“It is something to be able to paint a particular picture, or to carve a statue and so to make a few objects beautiful; but it is far more glorious to carve and paint the very atmosphere and medium through which we look…To affect the quality of the day, that is the highest of the arts.”

– Thoreau in 1854, Walden p. 61

ABSTRACT
This project investigates how public art has the ability to sponsor environmental awareness, build community participation, and empower citizens to enact change. By pairing the five issues of waste, climate change, human agency, water, and ecosystem with case studies that reveal their processes and challenge the participant to alter how one sees and engages with urban nature, the research aims to communicate to the PWD and the City of Philadelphia how creativity and imagination are valuable catalysts for social and environmental change in the city. Though supplementary artists and projects have been provided for each category, the following case studies will be examined in more detail: Neighborland, Candy Chang [community engagement], Flow City, Ukeles [waste], And While London Burns, James Marriott/Platform [climate change], and Flow: Can You See the River?, Mary Miss [water] and Broadway 1,000 Steps, Mary Miss [ecosystem]. While these case studies will encompass the body of the work, each case study will be contextualized within the larger historic framework of public art.
### 1960s
- **1960**
  - Land Art Movement began with Richard Long, Robert Smithson, among others
- **1962**
  - Rachel Carson’s book *Silent Spring* released; challenged use of DDT
- **1963**
  - Clean Air Act as Research Program began
- **1967**
  - NEA’s Art in public places program began
- **1968-78**
  - Ant Farm, ‘underground’ collaborative art and architecture group formed
- **1968**
  - Henri Lefebvre’s book *The Right to the City*
- **1969**
  - Ian McHarg’s book *Design With Nature*; pioneered concept of ecological planning
- **1970s**
  - Environmental Art Movement gains rapid speed in the United States and Europe
- **1970s**
  - Artists, Christo and Jeanne Claude, began creating temporary art installations
- **1972**
  - Clean Water Act
  - United Nations Conference on the Human Environment
- **1974**
  - NEA stressed the art needed to relate to localized site
- **1976-1980**
  - Ant Farm, ‘underground’ collaborative art and architecture group formed
- **1977**
  - NEA’s Art in public places program began
- **1979**
  - NEA encouraged collaborations among artists, designers, and other transdisciplinary teams
- **1980s**
  - Ronald Reagan appointed James Watt, an anti-environmentalist to office, environmentalists portrayed as being out of touch with mainstream values

### 1970s-Present
- **1980s**
  - Feminist Art Movement
  - Environmental Art Movement gains rapid speed in the United States and Europe
  - Feminist Art Movement
  - NEA’s Art in public places program began
  - NEA encouraged collaborations among artists, designers, and other transdisciplinary teams
  - Ronald Reagan appointed James Watt, an anti-environmentalist to office, environmentalists portrayed as being out of touch with mainstream values

### 2000s
- **2004**
  - Michael Shellenberger and Ted Nordhaus wrote influential book *Death of Environmentalism*
  - Al Gore’s film *Inconvenient Truth* released, education about global warming

### 2011-2012
- **2011**
  - NEIGHBORLAND Platform
  - AND WHILE LONDON BURNS Platform

### 2012-2013
- **2012**
  - FLOW [CAN YOU SEE THE RIVER?] Mary Miss/CaLL

### 2011
- **2011**
  - BROADWAY 1,000 STEPS Mary Miss/CaLL
  - FLOW Mierle Laderman Ukeles
  - NEIGHBORLAND Platform
  - AND WHILE LONDON BURNS Platform

### 2006-present
- **2006**
  - FLOW [CAN YOU SEE THE RIVER?] Mary Miss/CaLL
  - NEIGHBORLAND Platform
  - AND WHILE LONDON BURNS Platform

### 1970s
- **1970s**
  - Oil Crisis
  - NEA’s Art in public places program began

### 1980s
- **1980s**
  - NEA encouraged collaborations among artists, designers, and other transdisciplinary teams

### 1990s
- **1995**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2000s
- **2011**
  - NEIGHBORLAND Platform
  - AND WHILE LONDON BURNS Platform

