LAYER TWO: The Electrate Imagination

Knowledge has survival value rather than truth value.

Elizabeth Grosz[1]

Beginnings, All Over the Place …

Herein … for your curiosity and pleasure … is a landscape text, or equally, a designed manuscript with the landscape alias permanently turned on. Rather than spinning the page's aspect on its head, *Chora-Logic* turns the page on its side in order to *screen* the knowledge it seeks to condense and re-articulate. In print-graphic terms, this is a shift from a portraiture frame to a landscape frame. For both Gunther Kress and *Chora-Logic* then:

> To communicate is to work in making meaning. *To work is to change things*. That is the reason I like the metaphor of the 'communicational landscape'. The 'scape' in 'landscape' is related to the English word 'shape', and it is also related to the German word 'schaffen' — meaning both 'to work' and 'to create'.[2]

Is this literal translation of a metaphor merely a design whim, a far too obvious and self-knowing aesthetic ploy, even a possible homage to Marshall McLuhan? All of these potential answers are present, interactively *and* refractively *and* associationally; all of which indicates an inkling of why the landscape alias is permanently switched on in these pages. The knowledge produced at this design-spot is purposely skewed from a causally fixated left-to-right and top-to-bottom rendering, to a side-by-side, all-around, above-and-below, light-and-dark, hot-and-cold, black/white/colour environment; all of which is communalised in the common thread of a 180° forward looking vision all simultaneously encased in a 360° auditory field.[3] It is the sum total of these communicative possibilities that provide the necessary means for both psychic and social rendering in representing knowledge in any given electronic work. *Chora-Logic* remains a

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1 Elizabeth Grosz, *Volatile Bodies: Towards a Corporeal Feminism* (Allen & Unwin: Sydney, 1994), p.127.

2 Gunther Kress, *Literacy in the New Media Age* (Routledge: London & New York, 2003), p.11. [Italics added].

3 This idea of a 360° auditory field is from Francis Dyson, 'When Is the Ear Pierced? The Clashes of Sound, Technology and Cyberculture', in Anne Moser & Douglas Macleod (eds.), *Immersed in Technology: Art and Virtual Environments* (MIT Press: Cambridge, Massachusetts, 1996), p.74.

network of multiple beginnings, middles and endings, a rash of departures and arrivals, entries and exits, of simultaneous presences and absences (implicit, tacit and codified), but it is still a node beholden to the page and to the causal impulse by virtue of its alphabetic system of notation. And it is this contradiction that is just one of many unsettled centres in the current concerns over literacy, and any possible turn to electracy.

There is also another beginning arising out of this landscape framing of the production of electronic knowledge, one closely related to the latter's creative nexus. If the portraiture mode more accurately simulates the writer/reader-specific emphasis on print dominance in knowledge-making, then the landscape mode foregrounds the increasingly important role visual art takes in this process. The visual art aspect of the landscape frame institutionalises not only the Western rediscovery of linear perspective during the Renaissance in electronic production (the illusion of three dimensional breadth and depth, a foreground, mid-ground, and background, an horizon line and a vanishing point, as well as symmetry and proportion), but also, more broadly, of a *framed audio-visuality*, a process that can also accommodate a variety of Indigenous art-making traditions, aerial perspective for instance. By incorporating the conventions of linear and aerial perspective into the practices of electronic audio-visuality (among other incorporations), the role of the artist is also called into play. However, this intensified role of the (visual?) artist in electronic production cannot be understood in an exclusively romanticised way. Brian Rotman alerts us to one of the possible consequences of this transference of the protocols of linear perspective into an electronically articulated audio-visualised landscape form orientated to and by the frame:

> the vanishing point, by marking the artist's horizon point, that is the spot he faces on the horizon of the scene he depicts, becomes the mark of the spectator's horizon point. The spectator sees from the artist's 'point of view'. ... the vanishing point acts as a mirror, reflecting back to the spectator an imagined version of himself, a fictive visual self in the guise of the artist.[4]

In electronic production contexts, though, this artist-worker component cannot be spoken of in the singular. Rather, if an electronic work relies on the audio-visual screen in landscape mode, one that 'reflect[s] back to the spectator an imagined version of himself', then that 'fictive visual self in the guise of the artist' must acknowledge the wide variety of *artists* that come together in this electronic constitution of knowledge. Financiers, producers, writers, directors, actors, clothes designers, camera operators, editors, dancers and

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[4] Brian Rotman, *Signifying Nothing: The Semiotics of Zero* (St. Martin's Press: New York, 1987), p.19. Electronic communication also calls linear perspective into further questioning; on this point see Peter Cresswell, 'A More Convivial Perspective System for Artists', in John Wood (ed.), *The Virtual Embodied: Presence/Practice/Technology* (Routledge: London & New York, 1998), pp.109-121.

choreographers, computer programmers, graphic, music and sound artists (among others), are all, variously and differentially, necessary artistic workers in the execution of an electronic work, a process that requires a cooperative set of arrangements in constructing and producing the electronic artist's 'point of view'. By extension then, electracy requires a conceptualisation of the creative intention marshalled more so through cooperation, even if it is fractious, than through any singular understanding of artistic genius. It is important though not to discount the relations of power among this variable co-operative of artistic/economic practitioners: the illusion of an electronic work *controlling* the spectator's 'point of view' is still one of the highest stakes in the game, regardless of whether the electronic knowledge under consideration is constituted singularly or collectively. Another significant difference in this electronic inculcation of a multi-perspectival point of view in the production process is the intensifying importance of its *affective* quality; that is, feeling and emotion comes to rival, even usurp, rationally configured literate thinking in the production and consumption of knowledge. The transition from literacy to electracy revitalises debates around emotion and intellect, abstract and embodied experiences, along with the question of manual and mental labour in the production, distribution and consumption of knowledge.

This simultaneously present, spatio-temporalised, multi-dimensional affective quality of an electronic screen in landscape mode is now a key aspect of the electrate representational environment, although certainly not an exclusive one. Rather than a *text*, what is presented herein is a potent *gathering place*, one fused through to its core-cables with an always de-centring praxis, a praxis that attempts to articulate an electronic epistemology of [nano]±[cosmological] dimensions. *Chora-Logic* contains and splays out the fruits of one idiosyncrat's hard-labour-research-trip into regionalism and electracy.[5] Centred on a psyche, culture, politico-economic and spatial infra-disciplinary mix, along with an assortment of renegade calls to a variety of other disciplines of knowledge (all of which remain, variously, in both synaesthetic and antagonistic relation), *Chora-Logic*'s imaginative crosshairs (its x-function) are framed directly at both cleaning and dirtying a space for an alternative rendering of future possibilities in this age-old and ongoing dilemma humanity confronts between geography (in this case, mostly regional/local space) and knowledge-making (in this case, mostly electracy considered as an emerging epistemological form slowly but surely coming to augment, possibly displace, even colonise literacy from below).

The continuing uncertainty over national polities, of a capitalism transforming itself (and us) through the rhetoric and practice of globalisation, and increasing agitation from local/regional/ethnic interests; while simultaneously all of these concerns are mixed in with the environmental movement; a proliferating numbers of NGOs, an unstable and nervous United Nations, among other diverse elements,

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5 Modelled on the noun *democrat*, an *idiosyncrat* is the social, political and psychic disposition one might take up in an electronic milieu configured by possessive individualism, sovereign self-hood, or concerns with the body and subjectivity, especially if this is happening in conjunction with advances in what might be called a 'genetic epistemology', a form of quantum bio-knowledge made possible by the mapping of the Human Genome.

are further backdrops to this discussion. With the current reinvention of globalisation, all these elements are hooked into the 'matrix', a phenomenon that cannot merely be categorised as cyberspace, virtual reality or even just the Internet because,

> If you start adding together all these artificially-generated spaces and their real-life components, it soon becomes clear that the Matrix encompasses the heterogeneous electronic zones of machinic functionality, both virtual and actual, associated with every electrified appliance from toaster to mobile phone to supercomputer, all linked through the power grid which underlies each of these component spaces.[6]

It is important to note here that while *Chora-Logic* deals primarily with *media* information and communications technologies and practices, electracy, as an epistemological form, transcends this easy limitation. Wherever there is electromagnetic radiation, a body's electrophysiology, a 'toaster', a 'mobile phone', a 'supercomputer', a *personal* computer or a car computer, a radio, a television, an iPod, a calculator, a microphone or a Hammond organ, a camera or telescope, a surveillance or satellite system of any kind, even the 'power grid' or the Galileo spaceship, an electrate epistemology is a potential or actual presence. So wherever one occupies a spot in/on this global electric/electronic matrix, one is also co-equally coupled with the multitude of ways we attempt to know our own particular patch and its network connections to the cosmos via this electronic gestalt. Electracy, then, is a potential means through which to epistemologically frame and understand this electronic cosmology, the latter a term to be dealt with in greater depth in 'The Chora Meta-Physique', where it is crucial to understanding the chora method as it arises out of Plato's *Timaeus* and reinvented in Ulmer's oeuvre.

For *Chora-Logic* in particular this cosmological view needs to be specified with some exacting questions. For instance, are there any emerging cross-fertilising or negating currents in this relationship between regionalism and electracy? And if so, how and in what ways do electronic forms of knowledge privilege particular spatial scales? At every turn, geography and knowledge *speak*, *write*, make *audible*, and *image* one another. The task here is to pull apart some of these threads (starting with the anxiety over literacy) in order to see how they might fit back together again (or at least discern an inkling of the multitude of different ways this pattern might be thought through, acted on, and the reflection on any pragmatic outcomes passed back into thought again). And in a chora-logical cosmology articulated through an electrate imagination (where local/regional concerns in concert with a plurality of knowledge modalities are a paramount socio-political-economic-cultural reality), framing a network of intersecting questions might be the more important task than foregrounding any 'truthful' or 'universal' conclusion.

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6 Otto Imken, 'The Convergence of Virtual and Actual in the Global Matrix: Artificial Life, Geo-economics and Psychogeography', in Mike Crang, Phil Crang & Jon May (eds.), *Virtual Geographies: Bodies, Space and Relations* (Routledge: London & New York, 1999), p.93.

The Literacy Control Complex

Usually, a literature search is a benign phase of the research routine. It was, however, during this phase of *Chora-Logic* where a semi-conscious pique I'd been feeling developed into an obviously conscious rancour; that is, it was an idea both rational *and* emotional. Because I'm involved in both electronic production and consumption, and the theory and pedagogy surrounding it, I'm interested in how the literate domain is coping with the transformations coming out of the new media communications r/evolution. This concern became an irritation with the reading and re-reading of Kathleen Tyner's book, *Literacy in a Digital World: Teaching and Learning in the Age of Information*.[7] Sometimes, irritation is a camouflage for an emerging, a hybridised, even a bastard form of knowledge, so it was necessary to unearth the nature of this discord that welled-up in the most unexpected of places. *Literacy in a Digital World* makes all the right noises: it discusses technology, Walter Ong, media literacy, primary/secondary/tertiary schooling, Plato's *Phaedrus*, psychoanalysis, storytelling, networks, aesthetics, even numeracy and multiliteracies, along with a host of other highly appropriate subject matter vis-à-vis its object of analysis. On one reading, it's a highly illuminating overview. There is, however, another interpretation of *Literacy in a Digital World*, and it's of a differing hue.

This more doleful reading makes *Literacy in a Digital World* a superior representative of a sometimes under-theorised control-complex — an un.conscious totalitarianism *and* authoritarianism — a feature implicit in the production of any kind of knowledge.[8] In this instance, the type of knowledge production referenced is literate in orientation. The literate domain then is not merely an angel of enlightened debate; under the influence and direction of particular social, political, economic and cultural configurations, literacy has its power struggles with other forms of representation and with the socio-political process itself. If the PR machine encourages a more seraphical view of the creative industries, it comes at the expense of the latter's sometimes-tyrannical underbelly. It is vital, then, to question and investigate these un.conscious forces, specifically in relation to the production of literate forms of culture and the 'discourse' it carries on regarding electronic forms of knowledge, a paradigm for which is slowly emerging — electracy.

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7 Kathleen Tyner, *Literacy in a Digital World: Teaching and Learning in the Age of Information* (Lawrence Erlbaum Associates: Mahwah, New Jersey & London, England, 1998).

8 Humphrey McQueen makes the point that, 'Totalitarianism is distinguishable from authoritarianism in as much as the former intends to transform us from the inside whereas authoritarians, like old-style advertisers, confine their efforts to bossing us from without.' See, *Temper Democratic: How Exceptional is Australia?* (Wakefield Press: Adelaide, 1998), p.130.

