learn something about this problem by looking at how artists have gone about gaining access to computer technology over the last two decades. For example, many of the pioneers in computer music simply took it upon themselves to learn the language of computing and construct their own tools. But as Mark Bolas has pointed out, many of the musicians who began grappling with signal processing found to their chagrin that the process had blown a decade-wide hole in their lives as composers and performers.

A counter-example can be found in the work being done at the Advanced Computer Graphics Centre at the Royal Melbourne Institute of Technology

in Australia, where a remarkable artistic environment for sculptors has been created by a team of sculptors and programmers working together. This approach might be described as strapping a programmer to an artist, and it points out the profound difference between first- and second-generation tools. In the first generation, the emphasis is on designing tools that facilitate skills-transfer from one domain to another. When the second generation of artists comes along, they're more like those little kids in Marin who know how to swim at six months — because Mom threw them in the pool. They are so intimately conversant with the new medium that they have absorbed the original contradictions from the outset.

Such scenarios could also be true of other unique cultures. I am reminded of Tony Hillerman's Navajo cop, Jim Chee, who has a university degree in anthropology and moonlights as a shaman. He manages to maintain a living connection to his culture by having a foot in both worlds — the one that must be preserved and the one that must be understood in the interest of survival. I believe that our strategy should be to collaborate with native people in other cultures to build a core of technological expertise. Empowered indigenous programmers will strap themselves to their own user-communities and commence the processes of understanding and ultimately, expropriation.

In some very important ways, 'they' are 'us.' We do not have to go to Africa or Asia to encounter disenfranchised cultures and visions, or people whose voices and wisdom must not be allowed to disappear. We have begun and must accelerate the process of designing media and tools that enable access with deep regard for diversity. This is not an idea that the mass market mentality will naturally or inevitably encourage. The 'squash and spread' philosophy exemplified by DOS, Nintendo, and broadcast TV will die long and hard, if at all. I firmly believe that the best strategy is to build examples that can demonstrate the potential profitability of conviviality. The dramatic increases in bandwidth and the number of channels that can be supported by our telecommunications infrastructure are factors that can work in our favour. But the thing that will make the most difference is whether or not we turn our values into examples that we can advocate successfully — not only in a well-meaning and like-minded crowd, but to the people and institutions who have to live by the bottom line.

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1 Barry Lopez, *Crossing Open Ground*, New York, Vintage Books, 1989.

2 Andy Frith and David Richardson, *Hyperdellic Video*, 1990

3 Herbert H. Clark and Susan E. Brennan, "Grounding in Communication", in *Socially Shared Cognition*, L.B. Resnick, J. Levine and S.D. Behrend (eds), American Psychological Association, 1990.

4 Ivan Illich, *Tools For Conviviality*, New York, Harper & Row, 1973.