<table>
<thead>
<tr>
<th>PUBLIC ART</th>
<th>“Flocks”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Ether”</td>
</tr>
<tr>
<td></td>
<td>“Shallow Waters/marea baja”</td>
</tr>
<tr>
<td></td>
<td>“Portland Cloud”</td>
</tr>
<tr>
<td></td>
<td>“Flutter”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDEPENDENT RESEARCH</th>
<th>“Glowing Meadow”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Living Light”</td>
</tr>
</tbody>
</table>
flocks

Flocks is an ephemeral physical intervention into the urban landscape of Cambridge Street. Challenging the concept of public art as permanent and robust, it uses lightweight materials to create a dynamic composition of reflective birds along a one-mile segment of the Cambridge Street corridor.

Inspired by both bird and human migrations, the project seeks to create a memorable experience that celebrates the dream that fuels long and difficult migrations and the coming together of groups to create a new life.
Reflective, hand-made, plastic film birds are suspended from high-tech non-metallic rope. This lightweight superstructure allows the birds to “fly”, both individually and collectively, as the flock is activated by the interaction of the individual birds in response to changing environmental conditions of light and wind. The reflective nature of each bird allows it to maintain its own identity within the flock.

Overall, the design intent is for everyone walking, biking, driving, or looking out a storefront window to see a sparkling flock of birds flying above Cambridge Street.

photo credits:
Matt Lustig
Robert Gilmore

flocks
installation photographs
The educational activities developed by the Flocks team focused on the subject of human migration, understanding/making of public art and its effect on the built environment. The educational outreach team worked with students from the two schools nearest to the installation site: King Open School (K-8) and the 9th grade campus of the Cambridge Rindge and Latin School, with the support of students from the Boston Architectural College.

The activities developed focused on human migration and a reflection of how Flocks has changed their school surroundings. Students were encouraged to create individual and group art projects that documented their families’ migration story. Maps, decorated birds, stories, wings, photo-collages and an installation of a flock of student-made birds in the school’s cafeteria were part of this body of work.
ether

Weightless, transparent and believed to be a medium for the transmission of light, ether was believed to be the element occupying the upper regions of space or the heavens.

As an art installation, ether acts as a contemplative space where the participant is transported to an alternate reality – emotional and perceptual, as he or she interacts visually with this composition of translucent luminous bodies. This imaginary landscape – evoking the qualities of air, sky and light, seeks to induce the free play of creative imagination in its participants.

Commissioned by: Constellation Center, Cambridge, MA
Installation team: Rob Gilmore, Devin Harper, Ryan Paul.
photo credit: Devin Harper
ether is an installation of translucent luminous clusters, which form a screen suspended by poles at 20 ft. intervals reaching a height of 17 ft. above the ground. Multiple pieces of clear bio-degradable film are folded and joined to create three-dimensional biomorphic clusters reminiscent of a conglomeration of bubbles.

During the daytime, the clear film reflect and refract light, re-interpreting the street and sky views while at night the clusters become illuminated through the use of solar powered LED lighting activated by a sensor at dusk.

ether is located near Kendall Square at the intersection of Third and Atheneaum Street.
shallow waters
marea baja

This project seeks to evoke in an abstract manner the landscape and history of the Boston harbor islands that once existed along Chelsea Creek.

Sited in Chelsea Square, at the heart of the densely populated City of Chelsea, Shallow Waters creates a ‘landscape’ that explores the phenomenological characteristics of the marsh, with its different density of moving reeds, and the expression of water moving through.

Its siting provides the public the opportunity to experience walking through a marsh at different tide levels.
shallow waters - marea baja
installation

From left to right:
Aerial photograph of the site; view of installation in Chelsea Square; view along Square sidewalk; child playing among the installation reeds.

photo credits:
John Kennard, Matt Lustig

In order to represent the water, a reflective film is attached to stakes allowing it to move with the wind. The movement of the installation, along with its reflective nature, activates the surface creating the illusion of moving water.

When the wind is not present, the reflective film creates a new landscape in which the reflection of the surroundings, the natural light conditions, and the viewer is integrated as part of the ‘marsh.’
shallow waters - marea baja
community outreach

From left to right: Young women from ROCA sewing mylar; local youth assisting with installation; middle school students installing signage; signage with bilingual audio tour information.

photo credits: John Kennard.

The Hispanic population comprises about half of the residents of Chelsea. Shallow Waters engaged this community through direct communication in Spanish by the artist. In collaboration with ROCA, an organization serving local at-risk youth, the artist and BAC students worked on the fabrication and installation of the piece. Students of the Umana Middle School developed recordings and signage related to the history of the site. This focused on the Battle of Chelsea Creek and its importance during the revolutionary war. Youth groups such as EC3 also provided recordings regarding issues of environmental justice issues relating to the creek.
Few things in nature are as ephemeral and universal as clouds. The observation of clouds allows our perception of the natural environment and our imagination to merge into a dance that defies capturing and is not static.

Instead of recreating formal qualities of shape and form, *Portland Cloud* creates a cloud based on the principles of physics using them as a starting point to create a piece that speaks about Portland's atmospheric conditions while engaging the public in a playful manner.
Portland Cloud investigates this principle and develops a delicate and weightless assembly of reflective particles (composed of various reflective films) on a three-dimensional weaving of monofilament to create a space with a cloud-like structure.

Scientifically described as a “visible air-borne suspension of particles” (usually very small water droplets), a cloud is a floating mass of very small density in which light is never absorbed but rather continuously scattered through reflection.

How to make a cloud?

From left to right: visitors interacting with the installation; side view of the cloud layers; view from above; cloud gazing; detail of the reflective film weaving.
flutter

Located on Governor’s Island, NY, Flutter creates a space in which the boundary of land and water disappears allowing the public to walk through a field of ripples that are activated by the wind and sunlight.

Seen from land and water, with its ever-changing variety of light and color expressed as a floating mass of ripples, the piece is experienced as an extension of the New York Bay into Governor’s Island.
Flutter is created by 2000 fine steel rods inserted into the ground. Each rod holds a thin band of reflective film, which rotates freely. The installation covers an area of approximately 80’ x 30’ with an approximate height of 3 ft.

Flutter is a surface that is activated by the wind, light and the interaction of the public as it makes its way through its paths.
Luminescence, the emission of light without the generation of heat is one of the most efficient ways of creating light.

The absorption of natural daylight, then the slow release throughout the night makes photoluminescent materials an ideal material for lighting in environments that have low to non-existent ambient light.

These studies show the incorporation of photoluminescent pigments into several mediums to create prototypes for larger scale use.
The work shown above shows multiple small prototypes developed to test photoluminescent materials (pigments and films). These studies also explore the potential uses of photoluminescence for landscape and building uses.

It is evident from these studies that photoluminescence can be used in landscape applications as an efficient form of subtle lighting in very dark areas.

2005-2007

carolina aragón
The light-emitting quality of bioluminescent organisms is due to their ability to produce luminescent proteins: luciferase and luciferin. These proteins may be artificially made and used to produce light independently of any living organism (as shown in the photographs).

Through the insertion of luciferase/luciferin-producing genes, researchers have been able to create plants that have the ability to act as biosensors by “lighting up” in proportion to concentrations of particular pollutants or elements in their environment.
Currently, most studies about bioluminescence are done at the molecular level or most recently through satellite detection of bioluminescence in the ocean. The images above show a prototype of *Pyrocistis lunula*, a marine bioluminescent dinoflagellate, producing light as a reaction to touch.

It is my goal to continue to study bioluminescence at the landscape and human scale by developing prototypes useful in the design of our environment.