### 2010s
- **2012**
  - FLOW [CAN YOU SEE THE RIVER?] Mary Miss/CaLL
  - NEIGHBORLAND Platform
  - AND WHILE LONDON BURNS Platform

### 2020s
- **2020s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2030s
- **2030s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2040s
- **2040s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2050s
- **2050s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2060s
- **2060s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2070s
- **2070s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2080s
- **2080s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2090s
- **2090s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2100s
- **2100s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2110s
- **2110s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2120s
- **2120s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2130s
- **2130s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2140s
- **2140s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2150s
- **2150s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2160s
- **2160s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2170s
- **2170s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2180s
- **2180s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2190s
- **2190s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2200s
- **2200s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2210s
- **2210s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2220s
- **2220s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2230s
- **2230s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2240s
- **2240s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2250s
- **2250s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2260s
- **2260s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2270s
- **2270s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2280s
- **2280s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2290s
- **2290s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2300s
- **2300s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2310s
- **2310s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2320s
- **2320s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2330s
- **2330s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2340s
- **2340s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2350s
- **2350s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2360s
- **2360s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2370s
- **2370s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2380s
- **2380s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2390s
- **2390s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2400s
- **2400s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2410s
- **2410s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2420s
- **2420s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2430s
- **2430s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2440s
- **2440s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2450s
- **2450s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2460s
- **2460s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2470s
- **2470s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2480s
- **2480s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2490s
- **2490s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens

### 2500s
- **2500s**
  - Social activism, leftist politics, collaborative methodology became more important to citizens
FLOW  Mierle Laderman Ukeles

ABOUT UKELES
Mierle Laderman Ukeles is an artist based out of New York City whose work is grounded in feminism, environmental awareness, and service-learning. Early in her career [1969], she wrote a Manifesto entitled, “Maintenance Art”, that encouraged women to apply the knowledge and skills they used in the home to artwork and the public realm. This proclamation manifested vividly in her earlier works such as “Touch Sanitation” and soon afterwards she became (and still is) an artist in residence at the New York Department of Sanitation. Working with James Corner’s Filed Operations, Ukeles most recent project investigates the transformations of Fresh Kills Landfill into a public Park (Stein, 209).

PROJECT SUMMARY
Ukele’s project, “Flow”, is the first “public art environment” that functions as part of an operating waste-management facility (Ukeles, 14). To enable the residents to experience what she called “the violent theatre of dumping”, new zoning regulations were passed so that visitors could move through the exhibit’s 3 main components: city-block long Passage Ramp running parallel to the ramp used by the garbage trucks, a Glass Bridge where one can look out over the city or watch the trash being dumped into the barges, and a Media Flow Wall linking the visitor to the workers, other waste disposal sites, and making visible the various processes for managing the waste (Stein, 209).

LOCATION
New York City Department of Sanitation

TIME FRAME
1983-1996

COLLABORATORS
Artist in Residence - Mierle Laderman Ukeles
New York Department of Sanitation

FUNDING
National Endowment for the Arts

CRITIQUE
Perhaps the least successful of the five case studies, this project is the most confined to the site itself. Even though Ukeles ended the experiential tour through the sanitation department with a ‘Media Wall’ that digitally connected the participant to the other realms of waste, it seems cosmetic and doesn’t provide the resident with the tools to re-enter the city and invoke change. In addition, there lies an opportunity to engage more stakeholders in the project itself and its future trajectories than just the sanitation department and residents. This being said, ‘Flow’ paved the way for many future environmental art projects that encouraged public participation and collaboration with the municipality.
MANIFESTO FOR MAINTENANCE ART
Mierle Laderman Ukeles

A. Part One: Personal
“I am an artist. I am a woman. I am a wife. I am a mother. (Random order).

I do a hell of a lot of washing, cleaning, cooking, renewing, supporting, preserving, etc. Also, up to now separately I “do” Art.

