Situating Situatedness through *Æffect* and the Architectural Body of Arakawa and Gins

Jondi Keane
Griffith University

This paper explores the situated body by briefly surveying the historical studies of effect and of affect which converge in current work on attention. This common approach to the situated body through attention prompted the coining of a more inclusive term, Æffect, *to indicate the situated body's mode of observation. Examples from the work of artist-turned-architects, Arakawa and Gins, will be discussed to show how architectural environments can act as heuristic tools that allow the situated body to research its own conditions. Rather than isolating effect from affect, observer from subject, organism from environment, Arakawa and Gins' work optimises the use of situated complexity in the study of the site of person. By constructing surrounding in which to observe and learn about the shape of awareness, their procedural architecture suggests ways in which the interaction of top-down conceptual knowledge and bottom-up perceptual learning may construct possibilities in emergent rather than programmatic ways.*

In order to render the situated body an adequate value for studies of the body, it is crucial to examine the way *situatedness* is observed and measured by diverse research approaches within and across the arts and sciences. This paper discusses the historical context that has led to the emergence of studies of effect and affect, and offers an approach for an expanded measure, *Æffect*, which attempts to heighten the relation between top-down conceptual processing and bottom-up perceptual learning. A more inclusive field of measure becomes useful when surveying current discourse on attention and the far-reaching implications of the written and built works of artists-turned-architects Arakawa and Gins, which posit an architectural body that reconfigures the identity boundaries of the organism-person-surround through a 'procedural architecture'.

Figure 1. The *architectural body* of Arakawa and Gins

By combining the logic of sense with the logic of sensation, it is possible to consider the methodologies

Janus Head, 9(2), 437-457.

of diverse research cultures as bodily practices and make inclusive readings of situated bodies. Arakawa and Gins not only accept this premise, but have been conducting collaborative research for 35 years on the convergent yet irreducible specificities and mechanisms of 'sited awareness'. Refusing the conceptual boundaries between affect and effect and observing the biotopological boundaries between organism-person-surround, they propose to change an 'organism that persons' into an 'architectural body' (Gins & Arakawa 2)

One of the first considerations to be addressed in order to facilitate a convergence of research activities is the (perceived) appropriation, or even theft, of scientific concepts by the arts and humanities. Only by rethinking the concept of measure can the one-way traffic of ideas from science to the arts become a two-way mutual exchange. Brian Massumi observes in *Parables for the Virtual* that, after concepts have been transplanted—for example, from the sciences to the arts—what remains is their connectability (Massumi 20). This begins to indicate the entirely different registers within which the two cultures approach concept and facticity, which frustrates many collaborative projects that cannot bridge the methodological divide. Whereas the conceptual separation of measures (represented by affect and effect) may be useful for the identification of an object of study by producing an observable value, it is detrimental to research that would coordinate modes of accumulating and constructing knowledge.

In their work, Arakawa and Gins coordinate diverse research across the sciences and between the arts and sciences in an effort to study consciousness and cognition as situated and distributed. For example, philosopher Ralph Ellis (xviii) suggests that the relationship of phenomenological experiencing of affect should be correlated with biological processes, bringing together strands of self-organisation and biochemistry with philosophy, psychology and neuroscience. Psychotherapist Eugene Gendlin proposes a first-person science akin to ecology and the study of complex processes that interconnects a science of subjective experiences with third-person science. Arakawa and Gins' collaborative work represents 'state of the art' transdisciplinary research that utilizes body-wide practices to explore perception, action and connectability. They suggest that disciplinary boundaries are not appropriate for or consistent with the dynamic lived-experience of interaction across the organism-person-surround:

> Research should no longer be done off to one side, in a school, a library or laboratory. Where one lives needs to become a laboratory

> for researching, for mapping directly, the living body itself, oneself as a world-forming inhabitant. (Gins & Arakawa xxi)

Arakawa and Gins practice what Basarab Nicolescu describes as the distinguishing feature of transdisciplinarity, which 'concerns the dynamics engendered by the action of several levels of Reality at once', in contrast to disciplinary research which is concerned with one and the same level of Reality. Transdisciplinarity attempts to overcome irreconcilable differences of discourse by applying the logic of one theory or system of measure to the elaboration of another without reducing one to the other. In his essay on Arakawa and Gins, Hideo Kawamoto recalls Neils Bohr's famous declaration regarding the indeterminability of reality (Kawamoto 85). Bohr's argument is that all facts and phenomena become reduced under the logical possibility that another reality exists. Consciousness proceeds through this process of reduction. Therefore, in principle, once a phenomenological reduction has been performed, reality has been excluded (Kawamoto 85). Arakawa and Gins take issue with the supposition that consciousness cannot be practised in any other way than through reduction. The study of affect and effect intersect when the arts and sciences turn their focus on attention, perception and action. It is also at this juncture (the study of attention) that Arakawa and Gins' research on 'landing sites' examines the way in which a person produces sited awareness and begins to understand him or herself as 'the mechanism of meaning' in order to reconfigure the relationships across the organism-person-surround through the invention of architectural procedures. The important thing to note is their emphasis on the necessity of working across different material processes to avoid over-determining a configuration of sensing or scale of action through habit or ritual. To this end, their research on the extent of the site of person concerns the ongoing co-construction of the 'shape of awareness' (Gins & Arakawa 86). They contend that the questions themselves must be built in order to explore the extent of the body. Constructing 'tactically posed surrounds' in tandem with discursive sequences makes perceiving perceptible to the resident-researcher. Their project has attracted interest from governments, sponsorship from major corporations and the participation of leading researchers in cognitive science, neuroscience, cognitive linguistics, consciousness studies and ecological psychology. Their previous collaborations include books, installations, films, houses, large-scale earthworks, small communities, and plans for housing developments and cities.

