Physical thinking: the body in the mind of creativity and cognition

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ABSTRACT

This project works with the understanding that cognitive processes occur within the domain of embodied, sensory experience, and that the developmental emergence of mind and creativity are integral, and intrinsic to such experience.

Through an extensive personal involvement in arts practice, and through reflection on past engagement in other fields of activity, I consider the central role that bodily experience plays in the individual shaping of cognitive and creative development. I propose the notion of physical thinking and relate my own personal knowledge of exercising this mode of thought across a broad range of creative processes, both within the arts and in other disciplines.

On a macro level, I speculate that such an approach affords the fostering of a more individuated course of creative development across a lifespan, and explore the question of how reflective consciousness of our embodied personal experience can inform the manner in which we negotiate this path. I posit a view therefore that asserts the primacy of the body, the whole sensory self, as an instrument of ‘navigation’ within this heuristic. More specifically, I endeavour to detail practical examples of where I would consider physical thinking to have guided my actions within the ‘creative process’, and argue that this has engendered more individuated significations and developments in my work. As a principally sensory-perceptual, bodily-based mode of thought, my conjecture is that this faculty will, by definition, resonate characteristically of an individual’s uniqueness as an embodied self, and can therefore serve as a means of enhanced self-knowing.

My research into creative practice is further enabled by reference to theory across a range of disciplines. In particular I employ Maturana and Varela’s self-organising systems theory, and relate this to aspects of phenomenology, and to recent theoretical directions emerging out of cognitive science, and the ‘new’ biological and physical sciences.
1. BACKGROUND, APPROACH AND DESIGN

BACKGROUND
For the sake of clarity and concision, I will relate a brief summary of how the ideas behind this project have emerged. Although, as I have come to realise, establishing exactly where an evolving process begins isn’t necessarily so straightforward, I can at least identify a particular catalyst that does appear to have set this overall enquiry into motion. This occurred when I was in the process of deciding upon a subject for my honours degree in visual arts back in 1983. The catalyst was, in effect, a recognition. I had noticed that there seemed to be shared characteristics between the work I’d come to be doing in the studio, and what I had previously been doing in my first career as a competitive cyclist. Furthermore, these qualitative features seemed to resonate throughout the influences to my work – music in particular. I had summarised these characteristics at the time as primarily: repetition, rhythmic/cyclic motion, and reduction (as in pared down form, i.e. in cycling, the elimination of extraneous elements to assist the dynamics of this form of movement).

As I had been making specific reference to the discipline of the team pursuit (a highly drilled 4-man track event), I’d also cited selflessness as one of these parallel qualities. By this I was alluding to the necessity of (partially) ‘subordinating the self’ in order to function more effectively as an intrinsic component to what is in essence a collective system. A team pursuit squad, when it runs well, operates as a seamlessly fluid unit of movement, with the appearance of a quite a-personal homogeneity. In my art, this was a characteristic that I had (romantically perhaps) attributed to the kind of rarefied abstract aesthetic I’d come to subscribe to. For whatever reason, I was drawn to art that I’d interpreted as representing a quite anonymous expression of ‘the universal’, its gaze seemingly directed away from the particularities of the human individual.

Importantly, I had also come to understand that, by my perception, what had drawn me into cycling in the first place had been an aesthetic attraction, a factor that I have since come to understand as highly significant. I will expand upon this point later in this document, and in doing so will qualify the term ‘aesthetic’, as it relates to its
Greek root, *aisthēsis*, which refers to sensory-perceptual knowledge. By way of a brief account however, what I had noticed, was that through relating my experiences in cycling to my subsequent engagement in art, and vice versa, I had become cognisant of something that was not only common to the two disciplines, but that seemed also to be intrinsic, and instrumental to the operations of cognisance itself. Through recognising these connections, within that is, the experience of making, and reflecting upon work in my practice, what I might best describe as a perceived sense of ‘knowing about something’ had emerged in my mind – some order of tacit knowledge perhaps. There seemed to be a sensibility at work within my practice, where actions, choices, and judgements were guided by a faculty, a multi-sensory way of thinking, which was felt to be comparable to the operative modes of thought I’d experienced in cycling. In particular I could relate the very distinct experience of circling around banked velodromes (not to mention their appearance) to the way in which I had come to work with line and form (Fig. 1).

![Figure 1, arc, wood, (installation view: Goldsmiths College, University of London), overall dimensions (approx.) 85 x 270 x 10 cm, 1982](image)

I came to surmise then, that in the case of track cycling, an aesthetically driven urge had compelled me to engage in an activity, where, through this engagement, I had effectively become part of the making of the very aesthetic that had initially attracted
me. I was in effect, an operative component, if you will, within this dynamical arena, literally and otherwise. As such, my physical involvement necessitated the employment of a quite specific operational modality. That is, I had found myself having to think in a way that was integral to a manner of physical performance, involving actions that are necessarily required to work in congruence to that particular environment. This is a modality of thought that can be felt to operate throughout the body. My experience is, that in such a dynamical environment, the whole body works as a thinking instrument; its intelligence understands what is happening, and through a form of intra-personal dialogue, informs, and perhaps guides, the various accompanying cognitive modalities. Here, my felt perceptions had quite clearly brought me to an understanding of mind as an embodied phenomenon. Through my subsequent involvement in art practice, I had come to experience parallel occurrences to that just described. That is, I had found myself active within, and, in a sense, instrumental to, the making of ‘an aesthetic’ into which I had been drawn, and which in many ways was characterised by qualitative features that were resonant of that earlier experience in entirely different field of activity. There were, by my perception, shared qualitative features, common to both domains of operation. These two apparently separate fields of activity, seemed to correspond to each other, and crucially I had come to recognise that that distinctly embodied mode of thinking, and discernment, was also a pivotally common factor.

Systems thinking, as employed to support and enable this research, has brought me to consider these commonalities as ontologically, and developmentally significant. This is a way of understanding that valorises such comparisons, working with assumptions that provide the, “ability to mobilize the same theoretical apparatus across domains and phenomena traditionally thought to be pragmatically discrete and ontologically dissimilar” (Wolfe, 1998: 137).

I had come to understand the “perceived sense of ‘knowing about something’” referred to earlier, as a facility of discernment, or perspicacity, as being of a distinctly sensorimotor, kinaesthetic, spatially adroit aspect of mind, although I had little idea of how to articulate this notion at the time. My feeling was that the embodied experience of selectively, and mindfully engaging in certain forms of activity was of perceptual and cognitive significance, and that those acts of selection were indicative of
individuated developmental drives. I arrived then, at the conjecture that this sensory-perceptual modality, or complex of modalities, would be vitally instrumental in this discernment.

My assumptions about the body as a thinking ‘instrument’ developed further when I became formally involved in education. I had been teaching art on a casual basis in various adult and tertiary institutions, but became interested in the more foundational aspects of learning. This led to my re-training as a primary teacher, and I subsequently came to specialize in SEN teaching (Special Educational Needs), a specialism that I worked in for six years. This field of education emphasises the implementation of multi-sensory teaching methods, as the role of sensory modalities to learning is considered pivotal. My experience in SEN helped to build upon the ideas that came out of that initial catalyst of recognition in the early 1980s.

My way of coming into this branch of teaching was quite serendipitous. It wasn’t something that I’d actually planned; it seemed to find me, as much as me finding it, and I can now view this phase, retrospectively, as part of a sequential emergence of developmental steps taken on the way to carrying out this current project. Perhaps the most salient feature about finding myself working in this field, was that I was called upon to apply methods of teaching that, a) employed the kinaesthetic, spatial, sensory-perceptual faculties and sensibilities that I had developed through my experience in sport, and subsequently art practice (I argue that it had been the innate presence of those qualities that had steered me into those fields of activity, and, enabled me to flourish in them), and b) these were teaching and learning strategies that, should they have been on offer in my own schooling, would have been of real personal benefit to me. This last point is crucial, in that I have come to understand that I did, eventually, benefit from such a learning environment. That is where, sensory-perceptual modalities; thinking with your hands; dealing (as a matter of course) in uncertainties; allowing material properties to inform judgments, physical thinking, in my jargon, were truly valorised. That environment was art school, a place where I had been ‘allowed in’, despite a lack of academic prowess. That sustained period of activity, that combination of making; reflecting; conversing; reading, and observing, had, I would maintain, brought me to a level of development that I would assume to be more commensurate with my abilities and natural predispositions. An order of personal
evolution had occurred as a consequence of this experience, which I doubt would have happened otherwise.

To summarise, during that period when I was working in SEN, I came to reflect more on how, and perhaps why, I had managed to arrive at that juncture. Most teachers will come to be working in schools, as teachers, because they themselves had done well in that environment. I hadn’t, and so naturally, I came to be more curious about the quite circuitous, oblique, and not very academic route that had taken me to where I was. It was that curiosity that brought me to embark on this project. What had become apparent to me was, that along this heuristic pathway, there had been ways of thinking, ways of making judgements, and ways of strategically ‘navigating’, that had ‘worked’ for me. My conjecture is that the principle modalities at work here were, are, expressions of an embodied aspect of mind; pre-noetic, sensory-perceptual faculties, which I would venture, inform and steer a more individuated course of cognitive and creative advancement. With this concept now having matured sufficiently, I set about taking the first steps towards designing a proposed research project that would afford the possibility of effectively exploring these ideas.

**DESIGN AND APPROACH**

This research project has, as its principle focus, the complex of generative dynamics that we may describe as ‘the creative process’. That process, in its various workings, is in my experience, largely a matter of actively recognising and following trails, and is furthermore, the enterprise of *making* the very trails, which lead that exploration. This heuristic ‘navigation’ may, or may not, play out in an arts practice scenario; it may occur within a specific operational situation, or across a lifespan. Whichever the case, on some level, a degree of developmental evolution will have occurred, and this assumption can enable comparisons to be drawn with evolutionary processes in a broader sense.

The strategic approach to this research project can be described as having evolved into its own design, and significantly, the qualitative features of this evolution can, in themselves, be seen to correspond to the characteristics of the approach to this research, and to the practice that leads it. In a sense, this is a case of something, both
making itself, and finding itself; and proceeding to evolve into the previously mentioned enterprise of making the very trails, which lead such a heuristic.

There can be seen then, to have been a parallel ‘coupling’ of methodologies, that is, between the approach taken to this research, and my approach to making, and finding my way through the complex of trails that constitute my creative practice. This is not, strictly speaking, a systematic exploration, however, the endeavour of this project does in essence, represent a search for a ‘system’, or more to the point, a search for a sense of the ‘knowing’ of that system, as opposed to an analysed grasp of it. There is a quote on the back cover of poet Aaron Williamson’s *A holythroat symposium*, that reads, “a book is in the act of becoming. It arises from the futility of searching for its own components. Everything here is fastened into its rigid embrace, especially the futility of its search” (cited in Wright, 1998: 37). I think that something similar can be said regarding the business of carrying out practice-led research. That is, its own “search” is effectively “fastened into” the “rigid embrace” of the constraints and boundaries of the project’s framework, and indeed of the self-imposed constraints of, in this instance, my own working practice.

This may all sound a little nebulous, but I would venture that the lack of concrete, quantitative, certainty is part of the challenge, and indeed the value of, creative research. Part of that search, is however the quest to bring some clarification and definition to what might be described as “an epistemology of practice implicit in the artistic, intuitive processes which some practitioners…bring to situations of uncertainty.” (Cross, cited in Allan Whitfield 2005, 3). For me, creative practice has been, and continues to be, a matter of both, dealing in, and making sense of, uncertainties and indeterminacies. Creative research offers possibilities for cultivating the language, and the shifts in perspective, that can, collectively, foster the acumen, the perspicacity, for accommodating, and efficaciously working with, uncertainty and indeterminacy.

‘Tripping’ along with all manner of uncertainties, has, very effectively, been part of the (unwitting) stratagem that brought me to carry out this research in the manner that was finally arrived at. My first ‘trip’ or ‘mistake’ to begin with, was to embark on this venture as an educational research project. This was a reasonable enough line to have
taken, considering my background; my interest in learning processes, and my working experience in education. Further to this, there was also arguably, another ‘mistake’ nested within that first one. My choice of opting for an approach where I would apply established educational research methodologies would have also entailed approaching the inquiry with a question, ‘a problem’, framed in strict accord with that particular order of methodology. Although I accept that there may have some degree of leeway for novel creativity within that field, my feeling, reflectively, is that that option would have bound me to an alliance with methodologies that are still largely framed within propositional models of knowledge and epistemology. As I have intimated, of core value to this field of research is that it can be designed in ways that can afford acquaintance with different knowledge forms, through that is, allowing individual idiosyncratic expression to articulate innovative ways of seeing, and perceiving. This is the very tricky business of dealing in matters concerning knowledge, that is felt, and understood to be knowledge, but of which we cannot generally speak. Elliot Eisner (Knowles & Cole, 2008) writes of Michael Polanyi’s view that:

we know more that we can tell. Thus, not only does knowledge come in different forms, the forms of its creation differ. The idea of ineffable knowledge is not an oxymoron. The liberation of the term knowledge from dominance by the propositional is a critical move. (Polanyi, cited in Knowles & Cole, 2008: 5)

Practice-led research offers an important deviation from that still dominant tendency. Yes, there needs to be specific focus to any research, but the specificity, and the manner of approaching ‘a problem’ is itself a vital question to be considered, particularly in arts-based research. Brad Haseman (2006) points out, importantly, that:

many practice-led researchers do not commence a research project with a sense of ‘a problem’. Indeed they may be led by what is best described as ‘an enthusiasm of practice’: something which is exciting, something which may be unruly, or indeed something which may be just becoming possible as new technology or networks allow (but of which they cannot be certain). Practice-led researchers construct experiential starting points from which practice follows. They tend to ‘dive in’, to commence practicing to see what emerges. They acknowledge that what emerges is individualistic and idiosyncratic. This is not to say that researchers work without larger agendas or emancipatory aspirations, but they eschew the constraints of narrow problem setting and rigid methodological requirements at the outset of a project. (op. cit.: 98-106)
Retrospectively, I can regard my brief foray into educational research as a valuable component in the overall strategy of this project. ‘Diving into’ that initial episode, allowed extant “individualistic and idiosyncratic” tendencies to emerge and present more clearly, which upon being recognised, was to inform the next step of the research; that, in this instance, involved a change of faculty.

The nature of that recognition, was that I had arrived at this juncture, this stage in my own life and development, as a consequence of working with, and thinking through, the kind of individualistic and idiosyncratic tendencies that I had come to be reminded of. What had become conspicuously clear to me was that the personal, developmental evolution that had brought me to this point was, essentially, the subject of my inquiry; and that that individuated development had been fostered by my extensive engagement in creative practice. I could see then, that this distinctly heuristic pathway (or complex of pathways) formed out of, or insinuated by, that experience in my practice, was what had led me to this work. I therefore realised that to continue, with due effect; the idiosyncratic workings of that practice would need to be maintained and furthered, with this continuance and development of my practice becoming both the focus, and the vehicle of my study.

It is important to state what the studio practice facet of my research is not, as much as what it is attempting to achieve in the context of this research. It doesn’t prioritise the production of an overtly coherent body of work for a final show, although it would be true to say that some form of implicit or covert cohesion within its presentation will serve to communicate its ideas more effectively. It does not engage in a critique of contemporary art practice, although it has to great extent, emerged out of that field and can be seen to be associated with it. It would be more accurate to view it as a survey of what I have come to regard as a continuous, and continuing complex of overlapping, recursive, reflective, reflexive ‘excursions’ into a range of disciplines, subject areas, and creative processes that I have engaged in since the early 1980s. The process aspect is perhaps the most important emphasis in this context, and I devote considerable space in this document to clarifying the nature of that importance. I should emphasise here, that although this project is not about contemporary art practice as such, I must of course acknowledge that my work here will reflect an awareness, and utilization of, approaches and conventions that are of that culture. The
focus of this project is however, to attend to the dynamics, and implications of what occurs within that practice, as that relates to the central questions of my research.

Importantly, some of the work carried out during this project involves the development of ideas that were sketched out before the process of research actually began. This is particularly germane in that these initial sketches and inchoate fragments come out of a transitional period following the cessation of a process-led system of production in my practice that had predominated for some years. It was also a mode of working that I’d become quite established, and set in, perhaps fixated to. This change would seem, in many ways, to have represented something of a paradigm shift, although I am becoming more inclined to see it as an ‘opening up’, or a re-configuration of means; allowing a greater diversity and eclecticism, as opposed to the quite rigorous constraints that had, to a great extent, shaped the nature of my work up until that point.

What I identify as having occurred over recent years is the emergence, or the invoking of a different set of dynamics, bringing about a more varied, apparently disparate array of material. This sea change, relative to the quite singular line of inquiry that preceded it, serves as part of the focus of observation in this study. I view this shift as highly significant developmentally and ontologically. I am even inclined to believe that the ‘crisis’ responsible for these major changes had to have occurred in order for the necessary elements, or components to be in place. Arguably, I could have carried out this study, or at least one similar say 10 years ago, but it’s now quite evident that more of the ‘story’ needed to have unfolded. A ‘twist’ was required, or perhaps the introduction of a contrapuntal element, to further define and ‘explain’ its underlying generative, apparently mutable, nature. The ‘episode’ of which I speak represents a pivotal development in that story, and without it, an essential dimension would have been absent.

In terms of personal, cognitive development I am inclined to view this quite dramatic change as something of a watershed, and as a ‘healthy’ transformative shift. As such I draw a comparison with the notion of ‘transformation’, as posited by a growing number of educators; within the field of Continuing Education for example, where theories of learning, and creative development are characterised by concepts emerging
from the ‘new sciences’, or ‘new paradigm sciences’. Irene Karpiak’s (2000) interpretation of these concepts, as they relate to human development, is informed by reference to two particular variables of systems theory – von Bertalanffy’s General Systems Theory, and Evolutionary Systems Theory. As with Maturana and Varela’s Self-organising Systems Theory (detailed later in this document), the underlying philosophy here is deduced from observations made in the field of contemporary science. From those observations has come the important understanding that the universe is significantly different from that described in classical ‘Newtonian’ science:

It is hardly the logical, linear world of prediction and control, nor the mechanistic world of equilibrium and stability. Our stable, unchanging, and predictable universe appears to be fading, and in its place is emerging one that that is bursting with energy, teeming with life, emergent, and always on the verge of re-creation and change. (op. cit.: 30 – My emphases)

This macro view, as described here, has its correlates on the micro level; the comparative observations of which have formed systems theory’s analogous model of the responsive, relational and self-modifying nature of the human system as integral and relative to all other living systems. In Karpiak’s paper, she relates chemists Ilya Prigogine and Isabella Stengers’ assertion that:

living systems not only have the tendency to maintain themselves in a stable state, but they also show the capacity to either collapse into chaos, or rise to a new, higher order. (op. cit.: 31)

They conclude that:

“living systems – from one-celled organisms to human beings, groups and social systems are open systems, in constant interaction with their environment. …these open systems are self-organising; that is, they operate according to their own internal principles of organization and according to their own patterns and structures. (op. cit. – My emphases)

As such, “through this dialogue with their environment, open systems have the inherent possibility to renew and even to evolve and transcend themselves” (op. cit.).
The consensus seems to be that these renewals and transformations will often occur quite suddenly, and can appear spontaneous, and with no clearly evident causal link. Although these sudden paradigmatic shifts can appear baffling or mysterious at times, the common factor will be that the ‘self-organising system’ will have ‘elected’ to effect such changes in order to maintain homeostasis, and therefore its continuance. Furthermore, what Prigogine and Stengers seem to suggest is, that a state of ‘crisis’ can, and often will serve as a catalyst of ‘opportunity’ for the ‘system’, that is for it to re-configure in such a way that would represent a developmental advancement.

I previously described the “dramatic changes” that occurred in my work as coming out of a “crisis” of sorts. Through my reflections, I have been bound to speculate as to whether this “crisis” and the subsequent changes that came about did in fact represent such an advancement, as opposed that is, to a descent into chaos. The following passage from Karpiak’s paper triggered a vivid recollection of the build-up to that “crisis”, and its aftermath. Paraphrasing Prigogine and Stengers once again, she explains:

> When a system is in a state of dis-equilibrium or instability it is inordinately sensitive to events from within or without. A comparatively small or even subtle trigger can propel the system out of its current structure. At such a time a system is vulnerable to break down into chaos, or, alternatively and dramatically, it can break through to a whole new order. Indeed, the authors detail this dramatic process through their demonstration of a (chemical) system’s transformation. At the point of intense flux and stress this simple chemical system seems to hover, at times appearing to be sickly and starved; and then, just as suddenly and unpredictably, it recovers from imminent chaos, and “leaps” to a new, more complex whole. (op. cit.: 32)

Another reason for focusing on, and proceeding on from, work already in progress (the ‘fall-out’ from that ‘crisis’), is that it seemed vital to me that I should avoid instigating work that might be understood as being about, or for the thesis of this project. This venture is not concerned with producing work designed to illustrate, or support a particular theoretical stance or approach. In some cases, the seeds of the works in question will have been sown at a time when the prospect of carrying out this study was only considered as a remote possibility; it was effectively, material that was just happening. There wasn’t any ‘agenda’ to it. By this I mean that the
‘happening’ of this work was a phenomenon that was sparked, and fuelled primarily by curiosity, and to some extent, by my willingness to respond to its entertainment value – albeit a fairly arcane brand of entertainment. This was a quite private activity, and as far as I knew, there was no obvious ‘situation’ for it, or ‘arena’ that it might occupy. It certainly didn’t match the category of work with which I’d become identified, and wasn’t, on the face of it, likely to further my career as an artist. My conjecture then, is that the markedly idiosyncratic developments that emerged out of that crisis, speak vividly of quite individuated developments. In a sense, I have come to regard these distinctly personal manifestations as ‘symptoms’, and, from a quasi-analytical point of view, very telling. As such, my conviction is that a survey of, and the ‘propagating’ from, the events of that developmental change (or breakdown), should be central to the practice component of this project. These departures from that hitherto dominant, process-led aspect of my work, are represented principally by, cartoon imagery, writing, and audio work.

As a research vehicle, my practice focus will be to continue developing these relatively new, and hence, embryonic tendencies. I should add however, that these developments will be viewed in the context of the extensive history that foreshadows them. As I will emphasise, of essence to this project has been the perceived recognition of commonalities and isomorphisms between characteristic features of my practice, and other disciplines and domains of operation. In this research, I bring this emphasis and focus to within the practice itself. That is, I work through, and explore the qualitative features, dynamics, and idiosyncrasies of the numerous, apparently disparate elements of my practice, as it now is; and I relate these ‘behaviours’ to the undercurrent, if you will, of the systems and processes that generated and characterized my earlier practice. This, I have found, occurs naturally enough anyway, in that, certain procedural tendencies play out as a matter of course, for example; recursion; working with ‘mistakes’; cyclical ‘returns’, and so on. However, I also consciously, and deliberately, re-visit processes of working that were specific to my earlier practice. This is so as to re-acquaint myself with the nature of experience, in the mind, which for me, has been felt to be particular to that mode of operation. Through this re-experiencing I would hope to apprehend a more distinct sense of how the dynamics of those processes relate to subsequent, and current developments in the work. My speculation is that the re-visiting of that process-led approach, will proffer
insights into what it is that underlies those perceived commonalities and isomorphisms. This is an imaginative hunch, but one that resonates for me sufficiently to take seriously. Recognizing, or just imagining connections between seemingly disparate entities and dynamical processes, is to my mind, an inherently creative act in itself. I find some support for this notion in Paul Carter’s book, Material Thinking (2004), where he draws attention to the significance of Neapolitan philosopher Giambattista Vico, grouping memory, imagination and invention together. Vico, Carter explains:

understood that reasoning is poetic. To bring something into being that was not there before – to make a film, produce a performance, write a new story – can be to engage in an act of myth-making. A work of art doesn’t have the status of an ancient or widely believed myth. It isn’t the unreflective organic product of a collectivity. But its method may be similar. Vico defined ingegno, wit or the gift of invention, as ‘the faculty that connects disparate and diverse things … An acute wit penetrates more quickly and unites diverse things, just as two lines are conjoined at the point of an angle below 90 degrees.’ Myths materialise abstract ideas with their vivid figures of speech. The artist, through a capacity ‘to perceive analogies existing between matters far apart and, apparently, most dissimilar’, mythopetically creates ‘poetic wisdom’. (op. cit.: 7)

MALADY INTO METHODOLOGY

At the outset, part of my planned strategy in this research was to factor-in a strand to my methodology that would address the evident links between my earlier experience as an athlete, and the art practice that followed on from it. My idea was to include an element of physical training into my overall approach to this venture. Heightened physical states, and indeed, the performance of actions that achieve those heightened states, will also give rise to altered states of mind, and perceptual shifts. When I was making that earlier work, I had only been out of competition for a few years, and although I was not in training as such, I remained a vestigial athlete. That dimension to my makeup was still, at that time, very present and active. My rationale was to re-introduce this facet of my life-experience in order to observe and consider any influence this might have on my practice.

Four months into this project however, one of the legion of mosquitoes that I’d been under attack from, had introduced the Ross River Virus into my system; a system that
was only just beginning to show signs of fully recovering from a post-viral condition
that had persisted for well over a year by that point. ‘Training’ was certainly no
longer an option. For quite a while in fact, doing anything much at all was not an
option. Perversely, although I wouldn’t have chosen it, this development was of quite
profound value to the research. Amongst other things, I am inclined now to think that
the ‘training’ strategy may have amounted to a failure to acknowledge the
developmental stage that I had reached in both my life, and my work. Had I have been
able to follow this through, I suspect that the emphasis of my focus would have been
towards what I had been, and what I had been doing in the past, and perhaps
neglecting the emergence of more novel developments in my work, and perceptions.

Central to this inquiry, is the question of self-knowing, through reflective observation.
Observation, that is, of how work is carried out; the nature of what is produced; ways
of judgement enacted within that activity, all the time, employing an order of self-
observation, with a view to becoming more acquainted with personal idiosyncrasies,
and operative characteristics. In my, at times, quite immobilised condition, I had had
to radically revise my self-perception in this respect. This system (of mine) was
ailing, it was compromised, and to steer it through this venture, necessitated that I
acquaint myself with its structural, operative characteristics on a level, and in a
manner, that had hitherto not been required. In a more robust state, we can override,
and to an extent, disregard weaknesses, and ineptitudes. But, when the organism is
reduced to a subsistence level of functioning, its operative qualities and features, need
to be more intimately understood. Maturana and Varela (1992) offer an apposite
analogy in this respect:

If we step on the gas pedal of our car and the car doesn’t move, it will never occur to us
that there is something wrong with our pressing foot. We assume that the problem lies
in the connection between the gas pedal and the injection system, that is, in the
structure of the car. Thus, breakdowns in man-made machines reveal more about their
effective operation than our descriptions of them when they operate normally…This
everyday attitude…is not only adequate for artificial systems but also for living beings
and social systems. (op. cit.: 97)

It does tend to be at times of faltering and breakdown, that attention is really brought
to how things work, and what makes them tick. This can also be when value
judgements become more consequential, and I had felt that my own acuity in this respect had become particularly crucial here, that is, in honestly discerning the ‘wheat from the chaff’ in my work. As I have intimated, this venture has been principally about getting a handle on how things work, on what happens, and what matters in this regard, particularly in creative practice. With an illness like Ross River Fever, conditions of debilitating fatigue, and the accompanying states of mind (ironically the polar opposite to the ‘highs’ that my planned my ‘training’ regimen may have engendered), play a major role in perceptions, and acts of discernment. Such reduced states are perhaps best viewed as being useful. In a radio broadcast I was listening to, the musician and poet, Leonard Cohen was discussing a phase in his life where he'd “burnt-out” from extensive touring, and, an extensive intake of red wine. Concerning my point about fatigue, perceptions, and discernment, Cohen expressed a view that resonated significantly. He’d described himself as being in a state of feeling “lost”, “tangled up” and “existentially disorientated”. This had, to cut a long story short, brought him to enter a monastery, where he subsequently became ordained as a Buddhist monk. He describes a regimen where "you 'cook' your mind so that you can hear what you're saying...", and a regimen where "you get so tired that you can't pretend...the monastery is a place where they make you so tired that you give up pretending" (Radio Broadcast: 2008).
2. CIRCULAR NAVIGATION: SYSTEMS IN THE CONTINUUM

TRANSIT, FORMING, TRANSFORMING

In the essay written in association with the exhibition component of this project, I begin by acknowledging that my use of the ‘journey’ metaphor in this context might be viewed as a tad clichéd, but that I was going to allow myself to use it anyway. My justification, if one was needed, was that throughout this study, and indeed long before embarking on it, I have naturally resorted to the use of journeying analogies (mainly nautical) in my attempts to describe not only my working processes, but also the strategies I’d employed to negotiate developmental shifts within my practice. ‘Navigation’ has featured prominently: ‘embarking’; ‘steering’; ‘charting’; ‘drifting’; ‘sounding’, and so on. This analogising extends to dry land as well: ‘exploring the domain’; ‘territory’; ‘landscape’; ‘ground’; ‘field’; ‘topography’, etc. Continuing with this line of terminology, I went on to suggest, that creativity is itself largely a matter of both recognising and following trails, and furthermore, that creativity is the enterprise of forming the very trails that lead you.

This I have found to be almost literally the case with a large proportion of my work over the years. Much of my practice has been, and continues to be process-led, that is, where an activity evolves out of the adherence to certain ‘rules’ that are established at the outset, effecting what might be viewed as a dynamic of self-generation, or *autopoeisis*, a term that I will explain later in this chapter. The inclination to operate this way may be an extension of my childhood tendency to be curious as to ‘what happens when…what would happen if…?’ – a not uncommon characteristic of course. There was always the sense of going ‘somewhere’. There’d be a point of departure, and the stimulus to go on, the wish to continue, would be spurred by the simple curiosity to see where it would all lead. Sometimes these excursions would be literal journeys, and I can recall that there was a certain appeal to the prospect of getting lost – albeit with the assumed proviso of eventually finding a way back again. The American painter Chuck Close has spoken of the desire to “sign on, ship out, and see where a process takes you”. This is a statement I think that demonstrates a belief
in the value of (self-consciously) cooperating with, and to some extent willingly surrendering to, the inherent workings of a generative system in order to discover, witness, and contemplate whatever may consequently unfold. A partnership or ‘coupling’ is established out of the personalised, subjective responses of the participant, and the indifferently ordered mechanics of a set process.

This may or may not occur within an overtly creative venture, and I am interested to explore, primarily through personal experience, comparisons between the generative processes and dynamics at work within creative arts practice, as well as in other fields of human activity. This an important point in that it indicates a position that emphasises an integrative perspective, which may be fostered through attentive, reflective engagement in lived experience. In their book, *On Becoming Aware: A Pragmatics of Experiencing*, the authors, Natalie Depraz, Francisco Varela, and Pierre Vermersch, (2002) endeavour to cultivate such a view. They write of seeking "the explicit characterization of a very specific ability: becoming aware as coming to know in the first person.” (op. cit.: 3) This specific ability they suggest, resides within us as an immanent potential, to be developed by means of attending to:

the *lived*, *first-hand* acquaintance with, and account of, the entire span of our minds and actions, with the emphasis not on the context of the action but on the immediate and *embodied*, and thus inextricably personal, nature of the content of the action. (op. cit.: 2 – my emphases)

Their, they suggest, is a pragmatic approach, through which they seek “the sources and means for a disciplined practical approach to exploring human experience" (op. cit.: 1), where they strive “to find the commonalities and isomorphisms between the practices found in different domains for different reasons." (op. cit.:3) My assertion is that the development of this specific ability, that is, the acuity with which we observe and reflect upon our “*first-hand* acquaintance with, and account of, the entire span of our minds and actions”, is an endeavor that traverses the entire span of our lives. A continuous process evolving out of the ‘discourse’ between the various processes experienced within that life-span.
On reflection it would seem that I have always had an interest in ‘process’. In the past I wouldn’t have been consciously aware of this. As suggested, in childhood this interest manifested in play, where, frankly, the outcomes were as likely to have been destructive as they were creative. Tampering with ordered mechanisms, out of curiosity, would almost inevitably result in irreversible, and irreparable disorder – ‘analysing’ a clock mechanism for example. In such an instant, one that I recall quite clearly, a salutary lesson was delivered. It was a lesson where I was brought to, at least begin to develop an appreciation of how delicately, and how finely balanced a functioning system can be; an appreciation of there being a kind of poetic integrity at work, even in the case of clockwork’s regular predictability. Here, there clearly hadn’t been a constructive “partnership” or “coupling” to “ship out” with. My meddling had effected a terminally degenerative, rather than a generative process; disintegrative, as opposed to integrative. I make a point of detailing this tendency in order for it to be seen in relation to the characteristics of my activities, my creative practice in particular, since those early days of ‘experimentation’. What has transpired since then is a distinct personal tendency to engage in activities where, as previously touched upon, there is the necessity for a kind of cooperative partnership. Where, in order to inaugurate, and subsequently sustain a generative flow, there has needed to be a marriage between individual will, and the constraints of a bounded system, or methodology. I should qualify this by pointing out that these ‘marriages’ can be uneasy at times, especially at the outset, and it is this very uneasiness, or tension that I think provides the generative charge for creative developments

Over the years, throughout developmental changes, and across various disciplines, one particular common factor seems to have evidenced to me through this approach to arts practice; one that I would describe as a kind of inherent ontogenetic potential. I will expand on this point at a later stage, but what I am referring to is the apparent transformational potential, through engagement in, or coupling with, particular processes of working, doing, being, creating, and so on. As I write this, I am reminded of hearing accounts of how the experience of undertaking a research project such as this, can in itself be quite transformative. Cognitive and perceptual shifts are to be expected. In my role as a researcher, this is bound to be of personal interest. It is however an interest that extends beyond the confines of the personal and into the very territory that this project explores, if such a distinction can be made.
The notion of ‘transformation’ through (human) acts of ‘doing’ is in itself intrinsic to this study. A postgraduate research project is, it has to be said, a relatively high-order, complex, and elaborate example to give of an ‘act of doing’, but decidedly relevant nonetheless. My intent is to consider the potentials for such phenomena, of ‘cognitive and perceptual shifts’ within a more general spectrum of human activity, or acts of ‘doing’; the one qualification to this point being that our selection of what we do, combined with the nature of our engagement in what we do, is of instrumental significance. This is a point addressed by the Chilean biologist Humberto Maturana, whose work with colleague and compatriot Francisco Varela contributed to the conception, and accompanying philosophy of self-organizing systems theory; the principal theory that I employ to support and enable my research.

This is a philosophy that essentially equates living with cognition. In From Being to Doing (Maturana & Poerksen, 2004), Maturana discusses, through the “philosophical reflections of a biologist” his understanding of “living, perception, and cognition as a feature of the continuous flow of the living of living systems in general, and of us human beings in particular” (op. cit.: 17). So on one level, he is saying that by simply living, and being, and doing, varying degrees and forms of cognitive and perceptual activity will have taken place. He proceeds to qualify this view however by drawing attention to the significant factor of how we perform these acts, what it is that we actually do, and the context in which we do it. Whilst not differentiating, in any hierarchical sense between the ‘value’ of for example, professional, domestic or artistic activity, he does suggest that there will be qualitative differences to activities consequent of “the special features of the relational and operational spaces in which they take place, or the different purposes, aims or desires under which we do what we do” (op. cit.: 16). So essentially, through this philosophy, which has arisen out of research biology, he considers the very nature of how the doing of what we do, as biological living systems, contributes to the making, the shaping of what, and/or who we are. According to Maturana, our effective engagement with this “continuous flow” of living, doing and cognitive development, is one of self-referential ‘observation’, and so recognizing the self, as an observer of the self, is key. It involves a “consciousness of participation [that is] tied to learning” and is the “perspective of the self-conscious participant”; a perspective “that enables experience to be identified and appreciated in the self and others” (Wright, 1999: 4).
I have come to this project it seems, as a consequence of such ‘self-conscious participation’. Reflective observation has enabled me to identify and appreciate how aspects of my own lived experience have been “tied to learning”. Notwithstanding the apparent intrinsic cognitive value of simply ‘doing’, there are, as I reflect upon this lived experience, particular ‘landmarks’, or phases of activity that stand out more saliently than others in this respect; seemingly of greater developmental import. Adopting such a perspective has effectively led me to reconsider my perception of this retrospective survey, and I am now able to view its various episodes less as a series of loosely connected, fragmented parts, and more as a relatively coherent process of ontological and cognitive emergence.

IN THE BEGINNING WAS THE CONTINUUM

In attempting to know where to begin writing this account, it seems that I am faced with the task of locating where this “sequence of episodes” began. Such an endeavour ought to be quite straightforward. I can for example, with a fair degree of precision, pinpoint the time at which I began to set out and construct, in a formal manner, the ideas that constitute the basis of this project; I had arrived at the stage of proceedings where I was required to decide on a subject to write about for my honours thesis, some time ago now. Locating this beginning involves a simple act of reflection; one where a particular conversation is recalled and consequently the time when it took place, is identified (April/May 1983 just out of interest). Further reflection however, suggests that there is more to the story than that. It shows this juncture to be not so much a beginning, but more a trigger point, or a catalyst occurring within, or along a continuum of events. It is revealed as a point of coalescence, of confluence, where the various strands and component elements of experience and assimilated knowledge configure into something both recognisable and ontologically significant in the eyes of the ‘observer’ – the observer being myself in this case. What was revealed to me, by my understanding, was that I was in something, rather than (or as well as) being at the beginning of something.

My use of the term ‘continuum’ is particularly apposite, and one that I should elaborate upon. I had come to recognise that this area of exploration; this line of enquiry that I’d been engaged in back in the early 80s, not only trailed off into my
personal past, but seemed implicitly to lay ahead of me as a field of latent potentials. Attempting to truly establish when or where it all began might then pose the question: where does such a continuum originate? In the context of this inquiry, where I feel compelled to surmise that the string of experiential ‘events’ to which I refer, traces back to stages in my life that I have little or no recollection of; to pre-linguistic, pre-reflective, pre-noetic states, this is a perplexing question, and probably worthy of its own project. It isn’t a question that I’ll attempt to answer in this instance. In considering it however, I find that a very circular line of inquiry results, involving a logic that appears in many ways to be consonant with the systems thinking of Maturana and Varela. In *Distinguishing the Observer: An Attempt at Interpreting Maturana*, Ernst von Glasersfeld (1997) discusses the quite circular nature of Maturana’s theorizing, and how this raises the problem of foundations and beginnings. He writes of Maturana’s belief that “knowledge manifests itself in ‘effective action’”, and also highlights how Maturana’s theory is:

...deliberately circular. Thus it is inappropriate to demand a beginning. A circle is characterized by, among other things, the fact that it has no beginning. In Maturana’s edifice every point arises out of the preceding one – much as when, in thick fog on an Alpine glacier, one places one foot in front of the other without ever seeing what lies further ahead or further behind one; and as sometimes happens in such a fog, after hours of walking, one realizes that one is walking in one’s own footsteps. The fact that one has begun the circle at a specific place could be perceived only from a higher vantage point, if the fog had lifted and made possible a comprehensive view. But the fog that obstructs our view of ontic reality cannot lift because, as Kant already saw, it is inextricably built into our ways and means of experiencing. For that reason, a meticulous investigation such as Maturana’s, can only show that, regardless of where we step into the circle, we can neither come to an end of the path, nor, if we retraced our steps, to a beginning. At best we could perhaps recall the point we distinguished as a presupposition at the beginning of our search. (Glasersfeld, 1997, Web Site, accessed 21/02/2005: 7-8)

Although my own theorizing within this project is not “deliberately circular”, it does seem to have evolved, or become woven into some manner of recursive circularity. As will become more evident, this *recursivity* is a primary characteristic of both my practice, and of many of its influences. One step will engender the next; processes feed back into themselves as self-generative phenomena, with results that are
sometimes suggestive of endless continua, despite (or due to?) the logic of the procedures involved. It seems also that something comparable can occur through the act of questioning within the process of such research. The very nature of this project seems to spawn more questions than answers; that paradox of progressively knowing more, and yet intrinsic to that knowing is the heightened recognition of the ultimate elusiveness of what it is that one is trying to grasp – images of fractal patterns spring to mind, and perhaps the aphorism, “the more that you know, the more you realise that you don’t know”. Repeatedly I have found myself presented with evidence of the kind of anomalies, or “ruptures” of logic (Deleuze & Guattari, 1987) that can occur as a consequence of applying apparently straightforward, logical, mechanistic processes. I sit here at my computer for example, surveying in my mind a simple and apparently linear chronology of events, that is, the background to this project. In doing so, I feel reasonably secure in my dealings with this quite manageable construct of reality, and yet, with the mere suggestion of a sideways step or glance, I find myself drifting at the periphery of this knowable domain and subject to the undercurrents of a seemingly more nebulous variant of reality. If I was, or am, in something, something that I’ve come to identify as a ‘continuum’ (with its connotations of infinity; endlessness; the eternal – pre-consciousness), then when was I not in it? That circular walk on the Alpine glacier, that von Glasersfeld describes comes to mind again, although I find that an unnecessarily bleak metaphor.

From a purely rationalistic position, this question probably wouldn’t pose major difficulties. My own viewpoint however, has been tempered over time, particularly during the years that have passed since first becoming seriously involved in arts practice in the late 1970s. It is a viewpoint that has been subject to a slide away from zealous adherence to notions of objective realities, and of absolutes; what was in effect a quite reductionist stance. This revision in my thinking may simply be a consequence of encountering and accommodating different concepts, and of having assimilated those new perspectives through intellectual reasoning. It may conversely, have been a development which occurred primarily out of sustained, mindful engagement in creative practice; performing actions where modes of reasoning and thought are operatively bound, and necessarily congruent to the nature of dealing with formal, material properties and qualities – abstract thinking yes, but with a more concrete footing in the very matter of praxis.
Although I will need to acknowledge that both of the above will have been instrumental in effecting the changes described, I feel that the latter, more practical, and less intellectual of these two modes of operation, will have been the more instrumental. In saying this however, I must also acknowledge, in this context, the importance of recognizing the crucial factor of interaction – cross-talk – between different orders of thought, and knowledge. Margaret S. Archer (2000) discusses the primary, pivotal nature of the “practical order” in her book, *Being Human: The Problem of Agency*. In doing so she draws attention to the question of considering the dialogical relationships between *embodied*, *practical*, and *discursive* knowledge, asserting that:

> Intercommunication is continuous between the knowledge generated in the three different orders because of the manifest advantages which each form of creativity offers to the others....we are not talking about a simple process of appropriation but an **elaborate synthesis where value is added at each juncture**. Such interchanges are realised not only due to the fact that all three forms of knowledge have a **cognitive** content, but also by virtue of all three being obedient to the logical canon, which...is itself **emergent from practice in the world**. (op. cit.: 177-8 – my emphases)

As touched upon, my perspective here is to view the human living system, in its continuous ontogenesis, as an unfolding process, proceeding and emerging developmentally, consequent to its interactions and ‘couplings’ with, and within, other processes and systems. This interaction may also, as suggested above, be understood as intercommunication, or “cross-talk”, and so I would extend the notion of “‘discourse’ between processes”, that I’d referred to earlier, as a principle that is transferable to a similar understanding of intercommunication across disciplines and domains of operation. In other words our experiences of play and work for example, will, on various levels, be in dialogue with each other as part of the “elaborate synthesis where value is added at each juncture.” Archer’s description suggests to me, a **circularity** of discourse between modalities; a continuous, circular, process of developmental advancement.

This model of cognitive-perceptual, developmental dynamics not only corresponds with the concepts that provide the main focus of this project, but also, by my understanding, speaks of the very phenomenon that has led to its instigation.
Furthermore, it is a developmental consequence of this phenomenon that enables me to carry it out. This I feel is a salient point in that it is itself, suggestive of one of the processes of which I speak. It could reasonably be argued of course that the simple act of selecting the subject of a study, such as this one, will naturally trigger the instigation, momentum, and advancement of that project, but what I refer to here, is of a different order. My embarkation on this venture was not so much the consequence of choosing a subject, and then making a start, it was more an act of responding to the recognition of an emergence. That is, the manifest emergence of characteristics within my own personal, perceptual, and cognitive development as evidenced, in particular, through my creative practice, which represents the principal focus of research and ‘observation’ explored here. This recognition, and the subsequent responses and actions taken upon that recognition – particularly by engaging in this project – have, I would argue, effected the further development and shaping that very same emergence. As such it would seem that an evolving, self-generating ‘loop’ comes about, where paradigmatic shifts into new orders of creative, cognitive activity may occur.

Maturana and Varela’s philosophy describes living systems as both self-organizing, and as structure-determined. As such, this view asserts that we, as self-organizing systems, are developmentally (ontogenetically) conditioned by our constitutional structure:

> Ontogeny is the history of structural changes in a particular living being. In this history each living being begins with an initial structure. This structure conditions the course of its interactions and restricts the structural changes that the interactions may trigger in it. (Maturana & Varela, 1992: 95)

With this in mind, and in relation to the order of process that I have just described, the issue of personal agency arises, or more specifically I think, the range, or scope of our personal agency as it applies to how we negotiate and chart our individual, evolutionary development. The notion of ‘structure-determined self-organization’ could lead to assumptions of determinism, that is, where developmental changes will only occur as a consequence of causal factors determined by the nature of ‘the structure’. My repeated use of the terms ‘emergent’ or ‘emergence’, and of ‘recognition’ is of importance here. When I assert that my embarkation on this project
had been an “act of responding to the recognition of an emergence”, this declares an assumption of personal agency. That is, where, through reflective observation, a creative, developmental opportunity is recognised, and where a consciously directed move is made in order to act upon that recognition. *Emergence* is an important term in this context, and can be understood as referring to “the arising of novel and coherent structures, patterns, and properties during the process of self-organization in complex systems.” (Goldstein, 1999: 49)

There are two vital points to make here. Firstly, these developments are understood to arise out of a complex system’s self-organization (such as the human life-system), and not by externally imposed factors. Secondly, these new orders occur as a consequence of the *construction* of meaning, that is, where a situation’s inherent potentials are recognised, and where an understanding of those potentials can be *constructed* out of what has been observed, thus informing subsequent developments. As I have suggested, this understanding is therefore quite distinct to one that views such changes as resulting solely from structure-determined causation. Jeffery Goldstein (2005) explains that there have been misunderstandings that have “plagued research in this area” due to:

the typical understanding of emergence as the result of processes of *self-organization*, a term that suggests spontaneity and the inner-driven onset of new order. Although these connotations of self-organization have provided a corrective to the outdated belief that novel order in a system can only come about through the imposition of external order, a careful inspection of research in complexity theory reveals that the emergence of new order is more appropriately *constructed* rather than self-organized as such. (op. cit.: 3)

Relating this to Maturana and Varela’s self-organizing systems theory, the manner of such *construction* would then be particular to the individual characteristics of the structure-determined system involved.

What has been described here accords very much with my own experiences within creative practice.

I am aware that when I speak of the *continuum*, of *continua*, in the manner that I have, I am expressing, or attempting to express, a quite abstract notion. This could be
problematic, as there may be a danger that abstract, and abstraction, as terms of description, will connote detachment, and separateness from practical reality, and, what phenomenology would describe as the Lifeworld, that is, our lived sense of connectedness in/with the phenomenal world. My wish is to consider abstract thought here as an applied, enactive process, and as such, a key modality in the synthesis and assimilation of ideas, conjectures, perceptions, that arise out of lived experience, of being in the world. Abstract thinking as I propose here, is more a direct expression of an embodied aspect of mind, than of intellectual reasoning. As such the enactive, physically interactional dimension to our experiences of apprehending, cognising, our realities is considered pivotal. This is to work with the principle of viewing, “mind not as a thing, but as another emerging process of interactions” (Johnson, 2006), to understand:

‘Body’ and ‘mind’ [as] just different aspects of an ongoing interactional process of experience. Thus, the nature of our human bodies determines both what we can experience and think and also how we think, that is, how we conceptualise and reason. The body is in (that is, working in) the mind, just as much as the mind is in the body. (op. cit. – my emphases)

The view expressed here, represents a current tendency in the cognitive sciences, and I think, promotes a perception of the body, as a thinking ‘instrument’; a concept I explore in some depth as I proceed here. Accommodating such a perception is important, in that the thesis of this project is built upon the assumption, conjecture, that observed developments in my own cognitive, intellectual abilities have advanced consequent to an active, attentive, application of, primarily, sensory-perceptual, embodied modalities of ‘thought’ to creative work. My understanding is that that bodily intelligence affords an ‘abstract’, pre-linguistic reading of its dynamical, interactive being in the world. As such, abstract thinking, in this sense, represents an “immediate and embodied, and thus inextricably personal” connection with the phenomenal world (Depraz, Varela, Vermersch, 2002: 2). Significantly then, the abstract tendency of my practice in the past provides the background to this inquiry I refer to this; a body of work that, in many ways is a manifest expression of the manner of abstract thinking that I describe.
Much of my abstract work in the past now appears to me to represent attempts at ‘getting a handle’ on aspects of reality that were, are, too vast, or elusive to manage through more prosaic or literal approaches to thought and creative action. What I describe (to myself) as ‘continuum stuff’, pervades that work and its influences, and this remains the case, albeit in different forms and guises. Through this mode of practice, I accommodate the notion of the continuum as a continuous flow of events, of latent potentials, of spent realisations, of anything that may manifest, or not, feeding back into that continuous flow.

As already intimated, I have recognised, discerned, these ‘continuum characteristics’, as common features to a range of materials, forms of expression, and events that have so often provided impetus to my own creativity. One salient example was when, at the end of the 1970s, and shortly before commencing full-time, undergraduate art studies, I encountered a work by the American systems composer, Steve Reich. I have heard this composition, Music for 18 Musicians, described as a ‘slice of eternity’, which echoes my own impressions. Despite its finitude, its necessary beginning and end, the impression that I tend to be left with is that of an allusion to endlessness. The beats, pulses and rhythms of this piece seem to emerge out of a continuous flow or source, and then, after 50 or so minutes, merge back into that source. This resonates very much the ‘continuum stuff’ that I am speaking of, and I think, with Music for 18 Musicians, that residing, inchoate, but unrecognised, sense of continua that I’d felt, had been given form. There was also something very affirmative about it, and I was reminded of comparable feelings and impressions when hearing other ‘continuum’ sounds. In particular, I’ve always found the droning sound of a small aircraft, heard some distance away, quite compelling – slightly melancholy, and yet affirmative somehow.

Steve Reich’s work, along with the likes of Phillip Glass, Terry Reilly, and John Adams, has often been associated with the minimalist abstract tendency in the visual arts – Donald Judd, Agnes Martin, Carl André, Frank Stella, Sol Le Witt, and so on. This is work that can appear, mistakenly I think, to exclude, or minimize human presence, or the ‘human factor’ – once again, a subject worthy of its own study. The work of these artists is often an art of calculation, of patterns, of systems, of processes. Music for 18 Musicians could be described as quintessentially abstract in
this sense, and yet, significantly for this study, its weave of assembled percussive sounds, almost literally *breathes* the presence of its human making. Reich explains:

Rhythmically there are two basically different kinds of time occurring simultaneously in “Music for 18 Musicians.” The first is that of a regular rhythmic pulse in the pianos and the mallet instruments that continues throughout the piece. The second is the rhythm of the human breath in the voices and the wind instruments. The entire opening and closing sections plus part of all sections in between contain pulses by the voices and winds. They take a full breath and sing or play pulses of particular notes for as long their breath will comfortably sustain them. The breath is the measure of the duration of their pulsing. This combination of one breath after another gradually washing up like waves against the constant rhythm of the pianos and mallet instruments is something I have not heard before and would like to investigate further. (Reich, 1978)

Systems, recursion, patterns, set processes, are intrinsic characteristics of Steve Reich’s work, as is the case with Glass, Reilly, Adams et al, and importantly, their distant precursors – notably, J. S. Bach, and the 12th century French composer, Perotin. I would maintain that the adherence to systems, and mathematical structures in the work of these composers by no means precludes the emotional, human factor in the music produced. This brings me back to the kind of “cooperative partnership” I was referring to earlier, that is, where “in order to inaugurate, and subsequently sustain a generative flow”, there had “needed to be a marriage between individual will and the constraints of a bounded system, or methodology.” To reiterate further, I had alluded to the ontogenetic, and indeed, transformational potentials of “engagement in, or coupling with, particular processes of working, doing, being, creating”. My own experience of creative work involving adherence to a system has been one of having a quite distinct sense of my own embodied presence and engagement within that system. I would add the condition however, that the nature, and medium involved in the system of working will need to allow a sufficient degree of *operational congruence* to occur. In other words where the compatibility between individual, and method, fosters a propagative interaction.

**TO CONTINUE: THROUGH THE LIFEWORLD**

In the discourse of phenomenology, the term *Lifeworld* is often used to describe the natural world, the phenomenal world that we are a part of, and from which we are
arguably estranged, or at least prone to be. Many would maintain that this estrangement can be due, amongst other things, to an over emphasis on intellectual reasoning, and abstract thinking, and to the negligence of attentive praxis, or just attentiveness in general. From the standpoint of phenomenology, Steven Rosen (2006) suggests, “we can (re)turn to the lifeworld not simply by departing from the world of abstraction, but by going so far into it that, in a manner of speaking, we ‘come out on the other side’” (Rosen, 2006: xiii). My way of thinking here finds some consonance with this notion, and my speculation here is that the mode of thinking that abstracts, in this sense, will be of a more bodily, sensory-perceptual order. Rosen continues along this line, referring to Heidegger’s emphasis on the nature of thought, which, in his view, is the imperative in this respect. Rosen states that:

Heidegger is not suggesting that we merely renounce thinking in favour of unmediated experience. Yet, while he does urge that we think Being, the kind of thinking he has in mind is unusual to say the least…Noting the consanguinity of ‘thinking’ with ‘thanking,” Heidegger claims that the modern understanding of thinking is an “impoverished” version of what earlier involved not merely an intellectual act but also a heartfelt giving of thanks…Only through a thinking that is also a whole-bodied thanking can we truly think Being, think the lifeworld in a way that does not merely objectify it but gratefully embraces it as that to which we owe our very existence. (op. cit.: xvi – my emphases)

For me, this brings to mind, in particular, those forms of thought that arise in creative activity; which could equally be regarded as intuitions, or perceptual recognitions. Thought, that is, which can also be felt as an intimacy of connection with, or the ‘grateful embracement’ of, a subject; an object; a material; an instrument; a place, a person – a dimension of love perhaps. As such, this is a modality that, through meaningful engagement in activity – overtly creative or otherwise – helps to make sense of what it is that we find ourselves in, in our being (Being) in the world.

THE SENSE OF THE CONTINUUM

My notion of ‘the continuum’ is an assumption that has formed out of felt observations, and imaginings. That order of observation, and the imaginative ‘reasoning’ that has accompanied it, has been fostered, primarily, by my engagement in art-practice. My surmise is that there had existed within me, a latent sense of what I
now refer to as ‘the continuum’, and that art-practice (subsequent to earlier life experience) has enabled me to manifest ‘descriptions’, or representations, that give some kind of form to that notion. These manifestations have emerged out of practical processes that have been driven and inspired by felt intimations, modes of thought, such as those described above. This is important, in that thought, in this sense, especially when applied to focused creative activity, is I would suggest, of that “intimacy of connection with…the ‘grateful embracement’ of…subject, object…” (op. cit.). It was perhaps, the desire to feel an intimate connection with, and a knowing of, this phenomenon, which I continually refer to as ‘the continuum,’ that has furthered my inquiry in this respect.

In my work – in my thinking, I consider the nature of processes applied within the ‘system’ of my practice (and those of others) as isomorphous to processes that generate and sustain other systems. The bodily dimension of thought and reasoning is essential here, as I regard our consciousness in embodiment as the interface that enables us to apprehend a sense of those commonalities, and thus our connectedness as systems within other systems. Mark Johnson (1987), whose work I refer to at some length in this document, speaks of our facility for thinking in abstract terms, by way of “image schema”, and explains that this very personal interpretive view of things will emerge first as a “structure of bodily interactions” (op. cit.: xix-xx). Johnson’s description, which I will expand upon later, emphasises the role of bodily experience in generating metaphorical projections and imaginings, and as such, is consonant with the view that I advance.

As I proceed, I will endeavour to clarify how I apprehend, and imagine this notion of ‘the continuum’, and of the role of my practice in working with, and developing this understanding. At this stage however, I am not convinced of the value of adding any more of my own words to this explanation. It would be desirable, and apposite, that the qualities which evidence in my practice, will substantially add to clarifying this allusive picture. In the meantime, I will offer Umberto Eco’s words, which add significantly to an expression of my own take on this concept. Importantly, he situates our ways with language in the context of the continuum, as he perceives it, and the ideas he advances correspond in many ways with those that I am attempting to
express through both the theoretical, and the practical elements of this study. In *Kant and the Platypus* (Eco, 1999) he suggests that:

> It is also possible that there are regions of being about which we are unable to talk. It seems odd, seeing that being always manifests itself in language only, but let us not grant this - since there is no reason why one day humanity might not invent languages different from the known ones. But let us keep to those "regions" of being we usually talk about and tackle this talk of ours in the light not of metaphysics but of a semiotics, that of Hjelmslev. We use signs to express a content, and this content is carved out and organized in different forms by different cultures (and languages). What is it made from? From an *amorphous stuff*, amorphous before language has carried out its vivisection of it, which we will call the *continuum* of the content, all that may be experienced, said, and thought: the infinite horizon, if you will, of that which is, has been, and will be, out of necessity and contingency. It would seem that before a culture has organized it linguistically in the form of content, this *continuum* is everything and nothing and therefore eludes all determination. (op. cit.: 52 – my emphases)

Eco speculates that “before a given language has segmented and organized [it]” (op.cit.), there may be no meaning or content to the continuum. He proceeds with his case by introducing an element of directionality to the (imagined) dynamics that play out here, describing a:

> magma of the *continuum* [where] there are lines of resistance and possibilities of flow, as in the grain of wood or marble, which make it easier to cut in one direction than in another…If the *continuum* has a grain, unexpected and mysterious as it may be, then we cannot say all we want to say. Being may not be comparable to a one-way street but to a network of multilane freeways along which one can travel in more than one direction; but despite this some roads will nevertheless remain dead ends. There are things that cannot be done (or said). (op. cit.)

