

# LAGI- Renewable Energy through Public Art

Imagine yourself walking through a public park, a place of leisure and contemplation. In the distance, an object appears to rise organically from the landscape. Its armatures and folds relate to the composition of the setting. Looking closer, the large object makes you think of the beauty that exists in nature and at the same time about human invention and ingenuity. It reminds you of a pattern that you saw once on the surface of a sea shell, or of the way that a grape vine branches.

When you reach the observation platform it all comes into perfect form, like a painting in a frame. As you watch, the way that it reacts to the forces of nature inspires you to think about the interconnectedness of human activity with the earth and the delicacy of our shared ecosystem. You are surprised to learn, by reading the sign, that the beautiful object that has so captured your attention is also a power plant harnessing the natural power of the wind, sun, and water in the creation of real, carbon-free, renewable energy that is at that very moment providing electrical power to thousands of nearby homes.

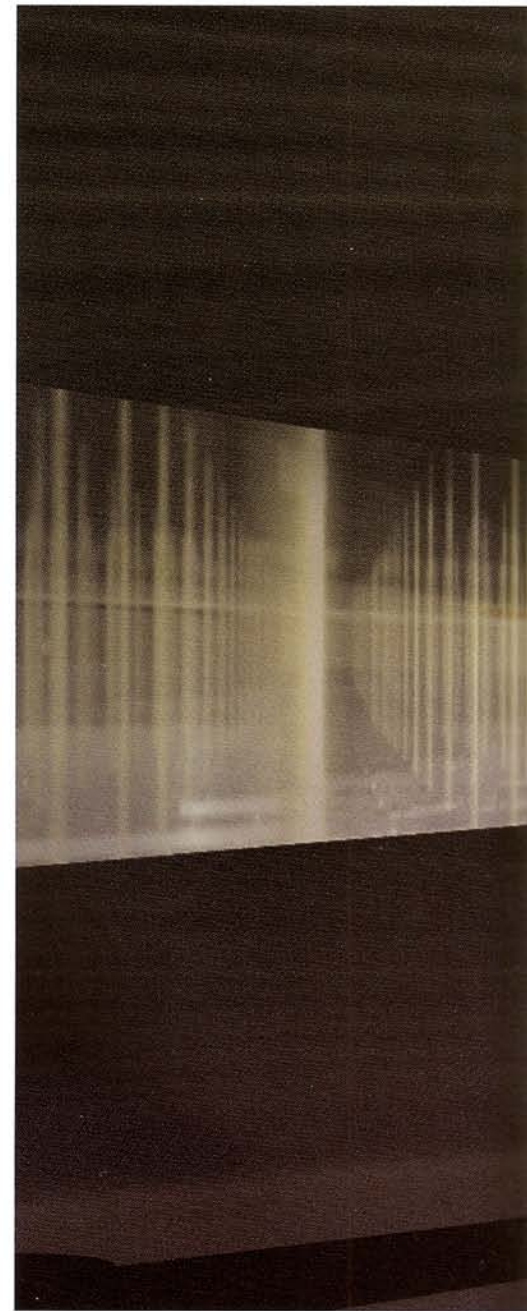
You stay for quite a while listening to the energy conservation discussion that is going on there that day, stealing glances toward the energy generating artwork as it moves to follow the sun.

Art is a powerful force throughout history and in every culture. It has been used to educate, stimulate, inspire to action, and instill awe and wonder.

The Land Art Generator Initiative (LAGI) in the United Arab Emirates is a project that intends to create works of art that do all of these things and more. The artworks that they are striving to see constructed will be large public art creations within Abu Dhabi and Dubai that also function as renewable energy power plants.

The Land Art Generator Initiative is a project of the non-profit arts organisation, Society for Cultural Exchange, which is registered in the United States. Elizabeth Monoian is the executive director of SCE. The project is promoted in the UAE by Zero Impact Art Gallery, Dubai which was started by Robert Ferry.

Elizabeth and Robert are a husband and wife collaborative team leading the LAGI



project. Elizabeth is an interdisciplinary artist and designer who uses the Internet, found objects, public spaces, electronic noise, video, and performance. Robert is an architect with a focus on designing buildings and other public objects that go beyond current popular notions of sustainability to achieve complete harmony with their local and global environments and with the people that use them.

This past January, they launched the 2010 LAGI International Design Competition. As of the writing of this article, there have been over 600 design teams (from within the UAE and from around the world) that have registered



*Visitor to the Camera Obscura room of the Ibn Al Haytham pavilion*

to submit designs for renewable energy public artworks in the UAE. The award to the winning design team is US \$15,000. More information about the competition can be seen at [www.landartgenerator.org/designcomp](http://www.landartgenerator.org/designcomp). The deadline for submission is June 4th, 2010, so there is still plenty of time to submit your idea.

