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Democratic Materials

Sean Cubitt

Set on 'shuffle,' my iPod plays 'Se Acabo La Choricera', a campesino song recorded in Havana around 1912, a period when field-hands were moving to the city in droves bringing with them the music that would, in a handful of years, become the roots of salsa. With a sudden jump, it is playing the Métaux section of Iannis Xenakis' *Pleïades*, a piece for metal percussion that sounds like it has been beamed in from another age. Shuffle mode on the iPod suggests two orders of democracy: democracy of access, the achievement of the nineteenth century struggle for the public library, and the ideal of a democratised art, here underlined by the chance encounter with a composition which shares with Schönberg the idea that all notes are equal. In 'Métaux', the notes are subjected to a mathematical algorithm and entrusted with the task of producing massed overtones. The principle is extended, when the iPod shuffles its tracks, to a democracy between tracks and kinds of music - old hierarchies of genre dissolve and new dialogues between musics emerge. The material access to the contents of the world's archives of recorded sound, like the formal aesthetic of equality, are the conditions for what Attali calls 'composition,' music "that creates its own code at the same time as the work" and which is "a herald of a new form of socialization."¹ New auditory forms like podcasting thus raise questions about the future, and insofar as the characteristics of composition are democratic, the specific question: what might democracy become in the twenty-first century?

I raise the questions from the standpoint of a discipline that does not yet exist, the history and philosophy of media. The adumbrations we have of this emergent discipline – the Canadians Innis and McLuhan, Mumford and Giedion in the United States, the strangely significant import of the Latin American connection through the work of Régis Debray, Armand Mattelart and Vilém Flusser² – suggest that it must combine the work of history and of critical theory with the work of aesthetic analyses of media texts and technologies. Believing that mediation is the material form of

societies, cultures, economies and politics, the ambition of the history and philosophy of media is no less than that of sociology: to understand what it is to be human.

Like every new discipline, this too wants not only to understand the world, but also to change it. Today we recognize that we live in a period of accelerated change, marked by the changing forms of mediation: globalizing, postmodernizing, technologizing processes surround us, and focusing the mind sharply on the question of periodization: is there anything definingly new about the present and the near future? Older and younger commentators like Hardt and Negri, Tiziana Terranova and Alex Galloway suggest that Foucault's 'biopower' and Deleuze's 'societies of control' describe a new order beyond classical sovereignty and modern discipline.³ Others, among them Nick Dyer-Witheford, Danny Butt, Christopher May, Mark Poster⁴ and others, argue the case suggesting that modernity (and the capitalist mode of production) still defines the contemporary world. The problem of periodizing the 'new' in 'new media' is one which also implies an exploration of what future orientations inhabit contemporary media, their inter-relationships and uses, an inquiry which in turn demands reflection on the possibly irresolvable but nonetheless central debate between continuity and rupture in the immediate past.

The specific task of humanities scholarship in the study of new media is to work in these terrains, between historical, textual and technological hermeneutics on the one hand, and the ethics and politics implicit in new media on the other. Thus the title of this essay: humanities scholarship in general, and the history and philosophy of media in particular, are grounded in the material actuality of the mediation process and these materials are the actual materials in which democracy is realized. Old democracy (and earlier modes of rule) are characterized by older media: the speeches in parliaments, printed voting slips, direct mail, door-stepping, the lobby system and the press. New democracies will inevitably involve formally (as they already do informally), telephone polling, SMS, e-mail, internet and interactive television. There is then a new and an old media politics and there is an aesthetics capable of dealing with the materials they are made of. This essay is intended to indicate why they need to be articulated into a working whole and to suggest that the materials we work with in creation, and in critical work, are in some way bound up with the idea of a democratic project in an increasingly mediated world.

The proposal is utopian - and the word 'utopian' is fraught. The worst utopians can be dismissed as starry-eyed (or worse, as acts that colonize the future for some

project rooted in the present), but the best are at once a satire on the present and a rebellious act of reaching for, if not the stars, then at least an attainably improved quality of life. This kind of utopianism is never far from the new media, though it is always important to guard against the false utopias that promise us an automatic spiritual enlightenment or political liberation through technology.

Network software in the forms which have most inspired network artists, activists and critics are examples of what they depict: the web itself; one-off purpose built applications like FloodNet; large-scale developments like p2p, Open Source, Creative Commons, blogging and wikis (the latter a return to the source concept of an interactive hypertext in Berners-Lee's Amaya browser). In the years since 1993 when the first web browsers became publicly available, CSS and Flash have made significant inroads for a designer-led, rather than participant-based, net culture (sufficient to make my title of 1998, *Digital Aesthetics*, seem disingenuous: there are now obviously far more digital aesthetics). Both participatory and sender-model variants of network operations are open to Zizek's critique of 'interpassivity',⁵ that is of fetishizing the apparent activity of networked, technologically-mediated communication at the expense of genuine action in public space. Participatory and centralized networks are likewise both open to the criticism that their sphere of action is limited by the discourses surrounding them and that as the information media par excellence of our era they are the heart of intellectual property regimes and thus the cores of global capitalism. Nonetheless, I want to argue that networked communications offer models, not just in relation to the media, for a genuinely utopian political discourse for their dispersal.

