An Arakawa and Gins Experimental Teaching Space
A Feasibility Study

Jondi Keane,
Deakin University

Context: A trajectory that lands on integrated learning.

Since 2008, I have been speaking with people across the university sector to compile information regarding how a person in my position (a researcher-practitioner within a university setting) might build an experimental teaching space informed by the procedural architecture of artist-turned-architects Arakawa and Gins. The study presented here, includes a contextualisation and rationale of building such an experimental teaching space in terms of education, leadership and the importance of embodied and integrative learning. I will examine the link between Arakawa and Gins’ practice and the pedagogical concerns of advanced study and the production of communal space, suggesting how these goals can be implemented within the institutional planning processes while adhering to changing federal funding guidelines, new performance indicators, and public tender guidelines.

Having become acquainted with Arakawa and Gins’ work in the 1970s, it has been over the last decade that I have visited their built works and had the opportunity to talk with them on many occasions while in residency at Architectural Body Foundation in New York. Arakawa and Gins’ procedural architecture, as developed in both their written and built discourse, provides a process by which to connect theory to practice, disciplinary inquiry to knowledge and art to life. The building to which I have returned many times is
Bioscleave House in East Hampton, Long Island, NY. I have visited Bioscleave with small groups, organized symposia there (with Lex Baghat and Don Byrd), brought large groups (after the AG3 conference closing event at the Guggenheim in May 2010) and stayed over night on a few occasions. I have seen the house vigorously activated, youthfully climbed and scrambled over and gingerly navigated. What has stayed with me is the capacity of this building to continue to offer its complexity and reveal in different modes and time frames, its power to prompt and sustain sensory, perceptual and conceptual reconfiguration and attunement.

The great potential of Arakawa and Gins’ procedural architecture through its capacity for comprehensive integration to inform new approaches to education is yet to be fully explored. Procedural architecture is a process-oriented approach to the way the environment and the body mutually form and extend each other. The procedures are ways of focusing the use of architecture/built environment as a hypothesis for questioning (searching and researching) all possible ways to observe the body-environment interaction in order to transform it. The reversible destiny project is comprehensive or inclusive in that Arakawa and Gins constantly look to what is outside the purview of any given discipline or approach to coordinate and optimise how we acquire knowledge and what we consider to be knowledge. Example of their architectural procedure are the “tentative constructing towards a holding in place” (Gins and Arakawa 2002: 48) and the “disperse to contrast” (75) procedures, which are ways to think about and approach the building of architectural features. They go on to say “in studying so tenuous and elusive an event-fabric as bioscleave [the continual joining and separating process of the biosphere], the making of cut-and-dried separations, such as distinguishing between subject and object, should be avoided” which characterizes their procedural approach (48, 49).

Architectural procedures are comprehensive because they do not separate one aspect of complexity from another. Cognitive processing, the materiality that operates across and through the body-environment, the perceptual and conceptual complexity of inter-subjectivity or institutional politics all impact on the same event-space. For this reason procedural architectural offers an alternative to the design trend in teaching and learning environments toward
technologically driven smart spaces. The objectives of smart-space technologies focus on communication and the accessibility and delivery of information as part of a multi-media approach. Procedural architecture expands the idea of multi-media to consider any object, whether a chair, an artwork, a door, a monitor, a database or a memory, to be considered as part of one’s immediate environment. Perceptual learning is how we come to know the connections among these variously configured sites to develop a “sited awareness” (2002: 7) that may become ongoing “daily research” (95).

The integration of an inclusive experimental architectural approach to knowledge with existing social, educational and political processes would create new links across (the creative arts) disciplines and methodologies and address the disconnection between common areas of research in the life sciences, developmental psychology, rehabilitation science, and blended learning and creativity. It is crucial to note that Arakawa and Gins investigate the body-environment relationship by producing situations that dismantle and allow reconfiguration of sensing, perception and comprehension. This approach could productively fold back and inform the way in which an experimental teaching space is presented, funded and built within the context of institutions in the public sector, such as universities.

