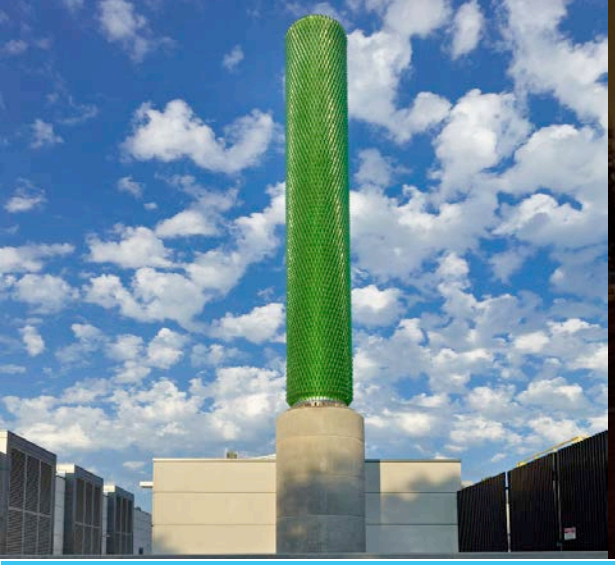


# Regenerative Forms: Examples of Art and Sustainability

Roadmap to a Sustainable Waste Management Future
Sustainable Solid Waste Management Future
Roadmap Implementation Working Group:
Education and Outreach Subcommittee

April 23, 2015

LA County Department of Public Works, Alhambra, CA

civic art

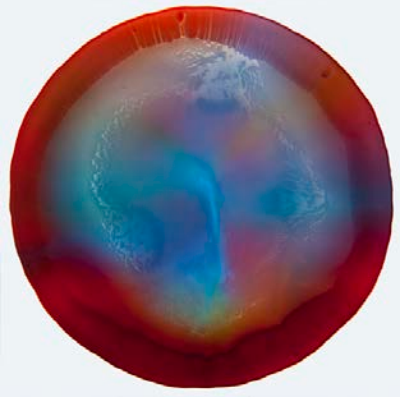
EXTRAORDINARY EXPERIENCES IN EVERYDAY PLACES

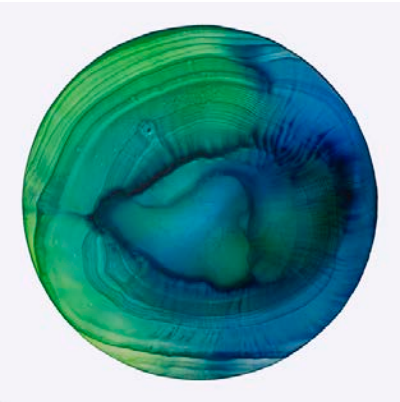
Los Angeles County Arts Commission

# How is art a connector?

## Art…

- Learning experience
- Distill complex ideas
- Adds value = memory point
- Make the invisible visible





# Learn by doing

SF Market Street Prototyping Festival –

- GOAL: To enhance public space and civic engagement

- Partnership with SF Planning Department, Yerba Buena Center for the Arts and Knight Foundation

- Key partners: Gehl Architects, Autodesk, Twitter, Dolby, SF Exploratorium, Wells Fargo, PG&E

- 50 installations along 2 mile stretch of Market Street brought attention to science and tech industries

- $2,000 to $50,000

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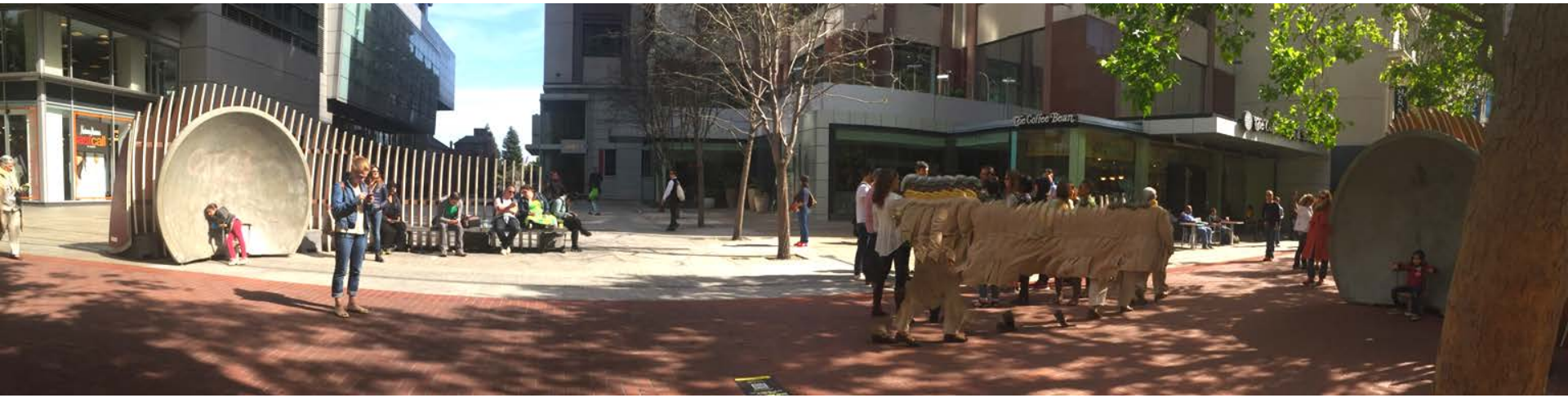
# Hands on experience