Effect as opposed to Affect

The history of the emergence of conflicting values generated by a different research focus can be traced in relatively recent times to the classroom of William James, whose 'radical empiricism' represented a moment of convergence before his students took divergent paths. The arts lineage, concerned with producing and observing affect, can be traced through his student, Gertrude Stein,[1] while the other line, concerned with observing quantifiable effects, runs through E.B. Holt[2] and the philosophical behaviorism of the new realists (Heft 59).

This moment in history influences our current relationship with our own modes of attention and the specific context of attention. The key to establishing any sense measure that might accommodate conflicting values may be mapped in the discourse on attention, a history parallel to the story of ill-will between effect and affect. Montague, one of the new realists of 1912, outlined an ecological perspective that Holt handed on to James J. Gibson. In the ecological perspective outlined by Montague, "things are not dependent upon the fact that anybody experiences it" (Heft 73). In other words, the world is not for humans alone. It is within this context that the neutrality of attention was formulated. Both James and Holt considered that the knower's perception intersects with the manifold of the environment at the experience, which belongs to the realm of objects in the world. This was to be accentuated in Gibson's search for an immediate and unmediated direct perception.

The different tendencies developed by Stein and Holt from radical empiricism underpin the debates that re-emerged on the pages of *Leonardo* magazine between James J. Gibson and art historian E.H. Gombrich during the 1970s. Though the debates centered on Gibson's picture theory, the stakes were characterized by the difference between theories based upon direct perception and those that include indirect perception. Gibson's notions of direct perception and 'affordances'[3]—the perceived utility of objects—were confronted by Gombrich's (1971) suggestion that people can attend to imaginary objects. Ultimately, the contention for Gombrich, as well as for artists today, has to do with different scales of Gibson's affordance—for example, whether the object in an environment holds certain perceivable potential or whether the context itself can be perceived to hold different potentials, and where each potential exhibits a new range of affordances. Shifts in scale bring new levels of abstraction into play. This complication opens the discussion to the movement of attention across direct and indirect consequences.

For Gibson, perception is attention—more precisely, attention tied directly to available information in the environment. Gombrich (14) notes that "perception in this sense is inseparable from what Gibson calls proprioception." He challenges the notion of affordances by suggesting that we also perceive potential usefulness. The linking of affordance with foreseeable consequences, on the other hand, keeps imagination and its relation to memory at bay. Gombrich (15) repeats Gibson's insistence that perception should not be confused with imagination, hallucination or dreaming. Not only is this at the heart of the Gibson and Gombrich debate, it points to wider contention as to whether we can and do attend to our imagination, our illusions, attunements in dreams and therefore in works of art, literature and architecture (Gombrich 15). Arakawa and Gins propose that perception, to a great extent, *is* imagination. For artists, the different modes of perception and attention, direct and indirect, do not cancel each other out because we have learned how to switch between these two modes pragmatically, as specific situations require.

Arakawa and Gins' approach is consistent with findings on the deployment of attention as a selective mechanism and as a process of resource allocation. Further, I suggest that attention is the mechanism that connects automatic functions to deliberate activity through feedback and deliberate re-entry into modalities of sensing. Although Arakawa and Gins clearly see more potential for auto-affection through the practice of fine-grained spatial and temporal character of attention and involuntary processing, the inconclusiveness of scientific findings does not deter scientists and artists from practising self-devised systems of attention, which mostly go unrecorded.

We are encouraged to take sides and 'take possession of reality' through a 'war on totality' that is the result of a histo-chronic melancholy (Lyotard 1988, 82; 1993, 16). War on totality would favor diversity and incommensurable difference. Naomi Klein has observed the opposite tendency in what she calls 'the war on diversity', a result of "neo-liberal economics biased at every level towards centralisation, consolidation, homogenisation" (Klein 245). Rather than characterizing the social, political and figural tendencies as virulent bureaucratic entrenchments in the administration of being, I would argue for the re-singularization of engagement at the level of embodied cognition. The war on totality must be fought particularly on the front of the 'always already' most evident in the teleological finality inherent in the conceptualization of human systems. It invades language through 'systems theory', closing down the possibility of emergence, whether through the logic of genetics or grammatology or a collective imaginary, by positing a

limit so definitive as to foreclose on anything but repetition. Repetition and inescapable mimesis in turn become the reasons for a war on totality because what the systems of production extrude is endless sameness, marketed as variety. The 'always already' is a terrible force of social construction, unrelenting and impenetrable because it is located in 'the body' of our bodies, in the dictionary of our utterances, in the clothes of our socialization and the progress of our scientific model of the universe.

If it is possible to turn 'oppositions back into differences' (Bennington 75), the first step is to recognize that opposition of affect and effect does not constitute a duality, a doubling or two sides of the same coin. In fact, the seeming opposition may represent distinct configurations of cognitive processing taking shape on different scales of action. A conflation results from over-investment in systems that address only one scale or one mode of sensing. The resulting domains of knowledge would therefore represent blind spots in the sense of the world rather than comprehensive methods of inquiry. Typically, as Foucault noticed in his essay on 'Las Meninas', the site that goes unnoticed (doubly invisible) is not only under our noses and outside the space of representation, but is the body connected to the nose at the very site of the perceiving (Foucault 4).

Æffect

Arakawa and Gins have both abandoned their individual arts practices of painting and poetry to devote their efforts to observation, learning and transformation of the extent of the site of the body. They no longer call their work art or architecture, and struggle to name the process that is concerned with making "readily available a reference guide to all that a person can possibly rally to the cause of being a person" (Arakawa & Gins 1997, epigram).