A procedural approach has a few important potential consequences for education. First, the complexity required to enrich learning must be coupled with recognition of multiple embodied and disciplinary perspectives deregulating what counts as intelligence, knowledge or information. Second, Arakawa and Gins insist that research should be conducted “not in a library or laboratory but where living happens” (2002: xxi) enabling the complexity of relationships to be studied within and across the “organism-person-environment” (1). Third, procedurally constructed environments are primarily concerned with the transformation of human capacity, inviting further action and applying the findings of scientific study to the history of the body. The role of architecture as a tool for researching the body-environment towards the implementation of these considerations is paramount.
When integrated with current findings on brain plasticity, enriched environments (e.g. from rehabilitation and treatment of stroke, aphasia and autism) and education approaches to holistic learning environments (e.g. Steiner and others), Arakawa and Gins pre-empt the remedial (e.g. they are not trying to fix a disability) by placing emphasis on capacity-building from the outset. In many ways procedural architecture might be described as the production of enriched environment that allow us to pre-adapt or adapt in advance of situations and environment that may arise. [1]

Many researchers and practitioners currently teaching at universities use the works of Arakawa and Gins within their courses and some go as far as structuring entire courses on their work. This includes scholar-practitioners involved in AG3 online who have designed university courses, explicitly and implicitly, around Arakawa and Gins’ work. Alan Prohm, whose year-long courses at MA and BA levels are perhaps the strongest example of coursework informed by Arakawa and Gins. Other examples include Gordon Bearn at Lehigh University, Aaron Levy at University of Pennsylvania (co-organizer of the second international AG conference), Bill Lavender at University of New Orleans, Russell Hughes at RMIT now at Bond University, and myself, previously at Griffith University and currently at Deakin University (where the Phoenix Gallery has become a lab-event space with the potential for architectural transformation). In order to take this further, the connection of scholarship to research (especially practice-led research) and teaching must now be plugged into the higher-level infrastructure of university planning. To maximize the benefits to students, and their post-graduate lives as cultural practitioners, the environment needs to be considered from the start as the ground from which communication and learning activity emerge: site-conditioned capacity building.

The goal of an experimental teaching and learning space based on architectural procedures would be that the process of design and construction would allow students and staff to rethink, re-imagine and enact the curriculum. This mode of engagement would resist quarantining the activities of our lives from each other
and avoid funnelling the benefits derived from new modes of knowledge through single sectors in society. Procedural architecture would also encourage inter- or trans-disciplinary agendas of university research policies. I would contend that from any cultural sector, work might begin to produce inclusive body-wide approaches that dislodge the compartmentalizing tendencies of contemporary culture.

Arakawa and Gins procedural architecture offer a key to understanding *how architectural features are produced, deployed and maintained at every level of activity and processing within and across the body-environment relationship.* The practical considerations that follow are an attempt to find the most effective way to implement and build an experimental teaching space within the frameworks of a university system under pressure in a competitive world measured, in part, by student outcomes. The twist that emerged through my attempt to facilitate the building of an experimental teaching space in the ever-changing conditions of the university was to propose to have the teaching space become a constantly changing environment (literally always in-the-process-of-being-built). To enable this process, I proposed that the university commission Arakawa and Gins to produce architectural procedures for staff and student researchers to enact.

**The Preliminary Process: Making it happen**

When I began talks with Arakawa, Madeline Gins and staff at Facilities Management, Library and Learning Services and Information Systems at Griffith University in 2008, there was no question in my mind that an experimental teaching space would be the result. Since then I have changed universities and the feasibility study that may have resulted in an actual teaching space has transformed into a case study on the need and benefits of such a space. This story therefore, had to be rewritten to reflect the changed conditions of the feasibility study to account for the contingencies encountered along the way. I have also removed the names of key people originally included in the study since they refer to a university at which I no longer am employed and many no longer hold those positions.
I began to construct a rationale to present to university stakeholders. The rationale gathered together a set of ideas and arguments, starting with the notion that Teaching and Learning environments could take full advantage of current research from the life sciences, developmental psychology, rehabilitation science and blended learning to thereby strengthen the links between curriculum development, research based teaching and the enriched learning environments consistent with principles of interdisciplinary enquiry and cultural leadership. Building an experimental teaching space would demonstrate an ongoing commitment to excellence, innovation and the importance of connecting existing research with the spaces in which learning is conducted. While smart environments that are technologically driven are crucial to communication and delivery of information, spaces that recognise the multi-modal, multi-sensory and multiple intelligences of students would expand learning possibilities and capacity-building experiences exponentially.