Utopianism comes in many flavours. Engels'⁶ critique concerns the kind which became characteristic of the European left in the 1970s and 1980s, idealistic, exclusively discursive, purist, universalist. Bloch⁷ counters with a tradition which shadows both Bakhtin's⁸ carnival and Pissarro's⁹ anarchism, grounded in an available immanent utopia of rest, play and only as much work as necessary to support enjoyment. In the case of Unesco's advocacy and implementation of open source computing for development in the Pacific for example, platform-independence, lack of reliance on high-end technology, access to a global pool of free expertise and openness to retro-engineering for local purposes, all derive from the utopian dimension of the open source movement. Reformist as it may be, Creative Commons

re-opens the best aspects of enlightenment learning and science as the shared activity of a community.

Robert Creeley's poem "I Keep to Myself Such Measures . . ." indicates a crucial part of what's at stake:

There is nothing
but what thinking makes
it less tangible. The mind,

fast as it goes, loses
pace, puts in place of it
like rocks simple markers.¹⁰

The tendency of thought to dismantle, dematerialize whatever it turns to. Today there is a growing body of thought, a practice of thinking, for which the world is diminishingly tangible. This thought goes along with the recognition of globalization as a matrix of crises of the environment, health, the warfare of pre-emptive strikes and total spectrum dominance, oligarchies in government and information management, terrorism and corporatization,¹¹ to which we might add the ongoing crisis of 'race', the erasure of indigenous cultures, the damned-if-you-do-and-damned-if-you-don't of migration. Globalization, as Creeley indicates, abstracts in the interest of control, but in doing so is forced to proliferate fragmented markers of difference. Thus the UN and NGOs plead for a globalization grounded in a universal axiology of human rights and values while forced to recognize the irreducible social fact of difference. Moreover, those universal rights are difficult to square with what Agamben refers to as the oxymoron of the 'sovereign subject.'¹²

Despite the well-meaning but contradictory efforts of documents like the 2005 Human Development Report, or Peter Singer's¹³ attempt to develop a global ethics, universality is not a matter of a priori axioms, but of social construction. The most universal social construction of our era is the commodity, and its universalizing tendency appears as what is in the end a political convergence of commercial interests, as observed by José Luís Bréa:

We can speak of an expanded "constellation of industries" that brings together the industries of communication, spectacle, leisure, and cultural entertainment, and in more general terms all those related to the experience and representations of life itself, and that takes charge of producing the subject in as much as it can recognise

itself as itself among peers, and can administer its differences and similarities within this relationship.¹⁴

What is changing is the role of the audience in this constellation, subjectivities indeed capable of administering their own differences, but in doing so, it might well be argued, as the co-opted instruments of capitalism's shift from consumer to prosumer, the unpaid labour of attention shifting towards the unpaid labour of co-producing media texts, airline bookings, self-assembly furniture, kitchen designs. Rupert Murdoch's April 2005 speech to the Society of American Newspaper Editors, points towards the extensions of audience activity as a branch of commerce from mass, passive consumption to personalized and active co-production as a possible alternative future for p2p networks:

Plainly, we can't vouch for the quality of people who aren't regularly employed by us – and bloggers could only add to the work done by our reporters, not replace them. But they may still serve a valuable purpose; broadening our coverage of the news; giving us new and fresh perspectives to issues; deepening our relationship to the communities we serve . . . Plainly, the internet allows us to be more granular in our advertising, targeting potential consumers based on where they've surfed and what products they've bought.¹⁵

On the one hand blogs – to many commentators the new best sign of internet democracy – become a resource for the largest news corporation on the planet, and on the other they provide granular advertising media. As a means of rule, a more sophisticated approach than the Indymedia server seizures of November 2004, but no less chilling (the passage does suggest an activity for teachers: instructing students on the ethics of journalism before they become citizen-reporters). This is of course a small step onward from cookies and other commercial surveillance technologies.¹⁶

Earlier p2p networks like Napster and Kazaa tended to result in something similar to the paradox of copyright piracy in Asia – dependence on Western texts xeroxed for Eastern universities, proliferation of Western pop music and, to a lesser extent, films. The newer tools like RSS and wikis are suggestive because of their invitation to rewrite code and/or content. Nonetheless, the utopianism which, as in music for Attali, seems to inhere in new technologies of many commentators, needs to confront its critics on issues such as:

1. That the rich and powerful feel no need to engage directly with antagonists, preferring to register oppositional voices as 'campaigns' which can be countered through public relations counter-campaigns in place of public debate.
2. That domination by a regime of 'facts' disconnects creativity from the world, placing it instead in regimes in which it is marked by the equivalence of one statement with another, their mutual exchangeability, and their commodification.
3. That identity – and with it personal expression and potentially all acts of creativity – is subject to the universal law of equivalence of capitalist exchange.
4. That the temporal ambitions of dominant media have been reduced to mere intervention in a universalised present.