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This assertion is no overstatement. *Literacy in a Digital World* has concealed within its discourse (as both presupposition and assumption) the idea that the dominant modes of teaching and learning are literate and will continue to be so. That is, all knowledge is psychically and socio-politically mediated via either typographic or chirographic words on a page, or even as they appear on a landscape-style electronic screen. This is strange given that Tyner admits in the Introduction that 'I am an itinerant teacher, reluctant writer, *and sometimes media producer*' (p.1, italics added). The über-message in *Literacy in a Digital World*, if interpreted in this way, is that the literate establishment is trying to contain and corral the intensifying global flows of electronically codified data. Ironically, it also seems to be a peculiarly electronic way to present information: that is, the sifting, analysis, and categorisation, along with the re/presentation of worldly phenomena, is channelled through the force of one's own un.conscious biases; and it is these mediated biases that makes the production of all knowledge laden with an affective undertow. Might it be time then to unpack this imperialising proliferation of 'literacies' in the electronic realm and open them up to closer scrutiny?

This strangeness in using the term "literacy" in relation to electronic forms of knowledge surfaces in an even more pronounced way in Paul Messaris' *Visual "Literacy"*. Again this is peculiar given this highly developed and informative text might be a fine introduction to electracy, as a possible alternative paradigm to literacy, if only (for instance) it made some mention of sound as a tripartite inclusion to print and visual symbolisation. The point where Messaris passes over this former contradiction is worth quoting at length:

> Strictly speaking, of course, the term "literacy" should be applied only to reading and writing. But it would probably be too pedantic and, in any case, it would surely be futile to resist the increasingly common tendency to apply this term to other kinds of communication skills (mathematical "literacy," computer "literacy") as well as to the substantive knowledge that communication rests on (historical, geographic, cultural "literacy").[9]

While Messaris uses the term "visual literacy" reluctantly, the assumption that literacy will take over the conceptual reins of electronic communication and remain the pre-eminent means of structuring the knowledge therein is widespread. Foregrounding the term 'visual literacy', then, is a severe limitation on the visual field itself, either as it is experienced first hand by 'citizen-subjects',[10] or in the wide-ranging diversity of representational practices and processes that constitute actual image-making in either fine art or electronic contexts. The term also ignores the idea (pointed out by Marshall McLuhan and others) that the word, in either its chirographic or

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9 Paul Messaris, *Visual "Literacy": Image, Mind, and Reality* (Westview Press: Boulder, Colorado, 1994), pp.2-3.

10 In Chela Sandoval, *Methodology of the Oppressed* (University of Minnesota Press: Minneapolis, 2000), a 'citizen-subject' is extensively invoked and characterised as a critical site of 'differential consciousness'; and as will be demonstrated, it is a characterisation that has a close affinity with chora-logic.

typographic form, is itself a means of visualising knowledge in an abstracted sense. Clearly visual literacy, in either its print manifestations or its more usual imagistic meaning, is an important element in the production of knowledge, but it is only *one* modality among many available to the constitution of an electronic message.

The question over whether the visual image is the dominant communicative mode in electracy (and more broadly in Western culture), though, is one that will recur again and again, in part because it is related to the issue of gender: the image is widely perceived as the dominant mode of sense-making in masculinity while the haptic aesthetic (touch) is the more feminised communicative mode.[11] While this debate about the gendered and sensate quality of various communicative modes is important it obscures another equally significant McLuhanesque idea on the differential *and* relational interaction between all the senses brought about by electronic communication; and this sensate relationality is concerned primarily with both the body per se, and with the message as it is both interpreted and/or used in the meaning-making process.[12] In effect, concentrating the production of knowledge via a purely visual frame is no longer adequate given the technologically extended capacities that an electrate sensibility is an epistemological heir to. And this is a point that applies, even if differentially, to all bodies regardless of their gender, nationality, age, race, ethnicity, income, class, their educational or religious status, or even their postcode.[13]

Furthermore, when discussing the role of demographic differentiation in relation to epistemological structure it is equally important to consider this whole set of characteristics as they are structured in a given body, partly because it is in their differential interaction, through their sometimes solitary conjunctiveness, that the idiosyncratically 'educated' citizen-subject of the electrate variety arises. Simply put, electracy arises in and out of the interactive collation of a unique set of implaced circumstances rather than a collectively and/or unilaterally sanctioned grammar or syntax and how these structuring protocols of literacy are embedded in singular demographic profiles like gender or age. Indeed, it is possible to look upon the body's whole set of demographic characteristics as denoting the first occurrence of its own located instance of contextuality. A specific body, though, is made up of a range of *both* demographic characteristics and sensate capacities; as a means of framing these various characteristics and capacities, electracy is better equipped to cross-modally harness these demographic differentialities as potential competencies rather than as collectively

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11 Lucy Irigaray, writing in *This Sex Which Is Not One*, says that 'woman takes pleasure more from touching than from looking'. Quoted in Laura U. Marks, *Touch: Sensuous Theory and Multisensory Media* (University of Minnesota Press: Minneapolis & London, 2002), p.7.

12 This relational quality of the sensorium vis-à-vis the various modalities of knowledge is discussed at length in Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man* (Routledge & Kegan Paul: London, 1962) and *Understanding Media* (Sphere: London, 1964).

13 In the Australian national context, a person's postcode address is increasingly used to *locate* their demographic profile in a particular locality, and by using information garnered from the census every five years, create an overall demographic profile of the people, who by dint of habitation, live in that postcoded locality.

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sanctioned formal restrictions, or as a singular component of abstract articulation. In this way demographic characteristics can be interpreted as much as an interacting set of solipsistic arrangements as a set of collective protocols used panoptically to commercially, pedagogically or politically calculate the profile of any given population.

More crucial than any singular demographic characteristic (at least for *Chora-Logic* and electracy) is the role the image has in the immanent spatialisation of logic: 'Writing will be subordinated to the logic of the screen, to the spatial logic of the image.'[14] In an image, and sometimes even more so in the sonic logic of an electronic message, its various meanings are simultaneously present and are not simply causally or temporally arranged into an argumentative structure. In the 'multimodal' context of an electronic message, in the spatio-temporal metaphysics of each mode, and the aesthetics accompanying the combinatory interactions between its various modes, are all an integral part of electracy's structuring dynamic. In any taxonomy of visual, or even sonic or textual efficacy in electronic con/texts, spatial logic is central, both in the message itself as well as in the body of the interpreter and/or its designer. In *Chora-Logic* then, a singular demographic profile like gender or class is of secondary interest to this centrality of spatial logic in both electrate forms of communication and in the body's experience of real and virtual places. Certainly, though, there is ample scope for investigating the specific nuances that connect an electromagnetically arraigned message-making system to a single demographic profile.[15]

Moving away from the more sensate capacities of electronic communication into a more clearly abstract area, another look at the 'literacy crisis' advances the term 'meta-literacies', an idea inspired by Pierre Bourdieu. According to Philippa Bright, Tony Schirato & Susan Yell, 'Meta-literacies ... constitute a literacy about the basic principles of literacy itself – the ability to understand how literacies work ...', a comment that comes about after a discussion of 'the turn to the visual (and the digital).'[16] Once again the visual is given precedence, but in using the prefix 'meta-' (meaning ''among', 'together with', 'after', 'behind', and often denoting change' – *Macquarie Dictionary*), there appears to be an illuminating contradiction. If the reading and writing skills that traditionally constitute the qualified literate person are in decline, a meta-level re-working of literacy would require an advanced concentration of those very same declining skills to think about the problem at this level. More worryingly, the whole concept of 'meta-literacy' smacks of a desperate effort to elongate the historical shelf life of literacy by metaphysically-grounded institutional means, something that comes at the expense of a

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14 Gunther Kress, *Literacy in the New Media Age*, p.48.

15 For instance, since at least the publication of R.W. Connell's, *Ruling Class, Ruling Culture: Studies of Power, Conflict and Hegemony in Australian Life* (Cambridge University Press: Cambridge, 1977), there has been the suggestion that electronic media is saturated in middle class culture; see especially 'The Media and Middle-Class Culture', pp.190-204.

16 Philippa Bright, Tony Schirato & Susan Yell, 'Communication Meta-Literacies and Tertiary Graduates', in *Australian Journal of Communication*, vol. 27, #2, 2000, p.108.

deeper understanding of the very primal, almost illiterate nature of electronic communication and what might be meant by the term *electracy*. If we were to travel this 'meta-literacy' track we would be forever involved in a discussion of a discussion on literacy rather than analysing the instantaneous, experientially configured, and context-laden corporeal incorporation, distribution and reproduction of electronic information.

Indeed, the prefix 'meta-', especially as it is used in the word 'metaphysical', alludes to one of the most difficult questions posed by literacy and the scientific system of knowledge dominant in the universities: abstraction. Knowledge mediated through literate technologies (alphabetic writing, for instance) has an ability (an illusion?) to fix its object of attention in perpetuity *and* at a distance, a feature of literacy that sometimes comes at the expense of that object's 'meta-morphing' and embodied capacities.[17] On deeper reflection, a 'meta-' discourse is one that can also examine the nature of change in the object under analysis as well as track the shifting characteristics of the methodology used in that examination; it may even go so far as to admit that this change has no limitation, possibly no beginning, no ending, a recognition of Sean Cubitt's point that, 'Things change. That is the *sine qua non* of political action.'[18] But if that meta-discourse is structured in a more causally fixed literate genre like an essay, a novel or a dissertation, shooting our literate capacities in the foot may not be a desirable outcome. Undoubtedly, literacy is a core activity of the university, but 'Communication Meta-Literacies and Tertiary Graduates' suggests it might be institutionally incapable of ingesting and incorporating this transformation from literate modes of knowledge production, distribution and consumption to electrate ones, or worse, it could corrupt this transformation in its own interests. In even more urgent need of consideration is the idea that method itself (a critical component of any 'meta'-articulation) is itself a malleable entity given that the prefix 'meta-' can also denote change. For *Chora-Logic*, then, its 'meta-physicals' (the research, thinking and the actual production and consumption exercises of the body, considered as part of the methodology, and examined in detail in Layer Four: 'The Chora Meta-Physique') are directed at *partially* understanding this change from literacy to electracy in both methodological and content terms. The partial understanding addressed here is an adjunct to a wide range of thinking and practice about electronic communication going on in a broad variety of texts and contexts.

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17 Vivian Sobchack, '"At the Still Point of the Turning World": Meta-Morphing and Meta-Stasis', in Vivian Sobchack (ed.), *Meta-Morphing: Visual Transformation and the Culture of Quick Change* (University of Minnesota Press: Minneapolis, 2000), pp.131-158.

18 Sean Cubitt, *Timeshift: On Video Culture* (Routledge: London, 1991), p.146. [Italics in the original].

Over the long course of communication history, from the primordial era of smoke, drums and pigeons,[19] through the development of oral/aural techniques (the spoken word, along with its musical accompaniments and transformations), to the chirographic and hence to the typographic era, and on to the electronic period (materialised with the advent of photography, the telegraph and Morse code), there has been a corresponding intensification in its technological mediation. *Levitating Trains and Kamikaze Genes* then is a technological perspective on the literacy "crisis".[20] Certainly its central thesis is most likely accurate: the general population is quite ignorant of some the major techno-scientific developments of the last 100 years or so. These developments, as articulated in *Levitating Trains and Kamikaze Genes*, include developments in biotechnology, computing and artificial intelligence, energy, transportation, modern weaponry, medicine, and environmental technology. Perhaps its intellectually crudest component is contained in its Introduction: 'Test Your Technological Literacy', a quiz posing a range of questions centred on the above-mentioned developments (pp.xiv-xxv). The exaggerated expectations of this work though are one of its problems as well as its own ignorance of developments in philosophies of the body that argue for the latter's own technological definitions and capacities. Specifically, after Nietzsche, Foucault's 'technologies of the self', and various feminist critiques, technology can no longer mean what *Levitating Trains and Kamikaze Genes* assumes it to mean. Along with being a psychological and physiological apparatus, the body remains both a pre-eminent model of technology and a technology per se, especially in relation to its sensate technologies of seeing, touching, hearing, speaking, and sometimes even of writing.[21] And here in this technological demarcation there is also a territorial line sometimes drawn between the objective nature of the sciences and the subjective, sensate based nature of arts/humanities production. Certainly, more specifically scientific technologies (like the microscope and telescope for instance), considerably extend the capacities of the human sensorium, but it is this same sensorium that still must operate both media technologies as well as the more usual scientific ones. Rather than a demarcation between arts-centred technologies and scientific ones there is a symbiotic continuum between the human sensorium and its prosthetic, technical extensions no matter what technology or methodology is involved.[22]

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19 Monroe E. Price observes that, 'Homing pigeons were an early technology for flying over boundaries with messages.' See, *Media and Sovereignty: The Global Information Revolution and its Challenge to State Power* (MIT Press: Cambridge, Massachusetts, 2002), p.27.

