

Interspecies Communication or Marriage Made in Heaven?

Science/Art Collaborations Advancing Sustainability

Marda Kirn
EcoArts Connections

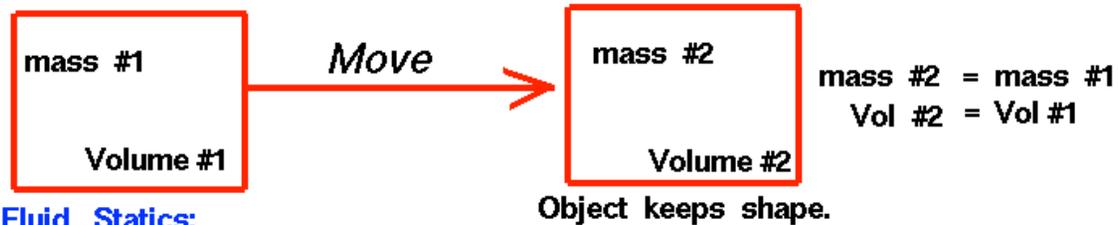
CLEAN Webinar
May 22, 2018



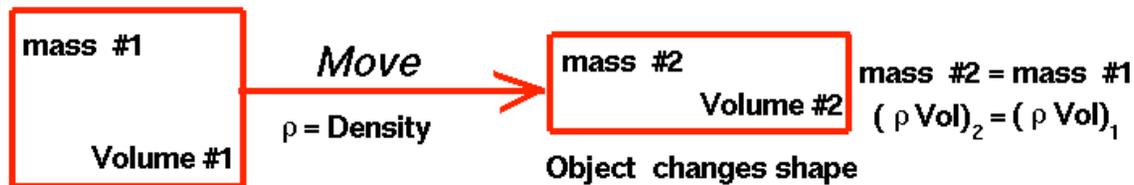
Conservation of Mass

Glenn
Research
Center

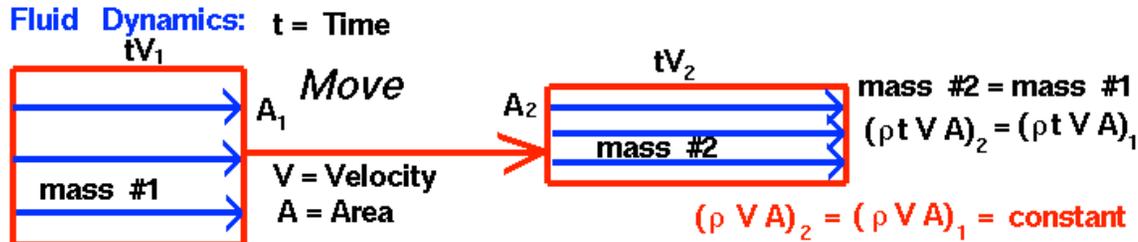
Solid Mechanics:



Fluid Statics:



Fluid Dynamics:



Slide source: Tim Butler, Director of the Center for Urban Ecology
Butler University, Indianapolis



Levitated Mass by artist Michael Heizer

Slide source: Tim Carter, Butler University

EcoArts 2006

July 6-16



KRONOS QUARTET

PERFORMANCES EXHIBITS TALKS TOURS



PROGRAM HIGHLIGHTS: **PERFORMANCES:** Colorado Shakespeare Festival "The Tempest" July 6, 13, 14 • Colorado Music Festival: The Kronos Quartet July 11, Symphonic Music July 13-14 • Eiko & Koma in Denver July 8, in Boulder July 14-15 **EXHIBITS:** Museum of Contemporary Art/Denver Creative Acts That Matter: The Environment; North, South, East, West: 360° of Climate Change • National Center for Atmospheric Research: Climate Discovery **TALKS:** SOLAR 2006 Conference July 8-13 • Boulder Museum of Contemporary Art: Hollywood & Climate Change July 7, Climate Change in Boulder County July 8 • NCAR: Creeping Environmental Problems: What Can We Do? July 12 **TOURS:** Eco-Cycle Recycling Center July 7 • ReSource Building Materials Sales Yard July 7 & 15 Thorne Ecological Institute: Sombrero Marsh July 7 • Valmont Station Coal-Fired Plant July 7 & 15 **AND MUCH MUCH MORE**

www.ecoartsonline.org for a full schedule of events **303.325.5637**

The Compton Foundation
Our Anonymous Angel



WESTAF



Rocky Mountain Foundation

D.A.I.R.Y.



