

Artist, David Haley*, offers his diary and creative thought processes as he embarks on a project in Taiwan.

A DIALOGUE WITH OYSTERS

A-Bang (Tseng Wen-Bang), the Director of Taiwan Shui, an NGO dedicated to developing socially- and environmentally-engaged arts projects, asked if I would be interested in working on one of his new projects in Chiayi County, on the south west coast. The brief was to consider an artwork using waste oyster shells and I said the concept of waste, the connection with water and the idea of oysters might be a good starting point for art to intervene. Having received a detailed appraisal of the oyster and fish farming, salt and tourism industries of the coastal areas of Chiayi County, I responded with an outline of initial ideas and requirements.

2 August

I arrived in Taipei and was taken to my accommodation between down-town and the harbour of Budai.

3 August

Artist Julie Chou (my main interpreter) and others collected me to visit a wetland conservation area, near Dongshui. The wetland had been reclaimed from the sea by the Taiwan Sugar Company, but was then deemed no good for growing rice or sugar cane, so government grants were given for 'restoration' tree planting. Similarly, abandoned lakes had been deemed no good for fisheries and although now polluted, they are still fished. Egrets, black-faced spoonbills, fish, rats, snakes and eagles comprised the ecosystem. A four metre high levy separates the Taiwan Straits from the wetland.

Afternoon visit to Haumeiliao and Acky coastal wetland

Our guide, Su Yin-Tian, President of the Chiayi Ecological and Environmental Association, proudly wore a broad-brimmed hat displaying a black-faced spoonbill.

He explained that the estuarine, inter-tidal, sandbank channel of lagoons were turned into fish farm ponds. Then, the national Government declared fish farms illegal and that the area should revert to lagoons. Local government ignored the

declaration, as it did not want to upset the fish farmers. Through over-extraction of freshwater from the successive layers of aquifers, the land along the whole coastline is subsiding.

Developers were paid to take sand from the sandbank to construct a promontory so that a new harbour could be built. Changes to the sandbank are not shown on maps. Therefore, nothing has changed - because the planners are not there to see it, nothing has happened. However, the new harbour interrupts the flow of tides and makes new sandbanks. These block the shipping lanes to the harbour, so the dredging company is paid to remove them and paid again to supply sand elsewhere.

Oyster farming takes place in the main, remaining lagoon. Sea-breakers are dumped in the wrong place to be able to defend anything and are sinking, so more sea-breakers have to be bought.

Local people collect beautiful shells to sell. These shells are dug out from mangrove roots. This kills the mangroves that provide the habitat for this kind of mollusc. Government signboards forbid the collection of the shells, because they are becoming rare. This attracts more people to collect them, as their rarity attracts a premium price.

Bleached by the sun and rain, tourism interpretation boards render ghostly traces of illegible text and images - fading knowledge. Idea for an artwork - interpreting future outcomes?

4 August

The ten salt fields of Budai

The salt pans were owned by Taiwan Salt Corporation for whom Ging-Tai (now leader of a Taiwan Opera group), our guide, worked for 23 years. The 'Fifth Salt Pan' is the oldest (1864) and is a Taiwanese 'organic' design. It now has a mix of freshwater from typhoon rain and salt water from the sea. It contains oogwa fish that have been bred to different types - salt and freshwater. The salt pans provide good migrating bird habitat. The bottom is lined with broken ceramic - I suggested putting oyster shells under ceramics to help pH. Need to do water analysis as the Taiwan Salt Corp

no longer does this.

The railway lines have been removed and the eight houses of the Salt Police (previously employed to prevent theft of the valuable commodity) are now a lively looking visitor centre, decorated with a façade of driftwood and brightly printed banners. The community want a visitors' tunnel to interpret the history of the salt industry in Budai.

Dongshui township and oyster shells

This is an official tour, with town council officials, local artists and some media people. The whole town is three metres below sea level due to land subsidence. It is protected by a five metre high dyke, built by the Taiwan Sugar Company.

Local villages clash over oyster dumping grounds - each blaming the other for illegal dumping. The shells should be delivered to the official dump, where they are left in the open until they turn white, then they may be processed. Women check the dumped shells for oyster meat (up to one day out of water).

Shells were once processed for lime, which was used for building. The main use now is for fertilizer. However, the fertilizer is marketed too cheaply, so it is not valued by farmers.

