The Reversible Eschatology of Arakawa and Gins

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The increasing violence and destruction in the world – physical, ecological, economic, social and emotional – are all a product of our present modes of thought. If the cruelty is to end, our concepts must change. Since our concepts are physically encoded in the brain and grounded in the body, our brains and bodies must change. If art is to play a role for the good, it must disrupt our concepts, our normal ways of functioning – our brains and our bodies ... Moreover art as disruption on a large enough scale will be sufficient to reverse our destiny. (Lakoff 1997: 120)

... so much fiddling while Rome burns. (Gins and Arakawa 2002: xvi)

My relationship to Arakawa and Gins work has been one of applying their multifaceted project to site-specific contexts for which reversible destiny, as both a concept and practice, are more than required. My studies have included research into the application of reversible destiny architecture as a means to avoid the imminent dementia epidemic facing Western developed countries (Hughes 2005); a redirection of Arakawa and Gins' *Making Dying Illegal* (2006) from outlawing individual mortality through senescent decline, but unnecessary and avoidable death caused by disease, famine and war (Hughes 2008); and more recently, as a way of redirecting the species away from its role as a terminal entropy generator *par excellence* (Hughes 2010). It is this latter focus that is the core concern of my doctoral research (Hughes 2011) and this paper.

I frame anthropogenic entropy generation, and the need to reverse this destiny, via what I call the 'biopolitical paradox'. The ageing of the Baby Boomer demographic bulge in Western developed countries, coupled with the biopolitical withdrawal of state responsibility for the care of this population in an era of rapidly developing biotechnological potential, produces a newly emergent biopolitical context I call 'Immortalist Biopolitics'. Here perennially ageing, resource-dependent populations become the intensively quintessential expression of 'unlimited' economic growth within what is increasingly recognised as a 'finite' biospheric context. Given the as yet nascent - yet much promised - 'Biopolitics of the Biosphere' (the globally unified response to the convergent biospheric crisis of overpopulation, resource depletion, global warming and species extinction) this paradox threatens the tenability of the species beyond this "critical century" (Rees 2007). I seek to theorise ways with which to suture this paradox, and not through the inertia of 'top down' institutional authority that has and arguably will continue to fail to make the necessary transformation required, but rather, target - as do contemporary biopolitical interventions - the individual 'self'. Argued here as the agent most capable of making transformative change toward a "futuring" (Fry 2009) condition, I seek to instantiate this futuring self using approaches from contemporary art and design theory and practice, predominantly the work of Arakawa and Gins.

Though Arakawa and Gins' work has not been designed specifically to address these problems, my argument is that their prescience, evident from their preemption of developments in a number of disciplinary domains (Rosenberg 2010), extends to offer visionary insights into the nature of, and the potential solutions to, the problem anthropogenic entropy generation. Redirecting their architectural and heuristic 'procedures' accordingly, I will here suggest that Arakawa and Gins' innovative methods invite us to question the relationship of ourselves to ourselves, to others and to our environmental 'surround' in ways that are co-extensive and co-constructively regenerative, and whose relevance extends from the way we come to understand and manipulate the genetic and molecular

intricacies of our increasingly 'synthetic biology', to the geo-engineering of the upper-most limits of the biosphere itself.

Who or what are we as this species? Puzzle creatures to ourselves, we are visitations of inexplicability. What is in fact the case? We must surely go to all possible lengths to find out what we exist in regard to. (Gins and Arakawa 2002: xii)

Contrary to the common practice of solving in concrete terms the ontological mystery of what our species is, Arakawa and Gins do not seek to posit an abstract scheme or knowledge with which to 'know' our species, rather, it is the very uncertainty of our being that they embrace as its definitive guiding principle. Arakawa and Gins immersive environments transport the cognitive body into a laboratory of self/world examination. My-self and others preceding me have analyzed the synergic relationship between Arakawa and Gins work and the emergent cognitive hypothesis from the discipline of cognitive science (Kawamoto 2002, Rosenberg 2002, Hughes 2006). Here cognition, consciousness and perception are understood as the result of the spontaneous emergence between the brain, the embodied sensorium and environmental stimuli external to the epidermal surface of the body (Varela, Thomson and Rosch 1991). Arakawa and Gins architectural procedures, predicated as they are on the notion that we are "puzzle creatures" to ourselves, recasts their vision for the species from this contradictory platform of uncertainty, and draw attention to the malleable nature of the cognitive body (formerly the concrete, eternal, rational 'I') and how its evolutionary impetus can be accessed, augmented and ultimately accelerated through architecture. The arguments I will be making here, however, suggest that such transformative potentials may have to be accessed *independently* of the architectural context they propose.