Alain Badiou puts it this way:

In order to consolidate its field of influence, capital demands a constant emergence of subjective and territorialized identities that, at the end of the day, require no more than an equality of exposure according to the uniform prerogatives of the market. Thus we have the capitalist logic of general equivalences and the cultural logic of community and minority identities coming together in an articulated whole.¹⁷

Truth is damaged when it is presented as the order of facts. Such facts as the boiling point of mercury, or the existence of unemployed paedophile priests, are in the end equivalent to one another according to the universal laws of capitalist exchange. This is as true of socially constructed facts (identities like 'moderate Muslims') as it is of any item in a database. Database logic extrapolates from representational practices like those described by John Tagg¹⁸ to bring about that identity thinking which demolishes the phenomenological specificity of any instance, rendering it an instance of a typical order of ideality. What is typical, in turn, is foreseeable, if not foreseen (the cult of trends, themselves of the order of fact in as much as they impact on behaviour). In information terms, the foreseeable is the probable, the repetitious, the redundant. The foreseen is an extension of the present into the future, which secures the status quo against risk, but also against *both* the not-yet existent, immanent utopia *and* the radical difference which futurity alone is capable of delivering. The *regime* of facts - the ordering of the world through the category of facts - ensures that any future event can be administered into an existing database, in the same way that the

blanks on a map can be filled with any landmass, without disturbing the logic of cartography. Once forced into this predestined order, any action is already a fact, already delimited, alienated, and ready to be assimilated into the regime of commodity exchange. In this way fact makes actual what otherwise would remain virtual. The concept of the virtual is like Arendt's¹⁹ natality: the potential that an infant is born with - potentiality that is gradually replaced by what it actually becomes. To strip away the unforeseeable nature of the future is equivalent to snatching away the food, clothing, affection and education that might fulfil a mother's wild ambitions for her child. A planned and ordered future is, in effect, a mode of poverty.

In what ways might wealth consist, if by democracy we intend some mode of social organization which guarantees the greatest good to the greatest number? In information societies, we must assay informatic conceptions of wealth to see whether they will suffice. To the extent that they are meaningful, networked statements are, in varying degrees, probable. High probability actions tend to maintain the status quo (though perhaps only in the short term, since the greater the probability, the lower to efficacy). Low probability actions may occur as sheer noise with no receivers, or they may be accepted as meaningful, but very possibly in ways not foreseen by the originator. In either case, the rare action cannot be repeated without acquiring probability. Alternatively, as in the standard Darwinian model, actions can branch out from and modify expected activities, the small modifications rippling through the system to unexpected effect, perhaps homeostatic, perhaps emergent. In all these cases, the fundamental metaphor is spatial. Fields and causal chains are imagined diagrammatically, their temporality is a question of distance from a state of origin like the origin of Cartesian geometry.

The spatialized present extending or repeating itself into the future produces other forms of temporality just as power produces resistance (and indeed the opposite). Matt Rogalsky's sound work *A Little Bird Told Me* uses statistical sampling to select moments of 'silence', defined as the gaps between spoken words, in a technology which emulates devices used to compress playback of syndicated radio talk shows to enable more advertising sales. With deft irony, Rogalsky extracts from a speech by George W. Bush at the White House Rose Garden, the twittering of the local bird life, and the surprisingly recognizable intakes and exhalations of the President's breath. The political satire works at several levels. That which interests

me here is that Rogalsky's software steals back from a more or less ordinary political media event the unobserved actuality of the moment of its enacting; its place in a natural order that ignores it; and the sheer fact of its duration. This small rebel act might be said to reveal the vacuum underneath the regime, were it not that this 'silence' is full of sound, a medium which, unlike the visual media, absolutely requires time in order to exist.

When radio uses such technologies to abbreviate time, time is not only quantifiable (marketable as a commodity); it is deprived of its 'essence' as time, its use-value as duration during which something other than the present might emerge. It is, in short, spatialized, a process which has been addressed across the board by Virilio²⁰ among other critics of the vanishing geography and (overstated) instantaneity of digital communication. This spatialization and consequent de-temporalizing and de-historicization of communication are key factors in the 'massless and immaterial' description of new media.