20 Richard P. Brennan, *Levitating Trains and Kamikaze Genes: Technological Literacy for the 1990s* (John Wiley and Sons: New York, 1990).

21 Freud, for instance, makes the point that, 'All the forms of auxiliary apparatus which we have invented for the improvement or intensification of our sensory functions are built on the same model as the sense organs themselves or portions of them: for instance, spectacles, photographic cameras, ear trumpets.' See, 'A Note Upon the "Mystic Writing-Pad"', in James Strachey, Anna Freud, Alix Strachey & Allan Tyson (eds.), *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, vol. 19 (Hogarth Press and the Institute of Psycho-Analysis: London, 1954), p.228.

22 Clearly the prosthetic debate owes it origins to Donna Haraway. See, for instance, 'A Manifesto for Cyborgs: Technology and Socialist Feminism in the 1980s', in *Australian Feminist Studies*, #4, 1987, pp.1-42.

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This notion of 'technological literacy', though, does suggest a designation more closely aligned with the body's communicative capacities in relation to electracy. Given the technological density within which electronic communication takes place, the noun 'technacy' — a 'competency in science and technology problem-solving, experimentation and communication' (*Macquarie Dictionary*) — is a pertinent one. While the broader sciences referred to by *Levitating Trains and Kamikaze Genes* might take a back seat in a context more closely circumscribed by electronic communication, knowledge of and competency in the actual tools of electronic communication are clearly an increasingly important component of electracy. This knowledge and competency is not just limited to understanding how those machines operate though, popularly characterised as 'programming the VCR syndrome'. As Martin Heidegger's essay 'The Question Concerning Technology' makes clear, technology's metaphysical baggage embeds every machine, every body, with a techno-scientific pre-history, one that is also loaded with socio-political and enculturated meanings.[23] Even Jane Austen's quill pen was an important chirographic technology arriving at her fingers loaded with pre-ordained meaning: 'Quill pens were made from the feathers of a variety of birds, each one chosen for its special characteristics. Raven or crow feathers were chosen for the finest work.' And further on Deb Williams expands on this totemic understanding of an important technology of literacy explaining that, 'The word pen comes from the Latin word *penna*, meaning feather.'[24] To be appropriately technate in an electrate context then requires that we are both able to know something of the operation of electronic technology *and* be cognisant of the ideologically pre-ordained configurations embedded in them (for instance, art/science distinctions in technology), in short, to be both corporeally and cognitively technate. A body/politic's spatial extension, then, goes hand in hand with its technical extension and is a critical factor for any polis examining its structures of knowledge.

A further aspect of technacy in this context is connected to the process of 'experimentation'. Every machine may have an *intended* usage but in practice every machine also has techno-aesthetic possibilities beyond its inventor's/manufacturer's purpose, and the gap between these two is a disjunctive field where experimentation can sometimes flourish. Because of their network-schematic configurations electronic technologies amplify this field of experimental possibility, a point that makes experimentation itself a crucial aspect of chora-logic, possibly even more important then cohesive and coherent outputs. There is no easy translation from any conception of reality (or a metaphysical abstraction) to its representation in a material form, but most certainly technacy is a crucial

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23 Martin Heidegger, 'The Question Concerning Technology', in *The Question Concerning Technology and Other Essays*, trans. William Lovitt (Harper & Row: New York, 1977), pp.3-35. Mention should also be made here of Ernest Mandel's outline of 'The Acceleration of Technological Innovation' in 'late capitalism' and the role played in that acceleration by electric and thus electronic technologies. See, *Late Capitalism*, trans. Joris De Bres (Verso: London, 1978), pp.248-273.

24 Deb Williams, 'The Writing [Implement] of Jane Austen, or, Jane Austen Never Had to Reboot', available at the Jane Austen Society of Australia website: <http://www.jasa.net.au/quillpen.html>, 2004, pp.1 & 2. [Accessed 22/12/2004].

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attribute of the electrate citizen-subject, almost like spelling, punctuation and grammar is to the literate subject, and the 'timbre' of the voice is to the orally orientated subject.[25]

Already the very meaning of literacy is in branching mode, embedded in a matrix of modalities and their modularising interconnections and juxtapositions, one also suggestive of an entangled rhizomic underground; moving away from its traditional focus on the reading and writing of language and on to cover a whole host of skills and competencies ('digital literacy', 'critical literacy', 'computer literacy' and 'media literacy' are further examples from this large field of contenders).[26] Another component in this branching/rhizomic process has been the postmodern examination of diversity and pluralism.[27] Undoubtedly, the forces of post/modernisation and globalisation have thrown together into proximate spaces citizen-subjects with differing demographic profiles and who have highly diverse epistemological traditions ranging across oral, literate and electrate forms. And it is the meeting in proximity of these differing demographic profiles and epistemological traditions that is at the heart of many of the political conflicts that are raised by globalising forces. Australia's multiculturalism policy is here one example that arises out this development and which itself presages the term 'multiliteracies'.

'Multiliteracies' is a term coined by the New London Group in what they call a 'programmatic manifesto' – 'A Pedagogy of Multiliteracies: Designing Social Futures.'[28] As the New London Group says of this cross-pollination of epistemology and pluralism: 'No person is a member of a singular community.' Aimed directly at a reinvention of literacy pedagogy in response to the media communications r/evolution, this 'multiliteracy manifesto' emphasises the multimodal interconnections between 'Linguistic Meaning, Visual Meaning, Audio Meaning, Gestural Meaning, and Spatial Meaning' (p.65). This is a means of adapting the traditional conception of literacy to the question of 'epistemological pluralism'[29] made obviously 'important in the mass media, multimedia, and in electronic

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25 Roland Barthes, 'The Grain of the Voice', in *Image-Music-Text*, selection & trans. Stephen Heath (Fontana: London, 1977), pp.179-189.

26 For yet another example from this large contingent of literacy spruikers see Douglas Kellner, 'New Media and New Literacies: Reconstructing Education for the New Millennium', at <http://www.gseis.ucla.edu/courses/ed253a/kellner/newmedia.html>, (2003). [Accessed 3/11/2003]. Also, in mid 2005 on ABC Radio National, an eminent scientist called on Australians to become 'water literate', a comment arising out of an increasing decline in the quality and quantity of the country's water supplies in rivers, lakes and dams. A puzzle then ensued: how is it was possible to read and write water?

27 A significant reference point in the debates over pluralisation is William E. Connolly, *The Ethos of Pluralization* (University of Minnesota Press: Minneapolis & London, 1995).

28 New London Group, 'A Pedagogy of Multiliteracies: Designing Social Futures', in *Harvard Educational Review*, vol. 66, #1, 1996, p.63. A reprint of this essay is included in, and further expanded upon by a range of other collaborators in Bill Cope & Mary Kalantzis (eds., on behalf of the New London Group), *Multiliteracies: Literacy Learning and the Design of Social Futures* (Macmillan: Melbourne, 2000).

29 Sherry Turkle & Seymour Papert, 'Epistemological Pluralism: Styles and Voices within the Computer Culture', in *Signs: Journal of Women in Culture and Society*, vol. 16, #2, 1990, pp.128-157.

hypermedia' ('A Pedagogy of Multiliteracies', p.64) and given an expanded emphasis by the forces of globalisation. The means via which this synthesis of the multiple modes relevant to this technologised era occurs is in the 'notion of pedagogy as design' (p.73). And here the whole notion of *design* (and not just how it functions in pedagogical spaces) is an issue *Chora-Logic* will focus on by even acknowledging the multimodal capacities of the page, as it is both thought and constructed. Almost certainly now, 'no person is a member of a singular community'; simultaneously, no person's system of knowledge, no world-view is constructed simply from linguistic processes; as one member of the New London Group says, 'Theories of language will simply not serve to explain the other semiotic modes, unless one assumes, counterfactually, that they are in every significant way like language.'[30] Lastly, the concern with multiliteracies alerts us to the clear connections between knowledge as a multiple (and multiplying) entity and the pluralistic socio-political undertow of postmodern life, a situation made even more fungible by global capitalism's reliance on the infrastructure of electronic communication.

The emphasis Gunther Kress puts on the 'multimodal' nature of electronic communication is mirrored in other discussions on new media.[31] Another important contribution is Jay David Bolter & Richard Grusin's *Remediation: Understanding New Media*.[32] In many ways *Remediation* is a fertile re-statement of the McLuhanesque idea that any new media form is a 'remediation' of an older form; that is, new media are a reworking of older media forms like video, TV, film (silent and talkies), literature, radio, an idea that can even be traced back to the dramatic stage along with vaudeville and the music halls of the 18th and 19th centuries. This ongoing discussion is important and fruitful.[33] The emphasis in *Remediation*, though, is more to do with media *form* rather than the modalities that constitute the messages (the content) that fill out any given form.

Following Kress then, a modality refers to a specific category of knowledge within the electronic message itself: images (still and moving), aural (speech, music and FX), and print (represented languages and numbers, possibly even graphics, and sometimes including computer code which generally remains representationally invisible, a layer under the other modes), all of which is not to suggest a comprehensive taxonomy. This is also not to argue that the multitude of systems and processes that bring forms and their contents into play are separate, or that each taxonomical category is less, or more important. Rather, it is recognition that these electronically

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30 Gunther Kress, 'Design and Transformation: New Theories of Meaning', in Bill Cope & Mary Kalantzis (eds.), *Multiliteracies: Literacy Learning and the Design of Social Futures*, (Macmillan: Melbourne, 2000), p.153.

31 Kress invokes the term 'multimodal' across a range of works. For a recent discussion see, *Literacy in the New Media Age*, especially 'Literacy and Multimodality: A Theoretical Framework', pp.35-60.

32 Jay David Bolter & Richard Grusin, *Remediation: Understanding New Media* (MIT Press: Cambridge, Massachusetts, 1999).

33 One good example of this discussion is Steven Maras & David Sutton, 'Medium Specificity Revisited', in *Convergence: The Journal of Research into New Media Technologies*, vol. 6, #2, 2000, pp.98-115.

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codified modalities (as they are manifested in media content) are closest to the sensate qualities of the body in its key survival function of interpreting and producing knowledge in a grounded as well as in a virtual sense. Consequently, the constitution of media form/s is, in *Chora-Logic*, of lesser interest than the wide range of modalities that contribute to the composition of the content in those forms while also recognising that the basic tripartite taxonomy of sound, text and image advanced here for electracy is a critical component of it as a form.

Gunther Kress's work is an important contribution to the whole phenomenon of 'rethinking the paths to literacy'. As he explains it on the opening page of another of those contributions: 'Literacy is fast becoming' one of our 'fundamental anxieties'.[34] This particular work is an attempt to reformulate literacy pedagogy for young children even before literate techniques start to be taught. *Before Writing*'s 'approach is to treat children by the time they come to school as competent and practiced makers of signs in many semiotic modes' (p.10). Kress also invokes the social semiotic paradigm to foreground the obvious idea that all modes of meaning-making: language, image or sound, and their sub-categories, form the basic ingredients of the communicative enterprise. Kress's stress on social semiotics is also a useful antidote to what Eric Leed calls, '"Voice" and "Print": Master Symbols in the History of Communication'.[35] If the Bible foregrounded the Word as the *represented* beginning of both God and the World, this ecclesiastical injunction has come under increasing scrutiny as knowledge of ourselves and the world evolves towards an electronic articulation of its reality.[36] Kress also makes the point that there is a need for 'a theory [that] will treat individual speakers or writers not as language users but as language makers' (p.xvi). This shift from communicative usage (with its emphasis on consumption) to communicative design (with its emphasis on production) is one that also underpins the current movement towards electracy, in part because any knowledge of an unfamiliar epistemological form or technology is made up as you go along. A production emphasis is also obvious in electronic forms like computer gaming, blogging and *Wikepedia*. Possibly most important of all is Kress's stress on understanding how the young enthusiastically embrace meaning-making, utilising any kind of mode at their disposal in order to 'represent the world'. It needs to be emphasised again that it is the declining levels of literacy in the young that is very much driving this already mentioned anxiety about the declining primacy of the word, of reading and writing, and of print technology.

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34 Gunther Kress, *Before Writing: Rethinking the Paths to Literacy* (Routledge: London & New York, 1997), p.1. Also, over the course of the last two to three years *The Australian* newspaper has been conducting a concerted campaign alerting its readers to a national literacy crisis.