Therefore, to signal an embodied approach that moves towards an expanded field of experience, which can no longer be sensed through the conceptual filters of affect or effect, I have coined the term Æffect. This must operate as a disposition towards inclusion rather than as a reductive single scale of measure. Æffect refers to what can be registered by a system of measure rather than the measure that constrains what counts as sensation or experience. Ultimately, this multi-modal approach indicates the continuous interactions performed upon the systems of affective and effective measures, reapplied to events and things. Such a fine-grained self-reflexive

awareness will help us to determine what it is that we observe when we observe value.

Arakawa and Gins' procedural architecture widens the range of specificities, which has the benefit of keeping a person's attention tied to events within and outside of him or herself, thereby avoiding the spiral of in-turning awareness. Neurons send and receive information concerning the relationship of internal descriptions to external descriptions while inter-neurons send and receive information regarding internal descriptions of internal descriptions. Recursive feedback pertains to growth of self-awareness in the same way that neural 'centers' grow as the feedback from specific activities, such as playing the piano, increases. The presence and fluctuation of inter-neurons or 'interoceptive feedback' (Faw 59) imply that awareness of one's own perception is an activity that produces overall cognitive change, reflected in psycho-physiological growth. In other words, awareness of one's own bodily states increases the ways in which a person can directly affect his or her own body-wide cognition and "participate in morphological development of the brain" (Backhaus 225).

Disentangling effects from affects impacts on top-down processing and the subsequent totalized concepts, images and plans it produces. The separation is implemented in the conceptual map and image of bodily activity that plays a role in the way a person may enter into the embodied practice of producing feedback loops (recursive neuronal activity that involves sensation, emotion and abstract thought). Science is able to supply transcripts of self-organizing systems in action—for example, by charting how conscious emotions act as a catalyst for coordinated organismic behaviours (Newton 98), but science is unable to find "an information state which stands to internal states as internal states stand to states in the world" (Evans in Newton 101). Arakawa and Gins propose that this 'information state' is elusive because it is not a state; rather, it is a site configured and tentatively, but continuously, landed upon by distributed embodied cognition.

As a result, I have designed the term 'Æffect' (and its extrapolations, Æffection, Æffective and Æffectivity) to constantly evoke our bodily experience as a mild irritant due to its awkward physicality (in pronouncing the diphthong). This slight physical impediment in the form of a word produces a moment of hesitation when the embodied acts of reading and comprehension intersect within the conventionally unbroken and transparent flow of discourse.

Using the diphthong Æ ensures that Æffect's pronunciation receives embodied attention. This attention lies in the eye's stumbling over the archaic

contraction Æ, appropriated from obscure and unused terms; the eye–mouth coordination stuttering in uncertainty as to the pronunciation; the ear's straining to differentiate the modulation of the single breath shift from A to E. (Æsthetics has separated into aesthetics or esthetics, pronounced by choosing a short form of a or e respectively.) All of these subtle attentions compound and are consistent with the embodied situation that the word Æffect indicates. Finally, and most importantly, Æffect signals an enunciative and embodied orientation to methodology, particularly in regard to the construction and practice of any systematized, consistently motivated set of links, concepts, topics, discursive formations, intertextual resonances and inter-implicated interpretive readings. I have decided to write Æ large so that it remains large in the mouth, large to the eye and large in its placement within thought.

The coinage of a new term is one aspect that will contribute to enacting a shift to body-wide awareness that Arakawa and Gins' work invites us to practice. This strategy enables a person to insert his or her methodological orientation into the text as an index, to disrupt these various certainties, occlusions and omissions by returning us, as outlined earlier, to embodied attention. It is by way of the body and its existential insistence in the production of concepts that we can actively forget the hold that language has on cognition by 'making language stutter', as Deleuze famously stated (Deleuze & Guattari 98). In "He Stuttered," Deleuze observes that

> if the system appears to be in perpetual disequilibrium, if the system bifurcates—and has terms each of which traverses a zone of continuous variation—language itself will begin to vibrate and to stutter, and will not be confused with speech, which always assumes only one variable position among others and follows only one direction' (Deleuze 1994, 24). We need to remember here that 'bifurcations' produce not a series of neat binaries but a stuttering rhizomatic formation — 'A new form of redundancy. AND … AND … AND. (Deleuze & Guattari 98)

Arakawa and Gins also make use of disequilibrium by applying it to the processes of perception and action. Whereas Deleuze and Guattari make language stutter, Arakawa and Gins make the habitual body bifurcate, which allows multiple lines of embodied action to emerge. This way of indicating the irrepressible becoming of bodies is evident in Arakawa and Gins' 1990 collaboration with architect Johannes Knesl on an installation entitled

Stuttering God. In this work, the same strategy is used to counteract the teleological finality inherent in language and thus begin to evoke a 'reversible destiny' (Knesl 215). For Deleuze and Knesl, and for Arakawa and Gins, it is the body that enunciates its multimodality (configurability) through stuttering. The tentativeness of situated yet non-prefigured connections inevitably interrupts the seamlessness and 'always-already' of language. Smooth discourse only occurs when one already knows what one will say or allows language to say it. Stuttering is the result of tentative and ongoing configuration micro-events that result in unanticipated differentiation. Although Deleuze concludes that stuttering, which brings language to its limit, also delivers it to silence (1994, 28), Arakawa and Gins find that a stuttering, disequiliberated body brings the 'organism that persons' enunciative enactments, which they call 'forming blank' (Arakawa & Gins 1987, 10).

In order to reclaim the blank as the reservoir of possibility, we need to make the body, language, discourse and method stutter to reveal the link between meaning and biotopology, reconnecting perceptual learning, as body-environment literacy, to discursive and linguistically oriented epistemology. More inclusive modes of perceptual learning ultimately delimit and deregulate the practice of embodied cognition. To that end, the conditions of embodied cognition must be investigated from many points to carve out how 'never being outside discourse' can shift to include a-signifying dimensions.

