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Water-Art-Technology

Mexico City was founded on an island of the lake basin of Texcoco around 1325, since the founding of Mexico Tenochtitlan it was the interest of its residents to amend the natural conditions of the ecosystem.

One by one, their leaders were extending their gain ground against the water surface, to build their temples and causeways, at first it was developed in a sustainable manner, "chinampas" or floating gardens were developed, creating a very successful method of agriculture due to the constant irrigation of artificial canals that supplied constant humidity to the Milpas. The great Lake Texcoco, was yielding little by little over the centuries to population growth and urban sprawl. With the arrival of the Spanish and their conquest of the city (which was partly due to its lake condition) the valley had an accelerated change. In a phased manner the basin was dried, steadily expanding its territory, the Spanish used the indigenous to fill the lake, the canal systems and the floating gardens were destroyed, causing floods and droughts, the old drainage systems were modified. With the independence of the Spanish realm, we have the dependency on ecclesiastical and political institutions that had no interest whatsoever to be in harmony with nature, but to conquer it.

In the modern era with the invention of the internal combustion engine, the automobile and the discovery of large oilfields in Mexico, streets and roadways were constructed over the last rivers intending to conclude the conquest of the Texcoco lake. The city was literally covered with asphalt. This relationship of modernity and conquest of natural areas without future prejudices is one of the major social issues in Mexico today.

In recent years it has been my interest to develop an artistic practice that reflects on the technological processes and the active relationship with the energy and the political, social, natural and spiritual implications. It is of particular interest to me, to reflect on the obsolescence of the institutions and

the systematic energy waste, so as to link the understanding of the metaphorical relationship of water with electrical and spiritual energy.

Spark-un-plug 2005, 2007

is a procedural system that reflects on the forced implementation of obsolete motor technologies, which has the planet on the edge of an ecological crisis, due to the implications of global warming. The piece is a theoretical model of energy feedback which is engaged in a dialogue between natural and technical systems. The work is a wood lattice that holds 300 spark plugs arranged in 3x3 matrix, that is confronted with a block of ice. At the matrix, producing sparks with high voltage, visual and sound patterns emerge, as simulations of rain, steam and ice crystals, the three states of water are observed. These simulations are conditioned by natural phenomena of the ice such as humidity and temperature. The oil and automotive industries have kept the world's population addicted to obsolete technologies. [Fig. 1]



Fig. 1

Induktokhor, 2009

proposes a reflection on the technological developments of Faraday, Edison and Tesla on energy and the electromagnetic induction, relating them with the Tibetan Buddhism practice of energy release of the prayer wheels or Mani Khor. Induktokhor is a mantric machine commissioned by Karla Jasso for the exhibition Sinergia at Laboratorio Arte Alameda. With this work two similar principles but with different characteristics are correlated, first the electrical machine that induces electric currents by rotating magnets and coils, generating electrons in result, a principle which led Nicola Tesla to the development of an industry that provides 90 percent of the electric power in the world, the vast majority using water as a mechanical power. The mani khor or prayer wheels are Tibetan machines that are used to emanate spiritual energy represented as desires, the Sanskrit mantra "Om Mani Padme Hum" is carved at the outside of the cylinders and is written thousands of

times rolled in papyrus and kept in the inside, as the practitioner spins the cylinder, induced energy is released. Inductokhor is a kinetic machine, which depends on human interaction, to release different kinds of energy, mechanical energy that is transformed in a electric current that activates electrical circuits transforming that energy in sound. The electrical current is also used to produce electrolysis to purify water and release atoms to use them in an hydrogen cell to transform them in electric current [Fig. 2].

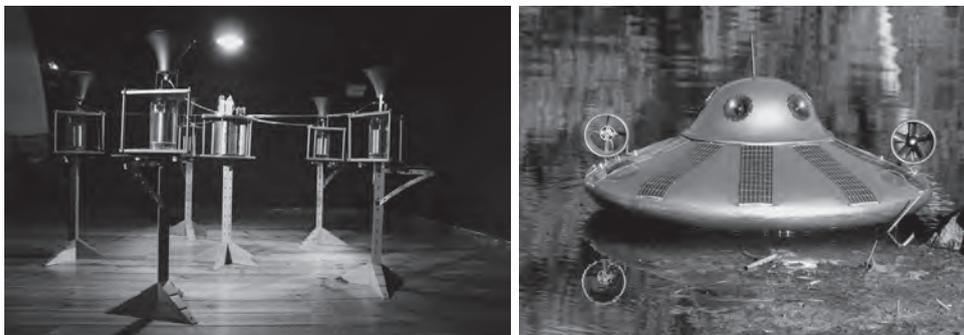


Fig. 2+3

Nanodrizas.org

The Nanodrizas are floating autonomous robotic artifacts forming a network of wireless sensors, which measure, in real time, the water environmental conditions, transmitting data to local decentralized systems of augmented reality and Internet applications for interpretation, visualization and analysis, establishing a radio frequency communication network, satellite Internet and GPS. As a consequence, they intervene the space with synthesized sound and release bacterial and enzymatic remedies in situ. Nanodrizas, inspired by science fiction, have the shape of a flying saucer, an ideal exposed surface for the collocation of photovoltaic cells for energy harvesting, so as to provide the electronic and autonomy system's needs. By sharing the analyzed information, Nanodrizas create a symbiotic network of mutual benefits that is reflected in the Internet as one more of the aesthetic, tactic and conceptual sub-products generated by the intention of recovering the tributaries of contamination. [Fig. 3]

<http://www.nanodrizas.org>

<http://www.arc-data.net>