These can perhaps, be taken as consolatory words; we cannot do and say all that we’d like to, or think we can, and they are words that should perhaps be born in mind when carrying out a project such as this. However, there is a plurality, and non-linearity of thought and approach implied in Eco’s notions of “multilane,” multi-directionality, which I think indicates the value of considering equivalent dynamics playing out in creatively generative processes. There is something of this order in the *bricolage* of strands, samples, and fragments that have come to constitute my creative practice,
especially now, in the context of this study. As related, this was less so in the past. As things had been, by my perception, I would have been dealing, singularly, in matters, which were of that “amorphous stuff…before language has carried out its vivisection” (op. cit.). It did indeed all tend to be, “infinite horizon[s]”, implicit of, “all which is, has been, and will be, out of necessity and contingency” (op. cit.) – undifferentiated ‘stuff’ of the continuum. Here and there, this is still the case, but now, in addition, there is also a sometimes, discordant panoply of other ‘stuff’, which, in some cases, appears to be well on its way back to amorphousness, after the event of its ‘vivisection.’
3. LANGUAGE AND SELF-MAKING

TALK AMONGST YOURSELF

Naturally, an important objective within this study has been to seek out language that might facilitate a further understanding, articulation, and communication of the ideas that shape it. Terminology employed to communicate ideas and concepts arising out of the ‘new sciences’ has been particularly valuable in this respect. The term *autopoiesis* was first coined in conjunction with the work of the Humberto Maturana and Francisco Varela, and it alludes very much to the notion of self-generation as referred to earlier in relation to the process-led facet of my practice. It is a key term applied to their self-organizing systems theory, which provides the principle theoretical support that I employ to enable this research. The concept of autopoiesis is central to Maturana and Varela’s work and its meaning can be understood by breaking the word down into its constituent parts, with ‘auto’ meaning ‘self’, and ‘poiesis’ – sharing the same Greek root as the word ‘poetry’ – means ‘making’. Autopoiesis is therefore the concept of ‘self-making’ (Capra, 1996, cited in Wright, 1998: 2), and although originating from deductions drawn from observations made in the field of biological research, that is, the processes by which living systems generate and organise themselves, it has come to be used in relation to living systems in general, from one-celled organisms, to humans, to societal structures, and beyond.

Autopoiesis is a concept that sees each living system as self-referential; its manner of evolution and self-organization shaped by continuous streams of stimuli, this being referred to in systems theory as ‘feed-back’. The understanding is that a living system’s behaviour is determined by its structure, as is its structure determined by its behaviour. Changes do occur in response to interaction with external phenomena, but the changes that result are determined within and by the system. Furthermore, the concept of autopoiesis posits that, as the structure of a system changes, the kinds of encounters it admits also changes.

Through becoming aware of the work of Maturana and Varela, and of the concepts of systems theories, I have found a vehicle, and a language that enables me to shape and
articulate ideas, and concepts hitherto only vaguely apprehended; notions that have informed and characterised my working practice for many years, both as an artist and as a teacher. This is particularly valuable to me, and to others hopefully, in that it effectively enables me to express ideas concerning processes that, I would argue, significantly influence cognitive-perceptual development; ideas that may otherwise lack coherence, and may also lack import and authority. In a world where scientific methods of presenting quantifiable data remains dominant, it is both gratifying and encouraging to be able to draw on the support of scientific research in the context of an arts research project. Clearly, the employment of apposite language, and therefore the way that that language can affect the experience of, and reflection upon the carrying out of that research is a key factor. Our individual understanding of language is shaped by our experiences, as are our experiences shaped by language, with writing as a form of reflection on experience being of key importance; “writing restructures consciousness” (Ong, 1982: 78-115) – a phenomenon that I have become more acutely aware of through working on this project. By engaging in the task of ‘translating’ its ideas into word-based language, I find myself, from moment to moment, attempting to assimilate the relevant ‘data’ – feedback born of reflection upon felt experience – into something communicable. In so doing, those aforementioned “vaguely apprehended” notions appear to undergo a subtle shift in nature and form, as they ‘crystallize’ in the mind and upon the page, as though they were in themselves latent processes responding to the catalyst of reflective attention.

Once again, science derived metaphor presents as an aid to communicating ideas relating to non-science disciplines, and to ideas that can grow from reflection upon lived experience. David Wright (1998), in his doctoral thesis Creativity and Embodied Learning, employs both the language and the concepts of science as a means of supporting and articulating his thoughts on ‘the learning process,’ as understood from the perspective of his practice as writer, and in particular through his involvement in theatre. As implied in the title of his thesis, Wright’s position is one that emphasises the role of physical experience as a vital stimulus to learning, and in particular where that physical experience is integral to creative activity. He draws on Maturana and Varela’s concepts, and the language they employ to assist in giving form to his “search for explanation” (op. cit.):
Maturana and Varela employ constructivism and systems thinking to arrive at the concept of autopoiesis. This makes it possible to arrive at an explanation of social experience that is grounded in a scientific analysis. (op. cit.: 144)

Wright goes on to postulate that self-conscious engagement, or consciousness of participation, coupled with the involvement of explanatory language, be viewed as integral to the ‘mechanism’ of autopoiesis, and effectively explains it as a process of cognition. That is, ‘systems’ feeding back into themselves, thereby developmentally shaping the manner of their self-making, or self-creation:

This explanation employs the understanding that as we observe we participate in that which we are observing and the language we use to conduct that observation also contributes to and therefore participates in that observation. This explanation brings with it a worldview. This worldview contains both a way of understanding experience and a way of understanding the context within which that experience occurs. This ‘way’ is a recursive, self-referential process. In systems thinking it is described as ‘feedback’. (op. cit.)

SENSE, AND THE SELF IN LANGUAGE

My interest in this study is to consider language as an emergent phenomenon of our embodied, sensory experience of being, and acting, in the world. My approach brings particular attention to the interweaving of sensory, non-linguistic modes of operation, with linguistic, intellectual modalities. As such, a close relationship is drawn here, between the sensory-perceptual dimension of our practical interactions with the material world, and our linguistic development. Part of my approach in this respect has been to explore, what I understand to be, the creative, and developmentally generative processes that ensue from bringing language into close dialogue with the practical, multi-sensory experience of making of art. As such, the recursive, self-referential, sensory ‘feedback’ that occurs through practical engagement in art practice, is interwoven with associated linguistic activity, which effects its own feedback ‘loops’. I view this ‘cross-talk’ of feedback processes, as a dynamic that, through active observation, and “consciousness of participation” (Wright, 1999: 4), can be generative to a more individuated variant of language development. As it relates to notions of autopoiesis, or self-making, I speculate that this individuated persuasion is fostered by a more sensory-perceptual emphasis on creative engagement.
in language use. I explore this hypothesis, principally through the language component of my practice, which I address in the section, *Where Language Happens*. 
4. REFLECTIONS, REFLEXIONS, PRESCIENCE

IN THE BEGINNING WAS THE BIKE

Back in the (European) spring of 1983, I was entering the final stages of the final year of my honours degree in visual art at London’s Goldsmiths College. I was under some pressure to settle upon a subject for my written thesis as time was running out. Somehow I hadn’t been able to get sufficiently excited over writing about any particular artist, or art movement, or any of the subjects that might normally be considered for submission.

As I clearly recall, the solution to this problem came in the form of a joke, or at least what seemed to be a half-joking suggestion. My flatmate at the time, who was also a final year fine art student, suggested that I write about my past; pre art school that is, when, for a number of years I’d been a full-time competitive cyclist. More specifically he’d suggested that I write about a particular branch of track cycling known as the team-pursuit. I’d evidently talked about this a great deal, sufficiently it seems to have enabled someone else to see its potential as a subject for a thesis, and furthermore, a subject consonant with the nature of my studio practice at the time. On reflection I can now see that there’d been a quite serious, and astute idea proposed within this apparent flippancy. Thankfully, I too was able to see this potential– once it had been pointed out to me by someone else, and was consequently able to submit a coherent and well-received thesis. More importantly, the writing of this thesis, and the nature of reflection engendered by it, had revealed something to me which effectively led me to re-evaluate this past phase of my life, and to view it as an integral part of a greater whole, indeed, what I can now associate with systems thinking.

As is often the case, such revelations can, and generally do strike one as being quite obvious once the initial ‘eureka’ stage has passed. However, up until then, I had quite definitely viewed my former life as a competitive sportsman as belonging to an entirely separate, discrete sphere of existence to the new one I’d embarked on as an aspiring artist. I now of course view this perception as quite misguided; perhaps indicative of a personal lack of vision (as I’d had to benefit from someone else’s), and
a view that would not have been discouraged by the (mainstream) cultural climate of the early 1980s. Now of course, the concept of inter-disciplinary common ground is widely recognised. At that time however, even within work being carried out within specialist fields of study, the whole mind-body ‘problem’ was still, broadly speaking, an emerging subject of debate.

With the re-reading my 1983 thesis, I’m happy to let go of any dealings with that particular ‘dichotomy’, as it had then been widely perceived. The conception, and inception of that study was nevertheless the seminal episode that now brings me to be writing these words now – although where exactly this heuristic pathway began is something that I’ve already (validly I believe) questioned.

REFLEXIVE CYCLES

To proceed however, it’ll be important now to summarize what it was that I was attempting to say in that earlier thesis, and indeed, how I was attempting to say it. Re-visiting that work now provides a window through which to view the ideas of this current project when in their infancy. This, I think, introduces a more emphatically temporal aspect to reflexivity and self-observation in this context. In a very specified way, past and present strike up a dialogue. Such a reflexive feedback ‘loop’ traverses time between two distinct, personal, developmental eras, and will be informed, consciously or otherwise, by all that has been experienced throughout the intervening period. This order of reflection can, I surmise, engender propitious conditions, whereby the observer’s attention is drawn to their observations; observations of salient features of their own history, in such a way that it may be perceived and characterized in more topological (if not topographical) terms. In other words, there occurs an internally perceived, multi-dimensional ‘mapping’; the observer’s sense of an imagined schema; plotting, charting the continuum; the temporal fabric within which they exist.

Through this infra-perspective, intimations may be present, of where, and how the observer will find themself situated within this, their own web, or network of experiences over a lifespan. I am interested in considering how we, as autopoietic living systems; as ‘conscious participants’, work with that process of self-observation; how we notice those significations over time, and to notice how we, in our
embodiment, are in dialogue with those recognitions. It all, I would maintain, comes back to the body, the organism that Philosopher José Gil (1998) has described as the “Transducer of Signs” (op. cit.: 107). In this vein Gil goes on to consider the body’s role within the complex of language and communication but acknowledges that an explanation is elusive, due to the want of apposite language, and the want of operable means of communication. He writes:

The Floating Signifier relates to the body, this crucible of energy mutations. But what goes on there remains unknown – and will remain so until an adequate semiology (one that can take account of transsemiotic fields) is established. In particular, it would be important to make a large part of this deal not only with the capacity of the body to send and receive signs and to inscribe them on itself, but also with its capacity to serve as a base for all communicative activity. (op. cit.)

Gil speaks of “corporeal translation,” (op. cit.: 111) suggesting that this phenomenon of the ‘transduction’ of signs and codes, into language occurs:

because it is in the body that the codes find their point of convergence and their first point of application: the very one that will allow language, and in particular symbolic language, to translate codes among themselves. This property of the body to be the home or agent for the translation of signs can be designated by characterizing it as an infralanguage. (op. cit.)

Although I don’t consider it my remit (or within my capabilities) to establish “an adequate semiology”, as Gil proposes, I do feel that the ‘problem’ he describes relates directly to much of what this study endeavours to deal with; a study where I draw upon, and reflect upon data that registers from embodied experience (which itself requires some order of translation). This is a mode of reflection and thought that does indeed regard the body “as a base for all communicative activity” (op. cit.: 107), perhaps most importantly, communication with oneself, although not in the sense of self-talk as such. I’m thinking more in terms of sensorial thought; thought that is born of a felt sense of how things are. The term infralanguage would serve well in this respect. That is, as a felt, principally self-referential, mode of imaginal thought, which may suggest ‘explanations’ of phenomena; schematic representations in the mind of the observing self, of the otherwise ineffable. Our inherent creativity affords us the
scope to foster dialogue with these immanent, pre-noetic apprehensions; an order of intra-personal feedback; a back-and-forth discourse, where creative engagement in these dynamics may foster a more individuated interaction of perceptual awareness, conceptualising, and theory-making.

To view this as a creative, generative process accords, I would argue, with a systems view of personal evolution. This inherent creative potential has its implications however. Adam Phillips (2004), discussing the work of William James writes:

What is creative about theory-making is that it creates consequences; our theories "somewhere issue in a practical difference"; somewhere because there isn't a simple causal connection in play. However subtly, however difficult to discern, what we believe issues in what we do. Our theories are compasses, if not maps. (op. cit.: 56)

So, the theoretical positions that we adopt will in turn, according to this view, contribute to directing our actions, which will subsequently generate consequences, or "practical difference(s)”, that when reflected upon are likely to lead to a revision of those theories and concepts, and so on, and so forth. “Our theories are compasses, if not maps” (op. cit.), Adam Phillips suggests, and in doing so, I think that he draws attention to the importance of how we regard the object nature of that which “issues in what we do”; how we attend to what happens.

As mentioned, analogies of navigation and mapping have, and continue to feature prominently in my own theorizing, and so Phillips’ metaphorical use of ‘compasses’ and ‘maps’ resonates for me. If we are engaged in the process of ‘going somewhere’, with the navigational aid of our theories, then it would follow that the consequences that issue from those theories or notions will inhere suggestions of how to proceed; signs emerging along the way, of what and where next. The act of noticing what’s there, and attending to the “practical difference” of what has happened is an inherent component to the ‘creative act’, and will apply as much to the heuristics of arts practice as to the life-span ‘navigation’ of any individual.

The circularity that I’ve just described also throws light on another important consonance with systems thinking, and with Maturana’s *autopoeisis* in particular.
Viewed this way, the ‘theory-making’ to ‘consequences’ to ‘revised theory-making’ to ‘consequences’ loop (or elliptical series of loops) presents very much as a process of self-making. When Maturana first ‘discovered’ this circularity principle, which he was later to name *autopoeisis*, he explained that this was the characteristic that “reveals the dynamics that makes living systems autonomous, bounded, and independent entities” (Maturana, 2004: 97). There are two key points here as I see it. One is that the revealing of, and the understanding of those “dynamics”, will implicitly describe the structural nature, and therefore individual, characteristics of the “autonomous, bounded and independent” living system in question. The second key point, and something that I have already touched upon, is that of considering this circularity as a form of discourse. Successful discourse necessarily requires receptiveness, and attention to the dynamics at play, as well as to the informational content circulating through that discourse. The reflexive nature of self-observation as a means toward self-knowing then, might be understood in this way. Understood that is, as a form of circular discourse that can enable itself to cohere, develop, and evolve through attendance to its own dynamics.

So, in self-observation, the revealing of, and the knowing of the dynamics will require that we, as observers, observe in a manner that allows those characteristics to be known. In other words, this is about taking notice, and doing so in a way that fosters the observer’s potential to discern beyond face value, and to perceive of the affinities, or homologies implicit in what is seen and experienced. As a scientist, Humberto Maturana will have observed biological living systems with a scientist’s eye, but evidently one that enabled him to do just this, that is to creatively analogise, and to arrive at the conception of autopoeisis as a model to further understanding of what it is to be human.

My particular interest is to consider the implications of how we, as embodied ‘transducers of signs’ might, through this circular, recurring and recursive ‘discourse’, register and contemplate the effects (and affects) of what it is that we do; what we experience, those “practical differences” presenting as “signs along the way” as I have already conjectured. This circular, self-reflexivity can then be viewed as an intrinsic process to the inherently self-making nature of our ontogenesis. This order of *subjectivity*, with its focus grounded as it is in the workings of the physical,
phenomenal world, can be seen as a way of knowing greater *objectivity*. I need to acknowledge here, that assumptions surrounding terms like ‘subjectivity’ and ‘objectivity’ can be problematic. From the standpoint of psychoanalysis, Daniel Burston (Frie, 2003) offers valuable comment in making specific reference to these terms. The words “‘objective’ and ‘subjective’ in vernacular English” he suggests, denote:

> to the vast majority of educated people in the Anglo-American world...mutually exclusive or antagonistic states of mind. The more ‘subjective’ one’s attitude, presumably, the more it is coloured by emotion, bias, projection, and so on, and therefore the less 'in touch' with reality one is. And correlative, the more 'objective' one’s attitude, the more impersonal and less informed by feelings it is presumed to be. In short, our language is structured in terms of mutually exclusive alternatives that ordinarily preclude thinking in terms of **a grounded subjectivity that is closer to reality as a result of being more deeply reflexive than average.** (Burston, in Frie, 2003: 166 – my emphasis)

At the risk of over-working the navigational metaphor, I’d like to ride a little further with it, and look more closely at the notion of our being in a “process of ‘going somewhere’”, and that we might proceed “with the navigational aid of our theories; our ideas”. What is implied by William James’, autopoietic (as I interpret it) model of ‘theory-making’ to ‘consequence’ to ‘revised theory-making’ etc., is that theories (working ideas I’d prefer to call them) and their effects are constitutive elements of each other. In effect, what is being described here is an integral, circular, self-referential process, an entity making itself – analogous to an autopoietic network “whose operations effect its own production” (Maturana, 2004: 98).

Echoing James’ view once again, Adam Phillips asserts of theories that “They are not destinations, they are our means of transport” (Phillips, 2004: 56), and perhaps the same could be said of analogies? If we are ‘aboard’ the ‘transport’ of our theories, bound, at least notionally, for a destination, then some anticipatory sense of this, as yet unknown point of arrival will be instrumentally present within the act of journeying. When you’re on a train for example, or a bus that’s bound for a destination, that destination will of course already be there, generally speaking, and as a passenger, you will have some awareness, or notional sense of that place. You may
not know exactly where you’re going, and you may never have been there, but, to some extent, your idea of where you are heading will permeate that experience of travelling. Even where the destination is indeterminate, where the journey is some kind of heuristic magical mystery tour, the same would apply. That point of arrival – although unknown, and as yet, only imagined – will have presence, and therefore instrumental significance within the mind of the traveller. So, in the case of this imagined bus journey, origin; passenger; bus; road(s); weather; time; destination, and so on, will all coexist within the same ‘operational domain’, to coin a Maturana term; and all are contemporaneously and intrinsically parts of the same equation.

I have sought to develop this analogy in order to address two key points. Firstly, I wanted to draw comparisons, highlight affinities, between the phenomena as described in self-organising systems theory, and the kind of recursive, and (self-?) reflexive heuristic process summarised above. This is to explore the interrelatedness, and analogous characteristics of feedback processes across a range of categories, or levels of organization. Ludwig von Bertalanffy, one of the founding figures of systems theory, asserted that a systems view “interprets the similarities between processes at different levels of integration as homologies” (von Bertalanffy, cited in Sabelli & Carlson-Sabelli, 2006: 323-37). The second point is linked to the first, and this is to consider the dimension of time within this complex of self-reflexivity and feedback, or more specifically, the self-conscious observer’s experience of time through engagement in these processes. Time has of course already been identified as significant element to this study, with the extensive references made to my earlier work; the “feedback loop” that “traverses time between two distinct, personal, developmental eras…” Further to this however, and I think of equal, if not greater importance, is something that relates to notions of prescience; or what I might describe as anticipatory ‘pre-echoes’, as evidenced through creative work, and I suspect, process-led creative work in particular. What I’m attempting to describe is a characteristic that seems to anticipate elements that may subsequently follow in the work, but are as yet, not actually known about.

I first began to consider this by noticing, with the considerable hindsight that I now have, the seemingly precursory nature of the honours thesis that I’m referring back to, that is, it can be seen to have anticipated, and been implicit of so much that was to
come in my art practice, and in my working life in general. I might call this apparent phenomenon, ‘unwitting anticipation’; ‘Unwitting apprehension’ might also be apposite, or the ‘unwitting anticipation of an apprehension’ might do. What I’m attempting to describe here is a phenomenon, where ‘materials’, or representations (linguistic terms, quasi-concepts, phrases, images, forms etc.) come to manifest, seemingly as a corollary of a process, which, when looked at retrospectively, appear to have anticipated the knowing of something; something that as yet hasn’t been grasped as a concept – which may take us into the realms of Donald Rumsfeld’s “unknown unknowns”, I’m not sure…

In fact, the terms ‘unwitting’, and ‘anticipation’ might not go quite far enough. What I’m referring to here is the phenomenon, where the seemingly serendipitous manifesting of something has occurred, but that the significance of that ‘something’ hasn’t been recognised at the time. It has been experienced, noticed, lived in, lived through, and given existence, but hasn’t yet ‘explained’ itself. This intuitively garnered material does effectively become present within the ‘operational domain’ of the creative heuristic, but awaits the catalyst that defines it as germane to the process of ‘navigation’ as defined above. This may correspond to Kant’s views concerning the braiding of intuition (as knowledge of phenomena) with concepts; his “celebrated formula”, asserting that concepts without intuition are empty; intuitions without concepts are blind (Depraz, Varela, Vermersch, 2002: 45).

With the kind of scenario that I envisage here, the implication is that that something, of ontological, epistemic value has taken place; has evidenced, or been experienced, but which hasn’t been understood at the time, at least not conceptually. The sense that something meaningful has happened will have registered on some level. A ‘report’, in more than one sense of the word, has been delivered, has fed-back as a consequence of activity, of praxis, but at that stage in developments the report hasn’t actually said what it is, that it is reporting. With this in mind, Donald Rumsfeld’s words might be worthy of further attention:

Reports that say that something hasn't happened are always interesting to me, because as we know, there are "known knowns"; there are things we know we know. We also know there are "known unknowns"; that is to say we know there are some
things we do not know. But there are also "unknown unknowns" — the ones we don't know we don't know. (Rumsfeld, Web Site accessed, 8/6/2007)

The words of the former US defence secretary may seem a questionable source in this context, but this ‘playful’ use of language toys with straightforward logic in an interesting way, and can create interesting scenarios in the mind. For someone to arrive at my door, delivering a report to say that, “something hasn’t happened” would be of interest to me as well. It would, at the very least, appeal to my sense of the absurd, and leave me wondering. In that sense, something will have happened.

PRESCIENT SENSE

Over time, this phenomenon of ‘knowing’ something in advance – that is, in advance of knowing it as a “known known” – has evidenced itself most clearly through the material that has emerged through my creative practice; to reiterate, where all manner of “representations (linguistic terms, quasi-concepts, phrases, images, forms etc.) [have] come to manifest, seemingly as a corollary of a process”. I refer in this document to my realization and understanding that my work is always some way ahead of me conceptually. By this I mean, that I only come to more fully apprehend, and grasp conceptually, the product of my work at a later stage, and sometimes much later. This indicates that the order of thought that is at work, as it applies to attentive interactions with material properties and processes in that practice, will be cognisant of qualities and values that the conceptualising, intellectual mind has yet to recognise. This is to work with the notion that (returning to the navigation metaphor) this form of (apparent) sentience will be cognisant of ‘indicators’, or ‘significations’, that guide a more individuated, heuristic navigation, creatively, and, by implication, in broader terms. It is all essentially about how things are felt to be, and how those feelings (which are arguably refined and developed through creative practice) afford acuity of discernment in our ‘steering of courses’.

The place of feelings, emotions, intuitions, in the arts, is of course understood. Such qualities however, are not necessarily ascribed the same value in other fields, although there are emerging tendencies which are effecting changes in this respect. David Howes (2005) relates neurologist Oliver Sacks’, estimation, that, “the cognitive sciences are also lacking in attention to matters of feeling and judging” (op. cit.: 21).
Sacks refers to his famous case study of ‘the man who mistook his wife for a hat’, as one of several “‘warning[s] and parable[s] – of what happens to a science which eschews the judgemental, the particular, the personal, and becomes entirely abstract and computational’. We are not just calculators. ‘We need the concrete and real’” (Sacks cited in, Howes, 2005: 21-2). Howes adds that:

According to the cognitive sciences, the mind makes the object. This proposition needs to be balanced by the recognition that the object makes the mind, and that both such makings are always mediated by the ‘ways of sensing’ or ‘techniques of the senses’ unique to a given culture and, within each culture, to each individual. This is what is meant by the phrase ‘the prescience of the senses’ as used here. (op. cit.:22)

By this account, what would seem to be of the essence then, is that those “ways” and “techniques” of sensing are cultivated in the interests of refining their capacities of ‘mediation’, which may just entail a more reflective attendance to those orders of thinking and observing that creative practice can foster. This is, I would maintain, a more physical mode of thinking, and does point to the importance of bringing greater emphasis to the notion of mind, as an embodied phenomenon, and furthermore, “not as a thing, but as…[an] emerging process of interactions” (Johnson, 2006: 4).
5. BODY-MIND

INTEGRATED ACTS AND INTELLIGENT MOTION

The revelations of modern physics have brought about radical shifts in our understanding of physical reality. In recognising that the causal, Newtonian universe of quantifiable and predictable mechanisms is not all, we are it seems denied the apparent certainties that would have shaped the existential perceptions of many of our predecessors. ‘Plain and simple’ face value can no longer be fully accepted as the whole story, with ‘ruptures’ of logic, and paradox toying with our grasp of reality. That said, we do of course continue to rely on essentially mechanistic and calculable methods to aid and structure the workings of our day-to-day existences. Although this project pays a great deal of attention to the (creative) values of operating outside of the realms of logic and rationality, it is this knowable and logical version of the physical universe, and our place within it, that provides the foundation for my thesis; indeed the foundation of that “grounded subjectivity” already referred to.

On an at least primary level, we do, as physical beings, exist and act in accordance with the laws of the physical universe, and function within an environment shaped by those same laws. Through our active or passive interaction with these prevailing forces we register our sense of being. Movement as a process of negotiating these forces heightens and further defines that sense of being. Mind organises movement, and the sensory experience of movement informs and conditions the mind. States of physical action, stillness, grace, clumsiness, balance, disequilibrium, at whatever qualitative level, occur as a consequence of the ‘integrated act’ of mind and body; a term first coined by the British Physiologist Sir Charles Sherrington in the 1930s. Sherrington, in using this terminology, was, from his scientific standpoint, talking of the ‘oneness’ of mind and body. In doing so he was proposing a concept, which, at that time, would’ve been largely at odds with Western mainstream thought. That is, an understanding of mind in relation to the phenomenal universe as shaped by the notion of, what has widely been termed as, *Cartesian dualism*. 
Sherrington’s view that “the muscle is the cradle of recognisable mind” (Sherrington, 1940, cited in Evans, 1983) endorsed Rousseau’s belief that the body is the instrument of the mind, and serves to evidence the mind as such. Extending this logic, Sherrington proposed the suggestion that all communication is materialised through movement, including speech, play and other forms of physical activity. He was thus recognising, in scientific terms, the vital interconnectedness of physical action (the motor act) and mental/perceptual development:

mind, recognisable mind, seems to have arisen in connection with the motor act. Where motor integration progressed, and where motor behaviour progressively evolved, mind also progressively evolved. That kind of motor integration, which arrives at concentrating the complex mechanism on doing one thing at a time, offers a situation for the mind; and the doing of that one thing finds mind alongside it...The integrated act has its focus, and there mentality has its focus. (op. cit.)

To go a little further with this notion of the body “as the instrument of the mind,” I advance a perspective that would re-word this slightly, proposing that the body is the instrument that is the mind. This isn’t of course, to disregard the brain’s role in our thought processes, feelings, and consciousness. What it represents however, is an understanding that views bodily skills and perceptions as, to a quite significant degree, the core of human intelligence. I address this point in some depth as I proceed with this document.

I should acknowledge that the idea of the body as a cognitive instrument is nothing new. The thirteenth-century Persian philosopher, mystic, scholar and founder of the order of the Whirling Dervishes, Rumi wrote, in his poem Body Intelligence that:

You and your [body's] intelligence
are like the beauty and the precision
of an astrolabe.

Together, you calculate how near
existence is to the sun!

Your intelligence is marvellously intimate.
It’s not in front of you or behind,
or to the left or the right.

Now try, my friend, to describe how near
is the creator of your intellect!

Intellectual searching will not find
the way to that king!

The movement of your finger
is not separate from your finger.
You go to sleep, or you die,
and there’s no intelligent motion.

Then you wake,
and your fingers
fill with meanings.

And, by my interpretation, he proceeds to exalt this mode of intelligence as the essential means of knowing what our **being** is, and what that **being** is **in**, and part of. That is, as Rumi puts it:

...the universe of the creation word,
the divine command to **Be**, that universe
of qualities beyond any pointing to.

More intelligent than intellect,
and more spiritual than spirit.

No being is unconnected
to that reality, and that connection
cannot be said. **There**, there’s
no separation and no return.

(Rumi, translated by Barks, 1999: 151-3).

In more recent times, the ‘new sciences’ have provided us with descriptions that have helped to break down the perceived mind/body duality. In Western thinking this shift in attitude dates back, at least, to the views presented at the turn of the twentieth
century, and in the following years, by the American pragmatist philosophy of Peirce, James and Dewey in particular, with William James’s asserting that, “‘mind’ is an emergent process, never separate from body” (James, cited in Johnson, 2006).

PROPRIOCEPTION

Proprioception is probably best explained as the body’s sense of itself in space, and at a foundational level, it is one of our most important ways of knowing. It is an integral mechanism to the vestibular system – the system that controls our sense of movement and balance. Proprioception is essentially the system that communicates information from our musculature to our brains. Carla Hannaford (1995) discusses this at length in her book *Smart Moves: Why Learning is not all in the Head*. Here she emphasises the central role that proprioception plays within the development and integration of our various sensory systems as they contribute to the formation of a personal sense of knowing in relation to our physical environment:

All of our muscles have proprioceptive receptors, which sense the degree of stretch in the muscle. These stretch receptors let us constantly know everything about our physical position and provide the feedback necessary for us to move and maintain our balance. As exquisite learning tools, proprioceptors allow us to explore our environment, understanding it through our muscle sense. (op. cit.)

Of the vestibular system, she explains that:

This system maintains both static and dynamic equilibrium. Static equilibrium refers to the orientation of the body, mainly the head, relative to gravity, for example when you are standing still. Dynamic equilibrium maintains the body position, mainly the head, in response to sudden movements such as acceleration, deceleration and rotation when you are in motion... (op. cit.)

She goes on to describe how:

Developmentally, the proprioceptive system is intimately tied to the vestibular system, which allows the balance necessary to move from an inert position. Babies begin moving from the core muscles, the inner muscles of the trunk. There is constant feedback from the proprioceptors to the motor cortex of the brain that allows more and more complexity of movement. (op. cit.)
The primacy of this feedback system to our cognitive development is therefore quite evident. It is the principle operative factor at work in enabling the infant to progress from the uncoordinated flailing of limbs, to crawling, to sitting up, standing up, and eventually to walking, and all that lies beyond. At a fundamental level then, proprioception, as a process of continuous feedback, in concert with all of the other senses, progressively informs and describes to us, through our unique structural configuration as sentient living systems, the nature of what it is that we are in. That is, our reality as physical organisms; our constitutive relationship, as physical organisms, to the operations of the phenomenal world. My line of thinking here reflects a phenomenological perspective, a philosophy to which I make numerous references in this study. Phenomenology was the name given to this philosophical approach by its founder, Edmund Husserl (1859-1938):

According to Husserl it is through experiences that we gain access to things themselves. The concept of experience was essential to his formulation, and it became a key signature for the whole of phenomenology. His starting-point was how the world is experienced in a subjective way, and the aim was to find a way to describe the meaning of these subjective experiences. In other words, phenomenology has been summarized as a description of how the world is experienced by the person in the world. (Alerby & Fern, 2005: 177)

Central to this thesis then, is to regard the body as the uniquely configured, intelligent organism, which is as such, the principle aspect of mind through which “we gain access to things themselves” (op. cit.) as we experience being in the world. My use of the term body-mind refers to this facet, this dimension, of our cognitive activity.
6. PHYSICAL THINKING AND THE ART OF PEDALLING

CORRESPONDENCE, ALIGNMENT, AND MAGIC

Within this research, in its dealings with the qualitative data of life experience into creative practice, the question of what constitutes research continually arises. Granted, there are, increasingly, well-defined paradigms that valorise the relating of personal experience as valid data. Phenomenology for example, has established a valuable framework in this respect, providing useful models of research in this field. Even so, it could be said that the question of what actually constitutes research data, or more, the question of how qualitative, subjectively registered data are methodologically processed, remains to some extent, an open question. Phenomenology can be understood as the:

“study of phenomena as they present themselves in direct experience.” The premises of phenomenology are: the subject is a creative agent in building their understanding of the world, and the experience of the researcher and the experience of others, is intersubjective. Thus the causality of human phenomena is explored without emphasis on “truth-value, reality, or appearances.” When it comes to actual methods used in phenomenology, there is no clear design, and most researchers tend toward a divergent approach stemming from a central research question. (O’Leary, 2004, cited in Haywood, 2008: 11-12)

To reiterate, my interest in this research is, quite simply, to explore the developmental potentials inherent within experiences of acts of doing, and with a specific emphasis of the notion of mind as an embodied entity. I work with the conjecture that our embodied experiences of performing actions inhere developmental, evolutionary, and indeed, transformative potentials. ‘Transformation’ in this sense can be described as “the reconstruction of consciousness through experience” (Karpiak, 2000: 31), and this is a position that views transitional shifts through levels of consciousness as a continual process. With this in mind, it is important to recognise that human beings are “open systems”, which are “in constant interaction with their environment”, and will self-organize “according to their own patterns and structures…[t]hrough this dialogue with their environment, open systems have the inherent possibility to renew and even to evolve and transcend themselves” (Karpiak, 2000: 31).
I should comment that notions of self-transcendence would be at odds with the thesis of this project, or would at least need to be held in abeyance. This is not due to any particular prejudice, or allegiance to a belief system opposing the idea of transcendence. It is more a matter of choosing to work with the (apparently) knowable, in a way that can in fact accommodate the idea of the ‘unknowable’ – which may of course be understood as belonging to the realm of transcendence. The idea of “transcendence” as it relates to human development, suggests to me a process where ‘something’ becomes ‘something else’. “Transformation” is arguably a more helpful term, in that it can speak of reconfiguration; reconfiguration that is, of what is actually there. “Realignment” may be even more apposite, as we could be considering quite subtle, albeit significant and substantial shifts of consciousness in the organism as a consequence of experiential, constitutional, and ontological changes. As such, this could then be considered to be a process of something becoming more ‘what it is’, as opposed to becoming ‘something else’. “Becoming” is an important term here, and it prompts me to qualify the conjectural points of realignment and transformation. In relation to both of these terms and concepts, I would propose these as continuous, and continually self-regulated processes – always becoming. I tackle this matter in greater depth in the sections: Instrumental Boundaries, and Errordynamics.

I am aware that this approach may be perceived as somewhat disenchanted – over-pragmatic perhaps, and intent on reducing things to a mechanistic determinism. This would be a misconception, and it raises a vital point that I should address. I am conducting this project through, and as a consequence of, the experience of being in my creative work. I was drawn into engaging in art practice by some force of attraction; through experiencing that is, a sense of wonder, and from the sometimes spellbinding product of other people’s creativity. This was not limited to the visual arts, but through experiences across the whole spectrum of creative practice, in music especially. Furthermore, I had come to an understanding that the ‘magic’ experienced in one domain of expression, could be seen to significantly correlate with that occurring in other spheres of activity. The sense, for example, that a collection of percussive beats, being sounded out in a particular order and tempo, corresponded profoundly to the ‘magic’ experienced at the velodrome; or the ‘magic’ of spatial arrangements in an assemblage of forms, tones, and colours, and of course the
'magic' in nature. As will be quite evident, this practice-led, process-led study subscribes to the belief that the 'magic' in art-making arises out of a foundation of executing quite knowable strategies, and, from what may appear to be, rather mechanistic procedures. This is very much paralleled by the procedures that are conducted in the sciences; a field that provides crucial support for the ideas that I propose in this thesis.

Science of course represents another arena where these issues are seriously contested. Importantly, through the ‘new sciences’, revised approaches to observing, and experiencing natural phenomena have helped create a forum where, by my interpretation, some would argue of the immanence of ‘magic’ within the knowable, material reality of the universe:

These scientists have studied nature not only from the perspective of mechanistic Newtonian science, but also from the perspective of human thought and process. They argue for a “new dialogue” with nature that would bring back the “reenchantment” or the universe that was lost to the mechanistic conception. (Karpiak, 2000: 31)

My approach to this inquiry, to my creative practice, “to observing, and experiencing natural phenomena” does then, allow ample scope for (re)enchantment, or ‘magic’. As such, it is a far from mechanistic perspective.

TEMPORALITY, RECOLLECTION, AND THE ART OF PEDALLING
The aforementioned “divergent approach” in this field of research will entail multi-modal, multi-dimensional strategies in our attending to those experiences of doing – those “phenomena as they present themselves in direct experience.” The matter of temporality is of importance here. In the case of this particular study for example, distant memories feature prominently as essential data. Remembered events and experiences of phenomena, from a time when I wouldn’t have even been able to spell “phenomena”, constitute vital components to a continuing reflexive, reflective dialogue. Furthermore, that which is considered to have passed, can come to be understood as a presently active constituent to the whole substrate of our ontogenesis. This I think highlights the crucial value of the very human faculty of reflection. In particular, it draws attention to how we might value reflection, and therefore the
manner in which we weave, or fold the perceptions of past experience into our developmental continuum – our continuous becoming, if you will.

The power of recollection, and indeed its ontological value through conscious reflection, is perhaps most evidently expressed in literature. Proust’s famous madeleine is a salient (if obvious) example of course. The apparent necessity to “reconstruct consciousness”, and to develop awareness, through creative reflection is it seems, fundamental to the ‘predicament’ of being human. Of particular interest to me is where creative work tackles (consciously or otherwise) the assimilation of sensory-perceptual experience into an expressive form. More specifically, where this synthesis achieves a form of expression that speaks with clarity of its experiential origin, and simultaneously, intimates other possible dimensions of experience and knowing. In literature, the poetry of Seamus Heaney (1991) stands out in this respect. The poem Wheels within Wheels is one of a collection entitled Seeing Things, and – not surprisingly – it strikes a distinct and personal chord for me. Of equal importance however, is that this poem represents for me a definitive example of the assimilation and synthesis described above. For the purposes of this study, I will cite the poem in its entirety:

I

The first real grip I ever got on things
Was when I learned the art of pedalling
(By hand) a bike turned upside down, and drove
Its back wheel preternaturally fast.
I loved the disappearance of the spokes,
The way the space between the hub and rim
Hummed with transparency. If you threw
A potato into it, the hooped air
Spun mush and drizzle back into your face;
If you touched it with a straw, the straw frittered.
Something about the way those pedal treads
Worked very palpably at first against you
And then began to sweep your hand ahead
Into a new momentum – that all entered me
Like an access of free power, as if belief
Caught up and spun the objects of belief
In an orbit coterminus with longing.

II

But enough was not enough. Who ever saw
The limit in the given anyhow?
In fields beyond our house there was a well
(‘The well’ we called it. It was more a hole
With water in it, with small hawthorn trees
On one side, and a muddy, dungy ooze
On the other, all tramped through by cattle).
I loved that too. I loved the turbid smell,
The sump-life of the place like old chain oil.
And there, next thing, I brought my bicycle.
I stood its saddle and its handlebars
Into the soft bottom, I touched the tyres
To the water’s surface, then turned the pedals
Until like a mill-wheel pouring at the treadles
(But here reversed and lashing a mare’s tail)
The world-refreshing and immersed back wheel
Spun lace and dirt-suds there before my own eyes
And showered me in my own regenerate clays.
For weeks I made a nimbus of old glit.
Then the hub jammed, rims rusted, the chain snapped.

III

Nothing rose to the occasion after that
Until, in a circus ring, drumrolled and spotlit,
Cowgirls wheeled in, each one immaculate
At the centre of a lariat.
Perpetuum mobile. Sheer pirouette.

(op. cit.: 46-7)

It may well have been that learning the “art of pedalling” helped me to attain some kind of a grip on things as well. My feeling now is that pedalling; cyclical motion; the whole activity of cycling, provided a kind of a channel, or portal even, inviting and
enabling me to enter into an order of experience that was, quite simply, felt to be profoundly meaningful. There was something about bikes themselves, as well as riding them, that attracted me. Messing around with bikes in the way that Heaney describes would have ‘meant’ something too. Spinning wheels; disappearing spokes; the resistance and flow of turning pedals; the ‘magic’ of motion, and of being an agent to that motion – being in that motion; incorporating it (literally) to further its generation, and swept along in this self-generated impetus. What Seamus Heaney describes here are mechanical events. It is also play; it is exploration, and enquiry. This is precisely it. This is about the primacy of handling things – to get a handle on things. It is the self-generation of a dynamic, a “new momentum” that enters (back) into the agent of that momentum, affording “an access of free power”.

For me, the following lines are quite pivotal to the whole sense of this work:

“But enough was not enough. Who ever saw
The limit in the given anyhow?” (op. cit.)

By my interpretation, these words also correspond directly to something that I can remember thinking to myself (decades ago), and subsequently attempting to voice to others. It was all to do with this seemingly fundamental need to physically act upon responses to environments; more specifically, to perform actions prompted by responses to felt observations of the properties and perceived dynamics of those material environments. In other words, “enough was not enough”. The “given” presents as a stimulus; a point of departure, a springboard, and certainly not a “limit”. My contention is that this compulsion to act upon such stimuli signifies, on some level, the recognition of developmental potentials within that activity, which is one reason why an infant’s play is early learning – most importantly of course, it is play. The question then, is that of where those active, embodied responses might lead; and how consciousness, within this engagement, is informed, and further shaped. The act of spinning a bike wheel in muddy water is unexceptional. Clearly though, it can significantly impact on consciousness. Mundane or otherwise, it is a matter of how things are attended to at the time, and crucially, through subsequent reflection. Phenomenology emphasises the directing of attention to:
an awareness of the primary character of everyday life, the life we live with others in the world and upon which all special acts of awareness and their objects are based. Husserl called the location of everyday experience the “lifeworld” (“Lebenswelt”) and saw it as the basis of all other worlds, such as the world given to us through scientific inquiry. (Knill, Levine & Levine, 2005: 24 – my emphasis)

The suggestion that “other worlds” are implicit within experiences of the “lifeworld” compares in an interesting way with Seamus Heaney’s question: “Who ever saw the limit in the given anyhow?” In both cases, it could be read that these words offer intimations of gateways into other dimensions, which may, according to personal leanings, be understood as accommodating notions of transcendence. Edmund Husserl, the founder of phenomenology, ostensibly tended in this direction – his “philosophy of consciousness” leading him “to a metaphysics of a worldless transcendental subject” (op. cit.: 23). This was something that those who followed Husserl, most notably Martin Heidegger, sought to revise.

WHAT IT’S LIKE
My reading of “Whoever saw the limit in the given…?”, is that yes, there probably are (as I have intimated) ‘other’ dimensions that can be known through active forms of engagement in the phenomenal world – or other dimensions of ways of knowing. What, or where, those ‘other’ dimensions might be however, presents a question that extends beyond the scope of this study. Aside from (and within) the specific questions of my research, the core of this project, both in the theory, and in the practice, is the perfectly natural interest of considering what it is, and what it’s like, to be (consciously) human. This according to Francisco Varela, is central to the ‘problem’ of consciousness. In his words, this is essentially the matter of “‘what it is like to be’”, and of finding the method “to explain the phenomenon as such” (Blackmore, 2006: 225).

On a fundamental level, what we do in our interactions with the world; what we choose to do, how we do it, suffices I think as an axis of enquiry, a point of departure to tackle these questions. Although in this study I do arguably focus on quite high-order acts of performance, I maintain that these are just extensions of more rudimentary levels of doing, and are necessarily grounded in the ‘ordinary’. It maybe
helpful to consider these higher-order activities as simply refinements; as developments of our instinctual imperatives to carry out actions, which enable us to survive and get by in the world. As such then, they are merely positions on a continuum, which relationally indicate other positions and states of being on that continuum. The everyday *life-world* – where we might mess around with a bike, or build sandcastles – is the location, and the situation where, for Heidegger, we find ourselves to be. That is:

the *life-world*, the world of everyday life, is what shows itself to us in our very act of existing. Insofar as we are beings who exist in a world, we are “there,” and our existence can be understood only through this notion of being-there (“Dasein,” Heidegger’s gloss on the ordinary German word for existence). This means that the human being is a being-in-the-world. The characteristic of mundanity is not added on to the existence of a transcendental subject; rather it is part of the existential constitution of human being itself. (Heidegger, cited in Knill, Levine & Levine, 2005: 24).

Not seeing the “limit in the given” seems vital then. ‘Being-there’; interacting with the ‘thingness’ of the object-world; doing; observing doing; reflecting on observations of doing, and so on – *Seeing Things* in the sense that Heaney appears to advance – this all seemingly suggests an accommodation of the belief that “the given” in human experience, is not the limit. Furthermore, this is a belief that further validates the pivotal role of personal experience as research material.

How we observe and consider our perceptions of the “given” then, is key; “[t]he task of phenomenology” writes Steven K. Levine, “is to investigate the manners of *giveness* by which things appear to consciousness.” (My italics) In relation to research, he continues:

The significance of the phenomenological attitude is that it opens up the world of experience as a legitimate field for philosophical inquiry. In fact, one could say that there is in the phenomenological attitude a priority given to experience over theoretical formulations. Husserl’s maxim, “Back to the things themselves”, signifies a return to the world as it presents itself in all its manifestations, a world that is not “in my mind,” but appears always as the object of intentional acts. (Knill, Levine & Levine, 2005: 22; Kockelmans, 1967)
Importantly, this emphasis on “things themselves” and intentionality can be seen to be central to Heaney’s *Wheels within Wheels*. The crucial point is that the object qualities of the bicycle; in the context of that particular environment; prompted the intention that effected the action; that formed the embodied memory; that led to those later reflections; which formed into the language of the poem, and so on.

Physically performed actions are, simply, what they are. Importantly however, they are also what they are felt to be. The experience; the sensations felt through a game played with a bike, in a field, as a boy, might have been forgotten. It could all have stopped there. Clearly though, something of import had occurred; things were seen, and known through those simple acts of doing. Consciously restructuring those apprehensions; realizing their expression, and communicating this to others, would seem to require that the observer/experiencer finds their own way of poetic representation – linguistically or otherwise. The cognitive value of working towards such a synthesis, and of enabling others to access in some way, that which has been apprehended by the observer, cannot be underestimated, and language does appear to be pivotal in this respect. The poet, and social science researcher, Carl Leggo, asserts that:

> As with all language use, poetry is epistemological and ontological. Poetry reminds me that everything is constructed in language; our experiences are all epistemologically and ontologically composed and understood in words, our words and others’ words…the only way we have to apprehend reality is through discourse and discursive structures. We write the world individually and corporately. (Leggo in Knowles & Cole, 2008: 166)

At this point in the early 21st century our developed understanding of how the brain works, affords us a greater insight into the processes at work as we physically interact with the world. How, for example, as Francisco Varela points out, “it can differentiate colours and forms, and have motor programming, and have different kinds of emotions” (Blackmore, 2006: 226). Varela goes on to emphasise however, that the brain’s evolution is intrinsic to the activity of the body to which it is bound. In doing so, what he also argues is that although mechanisms as such, are essentially instrumental to the making of what we are – and indeed of what we are in – mechanisms are not all. The brain, he explains:
is a device that evolved over long period of history, both phylogenetic, and ontogenetic. It only makes sense in the context of being active in the world, and that embodiment is precisely what we experience. We experience ourself intimately because we’re embodied. Therefore, the state of consciousness as a pure mechanism won’t do; the mechanism is a condition of possibility to give rise to something that feels like somebody because it is embodied. (op. cit.)

In this context, Varela also speaks of the fundamental role of our interactive experience with, and of, material solidity in the shaping of our conscious knowledge, and sense of, what, and how we are. He describes touching a bottle, which:

feels bottle-like, that is solid and immovable and obstructive, because when I touch it that’s the quality it has. In other words, the physics of the world is such that solidity is what allows you to do certain things and not others. (op. cit.)

Solidity does of course, quite literally afford us the traction to move around, and to do things, and to get a grip on things, and so on. All the time, sensory-perceptual feedback is in dialogue with the brain and its mechanisms; the brain that “only makes sense in the context of being active in the world…the condition of possibility to give rise to something that feels like somebody” (op. cit.). What it’s like to feel like somebody…finding ways around in the world – ‘navigation’ again. The embodied mind then, in its ‘navigations’, finds in physical solidity, tangible points of reference; bearings, signifiers that cumulatively describe the topography of that to which it is a constitutive element; that which its being is in.

The dimension of place presents here, and finds associations with Heidegger’s notion of Being in relation to place, or topos (Greek for “place”), and thus, his use of the term topology. He posited the idea of human Being as a condition of belonging, and relatedness to location, and “thing” (Malpas, 2006: 267). In Heidegger’s thinking:

this is a question that also concerns the original determination, the “essence,” of mortal being. The question of “essence” is usually understood in terms of what properly belongs to a thing, but for Heidegger it is that to which the thing itself properly belongs rather than what belongs to it, that is the real domain of the question of “essence.” Already, in putting matters in this way, the question of essence starts to appear
“topologically,” that is, as a question that concerns a certain “place” or *topos* – to determine that to which a thing properly belongs is also to determine its proper place or *topos*. (op. cit.)

By my understanding, *topos*, in this sense, is not necessarily, or invariably about place as such. It is a concept that accommodates a broader definition of ‘situatedness,‘ as in for example, being located in what one does, and how that doing is attended to within its environmental situation. As a phenomenological concept, relationships to actual things; to the object-world; to materiality; to natural phenomena, are very much of the essence. I would contend that Seamus Heaney’s experience as described through *Wheels within Wheels*, speaks of a literally hands-on apprehension of this order of being; facilitated as it was by his active, and playful relationship to the properties of solidity, and liquidity involved – and within that specific location.

Francisco Varela states quite practical reasons for the importance for him of solid objects in his work, explaining that this is: “because the way we handle objects is so well studied in neuroscience” (Blackmore, 2006: 226), and that at the same time “the idea of embodied action is also a very rich theme in phenomenology.” (op. cit.) Out of this inter-disciplinary approach, Varela introduced his term, *neurophenomenology*, in relation to the methods he would employ to tackle the question of say, “how is it that ‘bottle feelingness’ comes about from this embodied relationship between some neurons in a brain and the bottle out there?” (op. cit.) The reasoning behind his coining the term *neurophenomenology* was that:

The neuro part gives you a fundamental insight into how the brain works, but it won’t give you the –pheno part. The –pheno part requires both putting it into this embodiment and having the first personal access to report what it is like. And it is the combination of these two that will do it. (op. cit. – my emphasis)

Varela comments that, “To do good accounts of what you experience is not a trivial affair”, and that it is not given to us to be experts of our own experience (op. cit.: 225). His compatriot and colleague, Humberto Maturana (2004) goes even further I think, in asserting that what is experienced by an individual; what is observed, and what is said, “can under no circumstances be separated from the person saying it” (op. cit.: 26) and that, as such “[n]obody can claim to have privileged access to an external
reality or truth” (op. cit.). Maturana’s point here is of the view that there is a fundamental mistake made, of confusing believing and knowing, based on the acceptance in our culture “to distinguish between subject and object, as if there were a difference between the two, as if they were distinct” (op. cit.). The basis of his contention is that “this distinction is unhelpful”, and that the focus needs to address the question of “to what extent all observers are part of their observations” (op. cit.). This is important in that Maturana draws attention to the reflexive dynamics at work in our observations of what we do, and of our reflective consideration of what we experience. “My starting point”, he explains:

is my experience, and that means, all that I experience and distinguish as perceivable events at a certain point in time. I am not concerned with the existence or the properties of an external reality, nor with the defence of solipsism or any other kind of epistemology. I want to understand and explain the operations that generate and form our experiences. In the very act of explaining these operations it becomes evident that we emerge ourselves as the objects and the entities we describe. (op. cit.: 33)

My focus within this project is primarily on the order of experience where, I would contend, there is less a distinction between subject and object; observer and observed, and more a perceived integration of distinctions. This is observation, which is not necessarily regarded as such when it occurs. In certain key respects, my approach to reflection and observation will differ to that which Maturana defines. He maintains that:

Observing is…a human operation that requires language together with the awareness that one is engaged in observing something…Observers act in self-awareness, when they use a distinction in order to distinguish something; they are mindful when they see and perceive something. Somebody who is simply looking out the window I would not consider to be an observer. The consequence, therefore, is that most of the time in our lives we do not operate as observers; we just carry on without bothering to examine what we are doing. (op. cit.: 35)

With the notion of Physical thinking, as it applies to the observation of experience, language is only of importance with regard to processes of reflecting, communicating, and re-structuring felt experiences. There are non-linguistic means of assimilating, synthesising, and communicating what has been observed. This in itself may not be
completely at odds with Maturana’s view. A key difference however, is in the
to question concerning an individual’s awareness of whether or not, they are engaged in
observing something. I would argue for example, that a childhood experience such as
that described by Seamus Heaney in *Wheels within Wheels* would quite definitely
constitute an act of observation. It is unlikely however that the boy, playing with his
bike, was, in his “self-awareness,” consciously operating as an observer as such.
Profound ‘observations’ did nevertheless occur, and of course the reflective
development of what had been seen, and felt, did rely on Heaney’s considerable
facility for language.

Concerning the issue of the distinction between subject and object, I propose that
there are modes of observation where these distinctions are, at least, unproblematic. *
Physical thinking* is a manner of both ‘seeing’ distinctions, and knowing the
integrality of those distinctions through feelings in the body. My conjecture is that
within the experience of physical acts of doing, the intelligence, and knowing of the
body, can ‘read’ the situation of both subject, and object, as an integrative ‘coupling.’

The sense of proprioception, and the whole sensorimotor system will ‘understand’ the
interaction of forces that, for example, enable a posture to be held in coordination
with the musculoskeletal movement of turning a bicycle pedal. The sensory-
perceptual, embodied mind will ‘understand’ the hardness of the steel cranks; the
resistance of friction; torque; the softness of the mud, and the interactions of solidity
and liquidity. This then, is a mode of observation where the bodily feelings of the
observer become inextricably bound, or integral to the material, phenomenal
properties that it engages with, and which are external to it. In a sense these
distinctions, these differences, make the integration. They are mutually defining by
virtue of their distinctions. That is, in such a situation, the resistance, and the hardness
of the machine are the very qualities that make the characteristics of the participating,
sensing, proprioceptive body known, and vice versa.

I hope to build upon, and clarify these assumptions as I proceed, and will use my own
(felt, observational) experiences with bikes as the focus of my descriptions.

My understanding of *physical thinking* is that this is a faculty that ‘reads’ and
apprehends the spatiotemporal, physical features, and dynamical characteristics of
given, and continually changing situations in the phenomenal world. This ‘reading’ occurs in the form of feelings in the body, which importantly, extend or translate into imaginal thought. I have come to recognise this faculty, and to define it to myself, via reflections on my experiences in the sport of cycling, both in and out of competition. Crucially however, I surmise that these reflections may not have occurred, or have presented with such significance, had they not have been considered in relation to, and via, comparable reflections within my creative practice. This is important in that, regarding certain forms of spatial judgement, decision-making, problem solving, and so on, I had recognised apparent commonalities between the two disciplines. To proceed, I think it will be helpful to describe, as best I can, some of those experiences in cycling.

SEQUENCES: THE REITERATION OF WHAT

As it relates to my creative practice, the most prominent and significant aspect of my experience in cycling was on (in) the velodrome, and more specifically, the discipline of the team pursuit. This event, in relation to my art practice, was the central focus of my B.A. thesis, which, as I have speculated, provided the original basis for this current project. In this thesis I wrote:

The objective of team-pursuiting is basically to cover the set distance (4000 metres) as fast as possible. As the word “pursuit” suggests, the competitive element is that of one team pursuing the other. The (two) teams – four men in each, lined up side by side in a pre-determined formation – start at diametrically opposite points on the track, and the distance covered is measured from each team’s starting point. When the starter’s gun has fired, the four riders simultaneously pull away from a standing start (the respective starting points will be in the middle of the straight, as the banking is too steep elsewhere) and although each rider is held by a helper at the start – a necessity, as the feet of the riders are firmly attached to the pedals – they are not allowed a push-start. As soon as all four riders are in motion, they must – as quickly and as efficiently as possible – fall into the designated formation, one rider immediately behind the other. This manoeuvre is crucial to a good start for two reasons. The first reason is that problems can arise if the riders are still side by side as they negotiate the steeper banking of the first bend. They are generally ‘out of the saddle’ at this point, that is, they are standing on the pedals, which means less control of the bike. Secondly, the most aerodynamically efficient formation for all four riders to be in, is a tight single file; the reason being that each rider creates a slipstream effect immediately behind
himself, which the following riders benefit from, so the quicker this formation is achieved, the more time is saved.

This slipstream element is the foremost crucial consideration in team-pursuiting and is the essential reason for this being a 4-man event. When all four team members are settled into formation, the rider who is at the front as they start will usually remain in that position until the end of the first half or full lap according to the size of the track. On reaching the end of his turn at the front he will continue to follow the line taken in the straight into the banking of the oncoming bend, thus moving up the banking and therefore temporarily parting company with the other three members of the team, who remain in the file formation following the line closest to the inside of the track at the bottom of the banking. The detached rider will then – on reaching a point at or near the top of the banking – glance momentarily to his left (inside) down towards the other three riders passing through (who may be 5 to 7 metres below him at this point) and steer a parabolic curve back down the banking to re-join the back of the team in fourth position, and so beginning his ‘rest’ period by taking advantage of the slipstream provided by the other riders in front of him. He will remain there, progressively moving from fourth, to third, to second positions, until his turn to take the full brunt of the wind/air resistance at the front comes around once more, the other three having all completed their first turns at the front…This sequence repeats throughout the duration of the event, and can entail as many as twenty-four such changeover manoeuvres during the four kilometres. (Evans, 1983: 6-7)

A team pursuit squad, when it runs well, operates and appears as a seamlessly fluid unit of movement, with the appearance of a quite a-personal homogeneity. This is in essence a collective system. I might also suggest that it is a self-organising system, and being an integral component part of this collective operation entails an understanding of the dynamics involved – which I realise may sound like stating the obvious. On one level, this sequence of movements around the dish of the velodrome can be seen as a relatively simple, straightforward enterprise. This is true in a sense – the principles are very simple. Look closer however, and the interaction of dynamics involved describes a quite complex matrix of variables. For one thing, there are four individual people involved; all with a (however slightly) different physical make up, personality, and style of riding. However homogeneous the unit becomes, these differences are distinctly felt when you are actually in there with the other three riders. Most importantly perhaps, one’s own individual characteristics come to be known, via the recognition of these distinctions.
I understand now, how deep an impression this particular aspect of my involvement in cycling had left on me, and the recursive nature of this dynamic is perhaps the vital factor in this respect. Through the countless hours of training and rounds of competition; every revolution of the track; every changeover manoeuvre; every stint at the front of the line becomes like a reiteration. As if something has been stated, but needs to be re-stated in order to clarify and refine the point being made. When this is done continually – like repeating the same word over and over – and it is observed as just something being done (that is, aside from its competitive goals, and so on), it can become as though the operation is describing its own properties and dynamical characteristics. With the repetition of a word, it ceases to be about what it is generally understood to mean. Cumulatively, the utterance of that word, as it is known, becomes the word itself describing the thing that it is – in its ‘shape’; its ‘materiality’; its resonances, its ‘thingness.’