The shift of emphasis from time to space is paralleled by a shift of emphasis from matter to energy, which is why the physical nature of new media appears immaterial (since Einstein it has been clear that, like time and space, matter and energy are aspects of a single thing). These shifting emphases (McLuhan might have called them 'ratios') should be understood alongside the increasing prominence in scientific, managerial, critical and in day-to-day discourses of the informatic moment of physical existence. Within the informational, however, there has also been a gradual displacement of pre-eminence from the homeostasis which was so precious to von Neuman towards theories grounded in emergence. What results is a de-temporalized, de-historicized sense of the present as a perpetual up-welling of difference, but a difference without significance beyond its mere hubbub, a difference that, to turn Bateson on his head, makes no difference at all and like the indifference described by Debord as an inarticulacy in the face of the spectacle:

This individual experience of separate daily life remains without language, without concept, without critical access to its own past which has been recorded nowhere. It is not communicated. It is not understood and is forgotten to the profit of the false spectacular memory of the unmemorable.²¹

The sheer scale of the information landscapes of the early twenty-first century beggar description, and leave even the most skilled professionals as silent as the silent

majority. The terabyte culture does not swamp us at all, but sets us afloat. Some of us may keep an anchor down among the drowned landscape that lies underneath these rising waters, and some of us have learned to use the stars and wind to navigate, but the immensity of the data ocean is something which we have yet to accommodate.

Which is exactly where the humanist can help. The metaphors of water that spread throughout attempts to describe modernity (melting, swamping, waves, flows, flux, currents, etc.) indicate something of the new ratio between energy, space and emergence that we are entering, and have been entering for some time. If Attali is right, we can look to music and the other arts as antennae which sense new socio-cultural configurations from their earliest formation. In particular, since water is so rich a source of imagining, tracing its history since Debussy's *la mer*, and since Monet and Renoir spent a summer trying to capture the light on water along the Seine, can guide understanding not only of social change but of the specifically subjective experience of it that Debord found to have been most deeply silenced. It is in this kind of abstraction that the other abstraction pilloried in Creeley's poem finds at least a temporary resolution, a moment outside of history when even Adorno's²² identity thinking pauses in its otherwise inexorable survey.

The very disappearance that lurks between the two terms 'sovereign subject' might be visualized in the mesmerized gaze we apply so readily to water. For sure, watching the river flow or sinking into Renoir's depictions of it, is a meditative experience of the disappearance of subjectivity. Equally, this trance places in abeyance the process of objectification in which we first and most powerfully assert our separation from the world, and from which we derive our domination of it. The distracted gaze over the ripples and waves renounces that will to power, and gives the world permission to proceed. What therefore should not seem odd is that it has proven so difficult to bring water into the human world. You think of Monet and his lily ponds, twenty or more years trying to understand, emulate or merely to perceive what lay in his garden. At issue is the possibility of disappearance, of a mode of life apart from the difference and domination associated with scopic regimes; but also of the 'massless' and 'immaterial' quality of a digital life. Our metaphors of flow derive from water, our language of turbulence and fluidity. What is this liquid that we should have adopted it so closely as the governing image of the twenty-first century? (Apart from water's new status as weapon, as scarcity, as acidified ocean and acid rain, as damage . . . Minerva's Owl flies at dusk indeed).

What water at first proposes is an image of freedom: that water is its own sovereign element, one which, since Heraclitus' river and Homer's wine-dark sea, has never been contained in imagination.²³ Water evokes not just voyaging but water's freedom from identity, and thence from sovereignty and oppression, water as the image and imagination of freedom. Perhaps what makes water so adequate a symbol is the very difficulty of depicting it.

Six shots (in a sequence of eleven) depict the white horses in the Fords of Bruinen sequence from Peter Jackson's adaptation of *The Lord of the Rings: The Fellowship of the Ring*. The location footage was filmed at Skipper's Canyon, near Queenstown in the remote South Island of Aotearoa New Zealand. The crew and equipment were flown in by helicopter, while nine race horses walked in by trail. For the six shots required for the white horses conjured by Arwen to engulf the Ringwraiths, Digital Domain, the LA-based company founded by James Cameron, used initial reference footage of a dam bursting shot by a second-unit team in the North Island. Further elements were shot at Niagara Falls and in Digital Domain's studios, using dump tanks dropping their tonnes of water forty feet, at speeds between 72 and 96 frames per second to increase the sense of volume. Spray was mapped from glass beads poured over a dummy horse's head. Further live elements came from another unit who filmed Ringwraiths charging at the camera (at some risk to operator Brian van't Hul). These charges were rotoscoped – a system for tracing outlines from projected film – and added to the effects shots. Since no animals could be injured during the shoot, Weta Digital supplied digital models of the mounted Ringwraiths in NURBS (Non-Uniform Rational B-Splines) format to Digital Domain, who converted them to polygonal format before adding cloth dynamics to emulate the movement of the Black Riders' soaked cloaks. Each rider was given a different behaviour as they were hammered by the onrushing waters using keyframe animation, a technique also used for the oncoming white horses, a process that involved volumetric modelling, fluid simulation, particle animation and careful hand-generated shading and highlight effects. The whole sequence was then composited in Digital Domain's proprietary software Nuke, and rendered in Voxel-B, a plug-in for the Houdini 3D animation program which offered the efficiency of rendering only what was visible to camera (a capability which, unlike industry standard software RenderMan, it shares with Weta's Grunt program). The six shots occupied Digital Domain for eleven weeks.²⁴ The processes involved here blend photographed

