Hong Kong Reclaimed: Life Support System

ABSTRACT

Working with the Kai Tak River Project, the Chinese University Hong Kong School of Architecture, and communities of East Kowloon, it became apparent that the ‘River’ is, in fact, an unsustainable sewage channel that has been reconceptualised to support low-density ‘gentrified’ housing development. However, placed in the context of different timescales (return on development investment, integration with mainland China, climate change, sea level rise, water scarcity and food security) new realities and opportunities emerge.

 Annexed from China under threat of war, this former British colony was built on the labour of migrant populations and coastal wetlands. The irony is that by 2048, the Hong Kong Special Administrative Region will pass completely to the mainland Government at about the same time as the reclaimed land of one of the world’s most densely populated, and busiest financial trading centres is reclaimed by the ocean. But in a hundred years from the initial hand-back (2097) Hong Kong has the potential to re-invent itself as a ‘Special Ecological Region’. Given the evolution of these complex economic, political and environmental systems, this paper argues for the deconstruction of ‘the city’ - a paradigm shift to urban form as an integrated whole system metabolism.

Focusing on the ecological arts project, Life Support System: Towards 2048, Beyond 2097, to explore these issues, this paper will further consider the relationships between traditional Chinese knowledge, contemporary ‘systems thinking’, and arts practice. This will reveal the disjuncture, and some of the myths embedded in normative forms of thinking and education, policy and governance. It will, also, offer the potential for Fung Shui, an ecological epistemology, and art as transdisciplinarity.

Keywords: Life Support System, art, ecology, transdisciplinarity

Introduction
I was invited to take up an artist-in-residency in November 2011, in San Po Kong, an industrial urban district of South East Kowloon, with a remit to deploy my ecological arts practice in the river restoration of the Kai Tak River. I spent the first few days, trying to find on maps and by walking, the source of the river.

On my first visit to the School of Architecture at the Chinese University Hong Kong, by chance my host, Professor Wallace Chang, introduced me to Tsou Jin Yeu, Professor of Technology and Urban Dwelling. Having availed me of his prior engagement as “the man who designed the weather for the Beijing Olympics”, and his ability to simultaneously coordinate many satellite, land, surface ocean, deep ocean, and infra-red data gathering systems, I gingerly asked if this had anything to do with Fung Shui. He laughed and said; “Of course, how else do you think I managed all of that data?” As our two-hour conversation came to an end he mentioned several things that both resonated and jarred with me. One was that, “(w)e need to put Fung Shui into context”, because “(f)irst there is Destiny, second Fate, and third, there is Fung Shui”. He then referred to Hong Kong in ecological and political terms as “insignificant” in relation to Time and China. Finally, he said that our meeting had been very auspicious, as normally, he cannot be found, even by his assistant.

The next day I met a cultural programmer at the Community Museum Project, and the Development Director of Mott MacDonald, the civil engineers who built the new Hong Kong International Airport. They each explained, from different perspectives, that the Kai Tak River was not a river, but an unsustainable storm water, sewage and processed water channel, or ‘nullah’, that had been built by the Japanese during their occupation. That evening, over dinner, my host explained that the Kai Tak River had been named a ‘River’ two years earlier to support plans for low-density housing development and regeneration of the former Kai Tak International Airport. The Kai Tak River Project had mounted this campaign to promote “green, ecological, environmental and leisure lifestyle values”. “Hang on”, I said, “those are very different things”. “I know”, he said, “but if we are to gain any foothold in the new marina master plan, we need to be pragmatic.” That night, my head was spinning, and I worked through to dawn, trying to come to terms with the situation. I use poetic texts to think and work. This is the first of three parts:

**Finding Value**

A matter of time, a question of grace.
How did the nullah become a river?
What is its place in the Pearl River Delta?
What are the narratives told and untold?
How does nature relate to this river?
A complex system, how will it emerge,
Given the effects of climate change and people?

Standing back from it, unfocused gazing,
Not looking down, but distancing oneself.
Gasping for water, fish thrashing about,
As the knife descends on a market slab.
For us, another meal, for the fish, death.
Significant loss is a question of value.
Touch-screen touched by a world of virtual being.
Overhead peregrine falcons circle,
Ten million air-con units humming,
Nobody questions the integrity.
Designing for plazas, grand plans and dreams,
Developers invest a thousand schemes.
Down river to upstream, contested land,
Dependent on the city and its distractions.