35 Eric Leed, '"Voice" and "Print": Master Symbols in the History of Communication', in Kathleen Woodward (ed.), *The Myths of Information: Technology and Postindustrial Culture* (Coda Press: Madison, Wisconsin, 1980), pp.41-61.

36 History as a discipline has often included oral, imagistic as well as written modes in its discourse. For a reappraisal of the discipline from an electronic perspective see David J. Staley, 'From Writing to Associative Assemblages: "History" in an Electronic Culture', in Dennis A. Trinkle (ed.), *Writing, Teaching, and Researching History in the Electronic Age* (M. E. Sharpe: New York, 1998), pp.3-13.

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In the beginning, middle and end though, Kress, and his colleagues in the New London Group, or anyone who wants to designate a noun-conjunction with the word 'literacy' in it are still using this term often in the face of substantial changes in the characteristics of communicative techniques and technologies. This begs the question: why? Almost certainly it has to do with power. Largely speaking, those who continue to use the term 'literacy' and/or agitate over declining literacy levels, have the power either of the state, an institution, a corporate or a religious interest in continuing to press for something to be 'done' about declining levels of literacy in the wider population. Here it might be useful to listen closely to the spoken words of Lachlan Hook, the armed and dangerous central character of James McQueen's novel *Hook's Mountain*, as he tries to suicidally head off the environmental destruction of 'his' mountain by the loggers, reflecting on the acquisition of power and its relationship to action:

> "Oh Christ," he said, "it [power] does something to you ... but if you don't take it, if you go the other way, there's this feeling of *helplessness* ... all the bad things are happening and you don't have the *power* to do anything about them ... and if you *got* the power, then you wouldn't *want* to change things."[37]

Generally speaking, it is those with considerable epistemological and thus political power who 'don't want to change things'. At times, this currently heated campaign of indoctrination by the powerful against electronic communication is occasionally conducted with the aid of the powerless, a contemporary feature that duplicates the anxieties present in both the educated and lower classes of the early modern period when oral forms and chirographic writing were giving way to typographically printed works.[38] The intensity with which these debates over literacy and writing are conducted (then and now) is an indication of the concentration of power brought about by particular epistemological forms and their take up and/or their consolidation and usage by specific social groups grounded in actual institutional realities. This epistemological anxiety, however, is latent in each and every body awaiting the appropriate socio-historical-technical conditions for its re-emergence into discourse and action. We are now in such a period of transition.

This anxiety over literacy though is both a cause and a reason to remain mindful of the various branchings alluded to above and not to be reactively dismissive of them. It is not simply that literacy is eradicated by electracy; rather, it becomes a highly significant sub-category of an electrate epistemology. Electronic manifestations of listening and speaking, reading and writing, of perception and seeing,

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37 James McQueen, *Hook's Mountain* (Macmillan: Melbourne,1982), p.156. [Italics in the original].

38 The 'rejection of writing' in this era is a theme taken up in Roger Chartier's, 'The Practical Impact of Writing', in Roger Chartier (ed.), *A History of Private Life, Vol. 3: Passions of the Renaissance*, trans. Arthur Goldhammer (The Belknap Press of Harvard University Press: Cambridge, Massachusetts & London, England, 1989), pp.122-124. A particularly illuminating example of this rejection of electrate knowledge in the Australian context is journalist Paul Sheehan's, *The Electronic Whorehouse* (Macmillan: Sydney, 2003). Also in this category one could also include Socrate's more ancient rejection of chirographic writing as debilitating of the body's mnemonic and thus knowledge-making capacities.

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amongst other elements, are core competencies for this emerging electrate paradigm, a paradigm that also cannot simply be limited to one electronic technology, the Internet or video, for instance, or to writing and language. For a wide range of reasons (a few of which *Chora-Logic* will canvass) it is no longer feasible to assume that literacy is the pre-eminent means via which our knowledge of the world is mediated. This assumption might be happening in the *literature* on the subject but in the wider population and despite heated protests over the nature of electronic communication there is a rising electrate sensibility, one difficult and almost impossible to quantify or even qualify within any fixed method. There is, nonetheless, an emerging, bottom-up electrate imagination infiltrating the body/politic, a process now reaching a critical mass and one that partly explains the tapering off of literacy levels.

'Literacy into Electracy'

As mentioned, it is in the work of Gregory Ulmer that the idea of electracy is most extensively articulated and for the most part is examined across four important works: *Teletheory: Grammatology in the Age of Video*; *Heuretics: The Logic of Invention*, and *Internet Invention: Literacy into Electracy* and most recently, *Electronic Monuments*.[39] What follows is an introductory outline of the idea, one that has been heavily influenced by the above-mentioned topical speculations but which also is not to imply that Ulmer's conception of electracy, as an object of analysis, is the same or even similar to the one outlined here. In part because of the multimodal diversity of its content and the formal variety of its technologies, and unlike literacy (which aims at instructing a mass population base in collectively transferable techniques in, for instance, how a national literature 'expresses' the collective 'essence' of a particular national character, or, that everyone utilises the same rules of grammar), electracy can be more accurately thought of as a system of auto-modelling, an epistemological frame in which each and every one of us is psychically, and thus epistemologically encased in a different understanding of the world. Electracy is an epistemologically malleable apparatus, one rather more inclined to a monadistic understanding than a collectivist one. This is a substantial change given that our collective conception of *community* and *communication* share very close etymological and social roots over the *longue durée*.

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[39] Gregory Ulmer, *Teletheory: Grammatology in the Age of Video* (Routledge: New York, 1989); *Heuretics: The Logic of Invention* (John Hopkins University Press: New York, 1994); *Internet Invention: Literacy into Electracy* (Longman: Boston: 2003); and *Electronic Monuments* (University of Minnesota Press: Minneapolis, 2005). [I would also add here that *Electronic Monuments* arrived late in the production of *Chora-Logic* and as such many of its insights could not be dealt with in this manuscript. In short, *Electronic Monuments*, under the overarching emblem that 'Problems B Us', discusses how the concepts Ulmer has been developing might be applied to our thinking and policy making in regard to specific social problems, diasters and tragedies such as 9/11, national identity, child murder and road accidents, for example].

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Electracy is a paradigm that requires, in the production, distribution and consumption of electronic material, highly developed competencies in both oracy *and* literacy, and if necessary comes on top of any knowledge of the subject or substantive content of any given work, program, or project. The conceptual frame of electracy is herein tentatively propagated as a well-developed range and depth of communicative competency in oral, literate and electrate forms, biased from the latter's point of view. A crucial addition, one sometimes overlooked in earlier communicative forms, is that of the technate, or technacy, a working knowledge of the technological infrastructure underpinning all communication along with its in-built ideological assumptions and experimental capacities. And if this tangent of electracy is interpreted as technologically determinist then Susan Leigh Star's riposte is also my riposte: 'In information infrastructure, every conceivable form of variation in practice, culture, and norm is inscribed at the deepest levels of design.'[40] Indeed, I will continually return to this idea of the 'infra-' again and again ('a prefix meaning 'below' or 'beneath'' — *Macquarie Dictionary*) because it reiterates the importance of a bottom-up and a 'partial perspective', whether in everyday life, in epistemological and methodological considerations, or in spatial and technological concerns.[41] It is in this context of the various communicative competencies required for the electronic production, distribution and consumption of knowledge that the term 'literacy' (or for that matter 'oracy', the skills of speaking and listening) is a questionable one.

Furthermore, electracy can spread out to mean the following: it is that domain of knowledge formation whose arrangement, transference and interpretation rely primarily on electronic networks, systems, codes and apparatuses, for either its production, circulation, or consumption. It could be analogue, in the sense of videotape; digital, in the case of the computer; aurally centred, as in the examples of music, radio or sound-scapes; mathematically configured, in relation to programming code for instance, or numerate signage; visually fixated, as in some aspects of broadcast television or the cinema; 'amateur', as in the home-video or home-studio realm; politically sensitive, in the case of surveillance footage; medically fixated, as in the orbit of positron emission tomography or magnetic resonance imaging; ambiguous, as in the instance of a newspaper like *The Sydney Morning Herald* made available on the WWW, or of Hollywood blockbusters broadcast on television, or hired/bought/downloaded in DVD/video/computer formats; and this is not to mention Brad Pitt reading a classic novel on audio-tape, Global Positioning Systems (GPS), geographic information systems (GIS) or even the

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40 Susan Leigh Star, 'The Ethnography of Infrastructure', in *The American Behavioral Scientist*, vol. 43, #3, 1999, p.388.

41 Rosalind Williams examines the psychic, cultural and political evolution of infrastructure like sewers, water mains, tunnels, roads, subways, telephone lines and electrical cables, in *Notes on the Underground: An Essay on Technology, Society, and the Imagination* (MIT Press: Cambridge, Massachusetts & London, England, 1990), writing in a footnote that, 'The Latin word *infra*, meaning "down" or "beneath" or "under," has long been used in English as a prefix denoting the opposite of *super* or *supra*, but mainly in medical contexts. *Infrastructure* was coined in this century' (p.227).

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related satellite tracking systems like the ones used to navigate driverless tractors around the occasional paddock in regional Australia.[42] While *Chora-Logic* will concentrate primarily on the field of electronic media as manifested increasingly through the computer and related media forms it must be reiterated once again that the electrate imagination, like its literate predecessor, is at work in almost all sectors of the social, cultural, political and economic world. At one level electracy is a strikingly simple system, and yet simultaneously it is a highly complex and heterogeneous epistemological and thus a communicative paradigm, one that is now having a highly significant *affective* influence on and through a large number of bodies on Planet Earth.

Electracy is also a generic term, one whose very comprehensiveness and dynamic mutability is its defining hallmark, and one in which a whole host of communicative codes and symbolic systems reside. Moreover, almost anyone can comprehend meaning in electronic media because an 'electric epistemology cannot remain confined to small groups of users, as oral epistemologies have, and cannot remain the property of an educated elite, as literate epistemologies have.'[43] Furthermore, as Ulmer himself notes: 'To speak of computer literacy or media literacy may be an attempt to remain within the apparatus of alphabetic writing that has organized the Western tradition for nearly the past three millennia.'[44] The catch is that the epistemological architectonics of electracy are the abstract vectors through which a diverse range of producers, distributors and consumers animate the volatile markets of global capitalism; as literacy was to the development of nationalism and the nation-state, it is now a matter of some urgency to investigate the ways that electracy might be epistemologically crucial to the development of globalisation. It's highly unlikely that the twin expansions of electronic communication and globalisation over the last two centuries or so are a spatio-temporal coincidence. In almost all the discussions on globalisation, information and communication technologies (ICTs) are invoked as a highly significant contributing factor in its evolution. The dynamic nature of these multimodal forms of electronic knowledge, then, is increasingly applicable to all of us in the local/global, human/world conglomerate in which any polity is now framed. To continue to emphasise literacy and alphabetic

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42 A novel use of GPS is the information it provides to coaches and players in the Australian Football League (Australian Rules Football). The system can provide a 'running map' for each player equipped with a tracking device during a game. As the Fremantle Club's Strength and Conditioning Coach Ben Tarbox says, "We're getting a physiological profile that has started to build a really good picture of how individual players react during a game." See 'Keeping Track', *Docker, Official Magazine of the Fremantle Football Club*, Edition 3, September 2005, p.21. [I'm indebted to Phil Roe for this reading]. On the question of GIS see John Pickles, 'Representations in the Electronic Age: Geography, GIS, and Democracy', in John Pickles (ed.), *Ground Truth: The Social Implications of Geographic Information Systems* (Guildford Press: New York, 1995), pp.1-30.

43 Raymond Gozzi Jr. & W. Lance Haynes, 'Electric Media and Electric Epistemology: Empathy at a Distance', in *Critical Studies in Mass Communication*, vol. 9, #3, 1992, p.224.

44 Gregory Ulmer, 'Foreword/Forward (Into Electracy)', in Todd Taylor & Irene Ward (eds.), *Literacy Theory in the Age of the Internet* (Columbia University Press: New York,1998), p.xxi.

consciousness might be blinding us to this emerging relationship between electracy and globalisation, and more particularly for *Chora-Logic*'s concerns, electracy's relations with localisation and regionalisation within this global ambit.