To that end, I met with the person in charge of building and refurbishment (at Griffith), the director of Library and Learning Services to find a suitable site for an experimental teaching space. The task was to arrive at a viable concept, implementation plan, funding structure and operating plan for users and stakeholders across the university that was also attractive to international scholars, the international student community and the local community. I submitted documents that put forward the benefits of building an efficient and sustainable learning environment that is consistent with the university’s policies on work-integrated learning and the research centres’ priorities in Health, Cultural Sociology and the Arts and Humanities.

I argued that the ongoing construction of the teaching space is the curriculum and asked for a chance to show that an experimental approach would prove itself useful at the coalsface of student learning, at the pedagogical level of integrated and blended learning and for research driven teaching. These aims are consistent with the interdisciplinary objectives across the Arts, Humanities, Social and Life sciences. This emphasis on an experimental approach distinguishes the project

from environments that are associated with an educational viewpoint focused on delivery and communication tools. This alternative approach considers the process of learning as emergent and event-conditioned by purposefully designed environments and guided by pedagogically implemented procedures embedded in the user-driven construction of the learning environment. [2] The newly devised teaching environment would offer budding teachers, life scientists, sociologists, historians, and artists the tools by which to affect change and provide grounded cultural leadership through a material based engagement. Arakawa and Gins’ project is significantly different from other contemporary projects in its emphasis on an enactive or procedural approach, which recognizes that one cannot observe the world without participating in its construction, and that modes of construction are purposefully enacted.

In each institution there are particular lines of influence that lead to building architectural projects. The initial discussions I had at Griffith were with the director of Library and Learning Services, the Faculty Dean of Arts, an Executive officer from Centre for Medicine and Oral Health, former and current Heads of the School of Arts, and members of Griffith Works Committee. The aim was to meet with key persons in charge of building projects and facilities, to see if an experimental teaching space designed by Arakawa and Gins was viable. The crucial factors in finding a suitable location or type of facility was to convince and align the project with progressive key persons strategically positioned to designate spaces and initiate building projects. This crucial factor would influence the development of a costing structure and the investment-return scenario that the stakeholders, such as the Deputy Dean of Teaching and Learning, Pro-Vice Chancellor of Learning and Student Outcomes, the Pro-Vice Chancellor Art, Education and Law and the Deputy Vice Chancellor Academic, would need to consider. With the proposal of each different possible location, the constellation of stakeholders and key persons changed since each space is associated with different areas of the institution that have different interpretations of national, state and university priorities and the trends that direct changes in priorities.
When meeting with key persons in the university, I proposed the idea that Arakawa and Gins be commissioned to design the architectural procedures that would be enacted and implemented as the structure of the environment and the structure of the curriculum of the ongoing experimental space. The reception from university administration was varied. The ideas were applauded but the practicalities of money and the unknown outcomes were seen as problematic. In my discussions with Arakawa and Gins, they were open to the idea of producing any number of possible options that could be realised at different scales: from a stand-alone building, to a selected room, to individual architectural features within a designated built environment. They would design the space or would be willing to design the procedure that we would enact. The possibility that an experimental space might begin with Arakawa and Gins constructing a particular design that would become a launching pad through which to explore procedural approaches gained more traction and led to a modification of the project.