The new dumping ground is a designated abandoned salt field. Another salt field has shells distributed along the banks as an environmental experiment, but nobody seems to know why.

5 August

We travel to Chiayi City for a meeting with Tien-Pao Chen, Director of Water Resources, Chiayi County, at County Hall.

The Director of Water Resources explains that he cannot legislate to stop over-extraction of water from aquifers and Government departments are not 'joined up' enough to be effective. As sea levels rise, the land is also subsiding and typhoon rains cause floods from inland.

I ask about plans to build underground seawater barriers to protect the aquifers from saltwater incursion and a freshwater mountain/aquifer pipeline. He says these plans have been abandoned. As the aquifers become redundant, a 200 hectare reservoir to

conserve freshwater is already being constructed, together with a new town. I assume this is in the mountains and we agree to engage in a research project in the reservoir testing pond, using oyster shells to reduce the effects of 'acid rain'.

A layer of oyster shells will be placed below a layer of ceramic rubble or other aggregate. Acid rain will interact with the shells to release calcium and carbon to restore pH and act as a carbon sink. Our project needs to prepare a proposal document, outlining data requirements and other needs - watershed maps, water analysis, energy consumption/carbon release caused by transportation, construction and maintenance.

He agrees to supply watershed maps and statistics on the oyster economy.

As sea waters rise oyster farms will have to move inland (or be abandoned) and this needs to respond to increased food production needs. So, what are the conditions needed for new land to be given to aquaculture? What about the production/provision of plankton for oyster food? How can new tidal lagoons be constructed?

He understands the importance and urgency of the situation and agrees to carry on the discourse.

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Everyone agrees the need to contact the Environment Bureau and Agriculture Department to bring them together. We need to know about the whole Josui River watershed system and consider the impact of the reservoir and the proposed new town for coastal migrants.

Later, I discover that the new reservoir and town are being constructed close to the sea - this makes no sense, ecologically, economically, or in any other way.

Everyone was pleased with the meeting and the potential for the project to collaborate with the County Council on creative ecological and social research. We all know that actually making it happen will not be as easy.

8 August

Boat trip to the oyster lagoon

About 20 people from the project, the town councils, other organisations and agencies gathered on the quay of Budai Harbour. Tsai Geng-Chiao, the community leader, was our guide.

Oyster farming, on an industrial scale, only started in the 1950s. Oyster fishermen changed from gathering their catch to sprinkling shells in the lagoon to encourage spats (the first stage of growth, when the small organism attaches itself to a substrate - often another oyster shell). The fishermen then developed a technique of inserting two or three shells into split bamboo and pushing the pole into the lagoon bed. Now suspended, rectangular, bamboo rafts or racks are tethered to large vertical poles. Each rack supports many plastic strings and each string has nine or 11 shells tied to it.

Geng-Chiao explained the problems the fishermen had when typhoons covered the oyster racks with sand, killing the oysters.

12 August

Conference

In the course of the final session, a general consensus had been reached that oyster shells are:

- A good general fertilizer, if the agro-chemical industry allowed it to be marketed
- An environmentally-friendly building material

- An import ingredient for restoring pH to freshwater in fisheries, drinking water and aquatic ecologies
- Good for establishing new forests

It struck me therefore that they had been wasting an economically-viable resource and plans should be made forthwith to address creatively this waste of foresight. We need the art to generate new ways of thinking, new ways of working and maintain attention.

13 August

The workshop

About 20 people gathered, including all the main project people, the two artists and town council representatives. After some time, a writing board was wheeled to one end of the table and Tsai Fu-Cheng (Programme Coordinator) started to explain some ideas and drew them on the board. I drew additional ideas (that I had developed through the Greenhouse Britain project with the Harrisons). Each of the two artists now felt liberated to think freely and one started to create forms of future refuge, in the shape of 'turtle-back' hills, with trees, water gathering facilities and solar panels. Then Tsai Geng-Chiao (Local Project Leader) mapped a diagram of a constellation, as it might appear on the ground, each star represented one of these hills. This auspicious configuration would make the proposal acceptable to the belief systems of local people. A-Bang then introduced a pragmatic political note by introducing a specific timescale to coincide with forthcoming elections and the retirement of the town Mayor. By mid-afternoon an entire plan and strategy had been agreed and the meeting broke-up, inspired.

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