It's important then to mark out the dichotomy outlined above between literate and electrate forms of knowledge to larger politico-economic and cultural forces, and not simply to pedagogical issues. As Saskia Sassen illustrates, sovereignty and territoriality are central aspects in the operation of the still important nation-state, especially in an era of galloping globalisation. In the past sovereignty referred to the absolute power of monarchs to control their subjects and dominions and is an idea that has been transferred to the nation-state in the long transition to representative democracy. Territoriality refers to the specific physical space that sovereignty is seen as guaranteeing. As Sassen says, 'In the main ... rule in the modern world flows from the absolute sovereignty of the state over its national territory.'[45] Quite clearly: in the shifting regimes of geo-political power that characterise the global era, sovereign control over territory, and equally, control over the ideas that might re/configure our interpretation of concepts such as sovereignty and territoriality, nationalism and literacy, are all in a state of modification. Today's climate of geo-political and epistemological uncertainty has undoubtedly produced a *control complex* in relation to these shifting power bases, a condition that intensifies when psychic, cultural, epistemological, social and political certainties move to a state of unpredictable flux.

In another important and highly influential examination of the nation-state and nationalism — Benedict Anderson's *Imagined Communities* — there is a very clear articulation of how literacy was, and remains, an essential ingredient in its development as a political structure.[46] Operational levels of literacy also came to be a key component in the development of the idea of the autonomous subject that arose with democracy and its use as an organising principle in citizenship rituals like one person, one vote in some nation-states. Eric Leed puts it this way: 'By the sixteenth century, literacy had become one of the definitive signs – along with the possession of property and a permanent residence – of an *independent* social status.'[47] Clearly, any conception of national sovereignty and territoriality has to be *read*, after being *written* constitutionally, by those sovereignty-enfranchised citizens who form the basis of a

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45 Saskia Sassen, 'The State and the New Geography of Power', in *Losing Control? Sovereignty in an Age of Globalization* (Columbia University Press: New York, 1996), p.3.

46 Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (Verso: London & New York, 1991).

47 Eric Leed, '"Voice" and "Print": Master Symbols in the History of Communication', p.53. [Italics added].

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national polity and over whom these two categorical imperatives operate. Literacy and nationalism, then, are an epistemological and political tag-team of immense and continuing, but slowly fading dominance.[48]

The 'fundamental anxiety' over literacy that Gunther Kress speaks of is a sub-component of this larger control complex in that a quantum increase in the volume, diversity and attraction of electronic communication is a contributing element to declining levels of literacy in the body politic. Arising partly out of this sovereignty inducing temper (torpor?) of literacy in the current moment there is a *control complex* of almost plague proportions in our selves, our systems of knowledge, and our institutions and polities, because it is undoubtedly a key factor at the epicentre of any loss of or shift in power in any given socio-political, economic or cultural context. Even my own strident anxieties over the dominance of literacy in debates over electronic communication deserve to be laid out on the analyst's couch, partly because any manifestation of a control complex is aimed squarely at the repression of alternative ways of being and becoming that might elucidate or curtail a particular social problem or personal anxiety. In the micro endgame here it might be wiser to more closely examine this literacy control complex, possible alternative paradigms of knowledge production and consumption such as electracy, and their broader relationship to patterns of political/economic/cultural organisation and control. *Chora-Logic* is a small contribution to this examination of possible epistemological and political alternatives.

After extensive practice, teaching and research in the electronic production of knowledge, I've come to quite a different conclusion to those who continue to argue for the ongoing centrality of literacy. There is no doubt that literacy could evolve into something like hypertext, a means of electronic writing advocated by George P. Landow and his colleagues.[49] But even this reconfiguration of literacy depends on electronic networks to operate. While *Hypertext* is sometimes a little too programmatic in its entrainment of post-structuralist theory and electronic knowledge, its more serious problem is that it still keeps at least a primary sense of writing at the centre of its discourse. What its sub-text does indicate though is a desire for recognition of a transformed taxonomy of knowledge that more fully acknowledges the increasing importance of electronic communication, and especially its multimodal and synaesthetic capacities.

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48 A further discussion on this relationship between nationalism, literacy and the novel is in Pericles Lewis, *Modernism, Nationalism, and the Novel* (Cambridge University Press: Cambridge, 2000).

49 George P. Landow, *Hypertext: The Convergence of Critical Theory and Technology* (John Hopkins University Press: Baltimore, 1992).

Important as a more extended taxonomy might be though (such as the pioneering effort of Warren Robinett on 'synthetic experience', a reading of which any proposed taxonomy of electracy would fruitfully benefit),[50] it would tend toward cementing the theoretical infrastructure of electracy into place, a predilection that just as surely would be an attempt to put the brakes on the equally likely scenario of electracy's continual change and evolution. This kind of conceptual categorisation needs to be approached with a great deal of care, because I've unwittingly attempted to construct a taxonomy already. At a Masters level, in *Internal+/-External Terrains: A Meditation on the Productive Skein of Electracy*, the bulky central component, 'The Synaesthetic Skein of Electronic Productivity', dealt with how this vast, mobile object of 'electracy' might be broken down into its various sub-categories.[51] This version, an emergent and incomplete attempt at a taxonomy, was dissected into the following categories: 'The Economic Skein'; 'Inspiration & Creativity'; 'Research', 'Electro-Writing'; 'Camera'; 'The Surface of Inscription'; 'Light, Shadow, Darkness'; 'The Black & White of Colour'; 'Narrative, Moment, Infinity'; 'Auditoria'; 'Direction'; 'Editing'; 'Marketing/Distribution/Exhibition'. A retrospective glance indicates a certain naivety in this breakdown; nevertheless, *Internal+/-External Terrains* does at least point to the desire for a taxonomical imperative even in those of us who might be thinking otherwise. For *Chora-Logic*, though, this kind of categorisation is not an objective because, in this current period, any conceptualisation of electracy must remain an emergent possibility rather than being corralled into a more fixed taxonomical system, an idea that will apply equally to this question of regional space. Indeed, electracy might remain an open set of arrangements well into the foreseeable future, partly in the aesthetic terms set out by Umberto Eco in 'The Open Work', and partly in the more systematic technical sense that current debates over open source might point to.[52]

So, before moving on, now is the timespace co-ordinate for a set of round-up paragraphs, where an explicit overview of the direction electracy is going in its chora-logical manifestations might be tentatively articulated. An electrate sensibility disrupts any didactic attempts at enunciating a purebred beginning, especially for print epistemologies. 'In the beginning was the Word' is one such frequently repeated 'surety' from the Book of Genesis, and a repetition that helps authorise the supposedly theologically sacrosanct timelessness of

50 Warren Robinett, 'Synthetic Experience: A Proposed Taxonomy,' in *Presence*, vol. 1, #2, 1992, pp.229-247.

51 Terrence Maybury, *Internal+/-External Terrains: A Meditation on the Productive Skein of Electracy*, Master of Philosophy Thesis, Griffith University, 2001, available at <http://www4.gu.edu.au:8080/adt-root/public/adt-QGU20031009.112120/>. [Accessed 15/11/06].

52 Umberto Eco, 'The Poetics of the Open Work', in *The Open Work*, trans. Anna Cancogni (Harvard University Press: Cambridge, Massachusetts, 1989), pp.1-23. For an overview of the open source movement see Steven Weber, *The Success of Open Source* (Harvard University Press: Cambridge, Massachusetts, 2004).

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the word and thus literacy.[53] From an electrate perspective though, beginnings are all over the place, the reference here being to John Sallis' reading of Plato's chora as 'a possible pluralizing of beginning.'[54] For just one pertinent electrate beginning, Mickey Hart, the virtuoso drummer with 1960s musical iconoclasts The Grateful Dead, says: 'In the beginning was noise. And noise begat rhythm. And rhythm begat everything else.'[55] One of the Dead's seminal LP inventions — *American Beauty* — still resonates with its 'noise', 'rhythm', and 'everything else.'[56] As just another beginning, noise might be traceable from its primordially aural presence up to the modern concern with noise in all communication. For James Joyce, in one passing moment of the semantic flood of *Finnegans Wake* (a work characterised by McLuhan as one of the great mythic archetypes of print), it was the gesture: "In the beginning was the gest he jousstly says ..."[57] As Joyce presages, electracy forcefully reinstates a politics of gesture into the epistemological frame. While the actual material beginnings of electracy might lie in photography, Morse code and telegraphy, its symbolic, its aesthetic beginnings lie scattered across various imaginings in text, sound and image and their sub- and meta- categorisations as they are articulated in and through the body. It's a genealogy that suggests electracy's genesis lies scattered across the whole field of human evolution and its communicative processes. It's possible, though, that English philosopher John Locke (whose writings had a significant influence on the drafting of the Declaration of Independence) hits upon a substantial recent beginning for every citizen-subject on Planet Earth at this moment in history: 'In the beginning all was *America*.'[58] Given there is a widespread feeling the American empire is in decline (haunted perhaps by the ghost of the Roman Empire's decline partly at the hands of the Germanic tribes) this is the kind of foundation bound to unsettle our notion of all beginnings, all middles and all endings.

These multiple transgressions of literacy's originary status (transgressions, in part, embodied in electracy's manifold epistemologies) and even its yen for a more deeply abstracted order, lead inexorably to electracy's sensate qualities, that is, to its

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53 This biblical injunction is repeated once again in Don Watson's, *Death Sentence: The Decay of Public Language* (Random House: Sydney, 2003), p.65. *Death Sentence* is an overview of the 'bad language' used in political, bureaucratic and corporate discourses and whose own genealogy includes George Orwell's pertinent 1946 essay, 'Politics and the English Language', in *Inside the Whale and other Essays* (Penguin Books: Harmondsworth, 1962), pp.143-157.

54 John Sallis, *Chorology: On Beginning in Plato's* Timaeus (Indiana University Press: Bloomington & Indianapolis, 1999), p.97.

55 Mickey Hart, with Jay Stevens & Fredric Lieberman, *Drumming at the Edge of Magic: A Journey into the Spirit of Percussion* (HarperCollins: New York, 1990), p.12.

56 An earlier take on noise is the Futurist Luigi Russolo's manifesto, 'The Art of Noise' & 'New Acoustical Pleasures' [1913] in *Classic Essays on Twentieth-Century Music*, selected and annotated by Richard Kostelanetz & Joseph Darby (Schirmer Books: New York, 1996), pp.35-43.

57 Quoted in Donald F. Theall, 'The Hieroglyphs of Engined Egypsians: Machines, Media and Modes of Communication in *Finnegans Wake*', 1991, pp.5-6. Available at The Modern World website: <http://www.themodernworld.com/joyce/paper_theall_egypt.html> [Accessed 23/5/2005]. Theall, once a student of McLuhan, also indicates the importance of electronic communication as a significant influence on Joyce's writings, especially in *Finnegans Wake*.

58 John Locke quoted in Nicholas Blomley, 'Law, Property, and the Geography of Violence: The Frontier, the Survey, and the Grid', in *Annals of the Association of American Geographers*, vol. 93, #1, 2003, p.124. [Italics in the original].

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corporeally focussed meaning-making re/alignments. These bodily and communicative attributes are not merely 'sensuous' in the terms framed by Paul Rodaway's *Sensuous Geographies*, useful as his stress on 'auditory geographies' and 'visual geographies' might be (but a work that misses print geographies).[59] But back to the terminology at hand: as Kevin Lynch protests, 'Sensuous (or sensory) quality refers to the look, sound, smell and feel of a place. It does not refer to any sinful or voluptuous dimension.'[60] However, given that the term *sensuous* still leads to an overt emphasis on the sexual, *sensate* here is the more appropriate term, one that can incorporate the *sensuous* in its sexual orientation (a significant component of electrate knowledge), but more importantly it is a term better equipped to include the whole sensorium in the process of electrate meaning-making. It would be a mistake though to think that electrate epistemologies circumvent the abstract imperative of literacy; without a doubt (and along with the sensate texture that saturates electracy) abstraction is itself being expanded in sensate ways. A clue to this assertion lies in the direct relationship between electrate forms of knowledge and the nano-sphere, because without various electronic technologies (the scanning, and the transmission electron microscopes, for instance) the highly abstract quantum world would not be visible, audible or textable to us.[61] Although there will be passing reference to this relationship between the quantum world and electracy, a more detailed examination of this important connection will have to wait for a different con/text.

In *Chora-Logic*, then, the analysis of electrate meaning-making is concentrated on how electronic communication operates in conjunction with the senses; firstly, in how this process operates in real places, and secondly, in how the knowledge so constructed in these places might be transformed into and out of the more abstract and virtual knowledge of other times and spaces. Undoubtedly, because 'Our senses are local, while our experience is regional',[62] the virtual dimension emerges out of this in-situ relationship between local/regional epistemological imperatives in place-making and the process of, firstly, psychic, and secondly, the electronic formation of knowledge either as an interpretative act or as a productive one. It is this complex of relationships in collocation that enfolds psychic, local and regionally placed configurations with broader spatio-temporal, socio-political and epistemological arrangements (such as nano-space, globalism and the cosmos). The conceptual mechanism via which this collocation is sometimes transformed is through the

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59 Paul Rodaway, *Sensuous Geographies: Body, Sense, and Place* (Routledge: London & New York, 1994).