Now I will simply do these maintenance everyday things, and flush them up to consciousness, exhibit them, as Art.....
248-Foot-Long Passage Ramp
[courses.psu.edu/arch/arch316_clg15/lec22/36%20flow%20city.jpg]

View West From The Glass Bridge Toward 350-Foot-Long Tipping Floor
[Ukeles, Flow City, 203]

View Of New York City
[londonoa.com/2012/02/15-going-to-new-york-new-york-new-york]
“I call it FLOW city because it embodies a multiplicity of flows: from the endless flow of waste material through the common and heroic work of transferring it from land to water and back to land, to the flow of the Hudson River, to the physical flow of the visitors themselves.”

-Mierle Laderman Ukeles
Optional Communication Between Visitors and Sanitation Workers

Media Wall
[www.primamateria.org/seminars/public_art/flow_city]

Computer Model of Slope Stability at the Fresh Kills Landfill
[Ukeles, Flow City, 208]

The Working Face of a Garbage Cell
[Ukeles, Flow City, 207]
CLIMATE CHANGE

AND WHILE LONDON BURNS  Platform

ABOUT PLATFORM
Platform is an “artistic-led” collective that combines art, activism, education and research into a single organization. While their current campaign focuses on the social, economic, and environmental impacts of the oil industry, since their founding in 1983, they have explored how to make visible a vast array of social and ecological issues including race in “Shake!”, water in “Still Waters”, and climate change in “And While London Burns” (platformlondon.org).

PROJECT SUMMARY
“And While London Burns” is a downloadable futuristic “operatic audio tour” of the city. Using methods of psychogeography, the tour leads the participant through the financial district of the city. Instead of providing street names as markers however, the audio guide uses the “carbon” web, a network of oil companies and supporting industries, to guide one through the seemingly disturbed urban landscape. In addition to the guide, the protagonist, an unsettled trader, speaks to you about the history of the oil industry in London, how its connected to the global market, and how it has detrimentally affected his own life. The audio contains 3 acts: Fire, Dust, and Water. Though the first act incorporates the Great Fire of London of 1666, the dialogue emphasizes the future and how the Thames will eventually flood the city as a result of climate change. The tour becomes more and more frantic as the narrator weaves through the city in the second Act but becomes more calming and hopeful in the final act as the participant climbs the stairs of the Great Fire of London’s monument to escape the flooding. The purpose of this tour is to provide the participant with a very personal, politicized and ecological view of the city it will alter his/her current relationship to the city, increase awareness about the detrimental effects of the oil industry, and to challenge the participant to modify his/her behavior (andwhilelondonburns.com).

LOCATION
London

TIME FRAME
2006-present

COLLABORATORS
Produced by Platform, Written by John Jordan and James Mariott

FUNDING
Grants and Donations to Platform

CRITIQUE
‘While London Burns’ is intriguing in its ability to enable the participant to very personally experience and interpret the ‘Carbon Web’ through a tour of the city. Instead forcing a single, objective view of the oil industries, the authors provide an open forum for the participant to come to his/her own conclusions that might change depending upon his/her mood, the time of day, or season. Although the original tour was supplemented with educational activities, lectures, and guided walks, it is now only sustained by those who unearth it online. To make this tour more accessible to the public, it would be interesting to provide headsets on the street so passersby could participate at a whim. And, to encourage one to participate more than once, it would be beneficial if the tour could be consistently updated to keep up with the current carbon rhythms of the city.
Clean Air Act as Research Program began 1963

Ant Farm, ‘underground’ collaborative art and architecture group formed 1968-78

Henri Lefebvre’s book The Right to the City 1968

Oil Crisis 1970s

NEA encouraged collaborations among artists, designers, and other transdisciplinary teams 1982

Social activism, leftist politics, collaborative methodology became more important to citizens 1995

BP oil spill in the Gulf of Mexico 2010

Al Gore’s film Inconvenient Truth released, education about global warming 2006

AND WHILE LONDON BURNS Platform

Act I
The first act introduces both the main character, a trader whose partner, Lucy, left him to live “off the grid” and the guide who tells you where to turn and when. Instead by guiding by street signs, she helps you navigate through London’s carbon web, a network of oil companies and supporting industries.