Arakawa and Gins request: "We ask only that enormous sums of money be spent on constructing the world as a tactically posed surrounding for the benefit of the body" (2002: xix). Though improbable given the chronic rates of resource depletion and rapid global warming that limit both the material and the time resources with which to undertake such a venture, the potential for reversible destiny residences or pedagogical spaces to be built as centres of learning

embodied cognition and communal devising do exist to a limited degree, as does the potential to accordingly retrofit the existing built environment. However, given the urgency that confronts our species to make transformative change swiftly, I believe a more accessible, quick-fire, pop-up emergency architectural body is required, capable of catalyzing the transformative potential they speak of, without actually building anything at all. The procedure required to understand this remarkable possibility is to re-examine *Architectural Body*, mindful ('embodiedmindful') of what reversible destiny might really mean in context of the challenges to be faced in the 21st century.

Organism that Persons

Gins and Arakawa argue that the historical construction of the human as the singular subjective sovereign 'I' inhibits the body's ability to explore and know it's self. As they state: "Terms such as *ego*, *consciousness* and *psyche*, losing the body as they do, lack those air passages through which the body draws in atmospheric wherewithal" (2002: 2). Gins and Arakawa's re-naming endeavor serves to pry apart the narrow conception of the historically embedded human by labeling its operative basis an unfinished product:

We have adopted the admittedly clumsy term "organism that persons" because it portrays persons as being intermittent and transitory outcomes rather than honest-to-goodness entities. (2002: 2)

By preceding 'person' with 'organism', Gins and Arakawa de-privilege the cultural construction of the 'I' that has subsumed the organism from which it came; that is, they posit the cognitive body as a biological entity prior to the cultural construction of it as a person, the abstract, fixed, teleological (and terminal) subject that seeks to *know* in reductive, conclusive and unequivocal terms, above all else, what that person 'is'. As they state:

Insensitive to its own immediate needs, to the nature of itself as the central problem, our species – mostly represented by those who speak the loudest for the longest – is so unboundedly proud of

having built the cart that it permanently and in an ongoing fit of mad harnessing, features it before the horse. The horse: the animate. The cart: culture, be it modern or postmodern. (2002: xvii)

The organism that persons is one of Arakawa and Gins many and varied neologistic naming tendencies or 'terminological junctions' (itself a neologism that is an example of what it represents) that reconstruct language for the purpose of yielding something else from it. If reality is contingent upon the language we use to bring it into being, where fact is the past tense of the fiction that creates it (Haraway 1998: 69), reworking language indeed remakes the world. Arakawa and Gins understand that the language we use can become too "habitual," what Jondi Keane identifies in their work as one of the three "monorails of homeostasis" (2006: 161) that along with "agency" and "groundedness," colonize and constrain conceptual and corporeal (cognitive) possibility. Terminological junctions such as the organism that persons disrupt the taken for granted phrases, "the words of the tribe" (Lecercle 2006: 11) by hybridizing, twisting, counter-posing and joining contradictory terms to agitate the pre-determined, colonizing tendency of language toward reiterative, reductive ends. It is precisely through such destabilizations that Arakawa and Gins re-program the category of not only the person, but also the world, thereby opening up the possibility for it to become an undesignated 'X'. Importantly, they do not in any way indicate what this 'X' is. They allow 'X' to emerge by taking a course that doesn't 'arrive' anywhere, nor produce quantifiable 'outcomes' or meet key performance 'indicators' - the Death Sentence (2003) of 'management speak'. What Arakawa and Gins seek to do via the reconstruction of language is produce a new kind of subjectivity, possibly a multiplicity, whose ontological being is generated, first and foremost, in its linguistic interaction with (giving and receiving) the world. How Arakawa and Gins propose to orientate, steer or guide that newfound subjectivity/multiplicity as an anti-teleological, open ended process toward an undesignated 'X', is through a similar reworking of the components, steps or moments of ontological experience they interpret epistemologically as "landing sites."

