

*Keith Armstrong: Sustaining The Sustainable? Developing a practice and problem-led  
New Media Praxis*

**INTRODUCTION:**

In this chapter I introduce an ecological-philosophical approach to artmaking that has guided my work over the past 16 years. I call this 'Ecosophical praxis'. To illustrate how this infuses and directs my research methodologies, I draw upon a case study called *Knowmore (House of Commons)*, an emerging interactive installation due for first showings in late 2008. This allows me to tease out the complex interrelationships between research and practice within my work, and describe how they comment upon and model these eco-cultural theories. I conclude with my intentions and hopes for the continued emergence of a contemporary eco-political modality of new media praxis that self-reflexively questions how we might re-focus future practices upon 'sustaining the sustainable'.

**A CONTEXT FOR MY RESEARCH:**

Over the past sixteen years of active practice I have produced and collaborated upon numerous artworks of all scales. I am best known for large-scale, multidisciplinary projects that are presented internationally under the banner of 'media arts'. (For full project details, images and videos see [www.embodiedmedia.com](http://www.embodiedmedia.com)). Many of these works experiment with a range of non-traditional human computer interfaces that implicate the participants' bodies within their emergent forms. The majority of these works are

interactive experiences that become realised through individual and group interactions of participating audiences. Rather than creating 'detached objects' for critical scrutiny these interactive artworks privilege process over product by fostering interactions both between participants and the work's technologies AND between participants via these technologies.

My media artworks are grounded in the assumption that our collective ability to sustain is as much a cultural problematic as it is an economic or technological one. Each work emerges from thinking and writing grounded upon a philosophical basis within 'Ecosophy'. 'Ecosophy' is derived from the Greek words Oikos (meaning wisdom) and Sophia (meaning house or dwelling). This suggests a need to act with care and respect for everything else that is also dependent upon that which is shared in common. This idea is stressed in the artists' statement that accompanied a recent showing of *Intimate Transactions* (Armstrong, O'Neill, and Webster 2005) in the 2008 Olympics Cultural Festival Event, *Synthetic Times: Media Art China*.

Each of us is dependent on our fellow humans. Despite our obvious differences we rely on each other culturally, physically and spiritually. Every act we make needs to be considered in relationship to all the others that it affects. This requires us to act with compassion, forgiveness and tolerance of others, however difficult this might seem.

*Intimate Transactions* examines these ideas through the metaphor of a

dual-site virtual world, which you, the other person and a family of virtual creatures inhabit. It is your choice how you interact, but whatever you choose to do, others will always suffer or prosper. In turn their experience will always directly impact upon your own.

**Figure 1: Intimate Transactions, Shown in Beijing, China. Photo Peter Cullen  
(Placeholder Image Supplied)**

An Ecosophy is a philosophical position or form of self-realisation that a subject (i.e. you or I) might embody over time. Norwegian philosopher Arne Naess (Naess 1995) describes how he employed theories of Deep Ecology to form his own Ecosophy, something he calls 'Ecosophy-T'. For Naess 'Ecosophy-T' was not some comprehensive or all knowing knowledge, but rather a self-realisation born both out of his development of, and identification with, the philosophy he is credited with birthing, 'Deep Ecology', as well as his evolving engagements with the world. Seen from this perspective, solutions to our ecological crisis require dramatic ontological/cultural shifts in how we understand ourselves in relation to the world and each other. These new understandings must form the subjective basis upon which realistic, practical scientific, political and major structural changes are based.

In an essay about the work *Intimate Transactions* (Fry 2008) Tony Fry wrote of its Ecosophical basis,

The problem is circular – *we* cause ecological/environmental problems that threaten, but these problems are inherent in the world that contributes to forming the way we are. Ecosophy names a way to break into, and maybe out of, this vicious circle. As Felix Guattari (Guattari 1995) put it – ‘The ecological crisis can be traced to a more general crisis of the social, political and existential.’ He then went on to point out that dealing with this crisis ‘involves a type of revolution of mentalities.’ In turn, he believed this required *the development of new kinds of socio-environmental subjects* (new kinds of people) rather than increased productivism (the means of exchange by which existing social subjects are replicated and their world extended).

In 2003 I completed a doctorate that laid out a series of Ecosophical ‘questions’ directed towards praxis to frame and develop works. For example, one of these ‘Ecosophical questions’ asked whether ‘energy transfers’ inherent within the work might be made ‘consistent with scientific ecological principles’ that considers ‘energy transfers and exchanges within the work’ as ‘woven into systems of flow’, traveling from ‘sources to sinks, or being recycled and re-utilised’? (Armstrong 2003)

At this stage these questions simply remain objects of challenge and of potential utility for my praxis and by extension others. This approach therefore forms one part of my ‘Ecosophy’ that is underpinned by a desire to discover and become the ‘new socio-environmental subject’ that Guattari and Fry describe.