Thinking of life, watching water pass by;
Economies of scale, market forces.
Upstream, down river, production of waste,
Seduced by designs on complexity,
Twilight through the trees, dogs rule the forest,
River’s source, lost to a rat-run car park.
Isolated by another reality.

They say the river is an artefact,
An imaginary construct; fiction.
Names change identity and function,
Fake realities, words with no meaning.
So, if the Kai Tak is not a river,
Then what is a water channel with fish?
To start afresh with a clean slate and a pure heart.

Wasting wild sewage as brown water sludge,
The Delta spewing its poisonous plume.
Vomiting emissions, freeing carbon
From ancient reefs; fish die and algae blooms.
Lost at sea, Tin Hau dreams as climates change.
How close we become to the waters edge.
Now, retrofitting the past for diverse futures.

**Concepts**

Through my drawings, and poetic texts, Time emerged as the key factor. Placed in the context of different timescales (return on development investment, integration with mainland China, Climate Change, sea level rise, water scarcity and food security) new realities and opportunities presented themselves.

Annexed from China under threat of war, this former British colony was built on the labour of migrant populations and coastal wetlands. The poetic irony is that by 2048, the Hong Kong Special Administrative Region will pass completely to the mainland Government at about the same time as the reclaimed land of one of the world’s most densely populated, and busiest financial trading centres is reclaimed by the ocean. So, given the accelerating effects of Climate Change, the growth of city populations, the reality of at least +2º C, and the other 21st Century Challenges, what do the people of Kowloon need to survive? An urban *Life Support System*, maybe?
Originally associated with 1970s NASA space exploration, an environmental control and life support system is a group of devices that allow a human being to survive in space, supplying air, water and food. It must also maintain the correct body temperature... and deal with the body's waste products. In other words, these systems were designed to replicate the essential living conditions of Earth in the extreme environments of outer space. Now, however, we face the prospect of extreme environments on Earth. My ecological arts project, Life Support System: Towards 2048, Beyond 2097, would, therefore, explore these issues, and extended the metaphorical meaning of the term to consider the potential survival of our species on Earth, in Kowloon.

Many Facets

1. Poetic Narratives Across the City

On 22 June 2012 the exhibition, 'Is/Is Not Kai Tak River a Metaphor', curated by Cally Yu, opened at the 1a space gallery in south-east Kowloon. Together with works by local artists and other international artists, this exhibition featured the poetic texts from the Life Support System. The texts were presented in Chinese and English, and above the work a speaker softly narrated the work in English and Cantonese. This poetic narrative was based on many conversations with different Hong Kongers. As a dialogue it offered different attitudes towards the central theme of Climate Change and considered these in the context of time and indeterminacy of the future. However, it is virtually impossible to translate poetry from one language to another, so the Chinese 'interpretation' by Hong Kong poet Chen Fongfong provided an opportunity for the original ideas to be further developed and understood. This is the second part:

Finding Time

Now, this is the Climate Change generation,
Post 80s, Global Warming as normal.
The way of simple, quick, short and easy.
Building bizarre bazaars for retail drones,
In ghettos of greed and narcissism,
Art by design, the creative classes.
What is the dogma that prevents you from thinking?

While the city awaits re-invention,
Opportunities and options exist,
No more expedient technology,
Expanding the potential for being.
To search the source of the Kai Tak River,
To seek the value of water today,
While knowing the value of phosphates tomorrow.

Drawing through time, first this way and then that,
Handing over, handing back, backhanders.
Transition from one state to another,
From colony to a Special Administration,
Then plurality to monoculture.
The sea awaiting its turn to reclaim;
From certainty, on to indeterminacy.

Meanwhile, at another scale of thinking,
In the territories of history,
As heritage is marketed to block the past.
Passing through the smoke and mirrors of time
From this to that, and from that to this,
With backs to the sea. Now, back to the sea
Another tide, and another millimetre.

Now waves of people replace ocean tides.
The estuary of life, the ebb and flow
Of sea and freshwater, to sea again.
The potential for a new river form?
This is an evolutionary tale,
A bridge between many realities,
Crossing the Long Jin, creating understanding.

Facing the future. Let go to hold on.
Knowing the odds and getting your feet wet.
In the spirit of generosity,
Improvising to make many futures.
A matter of grace, a question of time.
Flip of a coin - two sides of the same thing -
Time suspended, the coin spins for eternity.