Correlating Attention

If we now apply Æffect to the research practices and discourse on attention, a more pervasive and sensitive seismic field appears by which to measure situated configurations of sensing within and across identity boundaries that can no longer adequately account for the world. As the following series of discussions will show, there are rumblings from diverse areas regarding the need for the deregulation of disciplinary measures; however, Arakawa and Gins are the only ones to both study and enact their research in a situated realization of living.

Art theorist Jonathan Crary, in *Suspensions of Perception*, comments that "attention, as a series of texts and practices, is much more than a question of the gaze, of looking, of the subject as spectator." Too often, the visual has been studied solely as an effect of power relations. In an attempt to keep

attention from being hijacked in any one direction, Crary discusses vision as "only one layer of a body that could be captured, shaped and controlled by a range of external techniques; at the same time vision is one part of a body capable of evading institutional capture and of inventing new forms, affects and intensities" (Crary 3). He goes on to add that the mixed modalities of perception have received little or no analysis in visual studies, and links the idea of specific historical models of behavior to bodily activity such as vision, perception and attention. It is not the history of the historical model that is important here, but the suggestion that, in various historical periods, multimodality is directed differently and configures attention and perception in organism-environments.

Philosopher of science Gary Hatfield tracks the trajectory of research on attention, indicating the variegated phenomenological descriptions which include narrowing, active directing, clarity, fixation over time, effector sensitivity and motivational aspects. He adds involuntary shifts to the list, which are not a phenomenological category. As he moves through the litany of descriptions that weld attention to intention and deliberate self-affecting action, it is the inclusion of involuntary shifts that is most illuminating. Hatfield cites Augustine on the tendency for attention to be drawn involuntarily to objects of sensory pleasure and cognitive interest (Hatfield 8). He does not develop this idea in his survey—unlike arts practitioners, also influenced by Augustine, who have explored ways that a person may deliberately provoke involuntary responses. Children know this game well, and post-structuralists raised this strategy under the banner of 'play' to the critical engagement called deconstruction. In the context of arts practice, artworks may be regarded as situations that make involuntary functions visible. Arakawa and Gins, in their procedural architecture, concur with Hatfield's assessment of contemporary research on attention and deploy it as a selective mechanism and process of resource allocation. Further, I would suggest that attention is the mechanism that connects automatic functions to deliberate activity. To a great extent, contemporary art is precisely the expression of individual Æffective attentional systems.

One of the more problematic and persistent issues regarding attention is whether there can be attention without perception, or whether we must have a precept for attention to occur. Cognitive scientists Arien Mack and Irvin Rock conducted a study of perception under conditions of inattention. They were working under the assumption that something had to be perceived without attention (Mack & Rock 55). They discovered a phenomenon

which they named Inattentional Blindness, or IB. Their experiment was structured to observe the situations in which a test subject perceived a critical stimulus. They discovered that, if the critical stimulus in their experiment was presented at fixation point and an experimental object (for example, a cross) was centered in a peripheral location *previously occupied by the critical stimulus*, then the IB of the critical stimulus dramatically increased. Mack and Rock had anticipated the opposite. They thought that transposing the critical stimulus to the fixation point would eliminate IB, and indicate that the inability to detect the critical stimulus was a function of inattention (Mack & Rock 63). They observed that "subjects may tacitly learn to inhibit attention from particular spatial locations which then leads to a significant increase in IB" (64). This suggests that, when measuring for effect, you cannot separate out affect—especially attention to content and context. Mack and Rock concluded that attention provides the key that unlocks the gate dividing unconscious perception from conscious perception. Without this attentional key, there is simply no awareness of the stimulus (71).

Some theories of attention suggest that attention comes after perception of the whole (which allows an object to be attended). However, wholeness understood in this way is susceptible to habit and therefore to conceptual, imaginary and ideological influence. If, as Mack and Rock suggest, attention can unlock the divide between unconscious and conscious attention, it may also unlock the divide between effect and affect tendencies in perceptual valuation.

In *Consciousness and the World*, philosopher of science Brian O'Shaughnessy undertakes an analytical inquiry into consciousness and its close ties to perception. He brings together many strands of contemporary scientific and philosophical inquiry, but ultimately concurs with ecological principles—the search for how the (embodied) mind opens out on to its environment. In the concluding pages, he makes observations that resonate with Arakawa and Gins' 'procedures' published in the same year in *Architectural Body*. In a discussion of the seeming self-sufficiency of visual experience, O'Shaughnessy comments that vision and touch are what instruct us:

> It is not just that they underscore the situatedness of perception: they bring to light a further dimension of this phenomenon, concealed by the highly interpretational visual accomplishments of the instant. Namely, the existence of something one could call the perceptual constituting

> of the material object out of situated momentary experiences … (O'Shaughnessy 693)

O'Shaughnessy's description comes very close to one of Arakawa and Gins' procedures: "tentative constructing towards a holding in place" (Gins & Arakawa 49). This procedure is the result of layered awareness called 'landing sites' which designate "anything whatsoever, including even the most fleeting sensations … a neural marker, a simple taking note of, nothing more" (Gins & Arakawa 6). Arakawa and Gins state:

> The body is sited. As that which initiates pointing, selecting, electing, determining and considering, it may be said to originate (read co-originate) all sites. Organism-person-environment consists of sites and would-be sites. An organism-person, a sited body, lives as one site that is composed of many sites. (5)

From here, "the world one finds in place lends itself to being mapped by means of a multiple, complex siting process or procedure" (Gins & Arakawa 7). Their notion of landing sites integrates detection, projection and imagination in a world undergoing constant transformation.