Above, I speculated that “one’s own individual characteristics” might “come to be known, via the recognition of these distinctions” – the distinction of other’s differences that is. In other words, this is to suggest that a focused attendance to the dynamics of what one is actively in, can effectively afford some order of self-description through the ‘reading’ of those dynamics. This would also need to be understood in relation to the idea that I have just explained, where the ‘reiteration’ of an operation – such as a team pursuit – cumulatively presents (by the continual re-stating of its opening ‘statement’) as a description of what it actually is. My particular interest then is to explore the notion proposed, that the physical, non-linguistic mode of thinking that I postulate in this thesis, is the primary faculty for ‘reading’ and understanding the very dynamics that describe the observer in his or her acts of observing those dynamics. If this sounds circular, then it probably is. I am reminded of Humberto Maturana’s comments stated earlier concerning his wish to “explain the operations that generate and form our experiences”, and his speculation that, “[i]n the very act of explaining these operations it becomes evident that we emerge ourselves as the objects and the entities we describe.”

I propose the notion of physical thinking as being an innate faculty that, as described, reads and thinks in the ‘language’ of physical, material properties, and dynamical characteristics. It is something that, by definition, is there to be noticed and worked
with in any given situation. The only qualification is being conscious, sentient, and inhabiting a body. The question of noticing, is of course the question of observation, and arguably, “most of the time in our lives we do not operate as observers; we just carry on without bothering to examine what we are doing.” (Maturana, 2004: 35) This is probably fair enough. It may not actually be that helpful to observe and “examine” everything that we do. With something like track cycling however, the dynamics that are experienced through the body-mind are, arguably, more pronounced than in say, washing the dishes, or vacuuming the carpet. And, as I have suggested, how we reflectively observe and notice what has been done, and felt in that doing, is of key importance. As I have pointed out, my surmise is that it has been the act of viewing these past body-mind experiences through the lens of my subsequent creative practice that has enabled me to effectively ‘observe’ the bodily order of mind activity that was at work in those operations.

Part of the beauty of sport is that, in the main, it has little to do with opinions. The trajectory and spin of a ball; the distance of a target; the gradient of a mountainside; the speed and direction of the wind filling the sails of a yacht, all of these are what they are – they are not negotiable. They are however the factors that the participant is required to contend with, and in doing so the primary aspect of mind at work is of a bodily order. These situations present complex, continuously shifting spatial and temporal relations, where mind is required to operate as a coordinated orchestration of multi-sensory modalities. The changeover manoeuvre in a team-pursuit is a case in point. This occurs within, and indeed with, and because of, the banked curve of the velodrome. The dynamics of entering into, and moving through the steepness of the bend, enables the changeover manoeuvre to be executed. The characteristics of a track can be explained, and questions of length, angles, speeds, and so on can be intellectually, computationally processed. This can inform decisions and choices regarding the technology involved – gear ratios for example – but the spatiotemporal judgements involved in carrying out such an operation are informed by feelings in the body in coordination with other senses.

The feeling of negotiating the banked curve of a velodrome is something in itself. Every track is slightly different. Smaller tracks have tighter, steeper bends – something akin to the fairground ‘wall of death’. The shortest track that I have ridden
was a 160-metre affair, where the bankings are indeed like walls. One of the sensations experienced when riding one of these tracks, which can’t really be anticipated, is the ‘G-force’ felt each time you run into the banking. At speed, the feeling is of the body, along with the bike, being pressed into the wall of the banking due to the centrifugal force engendered by this motion. In order to maintain the line that needs to be followed, and to continue the cadence of pedalling, the whole body is required to brace itself – the arms in particular. This is repeated every few seconds, twice every lap, and does, up to a point, become second nature. These days, team-pursuiting will generally take place on larger tracks of at least 250 to 300 metres or so. On a larger track the feeling is very different. I refer once again to my B.A. thesis:

On a larger track of say 500 metres, that has bends proportionate in length to its scale this problem does not occur. The aesthetic experience – and I believe that it can be described in this way – is entirely different; here, the body and senses are involved in a long sweeping motion as one is taken around the gentle curve of the enormous dish of the banking. (Evans, 1983)

Such feelings – whether on the velodrome, the ski slope, or the golf course – are effectively cognisant of the forces and dynamics at work, which are registered in the body, or the body-mind. The body’s (non-linguistic) thinking in this sense is intrinsic to the action performed, and to the structural dynamics that determine the characteristics of those actions. As such these dynamical components can act, almost literally, as sounding boards\(^1\) – mainly through proprioceptive feedback – to describe, and make known one’s own structural and operative characteristics. Every individual’s experience of circling around a velodrome will be unique of course – partly due to those structural differences, which will effectively register their own variant *soundings* of the situation via the performance of actions within that environment. This is to imagine the body as a uniquely configured ‘instrument’ that will have its own characteristic ‘acoustics,’ and I will expand on this notion in the section **Instrumental Boundaries**. My own account will be my own account, but I shall assume there to be more commonalities than not between those who share this form of experience.

\(^1\) Indoor track cycling was often termed as “riding the boards”
The feelings registered in manoeuvring the curves and transitions of steepness of a velodrome have several key characteristics. There is the recursive circularity, or ellipticality would be a more apposite description. This instils a rhythmic dimension to the body-mind’s thoughts as these actions are performed. Intrinsic to this is the gravitational, centrifugal factor. It is interesting to note that the dictionary defines *centrifugal* as “moving, or tending to move *away* from a centre,” with its opposite, *centripetal* as “moving, or tending to move *towards* a centre.” This is noteworthy I think, for two reasons. Firstly, because the design of the track is effectively about *containing* and indeed accommodating the tendency to move away from that centre. Secondly, the line that a rider will endeavour to follow in order to optimise his or her movement around the track, will in a sense tend *towards* a centre, or towards congruence with that centre.

*Physical thinking* in this context is primarily to do with finding your way around – navigation – in a manner that aims to contend and cooperate optimally with the inherent dynamics of the “complex, continuously shifting spatial and temporal relations,” which includes the other riders on the track. My recollections of the feelings of negotiating my way around the velodrome are in themselves, recollections that register as something felt in the body. In my mind I play back sequences of images of movements; of conducting those movements, of being in those movements, and I think about my thinking in those movements. As I do so, what immediately strikes me is that my thoughts are instantly directed to parts of my body, that is, to specific bodily sensations that register when actually performing those actions. And I would argue that these feelings are actually thoughts, or will certainly translate into what we might generally understand as thoughts, in, that is, that they inform and explain to the mind what is happening. I will go further in fact and argue that they *are* the mind in these situations. There seems to be a central, axial hub to these sensations, situated somewhere around the upper abdomen – the solar plexus region – but however, like an anchor point, this is a central reference point around which the emphasis of mass and balance will shift. Through the example of the changeover manoeuvre in a team-pursuit, I will attempt to offer a description of this phenomenon, as I understand it.
Having ridden at the front of the formation of riders for the allotted distance, the point is reached where the banking steepens, and the curve of the track begins. The upright position held while riding along the straight, begins to alter into a left-inclined angle as you lean into, and ride with the curve – the dish of the banking rising up above the right shoulder. At about this point a quite subtle but decisive steering action will sweep you off on an arc to the right, and leaning into and up the banking. This would compare say, with the action of a surfer (riding from right to left as viewed from the beach) riding up a wave by inclining to his/her right. As this ascent begins, the ‘wall’ of the banking imposes on the peripheral vision to the right, as the other three riders move on through, away to the left, and below. These too register as only peripherally seen at this stage, with the main attention being projected to the point where the anticipated steer to the left, back down the banking will occur.

As all of this is happening, orientation, and the stability and control of motion is centred on the axial hub of the body as described. As suggested though, positional shifts occur in this respect, changing from moment to moment. Through leaning into the banking, and veering off to the right, additional pressure is felt on the right-hand side of the body, particularly in the wrists, shoulders and buttocks. This is accompanied by a corresponding shift in that “axial hub” region in the abdomen area (I can feel it as I write about it…). Still veering upward and to the right, there is also the sense of the track’s surface sliding away from under you, which is unnerving at first, but hardly considered after a while.

In the midst of this milieu, the bodily feelings spoken of are of course vital to orientation – the sense of maintaining a grip on things – as would be the feeling of having the ground under your feet when standing. “Feelings” may actually be a misnomer in fact, or at least an over-simplification. Yes, there are actual feelings, but I think there’s also a more subtle level of registration occurring, what I might describe as points, or areas of awareness in the body, and this may be explained as a feature, or an extension of the proprioceptive and vestibular functions. I came to consider this less tangible order of feeling by being reminded of the visualization aspect of this navigational thinking, where I have found there to be different variants of ‘seeing’. There is the direct visualization of normal vision – of what is going on front of your eyes. There is the rapid flow of half seen, shifting reference points in the peripheral
view. Accompanying this, within this, and out of this, also come projected schemata that present anticipated, imagined trajectories, semi-visualized mechanisms, procedural irregularities and so on. These act as a kind of fluid, continuously morphing, virtual scaffolding to (imaginarily) support the idea, if not the actuality of the movements being undertaken and forecasted. In addition however, I would suggest that there is a further dimension of visualization here that isn’t, strictly speaking, visual. This is more to do with the aforementioned points/areas of awareness in the body. As implied, these are not actually seen, but they are part of the imagined schemata, and could perhaps be best described as shifting, self-correcting coordinates within this kinaesthetic ‘mapping’ procedure, and are felt to be somewhere in and of the body. These ‘coordinates’ could be visualized as points where those imagined sight lines, and vectorial trajectory lines intersect and shift within a broader encompassing matrix of shifting axes and intersections, all of which in turn will correspond to the inner ‘mapping’ of proprioception.

The point approaches in the changeover manoeuvre where the rider needs to steer the parabola back down the banking to reconnect with the team. Once again, this compares well with the surfer switching direction from upwards to down, riding with the forward, downward force of the wave. The aim will be to keep the speed more or less constant during the changeover, but there’s generally a slight deceleration riding up the banking, with a speeding up on the way down again.

In the mind, there is a manner of calculation involved in performing this operation. The stuff of that ‘calculation’ is however of the order just described – a web of actual and imagined visualizations, sight-lines, trajectories, vectors, bodily feelings, and so on…where for example, a feeling in the shoulder – that is somehow felt to be connected to what is seen out of the corner of one eye, via something registered in or around about the solar plexus – is felt to insinuate a point along the curve of the track, where, upon reaching it, a barely perceptible transfer of weight from one side of the handlebars to another will be complemented by some additional force to the right-hand pedal for a couple of revolutions, thus effecting a slight change in the angle of lean, which is registered in particular by an altered ‘buttocks-to-saddle emphasis,’ that follows through, via the abdominal region once again, to something sensed in the left forearm/elbow region, which is in brief dialogue with the now deliberate and direct
glance down the banking to the other three riders, who have come to be rapidly filling that field of vision; this, triggering a quite specific flutter of tensions and releases, of hand-grip, neck muscles, feelings in the legs and feet (in particular) as the rate and force of pedalling is modulated in order to rejoin the back of the team at the right speed, and at the right moment, thus reminding the brain to hold back from thinking about all of this too intently, and to soften the focus of vision to somewhere just ahead of the point, an inch or two back from the back of the back wheel of the back rider, which is the desired point of arrival – back into the slipstream of this self-regulating system.

To reiterate, this is only my take on what happens, but I am sure that it will correspond in some fundamental way to the experiences of many others.

What particularly interests me here is that with the description I have just given, and indeed with Seamus Heaney’s poem; both speak of imaginal thought arising out of what are in effect, structural interactions. The structure-determined human system, in its embodied consciousness, is drawn into the performance of activity, which allows a certain form of dialogue, and congruent (or not) interaction to occur between forces and structural, material properties: a body, a bike, a velodrome, water, mud, wind, slopes, velocity, and so on. My conjecture is that where a sufficient degree of structural congruence is achieved, the flow of this imaginal thought self-generates in a manner that is: a) sustainable; b) evolving; c) creative, and d) of authentic personal significance. This is to bring attention to the importance of a structure’s congruence to the requirements of its function. The designs of velodromes, and of the bikes that are ridden on them for example, have evolved over generations consequent to these structural factors being understood. The feeling of riding a well designed and built track, on a suitably set-up bike has a flow to it; it’s a feeling of being ‘taken around’ the banking and into the straight, and back into the banking and so on:

The structural quality and the design of the track are crucial to this aspect of being ‘taken around’. On a track where the transition from the banking in the straight to that of the bend is badly designed, the rider will find him/herself having to fight to hold the correct line at the innermost part of the track. The natural tendency will be to waver and ‘go wide’ up the banking, consequently covering a further distance (and expending valuable energy). The experience will also lack the kinaesthetic satisfaction that would
otherwise be enjoyed...on a well designed track, at whatever speed, and from whatever position or trajectory the rider negotiates the banking-to-straight – straight-to-banking action, the correct line can be followed by merely allowing oneself to be taken around. (Evans, 1983)

The question of structural congruence is crucial to this whole thesis, or more specifically in this context, it is the question of processes, of strategies for selecting activities and environments that will foster more individuated ontogenetic development. As with other technological developments, such as the bike/velodrome evolution, it is creative imaginal thought emerging from the experience of being in these dynamics that furthers, and refines the structural congruence of the factors involved. Central to my question in this project, is the notion that our being drawn to particular activities, can be indicative of a perceptual recognition of potentials for structural congruence. Where that is, there is an attraction to an activity that inheres potentials of developmental efficacy for the participant due to their own structural pre-disposition for, and congruence with, the environments and dynamics of that activity. As I have suggested a sufficient degree of structural congruence will foster the flow of imaginal thought in forms that are self-generative, sustainable, creative, and of authentic personal significance. This brings attention to the concepts of structure determination and structural coupling as posited by Maturana and Varela (1992). Concerning the ontogenesis of a living being, they explain that, in its beginning, configured within an initial structure, the living being finds itself:

in a medium that constitutes the ambience in which it interacts. This ambience appears to have a structural dynamics of its own, operationally distinct from the living being. This is a crucial point. As observers, we have distinguished the living system as a unity from its background and have characterized it as a definite organization. We have thus distinguished two structures that are going to be considered operationally independent of each other: living being and environment. Between them there is a necessary structural congruence (or the unity disappears). In the interactions between the living being and the environment within this structural congruence, the perturbations of the environment do not determine what happens to the living being; rather, it is the structure of the living being that determines what changes occur in it. (op. cit.: 95-6)

So the premise here is that where there is favourable congruence between the living being and its environment, this interaction will evolve. It is an interactive evolution,
and it is those dynamics of interaction, and structural adaptation that systems theories emphasise. David Wright (1999) explains that:

Because an environment is comprised of the systems that exist within it, structural coupling requires that the environment will change as systems within it change. This contributes to a dynamic of change. The outcome of this dynamic is a process that Maturana and Varela call 'ontogenetic structural drift'. This builds upon the notion that the ontogeny, or becoming, of an individual occurs without conscious control. Maturana asserts that “the life of the living system is a structural drift…individuals cannot understand the course.” Understanding is arrived at subsequent to the experience and communicated through explanation. (Maturana, 1994, cited in Wright, 1999: 5)

It may indeed be that we “cannot understand the course” as such, but I would propose however, that a sense of what that course is, and of favourably steering that course, can be apprehended by virtue of our innate faculty for selection. It can be seen that, as living systems, we have a natural propensity to seek out environments within which to congruently interact and co-evolve; firstly to survive, and beyond that, to flourish:

In an environment characterised by recurring states, continued autopoiesis will lead to selection in the organism of a structure suitable for that environment. The organism becomes structurally coupled to its environment and, indeed, to other organisms within that environment. (Mingers, cited in Wright, 1999: 5)

As rationalising animals, it is quite possible that our conscious deliberations will over-ride the organism’s directives, or intimations of guidance concerning selection and adaptation. With the matter of activity selection, as that relates to our endeavours to be on the “course” – if not to understand it – it would seem that the order of thought required will be that which draws upon the non-propositional, pre-conceptual, bodily aspects of our knowledge bases. An individual’s apprehension of an activity’s congruence, or lack of it, will be felt rather than reasoned, affording a sense of whether or not their ‘coupling’ with the dynamics of that activity is efficacious.

This being about structural interaction, it will be the structural characteristics of the embodied mind, and as such, the sensory-perceptual knowing (aisthésis) of the individual concerned, that can enable discernment of the right or wrong of such a coupling. There will need to be a felt sense that the activity in question has meaning. This is to work with the emphasis advanced in the forthcoming section, Soundings,
which considers that human *experience* and *meaning* depend significantly upon the body “via its perceptual responses as registered through interaction with the physical world, it, the body, being our primary contact with the entire spatiotemporal environment through which we develop a grasp of our realities.”

It is important *not* to regard this more intuitive, qualitative form of thinking, or reasoning as just a step on the way to gaining a more quantitatively verifiable, concrete representation of knowledge. As I progress through this section of my writing, I have come to see that my attempts at describing ways of thinking – particularly in relation to performing actions and spatial manoeuvring – represent a kind of incremental retreat away from the immediately knowable and clearly discernable, towards orders of thinking that perhaps wouldn’t generally be understood as thought. The team-pursuit/velodrome scenario is a case in point. In terms of visualization, it all (necessarily) begins with the given – what is clearly there to be seen by anyone concerned – but as described, the way on from there, via the embodied action of doing, is to transfer the act of vision-related ‘looking’ into something more internalised. This is I think, a shift away from the procedure of looking-thinking-acting, to the procedure of just inhabiting the action – being *in* it, and *of* it. As such, you are no longer looking at the track, the other riders, the fence at the top of the banking, the bike you’re sitting on, as external entities. Instead, their separateness dissolves to an extent, and coalesces into a virtual constellation of shifting masses and nodal points; and all felt to be both external and personally embodied.

This particular feature of my enquiry finds a correlation in work currently being undertaken by John Sutton of the Department of Philosophy at Maquarie University in Sydney. Importantly, he has also used sport as the focus of his enquiry, where he considers the “philosophy of cricket” in relation to the question of how mind, memory and body work together. Crucially, Sutton’s enquiry looks at the interaction between two ways of knowing: knowing ‘that’, and knowing ‘how’. In other words, the realm of *propositional* knowledge: knowing ‘that’ two plus two equals four, in relation to that of the *non-propositional* knowledge of knowing ‘how’ to ride a bike or bowl a cricket ball. Non-propositional knowledge, Sutton (2005, radio broadcast) explains, may also be termed, “tacit knowledge or implicit knowledge, or sometimes in
psychology, procedural knowledge or procedural memory.” My understanding of the
position that Sutton states is that the non-propositional ‘thought’ of action, or action
itself, whilst being inextricably linked to propositional, theoretical ‘high-order’
thought, is not of a lower hierarchical order; it is just ‘other’ (whilst being integral),
and these different modalities are bound to each other. The philosophy of cognitive
science, he says, holds that mind:

[I]s always seen as embodied and embedded in an environment, embedded in its
world. So action isn’t just the output of internal thinking, it’s not the kind of last stage in
a three-stage process between perception, stuff coming in, thinking that goes on in the
head and then acting in the world. Action is itself intelligent, in my view, and perception
and action are always tangled together; when we see the world it’s as a set of
possibilities for doing in the world. So I don’t think that knowing ‘how’ can operate
successfully without the involvement of higher-level, more explicit, more conscious,
more consciously accessible knowledge. (op. cit.)

Sutton’s description here seems also to imply the operations of dynamic couplings,
which, through meaningful and recurrent interactions, can mutually advance and
evolve. Recurrent interaction is of course a characteristic requirement in acquiring
any degree of skill, in sport or in any field. The significance and relevance of what is
being discussed here though, is of how skills, and the variants of thought involved in
exercising skills, are value-judged. Sutton comments on this issue, relating that:

In modern Western philosophy…there are traditions which have taken skills more
seriously…in the more technical tradition of phenomenology, that arises in particular
from the work of the German philosopher, Heidegger…in recent philosophy…the
American, Hubert Dreyfus has produced a series of works which treat bodily skills as,
in a way, the core of human intelligence, and he sees expertise as the gradual ability to
be free of explicit rules and propositions and facts and to inhabit your body more fully.
(op. cit.)

In relation to this Sutton explains that notions of mindfulness as they present in certain
eastern traditions, do in many respects capture the point he is trying to make. That is,
mindfulness as “a way of inhabiting your body and your bodily activities fully. It’s
not a way of thinking of the mind as separate, as cut off from the bodily realm, but of
living fully in it.” (op. cit.) The question of our attendance, our noticing what we do,
our mindfulness, is then also the question of the body’s integrality to this form of
observation. Viewing these mind/body operations from the perspective of a cricket batsman, John Sutton’s accounts go as far as asserting that the acting body, as mind, will perform with more intelligence than the deliberations of the head; particularly that is, in situations of crisis and pressure on the field. In the case batting, he argues that it is the body’s judgements that will nudge the player back “in the groove” (op. cit.) when things are going wrong:

because when you are losing form or when you play a bad shot, one of the key difficulties for a sportsman is to think out what's gone wrong, and to get back into your body, if you like. I think that experts have got a way of drawing on their memories in particular and on their emotional life as well, to inhabit and shape and to sculpt their particular performance. So if you think of the kind of demands of playing cricket against a very fast bowler, what’s particularly puzzling about this is that there isn't time to respond, and so expert batsmen in a sense, have to allow their body to make a judgement, a very complex judgement, before there's really information there from the perceptual input to allow them to compute that. (op. cit.)

During the radio interview that these transcriptions were taken from, Sutton, from his philosophical point of view, intimated that we have now moved on from “the old mind-body problem,” (op. cit.) and indeed the interviewer, Alan Saunders, suggested himself that what they were discussing was “something much more subtle than the traditional mind-body problem.” (op. cit.) In response to Saunders’ comment, Sutton offers a view that is both representative of current and emerging thought concerning the “old mind-body problem”, and, an expression of why this is such a vital area of research. He proposes the idea:

that thought itself, intelligence if you're happy to use that word, is itself a dynamic process, it's not a set of rigid facts that we store up and hold inside us as if we were massive computers. Human intelligence is much more contact-sensitive than that, and it's much more specific and geared to action. So it's not that we have a kind of ghostly inner realm of thoughts whether they are physical or non-physical, it's not the soul or the brain that is the sole origin of our intelligence, it's our embodied activity which...it's not just that it represents and shows off and demonstrates or expresses our intelligence, it *is* our intelligence in action. (op. cit.)
PHYSICAL THINKING, INVENTION, AND THE ART OF IMAGINARY PEDALLING

The batsman’s body, making its “very complex judgement”, does I think stand out as an example of action which is actually thought, or certainly some order of intelligence at work. And as suggested, it would even appear to be a mode of intelligence that, in some respects at least, has the edge on the brain’s computation of “perceptual input.” It does seem to be important for the thinking, intelligent body to be engaged in activity in order for it to realise that intelligence and inventiveness. As we will see however (in the section, *Where Language Happens*) imagined bodily action may be sufficient to activate the body-mind’s capacity for what I term *physical thinking*. Nevertheless, personal experience of actively being in the intelligent body is of course a prerequisite for achieving realistic representations of actions in our visualizations. If we know what it feels like to bowl a ball, we can more accurately imagine it happening, and indeed *feel* it happening in our bodies through imagination, and this would suggest that the intelligent, thinking body as described is also intrinsically the imagining body.

Later in this document, I will be describing specific examples of how I have experienced *physical thinking* as a creative, inventive faculty within the practice component of my research. Through these descriptions, I will endeavour to further clarify my conjecture concerning structural congruence, and the flow of imaginal thought. That is where, to reiterate, I note the apparent phenomenon of creative, inventive, “imaginal thought arising out of what are in effect, structural interactions.” I also posited that “where a sufficient degree of structural congruence is achieved, the flow of this imaginal thought self-generates in a manner that is: a) sustainable; b) evolving; c) creative, and d) of authentic personal significance.” My conjecture here, my logic even, is that this imaginal thought, born of structural interactions, can manifest in creative production, which, by its very nature will speak of the structural properties from which that imaginal thought has arisen. This is important in that part of my exploration in this project is to consider strategies, and processes of working creatively, which result in production that may represent an order of ‘echoic feedback,’ which in some way can offer indications of, can speak of, the structural characteristics of the structure-determined practitioner who produced the work –
myself in this instance. I should add that this is not to neglect any other qualities and characteristics that the work might present. This is not about producing topographical readouts for analysis; but it is very much concerned with the peculiarities, foibles, and idiosyncrasies particular to any uniquely configured individual.

Back at the velodrome, the maverick Scot, Graham Obree, provides a graphic illustration of how an idea of pure invention can literally and directly manifest from the body in action. Obree was/is an extraordinary cyclist. He ‘came out of nowhere’ in the early 1990s, and shook the world of cycling by winning the world individual pursuit championship. This was remarkable enough, but he then had the ‘audacity’ to make a bid for the coveted world hour record. The world hour record is very much what it says it is. The rider rides alone on a velodrome, from a standing start, and rides, un-paced, for one hour around and around the track. The aim is ‘simply’ to cover as great a distance as possible in sixty minutes. This is a torturous undertaking, which even giants of the sport have shied away from attempting – Miguel Indurain, and Lance Armstrong included. What is more, The Hour is the ‘sacred cow’ of records in cycling. For someone like Obree, a relative unknown, to come along, and even think about attempting it was extraordinary in itself. To cut a long story short, he did – remarkably – break this record. I will not be able to fully convey the magnitude and singularity of this achievement, so I shan’t attempt it.

Sheer athletic ability and performance aside, the truly exceptional element of this whole story was the phenomenon of Obree’s very individual, and I would say, physically oriented inventiveness. Part of his success was down to the quite radical re-think that he had brought to, not only the design and set-up of the bike used for pursuing, but the riding position that this bike entailed. In fact these radical changes were governed and directed by the body’s need, as Obree had imagined it, to ride in a position that was significantly different from that which had been established. Obree’s accounts of how he had worked towards, and through, this ‘ontogenetic structural drift’ of himself and the bike (not to forget the velodrome) are characterized by the very clear, and quite unquestioning dialogues that ran between what his body was saying, and his reasoning mind. All of this resulted in a complete revision of how a rider sits on the bike – a forward leaning crouch over the front half of the bike, partly for streamlining, and partly to shift the body forward and ahead of the pedals. The
reality was however, that there didn’t exist a bike that would accommodate this riding position. So Obree’s original thinking, which would seem to be a direct manifest expression of his body’s intelligence, led him to engineer his own bike. Once again, this was something that ‘you just don’t do.’ But, with the help of his local bike shop, Obree welded, and filed, and fashioned, and scavenged (old washing machine bearings for example), and finally assembled a machine that was going to make this imagined riding position possible. In a television documentary made for BBC Scotland’s *Focal Point* (Glasser & Pierce, 1994, Television documentary), there is a notable example of Obree’s physical thinking as it related to this process. He explains how he (or his body) had felt that there was something about the set up of the cranks and pedals of a standard racing bike that might need to be reconsidered. I have transcribed the following extract from this documentary, and so it may be a little fragmented. Obree explains:

So I did an experiment, which was where I closed my eyes and imagined pedalling in the air as if I were…I imagined pedalling for several minutes without actually looking at where I was pedalling…and when I opened my eyes I discovered that my feet were much closer together than they would be on a normal bicycle…so it was like they [his revolving feet] were drifting into the natural position they’d want to be in…for the pedalling action. So the problem was to narrow down the bracket. (op. cit)

The bracket in question would be the bottom bracket, which houses the axle to which the cranks and pedals are attached. Making this particular change had the knock-on effect of all manner of other changes having to be made, so this presented as an interesting example of a co-evolving chain of developments occurring consequent, in this case, to Obree’s evident understanding of the physical forces, and structural properties involved. This was not only imaginal thought arising out of the felt experience of structural interactions; it was imagination, born of bodily experience, feeding back into the ontogenetic development of an advancement of those structural interactions.

This was an ‘ontogenetic structural drift’ too far though. Like so many mavericks before him, Obree was outlawed, or at least his bike design was. The UCI (Union Cyclistes Internationale) deemed it to be too radical a departure from the established
norm, and they were prompted to revise the boundaries of the required specifications of a racing bike.
THIS – THAT, AND THE HYPHEN IN BETWEEN

Metaphorical language, both verbal and non-verbal, will naturally feature in the manner of description necessary in a study of this kind. What has become particularly evident however, is how crucial a role the non-linguistic variant of metaphor has played in the order of thought that I have found to be required here.

The existence, and recognition of commonalities, isomorphisms, ‘homologies’, between operational modalities; forms of creative expression; processes of natural phenomena, and so on, is central to the interests of this inquiry. For this reason, it is important to proceed here with a way of thinking that will consider perceived commonalities of qualitative features across domains, as being of fundamental significance. To, that is, the basic fact(s) of our very existence and continuance. Once again, literature from the ‘new sciences’ provides a practical description in this respect. In the field of systems research, through the life sciences, Hector Sabelli, and Linnea Carlson-Sabelli assert that characteristics such as, “steady states, bifurcation, periodicity, and chaos” for example, can, as “regularities observed in physical, biological and human processes...be regarded as generic forms or archetypes” (Sabelli & Carlson-Sabelli, 2006: 323-37). They explain that:

Life is full of forms that travel across time, space, and species. Arm, leg, fin and wing all derive from the same origin, and have the same fundamental structure, modified to perform different functions. Biologists say that they are homologous, meaning that they have the same cosmic form, the same ‘logos’ (as in ‘logic’ and bio-‘logy’). (op. cit.)

And, importantly, that “homology is not confined to life forms. The continuity of evolution requires that the same fundamental forms must be expressed at physical, biological and psychological levels of organization” (op. cit.)
As an arts-practice-led researcher, a major challenge is to formulate ways of investigating those perceived ‘homologies,’ and finding the language that communicates those understandings. It is in effect, the problem of going beyond the ‘stage 1’, if you will, of noticing that there are, for example, commonalities between say, the formal, procedural qualitative features of weaving, and a certain method of musical composition. Endeavouring to take that next step on to ‘stage 2’ and beyond however, requires that certain questions then have to be tackled; whether as conscious deliberations, or in some other form. In doing so, I have found, that at the very least, by my perception, the terms of description would have to be more oblique than “tackle,” or even “approach”. For me, it has, upon reflection, felt to be more like a matter of ‘infiltrating’, or ‘insinuating’ my thoughts into the questions posed. It can all get very abstract of course when you actually come to look at a question like: ‘what is the difference between weaving, and a certain method of musical composition?’ Yes, there are easily explicable differences, but different dimensions of mapping are called upon if the imagination steers the question into asking: ‘what is between’ weaving, and certain methods of composition; or ‘what is between’ a Japanese tea ceremony, and a game of chess, or ‘what is between’ the behaviour of a one-celled organism, and that of a societal system.

By their very nature, the enterprises of art-practice, and practice-led research, will lead the practitioner into these ‘between’ territories; ‘between’ that is, quantifiable points of reference, or the discordant spaces between clearly delineated cultural and social constructs. My own experience, and that which has both prepared me for, and led me to, this research, was/is of having to reconcile the differences between the very quantifiable business of cycle racing, with that of the opinion-laden, nebulousness of art practice, and all that goes with it. Ultimately, my time in teaching would appear to have been the main factor in enabling me to effect this reconciliation – for reasons that I will endeavour to clarify through this document. Teaching, at primary level in particular, seems to have served as a kind of a ‘medium’ in this respect. That is, by its very nature, the day-to-day experience of both teacher, and student, is one of being situated within a very complex web of interactions. Interactions that is, between disciplines; subjects; modes of learning; modes of teaching; levels of learning; praxis and reflection; modes of understanding and cognition; social dynamics; reflexivity; collectivity; diet; weather conditions (these last two are actually quite major);
materials; sensory stimuli, and so on. Good cross-curricular, multi-sensory, multi-modal, and differentiated teaching, should overtly, and implicitly demonstrate the interconnectedness, and sense of ‘what is between’, say, a science experiment, and a painting lesson. Importantly, all of this is played out at a foundational level. As a teacher, consciously or otherwise, you will be witnessing, and actively engaging in foundational learning processes. The adage that, in teaching, you learn more than you actually teach is I think true here. There are daily lessons for the teacher, of learning about learning, and so much of this learning seems to occur simply by the doing of one thing; and then another; and then something else; and then something else that connects up with was done yesterday; and reflecting on this; projecting and planning on from it, etcetera, etcetera.

I suspect then, that this experience – combined with some very conscious and purposeful reflection on the relatedness of the various ‘domains of operation’ that I had personally inhabited in the past – will have enabled me to apprehend a better understanding of the ‘what is between’ in this sense. The important factor here would appear to be the process of recursively ‘travelling,’ reflectively, actively, and cyclically between the various domains of operation within one’s practice, and life experiences in general. What connects, and what is ‘between’ becomes known then by intimation, as well as by analysis. What may have been viewed, (more linearly) as a catalogue of disparate episodes, can come to be understood quite differently. Gilles Deleuze and Felix Guattari (1987) suggest that a less linear approach can show that “the most resolutely fragmented work can also be presented as the Total Work or Magnus Opus.” And maintain that, “Most modern methods for making series proliferate or a multiplicity grow are perfectly valid in one direction, for example, a linear direction, whereas a unity of totalization asserts itself even more firmly in another, circular or cyclic, dimension.” (op. cit.: 6) In reference to the literature of James Joyce, they advance that “Joyce’s words, accurately described as having ‘multiple roots,’ shatter the linear unity of the word, even of language, only to posit a cyclic unity of the sentence, text, or knowledge.” (op. cit. – my italics) I feel this last point to be of core significance to both my approach to this study, and to the dynamics occurring within the practice that provides its focus.
As I proceed here, and bearing in mind this notion of ‘multiple roots,’ it becomes increasingly evident to me that this ‘between’ factor is a quite critical feature of both the original impetus to this study, and to the field of research that enables it. Susan Finley writes of the “zone[s] of contention” where art-based research methodologies tend to be played out, stating that:

> arts-based inquiry creates and inhabits contested liminal spaces. It takes form in the hyphen between art and social science research. It creates a place where epistemological standpoints of artists and social science workers collide, coalesce, and restructure to originate something new and unique among research practices. It forms in the tension between truthfulness and artistic integrity. (Finley, in Cole & Knowles 2008: 72)

I have found this “hyphen” to be a very vital space to be creatively.

My main interest in this section is to consider the use of metaphor as a tool for imaginative reasoning, and to explore the underlying embodied, sensory-perceptual factor in the generation of metaphorical imaging, which can subsequently shape the production of metaphorical language.

Although language features very prominently within the practice element of this project, by considering the engendering of metaphor, my primary focus is towards what I might best describe as the *non-linguistic substrate* to language formation. Consequently, my use of the term metaphor in this context has more to do with non-linguistic thought than language per se. As such, my interest is in exploring the phenomenon of a more personal, self-generated order of metaphorical thinking and acting through creative practice. In doing so however, and most importantly, I acknowledge, and refer to, the apparently physical, and embodied origin of most ‘standard usage’ metaphorical language (see Lakoff & Johnson, 1980). Part of this exploration then, has been to employ processes and strategies in my practice, which will engender material that itself represents evidence of a manner of thinking. I should add, that my ‘strategies’ tend to be unwittingly stealthy – certainly oblique. By this I mean that, as aware as I might be that I am employing an approach that is intended to ‘discover’ something, it will often be that the ‘question’ of that inquiry is the very
outcome that is sought. Furthermore, this is often a case of doing one thing as a means of realising something else.

SENSING AROUND – SOUNDING ABOUT
All of this I would say is the common stuff of creative practice. It is also working with, and seriously believing in hunches. I would qualify this point by emphasising that, particularly in the context of this research, but also in my practice in general, those hunches are believed to be of, and to speak of, a domain of knowing, which is itself of knowing. That is, where this manner of intuitive thought is felt to be of a more embodied nature (physical thinking), it is more directly linked to the fundamental processes of cognition and perception as posited in this thesis. It would be helpful at this juncture to add some clarification as to how embodiment, and embodied action can be seen to be integral to cognition, and thus to all manner of thought and insight that our physicality affords. In The Embodied Mind: Cognitive Science and Human Experience, the authors, Francisco Varela, Elanor Rosch, and Evan Thompson (1992) explain their use of the term “embodied action” in this context:

By using the term embodied we mean to highlight two points: first, that cognition depends on the kinds of experience that come from having a body with various sensorimotor capacities, and second, that these individual sensorimotor capacities are themselves embedded in a more encompassing biological, psychological, and cultural context. By using the term action we mean to emphasize once again that sensory and motor processes, perception and action, are fundamentally inseparable in lived cognition. Indeed, the two are not merely contingently linked in individuals; they have also evolved together. We can now give a preliminary formulation of what we mean by enaction. In a nutshell, the enactive approach consists of two points: (1) perception consists in perceptually guided action and (2) cognitive structures emerge from the recurrent sensorimotor patterns that enable action to be perceptually guided. (op. cit: 172-3)

So this presents a model that asserts the inseparability of sensorimotor action, and sensory-perception to cognition, and implicitly speaks of the direct linkage of these processes to the evolutionary foundation of mind in its embodiment. It also emphasizes the crucial value of attending to the perceptual feedback that the body provides through its interactions with the phenomenal world; a world which, as stated,
encompasses the whole biological, psychological, and cultural totality of our embodied existence. This is of key importance to one of the central concerns of my research, that is, where I advance the notion of the body, the sensory self, as an instrument of individuated ‘navigation,’ both within creative practice, and in general life terms. Varela, Rosch, and Thompson (1992) posit an *enactive* approach where they emphasise the pivotal role of the embodied individual’s structural characteristics in their perceptual ‘sounding out’ of a perceiver-specific manner of self-guidance:

the representationalist point of departure for understanding perception is the information-processing problem of recovering pregiven properties of the world. In contrast, the point of departure for the enactive approach is the study of how the perceiver can guide his actions in his local situation. Since these local situations change as a result of the perceiver's activity, the reference point for understanding perception is no longer a pregiven, perceiver-independent world but rather a sensorimotor structure of the perceiver (the way that the nervous system links sensory and motor surfaces). This structure - the manner in which the perceiver is embodied - rather than some pregiven world determines how the perceiver can act and be modulated by environmental events. Thus the overall concern of an enactive approach to perception is not to determine how some perceiver-independent world is to be recovered; it is, rather, to determine the common principles or lawful linkages between sensory and motor systems that explain how action can be perceptually guided in a perceiver-dependent world. (op. cit.: 173 – my emphasis)

In the light of what is said here, I would relate my conjecture of, “a domain of knowing, which is itself of knowing,” to the notion that the cognitive activity that occurs *through* activity, is in fact *of* that activity. This is to run with Maturana’s assertion that equates doing with cognition, and, it also subscribes to the understanding that activity *is* our intelligence in action. The latter claim is one that I will come to address in more depth, and is a concept that accords with key aspects of current thinking in cognitive studies. In brief, this proposes a view that places bodily skills, and non-propositional knowledge at the core of human intelligence, which is seen to be more contact sensitive than might otherwise be considered.

By my understanding, the above descriptions seem to point to an overarching (and underlying) assumption of there being latency within our actions for further cognitive activity, which can be realised, understood, apprehended, through the drawing of
inferences from reflective observation of what has been experienced in activity. This would seem to be a crucial ability to develop. The argument being that, for immanent, embodied knowledge to emerge, and be known in that emergence through conscious acts, the (immanent) facility to realise this will need to be cultivated. From their perspective of Advances in Consciousness Research, co-authors Natalie Depraz, Francisco Varela, and Pierre Vermersch (2002) hold that that "Among all these acts of consciousness which remain in a condition of immanence, there lives, unperceived, a form of pre-reflexivity on the basis of which consciousness is able to perceive its very self at work." (op. cit.: 2) Hence their assertion that, "exploring human experience amounts to developing and cultivating this…immanent ability or capacity." (op. cit.)

The concept of physical thinking is to advance the notion of the body as a thinking instrument. This is to recognise the primacy of the various pre-noetic, sensory-perceptual intelligences that are foundational to our knowing of what we are, and, in our being in the world, what we are in. As such, this is also to propose that these embodied faculties of thought and discernment can enable us to be more ‘conversant’ with knowledge forms, and ways of imagining, that afford us the ability to ‘isomorphically translate’ the perceived idea of one phenomenon, into a form that is personally resonant, and generally ‘readable’. So, for example, where a very real sense of a phenomenon has been felt to be apprehended, but not grasped intellectually, the analogising, multi-modal, imaging mind finds its way to present individuated isomorphic equivalents of those percepts.

My choice of the term ‘soundings’ for the above sub-heading is I believe an example of this. My way of arriving at the actual word ‘sounding’ came as a consequence of a, none too linear, sequence of thoughts – perhaps better described as imaginings, or imaging(s). I tend to think in a quite visual way, and, to some extent in a synaesthetic manner, that is, where various sensory modes ‘cross over’ and interact to present a sense-rich perception to the mind’s eye; something that is as much felt as seen. Synaesthesia may take the form of ‘coloured hearing’ for example – I for one, experience what I’d term as ‘blue space’ when I hear certain sounds, and I also employ a quite sensory, almost tactile form of thinking when I work creatively with language. What I, and probably most of us experience as synaesthesia however, may
be no more than a vestigial trace of this phenomenon. T. W. Allan Whitfield (Allan Whitfield, 2005: 15) writes that:

Synaesthesia probably is evolutionarily older than ontologically separate sense perceptions, and certainly would have occurred before the advent of language. The function of synaesthesia might have been to provide additional cross-modal sensory information about the environment in a more efficient way than completely separate sense perceptions. Some have argued that synaesthesia is part of a normal limbic system functioning of which we are unaware, while others maintain that it is an ability that, interestingly recedes into latency with the child's development of language. (op. cit.)

So there is a strong suggestion that this perceptual form of intelligence has served as an important aspect of our pre-linguistic knowledge and understanding of the environments within which we operate, and crucially, our abilities for negotiating the challenges of those environments. Synaesthesia’s association with the limbic system will also have important implications concerning our creative faculties. The limbic system is:

a complex system of nerves and networks in the brain, involving several areas near the edge of the cortex concerned with instinct and mood. It controls the basic emotions (fear, pleasure, anger) and drives (hunger, sex, dominance, care of offspring). (Oxford American Dictionary, 2005)

This would point to a direct link between this quite foundational, cross-modal, and pre-linguistic faculty of knowing, and the instinctual, emotional dimension to our creative judgments. Where, that is, in our creative decision-making, we employ our embodied, sensory-perceptual modalities as the principle knowledge form. Although my argument in this study tends towards a model that: “acknowledges the sensory-perceptual as the dominant form of knowledge, and the intellectual/linguistic as an evolutionary add-on” (Allan Whitfield, 2005: 16), my interest is not to place modalities within a hierarchy of values. As will be evident in this document, one of my key aims is to explore the relationship between these two domains, particularly where the former is seen to be generative to the latter. It has been argued for example that: “synaesthetic perception lays the foundation for the development of analogy and metaphor as expressed through language” (op. cit.: 15). Allan Whitfield relates that,
in J. M. Williams’ analysis of the development of the English language, he contended that:

not only do inappropriate metaphors not hold (i.e., they drop out of use remarkably quickly), but changes in word usage develop from “the physiologically least differentiating, most evolutionarily primitive sensory modalities to the most differentiating, most advanced, but not vice versa.” For example, the word “sharp” was first applied to touch, followed by taste, and finally hearing and visual shape. Significantly, this development does not occur in reverse order. (Williams, 1976; Allan Whitfield, 2005: 15)

This is interesting, in that it implicitly speaks of how we discern between something that rings true, and that which has the hollow rattle of ‘mere words’ or empty gestures. According to this hypothesis, it all comes back to what the body thinks, through its “primitive” sensory modalities, and of its experience of being active in the world.

When engaged in creative work, my own experience has repeatedly demonstrated that the (trustful) following of sensory-perceptual ‘cues’, in concert with intuitive, and generally irrational prompts, appears to be agential to the manifesting of apparent ‘truths’. These ‘truths’, having materialised through the work, produced in whatever medium, then become ‘available’ for the intellect to process and assimilate. Essentially, the view that I am presenting here is one that posits the primacy of ‘the creative process’, that is, where it is viewed principally as a generative ‘orchestration’ of those “various [embodied] sensory-perceptual intelligences” referred to above. My endeavour in this research has been to extend this orchestration of modalities into the specific order of thought employed in considering the various perceived parallels, and isomorphic comparisons between practices, and phenomena in different domains. The ‘between’ (the “hyphen” between), as touched upon earlier, presents as a quite vital territory for creative, imaginary thought. On the one hand, the content, and the manner of thought involved will easily tend towards detached abstraction, but on the other, it naturally delves into those sensory-perceptual modalities – what we are of, in our embodiment – and thus into that ‘truthful’ realm of ‘metaphorising,’ and analogising.
The metaphor of *sounding*, as mentioned previously, was one that had repeatedly presented in my thoughts. My sense of what it is that I am endeavouring to say in this thesis has repeatedly led me to work primarily with imaginal thought, and, on reflection, in a distinctly synaesthetic way. Where there is, to re-emphasise, only a *sense* of something; when there are only hunches to be guided by; where there are no formulae; indeed, where there is generally no language as such, it seems that the mind is required to draw on whatever stimuli is available, and to configure its responses in such a way, as to arrive at an expression of what is felt to be known. This would therefore be the *synthesis* in *synaesthesia*, and in the instance that I refer to here, this synthesis had spawned the idea of *sounding*, that is, the analogy of a sonar device performing its function of ‘reading’ the seabed.

The process of sounding does in itself represent a quite ‘cross-modal’ complex of interacting descriptors. The seabed, which is known to be there, but isn’t actually seen, is registered by means of a sonar device repeatedly sending out signals which feedback (sound), whereby the seabed’s contours and topographical profile are revealed by means of a graphic readout (vision), allowing further forms of description (language) to extend and develop knowledge and understanding of the data produced. This could go at least one stage further, in that, accurate models of the seabed could be made, thus allowing a haptic dimension (touch, linked to proprioception) of apprehending this otherwise, only imagined territory.

‘Sounding,’ as a metaphor, was itself arrived at by means of a very circuitous process of rebounding ricochets of feedback: of relating conversations to readings, to actions, to listenings, to reflections, to imaginings, and so on. Significantly then, the term ‘sounding’ presented as a metaphor, by means of a metaphorical ‘sounding’ (in my mind) between domains. As such, it also speaks, analogously, of the underlying processes that have effectively formed the conceptual environment and framework to this project.

The original impetus which led to the employment of this metaphor, was a train of thought and imaginings that arose out of my attempts to find ways to give some schematic form to my understanding of the concepts of systems theories; Maturana and Varelas’s self-organizing systems theory in particular. Although, from time to
time, the literature of systems theories will detail the behaviours and dynamics of specific phenomena, these descriptions will on the whole be quite generic. This is important of course when, for example, the likes of Maturana and Varela venture to extend, and translate their observations in the biology lab, into the realm of philosophical language and debate. In doing so (necessarily perhaps) these descriptions offered tend to be quite non-specific, and open-ended, or at least can be read as such. The value in this however, is that we are required to imaginatively translate, or transpose what we understand of these descriptions into our own terms of reference. I had found in systems theories, descriptions that seemed somehow resonant of creative and developmental dynamics that I had experienced within my practice. Notable in this respect were Maturana and Varela’s descriptions of the ontogenetic shifts and changes that a structure-determined, autopoietic system will experience consequent to interactions with its host environment, or, as Maturana would describe it, the “medium” within which it finds itself. Maturana states that:

A structure-determined system is a system such that all that takes place in it, or happens to it in any instant, is determined by its structure at that instant. We living systems, as molecular systems, are structure-determined systems…

The structure of a structure-determined system changes both as a result of its internal structural dynamics and as a result of its interactions. The structural changes arising as part of the internal dynamics of a structure-determined system follow a course that arises determined at any moment by the structure of the system at that moment. The structural changes triggered in the interactions of a structure-determined system arise moment after moment determined by its structure also, but they follow a course that is generated moment after moment by the succession of encounters with the medium in which the system participates. (Maturana, Web Site, accessed, 21/2/2005: 5)

This, and similar descriptions, had engendered all manner of imagery in my mind, but nothing really specific. My mind was toying with all manner of metaphorical notions such as, ‘echoic feedback’; of imagined forces interacting; of, as stated, rebounds and ricochets; of accretive, cumulative, traceable processes where changes occur over time, and where those changes speak of the generative processes involved. This last point directly related to my ‘systems’ work, and it was this recognition in particular that enabled me to locate my thinking more effectively. That is, my hands-on experience of making this work was that of actually being in, and being agential to, an
accretive process of construction, resulting that is, from recursive interactions. This was a system, or process that engendered the cumulative emergence of “structural changes triggered in the interactions of [its] structure-determined system” arising “moment after moment determined by its structure” and following “a course that is generated moment after moment by the succession of encounters with the medium in which the system participates.” (op. cit.) These thoughts were not, strictly speaking, at the front of my mind. They were present in a pervasive kind of way, and in a sense, seemed to act as a ‘medium’ or an axis to other, more (seemingly) disparate, fragmented ideas that were felt to connect in some way with the theoretical principles that I was grappling with.

SITTING IN A ROOM

As I have said, the line of thought that brought me to the ‘sounding’ metaphor was very circuitous, and was itself a consequence of all manner of rebounding between memories, and abstractions, and actions, and so on. One such memory (accompanied by associated abstractions) was of a conversation I’d had with a friend of mine several years ago. We had been talking quite generally about processes of working in different disciplines, hers being music. Relating to my working processes, we had come to discuss the irrational ‘algorithmic’ nature of my systems work, where, by following a logical step-by-step procedure, a knowable, regular, familiar form – a square for example – would, by increments, ‘dissolve’ into something entirely irregular, and quite unclassifiable. She, as a composer, had been equating some of the inherent characteristics of my work with those of sound, and musical structure, which had prompted her to introduce me to a sound recording by the American composer, Alvin Lucier.

Lucier has often been described as a ‘phenomenological composer’. Much of his work from the 1960s and 70s for example, involved his asking performers to explore ways of making sound with various objects that wouldn’t normally be associated with music making. These might include bottles, empty missiles, cabins and so on, or “large and small resonant environments”… (Collins, 1990).
The piece in question by Lucier, is called *I am sitting in a room*. It begins with the composer reading the following score:

I am sitting in a room different from the one you are in now. I am recording the sound of my speaking voice and I am going to play it back into the room again and again until the resonant frequencies of the room reinforce themselves so that any semblance of my speech, with perhaps the exception of rhythm, is destroyed. What you will hear, then, are the natural resonant frequencies of the room articulated by speech. I regard this activity not so much as a demonstration of physical fact, but, more as a way to smooth out any irregularities my speech might have. (Lucier, 1969 cited in, Collins, 1990)

The performer does just that. He sits and states in plain English, exactly what it is he is doing, and why. Using two tape recorders, a microphone, and a speaker, the performer repeatedly (32 times in this instance) recycles this recorded text within the confines of the room. As this repetition continues, the effect of the space’s acoustical properties transforms the sonic qualities of the speech. This occurs as the frequencies resonant to that particular room cumulatively reinforce themselves as the repetition continues. Equally, other frequencies are attenuated. Towards the end of the recording the words become less and less intelligible, and are entirely so at the point where it finishes. In the sleeve-notes to the CD, Nicolas Collins (1990) writes:

What was once a familiar word has become a whistled three-note motif; what was once a simple declarative sentence has become a curiously tonal melodic fragment; what was once a paragraph of unaffected prose has become music. Somehow, somewhere in the course of 40 minutes the meaning of what we’ve been listening to has slipped from the domain of language to that of harmony. (op. cit.)

As mentioned, I first became acquainted with *I am sitting in a room* several years ago, and as I write this, my guess is that it is most likely a year or more since I’d last listened to it. So, the manner in which my memory of this half forgotten piece represented itself to me (i.e. not actually hearing it) was therefore quite revelatory. Indeed, in the context of this study, I’ve come to regard it as something of an epiphany. A key point here was that this particularly apposite memory had come to mind in a way that related directly to a phenomenon that I was in the midst of researching. Furthermore, and as a consequence of this phenomenon, I had effectively
recognised this sound recording as an apparent embodiment of core principles, values, and processes that form the basis of my project.

To explain: I had been researching literature concerned with the importance of the body in meaning, reason and imagination. This had brought my attention to the work of Mark Johnson, whose main research focus has been the embodiment of mind, and in particular, ways in which meaning, understanding, and rationality, as well as imagination, arise from, and are conditioned by the patterns of our bodily experience. Returning to the point that I made in the introduction; I was not only researching in order to explore, and to possibly substantiate my own ‘hunches’, I was also searching for the language to support and articulate my ideas. The particular relevance of Mark Johnson’s work in this context is that of his interest in exploring “some of the more important ways in which structures of our bodily experience work their way up into abstract meanings and patterns of inference” (Johnson, 1987). In doing so, he has paid special attention to the notion of “imaginative structuring and projection, as they affect human meaning, understanding, and rationality” (op. cit.). He sets out the basis of his argument by demonstrating that:

human bodily movement, manipulation of objects, and perceptual interactions involve recurring patterns without which our experience would be chaotic and incomprehensible. I call these patterns “image schemata,” because they function primarily as abstract structures of images. They are gestalt structures, consisting of parts standing in relations and organized into unified wholes, by means of which our experience manifests discernable order. When we seek to comprehend this order and to reason about it, such bodily-based schemata play a central role. " (op. cit.: xix-xx)

These words struck a quite definitive chord for me, in that they were directly addressing several key areas of inquiry to my study; in particular, the process that enables, or facilitates the ‘translation’ of felt experience into some form of comprehensible expression or ‘explanation’, especially where language is involved.

The main significance of referring to Johnson’s work at this juncture is primarily to do with his notion of “image schemata” as an intrinsic component to the process of imaginative, metaphorical projection. This is of particular salience, in that my
recollection of Alvin Lucier’s *I am sitting in a room* presented very much as a metaphorical image in my mind, and surfaced out of what I would sometimes describe as the ‘sensing around’ of an idea. Through this ‘sensing around’ I was in effect recruiting my senses, or my registered memories of sensory (and therefore bodily) experience, as a means toward achieving a more concrete ‘explanation’ of a notion, which hitherto, I’d been struggling to satisfactorily apprehend. The order of process that I am discussing here is central to the concepts that Johnson explores in his work. His assertion is that embodied experience, and imagination play an instrumental role in arriving at the more ‘rational’ variants of reasoning. He explains:

although a given image schema may emerge first as a structure of bodily interactions, it can be **figuratively** developed and extended as a structure around which meaning is organized at more abstract levels of cognition. This figurative extension and elaboration typically takes the form of **metaphorical projection** from the realm of physical bodily interactions onto so-called rational processes, such as reflection and the drawing of inferences from premises. (op. cit.: xix-xx - my emphases)

In many ways, this view accords with ideas that had been introduced by Kant in the eighteenth century. According to Johnson, Kant saw that “the ability of humans to have, and dwell in, a ‘world’ is tied directly to such schematic structures” (op. cit. 156), structures which he understood as assisting the imagination in connecting concepts with percepts; procedures for constructing images and, as thus, involving perceptual patterns in our bodily experience. For me, the most salient point here is that of the idea of the imagination as a faculty that enables the construction of images that serve to connect a concept with a corresponding percept. This is to imply that a concept (in the head as it were) is incomplete, or not substantially known or realised until it has connected with a corresponding percept.

Above, I’d talked of my ‘sensing around’ of an idea, where “I was in effect recruiting my senses, or my registered memories of sensory (and therefore bodily) experience as a means toward achieving a more concrete ‘explanation’ of a notion”. I should point out that I am using the term notion in this context, as being an idea that has yet to fully form into a clearly delineated concept. In this particular case, the notion that I was pondering over was that of a concept that I was already acquainted with. It was however, in my mind, a concept that was in need of some kind of ‘substantiation’ via,
it would seem, the involvement of more perceptual ‘information’ rather than further conceptual explanation. My ‘sensing around’ was therefore a process of mobilizing the above-mentioned perceptual resources in order to assist my imagination in presenting me with an apposite schema – one that would more effectively help to incorporate this concept as a relevant and workable component within the project’s inquiry. The background to all of this was, as indicated, that I had recognised correlations between the tenets of systems theories and the perceived dynamics of processes within my art practice. A practice, furthermore, which is understood as a complex of dynamics, situated as it is, within the dynamics, and structural characteristics of its host environment, or ‘medium’ if you will. That is, the overall domain of life experiences to which it relates, and is a manifestly interactive part of.

**DOING SOMETHING THAT’S JUST DOING SOMETHING**

Importantly, and (once again) unwittingly, this line of thinking found its way into the practice element of my research. In fact, retrospectively, I can see that this development in my studio work was occurring at about the time that I was pondering over these analogies and imagined schemata, which was quite early on in my research. As is often the case, I didn’t really know what I was doing – which is possibly not such a bad state of affairs. I was watching a television documentary a few days before writing this, where a particle physicist working at the Cern Particle Accelerator on the French/Swiss border was saying that the best science can happen when you don’t know what you’re doing – and particularly when its outcomes prove this. The situation that I found myself in, was that although in some facets of my work there were ongoing processes that could be continued with, other areas of my practice were in stasis. My writing for example continued to be forthcoming, and there were plenty of developments in my audio work. Visually however, there was a lack in some respects. My feeling was that there needed to be something new happening in this area, but I wasn’t at all sure what it might be.

This did actually turn out to be an interestingly productive ‘crisis’. There was, as I have said, the feeling that something needed to be happening, but I was experiencing a serious block. My way of dealing with this was strategic; and the strategy was to instigate a kind of ‘propagative’, self-generative process that would suggest its own course. That is, it would inhere the potential to ‘self-organize’, or ‘self-make’, by its
“succession of encounters with the medium in which [it] the system participates” (Maturana, Web Site, accessed, 21/2/2005: 5). Its encounters, via my agency, were essentially with itself.

This problem was approached through drawing. I didn’t have any clear idea of what to draw, so I drew something – or, as I recall, a part of something. This was all done on quite a small scale. The idea was that I wouldn’t need to be too concerned about results. It would just be a matter of one step suggesting the next, and so on. As such, this was simply a matter of instigating a process, to see where it would lead. I would limit the amount I drew by first inscribing a boundary within which the shapes, or the mark-making would be situated. The boundary would effectively act as a kind of aperture through which to view a detail of ‘events’ and forms within. The ‘something’ drawn would not necessarily be identifiable, but may resemble something known; something experienced, or imagined – a pool of liquid; a hard edge; the corner of something; a thread; a floating/falling particle, and so on. I came to identify these bounded apertures, or zones, as ‘cells’, and had referred to them as my ‘cell drawings’ – a name that I would come to change. The first ‘cell’, incorporating its activity within, would then ‘suggest’ the shape of an adjoining cell to be drawn connecting to the first one. That cell’s shape, and the drawn activity within it, would, in some way, be a response to its ‘encounter’ with its neighbour. That response may simply be to add something that is in contrast to the adjoining cell, or it may in some way act to complement what has preceded it, and thus the process would continue. In some cases, these ‘cell drawings’ would comprise no more than five or six cells; others however grew to around about one hundred.