‘practical’ elements such as real water with digital models to which the photographs are applied, the combination known as a sprite. These are some of the challenges provided by water when we try to represent it in a hybrid medium like contemporary digital filmmaking.

A detailed analysis would address the affordances of the various media arts and technologies deployed; about how they make possible certain realizations and make others difficult or economically impossible. It would also enquire into material facets of the conditions of reception, especially the differences between reflected, absorbed and projected light and about the differences between reflection, projection and the video screen as light sources. One key reason for discussing light is to emphasize the virtuality of its becoming. The flickering of light on the surface of water is not a metaphor for the pure duration of becoming: it is an exemplary instance of it (there is no need for a plane of immanence: the world's unfixed agitation, its scatter and gathering, is enough). As Creeley's poem suggests, however, that is not the way the mind works, and as Benjamin notes, “The object of knowledge, determined as it is by the intention inherent in the concept, is not the truth. Truth is an intentionless state of being . . . The proper approach to it is not therefore one of intention and knowledge, but rather a total immersion in it. Truth is the death of intention.”²⁵ In the work of representation, the mind accumulates markers towards a return journey it can never undertake, back to a primal moment of pre-conscious experience – but thinking has its own, different materiality. Even Creeley's lost tangibility presents itself to him in the metaphor of rocks.

But thought is not only a human fate, it is the necessary corollary of communication, the living proof not only that 'language speaks us' and that the speaking generates up from out of deep semantic structures, instinctual or Symbolic as you will; not only that communication takes time, but that all mediation, including what takes place in the human nodes of planetary eco-semiotic systems, is material and therefore in every sense of the word an act of translation. This is the challenge any critic faces: the task of the translator,²⁶ the task of assembling in parallel with an existing discourse the fragments of another. From natural language to natural language; from visual or audiovisual to verbal and vice versa, from numbers to performances.

For Benjamin, the translator's task was to discover the larger and more alien language to which both the original and the translation relate: a divine language of

truth (Laura Marks suggests this might be called 'the plane of immanence').²⁷ Before that, and perhaps in place of immanence or divinity, it must be performative. As I understand it, Judith Butler suggests that a speech act is performative when, constituted correctly in the correct context, it has an effect on those who hear it: phrases like "guilty as charged" or "I pronounce you man and wife." Such are, for example, architectural drawings when they are implemented and such is computer code when it is run correctly on the right platform. The purpose of depicting light on water in Renoir's paintings or the Lumières' films in the 1890s was then not only to test technical solutions. A successful experiment would, in that case, be truthful but the whole point of them is that water is never the same twice. Rather the question is whether they are performative, whether they are capable of inducing the same reverie as the lapping ripples themselves. Efficacious, that is, but not necessarily true.

Under network conditions, communication becomes ecological. Changes at any point in the network produce unforeseeable effects scattered through unplanned areas of the network, not just those closely interconnected with the original source. In many respects mediation was already ecological in this sense, a theological distinction in Rome concentrating into a crusader's sword in Albi. However, the performative was perhaps more strongly marked in classical or mediaeval times and in traditional societies: words, statements, curses were efficacious in ways that today, as Jodi Dean²⁸ notes, they are not: the critical boundaries are no longer between discourses but within them. This is not to say that creative actions are without consequences, only that the consequences are no longer placed inside performative regimes and therefore their consequences are not simply effects in causal chains but consequences (*post hoc ergo propter hoc*) of transmissions and translations over which senders no longer have jurisdiction.

Network communication is a field – a space – in which the power of intention is reduced and with it the opportunities for performative statements. Nonetheless, statements in the network system have consequences, but these consequences are not foreseeable. Not only individuation but objectification can then be conceptualized as a relation between the pre-individual - whatever form that might take, as (optical) unconscious for example, or as pre or un-conscious, as instinct, as unthought materiality, as Firstness - and the collective - again in a multitude of forms, but crucially as the interconnection of technological devices (powergrids, rules of engineering), physical laws (gravity, ecological systems) and social orders. In the

latter instance, the mutually constructing forces of *techne*, *physis* and *polis* may be periodized.