Act II
The second act, dust, “fine toxic excrement”, oil as “black blood of our society” begins frantically as the narrator attempts to figure out how he fits in this web of carbon.

Act III
The last Act ends with hope as one climbs the great fire of London’s monument and above the rising sea level. The final chorus echoes, “we could build a new city, not on oil and gas but on the wind and the sun”.

Map From 1666 Great Fire of London
[old.platformlondon.org/portfolio/images/gogmagog2-480.jpg]
Bathed in fire, flood, love and turmoil
And While London Burns is a compelling collision of thriller, opera and guided walk. Starring recent Olivier Award nominee Douglas Hodge, this soundtrack for the era of climate change is set amongst the skyscrapers of the most powerful financial district on Earth, London's Square Mile. An opera for one, it takes the listener, equipped with an mp3 player on a walking audio adventure through the streets and alleyways of our city. Composer Isa Suarez's stirring score evokes London's fiery past, oil drenched present and a dark unknowable future through the eyes of a tormented financial worker obsessed by the collapse of civilisations. Produced by award winning arts organisation, PLATFORM and written by John Jordan and James Marriott And While London Burns is a requiem for a warming world.

AND
WHILE
LONDON
BURNS
AN OPERATIC AUDIO TOUR ACROSS THE CITY, AVAILABLE FREE AT: www.andwhilelondonburns.com

FUTURISTIC IMAGE OF LONDON
[andwhilelondonburns.com]

PROTAGONIST IN AUDIO TOUR OF ‘AND WHILE LONDON BURNS’
[andwhilelondonburns.com]

3 ACTS OF ‘AND WHILE LONDON BURNS’
[andwhilelondonburns.com]
NEIGHBORLAND  Candy Chang

ABOUT CHANG  
Candy Chang is a public art installation artist. She received her Bachelors of Fine Arts and Masters of Urban Planning from Colombia University, and is now a Tulane Urban Innovation Fellow at the City Center in New Orleans. In addition to this fellowship, Chang is a TED Senior Fellow, a World Economic Forum Young Global Leader, and was named “Live Your Best Life” Local Hero by Oprah Magazine. The aim of her artwork is to empower residents to contribute to positive change of the public spaces in which they live and to create a platform for exchange (candychang.com/about).

PROJECT SUMMARY  
The Project Neighborland stemmed out of Chang’s, “I wish I was...” Project in which she designed fill-in-the-blank labels with the words, “I wish I was...” on them. These were distributed to community members and only a few days later, the filled-in labels began appearing on vacant lots and blighted buildings. To expand upon this notion of making ideas for change visible, Chang created ‘Neighborland’, an online platform for voicing community opinions, sharing local knowledge, and transforming the physical environment. In addition to the online platform, she also made sure community voices could be visible in the public spaces themselves and so developed educational tools, events, and methods of marking on a variety of surfaces throughout the city (www.tulane.edu > candy chang).

LOCATION  
New Orleans and Virtual

TIME FRAME  
2011-present

COLLABORATORS  
Candy Chang  
Residents of New Orleans and Any Location

FUNDING  
Urban Innovation Fellowship administered through Tulane  
Sponsored by the Rockefeller Foundation  
Additional support from Tulane City Center

CRITIQUE  
Neighborland provides a two-way platform in which residents may participate either in the public space itself or by expressing their opinions about other project ideas and sharing their own ideas online. Truly a bottom-up approach, these labels gives an anonymous voice to not only the user of the space, but also the spaces themselves. While this mode of working is positive on many levels, the concern is how one then compiles this vast array of comments, synthesizes the ideas, and decides which projects should move forward and how. Though the residents catalyze this process, it seems important to equally engage other actors such as the municipality, designers, and institutions.
1950s
The Situationists and Guy Debord's 'Naked City'

1968
Henri Lefebvre's book *The Right to the City*

1968-78
Ant Farm, 'underground' collaborative art and architecture group formed

1982
NEA encouraged collaborations among artists, designers, and other transdisciplinary teams

1983
Community participation became more important to the artists

1990s
Graffiti artist, political activist and painter begins his career.