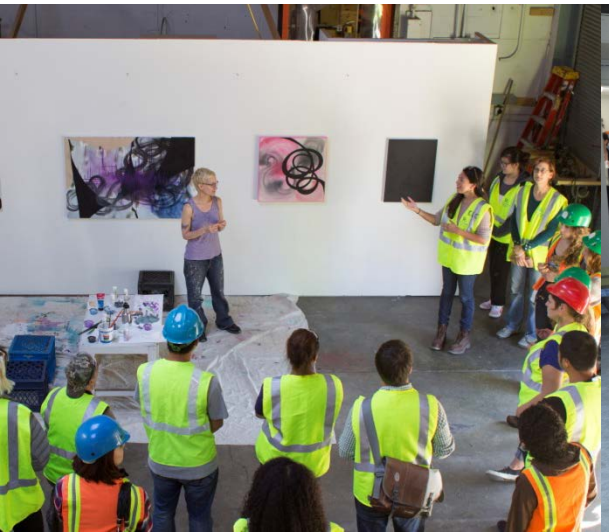
Living Innovation Zone on Market Street – interactive learning hub

Above: *Whispering Dishes*, Below: *Singing Bench*

# Distill complex ideas

Recology SF Environmental Learning Center

- Classroom
- Art Gallery
- Artist in Residence studios
- Sculpture Garden
- Tours
- Artist monthly stipend - $1,100/month

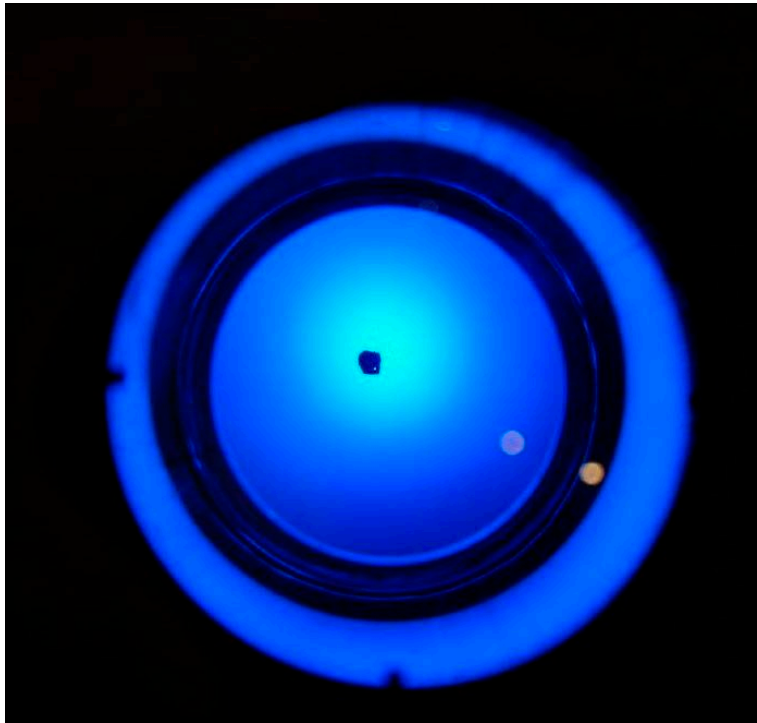


# Adding value to waste

Recology SF Artist in Residence Program

# Making the invisible visible

Art x Science installations by Dan Goods, Visual Strategist for NASA Jet Propulsion Laboratory