All of my works begin with the assumption that we exist within a series of four interconnected ecologies. The first three are: the biophysical ecology of the natural world, the ecology of all that is artificial and that which we create, and the social ecologies that ensure we cannot exist without others. The fourth ecology is what Tony Fry (Fry 2003) calls the ‘ecology of the image’ and it strongly mediates the other three. He describes how we dwell, see and act via the way images in this ecology (literary and pictorial) mediate all other ecologies (i.e. we ‘see’ nothing without this pre-layering). Everything in this ecology of the image (like all other ecologies) is relational because no domain of the visual is discrete. Everything we perceive is therefore refracted by images gained from historic and contemporary literary and visual sources, and so the re-thinking and re-working of what those ‘images’ are and how they are created becomes the central project of Ecosophical practice.

**Figure 2. Shifting Intimacies, Cairns, Australia 2008. Image David Campbell (Placeholder Image Supplied)**

This in turn calls for the development of new forms of hybridised practice that engender the experience of our being relationally connected. Just as knowing emerges from doing, then so the experiencing of ecosophical works foments the possibility that participants will move beyond simple subjective responses (i.e. did I like it, how did it all work?) towards embodied forms of learning (i.e. what have I just been experiencing and what have I therefore learnt as reflection becomes transformed into conscious knowledge). Achieving this nascent possibility is the deepest goal for my entire practice. This means that I must continually challenge my own subject position as ‘artist’ and a collaborator in order that I can myself become part of a ‘change community’ via the small but vital

contribution that my works can lend to this cultural project. Tony Fry calls this modality of working ‘re-directive practice’. In a parallel vein Davey (MacLeod and Holdridge 2006: 23) writes that such practices offer ‘the possibility of recognising in other traditions and practices the otherness of ourselves.’

### **SUSTAINABLE ECOSOPHICAL PRAXIS?**

As a technology-based artist who is regularly clumped under the ‘innovation’ banner it is important that I am not simply contributing to the unsustainable productivist cycle that Fry suggests is even written into the mainstream discourses of ‘sustainability’ (Fry 2003). Such praxis is always a work in progress, particularly when it operates within the rapidly changing world of art and technology that rarely pays attention to its unsustaining basis. All technological practice is grossly wasteful in terms of the rapid obsolescence and the hidden costs of its production. Of course this is not a problem only germane to this discipline, but more generally endemic within today’s ‘design for landfill’ mentality. If I were to refuse to struggle with these questions then I would become a part of the problem of the unsustainable. As part of my Ecosophical commitment I must continually wrestle with this dilemma.

The ability of new media forms to foster interactive, media rich experiences allows them to be employed, in concert with Ecosophical principles, to create works that are dialogic and conversational. In these cases engagement with them has the possibility to be eventful and transformative in the same way that conversations can lead to

unexpected insights or bring attention to the overlooked. Davey (MacLeod and Holdridge 2006: 24) writes that conversations ‘are endless in that whilst they may break off they are never completed and in that sense they can never stand as a final statement’. He goes on to say of dialogic works that ‘far from being an inadequacy, the incompleteness of a work’s subject matter poses a creative challenge: to think on and uncover what has yet to be said’. (ibid, p. 22).

### **PRAXIS-LED RESEARCH**

I have adopted the term ‘praxis-led’ to describe my approach to art making that melds Ecosophical theory through every aspect of my practice. This approach should be understood in the context that ecosophies remain personal and social philosophical positions based upon a series of metaphysical beliefs that ultimately are not possible to demonstrate empirically. This complex mixture of practice-led and problem-led methodologies concurs with the Aristotelian conception of praxis, which concerns the thoughts and actions that comprise our ethical and political life and ultimately focuses upon furthering human well-being, and by extension, nonhuman well-being. Each new project is conceived under the general aegis of my Ecosophy and is part of a broader thinking-through and writing-about process that is central to my life as a practitioner. I use theory as a series of iterative stepping-stones in order to generate increasingly or sufficiently appropriate artistic propositions. The development of my works involve a continual looping between practice and writing such that ‘writing would belong to such work as a part of its unfolding, a continuation of the conditions of its appearing’ (MacLeod and Holdridge 2006: 4). The praxis-led methodologies that I use need to be

appropriate to Ecosophical practice and therefore grounded within the Ecosophical pointers.

**Figure 2. Shifting Intimacies, 2008, Cairns, Australia. Image David Campbell**

**KNOWMORE (HOUSE OF COMMONS) A CASE STUDY**

So to what degree does this theory flow into praxis? At the time of writing (mid 2008) I am in the early stages of developing of a new interactive artwork work called *KnowMore (House of Commons)* (Armstrong et al. 2008) - to be premiered at the State Library of Queensland, Brisbane, Australia - opening in late 2008. I will use this work to discuss a praxis-led way of working and therefore how I make that open for scrutiny. My approaches on large-scale project such as this can be broken down into a series of general steps.