CAMERA

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ecoarts

SEPT 14 - OCT 6
2007



**OVER 25 MAJOR
SCIENCE,
ENVIRONMENTAL,
ARTS, INDIGENOUS,
AND OTHER
ORGANIZATIONS
PRESENTING EXHIBITS,
PERFORMANCES,
TALKS, TOURS,
FEASTS, FAIRS, FILMS
AND MORE!**



COLLABORATORS — BAKSUN BOOKS • BOULDER COUNTY ARTS ALLIANCE • BOULDER CULINARY GARDENERS • BOULDER COUNTY GOING LOCAL • BOULDER MUSEUM OF CONTEMPORARY ART • BOULDER PUBLIC LIBRARY • CENTER FOR RESOURCE CONSERVATION • CITY OF BOULDER OFFICE OF ENVIRONMENTAL AFFAIRS • COLORADO RENEWABLE ENERGY SOCIETY • CIRES • CURIOUS THEATRE • DAIRY CENTER FOR THE ARTS • DENVER MUSEUM OF NATURE & SCIENCE • DENVER PUBLIC LIBRARY • GO BOULDER • GROWING GARDENS • ITA • MOTHERS ACTING UP • NCAR • NOAA • NATIVE AMERICAN RIGHTS FUND • ROCKY MOUNTAIN SUSTAINABLE LIVING FAIR • UNIVERSITY OF COLORADO: ARTIST SERIES, ATLAS CENTER FOR ARTS, MEDIA, AND PERFORMANCE, EESI, FISKE PLANETARIUM, MUSEUM OF NATURAL HISTORY, UNIVERSITY LIBRARIES, VISITING ARTIST LECTURE SERIES

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The Big Question

Why is it that so many people know
about multiple environmental crises

but so few people
are doing anything about them -
let alone responding to the science?

Research

“Environmental Education and Attitudes:
Emotions and Beliefs are What is Needed”

By Julie Ann Pooley and Moira O'Connor
Environment and Behavior, September 2000

Online version available at:

<http://eab.sagepub.com/cgi/content/abstract/32/5/711>

RESEARCH

- Carleton College. Student motivations and attitudes: The role of the affective domain in geoscience learning. 2010 <http://serc.carleton.edu/NAGTWorkshops/affective/index.html>.
- Center for Research on Environmental Decisions. 2009. *The psychology of climate change communication: A guide for scientists, journalists, educators, political aids, and the interested public*, ed. A. Cimino. New York: Columbia University.
- Kahan, D. 2010. Fixing the communications failure. *NATURE* 463, 296-297.
- Leiserowitz, A. 2006. Climate change risk perception and policy preferences: The role of affect, imagery, and values. *Climatic Change* 77 (1-2): 45-72.
- Moser, S. C., and L. Dilling, eds. 2007. *Creating a climate for change: Communicating climate change and facilitating social change*. New York: Cambridge University Press.
- Pooley, J. A., and M. O'Connor. 2000. Environmental education and attitudes: Emotions and beliefs are what is needed. *Environment and Behavior* 32 (5): 711-23.
- Singhal, A., M. Cody, E. Rogers, and M. Sabido, eds. 2004. *Entertainment-education and social change: History, research, and practice*. Oxford: Lawrence Erlbaum Associates.

More Research

The Affective Domain

<http://serc.carleton.edu/NAGTWorkshops/affective/index.html>

Entertainment – Education (E-E)

<http://www.jhuccp.org/legacy/topics/ee.html>

Cognition + Affect = Effect

Cognition + Affect = Effect

Mind

Intellect

“Facts”

Reasoning

Analysis

What?