60 Kevin Lynch, *Managing the Sense of a Region* (MIT Press: Cambridge, Massachusetts & London, England, 1976), p.4.

61 Compare this with the physicist Richard P. Feynman's comment that, 'Atoms on a small scale behave like *nothing* on a large scale, for they satisfy the laws of quantum mechanics. So, as we go down and fiddle about with the atoms down there, we are working with different laws, and we can expect to do different things. We can manufacture in different ways.' See, 'There's Plenty of Room at the Bottom', in *Journal of Microelectromechanical Systems*, vol. 1, #1, 1992, p.65. [Italics in the original].

62 Kevin Lynch, *Managing the Sense of a Region*, p.10.

information value chain: data, information, knowledge and wisdom.[63] In short, *Chora-Logic* is directed towards analysing electro-epistemologies as they arise in, and out of, the more tactilely inclined survival-instinct (generally speaking, the more localised, data end of the chain) rather than the more abstract truth-telling instinct (generally speaking, the more universal, wisdom end of the chain). To begin again though, one thing is certain: human labour of the mental and physical kind is required in both the interpretation and the production of knowledge to make any imagined electronic artefact move through the various stages of the chain.[64]

The Infra-Electrate Complex

Electracy, in the speculative, multimodal, place-centred schematic proposed here, then, raises this question of other related terms in media theory. One such term is 'multimedia', one that itself harks back to experimental forms of theatre and came to be used with CD-ROM technologies and now is used extensively in new media discussions. For example, Andy C. Pratt, in articulating a 'situated definition' for his own discussion, says that, 'New media is used in this paper as a term to refer to all multimedia systems whether on-line, on disc, or related to the development of older broadcast or recording technologies associated with text, sound and images.'[65] Clearly, there is a similar basic taxonomy for the term 'multimedia' as there is for 'multimodal', although in multimedia there seems to be little explicit recognition of the subcategories of each basic category. The sub-categories of line, perspective and colour within the image are important modes in their own right and the term 'multimedia' doesn't adequately define them as communicational elements. In preferring the term 'multimodal' rather than 'multimedia' the attempt here is to make the point a little clearer that electracy takes on board this basic tripartite taxonomy but does not necessarily alloy it to a particular technology. A further extension of *Chora-Logic*'s own 'situated definition' of electracy herein holds that now that a critical mass has been reached in its organic evolution (if less so in its official sanctioning) the term 'multimodal' better reflects the idea that the process of thinking, feeling, creating, of conceptualisation and the technate, in short the elements of invention and discovery critical to Ulmer's theories of electronic knowledge, is a 'superjective' one.

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63 For one account of the information value chain see, Alopi Sione Latukefu, 'Unravelling the DNA of Knowledge: Building Future Regional Memory in the Pacific Through Deconstructing the Past', in *Paideusis: Journal for Interdisciplinary and Cross-Cultural Studies*, vol. 2, 1999, pp.22-28. Available at <http//:www.geocities.com/paideusis/e1n2a/html>. [Accessed 16/6/2005]. Alopi Sione Latukefu uses the term in almost a business sense, rather than as an 'exchange-value' tool. I use it as a 'use-value' way crucial to the body's processing of electronic data.

64 It is Jim Davis & Michael Stack's analysis of the information value chain that emphasises the role human labour has in transforming its components. See, 'Knowledge in Production', in *Race and Class*, vol. 34, #3, 1992, p.2.

65 Andy C. Pratt, 'New Media, the New Economy and New Spaces', in *Geoforum*, vol. 31, #4, 2000, p.425.

Deployed in relation to electracy, *superjective* (as a term that extends the more usual term *subjective*) means that the various modes applicable to electrate knowledge arise in, through, and out of a given body, one that is itself always and already embedded in a larger world of thoughts, feelings, ideas, emotions, structures and technologies that both encompasses and transcends its own subjective limitations as a knowing entity.[66] A superjective quotient of socially and culturally extant modes (pluralistically present in multiple and simultaneous configurations) is what the citizen-subject comes into contact with during the course of its electrate becoming. A superjective field of electronic knowledge then makes these multiple modes available to the citizen-subject, less as completed forms of coherent knowledge than as specific examples of a particular mode or its sub-category, a process that might be manifested, for example, in a particular drum beat, a line of lyric, a vocal intonation, a specific colour or texture, even a single word/phrase. The superjective field of electrate knowledge, while disseminated mainly in wholly completed works, ingratiates itself in and through us as much, sometimes even more so, through the multimodally available fragments that constitute these completed works. Through the use of the term *multimodal*, a confluence of technological and epistemological form, the social and cultural, the psychic/subjective is achieved and where the term 'media' (as a term that collectivised a range of communicational forms) would be too limiting, relegating those modes to a specific medium through which they are disseminated as completed works.

When the more textually and technically orientated configuration of the academically and military dominated Internet gave way to the WWW in the early 1990s, this is also a period that could approximate the time when a consolidation of this critical mass started to emerge. This does not, however, make the WWW the exclusive, or even pre-eminent technology, or technical infrastructure for electracy, as Ulmer seems to imply in *Internet Invention*. The specific point made here for a more organic conception of electracy recognises the continuing existence and importance of older media forms like, for instance, chanting, the spoken word, writing, numerals, chemically based photography, telegraphy, radio, cinema, recorded music, television, and eventually the rise of the computer as the paramount synthesising domain in which the electrate body (as distinct from the literate body) is gradually brought to fruition over a long period. These technologies of becoming electrate were/are concomitantly arraigned with various political technologies like the individual, the family and democracy, for instance. Electracy, then, doesn't suddenly come into existence with the invention of a particular technology,

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66 'Superjective' is a term Alfred North Whitehead uses in *Process and Reality: An Essay in Cosmology* (Cambridge University Press: London, 1929), see especially pp.121-123. I would also add that Whitehead's discussion of the term is densely articulated and difficult to interpret and rearticulate simply. Nonetheless, I have taken a 'feeling' of the term's definition from *Process and Reality* and applied it herein partly because 'Feelings are 'vectors'; for they feel what is *there* and transform it into what is *here*' (p.121, italics in the original); and partly because Whitehead presciently points out that in Plato's discussion of the 'spatio-temporal continuum, the geometrical axioms', as they are articulated in the *Timaeus*, 'point to a wider society of which the electronic cosmic epoch constitutes a fragment' (p.127).

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or of a sudden eureka-like realisation of its epistemological capacities.[67] It emerges in a matrix of possibilities made up of at least (1) the epistemological capacities of the body (especially the affectivity in/through/out of which it interprets and rejoins the object world, along with the associated imaginative capacities wherein that sense-data is incubated, processed and cohered); (2) socio-political conditions (upheavals in this arena are especially conducive and/or repressive to the emergence of transformed epistemological structures); and (3) the ongoing developments in the technical conditions of production, which are especially dynamic in electronic systems. (It should also be made clear once again that all of these matrices are not fixed objects, all are themselves in a state of flux). Certainly, a definite highly specified sub/category of electracy might be isolated for a short time for the purposes of analysis. In *Chora-Logic* though, the stress is on electracy as a set of cross-pollinating and emergent epistemological possibilities, not yet fixed by any kind of absolutist definition, scientific surety, or technical specification. For the time being, then, electracy, by dint of this organic embeddedness, this differential bottom-up emergence in culture and politics across the globe remains a relational artefact, an epistemological frame of reference somewhat like Moore's Law, a set of capacities that change at least every 18 months, but more likely on a minute-by-minute, hour-by-hour, and a day-by-day schedule.[68]

This organically configured, multimodal, electrate motility of knowledge-making in the body (which most certainly doesn't cancel out simultaneously emergent variations of electracy that are more broadly and/or collectively conceived, or institutionally founded) disturbs any easy and singular correlation between a worldly object (the signified) and the way the body conceives that object (sign/s as configured through a matrix-like arrangement of text, image and sound). Electracy's propensity to pluralise the sign-world in the production of knowledge calls into question the synaesthetic relations among the various modes, a point which has already been referred to. While there have been long and heated debates over the epistemological dominance of text or image, for instance, from about the time of the Enlightenment onwards literate knowledge's sometimes un/intentional fallacy is to assume a hierarchy wherein the word was the

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67 Geoffrey Batchen alerts us to the conceptual prehistory of the 'invention of photography' that gradually transforms and consolidates it into a material form. See, 'Desiring Production Itself: Notes on the Invention of Photography', in Rosalyn Diprose & Robyn Ferrell (eds.), *Cartographies: Poststructuralism and the Mapping of Bodies and Spaces* (Allen & Unwin: Sydney, 1991), pp.13-26. [I'm indebted to Phil Roe for this reading]. Likewise, electracy's prehistory might (in one trajectory) be traced to the work of Plato, but another interpretation might also acknowledge the ancient Greek Atomist philosophers whose physical theories postulated an electromagnetically charged, but multiply configured micro-universe of electrons and protons.

68 'Moore's Law – first proposed in 1965 by Gordon Moore, one of the founders of the semiconductor manufacturer Intel – states that the computing power of the microchip doubles every 18 months, and for 30 years this has remained true to provide us today with PCs more powerful than almost any computer mainframe extant 20 years ago.' See, Otto Imken, 'The Convergence of Virtual and Actual in the Global Matrix: Artificial Life, Geo-economics and Psychogeography', p.92.

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pre-eminent mode via which this correlation between symbol and object/concept is articulated.[69] It is a hierarchy institutionally embedded in law courts, parliaments, schools, universities and boardrooms but its dominance is less clear-cut at a citizen-subject's everyday level. With the continuing evolution of electracy, these synaesthetic relations, that is, the various translations of meaning that occur between text and image, or between colour and word, for instance, becomes a more prominent feature of knowledge-making. Rather than a singular, 'common sense' correlation between an object/concept and a particular mode of signification, the relations among the various modes increase in importance, as also hinted at earlier in reference to Gunther Kress's work. This is a shift from a too easily constructed empiricism (one that makes knowledge-making a disciple of pragmatic certainty more so than of wonder, a process that sometimes leads to ideological rigidity) to a more metaphysically reflective stance on the simultaneous existence of multiple meanings that emerge across the various modes extant in a work (or the real) and its interpretation. The body's affectivity, that most organic, bottom-up attribute of all its our capacities, is governed by the synaesthetic impulse, a point Brian Massumi makes abundantly clear when he says, 'For affect is synesthetic, implying a participation of the senses in each other: the measure of a living thing's potential interactions is its ability to transform the effects of one sensory mode into those of another.'[70] While the literate imagination may have attempted to structure identity along perceptual lines (hence its fixation on reality formation), electracy concentrates the body's identity making function on the variability of its sensate capacities (in Massumi's terms, its 'sensations'), thus processing the object world through an affective lens rather than any fixed empirically orientated, or pre-given epistemology or ideology. From a slightly differing perspective, Gregory Ulmer characterises this change by saying that, 'Electracy in general shifts emphasis from the nearly exclusive attention to communication within the "I-s/he" system, to attend more to the "I-I" system.'[71] This shift may also help in explaining the hypertrophic attention given to reason in the current era.

This cross-pollination of meaning-making among the various modes that constitute electracy also calls to mind another key, and related, concept in the theory and practice of electronic media. If convergence is thought of as the ability of the various modes to cohere,

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69 Victor Burgin alerts us to the vexed nature of this epistemological hierarchy when he says, 'In the *Phaedo*, Plato puts into the mouth of Socrates a doctrine of two worlds: the world of murky imperfection to which our mortal senses have access, and an 'upper world' of perfection and light. Discursive speech is the tangled and inept medium to which we are condemned in the former while in the latter all things are communicated visually as a pure and unmediated intelligibility which has no need for words. The idea that there are two quite distinct forms of communication, words and images, and that the latter is more direct, passed via the Neo-Platonists into the Christian tradition.' See, *The End of Art Theory: Criticism and Postmodernity* (Macmillan: London, 1986), p.70.

70 Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Duke University Press: Durham & London, 2002), p.35. [Massumi is here using the American spelling].

71 Gregory L. Ulmer, *Internet Invention*, p.57. Here Ulmer is referencing Yuri Lotman's emphasis on 'autocommunication'. There is also a connection here to the role played by 'potential consciousness for communication', as outlined by Lucian Goldman in 'The Importance of the Concept of Potential Consciousness for Communication', in *Cultural Creation in Modern Society*, trans. Bart Grahl (Telos Press: St Louis, 1976), pp.31-39.