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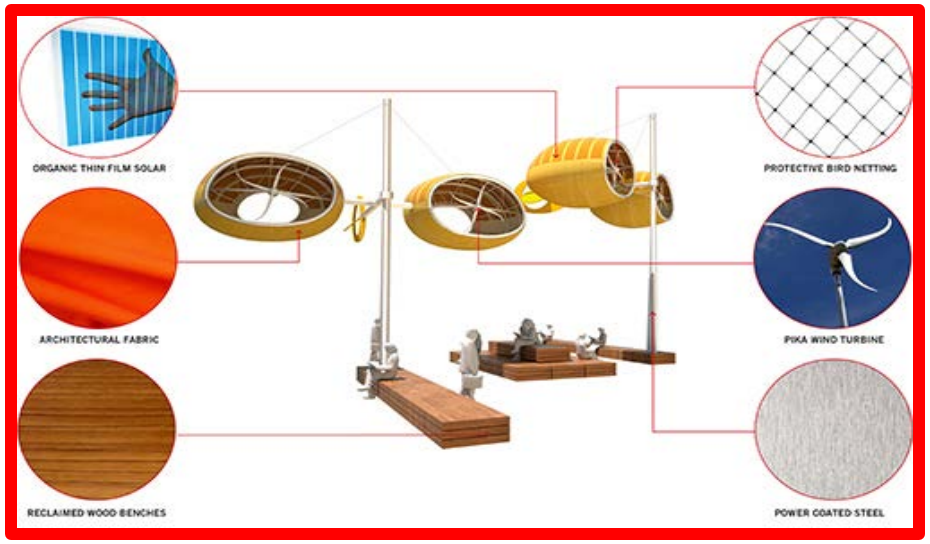
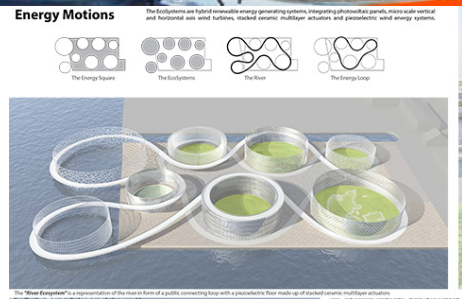
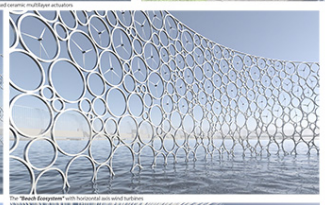
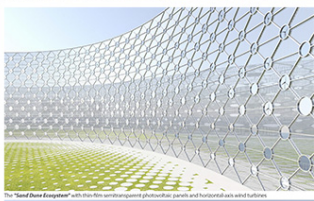
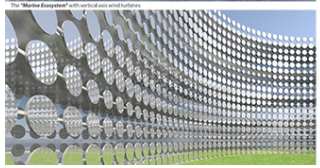
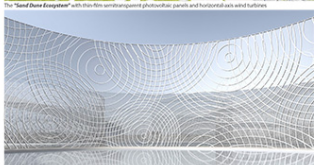










The Refshalegen

## ENERGY DUCK

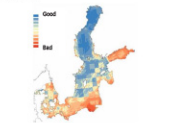
Energy Duck is an entertaining iconic sculpture; a celebration of local wildlife; a renewable energy generator, store and exporter; a habitable destination and a city scale information beacon.

The common eider duck is resident in great numbers in Copenhagen, however its breeding habitat is at risk from the effects of climate change. Energy Duck takes the form of the eider to act both as a solar collector and a buoyant energy store.

Solar radiation is converted to electricity using low cost, off the shelf PV panels. Some of the solar electricity is stored in the form of gravitational potential energy via water pressure. At night, when there is no solar radiation the water pressure can be released through hydro turbines within the duck's belly providing renewable electricity at all times. The floating height of the duck is an indicator of the amount of city wide energy use relative to the renewable generation.

Often the prospective negative environmental effects of climate change, brought about by excessive CO2 emissions can seem a removed and distant issue. Energy Duck frames the issue of climate change, ecology and the importance of renewable energy in a local context.

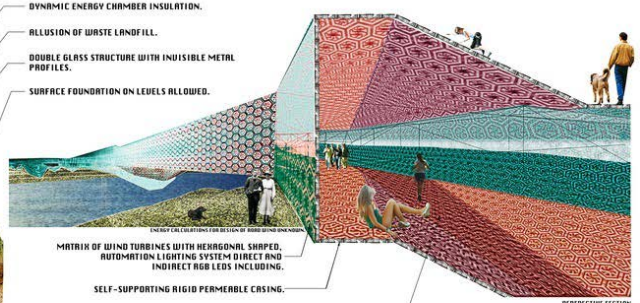
Common Eider




Baltic Sea Pressure Index
Showing combined effect of all environmental pressures.