**Figure 3. Knowmore (House of Commons) Test Setup. Image Keith Armstrong Placeholder Image Supplied**

Firstly I begin with a series of theoretical starting points, often encompassed in one or more discussion papers. This locates field of enquiry and conceptual terrain and is used to clarify assumptions about 'the world'. The subject matter accords with some aspect of ecology that I am investigating. For *Knowmore* a key contextualising statement was,

In an age that has come to celebrate cultural difference *KnowMore (House of Commons)* considers the urgent need for us to celebrate what we have in common - the needs of all that sustains us at the most fundamental level. This requires us



each to envision new ways that connect our everyday life choices with a duty of care over that which is shared by all: The Commons.

Having settled upon this broad idea I then begin to think through a more detailed treatment. At this early stage I often work alone or in small groups in advance of securing funding for a full creative team. For *Knowmore* I began to develop a rich dialogue with fellow artist-researcher Chris Barker. This led us to synthesise two differing but sympathetic worldviews, leading to a project statement of intent.

*Knowmore* centres on the core assumption that ecological connections between things are present at all times, but they are not always apparent or evident to us. The work speaks to this idea through requiring participants to engage with the work through embodied, perceptive processes that allow them to see/hear/feel imagery that is omnipresent, but at most times invisible. The work therefore asks - what do we 'need to know' before being able to embody and live with better regard to this critical inter-connectivity? To achieve this *Knowmore* avoids rigid structures, repetitive tasks or directly representational forms common to conventional gaming to instead allow participants generous room to experiment and reflect – through deep engagement in embodied, kinetic, audio-visual and collaborative 'play' that links participants and work into an ever-closer ecological synthesis.

This approach dovetailed with a range of granting proposal and funding applications. The initial host venue - the State Library of Queensland (SLQ) - were

focussed upon how their collection, as a knowledge store, might best facilitate the public in undertaking processes of active, socialised learning. We therefore resolved to focus not on what we each might ‘know’ about a personal Ecosophy, but rather how that might manifest in how we each separately and conjointly act upon that knowledge. I therefore wrote,

Libraries allow us to ‘know more’ in many ways. They seek to foster community connection and social development. The new library, as epitomized by SLQ, is our commonly shared resource. Through its extraordinary collection it is evolving into a place not only for us to ‘know more’ but also an environment within which we can go on to ‘learn’ more. In that spirit this artwork draws attention to where a contemporary library’s ‘collection’ might be evolving and therefore what kind of resource for us all it might ultimately become.

### **ESTABLISHING AN ECOSOPHICAL RESEARCH PROCESS**

From this point onwards collaborations and discussion with hired artists began in earnest. In many of my projects collaborators work outside of the academy and may or may not have had recent contact with practice-led research methodologies. I typically prefer to work with full-time professional artists for the relevance, experience and commitment that they share with placing the final works within the international art-exhibition context in which I operate.

As an ecosophical director I consider forceful, teleological, directive approaches (commonly referred to as an artistic director's 'strong vision') antithetical to the work's philosophical bases as separating theoretical bases from a consequent way of working would deeply undermine the ecological, sustaining intent of the work. I therefore seek to create a supportive, respectful place to work that finds a common ground between the entire team. This requires a generosity of approach, a letting go of attachment to specific design approaches and a continued re-remembering of that which we are attempting to achieve – despite the pressure cooker that is an artistic expectation. In these ways I intend that each artist remains committed to the project and also challenged and satisfied that their own practice is being advanced. This moves away from the notion of my contracting others on an in-service basis towards developing a contract between us that sustains long-term collaboration.

To establish this appropriate process I spend time over numerous early meetings contextualising the work and the process to confirm that the team's commitment to documentation, dissemination, publication and academic scrutiny is assured. Over time I have learnt to place deep trust in these collaborative, creative, processes. What drives this research process is more than what Brad Haseman (Haseman 2006) calls 'an enthusiasm of practice', although the need for enthusiasm to push the project through difficult times shouldn't be underestimated. The goal becomes what Haseman (ibid.) calls an 'improvement of practice', in the sense that its processes are increasingly aligned to the stated ecological and embodied frameworks.