With no real agenda, other than to get something happening, and to see what surfaced, the content of these cells could be anything: from the arm of an armchair, to an abstract pattern, to a fragment of a landscape, to a section of something resembling a diagrammatic schema – whatever came to mind, and whatever seemed to make sense in terms of furthering, and balancing the generative dynamic of the drawing. I was to continue with these drawings for several months on and off, and although I engaged in this work in all seriousness, I was yet to be convinced that they were of much value to my project. The important thing was that some kind of generative dynamic had been triggered. Although I was to some extent, working blindly, there were significant
characteristics that were duly considered at the time. Most notably was that these drawings ‘grew’ as cellular formations (Fig.2). There was a quasi-organic nature to their incremental growth, which of course, could be read to correspond to ideas of self-organizing systems, and these were in a sense, quite emphatically structure-determined as well.

Another important feature of this work was this: that the very act of doing it was quite simply, doing something. Or more precisely, it was ‘doing something, that was just doing something’. The value, or sense of the notion I am advancing here probably won’t be immediately evident, so I will try to clarify. From the outset, I was aware that this strategy was largely about ‘tricking’ myself into being in a process of working. Where, at least, something would be happening – something that would agitate the stasis, and possibly reveal developments, and tendencies in the work that were relevant to my research. As I continued with these drawings, I was reminded, from previous experience, of how such an approach can engender material, which will itself speak of the dynamics and structural substrates of which it is formed. To put this another way, where the emphasis is upon process, as opposed to say, narrative symbolism, emotive persuasion, or naturalistic representation, the outcomes will be more about, and more clearly speak of what has been happening, rather than of what was trying to be said. My ‘systems’ work for instance, would represent a very pared down example of this. A line is drawn, or a shape is cut out of a piece of sheet
material, and then a second line is drawn, or shape is cut, in an attempt to copy the first one, and so the process continues (Fig.3). It is just something happening; a process, a phenomenon – it’s just “doing something that’s just doing something”.

Figure 3, sequence drawing: same as it ever was.
Charcoal and graphite on paper, 122cm x 152cm, 1983

Coming into this project, I had I think, been aware of the importance, and the relevance of this principle to the practice component of my research. Subsequent to these early ‘excursions’ however, I had come to more fully recognise its pivotal value to all areas of my practice, especially in the context of this research. It would probably be true to say in fact, that my work has never really, or rarely had a subject as such, apart from that of process. Generally, it has just been a case of setting off, and seeing what turns up. The principle of doing something that’s just doing something is key then. The following extract from one of my journal notebooks comments:

...processes ['pointlessness'] ...doing something that’s just doing something → eliciting emergent characteristics →
the orientation towards (capacity/predisposition for) sustained engagement in that process...

‘Pointless’ or otherwise, importantly, I draw attention here to the sustainability of an activity; that is, if you are planning to go somewhere with it, it needs to be something that you’ll want to stay with, and feel congruently, and meaningfully interactive with. That activity might well be walking, or cycling, or whittling, or whatever. As it happens, I think these examples listed would equate quite easily with the activity of repeatedly dragging a piece of charcoal across a sheet of paper, or ‘cellular build-up’ drawings, or of forming stratified constructions out of repeatedly slicing up sheet materials. To reiterate, the emphasis I am making is to consider these actions as processes, for that to be the focus, whatever else they may be. Going for a walk can be a social event, but alone, with the mind solely focused on what is happening when one foot is placed ahead of the other, and so on, it is the feeling of what is actually happening, the sensory-perceptual registration of structural interactions that is noticed. One’s own musculoskeletal configuration; the hardness of the ground; changes in gradient; unevenness; evenness; wind direction, the shoes being worn, will all contribute to an overall description of the nature of these interactions, and therefore, of the structural characteristics involved in those interactions. As with the sounding process, this is continuous streaming of descriptive feedback.

Relating this principle to my practice has brought me to view those acts of doing in the work, the execution of the processes involved, as a form of ‘sounding’. In this context, where practice both serves, and directs the research, I have felt more freedom (and indeed the imperative) to allow this approach to prevail. So, for example, with the ‘cell drawings’, whilst I had been aware that this method of developing these drawings could be seen as self-begetting, or self-organizing to some extent (and therefore conceptually congruent with my main theoretical base), there was an absence of conceptual ‘steering’ concerning decisions over the content of the ‘cells’ as they multiplied. Were I to re-enact this now, things might be different. At the time however, as is often the case, the work was conceptually ahead of me, and I was principally, just filling in shapes.

Devising ways of setting up ‘laboratory conditions’ in an arts practice research project is difficult, but not impossible. This, I think, would be an example of where one, at
least half understood strategy, served to open the back door to allow another order of activity to enter into the process. Only after the event, will reflective consideration afford recognition of what has taken place. In this case, there were several points that came to light in this respect, and which have contributed to furthering my own understanding of: a) the nature of what was actually unfolding through this research process; b) the manner of observation required, and c) how I would direct others in designing an approach to similar forms of research.

Concerning the first two points, I had become clearer about the values and implications of entering into working strategies that would, effect ‘soundings’, if you will. To clarify, what I propose here is, that by instigating a particular procedure, allowing that process to steer developments, and by regarding myself as an agential participant within this, the outcomes of the work carried out would more readily present as feedback, in the sense of ‘soundings’. As illustrated, sounding describes the topography of the seabed, consequent to sonar signals being transmitted from a vessel on the surface of the water. As such, this is a method of describing a territory. My surmise is that in systems thinking, the ‘territory’ would comprise all of the components involved in the sounding operation; they will all, that is, in some sense, be described through this sounding. As cited earlier, Maturana’s explanation asserts that the structural changes in a structure-determined system occur, following a course “that is generated moment after moment by the succession of encounters with the medium in which the system participates” (op. cit.). Those changes will be determined by the nature of those encounters, and so will implicitly describe the structural characteristics of the medium as well as the structure-determined system interacting with that medium. Concerning living systems, Maturana continues:

an organism, as a system, exists as an architectural dynamics in the present that it is realized moment after moment according to the local structural coherences of its components…the organism is not a whole by itself, rather it results as a whole in the relational space in which it is conserved as an autopoietic system through its interactions in its niche. (op. cit.: 6)

**SELF-DESCRIBING – DESCRIBING THE TERRITORY**

So, my conjecture is, that transferring these principles to the metaphor of sounding
would be to advance the view that all of the components in a sounding operation will mutually define as interacting “local structural coherences.” That is, as interactive components within the relational space of this operation, the various parts and dynamics will speak of each other’s structural characteristics. The sonar signals will, in a sense, be ‘drawing’ the space between their source and the seabed, so that space between is defined, and is part of the defining. The precise nature of the sonar signals will be defined by the affects of the other components involved, via their interactions, and so on. This is to posit the notion that each component, each element, is only effectively what it is, or, is only known as what it is, by its interactions.

I will transfer these principles, and the subsequent analogizing a stage further by returning to Alvin Lucier’s I am sitting in a room. This is ‘sounding’ in a different sense of course, but I think that the comparisons are compelling. There, in that room, that was, is, “different to the one you are in now”, this speaking voice becomes known and defined, as it is in that instance, by its interactions with the medium of the “resonant frequencies of the room”. The voice is the sonar signal. The structural characteristics of that particular room are implicitly described by the resonant frequencies, which are evidenced by the sounding of the voice. These structural characteristics are feeding-back, and describing the structural characteristics of the voice, and, by mutual definition, characteristics of the structure-determined, human organism that speaks. The first tape recorder ‘observes’ the ‘sounding’, and then replays that ‘observation’ back into the room’s acoustical space. The second tape recorder then ‘observes’ the first tape recorder’s ‘observations’ via its interactions with that acoustical space, and so the process continues - observations of observations of observations.

For me, one of the most poignant, and hauntingly compelling qualities of I am sitting in a room, is that it quite simply speaks of a human being in the world. We begin, with this distinct set of entities: the room, the chair, the person sitting on the chair, the person’s voice, the tape recorders, the microphone, the speakers etc. We can picture each one of these in our minds, in our own way – separate, but interacting. By the time that this piece ‘concludes’ however, it is likely that anyone listening, will sense and imagine, something else altogether. The divisions coalesce, and what had been the familiar sound of a speaking human voice, “has slipped from the domain of
language to that of harmony” (Collins, 1990). With this transformation, although the sound we hear does clearly belong to the abstract sphere of “tonal melodic fragment[s]” and “three-note motif[s]” (op. cit.), I would maintain that there has also occurred, a (perhaps) paradoxical individuation. In a sense, the individuality of the speaker has become more present. What we hear to begin with is this man speaking words. In the end we have a distinct sense of that man’s presence, distilled from (and via) the dynamics of the instrumental components of that environment. The words, as signifiers, have become redundant – they might have said something else altogether. What now proclaims, I think, is this man’s presence in the world, and importantly, the interactive nature of his presence in the world. This, for me, is the heart of the matter. Here, the domains of language and harmony are seen to be utterly inseparable; intrinsic to the same continuum; and the connecting medium to this continuum is the weave of circular, dynamical processes, born of mindfully considered placement and conscious action. Talk of dynamical processes, and structural characteristics may sound impersonal, but I am sitting in a room “is about the subject, its narrator”:

What we hear are not simply “the natural resonant frequencies of the room articulated by speech,” but rather the intersecting of one man’s voice with his immediate environment; those whistling tones are neither just nor all of the resonances, but only those that are shared by both the voice and the room. (op. cit.)

The nub of what I am saying here, is that this very individual emergence, as I see it, was consequent to, what I would argue to be a quite definitive example of someone ‘doing something that’s just doing something.’ Significantly, this was just some words being spoken, as distinct, that is, to employing the art of composition and the ‘musical’ sounds of instruments. In an interview with Douglas Simon, Lucier explains his decision to choose speech as the source material for this piece:

My first impulse was to use various musical instruments playing a wide variety of sounds, but I tossed out that idea because it felt too ‘composerly.’ Instead I decided to use speech; it’s common to just about everybody and is a marvelous sound source. It has a reasonable frequency spectrum, noise, stops and starts, different dynamic levels, complex shapes. It’s ideal for testing the resonant characteristics of a space because it puts so much in all at one time. It’s also extremely personal. (Lucier cited in Collins, 1990)
"I am sitting in a room" is I think, testament to the values of a kind of artlessness in practice – albeit a knowing variety of artlessness. Although, I would imagine, Lucier will have been interested in the possibilities of this piece being expressive in some way, it seems to me to be more of an exercise in setting up a process and seeing what happens; which may be indicative of the composer’s supposed phenomenological leanings. The employment of ‘ordinary’ speech in this context might be equated with ‘just’ drawing lines, one after another, or similarly, ‘just’ cutting out and assembling shapes, and this is an important point. Central to my thesis, is the proposition that such processes, which in many respects follow a mechanical logic and are thus understood to be impersonal, can, paradoxically manifest very personal characteristics in the work. This is part of my rationale in equating such processes in creative work with sounding. The feedback of sounding in this sense, that is, as the product of this form of creative act, is principally about presenting (however obliquely) descriptions of the “subject’s” characteristics, the self, interacting with, and within the medium of his/her environment.

Once again, I would stress the value here of the aforementioned ‘artlessness’. Where, that is, the emphasis is upon ‘just doing something.’ In relating "I am sitting in a room" – as a phenomenal ‘event’ – to my practice methods in this research, Lucier’s option of working with the spoken word is particularly relevant. To reiterate, part of the interest of this project, is to explore approaches to creative activity, where the results of that activity can be read as feedback – as ‘soundings.’ As such, what evidences in the work will speak in some way of an individual’s personal characteristics; ‘soundings’ that present as a consequence of the subject’s actions. With that in mind, the unadorned ‘laboratory conditions’ of a rudimentary recording set-up, in a room, and a man just speaking some words, makes perfect sense. It is quite directly comparable, as already suggested, to the operation of nautical sounding. Crucially of course, the element of recursive circularity is the vital dimension with "I am sitting in a room"; as is, arguably, the straightforward act of the subject uttering these words in a normal speaking voice, as opposed to something more overtly musical. Nicolas Collins writes:

Speech is the voice unbounded, timbrely rich and thick with meaning. Song, on the
other hand, forces the voice into narrow norms, stressing rules of tonality, rhythm, texture, and content that have little to do with any language. In *I am sitting in a room* Lucier frees the voice from the restraint of song and makes a truly new music firmly rooted in the power of speech...As he points out, speech makes good sense “scientifically,” but more importantly it also transforms “a demonstration of a physical fact” into a very intimate performance. Lucier does not “smooth out any irregularities [his] speech might have,” rather he elevates them to reveal a radical linkage between language and music. (Collins, 1990)

My point concerning individuation in this context needs to be considered in terms of systems thinking; which, as I have suggested, would view the whole territory, the whole operational domain, as the subject of description through this ‘sounding.’ My notion that a man’s unique individual presence in the world proclaims out of this “demonstration of a physical fact” (op. cit.) may be well-founded, but it will also be approximate, it will not be definitive. Neither would this “demonstration of physical fact” definitively describe the unique “natural resonant frequencies of the room articulated by [that] speech”, that too will be approximate. (op. cit.) As with any scientific experiment (to which this could be compared), the conditions will never be the same twice, and so the ‘readings’ will always be subject to any number of variables (see Capra, 1996: 41). These variables are arguably endless. In this instance; how the speaker *feels* as he narrates the words will be a variable; his posture; what he had for lunch; the room temperature; humidity affecting the acoustical properties of the surfaces forming the space; the quality of the audio tape; the placing of components within the room – which is situated in a house comprising other rooms; that house being situated within an ever changing external weather system, and so on. The resulting differences would probably be minimal, but nevertheless, in relation to any idea of absolute definitions, what we get will always be a variant, or an approximation. According to Fritjof Capra, the issue of approximations is highly relevant to the values of systems thinking:

> What makes it possible to turn the systems approach into a science is the discovery that there is approximate knowledge. This insight is crucial to all of modern science. The old paradigm is based on the Cartesian belief in the certainty of scientific knowledge. In the new paradigm it is recognized that all scientific concepts and theories are limited and approximate. Science can never provide any complete and definitive understanding. (Capra, 1996: 40)
With *I am sitting in a room*, what I had personally observed and noticed, was this distilled manifestation of a person’s presence in the world. However, the underlying reality of what I had perceived was: a) that there had occurred an event where all manner of systems and structural properties (human, acoustical, electromagnetic, etc.) had dynamically interacted; and b) a record of these interactions had been made; a recording, which itself will have been an approximation. What happened with these interactions happened, but, my perception of what happened, which probably wouldn’t be radically different to most others, was as described, and was also – based on what I have just said – a perception of approximations.

One reason for my making this point is that I think it draws attention to the dynamic, interactive nature of our perceptions. Perceptions won’t necessarily remain fixed, as we saw earlier with the example of the word “sharp,” with its trans-modal shift from an adjective relating to touch, through – via taste – to its more metaphorical usage in the sense of hearing and visual shape. As such, knowledge of this word, along with most others I would imagine, is, strictly speaking, only approximate knowledge. It is important then, to consider alternative approaches to our ways of observation and perception, and systems thinking presents revised frameworks through which to tackle these ‘moving targets’. In observing natural phenomena for example, what, and how we identify something, will depend on our perceptions:

It depends, as we say in science, on our methods of observation and measurement. In the words of Heisenberg: ‘What we observe is not nature itself, but nature exposed to our method of questioning.’ Thus systems thinking involves a shift from objective to ‘epistemic’ science; to a framework in which epistemology – ‘the method of questioning’ – becomes an integral part of scientific theories. (op. cit.)

Something similar could be said concerning methods of questioning in arts research as well. There are certainly no ‘Cartesian certainties’ to lean on, and it is important to recognize that, as practitioners (and as living systems), our actions, which employ materials, processes, and systems, play out within the operations of other systems (cultural, social, institutional, historical, and so on), all of which play out in the broader context of the system(s) of the material, phenomenal world, to which we are
elementally bound. It is as operative systems within these systems, that our perceptual faculties might lead us to understand, for example, the experimental work of a twentieth century ‘phenomenological’ composer, resulting in a confluence of “curiously tonal melodic fragment[s]” (Collins, 1990), as proclamation of a man’s unique presence in the world – or not. This question of observer-specific perception, is, in Capra’s view, quite central to the assumptions of systems thinking. He explains that:

Nature is seen as an interconnected web of relationships, in which the identification of specific patterns as ‘objects’ depends on the human observer and the process of knowing. This web of relationships is described in terms of a corresponding network of concepts and models, none of which is any more fundamental than the others. (Capra, 1996:40)

Arguably, we, as human observers, are ourselves “specific patterns” (structure-determined systems) enacting and perceiving within these interconnected webs of relationships of systems. As such, this is a fundamental point to take into account when considering methods of questioning and observing. As I have emphasized in this chapter, part of my methodology in this respect is to metaphorically equate forms of observation and questioning, with operations of sounding, as I have defined it. As active participants within the matrix of interactions and connections that we find ourselves a part of, and notably, as arts practitioners, our actions can effectively constitute our questioning, and indeed, our ‘sounding,’ and this will manifest feedback for our observation. Action (questioning) will arise from observations, effecting further action (questioning), and so the feedback loop continues. As observers; as askers of questions; as specifically patterned entities navigating these “interconnected web[s] of relationships,” with our ‘rudders’ of “corresponding network[s] of concepts and models” (op. cit), knowledge of our own structural characteristics (specific patterns) within all of this will be pivotal. It would follow that that it is also of the essence to further self-knowledge in this respect – to know the structure (with which we navigate). This would advance the notion of regarding the embodied self, the embodied mind, as the locus of a continuous process of (mindful) interaction with, and observation of, what we find ourselves to be in, in our (emergently) being in the world:
Minds awaken in a world. We did not design our world. We simply found ourselves with
it; we awoke both to ourselves and to the world we inhabit. We come to reflect on that
world as we grow and live. We reflect on a world that is not made, but found, and yet it
is also our structure that enables us to reflect upon this world. Thus in reflection
we find ourselves in a circle: we are in a world that seems to be there before reflection
begins, but that world is not separate from us. (Varela, Rosch, Thompson, 1992: 3 –
my emphasis)

To take this statement a step further, I would add that our structure not only “enables
us to reflect upon this world,” but it is also described by this reflection. The circularity
implied here is key in this respect. The metaphor of sounding, as I apply it to our
conscious acts, observations, and reflections, describes a process of recursive,
reflexive feedback, which, by increments, defines the subject, as well as any object
component involved. This is to apprehend distinctions, but without emphasizing
separateness. Indeed, recognizing this circular dimension could also be to recognize,
and valorize ‘what is between,’ which was apparently the case for Merleau-Ponty,
who expressed the belief that:

the recognition of this circle opened up a space between self and world, between the
inner and the outer. This space was not a gulf or a divide; it embraced the distinction
between self and world, and yet provided the continuity between them. Its openness
revealed a middle way, entre-deux. (Merleau-Ponty, cited in Varela, Rosch, Thompson,
1992: 3 – my emphasis)

PHENOMENAL ENCOUNTERS
Concerning description, explanation, or the recognizing of distinctions as these terms
would be understood in this research context, the dynamic principle of circular
recursion would appear to be fundamental. Any form of learning involves, what we
will generally term as repetition; doing something over and over, trying it this way,
now that; applying a different rule to the same problem; viewing a question from this
perspective, and then another, and so on. These are as oscillations around a central
locus of acting, observing, and reflecting, where the object of focus becomes the
virtual axis of those elliptical orbits. I use the term “orbits” as it would seem that, in
essence, any notion of a definitive, central point of learning; of knowledge, of
cognition, would indeed just be a notion. There are of course sufficiently concrete
facts to work with that enable our practical activity in the world, but as we have seen, ultimately we are dealing with approximations. As such, that ‘central’ axis of our inquiring focus will be “virtual” – a moving target. With no absolute point of conclusive finality, one answer, one shot at the target, will not be enough, nor will it be definitive. On this basis also, there is actually no repetition. Each action, each shot taken, will differ of course, however infinitesimally. The writer Gertrude Stein preferred the term “insistence” as an alternative to “repetition”. One of her most characteristic devices in writing was to ‘list’ a virtual catalogue of slightly varying descriptions, with the intention (by my understanding) that these would collectively imply an essential, although generic expression of something. In her words:

Once started expressing this thing, expressing anything there can be no repetition because the essence of that expression is insistence, and if you insist you must each time use emphasis and if you use emphasis it is not possible while anybody is alive that they should use exactly the same emphasis…It is exactly like a frog hopping he cannot ever hop exactly the same distance or the same way of hopping at every hop. A bird's singing is perhaps the nearest thing to repetition but if you listen they too vary their insistence. (Stein in Vechten, 1972: xxii)

The first of Alvin Lucier’s iterations of I am sitting in a room was a description, but it was not definitive. Each subsequent “insistence” said something more, or something else. Each was another shot at, or around, some common ‘centre,’ and could be imagined as an endless continuum of: “and now this…and now this…and now this…” As I have shown, this piece recursively and reflexively self-generates; it feeds back into itself; recursively and reflexively observing the feedback of its own generation, thus engendering further feedback for further observation…a self-referential system using “the results of its own operations as the basis for further operations” (Wolfe, 1998: 57). My conjecture, stated earlier, was that this is effectively a process of observations, of observations, of observations, and so on; where, to reiterate “[T]he first tape recorder ‘observes’ the ‘sounding’, and then replays that ‘observation’ back into the room’s acoustical space. The second tape recorder then ‘observes’ the first tape recorder’s ‘observations’ via its interactions with that acoustical space, and so the process continues - observations of observations of observations.”

Consequent to these reflections and observations over the last pages, four key points have emerged, that, for me, appear to bear direct relevance to the practice element of
my questioning as it corresponds to the theoretical questioning in this research. It may be better to describe these four points as common factors. As stated, one of the core interests driving this research has been that of exploring ways in which apparently impersonal, logical, step-by-step creative working processes can result in a distinctly individual order of expression, and, as I have suggested, Lucier’s I am sitting in a room as a case in point in this respect. As previously explained, I have found upon reflection, that a similar phenomenon has occurred in my own practice, and for similar reasons. That is, where the development and advancement of a work is determined, principally, by the establishment of, and subsequent continuance of, a particular set of instrumentally operative factors. These are the aforementioned common factors, which I would list (and this will be open to revision) as:

1) Where there is a process of ‘indifferent’ recursion, or “insistence.”
2) Where processes play out within a self-referential, reflexive framework.
3) Where the shaping of what issues from these processes is principally determined by the dynamical interactions of physical properties and/or structural characteristics.
4) Where the process’s self-reference, and self-observation elicits results that invite further reflective observation of observation.

The nature of these conditions will need to be clarified as I proceed, the last one in particular I think. As they relate to the work exhibited as part of this submission, all four will have been overtly instrumental to the making of the following pieces:

- ‘Sounding’ (Fig. 11)
- Resolution No.9 (Figs. 14, 16 & 41)
- Leaving the house (Figs. 37 & 45)
- endless sentence (figs. 34, 35, 36 & 42)
- Later sequence 1, 2, & 3 (Figs. 9 & 10)
- ‘cell drawings’ [later named Phenomenal Encounters] (Figs. 2, 4, 5, 6 & 7)
- Somewhere that’s not what it used to be (Figs. 4 & 8)

With other works, these principles will have been, to varying degrees, instrumental in their making, but less strictly so.

The ‘cell drawings’ already referred to, were quite significant in my coming to
recognise these procedural common factors. As explained, they were originally intended as a means of breaking out of a (perceived) stasis in my visual work. On the whole, they were executed quite early on in the project, although the more elaborate examples were ongoing pieces that I would return to, and add to now and again. Possibly because they were mainly small, quite sketchy works, and possibly because they were understood to be ‘just’ exercises, and not highly finished, I hadn’t really seen these drawings as being of major importance to the project. It wasn’t until the last weeks prior to setting up the show for this submission, that I effectively recognised the value of these pieces. Returning to look at these drawings again had enabled me to discern that there were all manner of ‘events’ within this work, which were of significance to the research. Effectively, by putting this material aside, and subsequently re-viewing (re-cognising) it, particular characteristics had registered in my mind more vividly.

The ‘cellular growth’ process, as explained previously, was understood to be significant at the time I think. Working with this kind of accretive build-up of abstract shapes and forms meant that I’d felt sufficiently conversant with the ‘language,’ but there were additional elements to contend with in these exercises. Each cell presented a ‘window’ or ‘aperture’ through which to glimpse a partial view of something, or somewhere – something somewhere. The activity of ‘filling in’ these spaces was to some extent working blindly. As previously explained, clear concepts or ideas concerning content, were seemingly quite thin on the ground at the time. All manner of content did nevertheless manifest as I continued. My inkling is that the specific characteristics of this approach effected to coax out a certain order, and a certain combination of subject matter and materials. How this surfaced, and importantly, how it combined and coexisted within these frameworks was I think, a consequence of the special features of this approach; which I would see as variants of operative characteristics in my earlier process-led work. In those past works; as the structures grew, and as the cumulative linear build-ups emerged and assembled, a key impetus to furthering the development of the work was my own felt recognition that these assemblages inhered a quite specific individual dynamic. That is, that initial ‘mechanical’ stage of the process would provide a given foundational structure or framework that would, to my eye, require further stages of nuanced adjustment in order for it to become what it was asking to be. With my sculptures for example; a
stratified stack of precision-cut layers, forming its own construction, would seem to invite further manipulation; suggesting perhaps a slight twist this way, or that; a lean to one side, counterbalanced by a lurch the other way – whatever seemed to chime. Similar dynamical latencies would present in drawings as well, the recognition of which might prompt changes in tonality, or the understating, or emphasising of a wave, or a ‘glitch’ in a line, which would consequently affect the adjacent line, and so on. This is all fine-tuning, and is a process I would liken to adjusting the pitch and timbre of musical notes in order to achieve a sought after chordal resonance.

The crucial question here concerns the notion that, certain interactive combinations of, principally, structure and process may elicit and manifest particular subject materials, and accents of expression that I argue will represent a form of feedback, or sounding, in the sense that I have described. Working through a systems theory perspective, this would be to understand that the ensuing feedback, or sounding, will implicitly describe the whole ‘territory’ – subject, object, medium, and so on. As explained, the structural characteristics and properties of the various components involved is key. Arguably, in most forms of creative activity, to varying degrees, personal characteristics of the maker will evidence, will show through in some way in the work. What I am proposing here however goes much further. My argument in this respect is based upon the idea of structural congruence, as proposed by Maturana and Varela. Maturana has said:

That which we human beings call cognition is the capacity that a living system exhibits of operating in dynamic structural congruence with the medium in which it exists...if we see a living system behaving according to what we consider adequate behaviour in the circumstances in which we observe it, we claim that it knows. What we see in such circumstances is: a) the living system under our attention shows or exhibits a structural dynamics that flows in congruence with the structural dynamics of the medium in which we see it, and b) that it is through that dynamic structural congruence that the living system conserves its living. (Maturana, Web Page, accessed 21/2/2005: 9)

It should be noted that systems theories, based on such observations, are not in themselves hard science, and my own assumptions and speculations, based on systems theories, are not science at all. To reiterate however, the value of these theoretical, philosophical frameworks for an arts-practitioner-researcher, is that they
can (‘isomorphically’) translate, via the creative, reflective imagination, into forms of image schemata that can assist in the description of processes, experiences, and indeed hunches that are otherwise ineffable. Here Maturana speaks of knowing, of cognition, as arising out of the dynamics of structural congruence. When he describes “a structural dynamics that flows in congruence with the structural dynamics of [its] medium”, I picture forms of image schemata, which ‘reason’, in descriptive terms of my own idiosyncrasies of thinking. What that reasoning suggests to me is that the congruence that Maturana describes can be nearer to, or further from, an optimal congruence. The ‘dialogue’ between structural components within operations will, on this basis, be more fluent and developmentally generative where that congruence is nearer to optimal. I should add that an ‘optimum’ will only exist presumably as an idea of course (another virtual notion in the realm of approximations) but we can feel, understand, and experience the ‘nearer to’ or the ‘further from.’ Transferring this assumption to the operational structural couplings and dynamics that play out in creative practice, I am drawn to propose something similar.

I would say that the progressive ‘cellular growth’ of the cell drawings had developed, stage by stage out of a kind of sounding dialogue of structural interactions, that is, between my (physically) thinking, embodied, structure-determined self, and the linear, structural framework that was forming as I continued. In recognizing this, I am also recognizing that something very similar will have occurred in so much of the work I have engaged in over the years, with other process-led work in particular. Some of the most prominent memories I have from my creative practice are of standing before work (often 3-D assemblages, or large scale drawings), walking around the piece, leaning over it, standing back from it; all the time ‘thinking’ this interactive relationship through, via a sense of my own of physical presence, scale, structure, solidity, in this shared space. If I’d have been told at the time that, what I was doing was effectively seeking to ‘orchestrate a structurally congruent dialogue between myself, and the configuration of components that I was working with,’ it may have required a little further explanation, but I think that would’ve made a lot of sense to me. This is something that I explore in greater depth in the section, Instrumental Boundaries.

A majority of that past work referred to will have been principally about the structure
itself, with only implicit allusions to any other subject matter. With these cell drawings however, I was fully open to the idea of including anything that came to mind; of situating something within a given space that seemed to fit, something perhaps structurally congruent with what was going on. This process was, as explained, about inscribing a ‘cellular’ boundary, a domain, and putting something in it; taking into account that is, the structural characteristics that were already present in the drawing. The overall style of these drawings, and the imagery that they encompass, can appear as quite cartoon-like in many ways. That wasn’t actively encouraged, but it is indicative of a way of drawing that had developed through an extensive excursion I’d made into a quite fumbling, accident-prone manner of figurative drawing. By this, I mean that that approach to drawing was/is characterized by a slightly uneasy, but interesting marriage of intent, ineptness, and accident. The resulting ‘cartoons’ constitute a quite substantial part of the show for this submission, and I shall account for that aspect of my work elsewhere in this document.

To discuss the key points about these works, I refer back to two, of the four ‘conditions’ that I had listed above: a) Where processes play out within a self-referential, reflexive framework, and b) Where the shaping of what issues from these processes is principally determined by the dynamical interactions of physical properties and/or structural characteristics. Both of these were significant, instrumental factors to the making of these drawings. In acts of imaginative ‘reasoning,’ creative musing, or the generation of image schemata, those “dynamical interactions of physical properties and/or structural characteristics” can be understood to correspondingly occur in the mind’s imaginary activity. This claim rests on a major finding in neuroscience, which tells us that “imagining and doing use a shared neural substrate” (Gallese & Lakoff, 2005: 2). The particular relevance of this finding to these works, and to other aspects of my practice, will hopefully become clear as I continue.

SEEING WHAT YOU SEE – HEARING WHAT YOU SAY

As can be seen, there was a range of imagery that surfaced in these drawings. The formal, structural, constructional nature of the procedure will have been instrumental in this elicitation, but I’m inclined to think that there were other strands to the process
that also encouraged certain material to present. These drawings, by their very nature, compelled me to keep coming up with content. Each cell asked for something new to be said. Over time, although I accepted that there would be repetition, I was having to dig deeper in order to find something else to say, and importantly, something that would work with the structural dynamic – patterns, scribbles, dots, back gardens, bus stops, drain holes, anything. It led me to think about a method of psychotherapy, where there’s minimal intervention by the therapist, and where the subject is compelled to just keep talking, or to sit in uncomfortable silence. With the former option, things get dredged up and exposed by virtue of the self-generating flow of words that the subject volunteers. Occasional prompting by the therapist, and presumably the whole dynamic of the context, will coax further revelatory talk. As I understand it, this is primarily about the subject hearing, and in effect, seeing him or her self – self-description, or a form of sounding I’d venture.

There wasn’t anything particularly therapeutic about the experience of doing these drawings, but they were, in a sense, revelatory. As I have said, I hadn’t initially taken them very seriously, which may just be due to their ‘playfulness’ – someone described them as “friendly,” which I thought was good. What I think that comment recognizes, is that there had been an intimacy at work in their making. Play is intimate, and in self-directed, self-sustaining play, separation between subject and object tends to dissolve. The participant inhabits, and is integral to that operational space, and so personal identity will evidence through the activity. What I had come to notice about the cell drawings, having not seen them for a while, was that they appeared to speak of the characteristics of my noticing. By this I mean that, in their details, and in the rendering of those details, and by the presence of recurring tendencies, and motifs, I was seeing evidence of the kind of observations I had been making in my life. I was brought to notice what I had been noticing, and how I had been noticing it. Importantly, it has to be born in mind that one of the ‘rules’ for these drawings was that any, even vaguely representational form, would be rendered directly from how it was remembered to be. So a detail of a ladder would be drawn with the direct involvement of a complex ‘cross-talk’ of sensory-perceptual modalities. Embodied memories of how a rung feels underfoot as the ladder is climbed, and how it feels to clutch it, and balance its weight and mass when moving it from one position to another; what it sounds like – the clatter and creak as it’s stepped
on or moved. Similar could be said with other objects and materials rendered in these images: the feeling of a blanket, of folding and placing that blanket on a shelf – how it settles as it’s lain on top of another; the look and the feel of piping around the arm of an armchair; the sense of tension in a guy rope as it’s adjusted, felt through the fingers; the roughness and bound tension of woven matting; the anticipation of balanced movement felt when poised at the top of stairs; the axial solidity of a newel post at the bottom of those stairs; the feeling of a curtain billowing in a breeze. These, and similar sensations are physically felt as the drawings are made.

Figure 4, *somewhere that’s not what it used to be* (detail), inkjet print (from original pencil drawing), 19 x 24 cm, 2004/8

Those feelings directly feed into the making of these representations; the sensory experience of handling those materials; hearing those sounds; feeling those movements; moving through those environments; experiencing phenomena, all of this is physically felt as the drawings are made, and largely determine what is drawn, and how it is drawn (Fig.4).

Reflecting on all of this, I was reminded of something said by a Japanese painter that I used to know. When explaining something about her work, she’d described “encountering rain” one day. This turn of phrase may have had something to do with
the foibles of her English usage, but in the work that she was talking about, there was, as it happens, more of a sense of “encountering” rain, of being in the phenomenon of rain, than just looking at rain. At some stage – I can’t remember exactly when – this memory; the idea of ‘encountering’ phenomena, entered into my thoughts, and led to a change of title from cell drawings to phenomenal encounters. The reason for this was that further reflection had brought me to realize that most of their ‘content’ seemed to be descriptive in some way of dynamical activity, phenomenal occurrences, things happening in the world. Once again, this wasn’t a consequence of any particular intent, but I think that there is something about the format, and the process of these drawings that, as they unfold, will insinuate their own latency of expression. This may sound a little vague, or oblique, but it is actually pivotal to the thesis of this project. With some of the more eccentric examples of phenomenal encounters, little of the content is specifically identifiable, and although indicative of phenomenal events, are clearly not naturalistic representations.

Figure 5, phenomenal encounters, inkjet print (from original pencil drawing), 6.5 x12 cm, 2004/8

The images hover somewhere between the pictorial; the diagrammatic; schematic; abstract; figurative; decorative; jokey; surreal; observed; imagined; remembered, invented. For me, what really stands out is their synesthetic allusion. ‘Things’ clatter, jingle, ping and boing – flutter, flow, and bounce off surfaces. Particles float, suspended in thin air, or in a transparent, viscous gel. Things pop, crack open and splinter. Directional arrows describe potential deployments of mass. Concentric,
reverberative waves issue from impacts, or show in anticipation of impacts and subsequent aural reports. Currents or drafts of, something or other, rush between openings, and flow over and around solid forms. Quasi-mechanical contraptions rattle and hum. Tattered remnants and fragments of matter are blown from vigorous centrifugal actions (Figs. 5 & 6).

Figure 6. *phenomenal encounters*, inkjet print (from original pencil drawing), 9 x14 cm, 2004/8

**SOUNDING – LIKE A FAMILY LIKENESS**

All of this emerged from *doing something that’s just doing something*, and the synesthetic factor within these acts of doing, with the resultant imagining, is pivotal here. What I have come to surmise with these drawings is – to use a term coined earlier – that some order of ‘isomorphic translation’ was occurring; ‘translation’ that is, of past sensory experiences. Of crucial importance, once again, is the matter of structural interactions, and how we *read* aspects of our own structural characteristics, via that is, material that manifests through our creative engagement in these interactions. Earlier I had said that the *cell drawings/phenomenal encounters*, had developed “stage by stage out of a kind of *sounding* dialogue of structural interactions, that is, between my (physically) thinking, embodied, structure-determined self, and the linear, structural framework that was forming as I continued”. This “*sounding dialogue*” would of course extend into the rendering of the content of the works as well as the overall ‘cellular’ structure. This is important, in that what I had noticed in these drawings was, what I will describe as a ‘*familial*’ recognition. I will explain this term more as I proceed, briefly though, this is
essentially about recognizing characteristics that are felt to be distinctly personal; a little like hearing your own voice echoed back to you, or on a recording – it’s intimately of you. These *phenomenal encounters* were peculiar, in that they were both ‘other’ to me, and yet spoke in a voice that I could feel and recognise as being definitely of me. Their ‘otherness’ was that they seemed descriptive of the ‘indifference’ of things ‘just happening’; that is, dynamical events occurring in the phenomenal world, and therefore having little to do with individual personality.

There was however, this personal recognition. The term “familial” came to mind because the *feeling* that this order of recognition evoked (which has happened elsewhere in my work) could be compared with, for example, meeting a member of your extended family for the first time, or after a long interval, a cousin perhaps, and registering those common characteristics, which in actuality may not be overtly evident. Or, more strikingly, where the face of an immediate, close relative is spotted in a crowd. It is more than just knowing that person’s face; there is a strongly felt recognition (for most of us), and one of a very real connection, a sensation more than an idea or a computation. In the event, we will quite likely distinguish that person from the crowd before we even see their face. Strictly speaking, in doing so we are recognizing structural characteristics that are common to our own (which is not to discount any emotional dimension involved). It would follow then, that what has been recognised and felt in that recognition is of some import to the observer. To experience a similar feeling when looking at my own work was then, bound to strike me as significant, and, working with the notion of this ‘familial’ element, would seem to implicate a structural component to this order of recognition. My conjecture is that this category of discernment, or perception, is more of a pre-noetic and instinctual nature, than being of learned or reasoned knowledge – there is of course a mingling of the two, but the former would have primacy in this context. As such, this corresponds interestingly with a point that Maturana raises concerning the development of, and, the developmental instrumentality of, differing forms of knowledge. He asserts that:

> Instinctive and learned knowledge...differ only in the historical circumstances of their origin. The origin of instinctive knowledge is phylogenetic, and the origin of learned knowledge is ontogenetic. Therefore, I claim that the process which gives rise to the operational congruence between an organism and its niche, the process that we
distinguish in daily life either as learned or instinctive knowing, is structural coupling.
(Maturana, Web Page, accessed 21/2/2005: 9)

Instinctive knowledge, as such, is innately ‘of the structure’ (what we are phylogenetically of) as distinct to knowledge that we have acquired. As an observer then, this *sensed* recognition as defined here: of characteristics in a person; in something that you are interacting with; something you have made; is, I will suggest, a “structural” recognition. As such, this is to observe, or apprehend something, that is in *correspondence* with the structural nature of the observer, that is, the observer as an individuated structural entity.

In essence, this means that *recognition*, in this sense, is seeing something of your self. To experience this in creative work, and to steer creative work towards such a realisation is of central interest to this project. And, to reiterate, it is of particular interest to explore the notion that an emphasis on the structural component in creative processes, will foster that realisation. With the recurring tendencies manifest in *phenomenal encounters*, as well as in other works, it occurred to me that I was being presented with material that, as well as perhaps mirroring something of my self, was also speaking of how that structure-determined self operated as an observer. In other words, the work (with its recurring features) was showing me aspects of what I had been observing; what I was inclined to observe, and how I was in those acts of observing. It was by noticing, reflectively I should stress, the synesthetic confluence of content in these images; the general “clatter, jingle, ping and boing – flutter, flow, and bounce” of things going on, that brought to mind the “encounter” component in *phenomenal encounters*. I could, as suggested, ‘hear’ the events occurring, I could ‘feel’ the properties of their materials, and I could even at times ‘smell’ something of their environments. More accurately, I could recollect the smell of places; situations, environments that I had physically interacted with, memories of which will have fed into these drawings. Tool sheds and workshops particularly spring to mind. In either case, to step into such a space, is to experience a quite distinct sensory encounter. With greater familiarity, through the experience of physical interaction with the space; with its tools; its materials; its hard surfaces; its sounds and smells, the distinct nature of the ‘encounter’ will develop. It will be further informed by what has been experienced there. So the smell of oil may become synonymous with the sound of
metal hitting metal; the feeling of tightening a vice may be felt to be associated with the sound (and draft) of an extractor fan; reverberation felt through the body when hammering something, may colour feelings about the materials being worked with – an affinity perhaps, a curious interest – or possibly antipathy to the whole situation.

For me, a sense of material, structural interaction had come through in these drawings (Fig.7).

Figure 7, *phenomenal encounters 3*, inkjet print (from original pencil drawing), 18.5 x16.5 cm, 2004/8

In some respects they could be evocative of the feeling of ‘encountering’ a certain kind of material. So for example, in looking at a block of wood or metal, I might think about, and anticipate the sound that would be made if I tapped it; how the sound would resonate in that space; how the implement of tapping would respond to the impact, and how that would feel in the hand doing the tapping, and so on, and so on. I should stress once again, that this way of thinking was not, as I recall, overtly active in the making these drawings. These synesthetic observations are mainly reflective observations. The significant point is, that imagery equating with, relating to, this
order of sensory/imaginary experience was surfacing in this quite hybridised pictorial, quasi-diagrammatic form. Furthermore, the ‘thoughts’ that shaped those lines, figurations, and marks were recognised as being felt to correspond with those sensory imaginings as described above – a manner of thought that I would identify as an aspect of physical thinking. Here, distinctly physical, spatiotemporal, sensory processes (‘encounters’) as experienced by the embodied, structure-determined self in question, synthesise into image-schematic imaginings and apprehensions, which represent, via further synthesis, through drawings that are themselves, principally, structure-determined, and process-led.

Phenomenal encounters evidence a certain order of physical thinking, by being symptomatic of a personally, idiosyncratic process of image-schematising. Where, that is, a form of representation; a language form, arises from embodied, sensory experience. In the case of phenomenal encounters, the medium of synthesis was the creative process employed, and this I think is key when considering the values of research in this field. This study is founded entirely on a conviction born of a personally recognised correlation between physical acts of doing, and the ‘higher’ cognitive functions, via that is, the creative application and development of physical thinking. As expressed, the unique individuality of our embodiment is pivotal to the thesis of this research. As I see it, part of the value in this is that the locus of inquiry is grounded in that which fundamentally constitutes what we are as structure-determined organisms. It is an approach that places the body “directly within the chain of operations that generate the highest reaches of reasoning, decision making, and, by extension, social behaviour and creativity” (Damasio, cited in Johnson, 2006: 50), which might pose the question of considering where sensorimotor experience ends, and reasoned thought begins. Edmund Husserl, the founder of phenomenology “defines the grasping of the senses as a form of intellectual intuition, which is clearly modelled after sense-perception (Rosen, 2002: 55). This is a view that continues to gain currency in the cognitive sciences. Mark Johnson reasons as to the integrality of the embodied feeling of what we experience and those ‘higher’ cognitive functions. He asserts that:

…if the ways of the body are actually constitutive of what and how we think, then logics (plural) have only as much validity as the shared patterns of bodily experience
upon which they rest. Logic doesn’t drop down from the heavens of pure reason; rather it rises up from recurring patterns of embodied inquiry. (Johnson, 2006: 50)

Arguably, what also “rises up from recurring patterns of embodied inquiry” are significations, the reading of which can further our understanding of ‘what we are about.’ From his standpoint in the field of the philosophy of cognition, John Sutton (2005, radio broadcast) brings our attention, interestingly, to the work of René Descartes. Central to Sutton’s work is an exploration of the notion that purposeful bodily movement is intelligence itself in action, contrary that is, to the belief that the body is just passive matter that is activated by instructions from the brain. He explains that:

his [Descartes] latest work, called The Passions of the Soul… is a work about habit. It's a book about the way in which things that we do fall into certain kinds of routines and patterns, and that understanding, self-understanding, self-knowledge, is a matter of coming to understand your own idiosyncratic patterns of activity, to apply intelligence in my terms to reflexes. (op. cit.)

Descartes is of course much maligned as the perceived cause of the divorce of mind from body in Western thinking, and of the impact that philosophical stance has had on Western culture. For this very reason, it is I think, of current interest to factor in a more rounded view of Descartes. A study such as this, is after all a symptom of the culture from which it arises, a culture that has been significantly shaped by the perceived implications of this man’s work. Relating to the above reference, Sutton continues:

…I think that was where Descartes got to after many years of struggling with the old-style mind-body problem…And he’s well aware that it’s the union, as he put it, of the mind and the body that is the most difficult, the most interesting, and the most practically important question for us… (op. cit. – my emphasis)

Here, I see a crucial role for the application of creative processes that make it possible to explore ways of understanding and apprehending, a sense of what is happening cognitively, as we carry out actions; through that is, observations of those actions, and reflections of those observations of actions. In correspondence with all of this doing, there is, as Sutton puts it, “stuff that’s in the head, that’s kind of difficult to get at,
even if it’s actually embodied in the brain.” (op. cit.) This, he suggests, is the core problem:


to embody the mind not just in the brain, not just in that grey matter but in the body, in the pulsing muscles and in the nerves that run right through the body and in the fingers and in the arms and in activity, that’s a real challenge; it’s to, I think, go back to a more accurate legacy of Descartes to study habit and skill. (op. cit.)

There is, I think, an implicit circularity of feedback to habit and skill, that is: habit to skill, skill to habit, habit to further skill, further skill to further habit, et cetera. Once again, I would advance the notion that there is a recursive, rebounding, sounding, self-generative, self-describing dynamic at work here – which, from a systems thinking perspective, may be something to be wary of (see Wolfe, 1998: 56). As I have indicated; certain observational and operative traits, patterns, tendencies, ‘habits’ were seen to evidence in phenomenal encounters, as well as in other similar cell drawings, in particular, a piece in the show titled somewhere that’s not what it used to be (Fig.8).

In various ways, reflecting on these works has indeed furthered aspects of my “self-understanding, self-knowledge…[my] own idiosyncratic patterns of activity” (op. cit.). Process, and indeed a circularity of process, has been of key importance here. Gaining any further understanding of self in this way does require attentive, reflective observation, and the development of one’s own ‘literacy’ in this respect.

By engaging in this manner of observation, there occurs in effect, an observation of observations of observations. It was due I think, to the nature of the processes employed, that these drawings were, quite idiosyncratically, revealing characteristics and tendencies of observation – observation that is, as ‘encountering’. A telling feature is that they seem to speak of an intimacy of interaction with the material, phenomenal world. This was a characteristic I had noted earlier when referring to the spirit of making of these works; drawing comparisons that is, with the intimacy of play, which, when self-directed and self-sustaining, can dissolve the “separation between subject and object(s)”. This is important, in that I surmise that the order of “sensory encounter” referred to earlier constitutes a form of ‘intimate’ observation.
This is not observation as a deliberate act; it is the sensory-perceptual, embodied self, inhabiting a situation where there is an intimacy, and a significance of involvement with the structural properties and dynamics of that environment. As such, it will be the sensory self’s “intellectual intuition” that will be ‘observing’ the characteristics of the situation it finds itself in. On the basis of my conjecture of *sounding* – that is, where the whole operational domain is implied by that sounding process – an element of that observation will also constitute self-observation, which I propose is realized, or re-cognised through processes of creative reflection. To this end, part of the enterprise of this research has been to consider practical operational procedures that may foster ways of reflection in this sense. I emphasise the term “practical” as my proposition is, that active reflection, through praxis, can enable us to more fully apprehend a sense of the cognitive dimension to our actions. My thoughts at this stage in this research lead me to speculate that these practical strategies are likely to benefit from a ‘cross-talk’ of modalities, and that such processes will be reflexive, and will involve recursive procedures. In my own case, as previously stated, the pre-requisites
would seem to be the following conditions:

1) Where there is a process of ‘indifferent’ recursion, or “insistence.”
2) Where processes play out within a self-referential, reflexive framework.
3) Where the shaping of what issues from these processes is principally determined by the dynamical interactions of physical properties and/or structural characteristics.
4) Where the process’s self-reference, and self-observation elicits results that invite further reflective observation of observation.

Earlier, I had expressed the view that the practice focus of this chapter – the *cell drawings/phenomenal encounters* – were quite minor pieces in relation the overall body of work produced for this project. Whether this is the case or not (it is difficult to judge), I have found it important to devote extensive space to considering this work. Doing so has enabled me to work through, and to bring to attention, a number of core principles, which are common to all aspects of the practice component in this research. This, hopefully, will have provided a foundation of common reference points that can facilitate subsequent descriptions in this document. In particular, I think it may help to clarify the commonalities that connect the diversity of material involved.
8. INSTRUMENTAL BOUNDARIES

INSTRUMENTAL BODIES

It could be said that there is a form of knowing that underlies our performing of any kind of physical movement; act of doing, or for that matter, in our maintaining states of inaction. Directing conscious attention to our various states and experiences of doing, or not doing, can acquaint us more knowingly with this faculty, and bring us into closer familiarity with the ‘what’, and the ‘how’ of our being as bounded living organisms. Being still, when noticed, when consciously attended to, can be understood and experienced as an act of doing. Our inherent feedback mechanism of proprioception, as explained previously, continuously informs the brain and nervous system on the body’s articulations of movement, states of balance, or stillness. This faculty effectively ‘describes’ characteristic aspects of our own spatiotemporal interaction with the physical environment at any given moment, offering ‘situations for the mind’. These ‘situations’, as experienced by the mind, the body-mind, will be unique in that our physical configurations are unique. As with the acoustical dynamics of a musical instrument, the slightest variants will produce different vibrations and therefore different sounds.

Two apparently identical cellos for example will, however infinitesimally, differ in their material and structural properties. Their own ‘knowing’ of the way in which a bow is drawn across their strings will be felt through the resonances that emanate from the sum of all phenomenal and material factors involved. As acoustic, physical bodies, and as both receptors and transmitters, these instruments might, on a fundamental level, be understood as ‘transducers of signs’; agents of ‘transduction’, interfaces, that produce unique resonances in their channelling of the ‘signs’ presented to them by the player’s actions. The singular nature and character of their being in the world registers, and is defined, described by the characteristics of their physical, structural bodies, as indeed would be the acoustical properties of the space, the ‘body’ within which the instrument is being played (echoic ‘feedback’ describing the territory once again). In ourselves then, this form of knowing is born of mind’s integrality to the body’s experience of itself as a unique physical structure.
We, as humans, do of course have consciousness and personal volition (agency), which cellos don’t, so this analogy will only go so far. However, there are grounds to suggest that this knowing that I refer to can be understood as a functioning ‘intelligence’ on an even more fundamental level than that which would require consciousness, or even a brain for it to be operative. Described as an expert on the neurophysiology of emotions, Antonio Damasio (2000) provides a description that essentially links what I am describing here, a form of knowing, to the mechanisms that enable an organism to maintain its existence, to stay alive, to simply be. He approaches questions concerning the possible biological origins of what we identify as ‘self’, by first addressing the phenomenon of consciousness. He writes of achieving greater clarity within his investigation when he “began seeing consciousness in terms of two players, the organism and the object”, and significantly – bearing in mind the relational, organizational assumptions of systems theory:

in terms of the relationships that those two players hold. All of a sudden, consciousness consisted of constructing knowledge about two facts: that the organism is involved in relating to some object, and that the object in the relation is causing a change in the organism. (op. cit.: 133)

Damasio goes on to comment that a considerable amount is now known concerning the neural basis of object representation, that is, the how the brain represents stimuli external to the organism. Optically for example:

in the case of the visual aspects of an object, the appropriate neural patterns are constructed in a variety of regions of the visual cortices…working in concerted fashion to map the various aspects of the object in visual terms. (op. cit.: 134)

Concerning the organism itself, he adds that:

Although much has been known about how the organism is represented in the brain, the idea that such representations could be linked to the mind and to the notion of self has received little attention. The question of what might give the brain a natural means to generate the singular and stable reference we call self has remained unanswered. I have believed for quite some time that the answer lies in a particular set of
representations of the organism and of its potential actions. (op. cit.: 134 – my emphasis)

Damasio’s proposed notion of self as an emergent phenomenon of the organism has, by my understanding, four key preconditions or specifications, which are: stability; an individual defining boundary; the life urge, and consciousness. He explains that:

In thinking about the biological roots for the procession for the self from the simple core self to the elaborate autobiographical self, I began by considering their shared characteristics. At the top of the list I placed stability, and here is why. In all the kinds of self we can consider one notion always commands center stage: the notion of a bounded, single individual that changes ever so gently across time but, somehow, seems to stay the same. In highlighting stability I do not mean to suggest that self, in whatever version, is an immutable cognitive or neural entity, but rather that it must possess a remarkable degree of structural invariance so that it can dispense continuity of reference across long periods of time. (op. cit.: 134-5 – my emphasis)

As I have indicated, underlying this stability, this continuity, is the fundamental urge to stay alive, something that is present in a simple organism of one cell, as well as in more complex organisms that possess consciousness.

The unwitting and unconscious urge to stay alive betrays itself inside a simple cell in a complicated operation that requires “sensing” the state of the chemical profile inside the boundary, and that requires unwitting, “unconscious knowledge” of what to do, chemically speaking, when the sensing reveals too little or too much of some ingredient at some place or time within the cell. (op. cit.: 138)

As Damasio develops his description of this life-sustaining self-regulation, his terminology continues to characterise something resembling a practical ‘intelligence’ at work:

…something not unlike perception in order to sense imbalance;…something not unlike implicit memory, in the form of dispositions for action, in order to hold its technical know-how;…something not unlike a skill to perform a pre-emptive or corrective action. (op. cit.: 138)
PERSONAL BOUNDARIES, KNOW-HOW AND SURVIVAL

So the picture painted here is one of a living entity engaged in a continuous ‘dance’ or running battle of negotiation, manoeuvring and re-alignment, simply in order to continue its existence. This is a reflexive, self-organising process, and its sustainability depends on the organism’s ability to increasingly know more about itself, its own structure and dispositions, relative to the environment within which it is situated. Damasio terms this as, “holding know-how in dispositions”, and points out that earlier on in evolution this faculty was “present in single-cell creatures before they were part of any multicellular organisms, let alone multicellular organisms with brains.” However, as evolution rolled on, brains did appear and, in taking their place in the scheme of things, enabled the organism to:

expand the ability to sense the internal state, to hold know-how in dispositions, and to use those dispositions to respond to changes in the environment that surrounds brains. Brains permit the life urge to be regulated ever so effectively and, at some point in evolution, knowingly. (op. cit.: 139 – my emphasis)

Importantly, this is all going on within the boundary of the individual organism, the singular being. Its ‘knowing’ of itself as a living structure – the “know-how” of the continuity of its “dispositions” – develops relative to, and in concert with its interactions with whatever environmental domain it is required, or chooses to engage in. Damasio asserts that, “the key to understanding organisms…is the definition of their boundary, the separation between what is in and what is out”, suggesting also that the key to an organism understanding itself is in the definition of its own boundaries – “Singular individuality depends on the boundary.” (op. cit. 135-6)

Much of what is being said here correlates with the notion I had proposed earlier in connection with Maturana and Varela’s assertion of our being “structure determined” systems. As such, I had suggested that a more fundamental and individuated form of self-knowing will necessarily entail “knowing the structure”, and that this may be realized through greater attentiveness to the lived experience of being in, and of that structure. What I am talking of here is a personally sensed apprehension of a self, intrinsic to its embodied “singular individuality”, bounded as it is within the
constraints of its “structural invariance” (or limited variance), which, as mentioned above, is an essential precondition for the viability of our being in the world as living systems. Damasio describes this dimension of his inquiry as the “search for a biological substrate for the self” (op. cit.: 135), which in itself speaks of Maturana and Varela’s work exploring of the biology of cognition. Theirs is an approach that starts with observing the fundamental biological workings of a living system, with the emphasis seemingly focused on the structurally determined behaviour and operative characteristics of the organism as a whole.

So the continuity factor is key here. Although our organisms are subject to constant change, in that we are mostly constituted of perishable parts that are themselves replaced by other perishable parts (some only lasting a week or so), its overall design is maintained as a whole of consistent identity – as long as it stays alive. Staying alive, as I have detailed, relies principally on the continued service of that dispositional know-how, the self-regulating ‘intelligence’ also known as homeostasis, which I refer to elsewhere in this document, and which I surmise is intrinsic to the ‘knowing’ that I spoke of at the beginning of this section.

My thesis of physical thinking is premised on what I have perceived as a form of knowing that operates within, and integrally to other forms of knowing – a bodily-based ‘cognisance’, an emergent synthesis of the whole organism – and is a notion that has formed out of experiences that I will endeavour to adequately recount in this study. Borrowing from the preceding paragraph, I will describe the emergence of this concept as “a personally sensed apprehension”, which I would believe to be an inherent facet of physical thinking. This is an understanding that views the body as an instrument of thought – Rumi’s ‘Body Intelligence’ perhaps…with its “beauty and precision of an astrolabe”…calculating “how near existence is to the sun”. As the astrolabe was once employed as an instrument for measuring the altitude of celestial bodies, and as a means of navigation, for calculating latitudes; so the body, with its spatiotemporal acumen, gauges where it is, and how it is within its location. Throughout our early and continuing development, our primary mode of thinking is essentially bodily, and physical. That is, through the often hazardous and painful, as well as pleasurable experiences of where and how we are, as we encounter and negotiate all that the phenomenal (peopled) world presents; hard edges, cushioned
landings, sloping surfaces beneath our feet, hugs, threatening behaviour, crosswinds, fists. This is where, and how our neural pathways are initially laid down, and this is consequently where we begin to register the ‘I’ that we are, as distinct to all that isn’t.