THE SHOWCASE SECTION
EMPHASIZING THE INNER LANDSCAPE
FRESHKILLS PARK
NEW YORK CITY

GREEN AREA TO TRANSIT AND TO SEED.
INTELLIGENT AND TRANSPARENT SURFACE AREA.
STRUCTURAL GLASS COVERED WITH THIN PHOTOVOLTAIC DYE-SENSITIZED FILM (DSSC).
DYNAMIC ENERGY CHAMBER INSULATION.
ALLUSION OF WASTE LANDFILL.
DOUBLE GLASS STRUCTURE WITH INVISIBLE METAL PROFILES.
SURFACE FOUNDATION ON LEVELS ALLOWED.



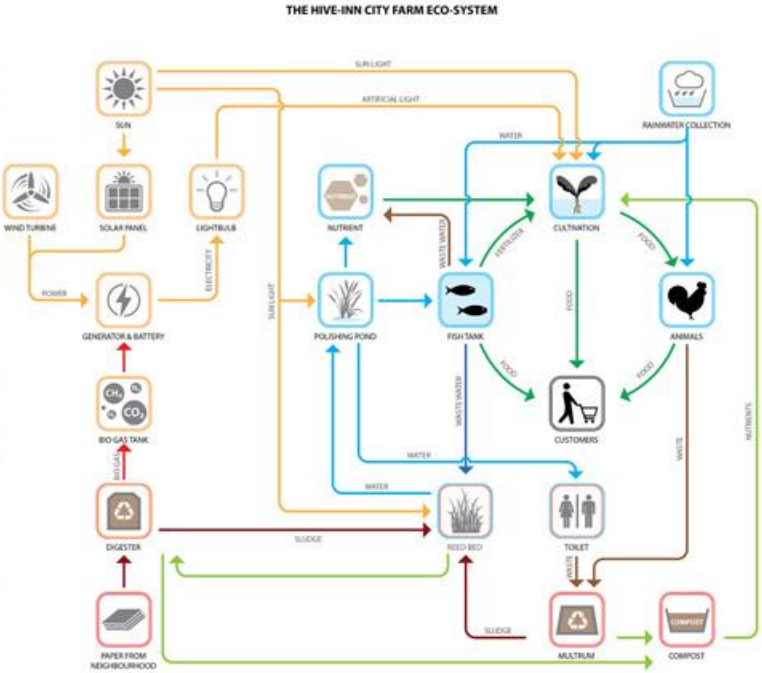
MATRIX OF WIND TURBINES WITH HEXAGONAL SHAPED, AUTOMATION LIGHTING SYSTEM DIRECT AND INDIRECT RGB LEDS INCLUDING.

SELF-SUPPORTING RIGID PERMEABLE CASING.

WHEN THE WIND FLOW STEADY GO THROUGH THE SHELL OF THE PATH, THE WIND TURBINES IN ITS EXTENDED LENGTH REMAIN IN MAINTAINING A PERMANENT MASS PRODUCTION MOVEMENT OF ENERGY WIND THAT GOES DIRECTLY TO A BATTERY LOCATED IN THE FOUNDATIONS OF THE STRUCTURE.

PERSPECTIVE SECTION
FROM ROUTE OF THE WIND

# Making the invisible visible



Hive-Inn™ City Farm NYC
© 2014 OVA STUDIO Ltd.

# Creativity + Sustainability

Reclaimed furniture to create shared public space

**Greenmeme, *Reclaimed Block Party***
**Monteith Park, 2014**
**Budget: $10,000**

# Creativity + Sustainability

**Marcos Lutyens and Alessandro Marianantoni,**
***CO2morrow***
**London, 2009**
**Budget: $200,000**

# Creativity + Sustainability

**Jenna Didier, Oliver Hess, and Marcos Lutyens in collaboration with Ned Kahn, *LA Pergolas***
**Los Angeles, TBD 2015**
**Budget: $300,000 +**

# Creativity + Sustainability

*"Thank you for keeping New York alive"*

# Creativity + Sustainability

Transportation

Land Art

Petroscape

Water / Land

Preparedness

Agriculture

Infospace

Industry

Program Areas

Media Space

Polar Program

Isolates

Waste Stream

Regional Programs

Air / Land

Subtopography

Extrapolative Projects

Lines of Site

Erosion and Decay

Model Earth

Extraction

CLUI: Center for Land Use Interpretation

# Creativity + Sustainability

CLUI Tour:

*A Trip to the Dump*

Landfill engineer led tours

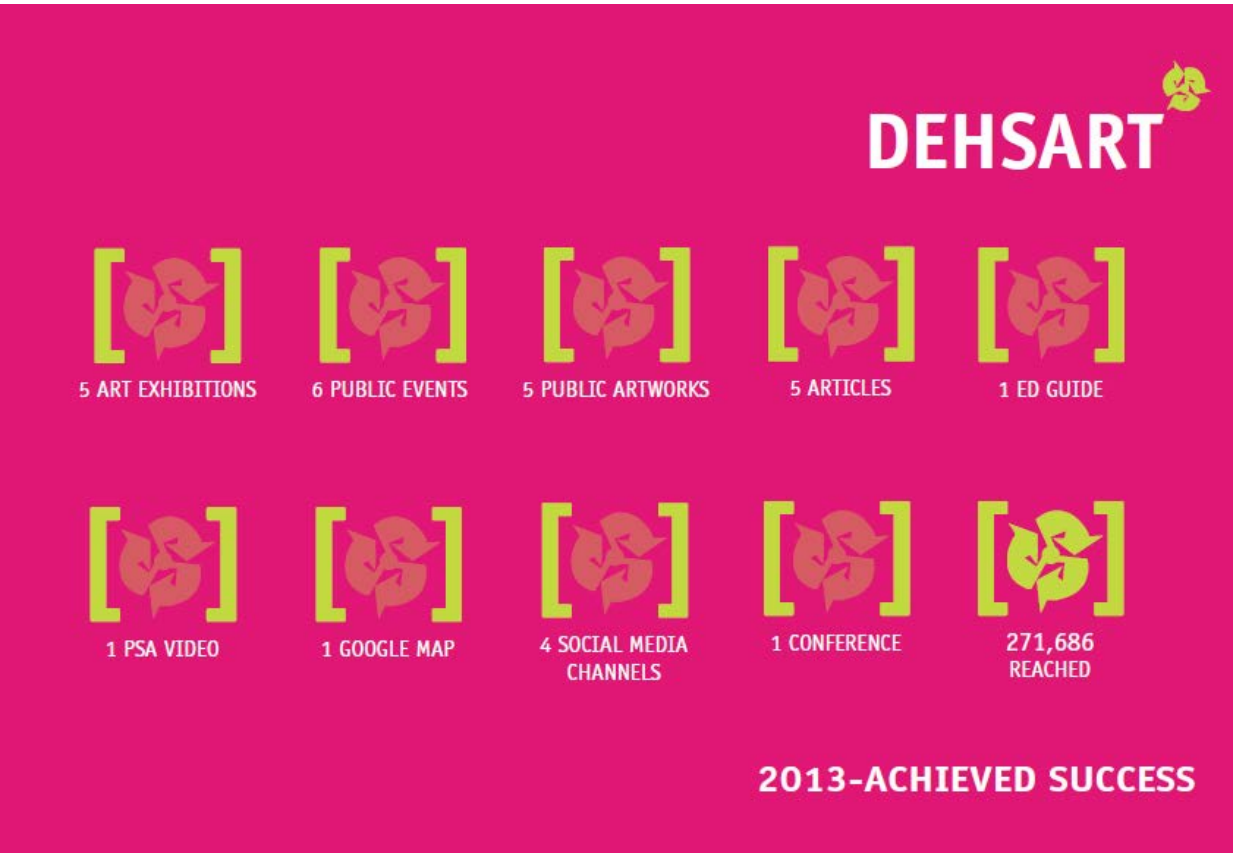
Bus tour of dumpsite in Puente Hills

*Post Consumed: The Landscape of Waste in Los Angeles*

# Creativity + Sustainability

