

“Next Generation” 1st prize 2008 Europe

Production and ecological cluster, New Haven, UK

Project data

Type of project Architecture (hotel/restaurant)
Estimated start of construction Not applicable

Main author

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Further author(s) & legal guardian(s)

Further authors: Not applicable

Comment of the Holcim Awards jury Europe

Starting from a rather standard brief to design a restaurant at a ferry terminal, the project has been evolved by the author towards a comprehensive socio-ecological development program for a small but important area. The jury was delighted by the sensitivity with which the author has broadened the scope and sought to benefit from locally-grown flowers as a raw material for an ingenious tea manufacturing process handled by the local population. The end product will finally be sold in the restaurant which has become a tea house. The water for the tea house is collected in the nearby heavily degraded river, purified using reed beds and then finally brought to drinking water quality in the pre-existing desalination plant close to the ferry terminal. Solar energy is used for power and hot water production. The project has been commended due to its careful and sensitive combination of elements of sustainable construction at a small scale and due to the poetic design.

Project description by author

The program that I came up with as a student at the University of Brighton, UK, works as ecological cluster: everything and everyone is interconnected with one another for the benefit of each other which makes the proposal sustainable, reduces waste. The project is based at the estuary of the River Ouse in New Haven, 90km south of London on the coast of the English Channel. The brief was to design a restaurant at the ferry terminal. After site investigation, I proposed not only a restaurant but a new square that interconnects passengers, drivers, farmers, communities and nature (fig.1, 2, 4 to 9). The concept transformation was generated by the transient nature of a scalloping gear found in the site. This was further developed by the transient nature of a particular area of Portugal during a study trip (fig.3).

After a careful study of flowers which grow in different environments and are also used as herbs for tea, flowers were chosen to compliment the existing site conditions (fig.5). These flowers go through a seeding, growing, harvesting and drying process using retractable designed sun ovens that harness the sun 60° in winter and 30° in summer (fig.2, 5). The dried flowers go through a manufacturing process incorporated into the architecture and context. The Lavender Teahouse connected to the pontoon moves with the tide, then triggers the sun oven which dries the lavender flowers to open up and the dried flowers to be collected in the skin (between the transparent plastic walls of the tea house) which has containers for people to access them to make their tea. The building proposal works as a machine (fig.5). As Lavender and Rosa Rugosa grow in water their spaces/architecture are designed to float with the tide triggering the manufacture of tea while Chamomile, Marigold remain still on the ground. People collect dried flowers from their sun ovens using specially designed plastic vessels which are then taken in lorries for distribution (fig.8, 9).

The tea hotel/restaurant needs water. So polluted water from the River Ouse is purified using retractable reed beds (fig.1, 2, 4), sent to the main sloping reed bed which is then connected to the existing desalination plant to purify the water to drinking quality (fig.1, 4). This water is then pumped to the sun oven which boils the water to be used to make the tea (fig.4, 8, 9). This proposal works as an ecological cluster also because it is designed in such a way that it is like a gallery, disseminating knowledge about the sustainable design process which would carry on from generation to generation (fig.2, 6 to 9).

Relevance to target issues by author

Quantum change and transferability

The concept integrates urban food growing to architectural landscapes as a machine encapsulating spaces that can be applied everywhere; and contributes to other construction fields:

- sun ovens are architecturally designed (fig.2, 4, 8, 9), recyclable plastic is used for maintainability and is ideal near the coastline.
- lavender teahouse is designed to float while making tea (fig.2).

Ethical standards and social equity

A response to the natural and social context. A square. From inception to completion it is socially and politically ethical:

- sun, soil, tide harnessed (fig.4 to 7).
- like a gallery/exhibition space disseminating knowledge. The square creates a therapeutic psychological sensory experience: lavender (calming), rosa rugosa (tranquil), chamomile (soothing), marigold (sprited feeling) (fig.6, 7): lavender teahouse (fig.2, 4 to 7).

Visual (translucent light, lavender cultivation), audible (thick insulation), tactile (smooth textural plastic for the skin), taste (lavender tea), smell (lavender fragrance). The proposal is a place for the community local foreign to interconnect. A meeting place. This communal space changes seasonally.