Heart

Emotions

Feelings

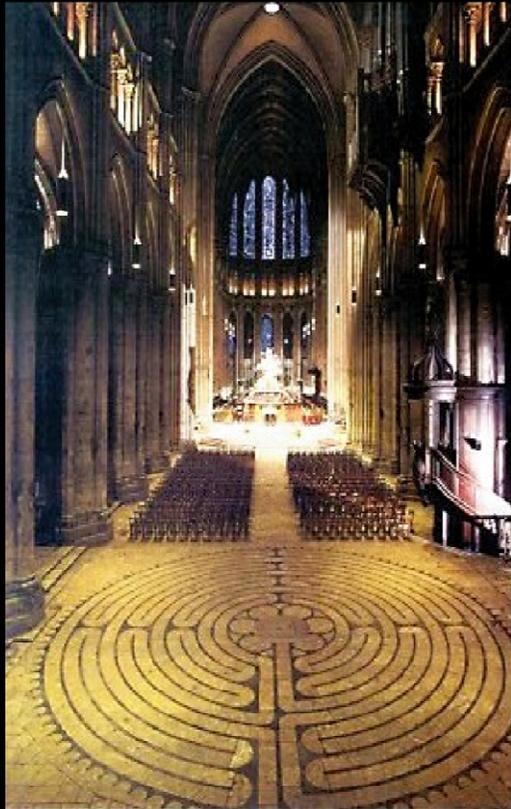
Attitudes

Values & Beliefs

So What?



Religion & The Arts



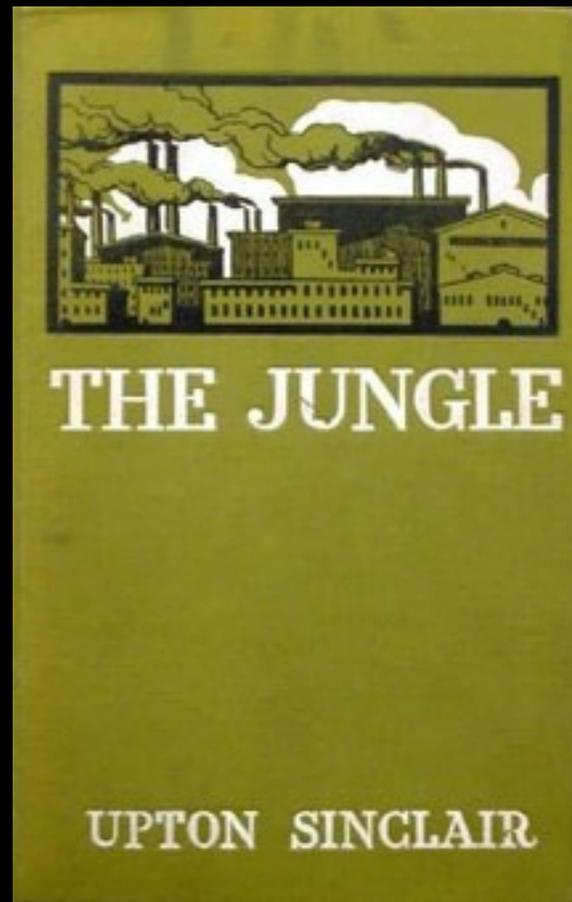
Advertising & The Arts



Education Entertainment & The Arts



Political Change & The Arts



Environmental Change & The Arts

Randy Newman:
“Burn On Big River
Burn On”





Personal Change & the Arts

“STORM”

Source: John Flax, Theater Grottesco www.theatergrottesco.org

City Change & The Arts?