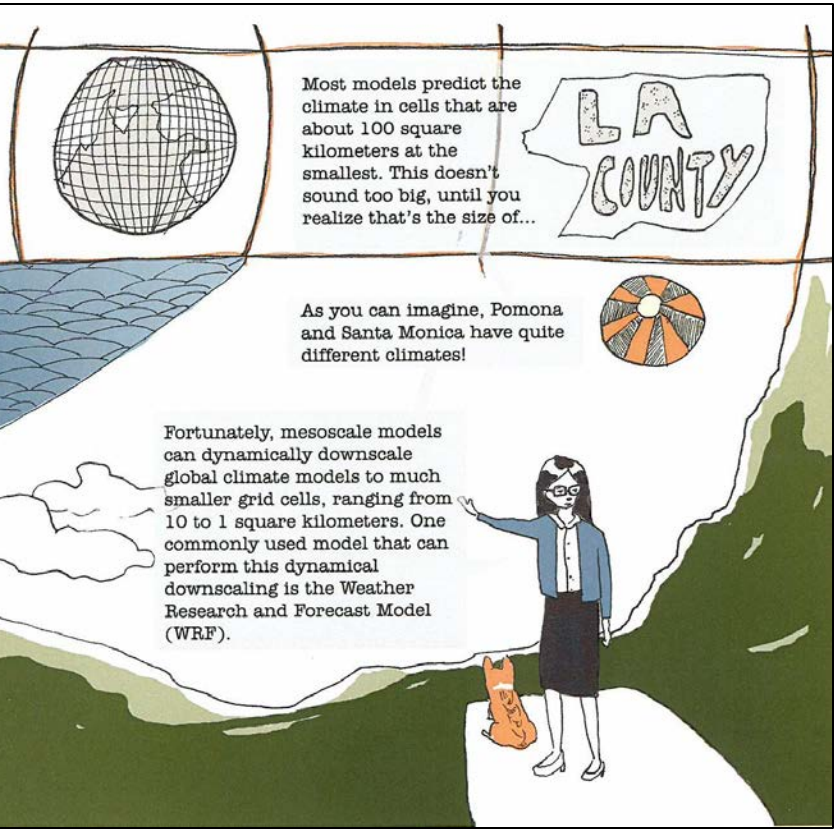
Recipient of grant from **Antelope Valley Illegal Dumping Task Force**

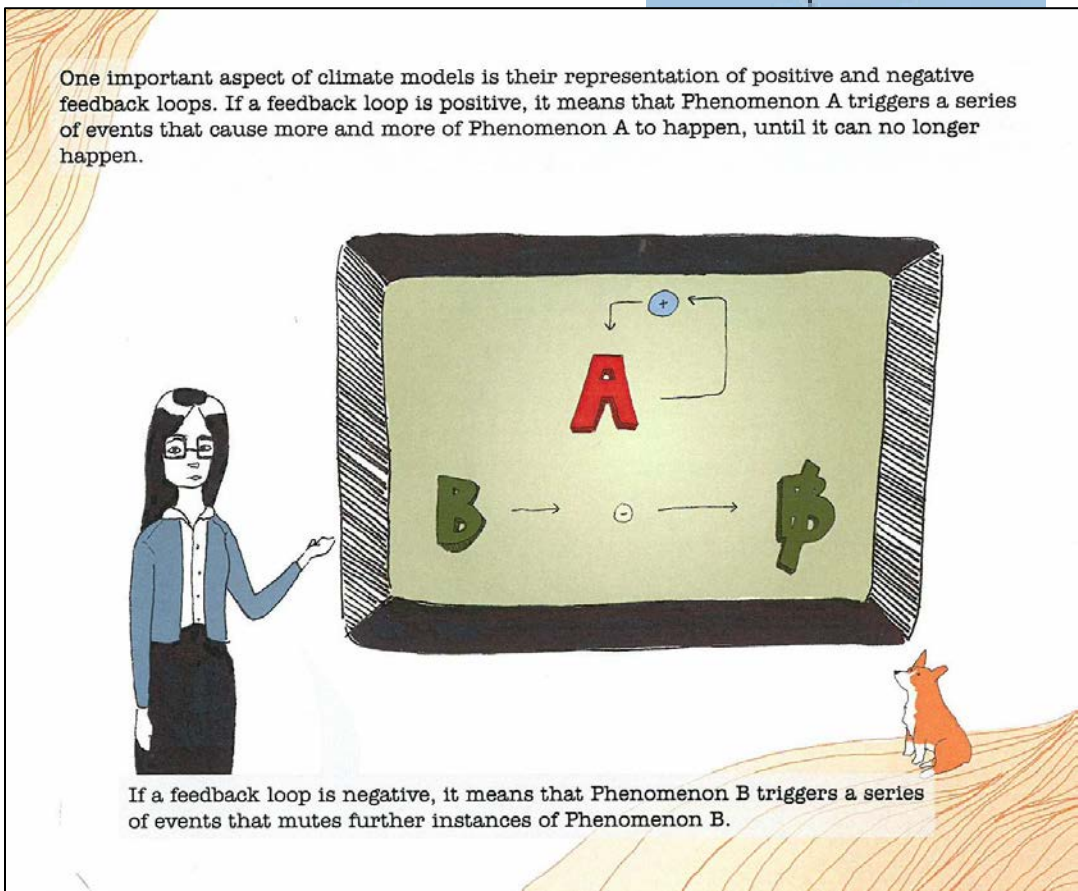
- Messaging
- Demonstration
- Remediation
- Public Participation