Our periodizing choices are manifold. From the mediaeval industrial revolution posited by Gimpel²⁹ via the industrial revolution and into the third machine age of network flows; the Foucauldian paradigm of sovereignty, surveillance and control; or a Marxist narrative from feudalism to capitalism to 'late capitalism'; or a Comtean theory of nature as given and incomprehensible (polytheistic), as given and comprehensible (theological) and as comprehensible and manipulable (rational-scientific). The impact of linear histories of technological rationalism on development have been disturbing and destructive. What the mutual influencing of *techne*, *polis* and *physis* permits is local equilibria, temporary arrangements, a lexicon for analysis that does not privilege any one outcome, but does propose that any functional democracy is, or should be, premised on relations between the three and not anchored in the exclusive privilege of the human. If the deconstructive turn in the humanities has achieved anything, it should be this modesty.

In Gina Czarnecki's 2005 large-scale sound projection work *Nascent*, some of these qualities arrange themselves. It is not just her understanding of dancers' bodies in motion, the strain of being a physical body, not just her attention to the temporalities of moving, or her readiness to deploy whatever technologies are needed to arrest, reformulate and release what becomes, over time, a spinal column of bodies in movement, but her willingness to sacrifice meaning to those temporalities and in the process to make beauty out of the reduction of communication to bare address. Rotoscoping ties Czarnecki's imagery to drawing: a kind of digital tracing, painstaking, frame by frame, that separates the body from its ground, makes it more naked by erasing the world. As if, to get the penny to drop, you had to remove the floor. Digital artists cannot and do not get away with shoddy work. Czarnecki's craft is as intense as tapestry. Each sequence, sometimes each frame, goes through anything from sixty digital iterations in industrial image processing software, to Photoshop, AfterEffects, Shake and the ominously titled FinalCut. Becoming human is a process through the mirrors of the wet world and the technological and is never complete. Democracy may begin in such bare life, a life that is neither *physis* nor *techne* nor entirely *polis*, but which inflects and impacts on each other.

Digital seeing is only partially about the photographic depiction and description of the world. Representation is only one element of a polylogue that

embraces not only what is seen and by whom but how. The democratization of vision entails not only the embrace of culturally specific visions but of visions that are not even human: the modes of sensing the world which we catch through scientific imaging, medical imaging, replications of various modes of animal vision. The history and philosophy of media has a history already of harkening to the voices of the popular media, not just as ideologically-framed perversions of the truth, for we have abandoned the claims of truth as a representable quality, once we step into the immersive disappearances of water. Rather, this nascent discipline encounters the popular as the necessary mediation of the concerns which are most pervasive in a given time, rife with the contradictions that drive through the apparent wholeness and wholesomeness of the present – *Sin City* is thus scarcely able to disguise the nimble perception that beneath the horror we have for paedophilia lurks a dread of sexuality. So the popular cinema's fascination with other modes of seeing, (and television's - *CSI*'s fascination with wounds from the point-of-view of the bullet, *24*'s ubiquitous surveillance) should instigate both respect for the technical achievements that bring them about and an inquiry into what it is that makes the imagery of seeing-otherwise so powerful, so alluring.

These alternatives beg over and again the question: what is it to be human? Like the drift towards energy, space and information, there has been a drift from citizen to subject, consumer to prosumer. Active engagement in the world has become the hallmark of a newer order, interactive or interpassive. In that process, not surprisingly, the interest of globalization scholars, politicians and activists has moved to the field of the native and the migrant. Similar drifts occur in the realm of techne between aesthetics and instrumentality, autonomy and teleology, and between technology as fixed capital and technology as the living presence of dead labour, our Western reification of what Maori would call tradition or *whakapapa*, the long narrative of the ancestors and their presence to the work, the environment and the social arrangements of the living. The country where I live is unusual, perhaps unique, in that there is a thriving indigenous culture. Beside it are several thriving migrant cultures, and between the two a culture which is native but (post?)colonial, a settler culture in all senses of the word. Who now makes or understands our history? My feeling, as a migrant, is that the work will happen at the edges between natives and migrants, memory and purpose, space and time, and that the dialectics of these

contradictory moments will produce the finally speakable difference that makes a difference.

To become human, we need to learn to inform, inhabit and infest the modes in which our species connects with itself and with the world (*Humanistes, encore un effort si vous voulez être libre*). In the face of the kinds of blockages, delays and detours which characterise the contemporary organization of communication as political economy, we need to provide for perpetual innovation, a task which the new media take over from the fine arts as they move towards neo-conceptual self-definition and boundary-tracing. This implies education as a right, and a responsibility, for life.