**Figure 4. Knowmore (House of Commons) Test Screen. Image Keith Armstrong  
Placeholder Image Supplied**

**FINDING AN APPROPRIATE INTERACTIVE APPROACH**

The next step is to discover an interactive structure around which to best progress the work. Unlike some other artforms that can be tackled at the outset through open experimentation and play, complex interactives — in my experience— require particular software and hardware which necessitates a well-developed seeding structure around which experimentation can subsequently occur. The overall form of Knowmore emerged slowly in a series of iterations. As we began to understand the fit between the project's Ecosophical roots and interactive experience, artistic collaborator, Chris Barker (Barker 2008), wrote in a personal email,

Like architecture without embellishments, the work is constructed as a scaffold, upon which certain types of interaction or characteristics are mapped. These are the physical constraints, it is this high, it is this dark, it is this long, etc. These mappings then, become the syntax upon which an argument is constructed. A bit like making a philosophical machine – an object, which becomes the scaffold for a self-reflexive intellectual layering.

This is where interactivity shines – it is a rare opportunity to build such objects.. using the principles of interaction (user input/change in state), we are essentially building a sculpture, which can 'look into' itself and change form. We can take

then, the essential characteristics of the form (big, skinny, rotating, projected, etc) and the simulation (motion descriptions, dynamics, representations, animations – eg: particle mass, viewing position, illusion, etc) and we can ‘think into these things’ in order to generate the content.

This allowed us to con-jointly establish a base interactive strategy for the work, which we summarised as follows.

The work’s form and primary interface is a circular, 1.5m-diameter tabletop set at an average person’s hip height. This ‘table’ spins on a smooth, central bearing, which is easily hand manipulated – allowing it to be spun (like a wheel) or positioned (like a selector knob). A computer-controlled video down projection falls directly onto it, re-configuring it in real time in response to sensed rotational speed and modalities, creating an uncanny blend of physical object and virtual media. This revolving table sits within a curtained space, both to protect it against light and to increase the intensity/privacy of the experience. Participants enter singly or in groups and their changing presence around the table, as well as how they touch it is registered by sensors. A 5:1 sound system also envelops this circular space with each speaker focussing upon one of five active table zones. A subsonic speaker also provides bodily-resonant components. This innovative format allows up to five people to ‘play’ the work together in a technically simple, but intensely affective collaboration.

This description outlines a broad structure rather than the specifics of what exactly will be seen, heard or embodied, as these are future decisions that will only

emerge from the practice-led process that at the time of writing had only just begun. In these ways we will privilege practice and problem-led approaches as co-dependent and equally important. This also acknowledges that the deeply multidimensional, reciprocal and iterative journeys of making work involves a broad swathe of forces that include intuition, budget, brief, career stage and sustain-ability of materials, processes and showing contexts. However ultimately the final outcome will emerge from experimentation in close collaboration with theory, including the possibility of chance outcomes arising from parallel and serial open-ended investigations.

Only now, with all this groundwork in place do we ‘push off from the side’ and begin to develop a practical model of departure. As the work unfolds we engage in deep reflection in action (why this way, why not that way, what are the performative and political implications of this decision), foregrounded by ongoing documentation, review and reflection. This eventually leads us to the development of a series of proof of concept sketches involving public or semi-public showings, allowing us to further think into and reflect towards subsequent developments. From then on in we commit to our first major proof of concept presentation, which involves peer-reviewed feedback, audience feedback, structured interviews and live documentation integrated into these outcomes. This is achieved by a series of invited showings where audiences attend on the proviso that they will discuss their experience with us both after their session and several days later. In recent years as bigger galleries and festivals have showed my works the base of the audiences has moved well beyond just those in already in tune with my work. Based upon the transcription and analysis of these interviews and discussions I then engage in

reflective, analytical writing drawing upon themes cemented by quotations. This process involves developing aims for the subsequent stages of the work and then re-examining how these outcomes relates back to the grounding theories and decisions as to whether the new relationship is still consistent with the aims originally set for the work. This also leads us to decide how the next phases of the project will be pursued based upon an identification of the cultural impacts. Later stages of the research process involve full documentation compilations prepared for online and offline dissemination and archiving purposes.

## **CONCLUSIONS**

Whilst praxis led, Ecosophical works suggest the ‘problem of ecology’ and they also simultaneously offer audiences images suggestive of transformation, imprinted through the power of physically active experience. This avoids simplistic over reliance on the promotion of fear and guilt, particularly for audiences who may well be already inured to warnings about our deepening ecological crisis.

It would be easy, and wrong, to suggest that participating within these works might somehow lead to changes in future behaviour or action through some transcendental or ‘ahah’ moment. However I am repeatedly drawn to my own experiences in the early 90s of reading Suzi Gablik’s book of interviews, ‘Conversations at the End of Time’ (Gablik 1995) in which she spoke with numerous artworkers and philosophers about how they were personally dealing with the ecological crisis. The

realisations that I gained from that book were just the right ideas for me at that time - spurring me to then develop the Ecosophical project that I have pursued now for many years. It is that possibility of catalytic action, inspired by the experience of a creative work in the context of all other experience, that as both an artist and a social activist inspires me to continue this journey.

This approach, I hope, lessens the risk that the real problem of ecology will remain concealed - the problem of us.

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