Previously I had highlighted the central role of proprioception in our body’s vocabulary of perceptions, and with what I am striving to say here, it is important to consider this faculty’s role within the context of a broader complex of modalities and operations. The notion of a ‘thinking’ body, a body-mind, will necessarily entail the perspective of understanding proprioception as pivotal to the orchestration of all the faculties involved. This is a mode of ‘thought’ that is particularly germane to creative processes, not least because of its instrumentality to the *imaginial* workings of the mind. Importantly however, mental *images* should not be regarded solely as visual, and can be understood in a broader sense to mean:

…mental patterns with a structure built with the tokens of each of the sensory modalities – visual, auditory, olfactory, gustatory, and somatosensory. The somatosensory modality (the word comes from the Greek *soma* which means “body”) includes varied forms of sense: touch, muscular, temperature, pain, visceral, and vestibular. The word image does not refer to “visual” alone, and there is nothing static about images either. The word also refers to sound images such as those caused by music or the wind, and to the somatosensory images that Einstein used in his mental problem solving – in his insightful account, he called those patterns “muscular” images. (Damasio, 2000: 318)

Crucially, this description speaks of integration, of a confluent synthesis of stimuli through the various modalities of the body, or more appositely, the whole somatosensory system. It is also indicative of the immeasurably extensive range and scope of mind in this corporeal, embodied sense. That is, the sensing body’s capacity, as a facet of mind, for the assimilation and ‘translation’ (‘transduction’) of all manner of experience into all manner of expression and invention:

Images in all modalities “depict” processes and entities of all kinds, concrete as well as abstract. Images also “depict” the physical properties of entities and, sometimes sketchily, sometimes not, the spatial and temporal relationships among entities, as well as their actions. In short, the process we come to know as mind when mental images

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become ours as a result of consciousness is a continuous flow of images many of which turn out to be logically interrelated. The flow moves forward in time, speedily or slowly, orderly or jumpily, and on occasion it moves along not just one sequence but several. Sometimes the sequences are concurrent, sometimes convergent and divergent, sometimes they are superposed. Thought is an acceptable word to describe such a flow of images. (op. cit.: 318)

PROPRIOCEPTION – VOICING WHAT IT’S LIKE

What is being said here then, is that the human organism’s basic mechanisms of survival, and its mind’s capacity for imaginative, creative thought, are essentially of each other. The ultimately practical matters of balance, temperature control, biochemical regulation, musculoskeletal support, pain management, and so on are understood as instrumental, generative factors to the origination of ideas, in whatever form they may manifest. Proprioception would appear perhaps to be the pivotal characteristic to our organism’s propensity to create and invent as it does through its spatially oriented experience of being in the world. Brian Massumi (2002) offers a description of this faculty that at once portrays it as a fundamental working mechanism, and, as agential to the body’s capacity as a ‘translating’ interface. Proprioception he writes, is defined as:

...the sensibility proper to the muscles and ligaments as opposed to tactile sensibility (which is “exteroceptive”) and visceral sensibility (which is “interoceptive”). Tactility is the sensibility of the skin as surface of contact between the perceiving subject and the perceived object. Proprioception folds tactility into the body, enveloping the skin’s contact with the external world in a dimension of medium depth: between epidermis and viscera. The muscles and ligaments register as conditions of movement what the skin internalizes as qualities: the hardness of the floor underfoot as one looks into a mirror becomes a resistance enabling station and movement; the softness of a cat's fur becomes a lubricant for the motion of the hand. Proprioception translates the exertions and ease of the body's encounters with objects into a muscular memory of relationality. This is the cumulative memory of skill, habit, posture. At the same time as proprioception folds tactility in, it draws out the subject’s reactions to the qualities of the objects it perceives through all five senses, bringing them into the motor realm of externalizable response. (op. cit.: 58-9)

So, as we experience the spaces and the objects of our environments: the textures, topographies, masses, forces and so on, there occurs within our bodies a knowing
registration, and cognisance of what it is that we are in. That is, the nature of our being within situations is ‘understood’ by the organism in congruence with the phenomenal reality of that situation, and not as a fabrication of acquired opinions. The matter of how this level of experiencing the world might be ‘read’ into the domain of reflective, conscious awareness is central to this study’s concerns. How we attend to this dimension of our embodied experiences is therefore key, our sensed knowing of our ‘structure’ will I’d maintain, be integral to this attendance. Part of my argument is to view this variety of cognition as a phenomenon that speaks directly of the dynamics occurring within the body through its actions and encounters (the body as subject/object interface), as an emergent ‘voice’ that issues ‘soundings’ out of those dynamics and perceptions. It supposes therefore that the ‘utterances’ of such a ‘voice’ will simply state what it is that’s happening, at least on a phenomenological level. Mind, in this sense, is therefore directly engaged in, indeed integral to, the indifferent actuality of material, phenomenal properties and dynamics. Proprioception doesn’t contrive fictional stories to send from our musculature to our brains. If we feel as though we’re falling over, then we probably are. The body serves as an authentic translator of situations, spatial placements, and interactions with its environment, particularly it would seem through the faculty of proprioceptive feedback. Noticing what it says is crucial of course.

Earlier I made reference to Antonio Damasio’s assertion that the key to understanding organisms is through the definition of their boundaries, that is, “the separation between what is in and what is out”, and with this in mind Massumi’s description of proprioception acquires even greater significance. His explanation of this faculty’s workings reads as a quite abstract delineation of melding and intersecting dimensions of experience; and of feeling, perceiving, and interpreting experience (consciously or not) as it is lived through the body. By my understanding, this is a description that, whilst dealing with an aspect of the body’s functional mechanisms, is implicit of so much more. It speaks of a discerning facility at work, and crucially, one that is operative within the organism’s boundary of what is in and what is out – that “dimension of medium depth: between epidermis and viscera” where, what we identify to be ourselves, meets the conditions of its situations:
Proprioception effects a double translation of the subject and the object into the body, at the medium depth where the body is only body, having nothing of the putative profundity of the self nor of the superficiality of external encounter. This asubjective and nonobjective medium depth is one of the strata proper to the corporeal; it is a dimension of the flesh. The memory it constitutes could be diagrammed as a superposition of vectorial fields composed of multiple points in varying relations of movement and rest, pressure and resistance, each field corresponding to an action...Proprioceptive memory is where the infolded limits of the body meets the mind’s externalised responses and where both rejoin the quasi corporeal and the event. As infolding, the faculty of proprioception operates as a corporeal transformer of tactility into quasi corporeality. It is to the skin what movement-vision is to the eyes. Its vectors are perspectives of the flesh. Although movement-vision opens onto the same space as proprioception, the latter can be said to be the mode of perception proper to the spatiality of the body without an image because it opens exclusively onto that space and registers qualities directly and continuously as movement. (op. cit.: 59)

Proprioception is specific to the boundary that Damasio emphasises, that is, the interface between (or of) what is in and what is out. This terminology, I am aware, tends towards a portrayal of human, and other, entities as discrete separate units. As such it might be understood as running counter to notions of interrelatedness, holism, ‘oneness’, and indeed systems thinking. My argument would be that, emphasising the “singular whole” of our bodies is not to connote any suggestion of dualistic separateness, or reductionism. The perspective I advance does I think accord with the systems theory understanding of systems operating within, and integrally to other systems. This is a relational, organizational perspective, and my interest is in attending to what that particular organism’s configuration is, as a structurally-determined system, and therefore how it is, as both a singularly defined, self-organising system, and, as a relational entity within the overall milieu of its environment. This, I advance, is a matter of knowing the structural, operational characteristics of the bounded (human) system, as a means of understanding more about the “matrix of systemic relationships” that “we exist in, and therefore both observe and participate in” (Wright, 1998: 98).

By my understanding, both Damasio, and Massumi, suggest a perspective that views the body as a whole; the singular integrated organism, as the ‘instrument’, with less
emphasis the acuity or dominance of any particular sensory faculty – the whole ‘cello’ if you will. Phenomenologist Ludwig Binswanger states a similar position:

Lived through the body [should not be understood as] either sensual feelings, or organic feelings, or particular lived corporeal feelings, and above all (‘exterior’) optical or tactile corporeal perceptions, but the phenomenal state of affairs, absolutely singular and unitary, of having a lived body and experiencing it. (Binswanger, cited in Gil, 1998: 117)
9. ERRORDYNAMICS

CALCULATIONS AND PARADOXES

The value of accidental developments in shaping creative processes is commonly understood. The ‘happy accident’ will present all manner of surprises, and unlikely juxtapositions and connections that simply couldn’t have been planned or foreseen. Having said that, strategies that provide the circumstances to elicit ‘mistakes’ or waywardly unpredictable bifurcations can be planned if so wished. The ‘system’ that had generated much of my work since the early 1980s, first with drawings, and subsequently with sculpture, was itself a process of ‘developing’ error, an accretion of ‘mistakes’. This procedure of faithfully building upon the idiosyncratic characteristics of (my own) human error was in effect the subject of the work, as well as the generative factor to its ‘ontogenesis’.

I have never fully analysed my reasons for working in this way. As is usually the case, the steps taken toward this approach will have been integral to the overall development of my practice. There will have been countless factors involved. What I am fairly certain of though, is that this approach was not conceptually driven. That is, it was not about entering into an intellectually guided exploration of human error, and the implications thereon. That would have been a fairly peripheral concern I think. As I recall, my primary interest was in simply working with what was happening in front of me visually; consequent to the application of a particular strategy, and within quite defined constraints. What had really fascinated me with the drawings of this period, was how the quite rudimentary action of dragging a piece of charcoal across a sheet of paper repeatedly, one line following another, would develop into imagery that seemed so suggestive of natural phenomena: wave forms; moonscapes; sonar feedback imagery; topographical mappings, and so on. Notwithstanding the step-by-step logic of this process, its consequence of unpredictable, quite chaotic results can, with the element of human error involved, be seen paradoxically to be a predictable outcome. Repetition, in this mode of application, endlessly invents, and paradoxically once again, never actually repeats.
Error, repetition, and unpredictable complexity, have been ubiquitous characteristics within my working processes. Furthermore these are features that are subject to, and conditioned by the constraints of, apparently simple, deterministic procedures, shaped also by an element of geometric structure, whether overtly or implicitly.

With this in mind, I think there is some value in briefly referring to the work of mathematician Henri Poincaré. Fritjof Capra (1996) explains that Poincaré’s work laid the foundations for the mathematics of complexity, and that it was his topological approach, which provided “mathematical techniques that have enabled researchers to...discover ordered patterns in chaotic systems” (op. cit.: 127). Significantly Poincaré’s was a very visual form of mathematics, and this was important in providing representations that aided the analysis of the “qualitative features of complex dynamical problems” (op. cit.: 126 – my emphasis). For an artist-practitioner-researcher, the term “qualitative” here is of key importance. Poincaré’s work effectively helped pave the way for later developments in quantum physics and the mathematics of complexity (op. cit.: 126). The ensuing paradigmatic shifts have helped in enabling meaningful comparisons to be drawn between the qualitative features and characteristics that manifest across a spectrum of cultural, phenomenal, and social systems and entities. Capra writes that:

Among the problems Poincaré analysed in this way was the celebrated three-body problem in celestial mechanics – the relative motion of three bodies under their mutual gravitational attraction – which nobody had been able to solve. By applying his topological method to a slightly simplified three-body problem Poincaré was able to determine the general shape of its trajectories and found it to be of awesome complexity. (op. cit.)

I am not a mathematician or physicist, and my grasp of what is being said here may not be precise or comprehensive, but I think that I get a general sense of the dynamical processes that are being described – there is something to get a handle on, by that is, using one’s own means of imagining and analogising. I see this as relevant in that qualitative descriptions such as this, can enable us to apprehend a sense of knowing something, through acts of recognition; re-cognition perhaps, which we may otherwise be unable to access. That is, by being in some way cognisant of the dynamics of phenomena in one domain, the recognition of qualitative commonalities
echoed in other domains will evoke a connecting and corresponding sense of cognisance, of knowing and understanding. In this instance, the actual mechanics, the formulation (the *quantitative* component) of Poincaré’s mathematical equations would I’d imagine, be rather too much for most (of us) non-mathematicians to process. A suitably worded (or drawn, or sounded, etc) *qualitative* description however, can enable our perceptual minds to picture meaningful relationships, affording a greater breadth of understanding and knowing. The following passage where Poincaré speaks of his working with the “celebrated three-body problem in celestial mechanics”, evokes imagery that for me resonates in such a way:

> When one tries to depict the figure formed by these two curves and their infinity of intersections…[one finds that] these intersections form a kind of net, web, or infinitely tight mesh; neither of the two curves can ever cross itself, but most fold back on itself in a very complex way in order to cross the links of the web infinitely many times. One is struck with the complexity of this figure that I am not even attempting to draw. (op. cit.: 126)

No doubt my receptiveness to these words has, to some extent, been fostered by the experience over time of *being in* the processes of my working practice as described earlier. I am aware also that such descriptions, and the consequent imaginings they evoke of curves “and their infinity of intersections”; the accretive formation of nets and webs, and so on will have a universal resonance, in much the same way that images of fractal geometry, shifting kaleidoscopic patterns, and the complex rhythms in music will. The question of this universal appeal, or attraction is of significance. The reverberations we feel and recognise through such descriptions and representations can often act as the impetus to bring us to engaging in activity that will in some way seem meaningful to us. That is, we are drawn into the performing of actions where, in a quite real sense, we ourselves come to be integral, generative components to the production of representations; to expression, and the creation of material, that corresponds with its original impetus. The relationship of dance to music illustrates this. With dance in particular, the body-mind seeks to enact physical movement to correspond with the “original impetus” of the music. This is a very direct relationship, and a perhaps too obvious an example. The dance, and the music occupy the same ‘operational space’, and in such a situation, they can be seen to be about each other, as an active partnership. What interests me in this context is where
the correspondence between impetus and expression is more oblique, where the links and connections rebound across domains, and across time; where, consequently, the suggestion of a broader, more complex interconnected, interactive web or network is implied.

As explained, the catalyst for this project was the recognition of apparent commonalities, homologies between disciplines, and forms of experience. Within this research therefore, I have been curious to explore how, and where else, similar parallels might manifest, and particularly in relation to recursive human action, whether that action be the drawing of lines, drumming, repeating a sentence, or walking. As I venture further into this enquiry, this component seems to accrue significance. My key interest is to consider how such manifestations, that is, how the product of, the feeling of, or even the memory of the feeling of, our recursive actions can be viewed as ‘soundings’ that feedback to us, describing aspects of our nature, both individually, collectively, and as we relate to the environments that we encounter and interact with. This notion, particularly concerning our individuality, was considered in some depth in section 7, Soundings. Here however, I am interested in exploring the question of correspondences between recursive human actions, overtly ‘creative’ or otherwise, and the fundamental ubiquity of recursion, ‘repetition,’ cyclic processes, and so on, in phenomenal, cultural, and social systems. Systems thinking will generally work with the view that all of the above are to be understood as interactively interrelated, and I proceed with that assumption.

I think that the crucial recognition this research has afforded me is that of the core significance of ‘error’ within all of this. I place the word “error” in inverted commas for the reason, that I am coming to understand the dynamics of error – of things going wrong, of ‘mistakes’ – in a radically altered way through the work I have been doing. To reiterate, “developing error…[the] accretion of ‘mistakes’…faithfully building upon the idiosyncrasies of (my own) human error” has in effect been the subject of my work, “as well as the generative factor to its ‘ontogenesis’.” The use of a term like ‘ontogenesis’ is also important here. This is to consider a correlation between creative processes, and generative, developmental processes in a wider sense – in organisms in particular. With that understanding, working with ‘mistakes’ was felt to be of significance in that it incorporated, and reflected the element of error and
imperfection within the human developmental experience. This research however, both through its theoretical, and it practical components, has brought me to consider a broader perspective of the notion of ‘things going wrong’ – not going to plan, falling apart, disintegrating. Importantly, repetition, or recursion, can be seen to be central to the dynamics at play in this respect; that is, ontogenetically, creatively, generatively, entropically, and so on. I will develop this point as I continue.

As has been proposed, there is, strictly speaking, no repetition or recursion as such, but I think these remain useful working terms. It is useful in this respect also, to incorporate notions of circularity (ellipticality), cyclical, elliptical ‘returns’ into considering recursive dynamics. This is particularly important in that my thesis here is to intimately equate core aspects of the creative processes I explore, with the generative (and entropic) processes fundamental to how we as living systems function, and of the phenomenal world that we inhabit. This equation, for precisely the same reasons, also incorporates processes applied in mathematics, and the sciences, to seeking descriptions and explanations of what we are, and what we are a part of. Fundamental to all of this – that is, our being, its continuance, the continuance of the ‘medium’ that we “structurally interact” with – are cyclic, recursive processes. In pondering and reflecting on that existence (in whatever form that may take) it can be seen that the element of recursion will be instrumental. In our mind’s generating of image schemata to frame and articulate those musings, the fundamental integrality of cyclic processes in systems will naturally figure in the shaping of our thoughts. Mark Johnson (1987) writes:

> We come into existence as the culmination of a reproductive cycle. Our bodily maintenance depends on the regular recurrence of complex interacting cycles: heartbeat, breathing, digestion, menstruation, waking and sleeping, circulation, emotional build-up followed by release, etc. We experience our world and everything in it as embedded within cyclic processes: day and night, the seasons, the course of life (birth through death), the stages of development in plants and animals, the revolutions of heavenly bodies. (op. cit.: 119)

The nature of these regularly recurring “complex…interacting cycles” is imperfect however, and notions of perfect circles (perfect anything) will be misleading:
This circular representation of the cycle is inadequate insofar as it fails to include a salient dimension in our daily experience of cycles, namely, their climactic structure. For us, life patterns do not simply repeat; they exhibit a character of build-up and release. In some natural cases this pattern is in the cycle itself, such as the build-up of sexual or emotional tension followed by release, or the course of an illness that gradually drains our energy before we recover and return to our former "healthy" state. (op. cit.; 119-120)

This list of cyclical ebbs and flows could continue of course, and a more comprehensive account would read as a litany of wins and losses, errors and corrections, hits and misses; of falling down and getting up again, of wounding and healing; splits and reconciliations, in short, the stuff of being human. By simply being alive, our sensed experience of being in the world will be suffused with feelings that are subject to the complex of tides and cycles which steer that existence. In the midst of this, being human is also to live with the unpredictability of these dynamics, and so perhaps feelings of dis-ease and uncertainty are to be expected as nothing more than par for the course.

Science both informs us of these uncertainties, and endeavours to make sense of them, for our benefit. For me, creative practice has come to be something that I understand as corresponding to, and with, this endeavour. Art practice can be what ever you want it to be of course, but, as this study should testify, creative inquiry for me has become a way of exploring correspondences. What art practice can certainly be said to be, is that it is of being human, with all of the imperfections that come with that ‘condition.’

My approach has been, principally, to follow strategies and processes, which, on the face of it, are quite impersonal, and have an apparently straightforward logic to them. So I set off, follow whatever the process seems to suggest I should do; I interact with it; I correspond with it, and to look to see what happens. What does generally happen, despite the logical indifference of the process, is that quite personally idiosyncratic, individuated material emerges. There may well be some underlying order and logic to the non-linear waywardness of what takes place, but there are few indications of it, particularly where there is an overtly human dimension to the work, where that is, there is a figurative or linguistic element involved. Arguably, this is as it should be; I am not doing science, or dealing in mathematical formulae. Interestingly, where this
is the case however, where we ought to be able to expect logic and predictability, it won’t necessarily be forthcoming. With the aforementioned Poincaré for example, his enterprise of analysing the qualitative features of complex dynamical problems utilized a mathematics, which, “challenged the very foundations of Newtonian mechanics” (and thus, many of our assumed certainties), in doing so, he was able to show “that simple deterministic equations of motion can produce unbelievable complexity that [defy] all attempts at prediction” (Capra, 1996: 126). As mentioned Poincaré’s work laid the foundations for the development of mathematical techniques enabling the discovery of ordered patterns in chaotic systems. So, in my pondering correspondences between domains of operation, I am led to wonder as to whether there may also be some underlying order to the seemingly aberrant ‘lines of flight’ that occur in creative work.

To re-emphasise: I am not applying science, or mathematics to art, but I am inquiring into apparent commonalities, isomorphisms, and correspondences. In this respect, it strikes me as significant that, in the facets of my practice, where systems, strategies, processes are ‘allowed’ to lead, that which results seems to be notably personal, and noticeably human. Perhaps this should be of no surprise. There can be direct comparisons drawn between the recursive, cyclic nature (overtly or implicitly) of the strategies I work with, and those that occur in life systems, as well as in cultural and social systems. The error factor within this is key as well. In a sense, being human is to contend, moment by moment, with a battery of ‘errors,’ albeit managed, and in most cases, automatically ‘corrected’ by our innate faculties of survival. Certainly, in our embodiment, as described in the last section, the function of homeostasis regulates the continuous flow of ‘failures’ and ‘corrections’ in the system. In a sense, the organism is always going wrong (usually ever so slightly), but constantly self-correcting – until it doesn’t of course.

As I have conjectured, all of this will be ‘known’ by the body, and my notion of physical thinking, as stated, is premised on the perception that that form of knowing, that “bodily-based ‘cognisance’” operates integrally to, and in concert with, other aspects of our knowledge. So I hypothesize that this ‘cognisance’ will itself be intrinsically knowing of the individual characteristics of its bodily ‘host’ or ‘medium’, indeed, it will be of those characteristics. By implication then, this is a tacit knowing
that will be intimately bound into the organism’s lived experience of self-maintenance throughout its continuous run of, cycles, life patterns, recursive ebbs and flows, errors and corrections; integration and disintegration, tripping and stumbling, regaining balance, and so on. This has brought me to consider the question, that it is perhaps by working in accord with certain creative strategies (recursive processes and ‘systems’) that the ‘behaviours’ which occur, do in some way correspond with these fundamental dynamics. That is to say, that the differentiated, embodied mind (in its tacit cognisance), creatively interacting with the ‘indifference’ of such processes, finds itself in a form of dialogue with those dynamics; those pulses; pendulum swings, and undertows; those sudden bifurcations, aberrations and ruptures that disturb the flow, and break the patterning – the dynamical stuff of the continuum perhaps.

NOTHING SUCCEEDS LIKE FAILURE

Through this research, I have found myself working with an interesting paradox – one of many. That is, I have experienced an increasing sense of value to being creative; to doings things; constructing, bringing some poetry into existence – I believe it matters. On the other hand, the work itself will often seem in some way to signify a sense of inherent futility; of its own undoing, and by implication, our own undoing. Alongside this, and within it, where logic is constructively and effectively applied, it also appears to conspire in its own dissolution. This is not a negative; it is just an observation of coexisting factors – an equation of sorts. Neither is it, as they say, “rocket science”, things fall apart; there is perpetual generation and degeneration, that is a given. The life of something, including art, will I think, by definition of having a life, speak of its own temporariness. What has been interesting though, is the way that this has presented; for me there has been something affirming about it. Why, I’m not sure, but it’s notable that the implicit dualities, or polarities (if that’s what they are) of generation, and degeneration; order, and disorder etc, seem, in this work, to have been commensurate to each other. It might be the case, that by actively engaging in creative processes, we walk (or stumble) a fine line between these polarities, and that as such, this corresponds generally with the business of being human; of the predicament of navigating a life. As such, there will be value in considering the notion that reflective observation of creative work, and of the experience of being in
creative processes, affords some cognisance of the nature of what it is about to be in this passage of navigation.

In the same radio feature mentioned earlier, Leonard Cohen was speaking, from his own experience, on the subject of life's rigors; struggles; collapses; defeats, and, of finding some way through it all, creatively intact. He related (with the aid of a nautical metaphor):

…you know, you run into your life, and it shipwrecks like everybody's life, and you mess up. And it collapses, whether it's with a woman or yourself, or your own mind, or your confidence, or whatever it is. It goes, it happens to everybody. So, you know, that happens to you and then it gets kind of tricky, because sometimes it collapses. So through that, it, um, destroys your capacity to work. If you're lucky, you can somehow protect just that tiny little corner of your life from complete destruction. Everybody experiences this because this life is designed to overthrow you, nobody masters it. (Hesthamar, Radio broadcast, 2008)

He goes on to speak of where he's come to, subsequent to all the collapses and struggles, and admits to experiencing feelings of "defeat", and becoming "weary of the struggle..." What he describes is the reaching of a state of equanimity, an evenness in his responses and reactions to the joys, trials, or failures in life, and puts this down to a condition that's achieved as a consequence of becoming "tired of your own drama". The view that “nobody masters it”, can at least perhaps lead us to the assurance that there’s nothing to worry about; ‘failure’ is inexorable. The proviso might be however, that of “protecting just that tiny little corner” (op. cit.). It may be helpful, to work with the idea that ‘getting it right,’ goes hand-in-hand with ‘getting it wrong.’ When you think you’re ‘mastering it,’ some other development comes along to make you reconsider, or to knock you down flat. George Orwell seems to have been thinking along these lines in his essay, Why I Write. Here, he speaks of his changing approaches to styles of writing: "I find that by the time you have perfected any style of writing, you have always outgrown it." (Bott, 1958: 104). In other words, it works (as well as it does) for a while, but ‘fails’ in the end – an evolutionary, built-in obsolescence perhaps? Orwell continues; lamenting that, at the time of writing this essay, he hadn't written a novel for seven years, but hoped to "fairly soon", adding that, "It is bound to be a failure, every book is a failure, but I do know with some
clarity what kind of book I want to write." (op. cit.:105) There’s some irony here, in that there appears to be a double certainty at play: a certainty (or at least a clarity) of intent, and, the certainty that the venture will be a “failure”. There may be an element of English self-deprecation here, which itself can be quite creative – it has a presence in this project. Orwell may well have a point, but this isn’t an issue that I would wish to labour in this context. I am aware that I won’t be contributing much to human knowledge by harping on about everything being temporary and imperfect – entropy, and so on. It is I think of value however to consider the question of our relationship, through the performance of actions, to the inevitable ‘collapses’, ‘failures’, and ‘things falling apart’ that naturally feature in our existence. The ‘dialogue’, if you will, that occurs, through our creative work in particular, with these underlying inevitabilities.

MISTAKES TO MIS-TAKES

The ‘error factor’ in the practice component of this project is noteworthy. Error; getting it wrong; missing the mark; ‘failure’ of mastery; being off kilter; all of these, and other such things, seem, as features of this project, to have become ubiquitous. This has occurred in the practice component, as well as in the content, and questions arising from the theoretical research. As far as my practice is concerned, this is noteworthy in that, having consciously moved away from a very lengthy association with a system of working with error; a process that built upon, and developed ‘mistakes’, I subsequently find that error, now, not only features as an aspect of the processes I work with, but it is integral to the subject matter as well. By ‘error’, I would include a whole range of traits and ‘failings’ that are, fundamentally, characteristic of being human, so essentially, there is nothing new there. As this manifests in my working processes, an example might be that the mishearing or misreading of something may trigger a characteristically non-linear, tangential sequence of thoughts and ideas. As a creative strategy there’s nothing new or remarkable in this either of course, but it does seem significant that ‘error’, should present again in such a way.

Looking back, I sometimes wonder if, fancifully perhaps, that that extensive period of working solely with ‘systems’, represented a kind of protracted period of gestation.
Where that is, there was some form of inherent latency in the whole process, fostered by the process itself; where all manner of potentials resided, awaiting the conditions required to become manifest. Taking this notion a step further, the ‘crisis’ that effected the major changes that occurred might be likened to kind of creative *Big Bang* – with the subsequent fallout configuring into a constellation of differences, novelty, and absurdity – a matrix of mis-takes perhaps, and a mutable one at that.

And indeed, the ‘mistakes’ were now ‘mis-takes’. Where error had been a matter of failing to draw a straight line, it now seemed to derive more from a form of mild dyslexia. Having spent several years teaching children diagnosed with dyslexic, and dyspraxic (apraxic) tendencies, I’d often wondered about myself in this regard. When I was at school, dyslexia, or dyslexic tendencies weren’t generally identified, diagnosed, or even recognised.

**I ERR THEREFORE**

The most recent development in my practice has been the introduction of sound. With the importance of sound, and music to my work, it is perhaps surprising that this didn’t happen before. I have, over the years, quite habitually recorded from radio programmes, accumulating a large collection of material on tape. Most of these recordings were off the BBC, some of which I’d brought with me to Australia, mainly in order to sort through them, and to compile master recordings digitally. On one of these tapes was a recording from a late night music show, which in this instance had featured a 12th century love song, a quite plaintive, melancholy number. The female announcer, in an impeccable BBC voice, read aloud a translation of one of its lines: “If you love me, and it’s a dream, may I never wake up. In the sweet dawn, God, let my soul be taken away.” These were quite striking lyrics in themselves, but what had really caught my attention was the way in which the announcer had read them. Her enunciation was typically immaculate, but her manner of delivery was quite faltering and stilted, as if she were distracted, or had had difficulty in making out the words in front of her, or as though her mind had wandered as she’d read. The result was that these painfully heart-felt lyrics, which had been sung with such passion, now sounded a little like a list of instructions being read out, uneasily, from a technical manual.
For whatever reason I’d found something curiously engaging about this, enough to keep replaying it. By repeatedly hearing it, I’d come to be more acquainted with the (slightly awkward, ungainly) rhythms and intervals in this speech, which added to my interest, but there was I think, another dimension involved. Although it’s impossible to fully analyse what this fascination was really all about, what I’d come to notice was, that I had developed (and I can think of no other way of describing this) feelings for this voice – or more accurately, for the whole thing; the voice; the words that it delivered, and the faltering manner in which they were spoken. As I write this now, I realise that there was, is, something reminiscent here of what I had experienced in listening to, and reflecting on that solitary voice of Alvin Lucier, in I am sitting in a room, and there were, as it happens, two very significant commonalities. With Lucier, there was his speech ‘impediment’ – his slight stammer; and with this BBC voice, there was the faltering hesitance, for different reasons. In both cases of course, there is also the repetition, or “insistence” factor.

The element of repetition is of particular interest, in that it seems to present something of a paradox. On the one hand, the repetition of, for example, a visual feature, can result in the individuality of that feature dissolving into an indistinguishable sameness of regular pattern. On the other hand repetition can, by its “insistence” (to use Gertrude Steins’ term), assert a difference, or differences as if by continual self-description, a notion that I have already touched upon in this study. French philosopher Gilles Deleuze (1994), following Hume’s ideas on this question, held that habit “draws something new from repetition – namely, difference (in the first instance understood as generality)” (op. cit.: 94), which I think echoes Descartes inquiry into how habit would speak of an individual’s idiosyncrasies. Whether or not what is repeated actually changes (it actually does in the case of I am sitting in a room), “a change is produced in the mind which contemplates [it]: a difference, something new in the mind.” (op. cit.: 90) The change in my mind, with both of these examples, was that a person’s voice, simply speaking some words, acquired a difference. That difference for me was, as intimated, that a very distinctive uniqueness of expression had arisen out of this process, speaking (literally) of this human’s singular being in the world. Further reflection brings me to suppose however, that this specificity, speaks somehow of humanness more generically – I am bound to think that it is both. ‘What it’s like’ to be human can be expressed through one person’s voice (voicing),
literally and metaphorically. For me however, it is still that solitary singularity that
stands out. Repetition once again, can be seen to be a generative principle at work,
effecting both homogeneity, and individuation. The factor of imperfection, of error-
proneness, of human fallibility seems also to be key, and this element will I think
have been the main impetus that led me to using this material in my work.

Taking those words: “If you love me, and it’s a dream, may I never wake up. In the
sweet dawn, God, let my soul be taken away” (now sounding quite different to when
I’d first heard them) I set about seeing what might come of sampling fragments of this
recording; rearranging and repeating sections; layering, and so on, with a view to
making an audio work from it. At the time I was still limited to using crude analogue
technology, nothing more than an assortment of cassette players, microphones, and
speakers. The ‘piece’ didn’t really work, but it had attuned my ear to notice faltering
and error in speech whenever I listened to the radio, which I did a lot, whenever
driving. From there I proceeded to gather ‘errors’ in sound form, which was
effectively collecting raw material with which to work. This had now become more
practicable, as, with the new technology that was available, it was easier for me to
sample and subsequently edit, and compose. As is usually the case, I’d not analysed
my reasons for doing any of this. Part of the curious appeal here was an amusement
factor, although not in the sense of mockery I should emphasise. I am all too aware of
my own tendency to falter and “err” when I speak, so this engagement, this
fascination, would be more likely to have something to do with a form of empathy, if
anything. This is significant, in that empathy, as I am using the term here, is very
much to do with a shared understanding of the fundamental, intrinsic difficulties of
being human; the embodied struggle of being in a life which is “designed to
overthrow you”. Importantly also, I would argue that empathetic feelings as such,
register very much as embodied sensations; empathy is a clear example of thought as
feeling, and vice versa. So I think that it is worth pointing out in this context, that
empathy, as it features within an act of creative thinking – which I think it had here –
is a mode of thought that is, to a significant degree, of embodied feelings. As such, it
represents one aspect of physical thinking, as a modality that informs and steers
creative action.
"COGITO ERR SUM"

The audio piece cogito err sum was an outcome of this initial episode. Most of my radio listening had been of the spoken word; people in conversation; phone-ins; interviews, and indeed, announcing. I’d developed a kind of collector’s mentality in spotting an “err”, or preferably, a sequence of them. Any manner of hesitation was welcome in fact, and it was interesting to get to know how many variations there can be of stumbling over words, or of finding yourself bereft of one, just when you need it, which happens to me frequently. This went on for some time, and things did reach the stage where it was becoming a little obsessive. A point came where I’d had to restrain myself, and put a hold on collecting yet more recorded talk. One of the problems that this was creating was, that the initial editing was/is a quite time-consuming activity, and I had gathered a lot of material to work through. As a procedure however, this came to be quite interesting and illuminating. That is, that by observing what I was doing, I was coming to notice characteristics of my working processes that corresponded with previous experiences in my practice. There were several aspects to what I’d observed, and these recognitions were instrumental in my realizing the pivotal importance of place that cogito err sum has in this project.

Aside from the nature of the work itself; its ‘content’; its formal characteristics, and so on; it stands out as having provided a ‘situation’ through which to gain a deeper understanding of what I do creatively. One of the first things that struck me was that by editing the ‘sense’ out of whatever was being said, I was performing a kind of reverse (or perverse) abstraction. Where abstraction in art has generally, by my understanding, been about distilling the essence, and discarding the superfluous, I was effectively doing the opposite. By now, it probably won’t be necessary to explain that this was not a conceptually driven action or statement. It wasn’t about subverting norms; I was just following the curiosity that had led me to this juncture.

Another point of interest was that, I’d found myself once again, gathering units of material (sound in this instance) for constructing, or ‘orchestrating’, into some form of assemblage. These were very small units too, many of them less than a second in duration. In musical terms this was significant, especially that is, concerning the musical influences to my work. As small fragments, or bites of sound, they lent
themselves to be handled as percussive units. That is, they were well suited to forming into patterns of repetition. Having said that, there were many different variants in this respect. Some of these samples were as brief as a single percussive tap, and others were quite richly textured, ‘melismatic’, sustained “errs”; they were still, nevertheless, singular units. If you have heard this piece, you will have also noticed that there are whole, clearly enunciated words spoken. Part of my thinking in including these was that I’d felt it would add to the comic effect. Another reason was that, ironically perhaps, these ‘proper’ words acted like punctuations amidst the ‘sentences’ of nonsense. Too many “errs” and “ums”, and nothing else, was, I’d found, just a little too monotonous. The actual words also, ironically once again, act as instrumental intervals, or reprises peppered in amongst the ‘recitatives’ of ‘failed’ attempts at articulation and comprehensibility.

This was all telling me something. In sorting through; listening to these fragments (of fragmented speech, and thought) there were noticeable feelings; sensations involved. The empathy factor once again perhaps. These were sensations, not unlike, in fact, the (very bodily) feelings that most of us will have experienced when we witness someone stammering badly, or just struggling to find the word they need; where the flow, or pattern is broken – suspended. Or when someone has been seriously ‘rumbled’ in some way, and they are hopelessly on the spot; desperately attempting to find something to say that might save face. In such cases, particularly where someone is suffering a verbal ‘seizure’, we will find ourselves literally feeling for them, squirming in our bodies, urging, on their behalf, for those words to come out. What I’d felt when dealing with this error material was not as pronounced as that, but certainly related; it was on the same spectrum.

As I progressed with the sequencing and layering of this audio material, these feelings were both evident, and, instrumental to the manner in which I was shaping this piece. Importantly however, the dynamic of this composition process was very much a marriage of those, essentially human feelings, and a sense of emergent patterning, rhythm, and placement, as had featured in much of my ‘systems’ work. As I have ventured, these features, these structural characteristics are of a less personal nature. My conjecture is they characterize, and correspond to an ‘indifference’ of process, and as previously explained, it is the dynamical interaction of the personal, with this
‘indifference’ that interests me. Through my drawing, the re-visiting that systemic method represented a quite important feature of this project’s exploration. This was evidenced in four works in particular that featured in the exhibition component: *later sequence 1, 2, & 3* (Figs. 9 & 10) and *sounding* (Fig. 11). I won’t talk at length about these pieces at this juncture, but the re-visiting of this approach was of value for two key reasons. Firstly, I simply wanted to be reminded of what it felt like to be working in this way again – I hadn’t done for ten years or so. Secondly, and integral to this, was that I wanted to become re-acquainted with the experience of *being in* this process, where this curious form of ‘self-generative’ ‘patterning’ occurs.

![Figure 9, later sequence 3, inkjet print (from original pencil drawing), 9 x 8 cm, 2004/8](image)

Both of those terms are in inverted commas because: a) it isn’t of course self-generating, but it does seem to proliferate in a ‘structure-determined’ way, through the agential actions of this structure-determined practitioner that is, and b) the ‘patterns’ don’t happen; there’s the implicit ‘promise’ that patterns are emerging, but the inherent ‘logic’ of the process undoes what it seems to offer to do; something akin to that “evolutionary built-in obsolescence” maybe.

My reflections concerning this work lead me to think that the term “obsolescence” may not be the most apposite of choices here; its connotations are perhaps, a little too negative. Partly through the experience of making, and reflecting on these drawings, this quite intimate re-acquainting with the dynamics of ‘promised’ of patterns failing
to realise, asserted its own implications. By this I mean that a (familiar) sense of ‘lifespan’ had entered into my thoughts, and, I surmise, into this audio piece. By this, I am referring to a sense of passing; of temporariness, as in the notion of an entity, emerging and moving through a phase of ‘lived’ existence, finding sufficient integration to momentarily declare its ‘identity’, only to subsequently disintegrate, dissipate, and fade out of that particular manifest existence.

Figure 10, later sequence 1, inkjet print (from original pencil drawing), 10.5 x 6 cm, 2004/8

In cogito err sum, the lengthy process of experimenting with different permutations of sequencing, layering, and intervals, by its very nature, would (usually by chance) present these suggestions of inchoate ‘patternning’. Quite discernable semblances of structured order do manifest out of the ‘continuum’ of babbling, only to fall apart and dissolve back into it again. As all of this was taking shape, my feeling is that something of the experience of re-visiting that systems work had entered into my line of thinking with this piece, thus intimating ways of developing the work. That is, I’d found that I had become vaguely aware of these incipient tendencies, and felt a tacit sense of their undercurrents urging certain developments to occur. With that (somewhere) in mind, my manner of composing this material was subtly, but
significantly altered. I was now quite clearly aware that there needed to be a particular balance of interplay between, a quasi-rhythmic continuous flow of events, and these ‘cameo’ appearances and disappearances.

By chance, by virtue of the way that the process was running, this development was already suggesting itself, but needed however, an added degree of deliberation to invest it with a structure that made ‘sense’.

In effect, something of a more serious nature had entered into this toying with nonsense, which didn’t surprise me really. What had started out as a playful messing around with “errs” and “ums”, had somehow, to my perception, acquired a curious gravity. There will be many reasons for this. I think it can be said that the human voice has an inherent poignancy to it – even, I would argue, when it isn’t managing to produce a word (perhaps more so). The repetition factor is, once again, of real importance here. It affords a distinctive order of contemplation, producing “a difference, something new in the mind” – there will be qualities, characteristics, and corollaries perceived through repetition that may otherwise be passed by. However, I suspect that the principal factor here is the ‘coupling’ of recursive phases (rather than “repetition”), with the element of human fallibility. Within this, what may also be considered is the question of authenticity. That is, erring will generally be unintended.
As such, it won’t be calculated, or carefully fashioned, or styled for effect, it will be something that is just happening when none of the above are managed. Faltering, messing up, slipping on a banana skin, tends to be unaffected behaviour; its ‘authenticity’, its being unmistakably, humanly real, is likely to be part of its appeal in comedy and drama.

‘ERRORDYNAMICS’

The noticeably increased prevalence of error in my work, as a feature of both content and process, had led me to think in more depth about what this might be implicit of. More specifically, I was thinking around the idea of error as a creative dynamic. As acknowledged, ‘happy mistakes’, and so on, are widely understood as creatively generative factors. However, the experience of working with the ‘erring’ audio piece cogito err sum, and the developmental processes leading up to it, had brought me to look at the notion of considering possible correspondences between, broadly speaking, three, ultimately interrelated phenomena: 1) the inherently human propensity to slip up, to err; 2) the off-centeredness, ‘mistake’ dynamic in creative work; and, 3) notions of disequilibrium, and dissipative structures in life-forms, as posited in the ‘new sciences’.

In thinking about this in relation to my work, I was interested in finding some very simple form of terminology that would neatly sum up this idea of error, as being in effect, a vital dynamic. After running through a few possible options, errordynamics came to mind – error-ism had been toyed with, but it sounded too much like an attempt at an art movement. I’d come to deliberate over the use of this term as I was driving my car one morning listening to an interview on the radio. The interviewer commented on how the interviewee, the writer, Conn Iggulton, appeared to have a knack for working on subjects that, coincidentally, were about to become highly topical, and consequently the subject of major media interest. This had happened several times apparently. For example, he had been producing a book for children on ancient Rome at around about the time that the movie ‘Gladiator’ was being made. The film, being a major success, had stimulated an interest in all things Roman; book sales were therefore very good. This ‘knack’ was described in the interview as the writer’s “subject antennae”, seemingly a faculty that guided his choice of material,
thus affording him some kind of fortuitous alignment with that which is ‘going around’ at the time – the cultural *zeitgeist* perhaps. This, I’d thought to myself, was a great way for things to flow, an excellent state of affairs when you’re in the business of creating and producing for a market, whether that market be books, films, music, the selling of political ideas, paintings…whatever. It struck me however, that the opposite was also worthy of consideration.

Initially this had surfaced as a somewhat self-mocking (possibly ‘negative’) thought, due most likely to an all too familiar feeling of *not* being in “some kind of fortuitous alignment” with the “cultural *zeitgeist*.” What I suspect I was really doing however, was regarding this condition of ‘disharmony’ as perhaps an equally interesting and fertile state of play – from time to time that is. Indefinitely rattling around on the periphery of things is unlikely to be fruitful, but clearly there’s some value in being off-centre with creative endeavour – straying off into twilight zones of disquieting uncertainty, where notions of centre, or centeredness can seem very distant.

My own experience suggests that there is far more to following a genuinely curious line in arts practice than just happily riding one fortuitous wave after another. Besides, waves break. That said, it is of course vital to find your way into some kind of ‘flow’ or ‘roll’, and to be activated and motivated by a feeling of personal affinity with your subject matter, and with the medium employed in creative work. My speculation was however, that it would be a mistake to consider these conditions, these factors, as ground to build upon. That is, to identify such desirable states of flow as settled states of equilibrated ‘centeredness’, or a condition of being ‘located’; of having found one’s place or creative ‘voice’, a state therefore to be preciously guarded and maintained in order to flourish as a creative entity. So essentially, this line of thought had brought me to thinking about the virtues of being ‘out of kilter’, or ‘off track’ – indeed, off balance.

As living systems, as organisms, although our basic subsistence relies on an element of balance, the balancing of opposite forces, it is *disequilibrium* that can be seen to be the stimulus to creative generation and growth. Balance is a necessary state in the maintenance of our physical and general being; but as the life sciences increasingly evidence however, equilibrium, or homeostasis, is primarily about just that;
maintenance. Around about 1930, the physiologist Walter B. Cannon coined the term *homeostasis* (Arnheim, 1971: 47), which refers to the organism’s self-governing ability to monitor and maintain its own stability in its basic functioning. Whilst Cannon was describing a mechanism or process of (close to) equilibrium, it would be a mistake to equate this description with the conjecture that ‘balance’ be viewed as a definitive condition of life. The nature of, the chief characteristic of this stability is that of a fluid dynamic process; of an ‘open system’, one where the organism constitutes a steady stream of absorbed and expended energy. Fritjof Capra (1996) explains that it was in the 1940s, that Ludwig von Bertalanffy, a pioneering figure in systems theory, “called such living structures ‘open systems’” in order to:

emphasize their dependence on continual flows of energy and resources. He coined the term *Fleissgleichgewicht* (‘flowing balance’) to express the coexistence and balance and flow, of structure and change, in all forms of life. (op. cit.: 172)

So this illustrates a seemingly paradoxical coexistence of structure and change. At the very least, this brings into question assumptions concerning the efficacy of perfect equilibrium, of settled order and balance in life, it isn’t quite as tidy as that apparently. What I find that I’m gleaning from this research, with my inquiry into the life sciences in particular, is that life systems hold together (for as long as they do) by, in many respects, being ‘all over the place’. Yes, there is coherence and regulation; there is the flow as described above, and yes, there is functional order and pattern, but as we shall see, the most dramatic developmental advances appear to occur when the order of established patterns breaks down. Crisis; being out of kilter; dissipation, ‘being all over the place’ seemingly provide the conditions that can trigger creative bifurcations, and developmental, ontological transformations.

It was the Russian born scientist Ilya Prigogine who developed the concept of ‘dissipative structures’ in living systems, that is, systems that flourish by virtue of their unstable, literally eccentric behaviour. Prigogine’s discoveries and subsequent conceptualisations were key in effecting radical changes in fundamental notions associated with structure. His descriptions of dissipative structures indicated that new structures and forms of order can emerge from points of instability, and it was this instability factor that effectively brought about a change that took thinking beyond the
then established understanding of open systems. Prigogine’s work helped to engender “a shift of perception from stability to instability, from order to disorder, from equilibrium to non-equilibrium, from being to becoming…The key to understanding dissipative structures” writes Capra (1996: 175):

is to realize that they maintain themselves in a stable state far from equilibrium. This situation is so different from the phenomena described by classical science that we run into difficulties with conventional language. Dictionary definitions of the word ‘stable’ include ‘fixed’, ‘not fluctuating’, and ‘unvarying’, all of which are inaccurate to describe dissipative structures. A living organism is characterized by a continual flow and change in its metabolism, involving thousands of chemical reactions. Chemical and thermal equilibrium exists when all these processes come to a halt. In other words, an organism in equilibrium is a dead organism. Living organisms continually maintain themselves in a state far from equilibrium, which is the state of life. (op. cit.: 175-6)

I will return to this point, but in the meantime I’ll pick up the thread of my anecdote concerning the notion of errordynamics.

The term errordynamics surfaced in my mind as a consequence of a kind of wordplay that was occurring in my mind. Wordplay of course, may be nothing more than simply fooling about. I have however, come to look at it a little more seriously in relation to the language-based aspect of my work over the last ten years or so. The wordplay, on this occasion, did have some purpose; prompted by a line of thought that that radio programme had set off. It was just one of those chains of mental events that we all have. You’ll hear something said, or see something, that reminds you of something else that had been on your mind, and that will trigger a tangential turn in your thoughts, and so on. Equally, and sometimes more interestingly, it may be a matter of misreading, or mishearing something, which can add colour to those imaginings. As I was driving along that day, I saw, as I’d often seen, the large sign over a shopfront, announcing “OPTOMETRIST”. My mildly ‘dyslexic’ reading was nearly always “OPTIMIST”, but I was gradually learning to read it correctly – we call them “opticians” in the UK. I much preferred however, the idea of a shop where you could drop in and consult an ‘optimist’. Would there be optimists in different specialisms? Might there be a family run optimists, passed down through the generations – implying a genetically optimistic predisposition? What would
unprofessional, poor quality optimism be? How would it be regulated? The point being made here is that ‘mis-takes’, if you will, seem to bring a novel, aberrance to the way that ideas can trip along, and ricochet this way and that. Error does have, in this sense, a vital dynamic.

As explained, I’d come to give a lot of thought to the condition of being off-centre; ‘out of sync’, as opposed to peaceably enjoying consonance with a prevailing zeitgeist. As such, I was probably quite open to the idea of celebrating disequilibrium; of being pulled around in some kind of dynamic maelstrom, where balance and equilibrium seem only notional. But, as acknowledged, there does need to be flow also. Once again, this is probably a matter of ‘dynamic coupling’, if you will. Yes, perhaps the most interesting and valuable invention and innovation does occur through some form of slapstick knockabout of the mind in action. But, arguably, coupling this dynamic with a process that sustains continuity is needed in order to really take it anywhere – a manner of operation that will foster the ‘slapstick’ into some order of flow has to be cultivated I’d say.

Having decided that errordynamics, as a term, was worth exploring further, I did a Google search to see what would come up. Out of interest, I did the same with error-ism first, and this had been used widely. Errordynamics was very interesting though; particularly so, in relation to the quite non-linear, oblique processes of thought that I have been describing; the ‘ricochets’, ‘aberrances’, and novelty arising from mis-readings, and so on. Such had been the meandering, circuitous path that had brought me to this point, and with the ‘Googling’ of “errordynamics”; it was set to continue in this way. Remarkably, in contrast to the usual million or so listings that tend to come up, there were only 27 in this case. There were more that could be accessed, but this was all that was offered initially, which is very unusual. Most of these were in connection with aeronautical engineering, and publications in this field; with the term “Error-dynamics”, in this context, referring to self-regulating, self-correcting navigational systems for aircraft. This, I thought, was interesting. The idea of self-regulating, self-correcting systems, navigating their way around, struck me as corresponding in a quite uncanny way with so much that I had been working with, thinking about, and researching. The trail I was following became even more interesting however, when, within all of this, I came across the work of Mark H.
Bickard (2001) in the field of cognitive science. Of particular note, was a paper of his, with the title: *Error Dynamics: The Dynamic Emergence of Error Avoidance and Error Vicariants* (op. cit.). Initially, I was of course, struck by the commonalities here, that is, in this use of terminology, and with the interest in cognitive processes. With his terms of description being quite specifically of this field – one that I am not a specialist in – there were bound to be some ‘grey areas’ in my comprehension. Nevertheless, I was, in most respects, able to manage a fair grasp of what was being said, by virtue that is, of the sense of common ground between domains and disciplines that such figurative, analogous representation can afford. What I was experiencing here, was akin in some ways to the sense of recognition – of perceiving correspondences – that I had felt when I was reading Poincaré’s descriptions, as cited earlier. I don’t have a ‘science mind’ or the head of a mathematician, but what I was clearly able to recognise here, and able to picture in my mind, were notions of dynamical ‘behaviours’ that corresponded closely to those that I had perceived in other domains of operation. Importantly, the error factor was absolutely central to this:

> The dynamics of learning about error and of handling error knowledge constitute a complex major theme in evolution and development. Such dynamics range from the simplest forms of learning to the cultural evolution of principles of rationality, as in science…The central theme is a progressive elaboration of kinds of dynamics that manage to avoid, detect, and ultimately to represent, error. (op. cit.: 3)

Bickhard emphasises the interactive nature of the systems in question, and, crucially, that they are:

> Recursively self-maintenant systems [which] have not only a dynamics of their interactions with their environments – interactions that tend to contribute to their continued existence – they also have an internal meta-dynamics that regulates those basic interactive flows of process, that regulates the shifts among the various interactive dynamics. (op. cit.: 5)

Where Bickhard speaks more specifically, referring to the behaviours of bacterium for example, the language begins to chime quite interestingly with the kind of imagery,
and error-prone dynamical chains of developmental events that I have been pondering, and attempting to describe:

In the bacterium, the dynamics of swimming or tumbling are regulated by the dynamics of switching between them. Such internal regulations constitute the emergence of control relationships and control structures... A bacterium, for example, might be able to swim so long as it was swimming up a sugar gradient, but tumble if it finds itself swimming down a sugar gradient. (op. cit.)

I have no idea what “sugar gradients” are, in this context anyway, but there is something about this description that seems to correspond with the personal sense that one might experience, of the ‘rightness’ or ‘wrongness’ of stepping into, or avoiding, certain dynamical interactions or flows, environmentally, socially, culturally, in whatever way. Developing our ‘error vicariant’ faculties will, as this paper testifies, come from getting it wrong from time to time. Although most of us will have, on occasions, rued our misguidedness in “swimming down a sugar gradient”, the resulting tumbles can be quite awakening for the creative mind.

Bickhard writes of the dynamic flow of interactions between a system and its environment, where that system develops a faculty of “anticipation” enabling it to be “prepared for some future dynamics, but not for others.” (op. cit.: 3) This reads, essentially, as a story of entities, life systems, learning to find their way about; their hazard-ridden ontogenetic journey, negotiating the trials of environmental interactions, through which they develop those forms of acumen “that tend to contribute to their continued existence” (op. cit.: 5). The organism then, navigates its way through, by getting to know its own (structural) characteristics, via those (structural) interactions with its environment(s). As described, it is the dynamics of error that will foster the “internal regulations”, which enable the navigational discernment of whether to head ‘this’ way or ‘that’:

The internal regulatory dynamics of a recursively self-maintenant system – processes that control and modulate the interactive dynamics – will manifest their own dynamic space. The regulatory and interactive spaces will be coupled, with the regulatory dynamics selecting among various alternatives and parameters of the total interactive
dynamic space, e.g., selecting “this” interactive subroutine rather than “that” one. (op. cit.: 5-6)

As such, this speaks profoundly of an organism’s intrinsic ability to develop potentials of acuity in matters of selection and orientation, and thus itself as an instrument of ‘navigation’. There is one further reference that I will make to Bickhard’s thesis of Error Dynamics. This is a description that corresponds uncannily to my own notions, and experiences of, creative heuristics. That is: within my practice; the sequence of events described in this account; and, in the overall inquiry of this project. It is, I would suggest, a characteristic of this field of research, that part of the process is the pursuit of clarifying the question being posed. In other words, to a great extent, arts research is a matter of identifying what it is that’s being sought, through the act of seeking it. It would appear also, that something of this order correspondingly occurs in the behaviours that evidence in the developmental operations of other systems:

A further level of sophistication occurs when the norms for what counts as a problem and the means for solving that problem are learned simultaneously. That is, the learning process is self-directed in the sense that the goal, or norm, for the learning is developed as part of the learning itself, instead of being an externally fixed parameter. This sort of learning is essential when the very nature of the problem is unclear and must be learned. (op. cit.: 5)

ALL THIS TALK OF SNORKELS HAS ME THINKING

Significantly my next port of call on this Google search was a web site, the nature of which I was very unclear about. I actually didn’t know what I was looking at, or what this site was about, and so I just continued looking, to see if some kind of “norm” of reference might emerge. What was clear was, that people were e-mailing questions in, and others were offering answers. I was only scanning the pages cursorily, so it wasn’t surprising that I hadn’t picked up on what the correspondents were discussing. The noticeable thing was the (to me) idiosyncratic vernacular that was being used, and it was this that held my attention. The following shows a selection of responses, questions, and statements that have been directly lifted from these pages:
> Is the general appearance of the ManAFre radiator acceptable?

> I'd sure appreciate any thoughts.

Hmmmm... I forgot about the Ranchos.

[note: 'a-one' & 'en-el'!]

Oops, that should read 'The Japanese *suffer* from this...'

> Ask any Aussie about logic with 60, 70 and 80 snorkels.

> Only the 40 version is logic for them....8-

>)

> > > All this talk of snorkels has me thinking.

The aftermarket shoes are a hair too wide.

Any response would be greatly appreciated...
With my interest in wordplay, creatively, and otherwise; and bearing in mind the wordplay component that had actually led me to this site, this was all very interesting. For those in the know, I’d assume that this terminology would be immediately recognizable. To me however, it was all manner of other things. It was baffling; comedic; surreal; mysterious, intriguing. The ManAFre radiator should have been a give-away, but it took a while for me to figure out that this was a website for 4-wheel drive / ‘off-road’ vehicle enthusiasts. There’d been a certain enjoyment in the bewilderment of not knowing what any of this meant. Lines like, “All this talk of snorkels has me thinking”, and, “The aftermarket shoes are a hair too wide”, were for me, creative excitations; triggers; points of departure for…I’m not sure what. That’s it really. The mis-take is the vital spark that opens up those rhizomatic networks of connecting thoughts, and propels those lines of imaginative flight. It’s partly the absence of comprehension that excites the creative mind. To borrow Mark H. Bickhard’s terminology, without the externally fixed parameters of definition and clear identity, the “internal dynamics” of the imagination will “manifest its own dynamic space”.

In a sense, as with the raw material for the audio piece cogito err sum, I was collecting mis-takes – or uncertainties. I wasn’t entirely sure about what I would do with these words, but I’d felt them to inhere a kind of creatively generative promise, mainly, as explained, because of my incomprehension. There was however, another dimension to their appeal, that is, as ‘things’, which I hadn’t really thought about initially. That is, I’d perceived a kind of an ‘object quality’ in them, partly I think because I didn’t know what they meant, and also, because there was something about the layout, punctuation, and typeface used, that gave them a certain appearance. I’d printed out, and enlarged a copy of the line, “All this talk of snorkels has me thinking”, and had pinned it to a wall in my office. This was just part of ‘the process’. I would notice it there whenever I walked into the room, or when I was sitting there working, and I would ponder ways in which it might enter into my work. Its presence, as having a kind of object quality, became more evident to me when a friend of mine came in to my office one afternoon, looked at these words on the wall, interestingly,
and read them out aloud. This made a significant impression on me, because I hadn’t actually *heard* these words before, I had only looked at them. There was quite a distinct cadence to the sound of these words being voiced, which I wouldn’t have noticed before. By introducing the modalities of speech, and hearing, a furthered sense of that object quality in these words was apprehended. They had now acquired a more ‘in the round’ presence in my mind as ‘things’ with formal properties. This was of importance, in that it emphasized a characteristic of my relationship to language, as it features in my practice, and is a point that I cover in some depth in section 11, *Where Language Happens*. In the end I didn’t manage to produce an artwork, as such, with the “snorkels” line – despite many exploratory exercises with it in the studio. It did however, feature in the installation section of my exhibition, simply as that photocopy.

Figure 12, installation view: *WHATIT'SLIKEITIS* (exhibition component to PhD submission, *Physical Thinking: the body in the mind of creativity and cognition*), various dimensions, Next Gallery, Southern Cross University, 2008

It sat in amongst other found images, sketches, notes, ‘workings out’, and miscellaneous bits and pieces, all pinned to the wall above the desk and typewriter – a complex of interacting, floating, apparently disparate thoughts.
FALLING ABOUT

During the earlier stages of mixing the audio piece *cogito err sum*, I would ask those that might be interested, to listen, and to see how they responded. This work was a curious thing to be doing, so I was naturally keen to get some feedback, and was intrigued to know of people’s impressions. In one or two cases, their response was primarily of asking me why I was doing it. I shouldn’t have been surprised by this, and, when asked this on one occasion, my quite spontaneous response was to say (something like), “I think that it’s to do...um with being human...being an...er inherently difficult thing to be”, which made sense at the time. There is a lot of struggling and unease in this piece, which may be understood to reflect that difficulty, and I think it speaks in some way of the, often bewildering, experience – comedic or otherwise – of being in a (human) life.