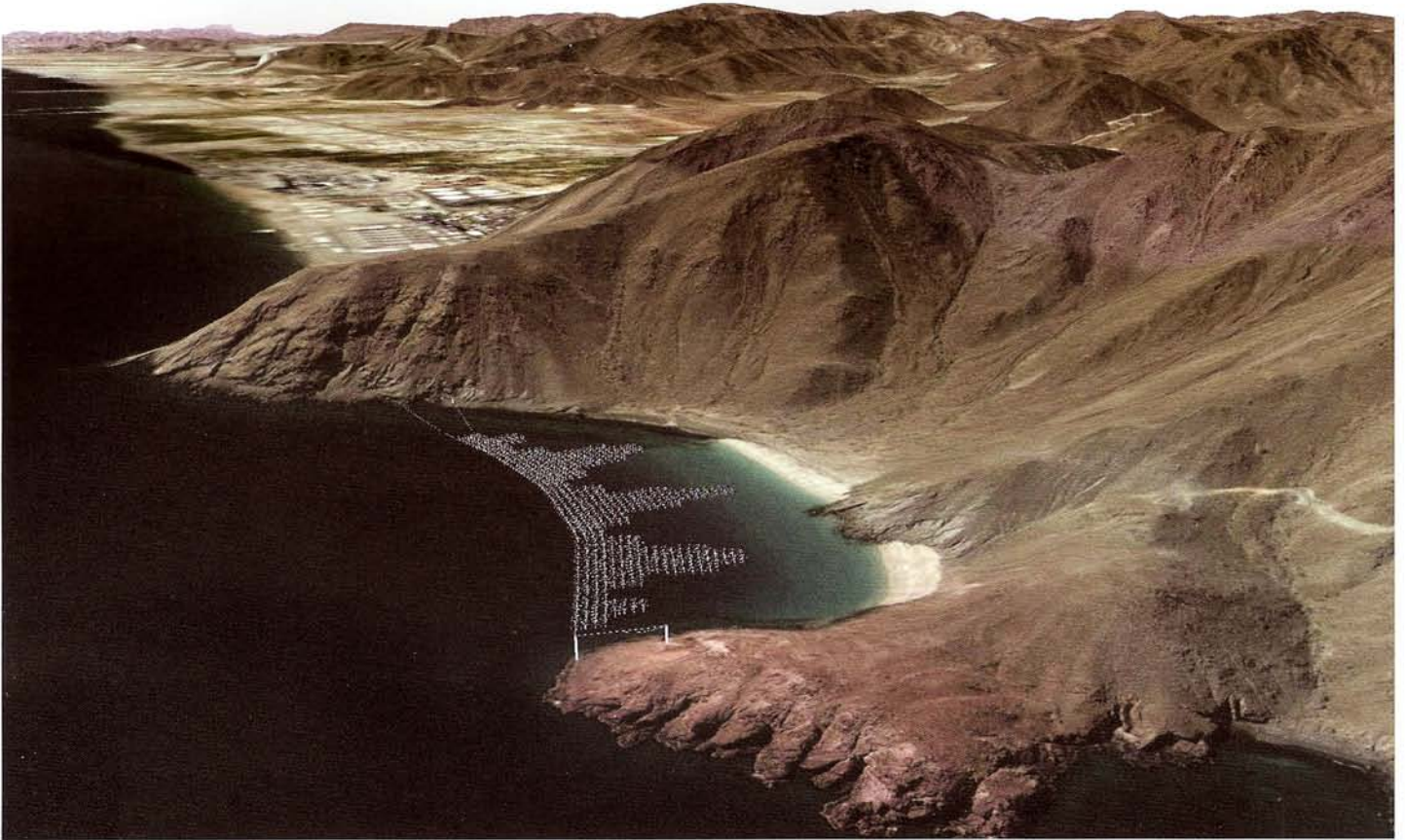
Elizabeth and Robert have always shared a fascination with the 20th century history of public art, watching as it has evolved to have a greater respect for the environment (and has even served to teach about environmental issues) as part of its constant reinvention of itself and striving for renewed relevance. At the same time

they see the fast-paced innovation in renewable energy technology and its built manifestations in and around our cities as an opportunity to create an interesting fusion and dialogue between energy infrastructure and aesthetics. They want to give artists a way of contributing directly to the solution and they wanted to promote interdisciplinary collaborations that can lead to exciting new ideas about both art and sustainable energy production.

They ideally see the artists as the heads of these interdisciplinary teams, which should include engineering and energy science experts that can contribute to studies of feasibility and

proof of concept for new ideas. While it is not a prerequisite that the teams be interdisciplinary for participation in the 2010 competition, the call for entries and the design brief encourage it strongly.