[1995]
Social activism, leftist politics, collaborative methodology became more important to citizens

2000

2010

“I wish I was...” and “I want in my neighborhood” name tags
[http://candychang.com/neighborland/]
Welcome to Neighborland
It’s free to connect with your neighbors and share ideas for your city...

1. Sign up with email
2. Choose your Neighborhood location
3. Share what you would like to see happen in your neighborhood, share an idea from another city and support your neighbors’ initiatives.

Screenshots from [http://candychang.com/neighborland/]
“A robust public life includes accessible ways for residents to reach out and self-organize.”

-Candy Chang
FLOW [Can You See The River?] Mary Miss/CaLL

ABOUT MISS and CaLL
Mary Miss is an artist that lives and works in New York City. She is most well known for her public works that engage the community and raise awareness about the environment. Working closely with the municipality, landscape architects, designers, engineers, and scientists, her projects are collaborative in execution and in vision. Though the project itself might be temporary, the goal is to generate long-term social, cultural, and environmental sustainability. Most recently, she helped create the transdisciplinary organization, City as Living Laboratory, whose 3-fold vision is “to make sustainability tangible and visible for citizens, communities, and institutions, to educate the public about environmental, social, and economic sustainability, and to address crises in our cities such as environmental degradation, neighborhood blight, crumbling infrastructure, and natural disasters. (http://cityaslivinglab.org).

PROJECT SUMMARY
Flow [Can You See The River] is the first of 4 participatory public art projects called Living Laboratory that combine art and environmentalism to raise public awareness about sustainability. Sited along 6 miles of the White River from the IMA’s property to the downtown White River State Park, the project consists of a pavilion exhibition to introduce the project, 100 markers (1/2 mirrors and 1/2 red, oversized map pins) that situate the participant in the landscape, 6-3’ diameter dots on the IMA to exhibit the 6 water systems necessary to sustain the building, red bands along the trees to show the 100-year flood levels, and virtual tools for learning more about the city’s watershed.

LOCATION
Indianapolis Museum of Art

TIME FRAME
2008-present [opened to the public in 2011]

COLLABORATORS
Commissioned By The Indianapolis Museum of Art
EcoArts Connections
Additional 20 Leading Indianapolis Arts, Science, Environment, And Municipal Organizations And Agencies

FUNDING
IMA, National Endowment for the Arts, National Oceanographic and Atmospheric Administration, and others

CRITIQUE
This project contains engages the public on many levels - from the educational walk itself containing a variety of opportunities to engage with the landscape, to virtual tools that alter how residents understand the flow of water from their own doorstep. Where this project falls short however, is in its lack of visibility in downtown Indianapolis. Perhaps ‘Flow’ would be more successful if educational programming could be incorporated into the business and cultural districts in the urban center and if the river could be revealed through the urban infrastructural systems just as much as it is through the natural systems along the river’s edge.
**Ian McHarg’s book** *Design With Nature*; pioneered concept of ecological planning

**Rachel Carson’s book** *Silent Spring* released; challenged use of DDT

**NEA’s Art in public places program** began

**Land Art Movement** began with Richard Long, Robert Smithson, among others

**1969**

**1972**

**Clean Water Act**

**1983**

Community participation became more important to the artists

**1969**

**1970s-Present**

**Feminist Art Movement**

[Feminist Art Movement](https://en.wikipedia.org/wiki/Feminist_art), collaborative methodology became more important to citizens

**1962**

Rachel Carson’s book *Silent Spring* released; challenged use of DDT

**1970**

**1972**

Clean Water Act

**1982**

NEA encouraged collaborations among artists, designers, and other transdisciplinary teams

**1995**

Social activism, leftist politics, collaborative methodology became more important to citizens