There is no telepathy - communication is always mediated. The texture of texts, the woven textile of textuality, its tangibility, despite Creeley's fears, is what makes possible that most intimate meeting of minds, from rubbing our bodies together to selling and buying. For any medium of interaction, working at the level of the materials of which it is made is work at the place where alone thoughts become comprehensible to anyone other than the thinker. Work at the level then of software – of Photoshop, for example, rather than of the products of Photoshop – might disturb Flusser's depressing theory that makers and consumers of images are mere functionaries of an apparatus that makes and consumes them in pursuit of self-realization in the total photograph comprising all possible photos. Hermeneutic explorations demonstrate, rather like re-photography, that the work of making and interpreting is not exhausted by the enumeration of pixels.

We can and do (despite Wittgenstein's lion), communicate with our companionate animals, and even with wild creatures, but only when we spend sufficient time to understand their idiolects. Flusser suggests (in an echo of the Plinyian story about the origins of painting), that it was drawing that first distinguished humans from animals: but animals also draw – my dog draws her territory in scent every day. The human invention was the act of lifting the drawing off the territory, figure from ground, but we remain fascinated by drawings of animals, especially animations, our constant return to that fragile and fluid boundary between soma and psyche we trace every time we stroke a pet. Somewhere in the near future is a parallel development, a respect for our technologies sufficient for us to stop designing them exclusively for human purposes, and to allow them their own lives and goals. Our obsessive return to the boundaries of humanity in the form of the

line between human and animal³⁰ and between human and technological (*Star Trek's* Data) is not purposeless head-butting against walls: it is the harbinger of a new, expanded, differentiated and inclusive, post-human and therefore the more deeply human democracy.

These modes of connection are communications and like all communications they are mediated. To understand what mediations are becoming in our epoch requires an understanding of what they have been and what they might become: an understanding of the virtual nature of the present. Thinking, *pace* Robert Creeley, is only a manufacture of intangibility if it is conducted in the individual brain. When it is conducted in public it takes on the role that art abandoned; when it is conducted with the autonomous participation of natural and machinic worlds, it points towards an expansion of democracy to include the green and mechanical worlds, a democracy that we make, right here, starting with the first few pixels. If the next stage of history is not the society of control, it might yet be some kind of utopia. It is a teacher's duty to maintain that possibility as possible.

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Endnotes

¹ Jacques Attali, *Noise: The Political Economy of Music*, translated by Brian Massumi (Manchester: Manchester University Press, 1985), 135, 134.

² See Harold A. Innis, *Empire and Communications*, revised by Mary Q. Innis (Toronto: University of Toronto Press, 1972); Marshall McLuhan, *Understanding Media: The Extensions of Man* (London: Sphere, 1964); Lewis Mumford, *Technics and Civilization*, (London: Routledge and Kegan Paul, 1963; originally published New York: Harcourt Brace and World, 1934); Siegfried Giedion, *Mechanisation Takes Command: A Contribution to Anonymous History* (New York: Norton, 1948); Régis Debray, *Cours de médiologie générale* (Paris: NRF, 1991); Armand Mattelart, *Networking the World 1794-2000*, translated by Liz Carey-Liebrecht and James Cohen (Minneapolis: University of Minnesota Press, 2000); Vilém Flusser, *Towards a Philosophy of Photography*, translated by Anthony Matthews, introduction by Hubertus Von Amelunxen (London: Reaktion Books, 2000).

³ See Michael Hardt and Antonio Negri, *Empire* (Cambridge MA: Harvard University Press, 2000); Michael Hardt and Antonio Negri, *Multitude: War and Democracy in the Age of Empire* (New York: The Penguin Press, 2004); Tiziana Terranova, *Network Culture: Politics for the Information Age* (London: Pluto, 2004); Alexander R. Galloway, *Protocol: How Control Exists After Decentralization* (Cambridge MA: The MIT Press, 2004); Michel Foucault, *Histoire de la sexualité, 1: La volonté de savoir* (Paris: Gallimard/NRF, 1976); Gilles Deleuze, "Postscript on the Societies of Control," in *October: The Second Decade, 1986-1996*, eds. Rosalind Krauss, Annette Michelson, Yve-Alain Bois, Benjamin H.D. Buchloh, Hal Foster, Denis Hollier and Sylvia Kolbowski (Cambridge MA: The MIT Press, 1997), 443-447.

⁴ See Nick Dyer-Witheford, *Cyber-Marx: Cycles and Circuits of Struggle* (Urbana: University of Illinois Press, 1999); Danny Butt, "Class in the Information Society: Socio-economic reproduction in the new media environment" (master's

thesis, MacQuarrie University, 2004 <http://www.dannybutt.net>); Christopher May, *The Information Society: A Sceptical View* (Cambridge: Polity, 2002); Mark Poster, *What's the Matter with the Internet?* (Minneapolis: University of Minnesota Press, 2001).