What is exciting about the Land Art Generator Initiative project is that it has never before been done or proposed anywhere in the world. It is the perfect opportunity for the UAE to take a giant leap forward and lead the rest of the world into a new era and purpose for artistic creation. And the UAE is the perfect place to hold the inaugural competition. It has one of the highest levels of yearly solar irradiation of anywhere in the world, strong seasonal winds, and wave



An aerial view of the Khorfakkan Necklace installation in UAE



Elizabeth Monian



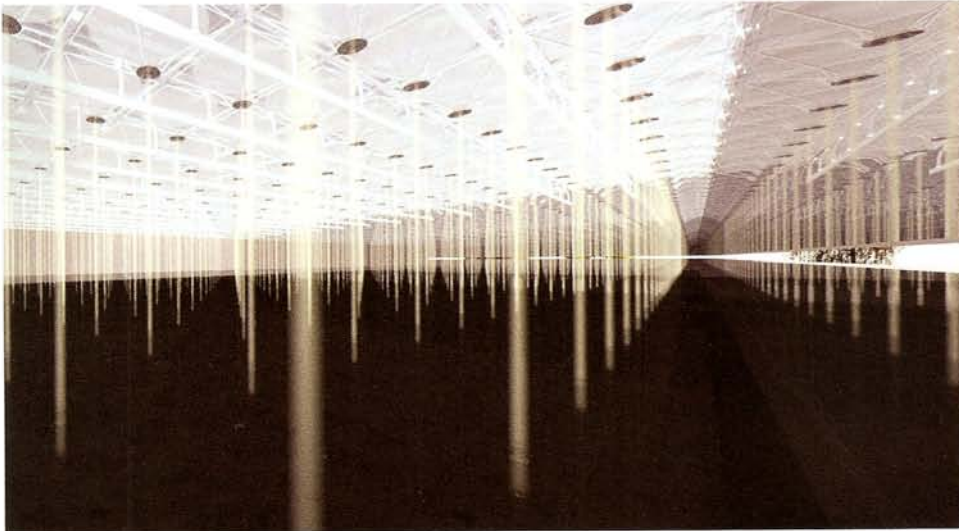
Robert Ferry

and tidal energy. And the land is available. The project sites chosen for the 2010 competition fit neatly into the visions that both Abu Dhabi and Dubai have for their 10 and 20 year master plans.

Cultural projects have a very resounding influence on the population here in the UAE. The efforts that Abu Dhabi and Dubai have made in the past few years are a testament to this, from the entire Saadiyat Island project in Abu Dhabi to the ever expanding Art Dubai and smaller satellite events year-round that are happening at the galleries. Cultural initiatives are strongly supported by both individuals and government entities here in the UAE.

The project is so far supported only by the principal team but they are actively seeking partnerships and sponsorships with municipalities, utility companies, other corporate entities, and individuals. They have gained a lot of in-kind institutional support and very positive press. They are often delighted to see stories about the Land Art Generator Initiative heralded in online periodicals as a positive counterpoint to the recent financial news. It is often cultural projects that can stimulate the greatest esteem and admiration, even more so than economic development projects.

As an example of what an energy-producing



*Vertical beams of light as seen through the viewing aperture of the Ibn Al Haytham pavilion*

public art work could look like, Elizabeth and Robert conceived of two provisional concept pieces. They vary greatly in scale and serve to illustrate how the idea could be applied at either a micro or a macro level.

The larger scale installation, the Korfakhan Necklace, consists of 832 wave energy collecting devices that resemble in their above-water sculptural form the individual ornaments of a necklace. The long tendril shapes that they form follow the flow of the water to the shore and are ever-changing as the movement of the water. It is this movement of water that creates the energy inside the body of each amulet. The electricity is then carried to the outermost band and to the shore where it is fed into the energy grid of the city. It would have the capacity to power thousands of homes.

The smaller piece, the Ibn Al Haytham Pavilion for Mushrif park, was designed to show that the LAGI projects could fit into the context of the city as well as the ex-urban landscape. It uses an array of fresnel lenses to create beams of vertical light with the power of 1000 suns. These beams are then re-concentrated at the floor level onto the concentrated photovoltaic cells which are arrayed in a naturally cooled plenum at ground level. In an adjacent room the entire spectacular display of light is captured by a camera obscura (invented by Ibn Al Haytham) through which

visitors can walk and watch the ever changing pattern of the projection on the walls around them. The artwork would offset the demand load of Mushrif Park by approximately 20%.

The 2010 competition is just the very first step in the larger strategic vision of the LAGI project. The team is seeking support from entities locally and internationally for annual



*View of Ibn Al Haytham pavilions set in Mushrif Park*

competitions, community outreach and educational programming, and most importantly towards the eventual financial and governmental support that will be required to see the first LAGI public art installation built here in the UAE. While the investment required for such a complex work of art is no small matter, Elizabeth and Robert see the UAE as the most likely supporter of such an ambitious endeavour. They are also quick to point out that while other cities around the world have invested heavily in public art projects on a large scale, never before has there been a project that gives back to the city on the level of the LAGI project.

The works of art will actually function as aesthetic power plants, which means that given enough time, they will eventually pay for themselves and begin to actually return on the investment made in their construction. To this end, supporters of the construction project can be seen not only as patrons of the arts, but also as investors in a renewable energy venture that could be eligible for carbon offset (Certified Emission Reduction) credit financing and will eventually become an income generating system, paying back in both cultural and financial dividends. 🌱