The relation of landing sites to the body is consistent with O'Shaughnessy's connection of the purposes of attention in consciousness. At the beginning of his chapter on attention, he comments that attention has been "insufficiently studied by philosophers" (275). His discussion of the non-cognitive function of attention parallels Arakawa and Gins' notion of 'landing' as a neutral marker. They also ask: "if persons are sited, why do philosophers inquiring into what constitutes a person or, for that matter, into the nature of mind, rarely, if ever, factor this in?" (Gins & Arakawa 5) Here, philosophers take the blame because they have staked claim on both knowledge and how it is produced.[4]

Attention, as an aspect of affect that must use effective physiological systems with an anatomical basis, is also an undervalued and neglected area of study by artists and serves as the most obvious common point of interest for scientists, philosophers and artists. O'Shaughnessy observes that the special character of perceptual imagining allows us to unravel the "measure of dependence of one psychological phenomenon upon another. For example, intention guarantees the identity of act-intentions but imagining fails to guarantee identity for visual imaginings" (O'Shaughnessy 271).

Arakawa and Gins' version of attention breaks it into three ways to land as a site: imaging, perceptual and dimensionalizing landing sites (Gins & Arakawa 5–22). Perceptual landing sites are immediate and direct, while imaging landing sites may be said to fill in the gaps between perceptual landing sites. Because imaging landing sites are involved in forming the way we perceive and therefore construct the world, it cannot be said that they use the world to fill in what is missing from it, but use prior knowledge combined with untested approximations to 'land upon' sites in the world that cannot be perceived directly. Dimensionalizing landing sites combine the previous two, "coupling and coordinating direct responses with indirect ones, the formed with the formless" (Gins and Arakawa 7, 8).

While O'Shaughnessy and Arakawa and Gins appear to concur on many points, they present their research on the body and consciousness from two very different discursive positions, corresponding to measures valuing effect and affect respectively. O'Shaughnessy's text is analytical, filled with formulae and comprehensive in its survey of current medical and scientific research as well as philosophical discussion. He interprets and extrapolates the philosophical implications of the ideas and findings he surveys to produce an effective argument. In contrast, Arakawa and Gins put forward no formulae, only obliquely reference current information, and produce an affective argument that purposely leaves behind a tyrannical and oppressive set of disciplinary histories. Their affective engagement is not an emotional plea, but a reasoned and rigorous petition for attentiveness. In keeping with

Figure 2. Computer model of *Bioscleave House,*
East Hampton, LI, USA (begun in 1998)

their poetic and artistic backgrounds, they avoid the legitimation game by cultivating suspicions of the architecture of knowledge that permeates our habits, bodies and surroundings. Configurations of landing sites operate tentatively and provisionally because they are perceptual tools designed to help a person avoid generalizations and prefabricated categories of site and experience.

There are many examples of Arakawa and Gins' use of existing experimental structures from psychology and recontextualisation strategies from the arts which are aimed at exploring body-wide reconfigurations of attention. These yield insight into the way function can be transformed into procedure. Arakawa and Gins utilize the famous Ames room in *Bioscleave House* (currently under construction in East Hampton, Long Island, New York).

In addition to providing data about subjects from a third-person vantage point, experiments such as the 'visual cliff' or the 'swinging room device'[5] can be put to procedural architectural use directed towards and taken up from a researcher-practitioner's first-person vantage point. The visual cliff informs a researcher about continuity of perception and the acquisition of a perceptual schema that operates across occluded objects. The swinging room device also indicates the connection of attention to perception. Arakawa and Gins have not directly appropriated these experimental structures. Instead, through tactically posed surrounds, Arakawa and Gins make these problems of perception directly apparent to the experimental subject (resident researcher). This is the difference between scientific research that benefits other parties, commercial research that amplifies the way bodies deal with incoherence for our own amusement, and Arakawa and Gins' research, which enables persons to perceive the way surrounds literally shape the physiology of attention.

The idea of including experimental structure in residences aims to break with conventions of observer and subject. The awareness and research findings these structures produce are not for the benefit of an observer—the psychologist, external to the site—but are for the researchers-in-residence who are the beneficiaries of the findings that question existing subject/object/environment relationships. It is these individuals who become aware of themselves as 'the mechanism of meaning'. 'Scientific' experimental structures are functional with respect to data collection; however, they do not make us aware of how we construct these perceptions, nor do they require that we question the mode of perception by which we assess the

situation. If the scientific observer can no longer be quarantined from the phenomenological observer, the notions of research, and practice as research, would combine approaches to study the complex interactions coordinated by embodied cognition. I will examine one architectural example from Arakawa and Gins in more detail.

Arakawa and Gins' *Bioscleave House* tactically repositions the psychological experiment called the Ames room, which is the model for the main and central room of the house. The Ames room construction makes shallow space appear deep, confounding the perception of distance by which to judge the height of a person in the space (Figure 3). Arakawa and Gins use the Ames room for heuristic application, prioritising the bodily coordination of sensing it produces over the inattention it highlights.

The Ames room is constructed to be viewed from a single view point external to the room. It 'works' because the room offers false information and not enough information to judge distance and therefore size. The second photo (Figure 4) taken in front of a simple backdrop, shows that the 'illusion' can be reduced to manipulation of a single element: the floor. If the ability to use the floor as a perceptual measure is subtracted, the ability to judge object relationships diminishes and generalisations are used instead. For psychology, the false perspective aids in the study of the relation of prior knowledge, precepts and expectations to the act of perception. The Ames room is functional with respect to data collection, just as the Frank Lloyd Wright house (attached to *Bioscleave House*) is functional in terms of amplifying the inter-penetration of interior and exterior space. Neither makes us aware of how we construct these perceptions, nor do they require we question the mode of perception by which we assess the situation. The inclusion of the structure of the Ames room in *Bioscleave House* is of another heuristic order. In this tactical surround, the awareness and research findings are not for the benefit of the observer, but for the researcher-in-residence who is the beneficiary of the findings.