Landing Sites

Landing sites are used by Gins and Arakawa to describe the way attention operates and to simultaneously map the way these attentions come to know themselves and situate the body, albeit tentatively, within an environment. The production of landing site configurations enable organisms that person the ability to be mindful of the way awareness is distributed in order to: "gain perspective on human functioning and separate out its component factors ... kinaesthetically, tactilely, visually, orally, olfactorily, and gustatorily all at once" (2002: 13). Landing sites operate on three levels or scales that are singular to themselves yet also overlap simultaneously, slipping seamlessly into and out of each another. These are "perceptual," "imaging" and "dimensionalising" landing sites.

Gins and Arakawa state that a perceptual landing site: "lands narrowly as an immediate and direct response to a probable existent, a bit of reporting on what presents itself" (2002: 7). Perceptual landing sites are what grab attention in the immediate; the object in front of you, the text on a page, the nearness of anything that is so proximate as to be right there in the here and now. Conversely an imaging landing site: "lands widely and in an un pin pointing way, dancing attendance on the perceptual landing site, responding indirectly and diffusedly to whatever the latter leaves unprocessed" (2002: 8). Imaging landing sites can be thought of as the next stage away from the perceptual, what's happening later in the day, what's going on just around the corner, what you can feel but can't see, the not quite here and now but getting there as the pre-cursor to the perceptual. A dimensionalising landing site is quite different from the imaging and perceptual landing sites, as it loosens and widens its cast of attention to draw in the bigger picture so to speak, even if the elements thereof are imperceptible in form and substance:

A dimensionalising landing site registers location and position relative to the body. Building, assessing, and reading volume and dimension, dimensionalising landing sites "engineer" depth and effect the siting of environment. (2002: 21)

The dimensionalising category of landing sites is of most importance to my purposes here, for it most accurately describes the way we come to engage with the looming specter of chronic overpopulation, resource depletion, global warming and species extinction. Dimensionalising describes how we can relate to these events and, given the consequences of not doing anything about it, understand the co-extensive nature of our actions as they are instantiated in the here and now. Dimensionalising landing sites articulate the broader context within which organism persons are situated as temporally extended beings with a past - but more importantly a future - that urgently needs to be re-constructed ideologically, etymologically and architecturally. In this sense, what is important to all three landing site configurations are not only the ways in which we land on them but in turn, once landed, the way upon which we *launch* from them. Here, a landing site becomes correspondingly a 'launching pad', and given the tentativeness that is the hallmark of Arakawa and Gins work, make the two landing and launching - a synonymous activity. You can never rest for too long on a landing site, nor relax from the tentative state that put you there in the first instance, meaning that a landing site is a pace for fleeting re-assessment before the next move or 'leap'.

Gins and Arakawa use landing site configurations as the basis for the construction of their tactically-posed architectural surrounds. Yet landing sites also operate independently of having to have a tailor-made, tactically-posed architectural surround to bring them into being. They are indeed everywhere, constituting the everyday lived contingencies of our most rudimentary and basic operations. As Gins and Arakawa suggest, independent of a tactically posed architecture to bring them into being, "A landing-site configuration can, then, be thought of as a heuristic device with which to leaf through the universe, never mind that is unpaginated" (2002: 9).