Amager Bakke Steam Ring Generator





Oscar Wilde 1854 -1900



Théophile Gautier 1811-1872



Algernon Charles Swinburne 1837-1909

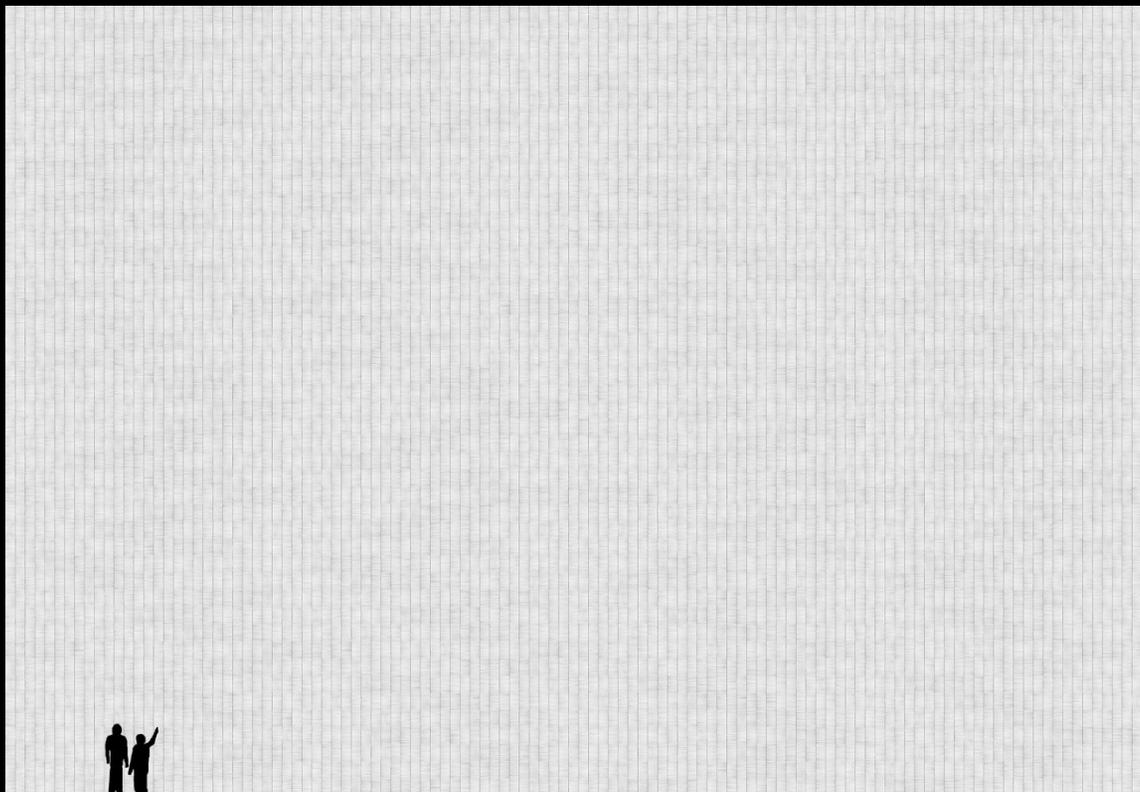


Source: Chris Jordan www.chrisjordan.com



Plastic Bottles - Detail

Chris Jordan



Office Paper

Chris Jordan



Kim Abeles
Paper Person

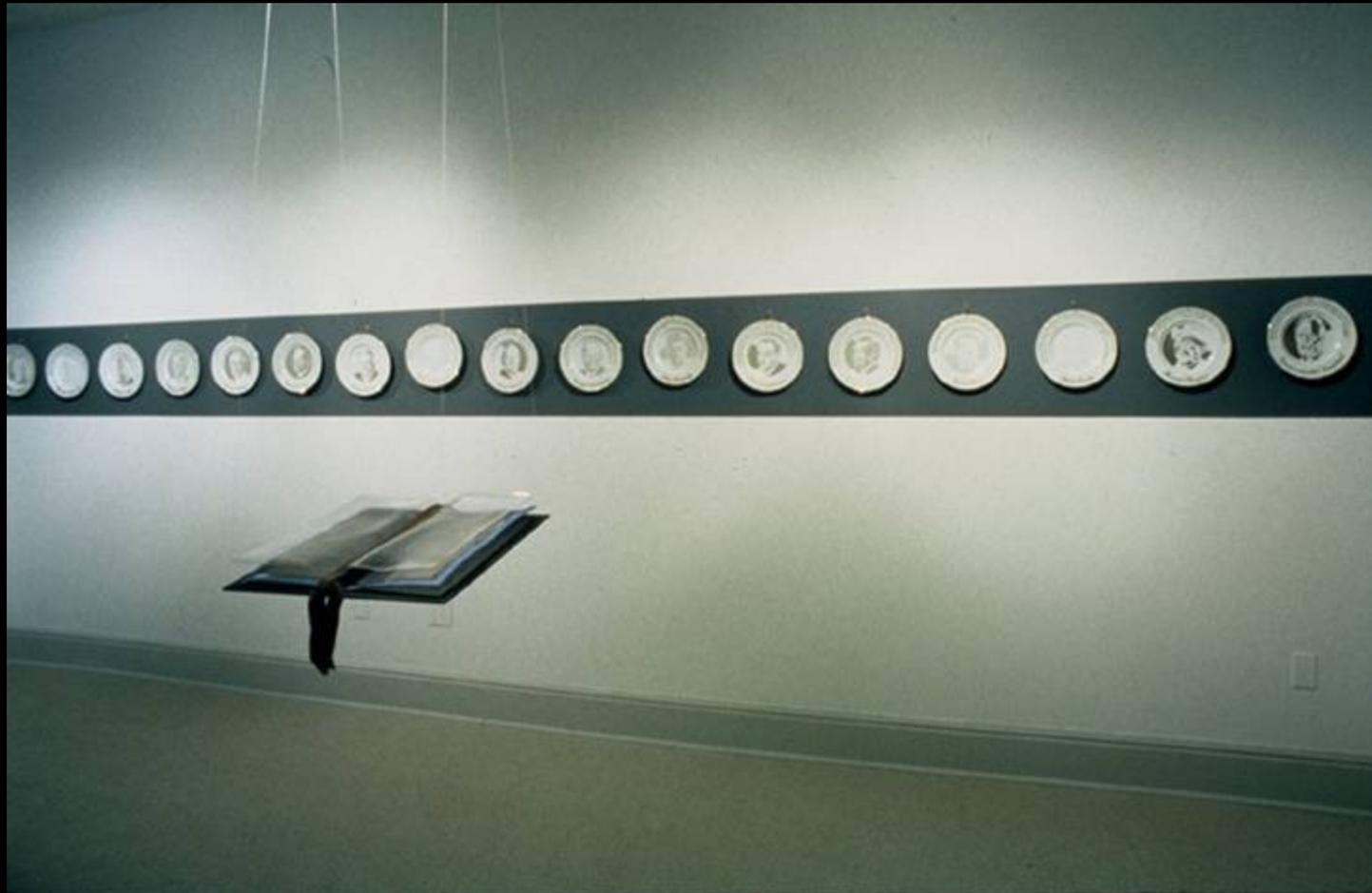


Presidential Commemoration Smog Plate Series

Source: Kim Abeles www.greenmuseum.org, www.kimabeles.com



Kim Abeles:
“Presidential Commemoration Smog Plate Series”