As has been touched upon, in that life, and underlying it, is the ‘maelstrom’ of our biological self-maintenance; a continuous rattling flow of errors and corrections; of holding together in our given configurations, as “dissipative structures...living organisms [that] continually maintain themselves in a state far from equilibrium.” (Capra, 1996: 175-6) There is, I acknowledge, a danger here of descending into melodramatic portrayals of the ‘human condition’, which wouldn’t be helpful. Notwithstanding all of the dissipation and disequilibrium, it tends to work very well, and we can generally be at ease with being in our bodies. It is however, interesting to consider this ‘maelstrom’ as the backdrop to our embodied experiences of cognition, and of creativity; and our negotiation of a life, which is “designed to overthrow you”. Through my descriptions relating to *cogito err sum*, my endeavour was to demonstrate the very clear linkage between the bodily feelings, in that (hazardous) existence, with our cognitive awareness, and crucially, with the development of the acumen that steers creative decision-making. Importantly, this linkage, indeed integrality, is becoming more widely posited in the cognitive sciences, partly consequent to that discipline’s interactions with the life sciences.

As I have explained, central to my inquiry is the relationship of recursive, embodied action, to processes of cognition. Francisco Varela speaks of “cognition as enactment...[which] connotes bringing-forth by concrete handling.” (Varela, Rosch,
Thompson, 1992: 156) The *enactive* approach “underscores the importance of two interrelated points: (1) that perception consists of perceptually guided action, (2) that cognitive structures emerge from the recurrent sensory-motor patterns that enable action to be perceptually guided.” (op. cit.) The element of recurrence here does of course correspond with the thesis of *Error Dynamics*, as explained earlier. That is, where “recursively self-maintenant systems” are recurrently interacting with environments, thus developing their acuity of discernment in “selecting ‘this’ interactive subroutine rather than ‘that’ one.” (Bickhard, 2001: 6) And this, as I understand it, is the principle that is directly applied to the self-correcting navigational guidance instruments devised for use in aircraft, where also, the term *Error Dynamics* is used.

I acknowledge that it could be seen to be stating the obvious, to point out that repeatedly doing something, having a go at it, taking a shot at it, will develop cognisance of what is being attempted. And that skills; know-how; cognitive structures, will engender consequent to those recurrent sensory-motor actions and patterns. But, however, this project’s explorations leads me to view repetition; recursion; ‘insistence’, whichever term you might apply, as something other than just a mechanism of learning how to do things. This is to consider recursive action as being of a more foundational significance, simply as a fundamental urge – performing an action, or series of actions over and over, apparently just for the sake of doing it– ‘doing something that’s just doing something.’ Enactive playing out, just because it is felt to make sense to the human mind. In the following section, I endeavour to explore this notion further.
10. THE PERFECTION OF ERROR

THE RISE AND FALL OF

By its very nature, this project, this form of research, will be dealing with ‘unquantifiables’; with matters of how things feel, or had felt like; how something seems, and so on. This is I think, the value rather than the weakness of such inquiry. My speculation here will be born of feelings, perceptions, of how things are. Importantly however, those feelings and perceptions, which are felt to be knowledge, have presented; have emerged out of, a quite specifically focused discipline of art practice. This I think is crucial, and is a point to be emphasised. Elliot Eisner writes that: “The idea that art can be regarded as a form of knowledge does not have a secure history in contemporary philosophical thought...[its] connection to epistemological issues, at least in the modern day, has not been a strong one.” (Eisner in Knowles & Cole, 2008: 3) There is, has been, and I’m sure will continue to be, more than enough woolly thinking associated with art practice, by practitioners, audiences, and commentators alike. This is probably to be expected; we are, largely, dealing in uncertainties and qualitative features; “the arts address the qualitative nuances of situations” (Eisner in Knowles & Cole, 2008:11). However, an appropriate degree of rigour is of the essence in this field, and part of the problem is to evidence that this is what actually takes place in arts research. Shaun McNiff comments:

Arts-based research can be defined as the systematic use of the artistic process, the actual making of artistic expressions in all of the different forms of the arts, as a primary way of understanding and examining experience by both researchers and the people that they involve in their studies. (McNiff in Knowles & Cole, 2008: 29)

Concerning those feelings and perceptions, which are felt, through praxis, to be knowledge, I have been reminded in this project, of a series of such experiences I’d had, when working on a series of ‘systems’ sculptures for my 1993 solo exhibition (Wave Function) in London. These brief moments of insight, or illumination, as I might dare to call them, were of particular salience in this respect. A few weeks prior
to this exhibition, the art writer Andrew Lambirth (1993) came to visit my studio to take a look at the work in progress, and to talk about the processes involved, and of my thoughts generally. This was an informal interview for an essay he was writing for the exhibition, which he’d titled *The Perfection of Error* (op. cit.). As we talked, I can recall attempting to relate these experiences to him. I can’t recollect word-for-word what I had said, but the gist was that I’d felt a very clear, a very definite, and an all-pervading, sense that I was *learning* something through being in this particular process of working. At that time, a term like “cognisance” wouldn’t have been part of my common parlance, and I’d felt the word “learning” to be sufficient anyway – that was after all, what I had felt. I can’t define what I actually mean by “learning” in this context; it was just a very clear *sense* of understanding something, a cognisance of something. There was a quite distinct feeling of ‘going somewhere’ with this process, and of ‘being in’ a dynamic that I was fully located in. The element of “dynamic” is key, in that this apprehension was not as the computation of information, or knowledge as such, it was something active, and vital. Descriptions such as these are maybe vain attempts at “‘effing’ the ineffable” as they say. But in that attempt I would venture that this feeling of, ‘going somewhere’; ‘being in’ something, was to do with a sense of *congruence*; of structural coupling perhaps, that is, with the whole confluence of dynamical factors involved. There was felt to be an efficacy to being in this dynamic, and this I think was the most striking thing. The one certainty here for me, is that the recursive nature of the process was the crucial factor in this experience. Doing something over and over, never quite the same thing twice, but always, continuously, proceeding in the knowledge that each step in this process of making, is the ‘progeny’ of its predecessor, and that this continuance is felt to be of a *generative* dynamic within a continuum of ‘going somewhere’ – somewhere indeterminate however.

That indeterminacy, was/is, in a sense, the essential value of this kind of process. Lambirth’s essay on my work, speaks of the ‘perfection’ of error, which is quite apposite. What this process is actually about, is getting something ‘wrong’ (an attempt at a straight line for example), and, it is about proceeding in such a way that you get progressively more accomplished at getting it ‘wrong’, and yet the ‘rightness’ of it somehow resonates through the material formation as it emerges. This I find, as I continue working with error, is still very much the case. Fundamentally those works
were formed of an accretive build-up of mistakes, but somehow, the resulting configurations amounted to something of import (Fig.13).

Figure 13, *seven sevens* (foreground) and *endless column* (installation view: *Wave Function*, Eagle Gallery, London), rigid polyurethane foam, overall dimensions (of *seven sevens*) 210 x 300 x 85 cm, 1993
Andrew Lambirth evidently saw an element of this perceived “import”; waxing more lyrically that I might have, by suggesting that:

This is art as a form of divination, the sculptures themselves like steps to a higher level, the whole notion of aspiring made actual and present. By a paradox, the starting point is also the destination, for Evans works from the top down: from the smallest unit to the largest. Art is often thought of as a process of reduction, yet here it’s both additive and reductive. It is important that the work is made by descent yet the whole feeling is one of ascension. (Lambirth, 1993)

I wonder perhaps, if this is all about getting something ‘wrong’, but in the ‘right’ way: working (with appropriate attention) “by descent” into runaway error, providing a channel of entry into the dynamics of “ascension”.

The opening sentence of The Perfection of Error reads: “We all make mistakes, and rarely we learn from them. In the work of Richard Evans error is mapped out, human frailty is given a physical form, yet it is endued with possibility, a chance of redemption” (op. cit.). The element of human frailty is key here; mistakes; imperfections, are inevitable, so perhaps, that “chance of redemption” can be realised by engaging in some sort of an affirmative ‘dance’ with error, to see where it takes you – “somewhere indeterminate” for sure. The notion of ‘perfecting error’, although not mine, is one that I can however work with – and probably have been. It is an interesting idea to ponder. It probably implies that there’s efficacy in accepting our inability to achieve perfection, and that maybe our sights should instead be set on being perfectly good at ‘getting it wrong’.

This may sound flippant, but there is a seriousness to considering the formative influence on our minds, of its day to day experiences of erring; of error avoidance – anticipation of error; faltering; the impact of other’s errors, and so on. As I have posited, the substrate of our very existence as organisms is itself a finely set balancing act – hazard-prone; vulnerable; susceptible to threats; aberrant events, knocks. Our early learning, our emergent consciousness, and cognisance of the world that we find ourselves in, is inextricably bound to the sensorimotor (and emotional) experiences, of grasping for objects, with intermittent success; of standing up, falling down,
bumping into things; getting to our feet, staggering forward – and down again. That act of being on two feet, and getting about of our own volition, can be seen to be of major significance to the questions being considered here; and walking, or the human variant(s) of walking, provides a valuable focus for that inquiry.

Although walking is not unique to our species, our variant of bipedalism is. Our consciousness; our awareness, of what we are about, and part of, will, in some ways, be a condition shaped by our experience of standing on two feet, balancing, and moving forward. Evolutionarily, this development has been crucial. Rebecca Solnit points out that:

> it opened up vast new horizons of possibility, and among other things, it created the spare pair of limbs dangling from the upright body, seeking something to hold or make or destroy, the arms freed to evolve into ever more sophisticated manipulators of the material world. (Solnit, 2001: 32)

Solnit continues by explaining that our difference to other animals, our uniqueness as humans, is usually “portrayed as a matter of consciousness”:

> Yet the human body is also unlike anything else on earth, and in some ways has shaped that consciousness. The animal kingdom has nothing else like this column of flesh and bone always in danger of toppling, this proud unsteady tower. The few other truly two-legged species – birds, kangaroos – have tails and other features for balance, and most of these bipeds hop rather than walk. The alternating long stride that propels us is unique, perhaps because it is such a precarious arrangement. (op. cit.)

In considering this precariousness of balance as an intrinsic feature of the of the bipedal human condition, Solnit relates the words of John Napier, written in an essay on the ancient origins of walking, where he’d commented that:

> Human walking is a unique activity during which the body, step by step, teeters on the edge of catastrophe…Man’s bipedal mode of walking seems potentially catastrophic because only the rhythmic forward movement of first one leg and then the other keeps him from falling flat on his face. (Napier, 1967, in Solnit, 2001: 33)
Such accounts seem close to portraying the bipedal human as something of a curious oddity, like “nothing else” in “The animal kingdom”. It’s as if evolutionary processes have simultaneously afforded our advancement, and, set us up to fall, or to at least continually live with, consciously or otherwise, the prospect of downfall – the *slapstick clause* in evolution’s ‘agreement’ perhaps. Rebecca Solnit has run (or walked) with a comparable idea, through reading accounts of human walking, such as John Napier’s, and subsequently reasoning, that it is “easy to begin to think of the Fall in terms of the falls, the innumerable spills, possible for a suddenly upright creature that must balance all its shifting weight on a single foot as it moves” (op. cit.: 33).

The idea that Solnit is entertaining here, may be of profound relevance to the notions that I have advanced concerning the human tendency to engage in *recursive activity*; bearing in mind, that is, the linkage between the bodily feelings, in that *enactive* (precarious) existence, with our cognitive processes, and crucially, with our consciousness of self, and, of what we are a part of. This is really just to pose a question, based on the inkling that this stirring into action; to go for targets; to continually re-visit particular modes of doing, speaks of a fundamental inclination to seek, congruence perhaps?

The systems view would be, that as self-organizing, structure-determined living systems, we seek out *structural congruence* with the environment or medium that we find ourselves in, and part of. And, to reiterate an earlier citation: “That which we human beings call cognition is the capacity that a living system exhibits of operating in dynamic structural congruence with the medium in which it exists” (Maturana, Web Page, accessed 21/2/2005: 9). Apart from the manifestly known (cognised) aspects of the “medium” in which we exist, and the ‘endeavour’ to be in congruence with it, there are presumably *unknowns* that we also, *unknowingly*, seek congruence with. What those unknowns are, necessarily remains an open question, but ‘the creative process’ itself provides a practical example of how we can, and do operate on the basis of intuiting some kind of a ‘destination’ to be reached through what we are doing, which isn’t actually there to be known. What all of this implies presents yet another open question, but it is interesting to consider the physicality of our experiences of being in the world; our embodied mind’s registration of all that it does, as the principle component in this intuitive, enactive seeking. Solnit approaches this line of thinking through her account of the infant’s predicament of learning to walk.
Relating this to Napier’s ‘catastrophic’ take on the subject, she writes that, in the infant’s uncertain first steps:

the many aspects that will later unite seamlessly into walking are still distinct and awkward. They learn to walk by flirting with falling – they lean forward with their body and then rush to keep their legs under that body. Their plump bowed legs always seem to be lagging behind or catching up, and they often tumble into frustration before they master the art. Children begin to walk to chase desires no one will fulfil for them: the desire for that which is out of reach, for freedom, for independence from the secure confines of the maternal Eden. And so walking begins as delayed falling, and the fall meets the Fall. (Solnit, 2001: 33)

In the creative application of recursive processes, there is a progression of developing actions, which, at the outset, are singular and unitary; can be “distinct and awkward”, but will cumulatively build to “unite seamlessly” into a continuum flow, that, although not literally moving anywhere, gives rise to a sense of ‘going somewhere’. Indeed, this is not of course, something exclusive to overtly creative action; the activity may well be walking; repeating a word, or sequence of words; it can certainly be lapping around a velodrome, where there will be a distinct sense of purposeful motion, of going somewhere, without actually going anywhere. And there is an interesting circularity implied here. The starting point is also the finishing point on a velodrome; the starting point of those ‘systems’ sculptures I have described could also be seen as the destination, and evidently has been; with their “descent” paradoxically forming a sense of “ascension”. Recursion is the pivotal factor. A man sitting in a room, with some basic recording equipment, sets off from the “confines” of his personal spoken voice, far off into the outer reaches of impersonal abstraction; his familiar speech morphing into a, paradoxically, individuated “tonal melodic fragment”. And (further paradox) it is the very confines of this room (not departed from) that facilitates this ‘fall’ from the “distinct” and slightly “awkward” first ‘steps’, to cumulatively transform, and “unite seamlessly” into the seemingly indeterminate continuum flow of its own making.

It appears that the element of paradox is rife here, and throughout the various strands of this research. It may be helpful however, to interpret paradox as also being correspondence. As such, it is not so much a case of: descent or ascent; of additive or
subtractive; of departing or returning; “to be or not to be”, but both at once. In this research, the re-visiting of those abstract ‘systems’ processes – of drawing in particular – has helped to ‘clarify’ an apprehension of paradox and correspondence as intrinsic features of the same phenomena. In those drawings for example, as with setting off on a walk, one line is drawn, and then another, and so on. Each one is like a step, and the process ‘goes somewhere’. Two things in particular stand out however. Yes, the point of departure is left further behind with each successive line drawn, but however, the ‘ancestral’ relationship, and connection between that origin; the stage reached, and the whole collective network of lines that have generated from that origin, is felt to be closer. Yes, there is a ‘setting off’, and a ‘going somewhere’, but there is also a cumulative sense of being very located – within clear confines even. And it is interesting to consider once again, that it is the element of ‘containment’ that seems to facilitate this order of development, and the subsequent perceptions it brings: the confines of a room; the bounds of a drawing (triangular, circular, rectangular, etc.); the bounds of a set of procedural rules, and so on.

Continuing along these lines, I might speculate by analogy, that the wilful departure from “secure confines”, as described above; for seeking out desires; for “that which is out of reach” inheres a certain dynamical circularity. Where, that is, the recurrent pacing toward an imagined destination, cumulatively weaves and traces a ‘description’, or ‘sounding’, of its relationship to its origins; which may not be the Garden of Eden, but, metaphorically, may entail some order of falling. For ‘falling’ also read ‘failing’, that is, in the sense of human error as already set forth in this work. This is to follow through with the idea of going with that proposed “affirmative ‘dance’ with error, to see where it takes you”, to ‘congruently’ run with the occurrence of error; where a dynamic of “falling” (failing) is acknowledged as inevitable. And maybe this is the principle at the heart of my notion of errordynamics; a dynamical, irregular (rattling) flow of events, that lead somewhere, indeterminate.

The walking (balanced on two feet) metaphor is once again, very fitting. I would sometimes liken what I am describing to the experience of tripping and stumbling forward, somewhat like the small child rushing forward, trying “to keep their legs under that body…plump bowed legs always seem[ing] to be lagging behind or catching up” (Solnit, 2001: 33). What I picture is however, something more sustained,
and (slightly) more controlled too. More like a slapstick dance of momentum perhaps – to ‘trip’, as in ‘the light fantastic’, which my dictionary tells me is a “humorous dance”; its name originating from two lines in Milton’s L’Allegro: “Trip it as you go On the light fantastic toe” (Oxford American Dictionaries, 2005). Considered in the context of creative processes, of advancing into the unknowns of heuristic navigation, these words of Milton are quite evocative. “Trip it as you go”, suggests a playful boldness of attitude towards that ever-present hazard of “teeter[ing] in the edge of catastrophe” (Napier, 1967, in Solnit, 2001: 33). The words, “On the light fantastic toe”, for me resonate of the metaphorical imagery of errordynamics; where a line of thought glances off something misread, sending it off on a trajectory that ricochets off an idea voiced in a chance meeting, which triggers the memory of a piece of music once known, and now half forgotten – and thus it continues. To ‘trip it as you go’, as I am picturing it here, is to finesse with this dynamic; to deftly partner it in maintaining this momentum within that “affirmative ‘dance’ with error” – ‘tripping’, and trustfully falling forward with this given momentum. “Trustfully” because perhaps what it offers, as Seamus Heaney has written, is “Like an access of free power, as if belief Caught up and spun the objects of belief In an orbit coterminous with longing.” (Heaney, 1991: 46)

PERFECTLY OFF THE MARK

There are, I think, rhythms implied by all of these ricochets, and rebounds – all of this ‘tripping as you go’, ‘glancing off’, ‘falling forward’ and barely maintaining balance. As suggested though, these rhythms, phrasings, or cadences, are not understood to be regular and patterned as such. The dynamics of error, as I have proposed, play out, rhythmically, as “a dynamical, irregular (rattling) flow of events”, that may “lead somewhere”; somewhere “indeterminate”, which is what makes it interesting creatively.

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2L’Allegro is commonly regarded as a companion poem to Il Penseroso; two sides of a coupling, if you will. Many scholars are of the view that:

the poems represent a battle between Day and Night/Mirth and Melancholy; to others, opposing paths (of pleasure and wisdom) toward complete union with God; and to still others, Milton’s own struggles to become a “whole” man and a truly great poet. (Web Page, accessed, 12/6/2008 – www.dartmouth.edu/~milton/reading_room/l'allegro/notes.shtml)
As I have posited, that dynamic of ‘going somewhere’ with a process; setting off, and willingly ‘tripping as you go’, can be (and perhaps always is) a matter of staying more or less where you are – with ‘destinations’ equating with ‘points of departure’ and so on. ‘Falling forward’, by this definition, can be done standing still, or sitting in a room. With recursive procedures in creative work, the repetition of a motif, a line, a word, a line of words, will effect differences; differences that occur as “something new in the mind” of the observer, listener, participant. Or a material, dynamical difference will occur; a difference in emphasis; in phrasing; in acoustical affects; in direction, and so on. Practising a move repeatedly, to develop a skill, is as taking a shot at something, and then another, and then another – with the perfect result always eluding. Cadences will cumulatively emerge out of this however; of stops; starts; realignments; departures, returns – with the inevitable irregularity of those cadences and phrasings, arising out of the dynamics of error.

This research has brought me to a clearer understanding of the importance that this irregularity of cadence has in my practice, and of its perceived implications beyond the specific bounds of my work. My thoughts return again to Gertrude Stein’s notion of insistence, as an alternative term to repetition, or recursion. As a reminder, the following is an extract from the previous citation, where she stresses that:

> if you insist you must each time use emphasis and if you use emphasis it is not possible while anybody is alive that they should use exactly the same emphasis...It is exactly like a frog hopping he cannot ever hop exactly the same distance or the same way of hopping at every hop. (Stein in Vechten, 1972: xxii)

This is a valuable analogy in this context, and brings me back to the question posed earlier, concerning, to reiterate: “the human tendency to engage in recursive activity…the linkage between the bodily feelings, in that enactive (precarious) existence, with our cognitive processes, and crucially, with our consciousness of self, and, of what we are a part of… a question, based on the inkling that this stirring into action; to go for targets; to continually re-visit particular modes of doing, speaks of a fundamental inclination to seek, congruence perhaps?” An open question maybe, but the notion of achieving congruence through recursive activity, does seem to have a
ring of truth – that fundamental “stirring into action”, and going for targets; re-visiting activities, and so on. With this in mind, and by my understanding of Maturana and Varela’s concept of structural coupling, as it relates to processes of ontogenesis; I find myself picturing an organism, a life system of sorts, endeavouring to navigate a way through its life, continually, \textit{insistently}, ‘taking shots’ (with never “exactly the same emphasis”) at achieving congruence with its medium, and through its behavioural interactions. Maturana would certainly hold that recursion is crucial in this respect. In the following passage from, \textit{From Being to Doing: The Origins of the Biology of Cognition}, he refers to the recurrent meetings with his interviewer in this book, Bernhard Poerksen, as the basis of his illustration of the concept of structural coupling. He states:

\begin{quote}
In my terminology I would say that the recurrent and recursive interactions generate \textit{structural coupling}. With this term I want to refer to the history of mutual structural changes that makes it possible for a consensual domain to emerge, a behavioural domain of interlocking and reciprocal interactions between two structurally plastic organisms. With regard to our interview: we keep meeting and, therefore, are not only in recurrent, constantly repeated interaction but also in recursive interaction. Our conversations form the basis for further conversations, the elements of our conversations refer to themselves and build on each other, - and that is recursion. Our meetings trigger structural changes inside each one of us, and they continue as long as we move in dynamic congruence that leads to structural coupling. Structural coupling arises if the structures of two structurally plastic systems change through continual interaction without destroying the identity of the interacting systems. In the flow of such coupling, a consensual domain is formed: a behavioural domain within which we act together and in reciprocal correspondence; the changes of state of the coupled systems – more generally – are reciprocally conditioned through interlocking sequences. (Maturana, 2004: 85)
\end{quote}

What Maturana says here, emphasises the changes of state between interacting, coupled systems. By my understanding, this is a description of known, or knowable, identifiable entities: interacting people, mutually aware of each other; interacting organisms; an organism within a ‘host’ medium; or, in other accounts, the systems theorist may be referring to the interactions of economic, cultural, and social systems. With these examples, it is not so difficult to see, or to anticipate that structural changes might occur from recursive interactions; there is a concreteness (albeit
plastic) to the factors involved. My speculation however, is that there is often an absence of such concreteness in our recursive actions. In creative practice, as I have ventured, the impetus of the dynamic; the draw to recursive action, can be a very real sense of those “unknowns that we, unknowingly, seek congruence with”, which is not to disregard the material elements involved in the practice. The recursive interaction is often with just an idea; something imagined, which is probably never realised. So we return (or set off…) again and again, operating on the basis of an intuited ‘destination’, or target we’re aiming at, which may not even be pictured in the mind, even as a virtually knowable form.

As I have intimated, my surmise is that recursive activity, as it applies here, is about a felt sense of simultaneously going somewhere, and, being located. I should emphasise, that this is an assumption based on my experiences of recursion (repetition, insistence) as a rule of procedure, and as described in relation to my practice. In this work, as has been established, there is, strictly speaking, no precise recursion. The important thing is perhaps, that such actions are felt to have that cadence of insistence. And I would say that it is of equal importance that the intrinsic inevitability of difference; of imperfection in that insistence of action – the error dynamic, if you will – is the dynamic with which to be in “reciprocal correspondence” with, to use Maturana’s terminology.

In other words, it is the inevitable ‘mistakes’ that are ‘reciprocated’ with, or are attended to (or ‘tripped’ along with) consciously or otherwise. Each repeated, or insisted shot at that straight line (or the one that follows it) will be off target, and, any other insistence (to continue with Stein’s term) will be similarly at variance (however slightly) with what had been intended. So, as fallible humans, there will be value in considering the ‘virtues’ of error, as the dynamic that underlies the “irregular (rattling) flow of events” that we correspond to, and reciprocate with, through our enactive being in the world. With this in mind, it is perhaps germane to consider the etymology of the Greek word for sin, Hamartia, which is “to miss the mark” (Leloup, 2002: 50). As such, this would correspond interestingly with those notions of “being perfectly good at ‘getting it wrong’” – of perfecting ways of, ‘failing’, ‘falling’, ‘erring’. Every repetition of a prayer, or mantra will be ‘imperfect’ – never the same emphasis twice, “while anybody is alive”( Stein in Vechten, 1972: xxii). Maybe it is
then, that each reiteration cumulatively ‘perfects’ those differences. The singular ‘mistake’ gradually blurs into a coalescence of sameness, which effectively becomes its own amorphous ‘perfection’. I am reminded here, once again, of Alvin Lucier’s, I am sitting in a room, the last line of his repeated ‘mantra’ being: “I regard this activity not so much as a demonstration of physical fact, but, more as a way to smooth out any irregularities my speech might have”, which is what happens. That expression of faltering embodiment; the failure of perfect correspondence between the brain’s instructions, and the motor action of speech, is transformed. Via the insistence of recursive dynamical, structural interactions, that ‘failing’ slips away “from the domain of language to that of harmony…what was once a paragraph of unaffected prose has become music.” (Collins, 1990)

RESOLUTION No. 9

The ‘drawing,’ Resolution No.9 (Fig.14), was a prime example of ‘doing something that’s just doing something’; of recursive activity, more or less for its own sake. It would be disingenuous to claim that that was all it was. Intrinsic to this ‘doing something’ was the need to explore an aspect of a creative process, and to evidence that exploration. However, this particular outcome, the resulting Resolution No.9, was at variance with that which had been planned. This work was enabled by the construction of a revolving drawing board, which had been made for the purpose of producing a series of circular ‘systems’ drawings. These were to be larger versions of some works that I had made in the mid 1990s, and were variants of similar drawings involving the drawing of parallel ‘straight’ lines, where each line would be an attempt at faithfully replicating its predecessor. With this planned series, the point of departure would be the ‘perfect’ outer circle. The work would proceed by drawing a parallel line within that outer circle, with the same intent of making a true copy of the previous line. With this method, the preceding line is always the focus of attention – its errors and aberrations are the correspondents of the interaction, or reciprocation, if you will.

My decision to make these larger versions was to do with introducing a more physical dimension to both the process of working, and to the relationship between myself, and the dynamical events occurring in the piece as it progressed. I wanted the work, the
whole set-up, to be of a scale that I could directly relate to, bodily. With the smaller versions of these circular drawings (only about 15cm in diameter) there had, I recall, been a quite profound sense of space evoked by the fine web of concentric lines that formed through these inscriptions. It was however, a space that was felt to be very much elsewhere, like looking through a portal – somewhere remote.

In making larger versions, I had wanted to create a ‘space’ that was ‘here’ rather than ‘there’ (or as well as) – to feel more ‘relatedly’ located within/to that space. I have already described how working with this kind of process, for me, engenders a feeling of both, going somewhere, and, being very located. I wanted that sense of location in particular, to relate to my own embodied (structural) characteristics and presence in that space. To be more actively aware of my bodily movements of drawing, and of revolving the drawing board with the other hand as I drew; the whole proprioceptive sense of standing there, interacting with the surface being worked with; and for this
personal, physical sense of presence to be in correspondence to/with the dynamical emergent events in the drawing.

In writing this account, I am reminded of a reference that I’d made in the chapter, Instrumental Boundaries. This was in relation to Brian Massumi’s ideas, as expressed in his book, Parables for the Virtual. Here, I had speculated, to reiterate, that Massumi had offered a “description of this faculty (proprioception) that at once portrays it as a fundamental working mechanism, and, as agential to the body’s capacity as a ‘translating’ interface.” I wasn’t sure how my more evident physical presence and involvement was going to influence developments in this new work, but that line of thinking was there in the background. One particular passage from Parables for the Virtual particularly resonates now as I reflect on this, and I think there’s value in restating the following extract:

The muscles and ligaments register as conditions of movement what the skin internalizes as qualities: the hardness of the floor underfoot as one looks into a mirror becomes a resistance enabling station and movement; the softness of a cat’s fur becomes a lubricant for the motion of the hand. Proprioception translates the exertions and ease of the body’s encounters with objects into a muscular memory of relationality. This is the cumulative memory of skill, habit, posture. At the same time as proprioception folds tactility in, it draws out the subject’s reactions to the qualities of the objects it perceives through all five senses, bringing them into the motor realm of externalizable response. (Massumi, 2002: 58-9)

Re-reading these words again now, resonates further still for me. That is, my mind is taken back into a very distant memory of a piece of (undergraduate) work that, preceded, anticipated, and gave rise to the very first of those ‘sequence’ or ‘systems’ drawings previously described. It was a long time ago (early 80s), but worth briefly recounting. This was a wall-piece, and done mainly as an exploratory exercise really. The interesting thing now is that this memory has been triggered by the thoughts that I have related above, and by Massumi’s account of proprioceptive ‘encounters’ with objects. The nature of this exercise was in fact relevant to the notions of location and space just mentioned. I’d been doing a lot of work at that time, which was (very abstractly) to do with landscape; open space; (featureless) plains, and so on, but with a quite distinct sense of place. By implication, this activity will also have incorporated
a remembered sense of my own corporeal presence in experiencing, of being in, and relating to, particular places, spaces that inspired these pieces.

The dominant feature of this work was of horizontality. On this occasion, I was sticking strips of black paper (coated with bitumen) to the wall, in a horizontal, parallel arrangement. These strips were about 10-15mm wide, and the space between each horizontal would have been approximately 6-7mm. The uppermost strip was about 10-15cm above the top of my head, and this serried arrangement extended down, line by parallel line, to about the level of my abdomen. I was not, at the time, aware of this being significant; I was just using a space on the wall, and this positioning seemed to suit what I was doing. As well as the feature of horizontality, I was also pre-occupied with undulations at the time – an interest that would continue. There were then, undulations running through these strips, creating a bas-relief effect. There was a kind of sequencing to these undulations however. The top strip showed subtle suggestions of wave movement here and there; the second parallel strip, immediately below, ‘responded’ to those faint murmurings, and developed them; the third strip developed them further, and so on. Notably, there was a downward dynamic to this, countered by a horizontal ‘cross-current’ that shifted the ‘wave’ movements in a sideways tendency. For a while I wasn’t very clear about where I was going with this, but it became evident, after a lot of standing back and contemplating, that something about the format needed to be changed. Importantly, the thinking, and the decision-making process that solved this problem, was definitively physical, and embodied.

I proceeded to take the whole thing down and start again. Before I recommenced, I stood before the now blank expanse of wall; closely, that is (5-10cms from it), and stretched both arms out, and above, my head, so that, standing there, I formed a kind of ‘Y’ shape. I am really not quite sure what had led me to doing this, but I had been thinking about ‘containment’, that is, in the formatting aspect of the work, and was effectively using my body as a means of thinking about the shape, the format, of that containment. What I was actually doing here, was measuring out the bounds of an ‘inverted’ triangle, and in a very bodily way. Where my hands reached to, marked the upper two points of the triangle (with a horizontal line formed between these two points), and my way of deciding where the downward point would be was essentially
guided by a feeling in the upper abdomen, or the base of the sternum (the solar plexus). That felt decisively right; the solar plexus area was sensed, in this situation, as a personal core, and was felt to correspond as a kind of ‘hub’ to those two points of my outer reach. The important thing is that this process registered at the time as a very physical, bodily thing to be doing; and has clearly endured as an embodied memory; a sensation that is actually felt through recalling this activity. This was literally ‘thinking something out’ with my body.

It’s only now, as I write this, that I realised how seminally crucial this exercise had been. It was in fact, the beginning of a sequence of developmental events that effectively constitute, and describe, the evolutionary pathway that has led to this research project, and therefore the writing of these words. As I see it now, there were three key instrumental elements involved in what was happening here. Firstly, there had been the first clear manifestations, indications, of the step-by-step, ‘systems’ approach to sequentially building developments in the growth of an artwork. That is, with the ‘wave’ formations sequentially, and cumulatively developing through the ‘strata’ of parallel lines (Fig.15).

![Figure 15, sequence drawings: same as it ever was (installation view: Goldsmiths College, University of London), Charcoal and graphite on paper, 122cm x 152cm, 1982](image)

Secondly, as that method fed through into a way of making drawings, the *error* factor had emerged as a key dynamical factor, which of course can be seen now, to have
been crucial to the broader development of my practice, and to the conceptual, theoretical tenor of this project. And thirdly, this apparently seminal, pivotal ‘moment’ had come about as a direct consequence of those actions of physically thinking out a procedure, as described above.

So, back to the 21st century, here I was, poised, and standing before this revolving drawing board; following my plan; setting off to re-visit the experience of those earlier works, but ‘writ large’ this time. The physical, structural set-up was all as it should be; affording a heightened proprioceptive sense of enactively being there – “the hardness of the floor underfoot…becom[ing] a resistance enabling station and movement” (Massumi, 2002: 59). I had made numerous plan-drawings to decide how large the outer circle would be; how close it would sit to the edges of picture area; whether to situate the circle in a square, or a rectangle. Various other options were also considered. I tested out different colours; different gauges of drawing implement; thin charcoal sticks; finer charcoal pencils; conté; pastel; pencil; inks, and I tested out different variables of spacing between the parallel lines being drawn. And I started drawing. The outer circle – assisted by a guideline drawn with a large pair of compasses – and then the second attempt a circle just inside that first one, and so on.

This went on for many weeks – with modest success. It had perhaps, all been making too much sense. With everything being so thoroughly worked out, there was bound be a perverse twist to events, as tends to be in the ‘creative process’, especially when you think you know what you’re doing. What was being produced, was ‘respectably’ good I think; although it didn’t feel like a progression from the earlier works that it referred to. It was as if the kind of outcome, the product itself, was redundant. This was probably akin to what George Orwell had been writing about, concerning the predicament of outgrowing a style or procedure of working. It was all failing in that respect. There did seem however, to be real value in just being there, and doing this thing, which was ‘just doing something.’ This had been after all, a key objective of re-visiting this way of working. As mentioned elsewhere in this document, I felt that it was important to re-experience being in that recursive process of ‘going somewhere, without going anywhere,’ but this particular variant of that method didn’t really seem to have any mileage left in it.
It is difficult to offer a clear, comprehensible account of why a certain kind of activity might be understood to be efficacious. What I can say is that there were several notable characteristics to the experience of being in this method of working that registered more clearly to me by returning to it after such an absence. Recursion was, once again, the most salient feature in this respect. And, a feature within this feature was also the aforementioned sense of location. I was reminded of how, by returning to the same specific place, day after day; to perform the same specific enactment, engendered a quite distinct sense of ‘locatedness’. Part of this distinctness is that this is not just a sense of location; of being somewhere; it is a dynamical being somewhere, it is about attention, through bodily action, engendering a sense of ‘being there’. Importantly, what had become more apparent to me was that the procedural set-up of working in this way meant that, once the process is underway, there is little else to think about, which is very liberating. The constraints (and the containment) of such a procedure ‘insists’ that you follow the ‘logic’ of what is happening. For me, these constraints bring the attention solely – in the case of these drawings – to working with, or being with, the way that a line is drawn; how the sweep of a curve suggests a slight lifting of pressure in the hand; how that tight glitch in the line invites an increased pressure, a digging into the paper; and, attention is brought to a deeper acquaintance with the nature of, and the variables of, these lines, these marks on paper. And, as intimated, that contained area of the drawing cumulatively acquires a sense of place, ‘somewhere’ that one feels correspondence with, which I would venture, is a consequence of that dynamical, enactive component to ‘being there’. When this is working, my experience has been, what I might best describe as, one of ‘inhabiting’, or being situated within a ‘place’, as being an intrinsic component within some kind of a generative matrix. As such, and this may be akin to the experience of meditation, there can be brief moments of feeling that this ‘place’ is all that there actually is. It hasn’t happened to me very often, but I am compelled to think that these factors of constraint, containment, and enactive recursion are key.

I can surmise that this assumption, this way of seeing things, is bound to have been influenced by my experiences elsewhere. That is, in other domains of activity – on the velodrome in particular. There was one occasion in particular – a very rare one I might add – where I’d had an experience that, whilst being entirely different to that
just described, corresponds noticeably. As such, I think it is worth briefly relating here.

This is another, even more, distant recollection, and another that has endured, with profound clarity, very much, as an embodied memory. I was only 18 years old at the time. The situation was a training session (along with other members of the British track team) on the then recently built Olympic velodrome in Munich. We had actually done the work required of us. We had ridden down to the stadium; exchanged our road bikes for track bikes; adjusted tyre-pressures; checked chain tensions, and performed all of the usual (slightly obsessive) rituals of preparation. We had, one by one, got onto the track, gradually built up our speeds, and, grouping together, continued to circle around for 20 or 30 laps as a warm-up. We had been put through our paces of speed training, and changeover manoeuvres, and had finally reached the point where we would then divide up, and individually wind down, gradually reduce our pace, stop, dismount, and then head back to the showers. The other members of the team had done this, but, on this occasion, I’d continued to gently roll around the track at a leisurely pace. Without really thinking about much at all, I carried on for a while, just enjoying the motion. When the really punishing work has been done for the day, this can be an agreeable state; there’s a feeling of relief, and release.

In this state, now free from the very precise, and pressing demands of training, my focus had shifted to just being there, and doing what I was doing; feeling the gentle cadence of pedal revolutions; listening to the sound of the tyres on the boarded track (a pleasing meld of swish, rumble, and hum), and feeling the rhythmic alternation of the straight to dished banking, straight to dished banking continuum. My visual focus had been drawn to following the painted line that marks the inner bounds of the riding area; ideally, this is ridden along, or parallel to, just slightly to its right side (I’d come, over time, to imagine a virtual, axial, line within myself, that would ‘lock-in’ to correspondence with the line on the track – so, through vision, and internal visualizing, the whole body becomes its own guidance instrument). There was no rush to get off and leave the track; the coach, and mechanic were still there, chatting to each other; I think the French team were next on, but their slot wasn’t for another 20 minutes or so, and so I rolled on, because it felt good. What was notable however, was that having slowed down, as explained, I began to speed up again – and,
significantly, without making the effort to. I just kept getting faster, and faster, until I’d reached a particular speed, which I then maintained for, I don’t know how long – I wasn’t counting laps. All that I can remember is that the cadence of the whole thing; the pedalling action; the rhythmic flow of sweeping in and out of the bankings; breathing; the repeated passing of certain points on the track, all of this was felt as an integrated dynamic. This was very much a feeling of being in a dynamical continuum, and with an accompanying sense of there being nothing else outside of this place, or this experience – which were not actually felt to be separate things. Although this was a quite hypnotic state, I was aware enough to understand that I had already done my training for the day, and that to continue for much longer with this ‘meditation’ was going to be counterproductive.

So I gradually slowed and rolled to a halt, got off the track, let some pressure out of my tyres, and made my way to the changing rooms. On the way I spoke to the coach, who had, out of interest, been timing my laps. I remember him appearing vaguely bemused when he’d indicated to me that I’d been consistently lapping at speeds which, based on his timings, would equate into an individual pursuit performance that would’ve placed me somewhere at the top end of the world rankings. These laps were run off at times that were actually above the standard that I had reached at that stage of my racing career, which was slightly ridiculous – I was only a rookie team-pursuiter being ‘groomed’ as a future individual pursuit rider, and I wasn’t even racing. As I have pointed out, all of this was done with the feeling of minimal effort, which is what makes it both notable, and difficult to rationalize. Since then I have been aware of numerous accounts of ‘being in the zone,’ and of the ‘inner game’ in sports performance, such expressions are now common parlance. Psychologist Abraham Maslow (1973) applied the term, peak experience to such phenomena, and Mihaly Csikszentmihalyi (1996) speaks of flow experience, a form of experience where “the self is fully functioning but not aware of itself being so, which means that it can focus solely on the task at hand” with the “absence of self-consciousness meaning the loss of the sense of an individual self separate from its environment” (McDonald, 2008: 43-4). I was certainly in some kind of a ‘zone’, and there was definitely a flow to it. Importantly however, this was an experience that had occurred in a non-competitive situation, and didn’t even involve the purposeful intent of directed training – I was just doing something for the intrinsic value of doing it.
Why this was important, indeed seminal for me, was that it provided a fully lived experience of how there can be occasions when, what we might choose to call thought is felt to be a phenomenon occurring throughout the whole body – one’s whole being in action. In this instance, I would go a step further; there is a sense that thought is the action being performed, and that the action is felt to be fully integral to its environment. As such, the perception of separateness from that environment does dissolve. Indeed, the whole complex of instrumental parts forming that environment can be perceived as being composite elements of that performance of action, which is the thought.

I will suggest however, that there can be kind of separateness that itself provides the dynamical environment for this kind of experience, as was the case with the event I have just related. Velodromes, and arenas in general, work very much as theatrical spaces, by virtue of their enclosure, and I would venture to equate this characteristic of enclosure, with the element of containment as I have outlined. That enclosure, and containment; the distinct characteristics of the arena’s delineations and boundaries, are the very factors that afford the enactive participant that “felt sense of simultaneously going somewhere, and, being located.” This, as I have argued, is particularly so, where there is a recursive element to the performance of the activity involved. Within the arena, the painted lines of a running track, a velodrome, or a field of play, define distinct finalities, but can also suggest infinite continua. It is the containment of these governing, measured, and pragmatically implemented frameworks that provides the systemised ground plan upon which athletes can perform their free-flowing poetics of movement, when it works for them that is. This focus on the element of constraint brings to mind a quotation that I’d included for similar reasons in my honours degree thesis. The French writer, André Gide maintained that:

Art is always subject to some kind of restraint.
To believe that the freer it is, the higher it rises,
is that same as believing that what keeps the kite
from rising is the string…
Art is born of constraint, lives on struggle, dies of freedom.
(Gide, cited in Evans, 1983)
GOING OUT – STAYING IN – GETTING THINGS DONE

From the vaguely sublime, to the increasingly ridiculous, the predicament that I now found myself in was distinctly lacking in flow, and there was little indication of any peak being likely. Although the process of working on these circular drawings was telling me something, those factors of constraint, containment, and enactive recursion, were failing to engender that sense of going somewhere. Yes, the feeling of location was intermittently there, but the trend was seemingly tending toward a quality of stasis, rather than dynamical advancement.

I decided to re-think. I was still quite committed to the idea of the circular format, mainly because of its obvious associations with recursive processes. With my propensity for working with language, I had been toying with the idea of writing into these circles, as a form of drawing, and I’d reasoned (or imagined) that this would in some way correlate with other aspects of my practice, and the theoretical framework that I had come to be working with. I wasn’t very convinced however, and I became increasingly troubled by the feeling that this wasn’t the best use of time and energy. I had, in other language-based exercises, explored the possibilities of sentences that ‘feed into’ themselves, as distinct that is, to a sentence that just repeats. Technically it wouldn’t be a sentence, as there’s no full stop, and it doesn’t begin with a capital letter. In fact, as with the example below (one of several variations), if this is read all the way through, and the ‘beginning’ is then returned to, to continue reading it, it effectively never begins or ends, it is just a continuous loop:

⇒ he stood, standing as a man who ‘knows where he stands’ stands. His stance was that of a man standing in full awareness of his standing. This man, standing before that which he stood facing, was clearly a man who could stand – and evidently had stood – and was at that moment standing, as a man would need to stand, when standing in the face of what a man is called upon to stand and face. He stood still, stoical, and staring straight at that which he stood before, and standing as such ⇒
This was partly just playing around with words once again (and it does have full stops). It was however, an exercise that provided one of several experiences, that seemed to evidence direct correlations between the dynamical features occurring in different forms of process-led work; whether involving the handling of abstract shapes, or, as in this instance, playing with words. As I have ventured, those correlations extend way beyond the confines of the studio (or desk), and although the experience of writing such material, or of repeatedly reading through it, is nothing like coasting around a perfectly constructed velodrome, there are definite correspondences.

There’s ‘nothing new under the sun’ as the adage goes, and Florian Cramer (2001), writing *On literature and systems theory*, gives a simple example of a literary recursive loop, as it features in the first chapter (*Frametale*) of John Barth’s book *Lost in the Funhouse* from 1968. It reads:

“ONCE UPON A TIME THERE WAS A STORY THAT BEGAN”

Cramer explains that:

> The reader is advised to cut out the phrase and fold it as a Moebius strip. It this becomes an infinite recursive story, a story that...opens up itself as a narrative subframe which in turn opens up itself as a narrative subframe, and so on. (op. cit.: 4)

In Cramer’s paper, he holds that systems theory has helped to “analyse how ‘art’ and ‘literature’ work as social systems”, but he expresses some doubt as to whether it has proven “to be usable for analysing texts and artworks themselves.” (op. cit.: 3) The exception, he suggests, might be “those artworks which are autopoietic systems themselves.” (op. cit.) Barth’s *Frametale* he asserts, “is not only a poetic recursion, and a very dense one, it’s also a recursion about recursions framing a whole field of self-reflexive narrative plays.” (op. cit.: 4) When considering autopoietic language in relation to systems theories, Cramer views that it is important to “differentiate recursive structures on the meta level of narration from recursive structures on the very object level of the letter, or the code.” (op. cit.) I draw attention to this point, because it would appear to have direct relevance to my own manner of handling language, especially in the context of this practice-research. Seemingly, my predisposition with language use – other than for practical purposes – is, I would say,
to handle it as ‘palpable’ material (I cover this point in some depth later in this document). As such, my interest has been more in the formal, dynamical ‘behaviours’ that occur through particular approaches to using words, and this has primacy over any interest in narrative dimensions. Where there is a recursive element, my focus is upon the ‘events’ arising out of what Cramer describes as “object”, or “code recursions” as opposed to “narrative recursions” (op. cit.: 5). Here, I think, the interactions between the object, or code, qualities of the words, more closely correlate to the dynamical interactions of elements that are solely abstract. Having said that, “…this man, who stood as ‘a man who knows where he stands’ stands…” etc., does, after a couple of readings, suggest a curious kind of ‘narrative recursion’.

So, I continued to explore ways in which language might feed into this circular, recursive scenario. This was, I have to say, quite a low point in this project. My resident Ross River Virus was flourishing, and I was reminded of just how much physical energy is required to sustain, and advance any kind of creative enterprise. However, I’ve come to suspect that it’s possible that such a condition might be conducive to engaging, meaningfully, in recursive writing. I wrote in the essay for my exhibition, that the “stumbling about element” to my processes of arriving at ideas was “possibly, at times…a consequence of fatigue-induced delirium” (Evans, 2008), and I noted that my dictionary explained that ‘delirium’ derives from the Latin ‘delirare’, which is literally ‘deviate from the furrow’ (Oxford American Dictionaries, 2005). In my condition, a ‘furrow’ was just what I was looking for. Something as simple, and unquestioning, as writing some words down, and then writing them down again, and so on.

Bearing in mind how this all relates to my compromised physical state, I am reminded here of Maturana and Varela’s assertion that, when systems “breakdown”, more is revealed “about their effective operation than our descriptions of them when they operate normally” (Maturana & Varela, 1992: 97). They emphasise that when observing what takes place in these circumstances, “we must treat the subject phenomena as being structurally determined.” (op. cit.) This is then, to understand more of the subject’s inherent structural characteristics – ‘knowing the structure’, as I have posited. With the human subject, Descartes inquiry into the revealing nature of habitual idiosyncrasies could also be born in mind. Writing lines was something I’d
done well at when I was at school, so perhaps this necessary retreat, or relocation, into a personal ‘furrow’ of writing in circles, might indicate, or lead to ways to revealing, inherently individuated characteristics, which are ‘of the structure’.

Although, as explained, the efficacy of what I had come to be engaged in here, was not very evidently felt, I did however, manage to hang on to the conviction that it was, possibly, enough to just turn up for work; to just be there, and be doing something. I know that I’m not alone in experiencing the kind of doubt that can strike you from time to time in situations such as this – shutting yourself away in a room, recursively trying this way of drawing lines, or that way of stringing words together, can all seem a tad ridiculous on a bad day. I couldn’t help but reflect on how much time I must have spent over the years, in similar rooms, doing similar things – which is how it can get of course. I could feel a distinct element of self-mockery entering into my work, and in my activity of thinking about that work. My poor health necessitated that I consider very carefully the question of finding an appropriate balance of approach to working. With this undercurrent of self-mockery, and with my mind now focused on finding a suitable ‘mantra’ to write; the words of a David Bowie song kept running through my head: “I know when to go out – I know when to stay in – get things done” (Bowie, 1983). Bowie doesn’t sing these lines, he speaks them, in a typically flat south London accent, which is distinctly of my own locality. They are words that have always struck me as being in a way rather sad, partly due to their delivery; sounding like a not very convincing self-affirmation. The familiarity, and associations of, that accent and intonation have a certain ‘homing’ resonance for me as well (the notion of ‘homing’ was to become significant). I had considered using these words, but decided against it. By now though, I had come to the persuasion that there was an appropriateness to toying with the gravitas that I had customarily brought to this mode of working; a facet of my practice that I had previously regarded, and approached, with an almost deferential seriousness.

Resolution No.9 was then, quite simply, the repeated writing of a sentence. It was also a symptom of sorts; it was something that I could do, and there were plenty of things that I couldn’t do, and might’ve done. I didn’t know how, or why, but this labour seemed to make sense. Part of the beauty of working in this way is that it can be done periodically, little-by-little, stage-by-stage, layer-by-layer. It can be left, and returned
to, day-by-day, or week-by-week; the intervals can be regular, or irregular; and over
time, the work, that focal point of activity, becomes the locational hub of that
periodicity. And, the circular format of course, perfectly accommodates, situates, and
can be generative to, those cyclical dynamics of recursion and continual return.

Figure 16, Resolution No. 9 (detail), acrylic, ink, pencil on card,
78 x 78 cm, 2005/8

The repeated sentence could have said anything really. Part of my intention had been
for the words to gradually lose their decipherable clarity; their singular identity, and
(to refer back to my notion of ‘perfecting’ the ‘error’ of each imperfectly rendered
sentence) to “gradually blur into a coalescence of sameness, which effectively
becomes its own amorphous ‘perfection’”. As such, the sentence is no longer legible,
and the ‘dynamical interactions’ of its “code recursions” (Cramer, 2001: 5) have
transformed a ‘simple declarative sentence’ into concentric rings of tonal resonance.
Resolution No.9 will appear as different things to different people. For myself, it has
meant various things at various times. I am most inclined to see it now as noise.
Whilst I am not applying the term ‘noise’ literally as sound, I do sometimes look at
this matrix of glitches, and inchoate rhythms, as the visible traces of voiced words;
hundreds, or thousands, of chattering voices, all repeating the same sentence
simultaneously, with (periodical) rises and falls in tempo and intensity, with the
inevitable loss of synchronization – babel perhaps, or a fusion of imperfect ‘insistences’; con-fusion? Con-fu-sion |kənˈfyoʊ zən|: ORIGIN Middle English : from Latin confusio(n-), from the verb confundere ‘mingle together’ (Oxford American Dictionaries, 2005) Another interpretation, and a suitably ironic one, would be to describe this faux mandala, as “a multiple layered ancient symbol” (Haywood, 2008: 9); however, as the author of this description points out, “what the viewer does not see, is the wording of the sentence that ‘drew’ the piece. The sentence reads: I really must get out more often.” (op. cit.)

TUNING

I worked on Resolution No.9 on and off for about 3 years. It was put away from time to time, and (half) forgotten for quite long periods. I would return to it and continue writing, observing its transformations from one state to another. Up to a point, it was of real importance for there to be an element of absurdity in this venture – shutting myself away in a room, and repeatedly writing “I really must get out more often”. It felt ‘healthy’, in a sense, to be turning the seriousness of this quite exacting process back on itself, or back on myself. It was serious, and self-mocking, at the same time. Importantly, I remained as strict with the ‘rules’ as I would have been with any other process-led piece. The principle condition was that the ‘drawing’ had to be nothing other than the repetition of this sentence. With whatever colour, tone, or medium being used, this same rule was observed. The only change in strategy during its making, came from the recognition that a certain kind of ‘tension’ needed to be established between the concentric rings as they developed and overlapped. This was simply dealt with by drawing faint guidelines to write along. Prior to taking that measure, the lines of writing were more free-form, and less precisely parallel. This wasn’t a perfectionist strategy, it was rather, a matter of recognizing that a particular kind of structural cohesion was needed; there had to be greater consonance between the outer circle, and the activity within it. As has often been the case, there was felt to be a ‘musical’ dimension to the dynamics that were playing out here, and this development in the work led to what might be likened to a form of tuning; adjustment of timbre, tweaking with harmonics, and so on. By my perception, these concentric formations were coming to be suggestive of sonic resonances, and this in turn, presented further connotations.
As this piece came closer to some semblance of resolution, that process of ‘tuning’, or ‘chordal’ structuring, was becoming more difficult to manage. The image would appear to hover closely to showing just the right quality of resonance, or chime, but the addition of another line would throw it off key again, or ‘mute’ it even. By now, this work had come to differ radically from the systems line drawings that had been the original reason for working in this format. There were very different qualities emerging from this process, and one notable difference was the absence of that sense of place, or space, that I have referred to. What had happened was that the surface activity of these concentric bands of colour and tonality, was asserting a presence that was very much ‘here’ rather than being an ‘elsewhere’ space. This was in some ways, a development that I’d anticipated, and looked for, but the qualities of this ‘presence’ had, for me, brought about an altered perception of the whole character of what I was looking at, and of the nature of my interactions with it.

There were two features to this change of perception. Perhaps the most interesting, and most unexpected of these developments, was that of the element of familial recognition, which I’d written about in the section, Soundings. To briefly reiterate; in that section, I had related as to how my cell drawings/Phenomenal Encounters, had developed “stage by stage out of a kind of sounding dialogue of structural interactions, that is, between my (physically) thinking, embodied, structure-determined self, and the linear, structural framework that was forming as I continued.” I went on to explain that I had come to notice in these drawings, a quality that I was to describe as a ‘familial’ recognition, which is essentially about “recognizing characteristics that are felt to be distinctly personal; a little like hearing your own voice echoed back to you, or on a recording – it’s intimately of you.” Something similar had now occurred with Resolution No.9. This is a very difficult phenomenon to describe adequately, or to even personally apprehend and put your finger on. In my efforts to come up with suitable analogies, one of the examples that had come to mind was of seeing, and recognizing your own handwriting, which, I suppose, was essentially what I was doing. By this stage however, there was no longer any discernable handwriting as such, and I felt that there was something else at play here as well, which was something that I did come to recognise, significantly, through a further recognition.
As I continued with this fine-tuning, I also became aware of another correlation. Part of the aforementioned shift in perception with this work, was that I had come to feel a more evidently physical connection with the dynamics of the image itself, and in the experience of the interactive process of making. The nature of the image had changed in many ways of course, and for me, it had now begun to acquire the appearance of a kind of whirring motion; of centrifugal force, and counterbalance. This had quite distinctly brought to mind the whirring spin of a bike wheel, and that was perhaps one reason why the concentricity of the bands was so important; the structure of a bike wheel needs to lack eccentricity.

A notable feature of this recognition, was that my heightened sense of physical connection (or correspondence) to the work, was felt to be coupled with that apprehension, or sensation, of familial recognition. As such, the physical, structural dimension of this whole experience of acting, and observing, was understood as being inseparable to that, very individuated, personal order of apprehension and perception that I refer to as familial recognition. At this juncture, I think it would be helpful to add to my explanation of what I mean by this term. My experience of this feeling, as it relates to artworks, or to making things in general, is, for me, one of noticing a quality in something that I have made, which is unmistakably of my own life; it is something that has come out of my life. Of course, everything that I’ve done and made will have “come out of my life” and there will always be something personally characteristic there to be recognised, but what I have been describing here, is, in my experience, of a significantly different order. As I have suggested, this is a very difficult intuition to convey, but my analogy of hearing your own voice goes a long way in this respect – although it is still inadequate.

At the final stages of this work, there was a threefold confluence; that is, of the act of ‘drawing’ itself, the intuitions arising out this activity and observation, and the conceptual reasoning that followed. My feeling is that an element of physical thinking was instrumental to arriving at this conclusion. As I continued to fine-tune the ‘sonic resonances’ of this drawing; adding a lighter tone here, a darker tone there,
‘quietening down’, or emphasising a colour elsewhere, I came to thinking about the tightening and releasing of tensions; of strings in an instrument, or of springs in mechanisms, guy-ropes, and so on. At this stage, the process of balancing out, and coordinating stresses and emphases within a circular format, had brought to mind another, very significant correlation. I was suddenly struck by how closely akin this felt, to the activity of truing a bike wheel. This is where adjustments are made to the spoke tensions in order to straighten, and realign the wheel. I’d trued wheels countless times in the past, and this was once again, a deeply embedded memory of activity that will have registered in a quite visceral way.

Truing is best carried out by either putting the wheel into a jig that holds it in place, or by leaving the wheel in the bike, and turning the bike upside down, thus allowing you to spin the wheel and determine where, and how, it is ‘out of true’. On a jig, there is an adjustable plate, in relation to which you are able to judge the degree of the buckle or misalignment. If the wheel is perfectly true, as it spins, the distance between the rim, and the plate remains constant. If the wheel is out of true, that distance fluctuates as it spins. If you’re doing this with the upside-down bike, then it’s normally the brake blocks that provide this point of reference. There is a musicality even to wheel truing. When sitting there at the jig, or the upside-down bike; both hands are engaged in holding, and turning the wheel; feeling the tensions or slack in the spokes, and increasing or decreasing those tensions with turns of the spoke key. It’s a little like sitting at a harp – and there are sounds produced from doing this as well. There are clicks and pings that resonate through the spokes, and through the rim of the wheel as the spoke key is turned, tightening and loosening tensions. And there’s often a ‘playing’ of the spokes as well. That is, they’re tapped and ‘strummed’ while spinning the wheel – this is mainly to detect any particularly loose spokes which, if there, will sound as more of a flat ‘slap’ than a twang. All of this will be felt by the hands as well as discerned by the ear. What I am describing here speaks of an order of thinking that both accompanies and guides this kind of activity. Those pings, clicks, and cracks (of breakage through over-tension) are all felt as various sensations through the fingers, hands, and into the arms; feelings that factor into the modality of thinking, and perhaps are the modality of thinking, that steers the activity towards its objective of truing, and aligning. Those viscerally registered feelings are fully integral to the whole dynamical interaction that plays out; thought, as it applies here, both arises out
of, and is instrumental to, the sensorimotor co-ordinations, which are in ‘dialogue’ with, in this instance, tensile ‘behaviours’.