⁵ Slavoj Žižek, *The Plague of Fantasies* (London: Verso, 1997).

⁶ Friedrich Engels, *Socialism: Utopian and Scientific* (Peking: Foreign Languages Press, 1975 [1894]).

⁷ Ernst Bloch, *The Principle of Hope, 3 vols.*, translated by Neville Plaice, Stephen Plaice and Paul Knight (Cambridge MA: The MIT Press, 1986).

⁸ Mikhail Bakhtin, *Rabelais and His World*, translated by Hélène Iswolsky (Cambridge MA: The MIT Press, 1968).

⁹ Camille Pissarro, *Letters to His Son Lucien, 4th edition*, ed. John Rewald, trans. Lionel Abel (London: Routledge, 1980); translation of Camille Pissarro, *Lettres à son fils Lucien*, presentées, avec l'assistance de Lucien Pissarro, par John Rewald (Paris: Abelin Michel, 1950).

¹⁰ Robert Creeley, "I Keep to Myself Such Measures," in *Postmodern American Poetry: A Norton Anthology*, ed. Paul Hoover (New York: Norton, 1997), 150.

¹¹ Oliver Boyd-Barrett, "A Different Scale of Difference," *Global Media and Communication* 1, no. 1 (2005): 15-19.

¹² Giorgio Agamben, *Homo Sacer: Sovereign Power and Bare Life*, translated by Daniel Heller-Roazen (Stanford: Stanford University Press, 1998), 124.

¹³ Peter Singer, *One World: The Ethics of Globalisation* (Melbourne: The Text Publishing Company, 2002).

¹⁴ José Luís Brea, "Online Communities: Experimental Communication in the Virtual Diaspora," in *Over Here: International Perspectives on Art and Culture*, eds. Gerardo Mosquera and Jean Fisher (Cambridge MA: The MIT Press, 2004), 204.

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- ¹⁵ Rupert Murdoch, "Speech by Rupert Murdoch to the American Society of Newspaper Editors," *New Corporation* (13 April 2005).
http://www.newscorp.com/news/news_247.html Retrieved 19 November 2005.
- ¹⁶ Greg Elmer, *Profiling Machines: Mapping the Personal Information Economy* (Cambridge MA: The MIT Press, 2004).
- ¹⁷ Alain Badiou, *St Paul, la fondation de l'universalisme* (Paris: Collège Internationale de Philosophie, 1997), 11.
- ¹⁸ John Tagg, *The Burden of Representation: Essays on Photographies and Histories* (London: Macmillan, 1988).
- ¹⁹ Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958), 9.
- ²⁰ Paul Virilio, "Cybermonde: la politique du pire," entretien avec Phillippe Petit, *textuel/Seuil*, (Paris); translated as Virilio, Paul (1999), "The Politics of the Very Worst," trans. Sylvère Lotringer and Michael Cavaliere, *Semiotext(e)*, (New York 1998).
- ²¹ Guy Debord, *The Society of the Spectacle*, revised translation, no translator credit (Detroit: Black & Red, 1977 [1967]), 157.
- ²² Theodor W. Adorno, *Aesthetic Theory*, ed. Gretel Adorno and Rolf Tiedemann, trans. Robert Hullot-Kentor (London: Athlone Press, 1997).
- ²³ Gaston Bachelard, *Water and Dreams: An Essay on the Imagination of Matter*, translated by Edith R. Farrell (Dallas: Institute of Humanities and Culture, 1983).
- ²⁴ Jody Duncan, "The Lord of the Rings: The Fellowship of the Ring: Ring Masters," *Cinefex*, no. 89 (April 2002): 101-02.
- ²⁵ Walter Benjamin, *The Origin of German Tragic Drama*, translated by John Osborne (London: Verso, 1977), 36.

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- ²⁶ Walter Benjamin, “The Task of the Translator” in *Illuminations*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken, 1969).
- ²⁷ Laura U. Marks, *Touch: Sensuous Theory and Multisensory Media*, (Minneapolis: University of Minnesota Press, 2002), ii.
- ²⁸ Jodi Dean, “Communicative Capitalism: Circulation and the Foreclosure of Politics,” *Cultural Politics* 1, no. 1 (2005): 51-74.
- ²⁹ Jean Gimpel, *The Medieval Machine: The Industrial Revolution of the Middle Ages*, 2nd edition (London: Pimlico, 1988).
- ³⁰ Giorgio Agamben, *The Open: Man and Animal*, translated by Kevin Attell (Stanford: Stanford University Press, 2002).

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