Figure 3. Ames room reconstruction

It is important to note that Arakawa and Gins have inverted the Ames room 'effect'. Instead of collapsing the perspective of the room, they have exaggerated it, making the room appear very deep. Although these photos do not show

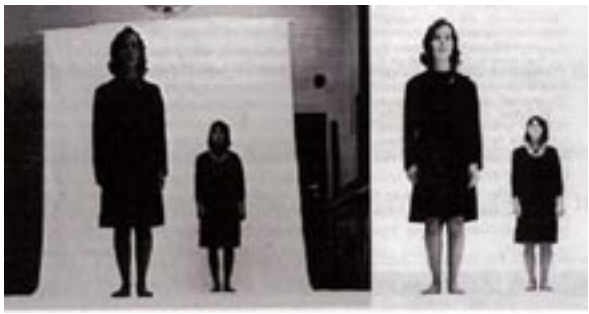

Figure 4. Ames room effect (photo by visual psychologist Richard Gregory)

the finished floor, which will be an undulating terrain of rammed earth, Arakawa and Gins have used the floor as part of the perceptual challenge; however, instead of eliminating the perspective cues afforded by the floor, they have constructed *Bioscleave* so that no horizon steadies the floor by locking the mounds into a stabilising visual cue. Even though the final earth floor was not in place during my visit, it was still possible to read the undulation of the floor's design in the skeleton concrete floor.

The perceptually ambiguous rammed earth floor, combined with the placement of the windows very high and very low, does not permit a resident in this central room to establish a relationship to the horizon. There is no vantage point from which to see the interior floor in relation to the exterior ground. The windows visible in the photos are semi-transparent, allowing light but no exterior view. The windows diffuse the light, even making it difficult to perceive the direction of the light for orientation. The Æffect of this is dramatic, and is accentuated when walking around the sunken kitchen and dining area, where the ability to determine levels is never reinforced by corresponding to the walls, ceiling or other features (see Figure 2). The absence of a fixed measure results in an initial unbalance and disorientation followed by the

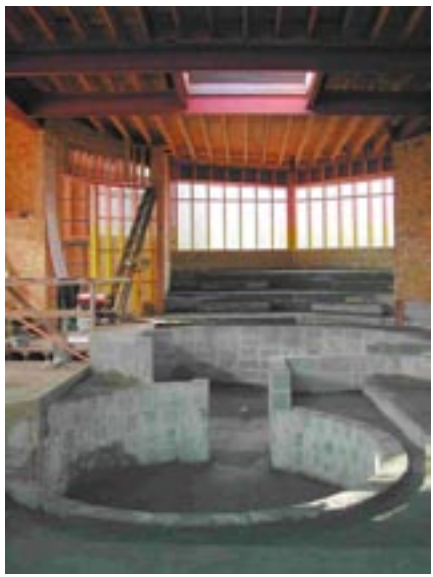

Figure 5. *Bioscleave House* interior view of central room.

finding of other modes of balance — for example, event-based proprioception rather than structure-based cues. Disjunction of the visual (instead of completion of an illusion) means a person establishes connections to the architecture momentarily rather than in ways programmed by the history of architecture.

The interaction of the floor and the ceiling are reminiscent, for me, of the way Arakawa and Gins' multi-level labyrinths operate on different portions and apportionments of the body in the surround. *In Critical Resemblances House*, the separate labyrinths were positioned at different levels of the body, requiring a person to separate and join (cleave) new configurations of landing sites. This occurs in *Bioscleave House* because of the omission of a fixed visual horizon so that the resident must use vision to orient the top portion of the body and proprioception to orient the lower portion. It is the coordination of these apportionments that perceptual learning provides, and which reason and rule of judgment cannot. The labyrinth[6] allows an 'organism that persons' to become aware of both the separate articulation of parts and the connection and connectivity of parts through acts of sited awareness. Arakawa and Gins refer to the enactive relationship produced by tactically built surrounds engaged with body-wide awareness as *critical resemblances* (Arakawa & Gins 1994, 258–59) and *critical holders* (Gins & Arakawa 81). It is 'critical' because these material processes allow a person to compare and contrast the way they disperse perceptual values and meaningful consequences by experiencing diverse physical orientations to repeated architectural features. Thereby, sameness (resemblances) opens itself to difference and the production of more landing sites, increased awareness and a reconfiguration of object–subject relationships.

Figure 6. *Critical Resemblances House* with multi-level labyrinth

For researcher-practitioners who would be emerging 'architectural bodies', this is an opportunity to make observations across the effect/affect divide.

New forms of observation require new forms of attention. The construct of 'person' straddles the organism and the environment, allowing directed attention to re-enter the large-scale process of selection. The 'person as artist' is one kind of historical structure that negotiates between organism and environment. The 'objective researcher' as observer is another. Neither configuration alone is adequate to conduct and inquiry into the situated body. The 'architectural body' of Arakawa and Gins and reimagined fields of measure such as Æffect make new forms of person imaginable that are neither artist or scientist. Persons no longer need to be obedient to the rule that form follows function, especially the function of being a 'person'. Function extends and amplifies the senses, while procedures increase the observation of functional sensing to enable exploration of the movement within and between modes of sensing (Gins & Arakawa 58).

By perceiving body-wide attentional processes of selection, we may move from natural selection to a meta-cultural process of selection, intervening in deliberate ways that optimize the full complexity of situatedness. Arakawa and Gins have tied the future of the human species to a process of daily research that configures scales of action and resituates the situated body within a more inclusive and adequate research environment.