**2011**

**FLOW [CAN YOU SEE THE RIVER?]** Mary Miss/CaLL

[Flow: Can You See the River?](https://en.wikipedia.org/wiki/Flow_(art_project)), collaborative methodology became more important to citizens


PROJECT COMPONENTS
Pavilion, 100 markers, IMA exhibit, “Track a Raindrop”, Additional Apps, Educational Programming, and festivals

ZONE 1 Indianapolis Museum of Art
ZONE 2 Butler University
ZONE 3 Marian University and Riverside Golf Course
ZONE 4 Taggart Riverside Park, Coffin Golf Course, South Grove Golf Course
ZONE 5 IUPUI
ZONE 6 White River State Park, Indianapolis Zoo, and Downtown
Entrance Pavilion Contains An Exhibition That Introduces The Project
[http://www.imamuseum.org/100acres/artists/marymiss]
Mary Miss distributed **100 markers** across the landscape. While half of these are oversized red map markers, the other half are mirrors attached to posts with information and a red dot that the participant aligns with the corresponding red map marker. These markers might point out wetlands, floodplains, combined sewer outfalls, pollution, or zones of historical significance. In addition to these markers, one may also “dial-up” to receive additional commentary about the site such as the best place to watch river turtles (www.imamuseum.org).
6 Water Systems Needed to Sustain the Building....

3" diameter red dots on the building of the IMA that symbolize the 6 water systems necessary to sustain the building [http://www.imamuseum.org/100acres/artists/marymiss]
“With this project, Indianapolis is setting a precedent for how city government, cultural institutions, and artists can work together to make issues like climate change and sustainability more tangible to its residents.”

-Mary Miss

100 Year Flood Levels

[Image: Red Bands Round Trees That Show The 100 Year Flood Levels](http://www.imamuseum.org/100acres/artists/marymiss)
Choose Your Location, pick the storm intensity and ‘Make it rain’!

Tap the cloud to increase the storm intensity and watch the rain move from your location to the river.

Click on the black question mark icon to see what pollutants your raindrop has picked up along the way.

Screen Captures from ‘Track a Raindrop’ Virtual Program [http://www.imamuseum.org/100acres/artists/marymiss]
ECOSYSTEM

BROADWAY, 1,000 STEPS  Mary Miss/CaLL

PROJECT SUMMARY
The project, Broadway, 1,000 Steps is an initiative to develop Broadway Street as a new green infrastructure corridor for the city that is made “tangible and actionable” to every citizen. 20 different hubs along Broadway, chosen based on their concentrations of infrastructural, cultural, ecological, and social features, will serve as a testing ground collaboration among research scientists, municipal policy makers, and local community groups. With the help of over 400 student participant groups, the areas are currently being systematically investigated, mapped, and evaluated with direct community engagement. Before arraying the project along the entire length of Broadway, Miss/CaLL chose 237th street to execute a “Test Pilot Project” to show the community how these systems would begin making visible the infrastructure of the city at eye level. Elements of this test site include the following: green vertical poles, convex mirrors with text and diagrams, pavement markings, visual quantifications, walkable maps, guides by cell phone, short text descriptions, smart phone applications, and events ([http://www.broadway1000steps]com).

LOCATION
Broadway Street, New York City

TIME FRAME
Opens in 2013

COLLABORATORS
NASA Goddard Institute for Space Science
Center for Research on Environmental decisions at the Earth Institute of Columbia University
Institute for Sustainable Cities at CUNY
Wallerstein Collaborative for Environmental Education at NYU
The Wildlife Conservation Society
Academic Partnership of over 400 students [design, architecture, communications and ecology]
Montefiore Park Neighborhood Association
Community Board Nine
City College Department of Urban Design

FUNDING
Private and Public Support; largely from National Science Foundation Grant for Exploratory Research (EAGER) award for Informal Science Education (ISE)

CRITIQUE
While Broadway, 1,000 Steps hasn’t yet officially opened to the public, it appears to address much of the critique voiced in the other projects. It creates a highly visible, interactive green infrastructure along a highly traveled, historic corridor and simultaneously provides comprehensive educational and outreach programs to incite future interest from a range of actors. In this way, the project creates immediate, visible impact to the residents and slowly accrues long-term ecological, economic, and social sustainability.
Ian McHarg’s book *Design With Nature* pioneered the concept of ecological planning.

