

DIY sustainable floating island

Water refugees

Artists collective Fossile has incorporated a new field of research of critical importance as human population is growing alongside with urban territories at an unprecedented rate: habitat. While concepts such as sustainable development or even permaculture are often used in political language and drive an established field in the worldwide economy nowadays, many people living in the cities and even in rural areas are progressively losing the fundamentals of their cultural and practical relation to non-urban environments.

Although we know both have been heavily polluted by human activity, the sea and the atmosphere remain partly uninhabited and more or less considered as commons, open or collective spaces. Eventhough this status is often conflictual, the statu quo is still visible through the legislation regarding international zones.

Since floating requires less effort for human beings than flying, Collectif Fossile has started to experiment with mobile floating structures. The starting point of the process consists in following various tracks amongst a range of researches in the fields of art, law, architecture, energy, aquaculture and economic strategy, all related to humans and their aquatic environment (be it fresh or salt water).

Float and flow: identity and culture as processes

We feel the urge to design effective proposals regarding sustainable and fair cultural circulation. As a physical space, rivers, lakes or seashores are often used as “natural” borders. But flowing water is also connecting spaces. River and sea appeal to us as potentially open circulation support for people and cultures, experiences, designs, ideas, techniques.

Paying a tribute to nomads and migrants, to Debord's drift and psychogeography, to Buckminster Fuller and his floating city or to contemporary artist Ritchie Sowa and his man-made island built out of plastic bottles, Collectif Fossile is designing a floating mobile research structure aimed at exploring potential symbiosis between human activity and various aquatic environments.

We offer the people who are related to the waterfronts a way to reconsider their identity within a flowing, living relationship with their neighbors across the water.

Sharing traditions

Both a resource and an environment, water deeply infiltrates various cultures on the planet. The theme of the island has been investigated for a long time by writers, anthropologists or artists. Cultures closely related to the water have produced a fascinating teratologic gallery. Many efficient aquaculture techniques have been traditionally based on floating structures in various parts of the world, from lake Titicaca to Birmania, ensuring high efficiency and protection against floods. Simple desalinization technologies and green (or blue) energies have been a growing concern during the last decades in the scientific and industrial sectors. International solidarity experimentation should be considered as an unbiased dialogue between local heritage and imported experience based on reciprocity.

Acknowledging the now established tradition of hackerspaces, we want to gather groups and individuals around this field of research without separating theoretical and practical approaches, nor discriminating daily preoccupations such as shelter, food, water or energy and cultural creation or exchange.

Symbiotic creation: a nomadic aquaculture

As artists, we consider we have an obligation to question our position within our environment and in an exchange system. We consider culture as a process evolving in symbiosis with all the aspects of human activity and art as a disturbing “je-ne-sais-quoi”, a catalyst irradiating the field of culture.

Creating art is like growing a garden. Artworks can disseminate like plants; they live through exchange. Redefining property and licensing on living species is as urging and crucial as rethinking copyright and the right of authors regarding cultural productions.

Our relationship to our environment is not only guided by the principle of efficiency and affordance. We don't have the responsibility to govern nor to set standards. Our actions and constructions could be aquatic monsters, inadequate shapes or temporary manifestations of underlying obstacles. But part of our work should also aim at sustaining our way of living and working.

Used as gardens or resource centers, floating islands can be a field for exchange with local individuals and communities.

Used as exhibition, workshop or residency spaces, floating islands can provide guest artists with an opportunity to relate their work to water environment and culture.

Processes and time-line

Since we want this work to be open, adaptable and mobile, the time-line for the project differs from the usual model: concept → fund-raising → production → diffusion.

We rather engage a work in progress based on successive steps that are reiterated while a living archive is maintained as a way to document and share successful experiences.

1. The project begins with an online crowd-sourced gathering of multilingual resources ranging from aquatic constructions and aquaculture techniques to traditional figures or narratives related to the water. We thus build a community with various actors that get involved in the research.
2. A few experimental aquatic modules are designed, such as:
 - shared floating gardens and aquaculture units,
 - de-polluting pontoons
 - energy production units
 - floating shelters
 - social terraces
 - diffusion and exhibition structures (water screens, stages, floating puppets)
3. The prototypes are implemented in a given environment during a short multidisciplinary residency involving local and international makers, engineers, researchers and artists. The goal at this step is also to involve a local community willing to experiment, maintain, develop and propagate the floating structures after the term of the residency. While the project in itself is not commercial it may involve skilled professionals as well as locals without competence *a priori*.

Timescales can vary from quick intervention to long-term residencies and journeys, based on seasons and climate.

Living archive in progress

It is important to understand that these steps are practically overlapping each other.

The crowd-sourced database is to constantly evolve and grow together with the interest for the project and its discrete implementations. So evolves the design of the various modules and shapes that are generated as reactions to each local context.

The structures can also be equipped with sensors and communication devices allowing them to contribute environmental monitoring in partnership with academic communities.

The simplicity and mobility of the structures as well as the necessary local commitment facilitate propagation and replication or adaptation.

Modal / nodal construction

A central aspect of the project deals with auto-construction and cooperative management of light, anchored or mobile, floating structures. These structures are a way to address a dialogue with a defined environment through research and experimentation. We thus document and evaluate various architectural or naval designs that have already been developed with a focus on free licensing, transmission and adaptability.

We may roughly categorize the constructions in/on water as follows:

- **Boats** are vehicles, that is to say mobile structures designed to allow intentional movement on water. Let's consider submarines a special type of boat.
- **Houses on stilts or polder constructions** are rooted and designed to conquer land space over water.
- **Barges and pontoons** are floating extensions of the earth designed to be anchored or closely linked with land.
- **Oil platforms** (based on floating columns) are deep water floating structures.

We are particularly interested in barges and pontoons because they can easily be built and designed as modular organisms for scalable implementation, but also for their potential ability to drift and to be combined to generate larger structures.

Aquanauts: concerned individuals and communities

- every individual or group living close to fresh or saltwater
- territorial communities willing to constitute networks and engage an alternative territory management process
- scientists and laboratories involved in studying and monitoring water environments (agronomy, energy, landscape studies, sociology, law,)
- artists and designers working with water
- NGOs and companies (aquaculture, architecture, naval construction, fishing, transportation, etc.)