Important to Gins and Arakawa's concept of landing sites are the way they describe a "Neutral Zone of Emphasis" (2002: 22), which describes how 'tentativeness' is primary to the negation of teleological fixity:

A neutral stance asks that non-resolvable issues be kept on hold – fluidity and flexibility on hold – right out there in the world where they occur; it asks as well that they be held open and made to open still further to yield additional information about what is at issue. (22)

For Arakawa and Gins it is integral that the organism that persons is constantly at the ready to shift, mutate and or reconfigure to the changing coordinates of the environmental surround to which it is subject. In an Arakawa and Gins tactically-posed environment, the active, forever at the ready body, cannot help but be such as it is subjected to a series of kinaesthetic, tactile, visual, oral, olfactory, and gustatorial cues embedded in the walls, floors and ceiling. Contrary to this, what I am seeking to explore is how landing sites operate as a heuristic device for understanding the world *as it is.* It is through the heuristic instruction of landing site awareness that we are delivered the ability to be cognizant in a variety of ways of the what, why and how we do what we do and this is the first step in shifting the habits through which we, conversely, 'tactically engage' our built environment. The best place to begin to understand how this can happen is through an examination of what constitutes 'architectural surround'.

Architectural Surround

As stated Gins and Arakawa's foray into architecture has been their means of accessing the transformational potentials of the emergent cognitive hypothesis. First, however, we have to recognize the limitations imposed upon the cognitive body by the status quo, reinforced by an architecture whose historical legacy comes from a culture building 'monuments' or 'tombs' for the dead: "Let our species cease being stunned into silence and passivity, into defeatism, by a formal architecture that seems so accomplished but that leads nowhere" (2002: 39). The architecture that Gins and Arakawa build calls forth from the organism that persons all that it is capable of: they build questions into their architecture that consider the wider context into which the organism that persons is situated. As they ask:

In what respects and how variegatedly do physical surroundings invite bodily action? How far out into the environment does an organism that persons extend? To what extent do surroundings influence thoughts and actions? (2002: 40)

These questions force user participants to confront the relationship between themselves and both their immediate surrounds *and*, specific to my purposes here, the environment that extends beyond the walls to include the biosphere, or as they neologise it 'bioscleave'. In this sense, their architectural practice can direct or even "redirect" (Fry 2009) questions and inquisitions orientated toward particular areas of focus. Beyond the role of questioning, however, these surrounds concomitantly invite action:

Preexisting those who enter them, architectural surrounds stand as elaborately structured pretexts for action ... Organisms that person need to construct their hypotheses and enter them, surrounding themselves with ordered presentations of their suppositions. Our claim: architecture can help a person figure herself out. (Gins and Arakawa 2002: 41-44)

In an Arakawa and Gins architectural surround, though questions are posed, considerations mandated and actions invited, the prescribed answers or 'outcomes' normally associated with such learning experiences are missing. Here Gins, and Arakawa are preoccupied with setting up the conditions for an unknown transformation, for an undesignated 'X' to emerge. Though they are fond of positioning 'not dying' as a worthy limit (itself etymologically defying a limit), they do this by positing the world and everything in it, beginning with the self, as "a tentative constructing toward a holding in place":

Everything begins for these organisms with a tentative constructing toward a holding in place. The environmental communal, which has everything to do with how an organism persons, can, when reworked in a concerted manner, lead to a person being able to supersede themselves. (2002: 47)

As stated, Gins and Arakawa are adamant that: "enormous sums of money be spent on constructing the world as a tactically posed surrounding for the benefit of the body" (2002: xix), which presumably would also include labor and

material resources. Given the constraints imposed upon these best intentions by the converging crises of overpopulation, resource depletion, global warming and species extinction, I return now to the question of how else might the transformational potentials claimed in the architectural body hypothesis be enacted, and in a way that does not demand vast sums of money, resources and what the species is most running out of - time - to produce it? Could it be that everything we need, tentatively, is already here, and that transforming ourselves within it is merely a case of re-interpreting or 'reading' the surrounds differently, in a way that "procedurally" re-invents the organism that persons as it moves through a biotopology (Arakawa and Gins 2006) of pre-existing landing sites?