Notes

[1] These influences splinter and are evident in the diverse works of poetry influenced by Wittgenstein, conceptual art of the 1960s and 1970s, and currently in the experiential art of installation and new media

[2] Holt was also a student of James, and a teacher of the ecological psychologist James J. Gibson.

[3] Gibson coined the term 'affordance' 'to characterise the animal-referent description of objects and events (Warren and Shaw 11). Shaw was among many not satisfied with the exclusion of the perceiver in Gibson's suggestion that affordances, as environmental information, were available to be perceived directly by all perceiving agents, not just humans. Affordances are different from physical properties because they are measured relationally, with respect to intentional acts (Warren & Shaw 11). Shaw's notion of 'effectivities' (Turvey & Shaw, 1979) emphasises the perceiver-specific capabilities that activate the category of potential encounters that an affordance names (Warren & Shaw 12). Warren and Shaw remark that, 'in sum, every disposition of an animal for some action co-implicates a disposition of some environmental structure to support that action' (12). Robert E. Shaw and William Mace, prominent ecological psychologists, describe Gibson's key notion of affordance as invariant environmental properties that provide specific causal informational support for a potential goal directed activity. To explain an agent's interaction with invariant properties, they suggest that control-relevant task-constraints, or effectivities, must match the environmental affordances (Shaw & Mace 202).

[4] There is a trend in the arts which surfaced in the 1990s that argues the importance, for art practice and art theory, of the physiology of emotion and embodiment in relation to cultural processes. This was perhaps begun by Edelman's essay for the Whitney Biennale in 1995 and reiterated by Isabel Carlos, the curator of the Sydney Biennale 2004, through her interest in Damasio's ideas on emotion (Fenner). The discourse on affect in the arts is focused on emotion, which alone is inadequate to address the physiological basis of change

[5] The visual cliff is a widely employed experimental structure which is used to test infants' and animals' depth perception and understanding of meaningful consequence by constructing a platform which has a clear pattern such as a chequerboard that leads to a vertical wall and then to a floor which has the same pattern. For safety, the cliff is covered with plexi-glass. The swinging room device was designed by David Lee and Roly Lishman in 1973 (Reed 58). It aims to discover a person's awareness of encounters. The structure is a complete room and ceiling but without a floor, suspended above the actual floor on rollers or as a swing from a tall support. By blocking vision of the real floor the optical flow and perspective of the room can be manipulated and create a variety of event some of which are 'impossible'. So for every move forward of a person in the room, the room moves twice that distance, giving the impression that the person is moving backwards or away from the wall they are walking towards. The experiment in part addresses questions as to whether the content of consciousness is quasi-linguistic or entirely ecological and specified by information (Reed 58)

[6] Steve McCaffery (114) observes how the labyrinth is an architectural space where the categories of subject and object are made unsound and no replacements are offered. As a result, a person is never inside or outside of the labyrinth.

Illustrations

Arakawa and Gins' work reprinted with permission of the artists.

Figure 1. Architectural body of Arakawa and Gins. (Arakawa & Gins, Madeline. *Reversible Destiny — Arakawa and Gins — We Have Decided Not to Die*. Michael Govan, comp. New York: Guggenheim Museum Soho, 1997: 13.

Figure 2. Computer model of *Bioscleave House*, East Hampton LI, USA (begun in 1998) *INTERFACES journal: Architecture Against Death/Architecture Contra la Mort*. 21/22.1 (2003) Paris: College of Holy Cross and Paris Université 7 – Dennis Diderot: back cover.

Figure 3. Ames room reconstruction, http://psylux/psych.tu-dresden.de/il/kaw/divers%20Material/www.illusionworks.co (accessed 28/03/05).

Figure 4. Ames room effect, photo by visual psychologist Richard Gregory, http://psylux/psych.tu-dresden.de/il/kaw/divers%20Material/www.illusionworks.co (accessed 28/03/05).

Figure 5. *Bioscleave House* interior view of central room, CD-ROM of illustrations for essays in *INTERFACES* journal 2003.

Figure 6. *Critical Resemblances House* with multi-level labyrinth. Arakawa & Gins, Madeline. *Reversible Destiny — Arakawa and Gins — We Have Decided Not to Die*. Michael Govan, comp. New York: Guggenheim Museum Soho, 1997: 258.

References

Arakawa & Gins, Madeline. *Reversible Destiny—Arakawa and Gins—We Have Decided Not to Die*. Michael Govan, comp. New York: Guggenheim Museum Soho, 1997.

—— *Pour Ne Pas Mourir/To Not to Die*. F. Rosso, trans. Paris: Editions de la Différence, 1987.

Backhaus, Gary. "The Fetters of Instincts and the Promise of Dymani Systems." In *The Cauldron of Consciousness: Motivation, Affect and Self-organisation — An Anthology.* Ed. Ralph Ellis & Natika Newton. Amsterdam: John Benjamins, 2000: 223–42.

Bennington, Geoffrey. *Lyotard: Writing the Event*. Manchester: Manchester University Press, 1988.

Crary, Jonathan. *Suspension of Perception: Attention, Spectacle and Modern Culture*. Cambridge: MIT, 1999.

Deleuze, Gilles. *The Logic of Sense*. Mark Lester & Charles Stivale, trans. New York: Columbia University Press, 1990.

—— *Francis Bacon: The Logic of Sensation.* Daniel W. Smith, trans. Minneapolis: University of Minnesota Press, 2002.

—— "He Stuttered." In *Gilles Deleuze and the Theater of Philosophy*. Eds. C. Boundas & D. Olkowski. New York & London: Routledge, 1994: 23–29.