California Bureau of Automotive Repair & Kim Abeles' Smog Collector Commission

THE SMOG COLLECTOR



Detail of Smog Collector Sculpture (Dirty Days of Smog) gathering smog at California State University, Fullerton.



Informational "table" accompanying each Smog Collector Sculpture (Dirty Days of Smog) while it was on-site gathering smog, and during the subsequent tour of the completed works to businesses and organizations throughout southern California.

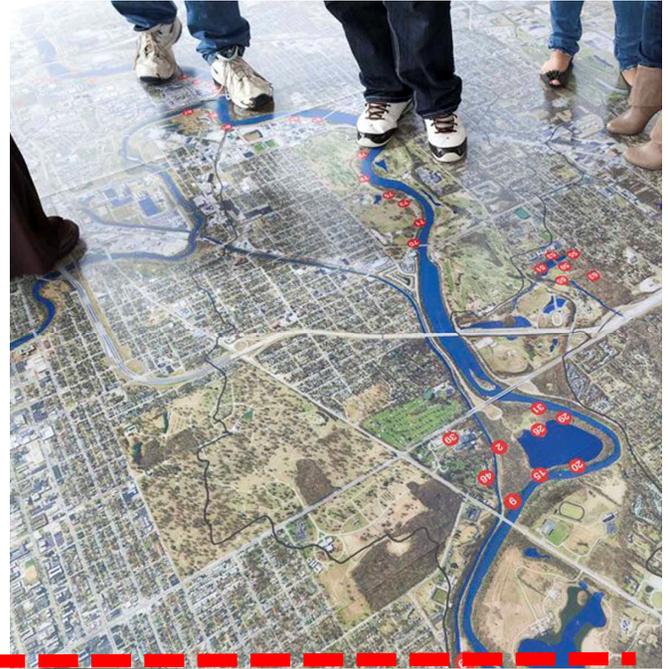
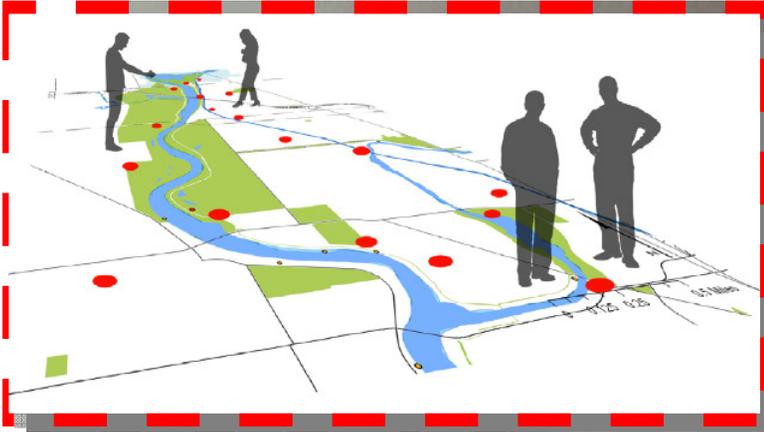