Procedural Architecture

Arakawa and Gins neologise "bioscleave" to describe 'biosphere', primarily because it overcomes, through the notion of cleaving, the nature/artifice distinction that is an historical legacy of "procedural knowing." Unlike biosphere which 'describes' the mere 'zone' of life, bioscleave is a verb, an active doing word suggestive of something in motion, the dynamism inherent in the act of reciprocity, where to cleave is to be cleaved to, and so on. Cleaving in this sense suggests that biosphere is palpable, graspable and malleable, co-constructable like Escher's hands drawing, where the organism that persons *is* an act of reciprocation with its environment; one producing the other as a mutually integrated, operative dynamic whole. As Gins and Arakawa state, bioscleave further denotes the co-extensive nature of this cleaving:

... embodied mind, a current way of referring to mind or awareness so as to give body its due, extends out beyond the body proper into the architectural surround; the surrounding bioscleave needs to be weighed in as part of awareness's body. This hypothesis would have us never forget that we are babies of bioscleave and are therefore only comprehensible (to ourselves) in terms of it. (2002: 51)

Gins and Arakawa's term "procedural knowing" (2002: 52) describes how the historical legacies that comprise the status quo are maintained. Like the models

of 'learned helplessness' in the discipline of psychology, procedural knowing is wrought in the habitual momentum of tradition forged by a psychology where: "Nobody wants to be caught not getting the '"real"' straight" (xiv). Thus the status quo further entrenches itself, institutes itself (de Certeau 1986) as the sole agent of the real, imposing artificially abstracted limitations on organisms that person. Arakawa and Gins use procedural architecture to undo the autonomous process of repeating or reiterating procedural knowing by forcing the organism that persons to examine the operations and processes of life as a tentative, moment by moment sequence that, when understood as such, can be procedurally re-worked.

According to Gins and Arakawa, the world as it is, and why it fails us in the form of own mortality, is due to what they identify as "procedurally insufficient bioscleave" (2002: 95); that is, a world that has not had the necessary procedures inserted into it to orientate our own lives toward an openly ongoing end. However, there are limitations to this formula. Arakawa and Gins have not stipulated anywhere near enough the extent of the reciprocity implicit in their idea of 'procedural sufficiency'. For, though we may aspire to sustain ourselves indefinitely using bioscleave, first and foremost we surely need to identify our own lack of procedural awareness for learning to sustain - what it is that sustains us? It is at this point that I deviate from Gins and Arakawa's core trajectories, for although I share their call for a "crisis ethics" (2002: xviii), I baulk at the obsessive preoccupation with overcoming individual mortality, displacing this instead with the more pressing concern of the species mortality as a whole as the 'outcome' or teleology of procedural knowing and doing. If the ongoing solution to death, be it of the individual or of the species, is through the re-proceduring of bioscleave, then that has to happen first by derailing procedural knowing. Arakawa and Gins believe that the best course of action is to build architectural environments that communities of people can live in and learn from. The question I instead seek, is whether such a disruption can occur *independent* of the wide scale building of tactically-posed, architectural surrounds? I believe it can, partially, through the construction not of architecture, but the language that precedes it. As Jean-Jacques Lecercle explains:

It is clear that language is a red thread in Arakawa and Gins philosophy ... the word is the predecessor of the architectural procedure, tactically posed surrounds are phrases and sentences, their sequences propositions, (are) complete with logical connectives, or "three-dimensional THEREFORES, BUTs, ORs, ANDs and built-up WHATEVERS" ... (2006: 15)

The architectural body is a built discourse, first and foremost a philosophy based upon the construction of language that brings it into being. For Arakawa and Gins, it is the body's proximity to architecture that is the site of transformational change-making, yet all architecture is the built discourse or the material manifestation of the language that pre-cedes it. This being the case, cannot language too become a primary site of intervention, where words and the world meet? Madeline Gins suggests that reading a text is not merely an intellectual exercise of the mind, but a co-extensive, embodied process (1994: 12). In this context, is there not a way in which Arakawa and Gins reversible destiny project can be read, thought and communicated into existence, apportioned out into the world from the thought that brings it into being? Gins and Arakawa argue that the architectural body is not a practice to be undertaken in isolation, rather it is a community-wide collaborative initiative (2002: 61) with which to tie the frayed and loose threads of the species together, constituting not a noose (in the sense of other utopian projects, such as Marx and Nietzsche's philosophy) but an open ended rope (Byrd 2010). Ironically, paradoxically, this communal devising is at one and the same time a freedom to explore the endless idiosyncrasy of the self:

What is preventing us from inventing ourselves further? The answer comes quickly; the species has not yet learned how to have its members pull together at the same time as they continue to form themselves as separate individuals. (Gins and Arakawa, 2002: xi)

The architectural body of Arakawa and Gins can only be enacted as a community-wide project, if forged on the basis that it permits a freedom for its constituent members to explore organisming personing independent of - or 'deregulated' from - other organisms that person. Here the shared common ground, the binding rope of the communal is 'freedom'. To float a hypothesis here: If the architectural surround is composed of 'free' individuals that inhabit

it, can it be said that the individuals ourselves are as much a part of the environmental surround as the built, exosomatic environment itself? If architecture can change to effectively change the way organisms that person live, then by that logic so too can organisms that person *as architecture*, change to effect the way the environmental surround is experienced as an 'embodied', 'sensorially charged' space? I believe we can, by beginning with the way Arakawa and Gins reinvent language. Citing Lecercle again:

But this intricate relation between the reversible destiny project and language goes further. Reinventing language means actually doing violence to it in order to renew it; it means not only inventing a new language (for which this might be simply a new architectural or philosophical jargon) but *eventing* language. (2006: 15)

Browsing Arakawa and Gins book titles provides a stark reminder of their obsession for linguistic violence: *Reversible Destiny: We Have Decided Not to Die* (1997), *Making Dying Illegal* (2006), *Alive Forever Not If but When* (2011). Here titles stand for "events" (Lecercle 2006) that forge into the moment of the everyday the possibility of contemplating the impossible, which has the effect of rupturing but for an instant (albeit in a state of shock, horror, and/or outrage and ridicule) our taken for granted assumption of the 'is'. Such violence to established, habitual, "procedurally known" linguistic protocol opens a space of contemplation, if only momentarily, that forces a reconsideration of what our beliefs or expectations are and/or possibly could be.

At the first international conference dedicated to Arakawa and Gins work I made the suggestion that the reversible destiny project should concern itself with "inviting the architectural body into everyday lived experience" (Hughes 2005). However, to reinterpret that ambition as partially achievable through the liquid operations of the language that we communicate everyday makes this a less intimidating and more approachable task. The information revolution of the late twentieth century signaled a shift in the way language and communication can become powerfully viral, amplifying the capacity of "memes" (Dawkins, 1976) to take hold and mutate in their own abstract version of natural selection. In the 21st century these information networks are growing, complexifying and accelerating

exponentially, to the point where they are converging digitally with biology making life itself a construct of genetic code or molecular 'information' (Rose 2001). The concept of 'coordinology' invented by Arakawa and Gins is necessary to aid in the engagement with these forever complexifying, aleatory elements of our architectural surround.

Coordinology

Arakawa and Gins use coordinology as the linking process to skillfully address the way the cognitive body holds several things 'on the go' at once. Like a juggling technique, coordinology holds multiple scales of attention simultaneously, enabling a perspective from which to translate information and meaning analogously across many attentions, actions, practices and 'disciplinary' domains. Gins and Arakawa define it as: "Not a series of actions taken on this scale of action or that but the coordinating of several scales of action makes a person able to construct a world" (2002: 63). The transformative potential of the architectural body/embodied mind hypothesis begins with the ability to practise world construction. However, to return to the core question of this paper, can this be done without actually physically 'constructing' something, such as a labor - and resource - intensive work of architecture in which to do so? Consider this:

Until a significant number of tactically posed surrounds are in use, the architectural body we hypothesize to exist cannot but make itself scarce. It will be hard to come by except as a heuristic device. Architectural bodies do exist outright in surroundings that are not tactically posed. (Gins and Arakawa, 2002: 64)