Resolution No.9 wasn’t a notably successful piece in my view. However, the experience of working through its final stages of development has, for me, emphasised how crucially instrumental reflective observation can be as a constituent element in creative processes. With this work in particular, those generative processes have very noticeably continued, post-practice, if you will, and the role of writing, as a mode of reflection, has been pivotal here. The apprehensions and intuitions felt; the assimilation and synthesis involved, in the activity of reflecting on Resolution No.9, has produced a confluence of associative, correlative strands, more complex than I think I am able to process at this stage. Stumbling on from one plan; one intention to the next, and retreating in the end to the repeated writing of a sentence, has somehow effected reverberations that, as soundings perhaps, intimate connections and correspondences that may have to remain, just intimations. This piece wasn’t meant to resemble a target (or a dartboard), but it does to some extent; and indeed, there have been moments where I have felt a curious sense of ‘homing in’ on something; not a location as such, but more a feeling of association, of being with something familiar. The point that interests me most here, is that this act of following a rule-determined process of drawing (that was actually writing), which was infused with an element of self-mockery; then takes on the appearance of a mandala or an ‘ancient symbol’, and then somehow brings to mind – in a subtle, but quite deeply felt way – the, primarily embodied, memory of the activity of straightening a bike wheel…via, that is, musings, recollections, and impressions of: ‘catastrophic’ walking; falling over; early learning; sin; babel; The Garden of Eden; south London accents; tuning musical instruments; velodromes; mantras; mistakes, and much more. Truing a wheel will never be the same.
11. WHERE LANGUAGE HAPPENS

DOING, KNOWING, LANGUAGING

As previously explained, intrinsic to this study has been the imperative to employ language that would enable me to further develop, understand, and articulate the essentially abstract ideas that shape it – “shape” here, being the operative term. As I proceed, it becomes more evident that the very act of bringing language into the sphere of abstract, creative experience can in itself highlight the abstract properties and characteristics that it (language) is formed of.

The emergence of language as an overt feature in my work is of particular significance to this study’s emphasis on embodiment, physicality, and process. I would describe my ‘apprehension’ of language, especially in a creative sense, as having more to do with emergent sensory-perceptual feelings, than with the cracking of an externally structured code. I relate my handling of language directly to a manner of thinking that applies to working with (and within) form, which relates in turn to the notion of physical thinking.

Previously I have applied the term “aesthetic”, as in “being drawn to” and “being in” an “aesthetic”. I would like now to supplant, or at least supplement this term with its ancient Greek root, aisthēsis, which refers to pre-linguistic knowledge, as distinct to noēsis, intellectual knowledge (Allan Whitfield, 2005: 4). For reasons that will be evident, I have been interested in exploring the question of aisthēsis in connection with the phenomenon of being aesthetically attracted to engagement in activity, and my dealings with language have led me to consider this modality in relation to the interaction of embodied experience, and linguistic activity. Allan Whitfield (Allan Whitfield, 2005) “advances the notion of aesthetics as pre-linguistic cognition, as a form of ‘knowing’ that preceded the evolution of language”, and he situates this conjecture historically by asserting that:

Before the twentieth century...the dominant theories of mind were essentially perceptual, in which images and sensory meaning provided the foundation of knowledge. The emergence of language theorists and behaviourism in the early
My interest then is of allowing primacy to this more sensory, perceptualist mode of thought when creatively engaging in language; the conjecture being that a closer relationship is maintained between sensory-perceptual cognition, and linguistic activity. This accords very much with the belief that “sensory-perceptual knowledge is by no means a poor relation to linguistic-based knowledge. On the contrary, it constitutes the dominant form of knowledge, and provides the very foundation for its linguistic add-on.” (op.cit.: 5)

Increasingly, I have found that this is a view that finds support across a wide range of disciplines. Phenomenologist Ludwig Binswanger asserted that:

> language does not in itself create the existence of the world. Rather, language is the manifestation of the pre-linguistic awareness we have of ourselves and the world around us. The experience of world precedes its articulation in language. (Binswanger, cited in Frie, 2003: 145 – my emphasis)

Through the phenomenological work of Binswanger, Martin Buber, Martin Heidegger and Merleau-Ponty, Roger Frie relates how they had, "sought to achieve an account of human experience that included both the centrality of language and the reality of prelinguistic, nonverbal and bodily experience" (op. cit.: 138). This remains a subject of conjecture, and Frie presents a view here, which considers the influence that certain postmodernist tendencies have had upon this issue:

> While the rise of postmodernism has undoubtedly enriched our understanding of human experience, its account of language and subjectivity is open to question. As a result of postmodernism's overriding emphasis on language, prelinguistic, nonverbal, and bodily realms of experience have been pushed to the margins of theoretical and clinical discourse. In fact, for some postmodernists, there is nothing prior to or outside of language. (op. cit.: 137)

I should emphasise here, that this post-modernist stance, as described by Frie, represents his own personal take on the matter, and is not therefore presented here as a definitive view. Neither, I should add, is the ‘post-modernist question’ a principle...
concern of this enquiry. What is central to this study is to consider how these bodily realms of experience feed into, or are intrinsic to, forms of expression, linguistic and otherwise. That is, where the shaping of that expression is born of an awareness of our embodied experience of being in the world – of what it is that we are in, of what we are doing, or have done, and how we are within that doing and being – the body’s intelligence, with its sensory perceptual knowing, continuously ‘sounding’ our situations if you will. The language component in my work reflects an interest in the domain where pre-linguistic apprehensions, and language meet, or overlap, and where those ‘soundings’ can configure into linguistic form. According to Maturana, we are in language, as distinct to our being apart from it. He asserts that all linguistic activity, or “languaging” takes place “in the praxis of living: we human beings find ourselves as living systems immersed in it.” (Maturana, cited in von Glasersfeld, 1997: 4) Ernst von Glasersfeld explains Maturana’s view that:

language...arises from a coordination of actions that have been tuned by mutual adaptation. Without such coordination of acting there would be no possibility of describing and, consequently, no way for the distinctions made by an actor to become conscious. To become aware of distinctions, is called observing. To observe oneself as the maker of distinctions, therefore, is no more and no less than to become conscious of oneself. (op. cit.)

So languaging – being in language – can, by this description, be seen to be an intrinsic, key factor within the complex of actions and observations that bring us to a greater understanding of what we are. I emphasize the ‘what’, rather than the ‘who’ in considering questions of self-consciousness, whatever that may really be. My reasons for this are that concerning questions of self, this study apportions greater value to the notion of structural determinism as posited by Maturana and Varela, than to the idea of an observing self “as an ontologically independent entity” (Maturana, 2004: 20). That is to say that we acquire a sense of what (or who) we are by experiencing, over time, the individual nature of our structure’s interactions with the world – the ‘sounding’ body as ‘transducer of signs’ perhaps. To reiterate, Maturana and Varela’s assertion is that “each living being begins with an initial structure. This structure conditions the course of its interactions and restricts the structural changes that the interaction may trigger in it.” (Maturana & Varela, 1992: 95) So, what we do, and how we do that doing, and how we incorporate language into our observations of that
doing, is key. In viewing language as emergent from the experience, and observed awareness of these interactions, my conjecture would be that how we handle language within this complex of operations, is also key. Being, doing, observing, describing can then all be seen to be integral to one another, and thus the manner in which any one of these operations is conducted, will influence the nature and development of the reflexive discourse between them. This is however, a position that asserts the primacy of praxis, of doing, within this circular discourse. Maturana explains:

…if we accept that what we distinguish depends on what we do, as modern physics does, we operate under the implicit assumption that, as observers, we are endowed with rationality, and that this need not or cannot be explained. Yet, if we reflect upon our experience as observers, we discover that our experience is that we find ourselves observing, talking, or acting, and that any explanation or description of what we do is secondary to our experience of finding ourselves in the doing of what we do. (Maturana, cited in von Glasersfeld, 1997: 4)

To re-emphasise, what these descriptions seem to evidence is, that there occurs a continuous, reflexive interaction between what is felt, done, observed, described, distinguished, perceived, and so on. As Maturana describes it, the observed experience of doing is pivotal to the development of our facility for languaging, which in turn will foster our acuity as observers. I would then argue that how we actually observe our acts of languaging is of import. Languaging, that is as a phenomenon that arises out of, and is intrinsic to, “our experience of finding ourselves in the doing of what we do.” (op. cit.) This study works with the understanding of language as a phenomenon that arises out of the foundation of embodied, sensory-perceptual knowledge and experience.

IN THE BEGINNING WAS THE DIFFERENCE

In 1998 I was invited to take part in a collaborative project, Correspondences and Correspondences 2, involving an English composer, John Woolrich, and 5 other visual artists. The idea was to stimulate a cross-disciplinary discourse between the composer’s music, the artist’s individual sensibilities, working processes, and in effect, the space within which the resulting exhibition was to be housed (a vacant Victorian industrial warehouse space close to central London). Each artist was separately given a recording of a composition by Woolrich, and was sent away to
listen, digest, contemplate, and respond. Part of the process agreed upon was that we should journal the unfolding process of our responses, both visually, and in word form.

Two memories of tackling this project stand out in particular now. One was of how unsettled I was by the music that I’d been assigned. The other was concerned with language, that is, through this working experience I had acquired a very real sense of how language could braid quite naturally and meaningfully, with abstract thought and action.

On the whole, the artists had been selected for this collaboration due to their practice having been associated in some way with music. This being the case, I’d expected, mistakenly, to be given something consonant with the nature of (most of) my own work – a weave of rhythms, pulses, and patterns, a la Steve Reich perhaps. Not so. It would be no exaggeration to say that the piece that I’d been assigned to work with, Spalanzani’s Daughter, caused me discomfort. In contrast to the seamless horizontality of much of the music I’d associated with in my work, this struck me as annoyingly dissonant and jarring. The consequences of this disturbance were significant. I had effectively been knocked off my usual orbit, and in my efforts to create a work as a response to this music, my creative thinking had run into territory far from its customary idiom. The piece that I eventually produced, Spalanzania (Fig.17), was, in an arcane way, quite architectural – in abstract sculptural terms at least, so this was not unusual for me. On the way to this end result however, the imagery in my mind had been very literally architectural, and for me, not of the usual order.

Purposefully engaging in this music had evoked quite uneasy, slightly troubled visions of being in and around some kind of a built (possibly abandoned) space. As with the music, there was a broken momentum, a stop-start tension.

In this imagined environment – a seemingly endless network of rambling corridors and staircases that seemed to go nowhere – I’d felt a sense of urgent compulsion to search and probe; moving with the erratic uneasiness of the music; stumbling over
thresholds; finding myself outside when I’d thought I was on the inside, and vice versa.

Figure 17, *Spalanzania*, rigid polyurethane foam, MDF, (approximate dimensions)

202 x 150 x 120 cm, 1998

These were strong images and sensations, and I can remember – as a sculptor attempting to meet this particular brief – giving serious thought to constructing something that would’ve been literally building-like, with doors and windows, a roof, and so on; an out of control gothic doll’s house affair perhaps. Had I have taken that option however – as interesting a development as it was – I suspect that the work would have fallen short of what did actually eventuate.

This is a quite abbreviated account of an episode that ran for several months, but I do assign it fairly extensive space here due to the significant role that language had played within this process. The making of *Spalanzania* for this collaboration represented a major watershed in my work. Through the experience that I have briefly described, the journal notes that I had made proved to be quite pivotal to, and symptomatic of, important changes that were taking place; changes that have significantly fed into, and shaped this current project. Some sort of a new order was configuring, as I can now see with hindsight. The ‘irritation’ of this difficult music
was perhaps the catalyst needed to bring about that change. This was as much an existential predicament as it was about art. However, the conflicts and dynamics at play within my art practice were indicative and emblematic of a general malaise I think. Discrepant tendencies and interests were vying for dominance, pulling me this way and that. At issue within my practice was a conflict between modalities, and between creatively generative impulses. There was on the one hand my process-led, systems abstraction, which had become almost second nature to me, and which would afford its own, well-known, vocabulary of options for the making of the work. On the other, there was now this quite insistent barrage of cinematic, multi-sensory representations of imagined places, actions, and accompanying sensations, which seemed somehow to demand a more literal, representational expression.

The ‘crisis’, as I now see it, was that my abstraction(s) had – for my own needs perhaps – become too dislocated, too cerebral, too exclusive, indeed, too abstract. Counter to this, a different order of tendencies and imagined potentials had now presented, which felt to me to be more characteristic and representative of the often uneasy, messy reality of being in the world. This conflict, it has to be said, did not bring about radical changes in my practice there and then. In the end, the piece for the collaboration was produced by working with processes and materials that I had previously employed, albeit with the introduction of new variations, and with the incorporation of more overtly architectural features. Spalanzania was clearly of the same lineage as much of my other work. Changes had nevertheless, been set into motion, and language was an intrinsic component to these changes. Due to the novel stimulus of the music, my thoughts and ideas had shifted tangentially, and were now probing new territory, at some distance from systems and abstractions. As the process unfolded, what I’d found myself striving for was a way of maintaining some hold on the very potent images and sensations that the music had evoked in my mind, and to bring these into closer congruence with modalities, working processes, where I would feel effectively able to produce a resolved work.

Language was instrumental in this process in that the act of negotiating and reconciling those differences between modalities, effectively became the act of bringing imagination into the ‘languaging’ of those differences. So the ‘problem’ of languaging in this context was intrinsically a matter of attending to ‘differences
between’, or of ‘the Between’ as Heidegger’s phenomenology might describe it. In Heidegger’s thinking, language is considered as “a mode of dimensionality, as that which holds apart” (Malpas, 2006: 264), which is at variance to the idea that it simply describes things in themselves. As such, comparisons can be drawn with Maturana’s view that languaging occurs out of an observer’s act of making of distinctions, and that, “what is observed are not things, properties, or relations of a world that exists ‘as such’, but rather the results of distinctions made by the observer himself or herself.” (Maturana, cited in von Glasersfeld, 1997: 4) There are discrepancies between Maturana’s and Heidegger’s philosophies – their notions of ontic reality in particular. It is of interest however, through this comparison, to consider the domain of language as one of dimensionality. Language, that is, as being of spatiality, arising out of ‘the between’. Heidegger spoke in terms of language as the “happening or occurring of the dif-ference for world and things” (Heidegger, cited in Malpas, 2006: 264) – to be understood as a phenomenon occurring out of proximity and intimacy between the two:

In the midst of the two, in the between of world and thing...division prevails: a dif-ference. The intimacy of world and thing is present in the separation of the between; it is present in the dif-ference...The dif-ference carries out world in its worlding, carries out things in their thinging...The dif-ference is neither distinction nor relation. The dif-ference is, at most, dimension for world and thing...Language speaks. Its speaking bids the dif-ference to come which expropriates world and things into the simple onefold of their intimacy. (op. cit.)

Somewhere “in the between of world and thing” seems like a fair enough description of where I’d found myself in grappling with Spalanzani’s Daughter. In my mind, I had very much occupied, and was moving through, the imaginary spaces summoned up by this music. Furthermore, within these imaginings, I was involving language as a way of bridging – essentially through modes of abstract thought – the difference between what I was visualizing, and the anticipated physical act of making, that is, the being in the actual making, which itself was to involve further abstraction. So, in my mind’s acts of languaging, imagined spatio-temporal experience (consequent to the stimulus of music) had engendered linguistic description, which in turn had informed the conception and making of an abstract, quasi-architectural form, which was in itself conceived to be situated within, and be integral to, an authentically architectural
space. Importantly, through this making experience, I had come to equate words more directly with material, and spatial qualities; with shaping, modelling, moulding; with placement, space, and movement within, and through space. Here once again, Heidegger’s thoughts on language have relevance. His conception of language as a mode of dimensionality finds expression in “the image of language as the ‘house’ of being, a phrase that Heidegger explains in terms that explicitly present language as something like a dimension or region (a ‘precinct’) in and through which we move”. (op. cit.) “Language”, Heidegger asserts:

is the precinct [templum], i.e., the house of being. The essence of language is neither exhausted in reference, nor is it only a matter of signs and ciphers. Since language is the house of being, we therefore arrive at beings by constantly going through this house. If we go to the fountain, if we go through the woods, we are already going through the word “fountain,” through the word “wood,” even if we are not saying these words aloud or have any thought about language...All beings...each in its own way, are (as beings) in the precinct of language. That is why only in this precinct, if anywhere, can the reversal from the region of objects and their representation into the innermost of the heart's space be realized. (op. cit.: 264-5)

At the time of writing this, I am still hopeful that I’ll find a record of the journal writings referred to, that is, the word-strings written as part of my responses for the Correspondences project. They happened however, and their presence, in their absence, is significant.

IN THE BEGINNING WAS THE SURD
I can identify the experience described above, as one of a series of incrementally developmental stages, especially concerning my relationship with language. It has often been a troubled relationship, and I have clear memories of having to struggle at times to voice words when I was younger. I am fairly sure that this would’ve been due to some kind of a nervous state, causing confusion between the brain’s instructions, and the motor act of speech. I recall the feeling of impotent frustration, caused by this temporary muteness, as a distinctly embodied sensation of unease. Memories of such states may help to explain the following, which is a passage from a tract of writing (Be Genes) that I was labouring over during the first few weeks of this project:
and in the beginning
was the surd;
speechless and impotent,
an expelled phonetic spasm;
pulmonary thwarted gut-sound,
wrested from something unknown;
a fraught mortal utterance;
voice breaking, at
the dawn of sentience;

Once again, this was material engendered from an exercise in wordplay (based on the
Bee Gees family name of Gibb, in this instance). And, once again, fooling around
with words seems to have nudged open a door, allowing some order of gravitas to
have crept in. The sense of visceral struggle in these lines may have been
symptomatic of an underlying anguish felt at the time of their writing. That is, the
anguish of figuring out how to get a research projectsss into effective motion. I
couldn’t be sure of this, but they certainly speak to me of uncomfortable memories
associated with – quite simply – getting words out.

It is quite possible that these difficulties are the very reason for language having the
prominence that it does in this project. The emergence of language in my work seems
to be integral to, and commensurate with other developmental changes. Importantly,
as I have suggested, the close association of words and sensory perceptions is pivotal
to this development, and within my practice-led research, this is where the emphasis
of language use lies, and thus the physical thinking component is central. My
tendency is to ‘handle’ words, or to imagine myself handling words, as material forms
– malleable forms at that. I have been interested in exploring how this sensory-
perceptual apprehension informs, and interacts with the signification aspect of
language, and in particular where that signification can be read to speak of the
author’s individual, structural characteristics; structural that is, in the sense already
detailed. This is then, to consider the value of allowing primacy to this ‘physicality’ in
the process of working with words.

I am inclined to think that there is something inherently creative in the treatment of
words as having material, phenomenal properties. Ed Ruscha (2004) is an American
painter, and primarily a painter of words. He is attracted to them as things to be experienced, in the way perhaps that places can be: "...sometimes I don't care about the definition of the word" he says, “Sometimes they are just a simple excursion, start-stop unto itself...each word is an excursion unto itself." (op. cit.: 192)

The idea of a word being an excursion unto itself could suggest an interesting order of reflexivity. It is as if to say that the word already subsists in the world as a reflexive, self-generative entity, and that the artist’s involvement effectively brings about a mutually creative coupling. When asked why he might be drawn to specific words, Rucha explains:

Because I love the language. Words have temperatures for me. When they reach a certain point and become hot words, then they appeal to me. "Synthetic" is a very hot word. Sometimes I have a dream that if a word gets too hot and too appealing, it will boil apart, and I won’t be able to read or think of it. Usually I catch them before they get too hot. (op. cit.: 57)

For Ruscha, this attraction appears to be sufficient in itself: “I like the word 'gasoline’” he says, “…and I like the specific quality of ‘twenty-six’” (op. cit.: 23).

**WHAT IS SAID**

Previously I had explained my reasoning concerning emphasis on the ‘what’ of what we are, as opposed to the ‘who,’ of what we are. As described, this is a conjecture that emphasizes foundational, structural characteristics, and explores the idea of turning our attention to these properties as a way towards self-knowing. In relation to art practice, I would liken this to working with a belief in the inherent value of things in themselves – the ‘thingness’ of things, if you will. This is to observe, and to work with observations of what is actually encountered, or equally, what has been noticed and remembered. This would be distinct that is, to viewing things in terms of the ‘stories’ that they are perceived to be telling of themselves, or the narratives through which they may have become identified. What strikes me about Ruscha’s way of attraction to words, is that he seems to apprehend them in just this sense, that is, as things in themselves – in their ‘thingness’, and that suggests to me an interesting parallel with the ‘what’/’who’ issue concerning self.
In his work, Ruscha seems to deal with the ‘what’ of words primarily, as opposed to their ‘who’. The *what* of what they are like, as distinct to the ‘who’ of their identity; the ‘identity’ of their commonly known definitions and usages. His interest is in the way that words impact on him as things, as objects (places even) that are encountered, and from which, evidently meaningful feelings are registered.

My purpose in drawing attention to this is to consider the concept of *aesthetic attraction* in relation to dealings with language. As previously stated, my primary interest in this respect is “in the domain where pre-linguistic apprehensions, and language meet, or overlap”. Here, I think it is important to clarify further, concerning my application of the term *aesthetic* in relation to the thesis of this argument.

The very term ‘aesthetics’ is misleading. Originally coined by Baumgarten in 1735 to refer to the philosophical pursuit of laws pertaining to art, it has generated a raft of theorizing, largely within philosophy but also within art theory. Within this, questions pertaining to beauty, harmony, and art dominated. (Allan Whitfield, 2005, 4)

As a consequence, ‘aesthetic’ has of course come to be associated with the “notion of ‘disinterested aesthetic appreciation’”, very much a product of its “eighteenth century Western origin, with a minority application, within a minority culture” (op. cit.).

This study works with the “model of aesthetics that…approaches aesthetic perception in line with the broader classical Greek notion, rather than the more common, narrow definition pertaining to art” (op. cit.). Bringing this concept, or way of seeing and perceiving, to the language component of this practice-led project, I endeavour to explore and consider how sensory-perceptual, pre-linguistic bodily experience, overlaps with the act of languaging. In doing so, I am valorising the role of *aisthēsis* in the creative navigation of language. Effectively, this is to afford primacy to the perceiving, and treatment of language as an essentially abstract entity, thus allowing this perception to guide, and to shape the manner in which it is used. In my experience as a visual artist, and as a sculptor in particular, this is very much how I have found it to be with the handling of physical materials in the act of articulating, and configuring abstract forms. Being steeped in the processes of working in this field, and subsequently coming to work quite extensively with language, has,
naturally I think, brought me to draw equations between the dynamics at work in both disciplines. The spacing and placement of mass I have come to understand as analogous to phrasing, cadence, syntax, and grammar perhaps. Material qualities: heft, shape, texture, resilience, malleability, and so on will correspond with the morphological ‘thingness’ of words. Scale and colour might equate with emphasis, tone, and expression. The list could go on indefinitely. So, with this approach to my language work in this context, that is, as a vehicle of research, I am attentive to the experience of how words speak to, and through, the (embodied) senses. It is an approach that considers words as phenomena; things that occur as excitations; things, or ‘events’ that inhere perceivable dynamics that can, by the agency of an attentive observer, be generative to further word events. Once again, Ed Ruscha’s words bear relevance to this approach: “I’m not as much interested in words as I am in the evocative power of them”, he says, and suggests that this appeal lies in their abstract form and configuration, “rather than their poetic power.”

The words themselves are made up of little letters which are also visual, and they also somehow come into a marriage of the two. There's like little strings of things, like little objects have always intrigued me and the words are the same way.” (Ruscha, 2004, 221)

Reflecting on this view however, I am inclined to suggest that “the evocative power” of these words is their “poetic power”. That is, their evocative power is the perceivable (latent?) dynamic that inheres within the word, and is thus part of its appeal.

BODY OF KNOWLEDGE

Physical thinking, as I conceive it, has been, and remains the principle modality at work as I navigate the heuristics of selecting, assembling, configuring and re-configuring shapes, forms, drawn lines, word-strings, whatever it is I happen to be working with at the time. I would assert that this entails a trusting of ‘the process’, the process that is, of allowing the feel of things to signify, and to direct, within the heuristic engaged in. In essence, this works with the notion that sensory-perceptual knowledge, aisthesis, affords us a more direct perception of what it is that we are engaged in creatively – the ‘what’ rather than the ‘who’ again.
My conjecture is that this is a faculty that recognises the latent, creative dynamic within things, words being no exception, and that this recognition is one of apprehending a sense of how that dynamic might be worked with. I see this faculty very much as a part of the ‘repertoire’ of physical thinking; a way of thinking where a direct equation can reasonably be drawn between say, the personally felt proprioceptive sense of a sloping floor underfoot, and the feelings involved in considering the rightness of a word for inclusion in a phrase. The common ground here being the body, or more specifically, the intelligence of the body, and I would relate this to what Elliot Eisner identifies as somatic knowledge, a term that finds its main application through processes of qualitative reasoning in the context of art education. Somatic knowledge, writes Richard Siegesmund (2004), is described as “a felt reaction of rightness within an experience. Qualitative reasoning is the ordering of relationships of qualities. Qualitative reasoning produces somatic knowledge.” (op. cit.: 81) In The Arts and Creation of Mind, Eisner defines this faculty of non-linguistic thinking as, “the bodily feel of rightness of fit for making adjustments in what has been composed.” (Eisner, cited in Siegesmund, 2004: 84)

IMMANENT MOUTH WORDS: WORDFORMING

An interesting thing happens quite frequently when I am writing – more, I have to say, with creative writing than with academic or practical writing. What occurs is a distinctly sensory-perceptual phenomenon, a felt sensation, which can enable me to find words, when none are otherwise forthcoming. I suspect that this happens more with creative writing due to my ‘material’ treatment of language in this context; that is, where I am allowing the shapes, or perceived shapes of things to determine the nature of the process. As such, I think that the sensibility at work here, in forming phrases, or in simply selecting a particular word for attention, will have been shaped by my extensive involvement in the manipulation of form and line in the visual arts, sculpture in particular. I have often speculated as to the developmental relationship between my experience in ‘systems making’, and the manner and timing of the emergence of language in my practice. As touched upon earlier, I would suggest that this emergence, and developed facility with language in general, does seem to have been commensurate with a developed articulacy in my dealings with the abstract visual language of materials, which had largely predominated.
The word-finding/word-forming phenomenon mentioned is I think quite telling of the non-linguistic/linguistic interface that this aspect of my study considers; that which I have described as “the domain where pre-linguistic apprehensions, and language meet, or overlap.” I am interested to explore the nature of the dynamics that are at work when, specifically, sensory-perceptual modalities are afforded primacy in languaging. Particular attention then is given to what is felt to have occurred within the languaging body – the entire human organism – as feelings, memories, imagination, perceptions, and forms of reasoning (qualitative and otherwise) interact to find expression in word-based language.

The predominant characteristic of this sensory-perceptual ‘wording’ experience, which I will term as wordforming, is one of a feeling in the mouth. There are distinctly palpable feelings in the mouth, albeit on a very subtle level, accompanied by corresponding movements of the tongue and at the back of the throat – although these would probably barely register as movements. This faculty comes into play most noticeably when I am stuck for a word, although I suspect that it is active at some level whenever I am engaged in creative writing. Significantly, when engaged in this mode of writing I am less concerned with ‘meaning’ as such, than I am with the feeling of shape, of sound; of placement, and fit, within the sequence of forms and intervals as the assemblage of words configure. With my predisposition for abstraction, this activity of shaping and arranging will of course inhere meaning in itself. I should add however, that within these excursions of words ‘unto themselves’, although there is less concern for meaning – as in a comprehensible narrative sense – there is I think, an underlying interest that some order of meaning will emerge out of this predominantly abstract handling of language. The important point for me is that the sensibility at work in this engendering of language is of the order previously described. That is, where the components of language are felt to have dimensionality and spatiality; where there is, however subtly, a feeling of physicality in the act of languaging. This not just to encounter language in the ‘precinct’ that Heidegger describes, something that we are in that is; it is to emphasize as well, its being in us, in our physicality.

It would be misleading to describe wordforming as that “tip of the tongue” feeling of a searched-for word, although may well be that there’s some connection to that
phenomenon. It would be more accurate to describe it as the feeling of a half-formed word, or a notion of the sense of that word’s embryonic presence – not even half-formed – at the back of the mouth. From there, it may, as it develops, shift to the middle of the mouth, and onto the tip of the tongue, and generally back again, and in no particular order. This will occur repeatedly as a kind of reflexive feedback loop, all the time in dialogue with a series of, generally ill-defined, mental pictures. These pictures present partial selections from, not only my existing vocabulary, but also my phonemic knowledge within, and aside, from that vocabulary. The phoneme element is probably of greater importance here, in that the felt manipulation and ‘handling’ of a phoneme’s ‘shape’ in the mouth will proffer a sense of what might follow on from it, or indeed precede it. From this ‘sensing around’ – which importantly doesn’t involve actual voicing – intimations of formed words can suggest themselves. This feeling in the mouth will sometimes manifest as what I can only describe as the sense of something 3-dimensional; normally a rounded form, which although mutable, and yet to be known, seems already to possess the shape of a word that hasn’t yet fully revealed itself.

The order of this process does not occur in any particular sequence. For example, a specific initial sound might be suggesting itself as I search for a word – a consonant blend digraph such as *ch*, or *st* let’s say. In my mind’s sensing around, the nature of this sound may, have ‘rolled off’ of the end sound of the preceding word. The feeling in the mouth of *an*, *on*, or *en* at the end of a word, might in some cases invite a *st* to follow on from it. There is however no regular pattern to this as far as I can tell. It all seems to be a matter of context, and the feel of the dynamic at play within the particular passage being worked on – certain sounds just seem to insinuate themselves according to how this self-making unfolds. The salient point here – especially in bearing relevance to this project’s focus – is that affording primacy to the feeling of “rightness of fit,” that Eisner attributes to *somatic knowledge*, or the pre-linguistic, sensory-perceptual guiding role of *aisthèsis*, seems in my experience, to elicit language that resonates in a more distinctly personal way. Key personal references, and memories of seminal life events unintentionally emerge out of this fumbling with sensorially imagined forms and inchoate rhythms. Furthermore, this content manifests in a manner of phrasing, and in a vocabulary, that speaks with an expression, and perceptual slant that I don’t think would otherwise be realised.
**ENDLESS SENTENCE**

The *endless sentence* is a piece of writing that features prominently in this study, and elements of this continuous tract are highly indicative of what I am describing. The following passage represents a notable example in this respect: “…of benign cadence – of that fragile balanced machinery; gloss-illumined and humming in prescient certainty…” The appearance of the word “prescient” is of particular salience here for two reasons. Firstly, it stands out because I have a fairly clear recollection of how this “feeling in the mouth”, word-searching procedure had actually played out, and so it serves as a quite effective illustration of this process. I recall that as part of my strategy to coax out a word to fit, and to continue the flow of writing, I had repeatedly sounded out in my mind the words that preceded it in this passage: “…gloss-illumined and humming in…gloss-illumined and humming in…gloss-illumined and humming in…” As I did so, sibilants – sustained *s* and *sh* sounds in this instance – were the most insistent feature in my thoughts. Importantly, I felt there to be something intrinsically generative to the imagined repetition of these words. And, of equal importance, that act of imagining, with the accompanying sense of inducement (of a searched-for word’s constituent sounds), were physically registered sensations – particularly in the mouth of course. As I look at the words in this section now – and I hadn’t consciously noticed this before – there is a developing relationship between *m*, *n*, *s*, and *sh* sounds: “*benign*”, “*cadence*”, “*balanced*”, “*machinery*”, “*gloss*”, “*illumined*”, “*humming*”. The addition then of “prescient” and “certainty” continues this sequence. Beyond this point the form and nature of the words changes: “…and to see it only – to leave it alone; walk on and around it; thrill of its resonance; it’s there for you to know, and bound to lose by pestering interest…”

I see now however, upon closer attention, that the words “*resonance*”, “*pestering*”, and “*interest*” bring a partial reprise of those sounds, and that they continue to reverberate intermittently, and diminishingly, over the lines that follow. This characteristic, of patterns partially forming, or promising to form, and then breaking down again seems to be another feature to the outcomes of processes I employ in my practice. So often, elements assemble in the work in ways that suggest the ebb and flow of decline and regrowth; of integration and disintegration; order and disorder; sense and nonsense. I shall refer in more detail to these examples elsewhere in this document.
The other significant point about the appearance of the word “prescient” was that, at the time, I didn’t actually know what it meant; I was familiar with it I think, but I wouldn’t have been able to define it, and it certainly wasn’t part of my used vocabulary. The feeling-in-the-mouth factor was of particular note here. I clearly recollect that, with the sibilant sounds as the ‘axes’, or ‘fulcra’, I began to manipulate various combinations of vowel sounds as connectives and articulations of the consonants used. This, I would have played around with in my mind’s eye in a slightly exaggerated way, and as described, with actual (barely perceptible) movements in the mouth. So, if for example this form of word-searching were to eventuate in the word “initiate”, some sense of its constituent parts, its syllabic make up – in-ish-ee-ayt – will have surfaced in my thoughts. These, as well as other closely related sounds, would be imaginarily iterated in various sequences, until the word had been identified. It could be that the sh phoneme will have presented prior to the in phoneme, or possibly, something of the order of an extended shee-ayt, or shin-ee-ayt may have come to mind first, and this may then be developed into the variant of something like in-shee-ayt, and so on. As I re-read this explanation, I can more readily picture this process as an equivalent to say, arranging and re-arranging 3-dimensional forms on a surface, considering one permutation and then another; taking components out, replacing them, modifying them, until the “rightness of fit” is evident.

With the adjective “prescient”, as I recall, what I had actually been heading for was the noun “prescience”. In my word-searching thoughts, the sibilant element was strongly present, and it may have been that some trace of a more familiar word like “essence”, “transience”, or “machination”, was active in this process, that is, a word with two or more sets of sibilants. I am inclined to think as such because I recollect toying with variations of ay-shee-en, essy-en, essy-ence, issy-ence, and the like. Finally of course, the consonant blend pr came along, and hence “prescience”, and thus into “prescient”, which engendered the following word in the sequence, “certainty.” It’s feel, it’s sound, rang true for me – “gloss-illumined and humming in prescient certainty” – but I had some concern as to whether its meaning would suit the context (it became evident that these lines could be linked to the imagery of a resoundingly powerful childhood dream). The real revelation came when I checked to establish that, a) there was such a word, and b) what it meant. Its definition: “having
or showing knowledge of events before they take place” (Oxford American Dictionaries, 2005), is interesting to ponder when considering the rightness of this, and other words that have been ‘found’ in this way. It is as if there is a form of prescience at work within this process, a process itself revealing on this occasion, “prescience”. Had this experience have only occurred once in my writing, then it probably wouldn’t merit the attention given here. Similar occurrences have been quite numerous however, and so the notion of there being the prescience of a yet to be identified word within this process, that is through a sensory-perceptual apprehension, may not be so fanciful.

The most salient point with this is that of the almost uncanny appositeness of the words that surface. As mentioned, they are very often ‘new’ words, half-known, or half-forgotten words that, not only fit in terms of shape and sound, but have definitions that extend, and slant the implicate sense of the passage in ways that wouldn’t otherwise have occurred. The following (in bold) are examples of such words, shown as they are situated within endless sentence:

“…flocked in daily cushioned drub…”; “…dallying under Belial in cloistered depths…” (I’d been toying with the expression “under-belly” and hence belial/Belial); “…so to be, to its witting, pitting shtick, to be swung-to in its faintly ordered rhythm maelstrom…”; “…further cause for craven smiling; wily ways of striven toiling; cant favouring and stepping up for the meagre merit, if it’s there to have…”; “…or to suffer the in-between like the parting ectomorph who’s not through the door yet…”; “…foundling girl, stirring the ether; stilling the system; shush-sounding her immanent mouth-words; her cirrus glissando speech of out-breath…”.

Although the wordforming process described above is specific to language, it can I think be seen to be comparable to ways of thinking and operating that inform other areas of my practice. With its feeling-in-the-mouth, with the subtle oral movements that it involves, wordforming is exemplary of physical thinking as I conceive it. My conjecture is that this is a reflexive, dialogic modality of thought, where actual physical movements and sensations are the primary determinants in the shaping of ideas, thus implicating the role of the whole body in the generation of significant cognitive, and creative activity. Importantly, this brings attention back to the notion of the sensory-perceptual body, as the principle locus of our knowing.
Questions of body, consciousness, brain and cognition are not local issues of course, and we are required to look beyond our own cultural assumptions. Interestingly, Kathryn Linn Geurts (Howes, 2005) critiques Antonio Damasio’s “culture-bound” claims in this respect, a limitation that, she suggests, “seriously weakens his position” (op. cit.: 164). Damasio, as the reader will be aware, is someone I have already cited extensively. From the standpoint of anthropology, Geurts explains that:

In West Africa, ideas about how we know what we know have been articulated by Anlo-Ewe people through their concept of *seselelame* – a concept that embraces a panoply of inner states. While many Anlo-Ewe speakers translate the term into English as feeling in the body, the flesh or the skin, the phoneme *se* can be considered a basic perception verb, rendering *seselelame* as perceive-perceive-at-flesh-inside. (op. cit.:164-5)

Through her ethnographic research of the Anlo people, Geurts has aimed, she says, to arrive at a better understanding of “Anlo ways of being-in-the-world through their sensory order.” (op. cit.: 166) Her terminology here echoes of a phenomenological viewpoint, as does I think, her assertion that:

...their sensory order did not map well onto a five-senses model of touch, taste, hearing, sight and smell. Instead, they pointed to *seselelame* as a more generalized feeling in the body that includes, both internal senses (such as balance and proprioception) and external senses, as well as other perceptual, emotional, and intuitive dimensions of experience. (op. cit.)

Further accounts that Geurts provides of Anlo percepts/concepts, build a picture of the unitary body as a knowing, complex interplay of the senses; this interplay, as a whole, amounting to the generalized feeling throughout the body of *seselelame*. Importantly, she explains how certain facets of bodily feeling, enable those (our) unitary selves to empathize, and to develop understanding of interconnectedness with others – systems within, and relational to, other systems. “For Anlo people” she writes, “*seselelame* (feeling in the body, flesh, or skin), *gomesese* (understanding), and *sidzedzenu* (recognition) are implicated in the making of conciousness. Consciousness implicitly involves bodily feeling and inter-subjectivity” (op. cit.: 168). Movement is also understood to be pivotal to the development of consciousness: “accounts of
consciousness often involve complex references to movement and sensorimotor activities”, and Geurts suggests “that this emphasis on inner senses in Anlo reflections relates to a heightened valuation of kinesthesia and balance” (op. cit.).

What I wish to draw attention to here, is the question of how particular pre-noetic operations and faculties are valued in the making of consciousness; embodied consciousness, out of which language is enacted. Although there is arguably more common ground than not between Geurts’ descriptions here, and contemporary western perspectives, it is through recognizing, and considering the subtle differences, that shifts in understanding can occur – from the western point of view in particular. The Anlo view is very clearly one of understanding the body’s primacy in the making of consciousness, and as the principle instrument of knowing. The range of faculties and experiences at play in forming this order of cognisance is interesting to consider:

The other bodily experiences and inner states typically associated with seselelame include: nuse – aurality, or hearing; agbagbadodo – balance, equilibrium; azolizozo or azolinu – walking, or kinesthesia; nulele – tactility, contact, touch; nukpokpo – visuality, or seeing; nudodo and nudodokpo – tasting; nuvevese – smelling; and, finally nutofo – vocality or talking. (op. cit)

It is perhaps even more interesting and revealing to consider, not only how they perceive the interaction of these faculties, but also the hierarchy of values attributed to the various perceptual abilities. Geurts points out for example, that according to her research:

many Anlo people believed that loss of hearing was the most grave impairment of sense perception, not only because deafness cuts you off from people, but because with this loss would come a disruption to your sense of balance. This brings out how ‘hearing’ (nuse) and ‘feeling’ (seselelame) in the body are linked in Anlo experience. ‘Hearing’ and ‘smelling’ (nuvevese) are also intimately linked, such that Anlo people are wont to say Mese detsi la fe veve, which could be translated as ‘I hear the soup’s aroma.’ Thus, hearing and smelling are not strictly affairs of the ear or nose; they are affairs of the whole body, or interplay of the senses (seselelame). (op. cit.: 169)

These accounts contribute to an understanding of the human body as a (physically) thinking instrument, and furthermore, one that – out of this bewildering complex of
non-linguistic operations – produces language. The assumption that, to reiterate, “consciousness implicitly involves bodily feeling and inter-subjectivity” (op. cit.: 168) is of key interest here when considering the relationship of our embodied sense of selfhood; the observations made by that sensing body’s experience of being-in-the-world (including its inter-subjective observations); and language. The matter of inter-subjectivity is of particular note when related to Humberto Maturana’s postulations on language. He states that:

Language is a manner of living together in coordinations of coordinations of behavior that arises in living together. We exist and operate as human beings as we operate in language; languaging is our manner of living as human beings. Language occurs in the flow of coordinations of coordinations of behaviors, not in any particular gesture, sound, or attitude, taken outside of that flow. (Maturana, Web Page, accessed 21/2/2005: 10)

Further to, or synonymous with, “inter-subjectivity”, Maturana holds that, “Living in language is living in a domain of shared objects in interobjectivity.” (op. cit. – my italics)

When an observer sees a flow of coordinations of coordinations of behavior through the coordinations of coordinations of doings on the body of languaging beings, then he or she can claim that the beings are beginning to operate in a domain of awareness of parts of their own body. The body, and self, arise in language in the same manner as any other object arises in language. The operation of self-consciousness is the reflexive distinction of a self in language that takes place as an operation that constitutes our body and our being as an object in interobjectivity. (op. cit.)

Maturana offers further clarification of this integrated emergence of self-consciousness, and language through the work of Dr. Gerda Verden-Zöller:

which has shown that this is the way self-consciousness arises in human babies when the languaging mother plays with the baby, for example, saying “nose” as she touches the babies nose...Thus self-consciousness arises as an operation of coordination of coordination of behavior that takes place in the mother/child play which constitutes self-awareness of the nose as the nose arises as an object in interobjectivity in the recursive coordinations of behavior of the baby with the mother. (op. cit.)
This accords very much with my own personal experience of language – as a creative medium that is – as having developed out of the “recursive coordinations” within my (non-linguistic) creative practice. The collaborative experience of Correspondences, described earlier, appeared to be a key event in bringing language to the fore as a feature in my practice, and what had evidenced then was clearly indicative of an evolving process that had been in gestation for some time. On reflection, I can recall experiences, brief moments of illumination, within the making process where I was, perhaps on some level, aware of this development. Where, that is, linguistically formative undercurrents were felt to be implicit within, and integral to, the experience of the events unfolding in this purely abstract work. This was most apparent within the making of my ‘systems’ sculpture, which entails an order of making that could well be described as a series of (quintessentially) “recursive coordinations”, played out through the repeated shaping of materials for assemblage, layer by layer, into stratified forms (Fig.18). Importantly, this is a process where all coordinations; all instrumental modalities, are brought to attend to the cumulatively evolving, moment-by-moment, emergence of material form. Of essence here, is the perceived sense of being in this emergent, unfolding process; of being in, and instrumental to a complex of dynamics (with an accompanying sense of place, and dimensionality), where these “linguistically formative undercurrents” are felt to pervade.

I have been speaking in terms that might imply a separateness between non-linguistic, and linguistic domains of operation, which may be misleading, as well as misguided. It may even be unhelpful to suggest the idea of there being unity through the weave of a continuum of operations in this respect – although developmentally, this would be a reasonable description. With what I am attempting to grasp, and to articulate here however, it is perhaps more apposite to consider the dynamics that integrate bodily experience and language as a more circular, reflexive, recursive, and self-generative process, such as the model proposed by Maturana.
Essentially, my conjecture within this facet of my practice-led research, is to consider the attentive experience of “being in” these primarily abstract, sensorimotor activities, as directly, and intimately, corresponding to the experience of significant linguistic development. To equate being in language, with attentively being in acts of doing is of core importance here. Cognisance of the integrality and correspondence of one to the other, does I think, foster a deeper sense of language’s more fundamental values and powers. Some of Heidegger’s views on language bear relevance to this point I think. Jeff Malpas (2006) writes that in Heidegger’s thinking:

…there is an attempt to “disclose” the originary character of language, to exhibit language, or to “evoke” it in its fundamental relatedness to world and being. World itself
is no mere assemblage of entities, but is rather a gathered unity in which things find themselves brought together with one another while they are disclosed in their difference – “language” is a key word that names this happening of unifying and differing. (op. cit.: 263-4)

Interestingly, this view is indicative of parallels with Maturana’s thoughts on languaging, where body, self, objects, and distinctions “arise in language.” Both I think, offer descriptions that infer language to be constituent to being; that is, language as being of being. So, as Malpas explains:

…language is understood in only a secondary fashion when it is thought primarily in terms of the many forms of language that we refer to as “English,” “German,” “Greek,” “Arabic,” “Chinese,” and so forth. Language belongs first and foremost, according to Heidegger, to being and is thus not something “produced by” or “at the disposal of” humans – “language” he says “is the language of being, as clouds are the clouds of the sky.” It is thus that Heidegger talks of language as, in its essence, “not the utterance of an organism” – it is the original and originary articulation of being as such that speaks in and through each and every human language. (op. cit.: 264)

My own assumptions and conjectures concerning language have been based on intuitions and gut feelings, prompted mainly by taking notice of what has taken place in my practice. If these speculations had seemed over contentious, I feel them to be less so now. Increasingly, this research has led me to understand that it is actually quite reasonable to associate say, proprioception, with poetic phrasing; or an imagined motor act, with an act of word selection. Recent work in the cognitive sciences appears to add credence to these intuitions. Vittorio Gallese and George Lakoff (2005) for example, have worked with important findings in neuroscience to propose an argument that emphatically counters the views of first-generation cognitive science; a discipline that they argue:

was strongly influenced by the analytic tradition of philosophy of language, from which it inherited the propensity to analyse concepts on the basis of formal abstract models, totally unrelated to the life of the body, and of the brain regions governing the body’s functioning in the world. (op. cit.: 1)
I THINK THERE FORE

Early cognitivism had advanced a “propositional picture of the mind” that was understood as “a functional system whose processes can be described in terms of manipulations of abstract symbols according to a set of formal syntactic rules.” (op. cit.: 2) Crucially, this is a standpoint that considers knowledge to be “represented in amodal symbolic form”, where “meaning is referential, in that it derives from a posited correspondence between the system of abstract symbols and their corresponding extensions, the objects and events in the world.” (op. cit.) As such, this view proposes that “concepts are symbolic representations by nature, and as thinking, they can be reduced to symbolic (not neural) computation.” (op. cit.) Gallese and Lakoff propose a radically different perspective, which argues:

that conceptual knowledge is embodied, that is, it is mapped within our sensory-motor system...that the sensory-motor system not only provides structure to conceptual content, but also characterizes the semantic content of concepts in terms of the way that we function with our bodies in the world. (op. cit.)

Their thesis rests on a major finding in neuroscience which tells us that “Imagining and doing use a shared neural substrate.” (op. cit. – original italics) So that, for example, “when one imagines seeing something, some of the same part of the brain is used as when one actually sees. When we imagine moving, some of the same part of the brain is used as when we actually move.” (op. cit.) The authors develop their hypothesis by proposing that, in order to understand a sentence, you will need to be able to imagine the actions and content of that sentence. This, they argue, “says that understanding is imagination, and that what you understand of a sentence in a context is the meaning of that sentence in that context.” (op. cit. – original italics) So, how and what we do, and how we bring imagination to the doing of what we do, will, on the basis of this argument, impact significantly on our personally felt understanding, handling, and individuated development of language. Gallese and Lakoff emphasize however, that their proposal “is not an internalist theory of meaning”, the reason being that “imagination, like perceiving and doing, is embodied, that is, structured by our constant encounter and interaction with the world via our bodies and brains. The result is an interactionist theory of meaning.” (op. cit. – original italics) I feel led to surmise that, interactionist, inter-subjectivity, interobjectivity, are terms and concepts
that clearly resonate of each other, with the common interface being the body; the uniquely configured body, that experiences its dialogic interactions with the world through its uniquely operating sensory-motor bodily mechanisms.

I referred earlier to the predicament of contending with the plausibility of equating, or associating the experience of such sensory-motor bodily mechanisms, with higher order abstract thinking, which would subsequently incorporate, and shape linguistic thinking. There had lurked a suspicion that the difficulty here was one of attempting to ‘eff’ the ineffable, as they say – which, to some extent, may just have to be accepted as intrinsic to the nature of this field of research. Nevertheless, it seems evident that the body does inhere an order of knowing that is primary to effecting the formation of abstract concepts, and that, perhaps pre-linguistically, apprehends the “originary” structural properties of language. Gallese and Lakoff maintain that if all of their assumptions are correct, “then abstract reasoning in general exploits the sensory-motor system.” (op. cit.: 19 – original italics) Furthermore, they indicate that the import of their proposal on the nature of human cognition has implications beyond our species, stating that:

it suggests that rational thought is not entirely separate from what animals can do, because it directly uses sensory-motor bodily mechanisms – the same ones used by nonhuman primates to function in their everyday environments. According to our hypothesis, rational thought is an exploitation of the normal operations of our bodies. As such, it is also largely unconscious. (op. cit.)

Concerning language specifically, they base their hypothesis on the assumption that: “Language makes use of concepts. Concepts are what words, morphemes, and grammatical constructions express”, and that “the expression of concepts is primarily what language is about.” They conclude that if their proposals are correct, then:

1. Language makes direct use of the same brain structures used in perception and action.
2. Language is not completely a human innovation.
3. There is no such thing as a “language module.”
4. Grammar resides in the neural connections between concepts and their expression via phonological schemas. Hierarchical grammatical structure is conceptual structure. Linear grammatical structure is phonological.
5. The semantics of grammar is constituted by cogs – structuring circuits used in the sensory-motor system.
6. Neither semantics nor grammar is modality-neutral.
7. Neither semantics nor grammar is symbolic, in the sense of the theory of formal systems, which consists of rules for manipulating disembodied meaningless symbols.

Language then, can be understood to be the stuff of bodily experience; there is a physical, visceral foundational component to our acts of languaging, and to rational, conceptual thought. Whilst however, it is natural for us to be in language, and to be practically, and creatively effective in language, I would suggest that it is also quite natural to feel a discrepant separateness to it; to feel uncomfortably at odds with acts of forming, and interpreting words. From a ‘realist’ stance, Margaret S. Archer (2000) maintains that, “our sense of selfhood…that emerges from our practical activity in the world…is independent of language”, and that:

...the way that we are organically constituted, and the way that world is, together with the fact that we have to interact with the world in order to survive, let alone to flourish, means that an important part of being human is proofed against language. (op. cit.: 3)

So here, another “between” is implied; that is, between the self, that is independent of language, and the self that is actively realised through language. I comment on this being another “between” because this appears to have emerged as a key term, and concept, within both the theory, and the practice components of this research. There is Heidegger’s *Between* – the between world and thing; the *between* domains of operation – pre-linguistic, and linguistic; *between* *aisthēsis*, and *noēsis*; the *between* being in language, and being “proofed against language”; the *between* our sense of self (and the world it is situated in) “that is independent of language”, and the concept of self that is culturally shaped, in part, by that culture’s language, and of course the *between* of *inter*-object, *inter*-subject, and so on.

I have yet to fully grasp what “non-metaphysical thinking as a thinking ‘in the Between’ might mean for Heidegger…” (Kirkland, 2007: 95) Sean D. Kirkland tells us that, “we must understand the Between, as Heidegger presents it, as what binds together thought and Being by the movement towards, which is the appearance or
emergence into presence of beings.” (op. cit.: 97) Kirkland also makes reference to the following statements (op. cit.: 95):

You’ve got to accentuate the positive,
Eliminate the negative,
And latch on to the affirmative,
Don’t mess with Mister In-Between.
(Johnny Mercer, Accentuate the Positive)

The In-Between has all the power always…
(Aeschylus, Eumenides)

A clash, maybe, of those pre-twentieth century perceptualist theories of mind, and those that have subsequently come to dominate.

The following lines from endless sentence come to mind as well:

…and not to fall foul in
schemes nearly tried but not
followed through
(pushing things the wrong way usually)
or to suffer the in-between
like the parting ectomorph who’s not through the
door yet – (emphasis added)

Within my own concept/percept of between, the notion that persists is that of a dynamic, or confluence of dynamics, occurring out of the proximity of differences, and which is generative to the emergence of certain phenomena. Where, for example, as Maturana asserts, the phenomenon of language arises out of distinctions made by an observer, or Heidegger’s view of language as “happening or occurring of the difference for world and thing.” Heidegger, cited in Malpas: 264) The notion of spatiality here strikes me as especially significant – Heidegger’s “image of language as a mode of dimensionality, as that which holds apart” for example. (op. cit.) As a practice-led researcher, I operate out of working processes where the properties of
spatiality, and relational dynamics are of central concern, so these terms of reference are particularly valuable for the forming of metaphorical, analogous descriptions. The concept of “that which holds apart” is an interesting case in point. Increasingly in my work, and notably through this period of research, the ‘spatiality’ of what is in-between has emerged as a key element. Where for example, a quite simple act of subtraction – removing what was seemingly a core element of a piece – becomes a crucial, decisive step in the making and resolving of that work. The space, or what is left; the absence of what had been there, somehow imbues the work with a power, and a kind of sense, that would otherwise have been absent – the power of Aeschylus’ In-Between possibly.

As with the between that I have suggested – between the naturalness of being in language, and the feeling of “a discrepant separateness to it” – there is here an element of paradox, which in itself may be significant. The prefix para-, of Greek origin, can represent ‘beside’; ‘adjacent to’; ‘distinct from, but analogous to’; and it can denote ‘beyond’ – with the ‘dox’ representing an equivalent to ‘opinion’ (Oxford American Dictionaries, 2005) So the very existence of paradox implies an In-Between. Where that is, two distinct, and equally valid explanations of a reality can appear to contradict, and yet coexist, side by side – a case of “to be and to be” perhaps. Wherever there is ‘something going on’ in my work (as I have often heard myself say during this project), where things ‘chime’ in an interesting way, an element of paradox tends to be present. The dynamic, the power, or excitation, seems to arise out of the difference between, and crucially, out of the proximity of contradictions and differences.

Both absence and paradox have emerged as important features in this project’s work, and will be considered in greater depth.

**WORDFORMING 1 & 2**

Conscious thoughts of the between were not present in the making of the works wordforming 2 (Fig.19), and wordforming 2 (Fig.20), although, importantly, their execution was, I would say, a consequence of an exploration between the domains of the sensory-perceptual, and the linguistic. They represent the outcome of a quite
extensive series of exercises where I was attempting to give material form to, or find a material equivalent of, the (feeling-in-the-mouth) wordforming process as previously described.

Figure 19, *wordforming 1*, clay and acrylic on board, 23cm x 30 x 2 cm, 2007-8

This was in effect, a form of reflexive, reflective dialogue, but with the incorporation of a more haptic approach into the process. It was, in a sense, to employ a form of hands-on reflection; a manner of non-linguistic thinking, to reflect upon a mode of quasi-linguistic thinking (*wordforming*), which is itself a strategy for channelling more sensory modalities into the sphere of distinctly linguistic thought.

By working, primarily, with clay, my objective was to *materially* enact some semblance of the *wordforming* process that I have described, with the directness that a material like clay affords. Directness was important in that I wanted there to be an immediate dialogue between the manner of thought at work in *wordforming*; the sensory-motor actions of moulding, twisting, and kneading the material; and the optical observations of the forms that manifested.

The term *haptic* is key here, particularly when considering its Greek origin, *haptikos*, meaning ‘able to touch or grasp’ (Oxford American Dictionaries, 2005). The ‘grasp’
element is especially relevant to both, what I was seeking to do with these exercises, and to an overall creative tendency. The need to ‘get a real grip on things’ as Seamus Heaney would say, has always I think, been a primary impulse for me, both creatively, and more generally with regard to the urge to perform acts of doing that were felt in some way to have value. Not unusually, to just observe was never quite enough, hence the compulsion to physically do something – anything – that would provide a sense of achieving some kind of a grasp on the matter of being in the world.

![Figure 20, wordforming 2, clay and acrylic on board, 13cm x 39 x 2 cm, 2007-8](image)

As is almost invariably the case, I wouldn’t have been able to clearly define exactly what it was that I was looking for through these exercises. The process leads the way, and, as mentioned, the material involved plays its part in enabling the revelation of signifying features, as forms emerge. The definitively malleable, and earthy qualities of clay were of core value here. With similar exercises, I had also worked with thick acrylic paints; squeezing the viscous liquid out onto surfaces – somewhat akin to applying icing onto a cake, but more fluid. The results were interesting but somehow lacked the ‘in-the-round’ feel of the works that I did eventually show. They were also more obviously synthetic, and were perhaps a little too close to resembling signature-like corporate logos, or branding. Another important factor in working with clay was that it has led me to focus on making individual characters, or character-like formations. This was helpful in that, over time, I had gathered a varied collection of forms that, in their separateness, could be arranged and juxtaposed in infinite variations. My feeling was that the physical dimensionality of these ‘characters’ spoke of a phonic equivalence. As such I was conscious that my acts of arranging these characters into so many permutations, was accompanied by an awareness of these two properties (the phonic, and the material) fusing and interacting. This was a
significant interaction of modalities, with the physical (haptic) manipulation of matter relating directly to a sense of sound, as well as to the embodied sensation of an (incipient) utterance of that sound. Importantly, the crucial factor at work in finding the ‘right’ configurations was that of placement; a principle, and guiding faculty throughout my practice, and one that I can assume to be quite highly developed. So, with this particular merging of modalities, wordforming 1 & 2 represent an important focus in this project’s aims; that is, of exploring correlations between emergent tendencies in language use, and the experience of primarily abstract, non-linguistic, spatially oriented activity.

In her PhD thesis, Maree Bracker (2000) applies the term, ‘spatial literacy’, which she employs to describe an acuity in the understanding and ‘reading’ of spatial relationships, and which is developed through a sustained, and attentive involvement in the ‘spatialities’ of, in her case, the art of installation. She writes of her:

‘Spatial literacy’ is a quite apposite description of the faculty that seemed to be at work in my arranging, and rearranging the characters in these pieces. With this attendance to placement, the factors of spatiality, and dimensionality were key. More specifically, ways of spacing between the various forms proved pivotal to the fine-tuning of these works, and as my deliberations continued, it became more evident that this was not just a matter of distances between. As I became more familiar with the nature of these (implicitly phonic) morphologies, certain characteristics seemed to insinuate; differences in ‘weight’, ‘brightness’, ‘fluidity’, or ‘tension’ for example. Some forms seemed to suggest themselves as having conjunctive qualities, thus impacting on adjacent forms in a particular way. So the felt sense of recognizing these characteristics might then have suggested to me that, say, ‘this form hangs lower in relation to that’, or that one might implicitly ‘push’ another into effecting a
'momentum’, which may develop, or be broken, or dissipated, either by the opening of space, or the intervention of ‘punctuations.’ These descriptions are of particular importance I think. My conjecture is that the faculty, or cluster of faculties, used in perceiving those characteristics, and in subsequently making those formal, spatial judgments, was implicitly instrumental to bringing these configurations into some semblance of scripted, linguistic form. To put it another way, “the multi-sensory modalities implicated in thinking of, feeling, being and acting within sets of complex spatial and temporal relations”, (op. cit.) were the very modalities employed in these attempts to produce formal representations of a process of (physical) thinking, wordforming, which is itself a strategy to give linguistic form to sensory-perceptual apprehensions.