Rachel Carson’s book *Silent Spring* was released in 1962, challenging the use of DDT.

The NEA’s Art in public places program began in 1967.


Sol Lewitt’s participatory wall art #260 was created in 1969.

The Clean Water Act was passed in 1972.

Community participation became more important to the artists in 1983.

Social activism, leftist politics, collaborative methodology became more important to citizens in 1995.

The NEA encouraged collaborations among artists, designers, and other transdisciplinary teams in 1982.

FLOW [CAN YOU SEE THE RIVER?] by Mary Miss/CaLL in 2011.

BROADWAY 1,000 STEPS by Mary Miss/CaLL in 2012-2013.


Mapping hubs along Broadway: The 275 block length of Broadway through Manhattan and the Bronx offers a highly visible, symbolic corridor in which to reveal the working ecosystem of New York City and the individual's role within it. Concentrations of ecological, infrastructural, cultural, and social features have led to hub site selection. Detailed investigations are currently underway with the help of over 400 design, architecture, communications, and ecology student participants in the MM/CaLL Academic Partnership. Students are mapping, documenting, and conducting research through direct engagement with community constituents to discover what issues are most pressing.
Brightly colored lime-green posts and fences will call attention to the hub as pedestrians approach, defining a force field within which curiosity will be aroused and awareness augmented.

Mary Miss / City as Living Laboratory: Sustainability Made Tangible Through the Arts (MM/CaLL) provides a framework for how the arts and sustainability can be linked in innovative ways to create cities that help us redefine how we live our lives, use our resources, how we communicate, educate, work, and collaborate.

MM/CaLL conceives of the city as a laboratory where artists and designers collaborate with scientists, policy makers and other experts to create immediate experiential impact derived from long term research and planning initiatives. The goal is to make sustainability personal, visceral, and tangible so that city residents are empowered to take positive action.

“Nature is everywhere and in action at all times, that the city is an urban ecosystem, that an innumerable number of small decisions over time have shaped the environment to be the one we inhabit today, and that our decisions impact the future of all of nature.”

-Advisory Board of Broadway, 1,000 steps
The City of Philadelphia contains a rich history of public art and is the home of the nation’s first private non-profit organization dedicated to integrating public art and the urban realm (http://associationforpublicart.org, Accessed December 13, 2012). Though the artistic presence has been, and continues to be robust in its capacity to disseminate information, collaborate among a variety of stakeholders, and create a diverse set of education programs, the City and the PWD in particular would greatly benefit from public art projects addressing environmental issues and making visible its infrastructure (such as the case studies outlined above). To perform most effectively, these projects would need to include long-term educational and economic frameworks, even if their physical presence were to be temporary. Instead of ‘Art for Art’s sake’, these public propositions would begin with an Environmental Art agenda and end in Environmental Agency that involves not only the artists, municipality and residents, but also scientific researchers, students, economists, and community organizations.

PROGRAMS AND ORGANIZATIONS
City Of Philadelphia Mural Arts Program

Philadelphia Art Center

Percent For Arts Program

City of Philadelphia Office of Arts, Culture and Creative Economy

Association for Public Art (formerly the Fairmount Park Arts Association)

ART SCHOOLS
The Art Institute of Philadelphia
http://www.artinstitutes.edu

The University of the Arts
www.uarts.edu

Pennsylvania Academy of Fine Arts
http://www.pafa.org

Moore College of Art and Design
http://www.moore.edu

Tyler School of Art
http://www.temple.edu

Fleisher Art Memorial
www.fleisher.org
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Miss, Mary. “A Conversation with Mary Miss [Interview].” Log 9 (2007).


WEBSITES