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to converge at a singular point of meaning (as distinct from a synaesthetic understanding where each mode, and the object/s and idea/s they reference, might better be thought of as in a state of continual redefinition vis-à-vis the other related modes in which the message is contextually situated), then clearly there is still a sense that the subject/object, sign/signifier distinction might remain intact. Rather than a self-contained singularity of meaning, then, convergence (in an electrate sensibility) is more an *X-point*, not an 'unknown' but a crossroads, or a gathering place where arbitrarily present fragments of knowledge (data), as well as possibly converging with one another, also *meet in proximity*. Arising in the Timaean dialogue as the cosmological crossing of sameness and difference (and a detail of the method given deeper analysis in 'The Chora Meta-Physique') the X-point is crucial to Ulmer's project (as well as this one) saying of it that, 'In chorography, the sign of this X is changed from "Unknown" to "invention," marking a new operation — no longer the solving of a mystery but the making of a pattern (gathering a paradigm rather than following a path) that can be written *without* the violence of truth.'[72] It is through this method of the X-point that the synaesthetic relations among the various modes might be further examined in light of its characterisation as a primal site of invention.

In some cases a synaesthetic relation among the various electronic modes might promote a sense of convergence (especially where the various strands of multimodal meaning ring true in some form of condensed unity and which Ulmer might classify as a 'eureka moment' or an 'epiphany')[73] but there is, in all likelihood, an equal or greater number of instances where the various modal strands exist in a *state of proximity* as much as in any kind of convergent coherence. The various multimodal strands are more than likely to remain in juxtapositional proximity to one another without necessarily converging into a unitary meaning. Electracy's X-function, then, is both the conceptual and physical location at, and through which a variety of modes meet, possibly to converge in some kind of unitary assonance or understanding, but just as likely it is where both the place and the play of dissonance holds political and epistemological sway over any kind of idealised universalism that unitarily explains all the fragments, or all the parties to the X-function. While the *oneness* principle may be a feature of all knowledge forms, it is through this *play of knowledge in place* (in both multimodally assonant *and* dissonant formations) that an electrate epistemology exercises its most acute hold over us at this organic level. Whereas the literate imagination might have been primarily arranged along collectively fixed notions of knowledge like unique selfhood, the nation and a civic community, electracy is conditioned more so by the located space of a given body in multimodally malleable configurations of being and becoming, in part because the basic attribute of a synaesthetically configured affectivity is changeability. Differential conglomerations,

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72 Gregory L. Ulmer, *Heuretics*, p.203. [Italics in the original].

73 Ulmer discusses his own 'eureka moment' in connection with his boyhood memory of Red Cryer, the "village idiot" from his home town of Miles City in the early 1960s, in *Heuretics*, pp.133-137. He discusses the importance of the 'epiphany' in electracy in *Internet Invention*, pp.61-65.

acting on each other in proximate spaces in this case, fuel both a more malleable, shifting definition of the object world *and* notions of selfhood.

The electrate citizen-subject then, arising organically implaced in the world and in constantly shifting multimodal configurations that constitute the primordial base of its knowledge-making capacities, emerges in some respects in the thrall of an 'infralanguage', a concept brought extensively into play by Jose Gil in *Metamorphoses of the Body*. Rather than operating in a more fixed field of sign/signifier relations, an infralanguage (in Gil's terms) operates at the nexus of the 'floating signifier' where signs/signifiers are in an always elemental state of flux: 'It is the nature of the floating signifier to manifest life in its unpredictability, diversity, and spontaneity.'[74] Infralanguage marshals a wide variety of codes the body has access to, less for the purposes of symbolic comprehension, collective annunciation, or rational order, but as a way of corporeally marshalling and keeping in constant synaesthetic play the body's affective energy. Given the well known difficulty with the collective articulation and application of dance notation,[75] dance is itself a prominent example of one of these highly flexible codifications, Gil saying of it that 'all dance, even the most formalized, coded and academic, lets escape a residue that is not formalizable', and that 'Dance is the quintessential mockery of signs and forms that set themselves up in the place of meaning or the body' (p.169). Gil's articulation of an infralanguage, conducted through the disciplinary scope of political anthropology, while on the one hand continues to implicate the continuing importance of 'primitive' codifications in 'modern' communicative practices, also implies an implaced understanding, an understanding that also has possible ramifications for the electrate imagination at this current juncture. This juncture we are in/travelling through could be characterised as a thoroughly liminal one: post-literacy; pre-electracy; the indiscriminate in-between mixing of the oral, the literate, and the electronic; amid globalism, nationalism, regionalism and localism; in the sway of an experimental transgender agenda; self and other slippages; questions of physical and mental labour;[76] migratory movements; all of which are imbued with anxieties over survival, prosperity and catastrophe. A liminal zone is a kind of meso-spherical juncture of both planetary and corporeal proportions seeping into and out of all aspects of culture, politics, nature and the body. Concomitantly, an infinitely expanding array of electronic data has made meaning-making itself fraught with a higher degree of uncertainty causing Jean Baudrillard to bemoan the oft-repeated idea about electronic knowledge and networks

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74 José Gil, *Metamorphoses of the Body*, trans. Stephen Muecke (University of Minnesota Press: Minneapolis & London, 1998), p.152.

75 This difficulty is illustrated in Susan Leigh Foster's attempt to impose a literate framework over choreography: 'Literacy in dance begins with seeing, hearing and feeling how the dance moves'. See, *Reading Dancing: Bodies and Subjects in Contemporary American Dance* (University of California Press: Berkeley, 1986), p.58; more broadly, see 'Reading Choreography: Composing Dances', pp.58-98, where literacy is quite explicitly invoked to formalise a choreographic aesthetic.

76 A good introduction to this discussion is Andrew Ross, 'The Mental Labor Problem', in *Social Text*, #63, 2000, pp.1-31.

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that: 'Speech is free perhaps, but I am less free than before: I no longer succeed in knowing what I want, the space is so saturated, the pressure so great from all who want to make themselves heard.'[77] It's almost as if there's no room left for a philosopher to ride a hobbyhorse in discourse.

A consequence of these concurrently present and mobile liminalities is that the intensities of the body's *infra-electrate* capacities are considerably heightened. (The shift here to infra-electrate is carried out in an effort to discontinue with even an illusion of linguistic, or even textual dominance and to enhance the basic text, sound and image taxonomic trifecta referred to above). This infra-electrate capacity is not only the space where signs and signifieds circulate profusely in response to actually implaced and mediated information but also where meaning remains deftly free of explicit cohesion and logicality. It is where both sense-data, and mediated data of the electronic variety in this case, floats in a multimodal potentiality of free association, a kind of stream of consciousness, or better, in a latent combinatory state of synaesthetic possibility. It is a psychic state that is constituted in the gathering together under the one roof, so to speak, of the raw material, the data, that eventually emerges into the foundry of meaning-making at the insistence of the cohesive imperative implied in the terms 'information', 'knowledge' and 'wisdom'. The almost cosmological dimension of these multiple liminalities and modalities (and their cross-pollinating, juxtapositional and converging potentialities) are the pivot-point of bodily intensity; the greater the lack of epistemological cohesion, the greater the intensity. All and sundry micro-messages (mediated and self-produced) are gathered here, with little in the way of discernment or selection or structure, till thinking and feeling attempt to bring some order to the content and process. And while many of the messages might have been socially sourced and incorporated, the realm of the infra-electrate as it is presented here is also intensely solipsistic. If the arbitration of coherent meaning is socially and politically organised, and a structure which provides the matrix for communal communication to proceed, the domain of the infra-electrate is equally constituted in that lonely struggle each of us faces when confronted with chaos; it is the struggle to make meaning out of this always rejuvenating primeval presence of too much data, it is the struggle to re/invent ourselves on an everyday basis and thus present ourselves to others and the society and culture in which we participate. These intensely saturated and expanding/contracting circuits of meaning (both centripetally and centrifugally understood in social and bodily ways) is the precursor site of coherence; that is, it is the point at and through which the coherence of this raw material is brought into existence by accumulation and categorisation, evaluation, editing, variable juxtaposition, review, moderation and/or exaggeration, fine tuning, or further revision, and even rejection. This is the

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[77] Jean Baudrillard, 'The Ecstasy of Communication', trans. John Johnston, in Hal Foster (ed.), *The Anti-Aesthetic: Essays on Post-Modern Culture* (Bay Press: Port Townsend, 1983), p.132.

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gradual transformation of sensate, usually tacit information into codified knowledge at which point the body verifies this codification for itself and, if necessary, eventually makes it available for public consumption in some form or another.

The specific understanding of electracy in *Chora-Logic*, then, refers primarily to this phenomenon of infra-electracy; which is both a bodily attribute and a psychic space where the raw material of all available meanings in their sensate diversity are incubated in a kind of chaotic saturation of all possible or potential data that that body is contextually proximate with and has media access to. It is the very amorphousness of this stage of meaning-making that puts *floating* into floating signifier. It is a stage that continues unabated even when components of that pool of floating data emerges into a rational, a logical or a scientific order and is thus made understandable in a social and/or a political milieu. This infra-electrate incubation has, of course, been a feature of the production of all kinds of knowledge. In a super-saturated global context of knowledge, though, made possible by electrate means (the very context that Baudrillard complains of in 'The Ecstasy of Communication' but which has only intensified further), along with a great many political/social/cultural uncertainties, is a space that has grown in importance largely because a commitment to articulating and codifying a particular reasoned piece of knowledge is made more difficult by this amorphous saturation. In a super-saturated data environment, a multitude of often competing codifications makes it seem that reason is itself another form of chaotic irrationality. Also, as codification often requires independent eyewitness accounts, extra-substantiated evidence, or further empirical verification, sensate intensity is lost, or in Massumi's words, 'Matter-of-factness dampens intensity.'[78] Various forms of empirical 'matter-of-factness', one of the bed-rocks of scientific rationality, and more generally of the literate imagination through which this rationality has come into being, have been slowly overtaken in political, social and cultural importance by the gradual emergence of electrate knowledge. This incubation, this constant process of gathering together, of re/interpreting and re/classifying, of the incessantly raw immanence of data circulating in the body, is especially important even at that stage where the overt codification of electronic knowledge takes place because, even as a communally agreed upon and codified form, electronic knowledge is itself much more prone to constant and ceaseless change and modification. It is nearly always involved in a copious number of drafts. It is also a stage in the production of knowledge particularly pertinent to the 'sense of place' debate, which in *Chora-Logic* is looked at through the prism of the region, but which includes spaces up to and including the region.

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[78] Brian Massumi, *Parables for the Virtual*, p.25.

In Seamus Heaney's discussion of a 'sense of place' (as he interprets its meaning through the work of a range of Irish poets) he makes the opening point that, 'I think there are two ways in which place is known and cherished, two ways which may be complementary but which are just as likely to be antipathetic. One is lived, illiterate and unconscious, the other learned, literate and conscious.'[79] The category *illiterate*, of course, is a highly charged one: uncivilised, brutish, stupid, mad etc. But as a trifecta, 'lived, illiterate and unconscious' are a good set of signposts for the ways and means via which this electronically charged infra-electrate incubation operates in place-centred contexts. Place based knowledge is now pre-eminently an infra-electrate, and an implicit moment-by-moment accumulation and rejection of lived and imagined experience; it is illiterate in the sense that it is immediately configured across a spectrum of the body's sensate modalities (sight, hearing, smell, touch and taste) and at least in its immediacy remains largely unformed in and by language; and it also remains 'nonconscious' in the sense that, 'The vast majority of the world's sensations are certainly nonconscious.'[80] A large proportion of place-based knowledge then remains illiterate, less so in the stupefying sense that the latter term has come to mean, and more so in the sense that the body's raw material component of meaning-making (the infra-electrate element largely configured as a pre-tacit knowledge-making phenomenon, that is, as implicit knowledge) is a significantly larger arena open to a greater variety of modalities other than just the linguistic element that codifies oral and literate forms. Unlike literate knowledge, which is directed more squarely at limiting meaning by emphasising linguistic codification in both subjective and collective formations in the context of an almost total rejection of epistemological uncertainty and chaos, the extraordinary power of electrate knowledge arises out of, and is initially directed at this infra-electrate domain, a site of infinite egress across a range of modalities in bodily contexts and one that doesn't so much have a reality, or the real, as its object of annunciation but rather the self itself, the 'I-I' relation. Maybe, according to Ulmer, the still always primordially-present and necessarily immanent existence of this 'lived, illiterate and unconscious' electronic data (ongoing in every/body and culture) is a component of an equally indispensable 'augmentation', one 'known in chorography as '"artificial stupidity," which is a term used to indicate that a database includes a computerised unconscious', *and* that the 'artificial stupidity' of our very own database constituted in this infra-electrate domain is a possible obligatory corollary to artificial intelligence.[81] While we might *think* literate forms of knowledge target mainly rational and thus chiefly cranio-cognitive processes, both condensation-orientated and cosmologically-expanding electrate forms of knowledge are centred primarily on the whole body's desiring capacities (both in its always-oscillating repressive *and* expressive workings).