The meetings over a two-year period between 2008 and 2010 gravitated towards considering common-use spaces (lecture hall, tutorial room, computer lab or foyer space) that would fall within the Library and Learning Services brief, reclassifying the building project as a refurbishment. A separate option was to align the project with the design for the new hospital’s common-use learning centre. The strategy to make a high-profile experimental teaching space would make it more attractive to the educational initiatives of the Pro-Vice Chancellor of the faculty group or other members of the university executive. The need to re-scale the teaching space proposal into an existing space designated for refurbishment meant that the scope of the experimental teaching space was recalibrated to a small-scale project that may lead to other building ventures at a larger scale in future. In line with Arakawa and Gins’ open brief, they could either design one or more architectural procedures (instructions for the invention and assembly of procedures and procedural architecture/architectural features) or design and oversee the construction of the first iteration of a teaching space which would then be handed over to university staff for particular investigations.
The project’s added flexibility (in design and scale) meant that the university only needed to provide a *shell space* similar to a theatre space that is ready to accommodate a number of stage designs, or a sound stage that can accommodate film sets or a lab or gym space that can be fitted with elaborate specialist equipment. The shell space could be a flexible space and outfitted with power suited for typical blended learning technologies such as a sound system, structural walls, floor and ceiling that can support constructed architectural features (e.g. structural and elaborate cabinetry). Because the space would be designed for flexible delivery, there could be supposition from the start that the space would undergo several iterations that could be anticipated and included in the initial design. In this way the experimental teaching space would remain informed by Arakawa and Gins’ work enacting procedures that undergo constant re-construction.

In the current global and regional conditions in which Higher Education finds itself, the costing of an experimental teaching space must be kept to a minimum to be feasible. The *initial costs* would include the commission of architectural procedures from Arakawa and Gins and the construction materials. Donated or recycled building materials sourced locally from sponsors, industry partners and from the University ‘works budget’ for refurbishment would permit easy construction and dismantling and reduce costs. Refurbishment would include rewiring and outfitting the space with structural plywood, for example, to allow manipulation of the space. The *running costs* would include a technician’s salary requiring either a new position in OTS (Office of Technical Services) or a sharing of responsibilities between existing personnel. Equipment such as a table saw and power tools, lights and storage areas would be additional considerations that have an impact on costing.

This conception of the Experimental Teaching Space as a shell would accommodate change as a function of curriculum development and research projects. It is the most feasible model because it falls within the purview of the Library and Learning Services and would not require sending out the job for
tender. In three to five years the space could be reviewed and evaluated. Then it would either continue and more procedures could be commissioned from Arakawa and Gins or it could be converted to other types of spaces including a gallery, theatre or common use laboratory. In this way the university would be able to make decisions based on changing priorities and performance indicators.

The experimental space would need to deliver on its interdisciplinary potential and service several faculties by making the involvement of each disciplinary investigation clear and easily involved. The aims would be to by encourage interdisciplinary inquiry and multi-use of the space, where student cohorts might conduct practicums while other student enact the procedures. Lecturers, scholars, researchers and students from, but not exclusive to, psychology, health, sociology, education, art, creative writing, urban studies, architecture and philosophy would be invited to utilize the space concurrently with those who students who are actively constructing it or may use the space at times between active construction to discuss issues relevant to their fields of study: body, space, perception, enriched environment, learning, community, social psychology, identity, cooperation, collaboration and a host of issues relevant to interdisciplinary inquiry and transdisciplinary research.

**Conclusion**

While I have emphasized the benefits of constructing the space itself, other benefits would stem from observation of the activities and use of the space. These activities might stimulate and augment research to forge stronger links between teaching and research, as well as between theory and practice. Learning activities such as doing/making/enacting and observing/analysing/critiquing are intended to foreground the affective connections and the embodied and situated ways in which a person acquires knowledge. This recognition, when taken to its logical conclusion, would suggest that *creative insight through embodied learning* is fundamental to all research enquiries, whether in the arts or sciences. Learning spaces must be designed to deliver first-person experience, collective action and one-to-one scale learning situations. In other words, *the environment*
and the activity are not separate considerations they are integral to the learning and teaching environment.

There would be a host of learning scenarios in which several groups of users could exchange ideas, experiences and perspectives related to both located and cloud learning. For example, I imagine that Education students, during their practicum, might bring their young primary or secondary students to the space to discuss notions of the body, body image, collaboration and cooperation. The public should have access to the space at times, limited to those periods when the space is in a set state (not under active construction) to ensure all health, safety and liability considerations are addressed. In this way the constantly changing teaching space can become a space for public repose, reflection and interaction as well as a showcase for innovative approaches to teaching.