Ecological quality and energy conservation

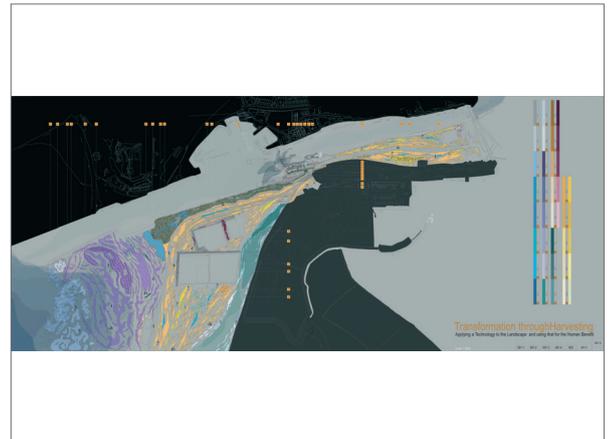
Use of environmentally-neutral energy sources: sun, tide (fig.2, 4, 5, 8, 9). Planning done to preserve environmental quality, conserves energy through efficient design (fig.2, 6, 7). Reduces waste by using recyclable plastic, steel as the main material. Locally sourced materials to reduce transportation waste. Promoting public transportation: ferry/train/cycling and to distribute tea to the community instead of lorries. Using a few tractors, cyclists to collect flowers from the region to be brought to the site for manufacturing. Using the same for product distribution. Modules of the building will be brought from lorries to site for assembling to reduce waste on site. Creates an ecological cluster with a habitat for wildlife.

Economic performance and compatibility

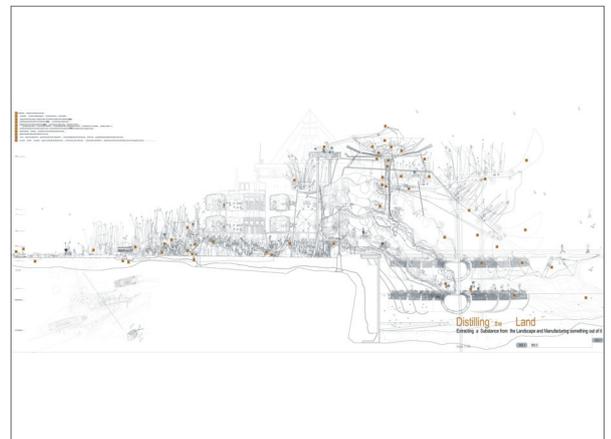
Provides long-term economic benefits for the owner, local communities and creates an economic base for the region (fig.1): distribution of tea and purified excess water to the community. Neutral energy is used so reduces cost. Generates a lot of employment.

Contextual and aesthetic impact

Regenerating the existing contextual condition (fig.1, 2, 4 to 7). The spaces changes seasonally (fig.4 to 7). Psychological enhancement from response to the human sensory experience (fig.6 to 9). Land use planning preserves natural areas and dialogs with the landscape (fig.1, 2). Urban planning designed to enhance social/cultural value (fig.1, 2, 8, 9).



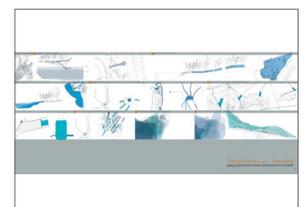
Master plan: program works as an "ecological cluster" for community-wide mutual benefit.



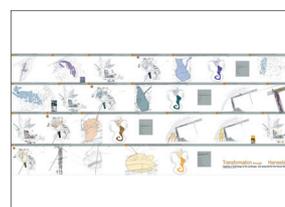
Section through the "lavender teahouse": tide and sun harnessed to manufacture tea and generate a tranquil space – like the lavender.



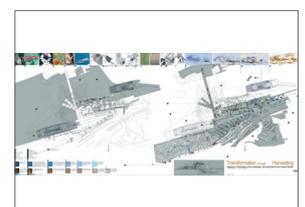
Concept: transformation.



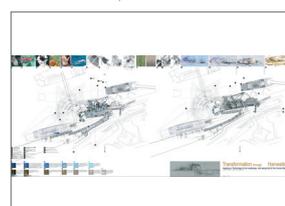
Continuation of master plan 1.



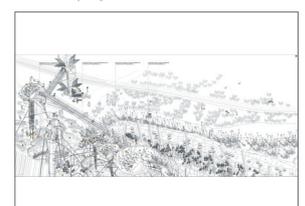
Continuation of master plan 2.



Plans: master plan 3.



Plans: master plan 4.



Isometric view: top portion.



Isometric view: bottom portion.