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79 Seamus Heaney, 'The Sense of Place', in *Preoccupations: Selected Prose 1968-1978* (Faber & Faber: London, 1980), p.131.

80 Brian Massumi, *Parables for the Virtual*, p.16. [Repetition, and repetition with difference, is a crucial aspect of this infra-electrate quality here being attributed to electracy].

81 Gregory L. Ulmer, *Heuretics*, p.38. See also, pp.174, 202, 219-20, 222.

While the infra-electrate impulse is more likely to be comprised of the sum total of the body's 'nonconscious' or un.conscious sensations across all modalities of sense data, tacit knowledge is an extension of this arena in that it deals mostly with the information that is formed *cognitively* (or consciously) out of this very raw form of data collection, but one that has not as yet been codified in some material, exteriorised form of either the written, imagistic or oral/aural variety. Here then is a psycho-social schema for the incorporation, incubation, sorting and the production of electronic knowledge for a politico-economic era dominated by the *idiosyncrat* (who are themselves extensions of the *democrat*): firstly, the multivalent and sensate quality of the body's capacity for data incorporation (from both place-based contexts and mediated avenues) at the lived and contextualised pivot of experience is just one beginning point; secondly, its un.conscious and never ceasing percolation in the form of the infra-electrate impulse fuelled, almost incessantly, by the body's electromagnetic energy, psycho-biological disposition and implaced intensities; thirdly, its further sieving and cognitive refinement as tacit knowledge; and finally, there is the codification of selected elements from this chaotic amalgam into a circulated electronic artefact of one kind or another. This is not to deny the existence and continuing importance of oral/aural, imagistic and written artefacts that are not electronic in form but rather to reiterate that this discussion is centred on the electrate imagination. The point of confluence is that the multimodal nature of implaced reality, particularly as a body lives and incorporates its un.conscious knowledge of itself-in-action, is not that dissimilar to the complex epistemological field presented in burgeoning forms of electracy, especially the data end of its spectrum. And while any fixed equivalence between a given system of knowledge and the 'reality' it sometimes unquestioningly represents can be as much illusion as empirical fact, the point that needs reiterating again and again is that the real is less the primary object of attention in electrate knowledge – 'auto-communication', 'potential consciousness', self-un/making are. In the case of in-situ, place-based knowledge-making, both in terms of the real and the potential-virtual capacities of the body (constituted mainly in its infra-electrate and tacit dimensions) are the epistemological backdrops to a citizen-subject's being and becoming, all of which cannot be easily untangled from each other, sometimes not even for discursive or rational purposes. Something always escapes, something always gets through this ongoing process of meaning-making.

One of the key articulations of *Chora-Logic*, and specifically of regionally implaced knowledge-making, is that it shifts the balance of power in epistemology (both more generally and more explicitly in a wide range of domains), to the sensate, infra-electrate and tacit end of the production spectrum, and to what might be termed the work-in-progress scale, rather than the more highly codified and gate-keeper guarded arena of officially sanctioned discourse. Equally, even highly codified electronic works incorporate a stronger suggestion of this infra-electrate and tacit underbelly in their structure; websites like *My Space* and text messaging being especially good examples

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of this incorporation. Electracy is, after all, a much more highly motile epistemological entity over both more intensely felt and shorter time spans *and* larger, more saturated spatial scales than we have previously become accustomed to in a literate frame of reference.

The End? NO, Just Another F****** Beginning

From a far more critically expansive perspective there is also Terry Eagleton's remark to consider in this uneasy transition from literacy to electracy:

> A new collective body is being organised for the individual subject by political and technological change; and the function of the critic is to fashion these images by which humanity can assume this unfamiliar flesh. If the body is constructed out of images, images are in their turn forms of material practice.[82]

Even if Massumi makes us look askew at the value of 'critical thinking' to an electrate epistemology,[83] this 'unfamiliar flesh' (a significant element of which is the emergence of electronic forms of knowledge) must include a major reconfiguration of literacy, the principle epistemological form through which knowledge-making took place in contexts dominated by nationalism and the nation-state. This reconfiguration would have to include not just words and images (an ongoing dichotomy in epistemology), but the oral/aural question, graphical overlays, the issue of technacy (i.e. the technical substrata embedded in all knowledge production), perspective, colour, of editing (suture), and even the political economy of cultural production, among other components of electracy. From this electrate viewpoint, the electronic production of knowledge breaks open the boundaries of literacy in important and substantial ways.

This expansion, some might say disintegration in our conception of knowledge-making, can perhaps be traced in one its many tangents to Paul Feyerabend's challenge to an overtly dogmatic conception of the scientific method in *Against Method*, first published in the 1960s. Politically and methodologically speaking, the book is a call to arms for ' ... *anything goes*'. And while Feyerabend's 'anything goes' approach to the production of knowledge could result in a madness of the most debilitating *and* exhilarating kind, his comment that,

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82 Terry Eagleton, *The Ideology of the Aesthetic* (Basil Blackwell: Oxford, 1990), p.336. Also, text and sound should be added this category of the image.

83 'If you want to adopt a productivist approach, the techniques of critical thinking prized by the humanities are of limited value'. And a little further on, 'Critical thinking disavows its own inventiveness as much as possible.' Brian Massumi, *Parables for the Virtual*, p.12.

> Experience arises *together* with theoretical assumptions *not* before them, and an experience without theory is just as incomprehensible as is (allegedly) a theory without experience: eliminate part of the theoretical knowledge of a sensing subject and you have a person who is completely disorientated and incapable of carrying out the simplest action.[84]

... is a timely reminder that even the more abstract end of the production of knowledge is deeply grounded in the life-world of actual citizen-subjects going about their business psychically, domestically, locally and regionally. The will-to-power of those who still champion literacy, especially in some of its more extreme manifestations of abstract objectivity and sovereign autonomy, are contributing to this anxiety and decline and the almost über-organic growth of electracy, an increasingly important means of structuring knowledge in an electronically articulated global/regional polis.

Inextricably entwined in these electrate epistemological conditions of the current socio-political order is both an active and subliminal interbreeding of fear and fascination for the real/virtualised global flows of electronic information. An embodied sense of place goes hand-in-hand with a more thoroughly [dis]±[embodied] 'mode of information', one whose global dissemination is now infused to its nucleus by electrate forms of knowledge.[85] Both regionalism's experiential immediacy and electracy's sensate located 'real virtuality', in significant parts at least, start with the 'what is' of the everyday, of a subjectivity constructed in the very instantaneous moment of the production and consumption of information and of the life-force itself.[86] This is not to suggest that this 'instant' is somehow free of any '–ism' or '–ology', but rather to suggest that interpretation itself grows out of the 'material thinking' carried out, on, and through, both the *groundedness* and the *speediness* of a subject's *being* and *becoming*.[87] This spatial materialism, along with a multitude of immaterially dynamic conceptual forces, all combine to make analysis, interpretation, even production, utterly mobile entities, realisations it would be wise to structure into this work itself. Regionalism and electracy, then, are numerously configured and mobile entities in both pragmatic and abstract terms. The almost arbitrarily available multiplicity of productive practices and sensate

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84 Paul Feyerabend, *Against Method: Outline for an Anarchistic Theory of Knowledge* (Verso: London, 1978), pp.28 & 168. [Italics in the original].

85 Mark Poster, *The Mode of Information: Poststructuralism and Social Context* (Polity Press: Cambridge, 1991). Also, 'dis/embodied' is used here to indicate the cross-pollination between the real and the virtual in these flows.

86 Compare this with Victor Burgin's remark that, 'Regardless of how much we may strain to maintain a 'disinterested' aesthetic mode of apprehension, an appreciation of the 'purely visual', when we look at an image it is instantly and irreversibly integrated and collated with the intricate psychic network of our knowledge'. See, *The End of Art Theory: Criticism and Postmodernity*, p.64. While not the same, a similar point could be said about sonic and musical data.

87 Paul Carter says that '... material thinking enables us to think differently about our human situation, and, by displaying in a tangible but non-reductive form its inevitable complexity, to demonstrate the great role works of art can play in the ethical project of *becoming* (collectively and individually) *oneself in a particular place*.' See, *Material Thinking: The Theory and Practice of Creative Research* (Melbourne University Press: Melbourne, 2004), p.xii. [Italics in the original].

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prostheses available to electracy is akin to what might help frame a 'relational approach to space and place.'[88] Under the influence of a dynamically interactive, electronically configured, and a globalised 'mode of information', space generally, and the region or province in particular, can hardly be conceived of as fixed, unchanging entities, or even 'be seen by some as necessarily reactionary' ever again.[89] This conflation of electracy and regionalism then is also a challenge to that brand of parochialism enraptured by its own superiority, a rapture that occurs in a range of spatial scales, but as a chora-logical challenge suggests, almost certainly this reactionary parochialism will continue because any form of reasoning will never overcome its belligerently implaced 'irrationality'.

Essentially, the move from literate to electrate forms of communication is accompanied by major shifts in the methodologies used to frame the production and consumption of knowledge, one aspect of which is a move from an emphasis on singularly self-contained regularities (a *universe*, a *method*, or a *discipline*) to multidimensional and refractively associational articulations, and from temporally dominant forms of logic (literacy, for example) to cosmologically, globally, regionally and even locally focussed ones, that is, to spatio-temporally contingent 'pluriverses.'[90] Crucially, these long-term epistemological upheavals in communicative protocols simultaneously inject an increased sense of both spatial and temporal variability, even insecurity, into the previously fixed question of a body/politic's most treasured form of psychic affiliation which in the most recent past has been almost exclusively nationalist in orientation. This uncertain question synthesising spatio-temporal affiliation and electronic epistemologies even has Derrida suggesting that, 'The question of democracy, such as it has been presenting itself to us here, may no longer be tied to that of citizenship.'[91] Now there are a whole assortment of affiliations that can include sub-atomic, corporeal, domestic, work-place, local, regional, national, supra-regional, global, and finally, cosmological times and spaces, a potentially open field of primary, secondary and/or optional extras in the stakes of spatial affiliation attendant to citizenship rituals.[92] Greater choice in forms of political embodiment is a recently minted freedom for the world-wide diaspora of the middle-to-upper-class castes of mediographers, regardless of their ethnic, class, gender, sexual, age, income or racial differentiations, but all of whom remain key producers, distributors and consumers in the fluid architectonics of an electrospherically

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88 John Allen, Doreen Massey & Allan Cochrane et. al., *Rethinking the Region* (Routledge: London & New York, 1998), p.5. This 'rethinking' was carried out in the context of the south-east region of England under the influence of the Thatcher government's neo-liberal social and economic policies.

89 Doreen Massey, 'A Global Sense of Place', in *Space, Place and Gender* (Polity Press: Cambridge, 1994), p.147.

90 Gustavo Esteva & Madhu Suri Prakash, *Grass Roots Postmodernism: Remaking the Soils of Culture* (Zed Books: London, 1998), pp.36-39.

91 Jacques Derrida & Bernard Stiegler, 'Acts of Memory: Topopolitics and Teletechnology', in *Echographies of Television*, trans. Jennifer Bajorek (Polity Press: Cambridge, 2002), p.57.

92 From another tangent Richard Falk, for instance, discusses the simultaneous possibility of being a citizen of a region, a nation and the globe. See, 'An Emergent Matrix of Citizenship: Complex, Uneven, and Fluid', in Nigel Dower & John Williams (eds.), *Global Citizenship: A Critical Reader* (Edinburgh University Press: Edinburgh, 2002), pp.15-29.

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interconnected global/regional polis. This raises an intersecting question mark between these middling classes and John Tillman Lyle's version of the creation myth: 'We will begin not at the bottom level or at the top, but near the middle, at the regional scale ... because the regional scale is well placed to *mediate* between the vast general abstractions of the largest scales and the minute specifics of the smaller ones.'[93] Meso-constructions of all kinds (considered as actual and potential intermediating factors), then, are crucial to understanding both 'The Electrate Imagination' and 'The Regional Spatial Turn'.

93 John Tillman Lyle, *Design for Human Ecosystems: Landscape, Land Use, and Natural Resources* (Island Press: Washington D.C., 1999), p.43. [Italics added].

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