Arakawa and Gins provide the most inclusive and radically practical approach for understanding and transforming activities that have become the subject of myriad studies and the purview of educational institutions and administrations. The “disconnect” between the research and learning in addition to trends in University planning can be addressed when one considers current higher learning agendas for integrating research, blended learning and work-related learning. Smart classrooms should not only be driven by technology but also by advances in our understanding of the embodied conditions of learning. To that end, the emphasis on experiential perception-based learning is addressed directly by the experimental approach of Arakawa and Gins. Their work advocates and demonstrates the importance and the benefits of integrating the learning environment, the mode of inquiry and the issue under investigation. Arakawa and Gins’ built works and theoretical discourse provide the tools by which integrated teaching and learning environment could be incorporated into university plans and objectives.

My proposal is modest and conservative in terms of expense. It requires minimal investment for maximum benefits. For an experimental Arakawa and Gins-informed teaching space to be feasible, it must be strategically inserted into
existing institutional structures and lines of power. While its implementation may require stealth, its impact may possibly be the radical reconfiguration of the way communal design and the administration of everyday life come together. This is a goal that has been lost in the bureaucracies of large-scale systems and metric-driven evaluations of solutions to community problems and needs.

A trial period of two or three years might be proposed to faculties, external sponsors and community stakeholders for the supply of materials. In contrast to the budget for constructing a standalone structure, refurbishment costs are minimal. Staffing costs, workload allocation and integration into university curricula as well as management and administration of the space would require a member of the permanent staff and subsequently interested researchers from any cognate field. Teaching commitments would need to be adjusted and would vary according to interest and availability. The task for anyone taking on the directorship of the space would be to coordinate the teaching and learning activities, maintain and find new partnerships within the university, across the local sector and internationally to attract visiting scholar-practitioners to develop new uses for the experimental teaching space and the communities of users it would attract.

Although desirable, it is not possible to wait for Arakawa and Gins to come to a town near you and build procedural architecture. We must take on the ethos of this task with the guidance of those who have dedicated 40 years researching the body-environment as The Mechanism of Meaning. Using architecture to increase human capacity by finding practical, sustainable and viable ways of implementing resources is the key to activating procedural knowing and perceptual learning. Educational institutions (particularly higher education) can play a leading role in the reconfiguration of knowledge acquisition and production by reabsorbing research and research findings generated by higher learning institutions and applying them to the objectives of university planning and the university’s impact upon cultural development.
Notes

[1] One of the new areas to emerge in tandem with cognitive science and the ‘corporeal turn’ (Sheets-Johnstone 2009) are interdisciplinary investigations concerning the relationship between the organism to the person (consciousness and ‘prenoetic’ cognition (Gallagher 2005, Gallagher and Zahavi 2008); philosophy of mind and cognitive science (Varela et al. 2000, Petitot et al. 1999) and the relationship of the person to the environment (Noe 2004) and the field of ecological psychology. It is important to note that these trends within the fields of study have been occurring at the same time as a re-evaluation of research methods and design, particularly creative arts research has been conducted.

[2] Arakawa and Gins’ work has been recognised worldwide for its innovation and applicability to different areas of research. The Harvard Business Review named their Bioscleave House in East Hampton, Long Island, NY, in the top twenty most innovative projects of 2009. In addition to the projects built to date, Arakawa and Gins are currently involved in designing aspects of a Montessori school in Sioux Falls, South Dakota, USA, which is to be linked to a medical centre. They have also been approached to design a primary school in Japan. Their plans for Museum of Living Bodies includes a toddler university.

Bibliography


Illustrations:

All illustrations reprinted with the permission of Arakawa and Gins.

Fig. 1: Arakawa, Shusaku and Gins, Madeline. “The number and complexity of perceptual landing site configurations are directly proportional to intricacy and extent of path or terrain” (Benjamin 1994: 65).

Fig. 2: “Terrain Study” in Arakawa, Gins and Govan 1997: 295.
Fig. 3: Arakawa, Shusaku and Gins, Madeline. “As the familiar passes through itself” in Benjamin 1994: 73.

Fig. 4: “Interior of the Reversible Destiny Office at the Site of Reversible Destiny Park at Yoro” in Arakawa, Gins and Govan 1997: 205.