Deleuze, Gilles & Guattari, Felix. *A Thousand Plateaus: Capitalism and Schizophrenia*. Brian Massumi, trans. Minneapolis: University of Minnesota Press, 1987.

Ellis, Ralph. "Integrating Physiological and Phenomenological Dimensions of Affect and Motivation." In *The Cauldron of Consciousness: Motivation, Affect and Self-Organisation — An Anthology.* Eds. R. Ellis & N. Newton. Amsterdam: John Benjamins, 2000: 3–27.

Evans, Gareth. *Varieties of reference*. Oxford: Oxford University Press, 1982.

Faw, William. "Consciousness, Motivation and Emotion: Biopsychological Reflections" In *The Cauldron of Consciousness: Motivation, Affect and Self-Organisation — An Anthology.* Eds. R. Ellis & N. Newton. Amsterdam: John Benjamins, 2000: 55–90.

Fenner, Felicity. "On Reason and Emotion: Isabel Carlos, Artistic Director of 2004 Bienale of Sydney in Conversation with Felicity Fenner." *Art in Australia* 41.4 (2004): 554–56.

Foucault, Michel. "Las Meninas." In *The Order of Things: An Archaeology of the Human Sciences*. Alan Sheridan, trans. New York: Vintage, 1973.

Gendlin, Eugene. "The Mind/Body Problem and First-Person Process" In *The Cauldron of Consciousness: Motivation, Affect and Self-Organisation — An Anthology.* Eds. R. Ellis & N. Newton. Amsterdam: John Benjamins, 2000: 109–19.

Gibson, James, J. "The Information Available in Pictures." *Leonardo* 4 (1971): 27–35.

Gins, Madeline & Arakawa. *Architectural Body.* Tusclaloosa: University of Alabama Press, 2002.

Gombrich, E.H. "Letters" (a response to James J. Gibson's article "The Information Available in Pictures"), *Leonardo* 4 (1971): 195–203.

—— "Review of Reed, Edward's *James J. Gibson and the Psychology of Perception.*" *New York Review of Books.* 19 Jan. 1989: 13–15.

Hatfield, Gary. "Attention in Early Scientific Psychology." In *Visual Attention.* Ed. Richard Wright. New York: Oxford University Press, 1998: 3–25.

Heft, Harry. *Ecological Psychology in Context: James Gibson, Roger Barker and the Legacy of William James' Radical Empiricism.* Mahwah: Lawrence Erlbaum, 2001.

Kawamoto, Hideo. "The Mystery of Nagi's Royanji: Arakawa and Gins and Autopoiesis." *INTERFACES: Architecture Against Death/Architecture Contra Morte.* Double issue. 21/22.1 (2003): 85–102.

Klein, Naomi. *Fences and Windows: Dispatches from the Frontlines of the Globalisation Debate.* London: Routledge, 2002.

Knesl, Johannes. "Four Architects on Reversible Destiny." In Arakawa & Gins, Madeline. *Reversible Destiny — Arakawa and Gins — We Have Decided Not to Die*. Michael Govan, comp. New York: Guggenheim Museum Soho, 1997: 215–21.

Lyotard, Jean-François. *The Postmodern Condition: A Repost on Knowledge.* Geoffrey Bennington and Brian Massumi, trans. Theory and History of Literature Series 10. Minneapolis: University of Minnesota Press, 1988.

—— *The Postmodern Explained: Correspondence 1982–1985*. Minneapolis: University of Minnesota Press, 1993.

McCaffery, Steve. "To Lose One's Way (for Snails and Nomads: The Radical Labyrinths of Constant and Arakawa and Gins." *INTERFACES: Architecture Against Death/Architecture Contra Morte.* Double issue, 21/22.1 (2003): 113–44.

Mack, Arien & Rock, Irvin. "Inattentional Blindness: Perception without Attention." In *Visual Attention.* Ed. R. Wright. New York: Oxford University Press, 1998: 55–76.

Massumi, Brian. *Parables for the Virtual: Movement, Affect, Sensation*. Durham: Duke University Press, 2002.

Newton, Natika "Conscious Emotion in a Dynamic System: How I Can Know How I Feel". In *The Cauldron of Consciousness: Motivation, Affect and Self-Organisation — An Anthology.* Eds. R. Ellis & N. Newton. Amsterdam: John Benjamins, 2000: 91-105.

Nicolescu, Basarab. "The Transdisciplinary Evolution of the University." *CIRET-UNESCO Project from International Congress — Which University for Tomorrow?* Monte Verita, Locarno, Switzerland, 1997. http://perso.club-internet.fr/nicol/ciret/bulletin/b12/b12c8.htm.

O'Shaughnessy, Brian. *Consciousness and the World.* Oxford: Clarendon Press, 2002.

Reed, Edward. *Encountering the World: Toward and Ecological Psychology*. Oxford: Oxford University Press, 1996.

Shaw, Robert E. & Mace, William. "A Précis of a Position to be Established in the Workshop on the Challenges and Promises of an Ecological Approach to Robotics". In *Studies in Perception and Action VII*. Eds. S. Rogers & J. Effken. Mahwah NJ: Lawrence Erlbaum Associates, 2003: 201-206.

Turvey, Michael & Shaw, Robert E. "The Primacy of Perceiving: An Ecological Reformulation of Perception for Understanding Memory". In *Perspectives on Memory Research*. Ed. L.G. Nilsson. Hillsdale NJ: Erlbaum, 1979: 1-27.

Warren, William & Shaw, Robert E. (Eds.) *Persistence and Change*. Hillsdale NJ: Lawrence Erlbaum Associates, 1985.

Author's note: Correspondence concerning this article should be addressed to Jondi Keane at Griffith University. Email: j.keane@griffith.edu.au.