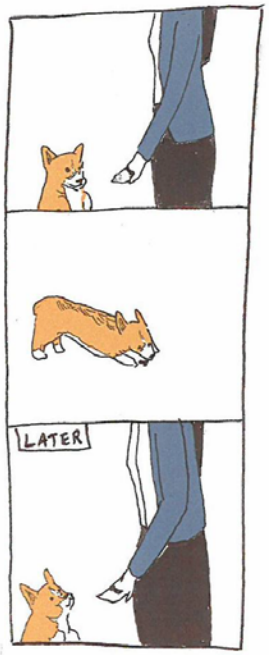
# Creativity + Sustainability

Graphic Novel about climate models and wind power

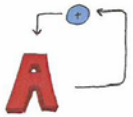


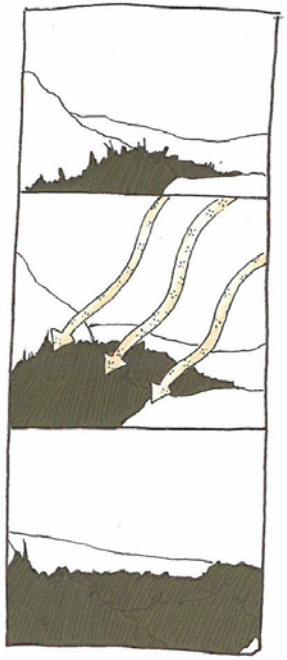
# Creativity + Sustainability

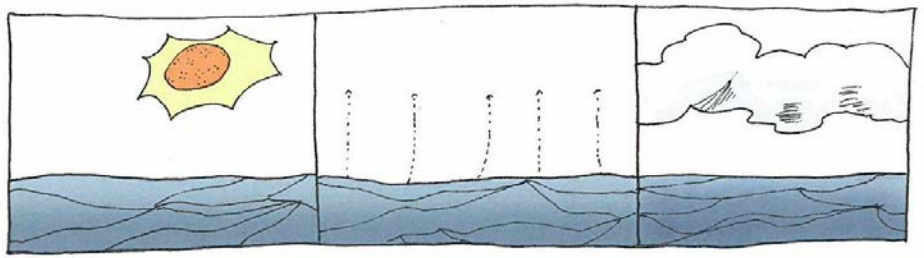



Wendy barks at me to give her a treat. When I give her a biscuit, she makes the connection between barking and biscuits. So, she continues to bark when she wants a biscuit, and because I deliver, it only strengthens a mental association in her brain.

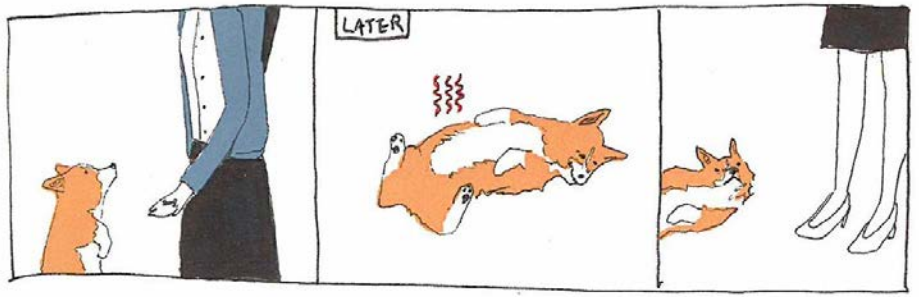



When snow melts on the ground, a dark patch of grass is exposed and the albedo, or reflectivity, of the surface is lowered. The newly exposed darker ground absorbs more heat, which melts more snow and further lowers the albedo, encouraging more snowmelt.





Increases in the surface temperature leads to more water being evaporated from the oceans into the air above it. Increased water vapor in the air can lead to the formation of low clouds, which increases the albedo, reflects more sunlight back to space, and decreases the surface temperature.