Hard to come by does not mean outright impossible, and in the spirit of the agents of the impossible that Arakawa and Gins are I propose that given the mandate to construct a future from a position of limited resource, to "do a lot more with a lot less" (Christoff 2009), a heuristic device such as the art of coordinology is the method by which 'more with less' can be done. Coordinology mediates the relationship between the cognitive body and the world, and as a heuristic device can help facilitate the reciprocity between the two as a co-

constructive, emergent process. Gins and Arakawa understand this reciprocity as such:

We speak of an architectural body, rather than an architectural field or an architectural context simply because, to begin with, what we want to describe originates from and joins up with the physical body. Think of the body proper as lending some of its body to the architectural surround, which, in turn, lends some of what characterizes it as architectural to the body proper. (2002: 68)

According to this definition 'bodies', are the most dynamic element, the primary "reckonable resource" (Glazebrook 2010: 2) or building blocks of the architectural surround, both as the creators of architecture, but more importantly, as the architecture itself. The answer, if we are looking for one, has been right in front of, if not under, behind and above our noses all this time. In a world of diminishing resources, the one thing we do have in ever growing abundance is ourselves. If tactically-posed surrounds need to be constantly changing (a problem with their buildings because they don't move and thus become familiar over time, hence the need to build enormous structures such as hotels and cities so that spatially one cannot grow accustomed to them) can this instead be achieved through the co-construction of actual (architectural) bodies, which are both collectively and alone the most dynamic element within the architectural surround? This can happen I believe, as we begin to envision architecture as the "critical holder" of ourselves.

Critical Holder

Transformation happens through the process of what Gins and Arakawa define as 'accumulation', how what comes to form the world is received and in turn rearranged as an act of reciprocity:

The way that the body holds itself, the many ways it holds itself, on many different scales of action, and the way it holds the world is cumulative. All the holdings you have experienced, all the holding of you and by you, moves within and through your holding of yourself and has a part in your holding onto something. (2002: 83)

This sense of an interconnected holding/being held collapses any distinction between the body, the architecture that houses it and the biosphere (bioscleave) that predicates its existence, necessarily dissolving any conceptual demarcation between 'nature' and 'artifice', or 'organism that persons' and 'bioscleave'. In the context of the biopolitical paradox, Gins and Arakawa point out: "In the twentyfirst century, philosophers need to construct the conditions what will cause answers to be forthcoming" (2002: 88). Interesting to note in this passage is how constructing "the conditions" can also mean simply constructing the conditions of interpretation, of figuring new ways of doing the same things in the same spaces. In light of the popularity of deconstruction as an interpretative practice in the latter half of the twentieth century, so too is re-construction possible through a hermeneutic, interpretative re-arrangement of the shape of awareness, made available through the heuristic thought procedures of Arakawa and Gins. This can translate into the shifting of habits from the way we use resources to the expectations we have as consumers and concomitantly, reciprocally, harvesters and/or producers of those resources. Arakawa and Gins hermeneutic approach to leafing through the world enables a starting point to begin thinking the (re) construction (again, albeit differently) of the (emergent) conditions for life, where every 'thing' becomes reconsidered, reusable, recyclable and redirected (Fry 2009). Here, everything is useful - nothing is thrown away. Indeed, a place where no such thing as 'nothing' exists.

The "holding" described by Arakawa and Gins is critical in more sense than one, for we can't help but hold the architectural surround (that being architecture and environment - bioscleave) that holds us, albeit what is a very tenuous holding given the consequences of the way it has been historically held. Holding is a reciprocal relationship where the way the organism that persons holds, is returned or reciprocated by way of how it is held. All too often the organism that persons, occupying the somnambulistic space of the procedurally known, acts unwittingly and holds poorly, holding as it and previous members of it have always held. This is due also in part to the way bioscleave holds back, already compromised and corrupted by the historical legacy of neglectful, care-less holding. So, there is a great deal of inertia, the momentum of monoculture, of

procedural knowing and doing that appears impossible to derail. Gins and Arakawa seem to suggest that it is by deregulating our-selves from as many forms of indifferentiation, of institutionalization as possible, we can break the historical legacy of systemically embedded "procedural knowing." To reiterate:

What is preventing us from inventing ourselves further? The answer comes quickly; the species has not yet learned how to have its members pull together at the same time as they continue to form themselves as separate individuals. (2002: xi)

Deregulation *from each other* delivers the self the opportunity to act responsibly *and* with authority, which I argue we as individuals currently cannot (or fail to) do because we perceive the problem as too large and beyond anything but the omnipotence of governmental and institutional bodies to influence. I believe this is the result of cultural conditioning, of a learned helplessness produced by subservience to institutional arrangements, where all ethics and agency are displaced by the aphorism that 'it's under control'. How to untangle ourselves from the inertia and complacency wrought in the habitual, how to learn to 'unlearn' the procedurally known, to become 'embodiedmindful' of the many dimensions of landing site awareness required of each and every one of us to construct a future, is all in day's work.

Daily Research

The researcher in residence, practising the art of being one of the many bodies of an architectural body, attains transformational capability by researching daily the operations of what makes the body, individual and species alike, tick. My doctoral research describes the way subject-hood in the 21st century is increasingly understood as a construct of information, a product of the emergent genomic and molecular technologies that now come to define it (Rose 2001, Rabinow and Rose 2003, Waldby 2005, Neilson 2006). In light of the advent of synthetic biology, where whole new biological organisms can now be constructed from biological 'bits' or "BioBricks," a practice that is actively evolving as an open source, 'Do It Yourself' (DIY) cultural phenomenon, I argue that the emergent 'molecular' subject will not only begin to engineer biology

itself as a form of autonomous liberalism (Roosth 2010: 129), but will, as the mandate of Immortalist Biopolitics dictates, ultimately use the self as the *object* of experimentation. I believe it is here, at this site of convergence between the sophistication of informational and biological technology against the catastrophic climate variables we have set in motion, that will be the ongoing process, the practice of "daily research" where "puzzle creatures" who to themselves by necessity must explore, as an end-less process of questioning and experimentation, "who or what we are as a species" (xii), and just as importantly, what this species 'is' in relation 'to'?

Using synthetic biology the self becomes molecularly deregulated, yet remains inextricably connected to the co-extensive process of biological construction that 'extends' in all directions everywhere. The deregulation of the *synthetic organism that persons* is I believe the most qualified person for the job of future creation, both of itself *and* necessarily the species, precisely because its idiosyncratic interface with the world is the essential ingredient necessary for the cultivation of difference, diversity and complexity, which cybernetic information theory tells are the antidotes to entropic decay (Hayles 1999: 78). As biological artist Eduardo Kac suggests, it is our duty as artists (crisis ethicists) to "... increase global biodiversity by inventing new life forms" (2008: 1). Using Arakawa and Gins' heuristic procedures, the construction of subjectivity implicit in DIY synthetic biology, can occur not as a teleological destiny to be fulfilled but a moment to moment, anti-teleological process of 'daily' experimentation and discovery without end, where information can become language can become discourse and maybe even poetry.

Conclusion

Since the world is not merely given but is constructed by the activity of the subject, the recoding of the I is the recreation of the world. (Gins 1994: 251)

My intention has been to address the multiple and compound crisis' that confronts our species this century. I believe that Arakawa and Gins offer a valuable and essential means of moving towards this, using the deregulation of

the self as the quintessential act of recoding the I. Deregulation enables the reinvention of our species by allowing us pull together under a common purpose, precisely because it lets ourselves form, unfettered, "as separate individuals" (Gins and Arakawa 2002: xi). Through difference, diversity and complexity we are offered the best shot for success against the ravages of monocultural entropy generation. The exploration and amplification of our unique individual idiosyncrasy to the *nth degree*, is the most viable means of constructing the conditions capable of doing this. The glue that binds such endeavours together, the "communal purpose" of the species sought by Gins and Arakawa (2002: xxi), is the 'freedom' enabled by deregulation for each and every one of us to act responsibly and design a future from the position where "it can no longer be assumed that we, *en masse*, have a future" (Fry 2009: 1). If radical problems call for equally - if not more radical solutions - who can really say for sure how far into the future Arakawa and Gins prescience may extend?

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