The following day, on 23 June, the ‘Kai Tak River Festival’ opened on the new Tung Wui Estate in south-east Kowloon. By the river and across the local bridge, there were many celebratory displays by school children and community groups. In the estate itself, my Life Support System was installed on the frame of a hexagonal bamboo pavilion. The bamboo pavilion was constructed by a team of Hong Kong’s finest Bamboo Masters, who contributed their immense skills and aesthetic expertise to my original design. As a temporary outdoor installation, the Life Support System was placed at a pedestrian intersection, by the zebra crossing of a main road. Each side of the bamboo pavilion’s hexagon presented a facet of the Life Support System as a visual narrative. These were accompanied by brief interpretation texts in English and Chinese. The strategy was that the poetic text, exhibited at the gallery would attract arts, middle-class and student audiences, and the Tung Wui Estate installation would engage local people – children, elderly, and the general public walking and driving to and from the Kai Tak River. The poetic texts formed a bridge between the two venues, between audiences, and provided the project narrative.

1. A Matter of Time, a Question of Grace

This poetic narrative is based on many conversations with different people in Hong Kong. As a dialogue it offers different attitudes towards the central theme of
Climate Change and considers these in the context of time and the uncertainty of the future. One meaning of the word, ‘grace’, is becomingness.

It is virtually impossible to translate poetry from one language to another, so the Chinese ‘interpretation’ by Chen Fongfong provides an opportunity for the original ideas to be further developed and understood. In the gallery setting these texts are supplemented by the spoken narration of the poem in Cantonese and in English.

2. The Five Elements: City As Living Organism

It may be possible to consider the ancient knowledge of living processes as integrated whole systems ecology, or even a city ‘metabolism’. The Kai Tak River may then be thought of as:

- **Metal** – A safe, natural system to reduce waste, harvest energy and make money.
- **Water** - Fish farming and water plant filter systems to recycle phosphates and reduce water pollution.
- **Wood** - Urban forest gardens to produce food, promote wildlife and absorb carbon.
- **Fire** - Capture greenhouse gases (carbon dioxide and methane) to reduce Global Warming and provide biogas as a source of renewable energy.
- **Earth** - Turn biodegradable waste and sewage into natural fertiliser for food production.

Fig 2. The Five Elements

3. Growing Places: Food Production and Self Determination

Twelve images as a visual narrative of three futures:

- **TOP:** Kadoorie Farm and Botanical Garden – Permaculture and Feng Shui forests for people to learn how to grow their own organic food.

- **MIDDLE:** ‘Edible neighborhoods’ - Wong Tai Sin urban forest gardens and San Po Kong brown roofs and green walls.

- **BOTTOM:** The New Territories – how may new city forms be designed as settlements within a forest?

Fig 3. Growing Places: food Production and Self Determination

4. Reclaiming Futures: Sea Level Rise

The flag of Hong Kong becomes a sequence of maps as sea levels rise.

With storm surges, sea level rise from now to towards 2048 maybe 3m, and beyond 2097, 6m.
1997 saw the start of the process for returning Hong Kong from Britain to mainland China. That process is due to be completed in 2047. Given that most of Hong Kong’s urban infrastructure was built on land ‘reclaimed’ from the sea, a particular poetic irony emerges that given the effects of Climate Change, much of that land will be ‘reclaimed’ by the sea. China will then receive a similar landmass to that which has been ceded to Britain under duress.

Fig 4. Reclaiming Futures: Sea Level Rise

5. The Nine Dragons of Kowloon

The geophysical nature of the ‘Nine Dragons’ (eight mountains, plus the memory of a fallen Emperor) that gave Kowloon its name. A larger map of them all shows that, potentially, the mountains are freshwater generators and food producers. Then, as sea levels rise, they become barriers, and future island settlements.

Fig 5. The Nine Dragons of Kowloon

6. The Shape of Freshwater

Hong Kong in context. Across Asia a desert grows with Global Warming, melting the glaciers and permafrost of the Himalayas and the Tibetan Plateau. Freshwater that flows to the watersheds of the great rivers of South East Asia now flood and will then dry.

Where the rivers form multiple deltas along coastal regions, freshwater will turn to salt water as sea levels rise.