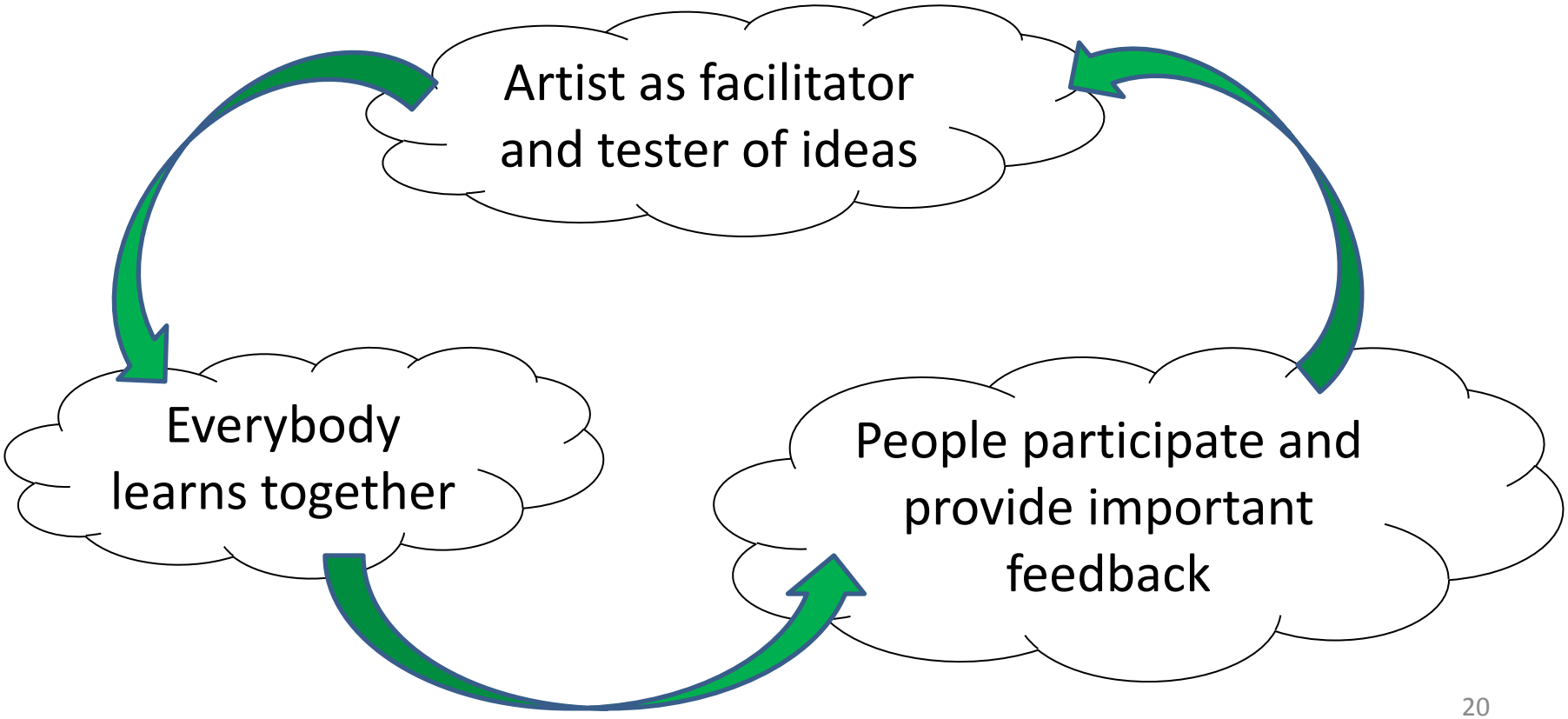



Wendy barks at me to give her a treat. I see that the lavish goody has left her lethargic, so next time she barks at me to give her a treat, I'll refuse. But, I might consider giving her a belly scratch instead.

# What does it mean to me?

Prototyping

**“Through prototyping, clients can tell the story or who they want to become.”** – Wolff Ollins



# Think like an artist

Recology
WASTE ZERO

MAKE ART NOT LANDFILL

Green MOAH
INITIATIVE

a+e
ART + ENVIRONMENT CONFERENCE
Nevada Museum of Art ↓ October 9–11, 2014

ART SPACE

BALANCE unbalance 2015
Water, Climate and Place
Reimagining Environments
[arts + sciences x technology = environment / responsibility]

McCOLL CENTER
FOR ART + INNOVATION

land art generator initiative

RENEWABLE ENERGY CAN BE BEAUTIFUL™

# The Next Starts Now

**Planning**: **Artist/designer facilitated meetings**

**New contracts**:

- **Visual strategist** on **branding/outreach contracts**
- **Science/tech artist** on **conversion technologies teams**

**Projects**:

- Get involved with **Land Art Generator Initiative LA 2016**

- Create **sponsorship opportunities** such as:
  - Pair an arts educator w/school environmental program revision
  - Waste Free Future Innovation Training for service providers
  - Seed fund a Countywide call to arts to propose programs/projects related to **hazardous waste** and **illegal dumping** remediation, **organics management**, **recycling** and **conversion technologies**