Smog Collector Sculpture (Dirty Days of Smog), 1991-92. Welded vehicle exhaust system, 50-gallon vat, images made of particulate matter (smog) on plexiglas gathered at California State University, Fullerton. Funded by the California Bureau of Automotive Repair, Department of Consumer Affairs.

On-site Smog Collector Sculpture Project. In 1991, the California Bureau of Automotive Repair, Department of Consumer Affairs sponsored on-site Smog Collector Sculptures by Abeles as a unique campaign to inform citizens about the Smog Check Program and facts about smog. Midway through the project, February 1992, the media's support for the campaign was said to be unprecedented, reaching 30 million people and a total dollar equivalent media value of close to \$3 million. The completed sculptures toured to forty corporations and agencies during 1992, primarily to encourage participation in roadside programs and use of smog masks. In 1992, Abeles received a Clean Air Award from the South Coast Air Quality Management District (AQMD) for this project.

The Smog Collector Sculptures were created from recycled automobile mufflers and catalytic converters, each holding a car stencil image on plexiglas. Placed in the environment, visitors to the sites see the accumulation of particulate matter deposited by the polluted air onto the stencils. For each sculpture, Abeles created an accompanying informational "table" using visuals and text in English and Spanish to describe solutions for cleaner air. The table displays were an effort to engage the audience with facts and phone numbers for further information. After eight weeks, the stencils were removed from each sculpture, revealing the images made of smog: lungs, heart, circulatory system, tree, automobile engine, and a wheel of walking legs.

Polls show that 70% of the public thinks that air pollution is a serious problem, yet few are willing to make a change in their lifestyles. Public education



Eve Mosher: HighWaterLine New York



Eve Mosher: HighWaterLine visualizing sea level rise



Eve Mosher: HighWaterLine Miami



Eve Mosher HighWaterLine Action Guide



ECO: Exploring Culture & Opportunities

combining natural history, energy and water conservation, and the arts
in a mobile home park
for Latino youth and their families





ECO Program Results: 99% of youth participants reported that they changed their energy and water use behavior as a result of ECO workshops.

Benefits of Collaborating with the Arts

- Increase audiences – more people
- Attract new audiences – different people
- Increase media attention – new, more
- Make climate science and sustainability solutions accessible, personal, tangible, visceral, actionable

Where to Find Arts People?

Colleges/universities

NASAA – National Assembly of State Arts

Regional, State, and Local Arts Agencies

Artist Directories, Curators, Centers

Artists and Climate Change

Center for Energy & Environmental Research
in the Human Sciences

Curating Cities

ecoartspace

EcoArt South Florida

Greenmuseum.org

WEAD – Women Environmental Artists Directory

Ways to “Do” Science/Arts/Sustainability Collaborative Projects?

- Identify a sustainability challenge or problem that needs to be solved
- Find arts people and have coffee/tea (bring questions to explore and start from “the point of wonder”)
- Bring “sustainablists” into the conversation/collaboration (e.g. sustainability professionals) to help with the “and then what?” to move from awareness to action steps
- Think ecosystemically - find out where your goals, needs, skills, and resources might complement, overlap or help each collaborator
- Suggest a collaboration
 - as individual scientists, artists, and/or educators
 - as academic departments/institutions/organizations
 - to shift from discipline-centric to solutions-centric thinking

Ways to Collaborate with Artists

- Work in collaboration with a local arts entity (performing arts center, art museum, gallery, curator, arts service organization, etc.)
- Work directly with artists
- Offer money through
 - paying a fee for services or an existing work
 - commissioning a new work
 - creating a competition (e.g. LACI, Buckminster Fuller Institute)
- Offer access, time, space, and/or co-marketing



THE ANNOTATED
**UNCLE TOM'S
CABIN**



HARRIET BEECHER STOWE

EDITED WITH AN INTRODUCTION AND NOTES BY

HENRY LOUIS GATES JR.

AND HOLLIS ROBBINS



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