In taking any creative process a step further, what ‘should’ happen – arguably – and indeed, what did happen, was that some additional dimension of understanding and knowing was realised. The value here being that ‘something else’ eventuates. These pieces are not what is actually felt in the mouth when searching for a word, they are artefacts that, in some way represent an echoic correspondence to that experience. Manifest in that difference (between), are developments that invite the attention of the observer. What is attended to, and noticed through observation, can subsequently generate further continuance to the creative process engaged in – a reflexive, observational loop occurs. The haptic, ‘taking hold’ of malleable, definitively earthy material in this exercise, was of major significance in this respect. That is, it employed – and fostered the development of – a mode of hands-on, physical thinking that, importantly, gives substance to thought, and which in turn provides objects for further reflection. The experience of these exercises highlighted for me, the primary importance within my own creative sensibility, of having the physical, material presence of things to respond to, and crucially, to think through.

As indicated, I wasn’t entirely sure what it was that I was hoping to produce from these exercises, but I had at least wanted to form some kind of a plastic representation of the wordforming process. A literal illustration wouldn’t of course be possible, nor of much value perhaps, but something that conveyed a sense of the wordforming process may have been achievable, and to some extent this did eventuate.
Although I wouldn’t judge the configurations of *wordforming 1 & 2*, to be very highly finished, or resolved works of art, they are quite emblematic of the core concerns of this project. Within my practice-led research these pieces contribute to an expression of a *sense* of what I have experienced, and understood of this interface between perceptual and operational domains – the sensory-perceptual, and the linguistic that is. This is important in that the sensory-perceptual, embodied impulses that I have described in *wordforming*, are felt to hover somewhere between these two domains of operation; that is, they are still ‘body-bound,’ and have yet to find their way into the consensual, shared territory of language. At this point, these ‘coordinations of coordinations’ are as much about the structural nature of the organism, as they are of the linguistic realm. It seems to me that what these sensations (or physical thoughts) speak of at this stage, is their embodied source; or more specifically, that embodied source, as it is in its knowing of the languaging world that it occupies and moves through. Heidegger’s view that language is “not the utterance of an organism,” may be as it is, but at this sensory-perceptual/linguistic interface, these ‘utterances’ are very much *of* the organism.

**IN THE BEGINNING WAS THE MIDDLE**

The aforementioned (ongoing) *endless sentence* occupies a central place in the language-based component of my practice in this project. The title *endless sentence* is an oxymoron of course, but it serves as an example of a creatively generated entity that, ‘uses the results of its own operations’ to ‘self-organize’ – an ‘excursion unto itself’ perhaps. The significance of this piece within the project is manifold. As with much of my earlier process-led work, a simple rule was established at the outset, and the creative impetus came out of the curiosity to see where this would lead. Having started to write, with no particular intent at the time, I was interested to see how things would ‘run’ if I wrote in a manner that was not designed to reach a conclusion. There would actually be no beginning, and no end – notionally. This entailed the omission of a capital letter at the beginning of the writing – the ‘sentence’ – and the necessary full stop to conclude it – with it being inconclusive that is. Therefore the ‘beginning’ and the ‘end’ could be added to, meaning that the string of words forming the ‘sentence’ could grow, and did grow, in both directions. There are plenty of hyphens and semi-colons, but no full stops.
The ‘autopoietic’ characteristics of this work are directly comparable to those that feature throughout much of my practice. The *sequence drawings* (Figs.15 & 21) were principally about attempting to draw straight lines. The first ‘straight’ line, drawn in free hand, served as the template for the second line; the second line served as the template for the third, and so on. The ‘rule’ was simply that of attempting to faithfully copy the line preceding it. The inevitable ‘mistakes’ that occurred would therefore need to be copied, in parallel, with no attempt at ‘correcting’. This (sometimes repeated) process would produce the suggestion of emergent ‘formations’, the recognition of which would subsequently prompt me to develop the work tonally. These drawings were precursors to the ‘systems’ sculpture that I came to be producing in the 1990s, where the same principle was applied to cutting out shapes from various types of sheet material. Each piece would sequentially act as a layer to form a stratified construction. As with the drawings, I would perceptually discern some sense of an inherent dynamic, latent within the structure, and any leaning, twisting, or spiralling in the final arrangement of the strata would express this (Fig.21).

![Figure 21, sequence drawing: same as it ever was (detail)](image)

Charcoal and graphite on paper, 122cm x 152cm, 1983

The experience of working in this way resonates in much of the work that I have come to do since. Within what I have just described, especially in the sculptural work, there was the sense of engaging in, and being an agent to, the emergence of form. My sense of being in language is comparable to this, and I suspect that my personal sensibility with language has been ‘modelled’ by this involvement.
The particularly recursive nature of the processes described is significant in that it seems, as the work proceeds, to engender developments that suggest a kind of evolutionary order of transforming, that is both singular, and generic. That is, the characteristics of its formal developments are very much of the process, but the work will equally exude an individual personality. The act of (attempting to) repeat a line or a shape has a kind of mechanical logic to it but nevertheless, and inevitably it seems, the outcomes have a very personal ‘signature’ to them. With endless sentence, there seems to be a similarity in the way that its developments unfold, consequent to the application of an ‘indifferent’ process. As with other process-led work of mine, the actual starting point can subsequently come, alternatively, to be understood as just a point along a continuum. ‘Middle’ would be a misnomer because this would indicate the definite location of a beginning and an ending. Significantly, this was the case with endless column (Fig. 23), where the beginning was actually in the ‘middle’ of the piece. The implication (with it ‘continuing’ under the floor and through up...
through the ceiling) was that the developments occurring in this work could go on endlessly.

Figure 23, *endless column* (installation view: *Wave Function*, Eagle Gallery, London), rigid polyurethane foam, 1993

*endless sentence* is comparable in this respect. It ‘began’ with a string of words that had a particular appeal to me, and rolled on (or flowed out) from there. With my systems sculpture, a shape/form would provide that point of departure. In both cases I’ve found this to be a little like a ‘siphoning’ process, where the impetus for a flowing on/out is instigated, and the stream runs on from there. The most salient characteristic about *endless sentence* is that the application of a process comparable in many ways to those applied to my abstract work, has elicited quite individuated
material. Recent reflections on this work have brought me to realise that it would
seem, quite simply, to be the lack of full stops that fosters this, rolling out, list-like,
quality and momentum. The metaphor of *siphoning* is I think apposite for a number of
reasons. It implies that a dynamic has been set into motion as a consequence of some
kind of reasoned strategy, but that the motions, and continuance of that dynamic,
proceed according to the ‘topographical’ features of the ‘terrain’ into which the flow
runs. In other words, the behaviour of that flow is structure determined.

It was partly through other people’s observations that I became more consciously
aware of the autobiographical content appearing in this burgeoning word-string. Most
conspicuously, “the seamless sequence nicely known”, in this context, can be
understood to allude to my experience of the *team-pursuit*. This alone wouldn’t
necessarily have amounted to much, but looking closer, and as the writing flowed on,
all manner of autobiographical references, or personal ‘soundings’ had presented. The
following extract represents one of various layout options explored, and situates this
reference in its context:

...making good – would that it
were –
being left out as it were;
team orders buck you up and
tuck you in –
the seamless sequence nicely
known – and what it’s for;
it sends you out to go around;
no need to stop in really;
tell some tales, furnish the
room,

weigh it all up and get it
fixed,
as the needs tower up;
things thrown around when you
want them still;
unkind treatment;
I won’t be attempting to, nor will I be able, to analyse and explain every line of this or any other language based work in this project. Some of the apparently autobiographical elements do stand out very clearly, once they have been noticed that is. In most cases there are only suggestions, felt intimations, of past experiences; predicaments; crises; epiphanies; neuroses, and so on. The real importance in the context of this project lies in the question of process. *endless sentence* doesn’t attempt to tell a story, and there isn’t a narrative logic as such. Indeed, some of it may well be vacuous drivel, but never mind, more to come elsewhere and in other ways – yes and ever so – with winning grins and the cause of effect;...

Neither is *endless sentence* stream of consciousness writing, although I’m sure that there are probably moments in most creative writing where some order of ‘flow’ occurs, and as such, consciousness does ‘stream,’ or ‘siphon’ – which has been the case here. This writing has flowed in and out of ‘sense,’ and even with re-drafting – which is part of the process – the main consideration in shaping what happens, is the matter of form. As I have said – particularly where there is no need to explain anything, or to sequence a narrative – my way of handling words tends to be governed by notions of shape, and ‘weight,’ as well as perceived, and anticipated cadences. All of these properties, or characteristics can be equated with the performance of physical movement, and it is interesting to consider the relationship of bodily movement with the production of words – or perhaps, streams, or bricolages of morphemes, which intimate potentially formed words? Walking is of particular note in this respect, and of William Wordsworth (as one of many examples), Rebecca Solnit (2001) explains:

walking...was his means of composition. Most of his poems seem to have been composed while he walked and spoke aloud, to a companion or to himself. The results were often comic; the Grasmere locals found him spooky, and one remarked, “He won’t
a man as said a deal to common fwoak, but he talked a deal to hiseen. I oftenn seead
his lips a ganin," while another recalled, "He would set his head a bit forrad, and put his
hand behint his back. And then he would start a buming, and it was bum, bum, bum,
stop; then bum, bum bum, reet down till t'other end; and then he’d set down and git a
bit o'paper and write a bit.” (op. cit.: 113)

I don’t suppose that Wordsworth was literally uttering “bum, bum bum etc,” but it is
reasonable to surmise I think, that something of this order (a cadence, both imagined,
and felt in the body), or “da da dee dum” maybe, or any such variation, would
underlie the dynamic of words flowing forth, and that this would correspond directly
to the bodily feeling of those steps as they were taken. For Wordsworth, a destination
wasn’t necessary it seems; the action of walking was enough, and a small, bounded
area could suffice:

There is a path at the top of the small garden at Dove Cottage…and it was there he
most often paced, composing. Many thousand of the “175 to 180,000 English miles” De
Quincey estimated he had walked were walked here, on this terrace about twelve
paces long, and on the similar terrace of the larger home he moved to in 1813. (op. cit.:
114)

It would be difficult, arguably impossible, to separate Wordsworth’s perambulations
from his engagement in, and relationship to, poetic language. As a reminder: “the
sensory-motor system not only provides structure to conceptual content, but also
characterizes the semantic content of concepts in terms of the way that we function
with our bodies in the world” (Gallese & Lakoff, 2005: 2). So the recursive act of one
step following another (for example) can be understood to be fully integral to the
process of finding words; of establishing meter, and perhaps of anticipating the poetic
force of a written composition as it emerges. On this emphatically physical dimension
to writing poetry, Solnit relates:

Seamus Heaney, writing about the “almost physiological relation of a poet composing
and the music of the poem,” says of Wordsworth’s pacing back and forth that it “does
not forward a journey but habituates the body to a kind of dreamy rhythm.” It also
makes composing poetry into physical labor, pacing back and forth like a ploughman
turning his furrows up or wandering across the heights like a shepherd in search of
sheep. (Solnit, 2001: 114)
Although *endless sentence* is not the only language-based work referred to in this project, the *physical thinking* component has been highly instrumental in its making on several levels. The *wordfinding* faculty, as described, was/is a particularly prominent factor in, both the finding of words, and in the invention of new words. This has happened elsewhere in my writing, and the words that come into being in this way tend to be characterized by a direct allusion to physicality. In the conception, and reading of these words, I have felt there to be some sense of tactility, force, texture, or of bodily posture or movement – sensory experience in general. As suggested, the most important factor here is that the involvement of these embodied sensations is active during the conception and formation of the word; where it emerges directly from the non-linguistic, sensory-perceptual domain. The following is one example of this in *endless sentence*:

...and there’s where they sit, delivered of countless bus journeys; bothered and staring in mail-ordering perma-browse, mouthing flaccid, loosely swayling sentences; explaining Alsatians and gathered in mingling scents, as they set out their stall and make doubtful arrangements...

In my mind, the passage that this section is part of has come to be inextricably bound with life experiences that I associate with a particular region of south east London – and, within a vaguely defined episode in my life. There was no plan for this to happen, but it did. These associations are not cheerful ones, and the allusions to ‘others’ (those “staring in mail-ordering perma-browse” and “mouthing flaccid, loosely swayling sentences”) are only imaginary. They are nevertheless, imaginings that are born of actual experience, and are formed of a very personally felt perspective. Granted, “perma-browse” is a composite word, made up on the assumption that “perma” is an existing prefix – which my dictionary tells me it isn’t. “Swayling” however, very definitely ‘swayled’ out of my mouth in a flat, loosely intoned south London accent. As I think of this word, I picture, and feel, corresponding movements of the mouth. There is a kind of unwieldy fleshiness to
“swayling.” It is I think, specific to speech in that it refers to a quite vernacular manner of utterance; where there’s the sense that the speaker is allowing the sounds of the word to fall out of the mouth, as opposed that is, to a more structured, enunciated delivery; it is where words evacuate from the mouth like amorphous matter. “Swayling” is probably specific to the handling of certain vowel sounds as well. It is flabbiness of speech, in much the same way as bodily actions can be flabby. I am aware of having done this myself, which is I would imagine, how I am able to feel my way into making up such a word.

_Tri-ang_ was (or maybe still is) the brand name of a major toy manufacturer. I had _Tri-ang_ toys as a child, and watched _Tri-ang_ commercials on the television. For me this name had, and still does have, a chime to it. I don’t think that this had anything to do with the triangle being a percussion instrument, but I’m not sure. What I am sure of is that I would have associated the sound, and the graphic appearance of _Tri-ang_ with the whole sensory experience of handling these toys. A lot of them were metal as I recall, and some plastic – and very colourful. They were often construction toys; that is comprising various components that could be assembled and screwed together to make models that were intended to resemble things. I get a sense of ‘brightness’ from this word, combined with a quite hard-edged, purposeful tactility – a generally affirmative kind of feeling. Bearing this in mind, its place in this following section of _endless sentence_ is quite interesting. My feeling is that there’s a sense of enervating bewilderment in these words; of being in the midst (or on the edge) of some kind of scheme of things that I really don’t _get_, but nevertheless, make (inadequate) efforts to comprehend, and be part of:

_it makes the rest do too,_
_that way and this; asking a lot;_  
_they do this as well; they do circumference things with_  
_changing hands;_  
_the needs abrade by dint of, and rest fine and finished to_  
_brushed neatness and blameless mights and might nots;_  

    _next best_

    _things surround,_

    _and fill the day_
Here I think, the “tri-ang chimeness” offers some consolatory spark of illumination to the “wasting afternoon,” albeit in a “next best,” and implicitly tawdry way. It probably has comfort value as well – nostalgic even, which would link up with the element of nostalgia that seems to be present in much of the work associated with this project. I’ve come to wonder if this might go a little further than simple nostalgia; or, an aspect of nostalgia having something to do perhaps, with a natural tendency, a deep-seated wish, to reconnect to a time closer to some more (imagined) ‘original’ pre-linguistic state perhaps, a prelapsarian longing maybe. I have become increasingly aware that there is a lot of discomfort in these writings – the unease of an indefinable separation maybe, which would be consistent with the nostalgia factor. As is so often the case, the etymology of a word provides illumination: *nostalgia* |nəˈstælɡə; no-| ORIGIN late 18th cent. (in the sense [acute homesickness]): modern Latin (translating German *Heimweh ‘homesickness’*), from Greek *nóstos ‘return home’* + *algós ‘pain.’* (Oxford American Dictionaries, 2005). The thirteenth-century Persian mystic poet Rumi grappled with something comparable: “Where did I come from, and what am I supposed to be doing? I have no idea. …Who says these words with my mouth? …Whoever brought me here will have to take me home…” (Rumi, translated by Barks, 1999: 2).

It (*endless sentence*) isn’t all uneasiness and angst I should add, *but,* “goadal” is very much about the imagined feeling of being subject to an unwelcome force of sorts. It does of course derive from “goad,” but once again, the significance of ‘finding’ this word lies in the manner in which it surfaced (via discernibly physical sensations). Once again, there’s the sense of not quite grasping, or melding with the logic or value of a perceived order to things:

*with speak-back witnesses who side with the goalal chamber teams,*
doing the right things of course
to seat the willing in better comfort,
as it is for the rest ‘in their interests’, if this is enough

There’s a sense here of a reluctance to capitulate to the implicitly coercive force of those “chamber teams” – whatever they may be.

More buoyantly and optimistically, the word “golding” was very much the product of sensory impulses. I have noticed that in endless sentence there seems to be an ebb and flow of alternation from ‘difficult’ to ‘affirmative.’ One always seems to break down and give way to the other. Here for example, where:

and this may bring a little more peace to your days and nights, if you’ll only stop it right now –

the doing as you do,
to the nightly two-step of classified plans and steep agreements

where a variety of painful things are done, over needless months and years...

gives way to:

but mostly sunny thereafter for you and the hopefuls;
those golding participants,
melding in the pleasure of sequences...

Closer analysis has shown me that, although there is some alternation in endless sentence between the lighter and the darker, the affirmative and the difficult, on the whole, most of it is ‘uncomfortable.’ There may be a psychotherapeutic dimension, or dynamic to consider here, but I’m not sure. I referred earlier to the recognition that there were apparent autobiographical threads running through this writing, and that I’d surmised that this had occurred as a consequence of the method employed.
Although I can, to an extent, explain and detail where this is overtly evident, with much of the content of *endless sentence*, it would only be myself who would be able to perceive any sense of its very personal allusions. It would all require some interpretation for sure. The following section, from very near the ‘beginning,’ is one of the more saliently identifiable scenarios. It speaks (with a kind of sympathetic, understanding mockery) of a young man, barely into his twenties, who finds himself contending with states of uncertainty and bewilderment; and suspecting that this predicament is largely of his own making:

```
and being as he was,
he went as he was;
going on in a way that seemed likely;
changing clothes in straining
fitment;
short breathing to abbreviated gestures
tilting and prone
to the aching for
known locations;
and still remaining
unstill,
and still in the
familiar round,
and still managing to be
usual in living rooms –
follying on –
fresh, emerging and caught wide open;
the fleet, history-sharing, time-aligning, golden-boy;
flippant guardian to the precious load,
carelessly
bearing his favoured nature,
his eyes
quite open;
the running-well-young-mercury-man,
all of a mismatch to the standing ground
and the daily going about;
and as he was,
he acted to know as much
and took his part
in a fashion apart

with those slender burdens and suave manoeuvres
spacing the days in patterns that seemed to suit all of the good ideas as they came from time to time...
```

As explained, this doesn’t just pour onto the page in a ‘stream of consciousness,’ although most of these word strings will have ‘siphoned’ (or spat) out very much as they are seen now. There is re-drafting, and I point this out due to its obvious relevance to the process aspect of my practice. It is also important to clarify, that within that process, as I became aware of the emergence of particular features, of familiar resonances, my feelings about this material would change accordingly.
Essentially, this just meant that I’d come to know more about what it was that I was dealing with – or at least I felt I knew. These recognitions and feelings informed the process of developing the writing, and although I had become more aware of this autobiographical element, the further development was principally concerned with form. What seemed to be most important, was that the spacing and phrasing of the lines optimised the “rattling flow” of its rhythms; its “tripping as you go,” which appeared to be qualitative feature of this mode of writing.

Once again, I recognise here a direct correspondence to the ways in which I had in the past, responded to, and ‘participated’ in, the ‘behaviours,’ and tendencies that would emerge during the course of working with a set process in more abstract work. That is, the process would continue, as set out, but the developments, as they appeared, would suggest various nuances of emphasis, which would be intrinsically of the process, and of the structural, material properties being worked with.
12. BODIES, BEWILDERMENT, AND BACKGROUNDS

FALLING INTO THE VERNACULAR

It is desirable, that a project of this kind reveals surprises as well as opening up new perspectives. On a personal level, one of the most interesting revelations for me has been to recognise more fully, the very human dimension to the content, and the concerns of my practice. This had been coming clearer to me in recent years, but not to the extent that I now understand. My background in ‘systems abstraction,’ had, to an extent, fostered an approach and attitude towards creative work that was distinctly and deliberately impersonal, and ‘indifferent.’ This will have coloured my own self-perception and sense of identity as an artist. That idea of who I was, and what I did creatively, had lingered. It seems however, that one way or another, even where I have continued to apply a systemic approach in my practice, a distinct element of humanness has worked its way through, and of late, has flourished and taken over.

The cartoon imagery, that occupies a quite prominent place in the exhibition component to this project, can be readily understood as alluding to, and expressive of, the ‘predicament’ of being human. This represents a tendency in my work that had been emerging over a period of several years prior to the commencement of the project. Some of that material, which already existed in sketch form, was carried through into this venture so as to propagate further variants of its kind, and for these developments to feed into the multi-faceted overall design of the practice element of the study. I did have some doubts about the validity of its inclusion in this context, but as explained, I had allowed myself, as a practitioner, and as a ‘case study,’ the freedom to just do whatever it was that I was doing. The important point was that a self-generative, self-organising dynamic of creative activity was allowed to run its course, and thus provide a pertinently valuable focus of observation and reflection.

First impressions might suggest that these cartoons are very much at odds with (what may appear to be) the general scheme of things in my practice. As explained however, the ‘perfect’ cohesion of subject and style was not a priority in this venture. If anything, the prime interest was to follow my curiosity, and to see what would happen
when all of these disparate parts were sat alongside each other in an exhibition context. As became evident however, there was considerable common ground between these drawings, and the other work on show, and indeed, with past work.

I don’t think that there’d be great value in attempting too detailed an analysis of these drawings, either individually or collectively, even though they do represent a substantial feature of the practice element in this research. They speak quite emphatically for themselves, albeit ambiguously – although emphatic ambiguity is maybe something of an oxymoron. I will however, clarify the relevant commonalities between these, and the other works in my practice. The primary common factors once again, are the components of fallibility and error, of which, as instrumental features to my work, I have already written about in some depth. Those descriptions find particular relevance, personification even, in the subjects of these works, and in their making. The ‘error-proneness’ of the human condition; the fallibility of our embodied humanity; our living day-to-day as open (sometimes wide open?) systems, that “maintain themselves far from equilibrium” (Capra, 1996: 48); our “precarious” bipedalism – “this column of flesh and bone always in danger of toppling” (Solnit, 2001: 32), not to mention the vagaries of our perceptual faculties, as conditions of that precarious embodiment, through which we make ‘sense’ of the world we’re in. And in these works, that ‘error-proneness’ is ‘danced with,’ if you will, and finds further expression – maybe redemption even – through the ‘mis-takes’ of the titles – the dynamics of error once again (Fig.24).

Significantly, I have come to recognise that there has been a distinctive form of empathy at work in the making of these drawings, a quality that I understand to have fed through, partly as a consequence of the technique applied. I dare say that ‘technique’ may be a misnomer in this case. When I first embarked on this manner of drawing, the instrumental factor was more a loss of technique than the application of one. I can clearly recall the occasion when the first distinct sign of this tendency in my work emerged. Unusually, I was lying on the floor, face down with a very small sketchbook, only inches away from my face, and I was trying to draw something half-remembered, from a brief moment of something seen on the television the night before. My pencil was blunt, and my arm and hand movements were constrained. With these compromised motor actions leading the way, what was actually playing
out here, was one of those *errordynamical* sequences described earlier; of ideas glancing off (mis)perceptions, rebounding off maverick suggestions, colliding with something half-remembered or misunderstood; further skewed by inept rendering, and so on. With this drawing, although I had every intent of coming up with a decent representation of my idea, I was being careless, that is, I wasn’t too worried about getting anything particularly spot-on. The striking thing for me was that I’d found the novel product of this effort quite endearing, and engaging. I was fascinated by it, and it made me laugh. That combination of small scale, compromised motor actions, ‘distilled’ memory, and blunt pencil, had introduced a ‘technique’ where, once again, the ‘mistakes’ of a faltering hand had *made* the subject. In a sense this was process-led practice.

It is important to highlight that this work could reasonably be associated with my time spent in the field of illustration, mainly in the late 1980s. These cartoons do resemble illustrations, although strictly speaking, they are not. However, in contrast to this recent material, my illustration work in the past was characterised by its, attempted, perfection. These were quite immaculate images, where any flaws would be ironed out as far as possible. This new development was of another order. Comically inaccurate proportions were welcomed; misaligned, ‘badly’ drawn features would create facial expressions that could not have been contrived, and overall, this general ineptness seemed to produce a form of imagery that exuded a kind of nostalgic friendliness.

That particular quality does resonate somewhat of the style of illustration that I will have grown up with. With this in mind, it would be seriously remiss of me not to acknowledge the influence of a tendency, a tradition even, in British art, personified in particular by Glen Baxter. His absurd, surreal pastiches of, primarily, 1950s and 60s children’s book illustrations, did strike a chord for me (Fig.25). This is an important acknowledgment, as I am aware of the dangers of ‘doing a Glen Baxter.’ Many have attempted this, and it tends not to work. What has emerged nevertheless, unavoidably it seems, is that what I am ‘doing’, or have been ‘doing’, is a brand of ‘Englishness’ (or ‘Britishness’). It is steeped in the culture that I come from. If this was something unavoidable, then there’s an apt irony here. That “period of hard-edged abstraction” was partly driven by notions of ‘the universal’, and vain attempts
at ‘transcending culture.’ I can recall having (quite proudly I think) pointed out to people, that it would be difficult to identify where my (abstract) work had come from. Indeed, it could well have been American, or Japanese, or from somewhere else altogether, so there was some truth in that claim.

Figure 24, Mild Bill Hickok, inkjet print (from original pencil drawing), 12 x14 cm, 2003/8

"I suppose you’re all wondering why I’ve gathered you here today" whispered the bosun

Figure 25, Glen Baxter, from The Impending Gleam, (Baxter, 1981)
It would seem however, that (having ‘fallen’ from those austere heights) my ‘default setting’ is quite distinctly characteristic of, and grounded in, my cultural background. This may be an exemplary case then, of what happens when things breakdown, when edifices fall away, that is, a clearer, more individuated picture emerges. I am reminded of the regimen Leonard Cohen describes, where "you 'cook' your mind so that you can hear what you're saying..." (Hesthamar, 2008, Radio Broadcast). And when you clearly hear what you’re saying, then you’ll notice the accent in which you’re speaking – a personal sounding of sorts.

It seems that this ‘revelation,’ this furthered understanding, has contributed to a valuable shift in perspective within this study. Although my reflections on the events and developments in my practice had brought me to a more distinct recognition of the extent to which I am a product of my culture, this hadn’t perhaps been fully embraced, or accepted. I can see it now as something else to ‘trip’ along and ‘dance’ with.

CULTURALLY TUNED NEURONS

It would be a mistake then, to perceive the cultural dimension of our existence as separate from the relatively universal characteristics of our human physiology. I had, historically, probably tended towards notions of dichotomizing between that universality of embodiment, and cultural specificities. What is of importance is to consider the braiding of the two. In referring to the work of neurologist, Oliver Sacks, David Howes (2005) writes that, “Culture has a marginal place at best in conventional neuropsychology” and explains that in Sacks’ view, “culture completes physiology” (op. cit.: 22). Howes cites the following exchange between Sacks and an interviewer from the journal Psychology Today:

OS: Our culture beats on us constantly, and we see this most clearly in the occasional wild child, the wolf boy, who has been lost in the woods. Our nervous systems need culture as much as they need chemicals. Without language and culture, we are like headless monsters.

PT: The culture tunes our neurons...

OS: Right, and so the biological and the cultural are woven in us together from the very
What Sacks is saying here tells us that culture is in the very fabric of our embodiment. So, whilst our physiology maintains itself, and operates in accordance with universal principles, the nature of that organism’s actions will be, to an unspecified degree, characteristic of its cultural ‘tuning.’ By my reasoning then, it would follow that physical thinking, as I advance that notion, is more culturally infused than I would have originally proposed. This may bring into question my conjecture, that more individuated qualities and characteristics will manifest from creative activity, which is guided principally by physical thinking. However, with “the biological and the cultural woven in us together from the very start” (op. cit.), and given, according to Gilles Deleuze (1994), that “Biophysical life implies a field of individuation” (op. cit.: 119), it is perhaps more helpful and apposite to consider this question more in terms of, individuation, finding expression through a cultural vernacular – with a local accent, if you will. As such, notions of universality, cultural specificity, and individual uniqueness, are not mutually exclusive.

The aforementioned quality of empathy in the making of these drawings is of significance here. To be specific about my use of this term: by empathy, I am referring to the projection, or transference, of bodily feelings directly into both, the act of drawing, and its subject. My dictionary states that the origin of empathy is, early 20th cent.: from Greek empatheia [from em- ‘in’ + pathos ‘feeling’] (Oxford American Dictionaries, 2005). ‘In-feeling’ is an apt description here. For example, in the rendering of a figure, as a feature emerges, feelings within my body correspond to that part of the figure being drawn. So, with drawing a foot, I will be feeling, in my corresponding foot, something of its: placement; its angle; the distribution of pressure felt through an attitude of leaning; the twist of the ankle to which it is attached; the tightness, or looseness, of the shoe being worn, and so on. Similarly, tensions in the neck would be felt; the imagined lightness of floating; the feeling in the hands when grasping materials, fabrics; the general sense of standing before an object; thrills; enervation; stumbling, whatever can be felt in the body. This form of empathy relates very closely to the ‘in-feeling’ I’d described previously in connection with the audio work, cogito err sum. To reiterate, that bodily felt discomfort, when for example, a
person is stammering badly, when “someone is suffering a verbal ‘seizure’, we will find ourselves literally feeling for them, squirming in our bodies, urging, on their behalf, for those words to come out.”

From a research perspective, what had been interesting was to consider the coupling of this ‘empathetic’ element of the process, with the slightly laboured, stumbling manner of drawing I’d come to be working with, which I might best describe as a kind of controlled ineptness. Importantly, by its very nature, this approach to drawing, finds what it is that it is drawing; the subject, and its characteristics are found by the act of drawing. That is, even where there is the specific intent to place a figure here; a table there; another feature on that horizon, the nature of those features will be ‘found’ through the particular manner of handling the pencil, and of moving it around on the paper. This process of mark making is in dialogue with the feelings at work, which in turn, are in responsive dialogue with the nebulous, shifting emergence of features on the paper. With many of these drawings, there was no initial intent, for example, with figures, I would just begin by nudging the pencil around until a feature of some kind suggested itself; an eye perhaps; a mouth, or a foot (Figs.26 & 27). Figures will generally provide the starting point, but quite often I won’t even have any thoughts about gender, or type – and so the process continues. This is exploratory drawing, and decisions about content are, as I have intimated, largely made, or arrived
at, via the multi-directional cross-talk of bodily feelings, ‘mistakes,’ memory, and visual, as well as word-based jokes.

Figure 27, _untitled_, inkjet print (from original pencil drawing), 13 x 20 cm, 2003/8

Figure 28, _untitled_, inkjet print (from original pencil drawing), 10 x 13 cm, 2006/8
Figure 29, *sullied strolling*, inkjet print (from original pencil drawing), 12 x 12 cm, 2004/8

The memory element is key here. Where, in this process of drawing, memories meld with bodily (empathetic) feelings, and a consciously comedic approach, the results often speak, in a curiously skewed way, of predicaments and states of mind that may

Figure 30, *cubistus nervosa*, inkjet print (from original pencil drawing), 10 x 17 cm, 2003/8
allude to specific personal experiences, and, very importantly, to those that are imagined (empathetically) to have been experienced and felt by others – an inter-subjectivity arising out of that ‘in-feeling’ of approach perhaps.

Figure 31, *Brenda in encounter*, inkjet print (from original pencil drawing), 12 x 12 cm, 2004/8

These works are quite telling, and the dynamic of *sounding*, as I have applied the term, is very evident. I can ‘hear what I am saying’ through these images, and the accent is definitely familiar. The bodily, visceral dimension of memory is of course highly relevant in this context. Consistent with my overall hypothesis, I would consider the body’s (inter-subjective?) remembrance of situations and places to have been pivotal to the shaping of these images. I would also add that this includes felt memories of situations experienced in dreams (Fig.32). To reiterate from earlier in this document, I spoke of the body as being the, “uniquely configured, intelligent organism,” the principle aspect of mind through which, according to Husserl’s phenomenology, “we gain access to things themselves” (Alerby & Fern, 2005; 177). My speculation is that the ‘bodily empathetic’ component in the making of these, and related drawings has fostered the rendering of images that, somehow, ring true of a very personal experience of the accessing of those “things themselves.” On that personal level, I have felt there to be a discernable authenticity to the qualities that have emerged in these works.
Figure 32, *large dog dream*, inkjet print (from original pencil drawing) 17 x 20 cm, 2003/8

Figure 33, *man in a green sweater*, inkjet print (from original pencil drawing), 11 x 11 cm, 2004/8
Crucially, when the work lacks that authenticity, it stands out conspicuously. It ‘works’ when there is a generative ‘structural coupling’ of those empathetic feelings in the body (shaped by memory), in concert with the vagaries of drawing ‘carelessly’ (“controlled ineptitude”).

There may in fact be a significant link between memory in this context, and the dynamics of making marks on a surface (whether with drawing or writing). Eliane Escoubas (2006) explains that, according to Jacques Derrida, drawing is “the work of memory, and the same could be said for writing” (op. cit.). Citing Derrida, Escoubas continues:

When the artist traces or draws a line or when the writer writes, at the instant when the point of the pencil or the pen touches the canvas or the paper, the artist does not see the point on which the point marks; he is blind to this point and what the artist has just drawn or written falls for him into the past. The “source-point,” the point’s point is always invisible for him. The instant (Augenblick) of tracing, of “marking,” of the active present, of the presently present, is “blind”; the drawer, just like the writer, draws “blindly.” Downstream, there is the void, that which is not yet drawn, the “not yet”; upstream, there is the past, the time that is over, the “no longer”-drawing or writing resides therefore in a continual disappearing of the point’s point: the point’s point always escapes. We can “see again” what was left by the point, but is “seeing again” the same as “seeing”? Not according to Derrida: "seeing again" what is past is remembering. Therefore, only memory saves the drawn or the written line from this loss. It is through memory that the line survives. The line is the "après-coup" (the flash-back) of an act – the act of marking – that was never seen, that was never seen in its very presence. And the point, traced at any given instant, disappeared in the line once drawn; it is not noticed; it is not distinguished from the line’s other points; it blends in and merges with the others. There are no visible points, one sees only a line – that results from this flash-back or this Schritt zurück of "seeing" as "seeing again." One sees therefore only in the past, in memory. One does not see, one sees again.

(op. cit., from section 2. Eulogy of Memory)

This idea of seeing again brings me to refer back to a point addressed earlier in this document, when I was describing the phenomenal encounters images, and where I’d explored the notion of ‘observing’ previous observations, through the act of drawing. That is, where exploratory drawing, from memory, elicits material that is indicative of the manner and nature of past observations, seeing them again in effect, and coming
to know them through this reflective, and reflexive order of working. In other words, the drawing (carried out in the manner described) reveals personal, individuated characteristics of observational traits, and, through the sensorimotor actions entailed, speaks also of the subject’s, structure-determined, and therefore unique – albeit culturally infused – identity.
13. CONCLUDING REMARKS

dimly I felt that I had to know what I knew and I knew that the beginning and middle and
ending was not where I began.

Gertrude Stein: Narration

BEGINNING AGAIN

Intrinsic to the task of finding conclusions to this kind of project, is the question of
where, and how, the interests of its research focus might develop beyond completion.
This will, at least implicitly, incorporate the question of where it came from, and
when it commenced. As I have related; through accounts of procedures in my
practice, and through my musings over where this particular project actually began;
attempting to locate clearly demarcated beginnings, endings, and conclusions seems
to open up a bewildering complex of further questions. One thing that does seem clear
to me is that the continuous generative process, which has formed into this project,
inhers its own ‘propagative’ dynamic, which I will liken to an ‘autopoietic’ entity
“whose operations effect its own production” (Maturana, 2004: 98). As a system of
operations, it is both open, and closed. As “it produces itself…[it is] open to the input
of matter but closed with regard to the dynamics of the relations that generate it” (op.
cit.). I would surmise then, that this inherent “propagative’ dynamic” will ‘know’
where it is going next.

In some ways, I feel as though I am just beginning, as well as ending, which I
probably am. That is, within, what is felt to be a shifting matrix of circular causality,
such distinctions become equivocal. It probably isn’t necessarily a case of: A to B, or
of A causing B, or vice versa. Steve J. Heims, in his Social History of Cybernetics
(cited in Wolfe, 1998) explains:

A person reaches for a glass of water to pick it up, and as she extends her arm and
hand is continuously informed… by visual or proprioceptive sensations – how close the
hand is to the glass and then guides the action accordingly, so as to achieve the goal
of smoothly grabbing the glass. (op. cit.: 56)
Cary Wolfe (1998) comments that there is “something immediately intriguing about this example of [what is termed as] negative feedback – and about the principle of circular causality in general – is that it contains a paradox…[that] A causes B and B causes A” (op. cit). As Heims suggests, “The process is circular because the position of the arm and hand achieved at one moment is part of the input information for the action of the next moment” (op. cit.: 56-7). Hence, Wolfe points out, “the system is characterized by ‘recursivity’” (op. cit.).

With a simple everyday bodily action as its illustration, this is an apt description to bring the attention back, with an interesting slant, to the notion of body intelligence; the body-mind, and the question of the “prescience of the senses” as advanced by David Howes (2005), in Empire of the Senses and, as postulated in section 4. For me, this description speaks, curiously, of the body (in its actions) knowing in advance of knowing, if you will. Contemplating and reflecting upon this notion has brought me to think in more depth, and more importantly perhaps, in a revised manner, about the various orders, and strands of thought that accompany the bodily actions, which literally shape the product of those actions. It would seem, that those actions are the thoughts, or are at least the variants of thought that know, are cognisant of what is actually occurring in that work. As I have related, my own work is, more or less, invariably led by procedural actions, and quite simply, what things feel like. And, so often, those actions have shown themselves, retrospectively, to have ‘known’ things in advance of my knowing and understanding them, intellectually that is. My conjecture in section 4, was, that by using the journey metaphor, “[t]hat point of arrival – although unknown, and as yet, only imagined – will have presence, and therefore instrumental significance within the mind of the traveller.” Further to that, as I had also speculated, that “point of arrival” may not even be imagined. With creative work, it generally can’t be imagined; it is a matter of discovering something that is yet to be there, and yet to be known, via that is, the embodied actions of the practitioner.

BODY, THOUGHT, CULTURE, LANGUAGE
D. H. Lawrence asserted that, “Real thought is an experience. It begins as a change in the blood, a slow convulsion and revolution in the body itself. It ends as a new piece
of awareness, a new reality in mental consciousness” (Stewart, 2003 – my italics). Writing of Lawrence and the creative process, Jack Stewart (2003) views that, Lawrence’s literary craft was, “concerned both with vision – patterns of creative thought or meditation leading to resolution or enlightenment – and expression – rhythmic phrasing and use of interacting images that invite the reader’s participation” (op. cit.). These creative dynamics, as Stewart describes them, would not appear to be culturally specific. Neither necessarily, would “a change in the blood” or “a slow convulsion and revolution in the body itself” (op. cit.). Arguably however, Lawrence’s art was identifiably of its culture. I raise this point, as cultural identification has, without specific intention, surfaced as a quite prominent issue in this study, partly through what I would describe as the ‘intra-dialogue’ I have held with, and within, my own practice.

I refer back to “the continuous generative process” that I suggest has formed into this project, which seems to inhere “its own ‘propagative’ dynamic,” that “I would liken…to an ‘autopoietic’ entity…A system of operations that is both open, and closed.” In the words of Maturana, a system that “produces itself” through being “open to the input of matter but closed with regard to the dynamics of the relations that generate it” (Maturana, 2004: 98). And to view these dynamical interactions as equating to the performative, consciously participative human system, I would venture that, for “input of matter”, read “intake of influences.” For “closed with regard to the dynamics of the relations that generate it”, read “subject to the structural, perceptual, operative characteristics of the individual.” The nature of those intakes of influence will of course be manifold: cultural; social; environmental, all of the variants within those categories. And, as Oliver Sacks’ asserts, “culture completes physiology” (Howes, 2005: 22) – that “input of matter” or “intake of influences” will, it seems, be permeating the (structure-determined) organism from the outset.

The extent to which those physiological and cultural components are so inextricably bound, has been a pivotal recognition in this study. To consider that a motor action can constitute a ‘thought’ may also accommodate the assumption that a vernacular form of expression is as much about the organism, as it is of its culture. This is particularly evident in language. I can more clearly understand now, that my own linguistic excursions are a braiding of a quite specific cultural grounding, and a very
personal method of sensorial ‘divining,’ and this is crucial. The ‘shape’ of that language is then a formation of those two braided strands, or complexes of strands. Within the language focus of this research, those elements of Wordforming; of “Immanent mouth words”, appear to be primary in this respect – utterances perhaps, of that non-linguistic/linguistic interface, which I’d described as “the domain where pre-linguistic apprehensions, and language meet, or overlap.” From my experience here, it seems to have been of key importance to assign primacy to the (sensory-perceptual) perspective of looking at the ‘thingness’ of phenomena in general, and specifically with language in this instance. This is not to neglect, or deny any narrative dimension, but, as explained in Where Language Happens, to emphasise the ‘what,’ as opposed to the ‘who,’ whilst acknowledging their integrality.

I have posited that, as organisms; as living systems, language is something that we are in, as well as it being of us. To reiterate, Heidegger’s view was that “All beings…each in its own way, are (as beings) in the precinct of language” (Heidegger, cited in Malpas, 2006: 264-5). And Maturana would hold that, “We exist and operate as human beings as we operate in language; languaging is our manner of living as human beings. Language occurs in the flow of coordinations of coordinations of behaviours” (Maturana, Web Page, accessed 21/2/2005: 10). And in terms of meaning, cognition, and physical mechanisms:

Language and symbolic interactions are also a matter of body: what has come to be known as cognitive linguistics seeks to explain language as a result of many general cognitive capacities acting in consort, rather than as a result of ‘autonomous’ language modules. Furthermore, embodied approaches to cognitive linguistics present empirical evidence that patterns and processes of sensory-motor experience underlie linguistic meaning and other forms of symbolic interaction. (Johnson, 2006)

The issue of “‘autonomous’” language modules is of importance here. There is compelling evidence that would appear to counter notions of ‘universal grammar,’ a concept most famously associated with the influential linguistic theorist, Noam Chomsky. A challenge to Chomsky’s theory has come from the American linguistics professor, Dan Everett, who has lived with, and studied the language of, the hunter-gatherer tribe of northwestern Brazil, called the Pirahã. Everett, who was “once a devotee of Chomskyan linguistics, insists not only that Pirahã is a ‘severe
counterexample’ to the theory of universal grammar but also that it is not an isolated case” (Colapinto, 2007). The author here describes his first experience of hearing Pirahã as “a melodic chattering scarcely discernable, to the uninitiated, as human speech” (op. cit.). He explains that Pirahã is “based on just eight consonants and three vowels…[having] one of the simplest sound systems known. Yet it possesses such a complex array of tones, stresses, and syllable lengths that its speakers can dispense with their vowels and consonants altogether and sing, hum, or whistle conversations” (op. cit). Such descriptions do I think, make it easier to think of language, or *languaging* as an idiosyncratic, culturally specific, ‘behavioral’ activity, rather than just as a variant of some universal order of syntactical structure or symbolic codification. I am not a linguist, but it strikes me that the particularities, the idiosyncrasies, of physical movement (with the mouth, the whole body) involved in the articulation of different languages are directly indicative of a physical dimension to thought in this context, both operatively, and conceptually. With Pirahã, the sounding of phonemes can feature “nasal whines and sharp intakes of breath, and sounds made by popping or flapping the lips” (op. cit.). Which brings to mind the specific abilities of people of different languages to make certain sounds with their mouths, and to be unable to make others. I speak a modest amount of French, but I absolutely cannot ‘roll Rs’.

**PRAGMATICS, SYSTEMS, ERRORS**

I have stated, that my practice within this research “represents a search for a ‘system’… a search for a sense of the ‘knowing’ of that system”. My approach has I think been quite pragmatic. This research has been led by an interest in the nature of events that can occur through engagement in creative processes. I have sought to communicate my understanding of what occurs in this respect, by observing and listening to the *material eloquence* of the created product, and to ‘fold’ these observations into the process of articulating, or ‘languaging’ these perceptions. This is an aspect of creative research that I think genuinely offers scope for adding to our human understanding of being, of living a life, in a phenomenal, material world, or system. Paul Carter writes that:

> The ‘creative process’ is not in the least mystical. The decisions that characterise it are material ones, and a good *technē*, or craft of shaping or combination, has to be open to
criticism and correction. As for the eloquence of the works, the problem is, if anything an excess of articulateness. Their way of communicating (strictly, their discourse) is four dimensional. They are ‘articulate’ precisely because they are articulated…in a variety of way and dimensions. Theirs is a symbolic representation of the phenomenal, a picture of the way the world is constructed that participates in its complexity rather than eliminates it. (Carter, 2004: xi-xii)

There’s nothing in the least mystical about endlessly pedalling a bike around a velodrome either, but it requires “good techne, or craft”, and it certainly has its own “eloquence” and “articulateness”. I would also add that the process of variable ‘orbiting,’ which it involves, seems to be a characteristic that has re-presented for me in this practice-based research. For me, getting closer to a “‘knowing’ of that system” has entailed a continuous, circular, or elliptical, weaving in and out of, and feeding back into disciplines, attitudes, and, arguably, temporal domains. I haven’t necessarily come to a definitive knowledge of that system through this research, but I have arrived at a more meaningful relationship with the dynamics that occur within that/those system(s). Error-dynamics may be a more apposite term here. Those ‘orbits’ do not, on the whole, seem to be as tidy, or as smooth a ride as my words: “continuous circular, or elliptical, weaving in and out of” might suggest. I have quite extensively documented my take on the ‘rattling flow’ and ‘ricochets’ of the ‘dynamics of error’, so I won’t labour that point here. I would say however, that I have come to a personal understanding, that it is the physical thinking of the ‘intelligent body’ that reads those dynamics of error most clearly, most knowingly.

I have, at times, been inclined to view the path that brought me here as a litany of ‘trips,’ in the sense that is, as described earlier. To reiterate, where I’d spoken of that insistent dynamic of propulsion, of “tripping and stumbling forward, somewhat like the small child rushing forward, trying ‘to keep their legs under that body…plump bowed legs always seem[ing] to be lagging behind or catching up’” (Solnit, 2001: 33). As I had said though, what I would picture is “something more sustained, and (slightly) more controlled too. More like a slapstick dance of momentum perhaps,” and across a whole lifespan, “a dynamical, irregular (rattling) flow of events, that lead somewhere, indeterminate,” or not.
Of course, that ‘dance of momentum’ doesn’t necessarily have be slapstick, it may be a waltz from time to time. Where that is, it is “(slightly) more controlled,” where the acumen of physical thinking brings the stumbling dancer into a more congruent relationship with the dynamics at play. Where there is sufficient control that is, to not only stay upright, but to ‘trip it as you go,’ forgetting any threat of a fall for a while. And, where such ‘choreographed’ dynamical interactions may, as attentive praxis, cohere sufficiently to chime as creative expression.

NO SENSE, ABSENCE, PRESENCE

I arrive at the notion then, that it is this acumen, or acuity, of the embodied sensory mind that reads the ‘soundings,’ if you will, of those underlying, or interweaving generative dynamics to creative thought and production. In section 4, I speculated as to “notions of prescience; or what I might describe as anticipatory ‘pre-echoes’, as evidenced through creative work, and I suspect, process-led creative work in particular.” As such, this was to posit that the body-mind, if allowed, presciently ‘reads,’ and works with those dynamics, ‘pre-echoing’ that which reflective consciousness may come to be aware of. These may (appear to) be the speculations of a fancifully minded creative practitioner, but there are grounds to give the notion of prescience, as speculated here, some serious thought. Brian Massumi (2002) writes that:

Experiments were performed on patients who had been implanted with cortical electrodes for medical purposes. Mild electrical pulses were administered to the electrode and also points on the skin. In either case, the stimulation was felt only if it lasted for more than half a second: half a second, the minimum perceivable lapse. If the cortical electrode was fired half a second before the skin was stimulated, patients reported feeling the skin pulse first. The researcher speculated that sensation involves a “backward referral in time” - in other words, that sensation is organized recursively before being linearized, before it is redirected outwardly to take its part in a conscious chain of actions and reactions. (op. cit.: 28 – my emphasis)

Here, Massumi advances a view that even questions the place of mind, as such, in the perception of what plays out. He continues:
Brain and skin form a resonating vessel. Stimulation turns inward, is folded into the body, except there is no inside for it to be in, because the body is radically open, absorbing impulses quicker than they can be perceived, and because the entire vibratory event is unconscious, out of mind. Its anomaly is smoothed over retrospectively to fit conscious requirements of continuity and linear causality. (op. cit.: 28-9 – my emphases)

I find myself relating this description to that of ‘the body as an intelligent instrument.’ Rumi’s poetic notion of the body as an astrolabe; an instrument once employed to measure the altitude of celestial bodies; a means of navigation, for calculating latitudes. Developing this analogy, the ‘instrument’ of the body, with its proprioceptive, spatiotemporal acumen, gauges where it is, and how it is within its location, and throughout its ‘navigation’. As, by Massumi’s description, a sensing “resonating vessel,” (op. cit.) the body will understand resonances; will have the capacity to be cognisant of ‘soundings,’ and know where it is. The “where” perhaps, in the sense of heidegger’s “place oriented way of thinking” (Malpas, 2006: 32), of being somewhere, of Being There (Dasein). Where the notion of topos (place) signifies allusions to a consciousness of situation, location, and of a sense of intimate, cognisant dialogue with “origin,” which, in Heidegger’s usage, “almost always refers to the notion of ‘ground,’ as that which determines…rather than…nostalgic desire” (op. cit.: 56 – my italics).

And Being there; seeing what’s there, being cognisant of what’s there, might I would speculate, involve a crucial absence – of something being taken away. It may, as related, be the absence of good health; “breakdowns reveal more about [a systems’] effective operation than our descriptions of them when they operate normally” (Maturana & Varela, 1992: 97). It may be the absence of sense. For example, with the audio work, cogito err sum, where the removal of (most of) the comprehensible sense in conversations, by distilling the in-between of what was intended; a quite distinctly ‘truthful’ abstracted expression of the tenor, and the interactive dynamics of these exchanges was revealed. With Alvin Lucier’s I am sitting in a room, the absence of “comperserly” musicianship, and the absence of comprehensible form and structure transports a “simple declarative sentence…from the domain of language to that of harmony” (Collins, 1990). And, most significantly perhaps, profoundly altered (arguably clarified) ways of ‘seeing’ can ensue from the loss of a sense. Deaf
musicians, composers, and poets for example, advancing with their art via their personal ‘tuning’ into the bodily-felt dynamics of sonic resonances. And the loss of sight can bring about transformative developments in ways of perceiving and understanding. Oliver Sacks (Howes, 2005) discusses several such cases in *Empire of the Senses* (op. cit.), one of which tells the story of author, and former professor of religious education, John Hull. Hull gradually lost his sight over a considerable period of time, developing cataracts at the age of thirteen, and becoming completely blind at the age of forty-eight. Unusually, he lost the ability to imagine visual images, and entered into a state he called “‘deep blindness’” (op. cit.: 26). Although at first distressing, Hull apparently came to “regard this loss of visual imagery as a prerequisite for the full development, the heightening, of his other senses” (op. cit.). Sacks writes that:

In a profoundly religious way, and in language sometimes reminiscent of that of St. John of the Cross, Hull enters into this state, surrenders himself, with a sort of acquiescence and joy. And such ‘deep’ blindness he conceives as ‘an authentic and autonomous world, a place of its own…Being a whole-body seer is to be in one of the concentrated human conditions.’ (op. cit. – my emphasis)

With blindness, in many cases, the developed acuity of hearing, will be a pivotal factor to this altered perceptual emphasis. This would appear to be the case with blind mountaineer, Erik Weihenmeyer (O’Regan 2008 – Radio Broadcast), who describes a faculty of “echo location,” and explains: “when I’m listening, I can hear when I’m walking down a hallway and I can pass an open door, I can hear the open space through the door, versus the closed space in the hallway.” (op. cit.) More profoundly, Weihenmeyer explains how crucial a faculty this is in the mountains:

…listening for the rocks to my left or right, listening for the open spaces, the drop-offs on one side. On the summit you can hear the space moving forever, infinitely, it’s a really powerful sound…when I stand on top of summits, I mean it’s more like you’re standing in space. The only way I can describe it is it feels like you’ve been swallowed by sky, there’s sound vibrations that are being created by your movement, and those are moving through space, but they’re not bouncing off of anything and coming back at you, they’re just moving forever, and it’s this vast, infinite sound of space that is very, very humbling. (op. cit.)
IN THE END WAS THE MIDDLE – \textit{YES AND EVER SO}

It seems very significant to me, that, in the latter stages of this research, one of the ‘revelations’ has been this factor of \textit{absence}. With several key pieces of work in this project, an act of radical \textit{reduction} seemed to amount to the \textit{addition}, or the bringing forth of a \textit{presence}. I find it compelling therefore, to suggest some correlation between this development in my work, with the above descriptions. In itself, it is interesting to contemplate for a moment, the idea of; the experience of, ‘seeing’ more, perceiving more, through the absence of a sense that would normally be understood to perform that function. Further to this however, I think that this phenomenon raises other questions. What, for example, would the “whole-body seer” that John Hull describes, be seeing in his “‘authentic and autonomous world” – that “place of its own”? (Howes, 2005: 26) What does the blind mountaineer ‘see’ through that ‘echo-location’ – something beyond face value apparently. The term ‘sounding’ seems quite apt here.

In creative work, my conjecture has been that, the sensing body-mind, the “whole body seer,” if you will, is the primary reader of those ‘soundings,’ “of those underlying, or interweaving generative dynamics to creative thought and production.” But, further to this, \textit{reduction}, taking something away (sometimes the ‘sense’), seems to have been key in revealing in some way, a sense of that dynamical undercurrent; something I feel to have been the case with the work \textit{yes and ever so} (Fig.34). This was made as a corresponding piece to \textit{endless sentence}, and was significantly, exhibited alongside, and parallel to, the text of \textit{endless sentence}. The title \textit{Yes and ever so} is just a string of four words that are situated somewhere within the extract from \textit{endless sentence} that this piece features. This was a work in progress; it was a new departure; the last work to be produced in this project, and I wasn’t entirely clear about the ‘rationale’ behind this (semi) absence of the words that it represented. The act of my sitting and writing now, is part of the reflective process; a good enough reason perhaps for leaving this account until the end.

With, \textit{yes and ever so}, the words are both obscured, and legible. There is an emphasis on the ‘thingness,’ the actual shape of the “rattling flow.” Importantly, this method, of drawing around the words to form these ‘abstract’ shapes, derives from an activity
that I used to employ in special needs language work. This was used mainly to help children whose learning preference was to acquire knowledge of words by recognising their ‘shape.’ They would come to know words by how they looked, as things, as opposed to phonically decoding them. Interestingly, these were often children, whose haptic, spatial-kinaesthetic (bodily, sensory-perceptual) skills were quite developed.

And so this approach was very much about bringing that non-linguistic acumen into an active, meaningful relationship with word-based language – the non-linguistic/linguistic interface as described.

I can remember watching the children at work on these exercises, and feeling almost envious of how absorbed and engaged in this work they’d seemed to be. That simple process of just tracing lines around text appeared to be meaningful to them, and they would often develop and embellish their drawing with colour and pattern. As they attended to the qualitative features of these outlines and patterns, the word(s) that they worked around (and were learning), were largely absent from that attention, and yet very present as the source, or origin, of their activity. As I progressed, this was also to be the case with the making of yes and ever so.
At the outset, there was, surprisingly for me, a quite emotional edge to the act of writing down, and finally finding a place for these very personal words – with which I’d lived for some time. Increasingly however, formal concerns took over, almost entirely, but not quite. With there being so much of myself in these words, I felt it important to retain some legibility, and not to allow this content to just vaporise into abstraction, although it might be seen to have been heading that way (the work wasn’t quite concluded). That lack of conclusion was perhaps quite significant.

I’d seemed to have returned once again to this horizontality of representation; this (‘rattling’) flow of apparently anonymous ‘continuum stuff’ rippling along that “infinite horizon.” In this case however (unlike in past work), here was distinctively personal material which had, through the living of my life it seems, formed in its differentiated state, out of that “amorphous stuff” of the continuum (Eco, 1999: 52), ‘from whence it came’ perhaps. To reiterate Umberto Eco’s notion on this matter; “amorphous stuff,” which is “content…carved out and organized in different forms by different cultures (and languages); “amorphous” until:

language has carried out its vivisection of it, which we will call the continuum of the content, all that may be experienced, said, and thought: the infinite horizon, if you will, of that which is, has been, and will be, out of necessity and contingency. (op. cit.)
For me, this implies that ‘in the end,’ it “all” ultimately (or cyclically) relinquishes that ‘post-vivisection’ differentiation, and slides back into the amorphous, undifferentiated “infinite horizon” of the continuum, but who knows.

Questions of beginnings, middles, and endings persist here; cyclic returns to former points of departure, and so on. It may then be apt to conclude with this account of yes and ever so. That is, with a piece that, for me, speaks as much about where things are heading, as it does of where it’s all come from. A piece, still (if ever) to be concluded, and which is formed of an abstraction of lines of words, from the ‘middle’ of a work (endless sentence), that, by definition, cannot be concluded, and that ‘began’ in its ‘middle.’ And so it continues.
Figure 37, *leaving the house*, acrylic on board, 36 x 140 cm, 2005-8

Figure 38, *untitled ‘cell drawing’* (detail), pencil, charcoal, pastel on board, 40 x 55 cm (overall dimensions), 2005-8
Figure 39, installation view: *WHAT IT’SLIKEITIS* (exhibition component to PhD submission, *Physical Thinking: the body in the mind of creativity and cognition*), various dimensions, Next Gallery, Southern Cross University, 2008

Figure 40, installation view, *WHAT IT’SLIKEITIS* (exhibition component to PhD submission, *Physical Thinking: the body in the mind of creativity and cognition*), various dimensions, Next Gallery, Southern Cross University, 2008
Figure 41, installation view: *WHAT IT'S LIKE IT IS* (exhibition component to PhD submission, *Physical Thinking: the body in the mind of creativity and cognition*), various dimensions, Next Gallery, Southern Cross University, 2008

Figure 42, *yes and ever so* (with *endless sentence* below) and *wordforming 1 & 2* (left), various dimensions, 2004-8
Figure 43, *Pol and Pam Pot*, inkjet print (from original pencil drawing),
11 x 17 cm, 2005/8

Figure 44, *the unbearable lightness of being*, inkjet print (from original pencil drawing),
11 x 18 cm, 2005/8
Figure 45, *leaving the house* (detail), acrylic on board,
(overall dimensions) 36 x 140 cm, 2005-8
BIBLIOGRAPHY