Fig 6. The Shape of Fresh Water

Impacts and Becomings

1. Collaboration As Art As Transdisciplinarity

One factor about the Life Support System project that is still perceived to be unusual for an artwork is the degree of collaboration. Despite the development of socially engaged practices, ‘social sculpture’ (Beuys 1990) and theories on ‘dialogical art’ (Kester 2004), it is still not the norm for artists to include others in their work. However, this method of working is one of the defining factors for those aligned to ecological arts practices. I find this way of working not only integral ecological thinking and practice, but it has the potential for transdisciplinarity (Nicolescu 2002), and thereby the possibility for arts-led, practice-based research to emerge as another level of understanding. Indeed, I believe it is this transition of material knowledge, form and process that gives way to the art. To this end, the intended impact of this project was to affect those who live in Hong Kong, as it is for them to accept, adopt, amend or reject the Life Support System. If it works, I will have left
behind a network of capable people, who transformed my initial ideas into a project across us, between us, and beyond all of us.

2. Focus on Ecological Arts

The gallery trustees and new staff at the 1a space gallery want to shift from the conservative, commercial Hong Kong Arts World, and want to develop opportunities for socially engaged, ecologically relevant forms of art in the context of Hong Kong’s potential futures.

3. Education - Roof Garden

The Kai Tak River Project’s comprehensive, long-term education programme with twelve Junior and Senior schools along the Kai Tak River, now includes regular Wild Walk. These ‘walking-as-art’ events consider the city to be a living organism, with the potential for nature to thrive, and question where and how we live. Also, one Secondary School is now committed to developing a roof farm and garden, supported by the Permaculture/Feng Shui expertise of the Kadoorie Farm and Botanic Gardens.

Fig 7. Installation at Tung Wui Estate

Emerging Futures

In the next fifty to one hundred years, sea level rise will have a major impact on the whole Guangdong region, China’s richest province, (Tracy, Trumbull and Loh 2006). Major floods, followed by drought will result from the glacial melting of the Himalayas and Tibetan Plateau, as the deserts to the north expand southwards. While grandiose engineering schemes claim to protect the area, it is unrealistic to think that human technology will be able to meet the magnitude of these forces of nature. In anticipation of the significant effects of Climate Change on South East Asia, the US Pentagon’s Centre for Climate and Security has shifted its focus and security investment to the region (Femia and Werrell 2012). They expect mass migrations into and out of the region, which has marked much of Hong Kong’s history, but in recent times, Hong Kongers have grown used to relative stability. As energy supplies are likely to falter manufacturing will suffer, adding greater burden to volatile economic markets, so there is a great need to become more resilient in every aspect of living. However, while the rich are likely to simply leave, it is the ordinary people of Kowloon who must learn to fend for themselves.

As the ecology of the situation shifts and changes, perhaps there is a new role for the arts? Evolution is not all about ‘survival of the fittest’, as the evolutionary microbiologist, Lynn Margulis explained, it is as much about collaboration, or symbiosis, as it is about competition (Margulis 1998). So, maybe the arts can work towards the emergence of social conviviality and cohesion, ‘fundamental culture’ (Morin 2008) and creative innovation, what the Scottish sculptor, Eduardo Paolozzi called for, ‘… a new culture in which way problems give way to capabilities’ (Paolozzi 1985). This is where the Kai Tak River Project’s efforts may move beyond education to individual, community, regional and world-wide learning?

This is the third and final part of the poetic text:
Finding Life

If Hong Kong is not significant, what is?
Kai Tak River in the grand scheme of things?
Your love in the grand scheme of everything?
In the presence of a meaningful tree,
Thinking of what the world has to offer.
All the beautiful possibilities,
Seeking resilience through capable futures.

Observe and reflect, learn from the future,
Re-imagine urban living in time,
From human to ecological time,
And from now to geological time.
Then reconfigure the potential
For human survival in a changed world
First Destiny, second Fate, and then Feng Shui

Digesting sewage, drinking freshwater,
Recycling phosphates, farming for fish
Sustainable urban drainage systems
Gardening urban forests, growing food
To reconnect with earth, water and air,
Meeting people, and making new questions
Art as a learning process, energy for free

Other realities away from Earth
At another time away from the now
Another place that is away from here
And virtual ways of being removed.
Then ground the process, embrace another,
Let new realities inform the old,
Many realities simultaneously.

White tiger’s breath: change brings transformation,
Black tortoise, maintaining energy flow,
Grow the forest of the azure dragon,
The red bird flies with warmth and passion,
Whence we came, yellow dragon nourishes.
Living across, between and beyond all,
Attract and repulse, create and destroy, as one.

From Kai Tak’s diverse Life Support Systems
To Hong Kong as a Special Green Region.
From economy to ecology,
Playing out the story of whole systems,
Reclaiming the values of growth for grace.
From generation to generation,
Creating the conditions for life to emerge.
REFERENCES


NOTE

All images – David Haley 2012