To Future It Now

/ˈfyo͞oCHər/

verb

Carbon Emergency - Curatorial Statement

'To Future It Now' is a proposal for a climate biennale that would speak about the diminishing natural resources on Earth, how increasing use of fossil fuels is directly proportional to the rise in sea levels, the need to achieve carbon neutrality, and the urgency to achieve it now. The biennale would address questions like, how long and far can we propose pragmatic solutions for climate change, how could water as a rising element be used as a fuel to replace the need for burning non-renewables, how far can living species adapt to change, and what is the end game of civilization.

"Were I a poet, I'd write, The end is nigh, and we are why.", Richard Buday writes in his article 'What we don't get about climate change".

Sea levels could rise by 1M if CO2 emissions are not cut by 2100

Exhibition Goal

By designing an end to end sustainable exhibition, we proposes to talk about climate change in respect of time-space quality, the possibility of what the future could hold. This Climate Emergency Biennale at Governors Island in New York aims at inviting thinkers and practitioners who work largely in the field of climate, science, art and architecture, to push forward sustainable methods of living and construction to minimize carbon footprint in building designs.

The brief of the exhibition is to visualise how life can be a few decades ahead when we would have achieved carbon neutrality, and eliminated the constant need for search of climate solutions. With the help of participants and guest speakers, the exhibition aims at starting a dialouge within these communtites of artists and scientists to start visualizing a healthier future.

The exhibition at the same time aims at educating common people about the climate reality through immersive, multi-sensory experiences at these pavilions. The goal is to make everyone aware of where we stand on the environmental front without overwhelming them with the reality.

The biennale wants the visitors to leave with some sense of hope about an optimistic future but also with awareness of the urgency and burden of individual responsibility.

CLIMATE emergency biennale

Emergency & Goal

To Future It Now

Curatorial Role - Literacy Building

The exhibition further aims at building climate literacy by presenting information that is deemed important for individuals and communities to know and understand about Earth's climate, and approaches to adaptation or mitigation, and the politics attached in doing so. Combined with civic education, climate and environmental literacy will create jobs, build a green consumer market and allow citizens to engage with their governments in a meaningful way to solve climate change.

Carbon Democracy - Timothy Mitchell

With the rise of coal power, the producers who oversaw its production acquired the ability to shut down energy systems, a threat they used to build the first mass democracies. Oil offered the West an alternative, and with it came a new form of politics. Oil created a denatured political life whose central object—the economy—appeared capable of infinite growth. What followed was a Western democracy dependent on an undemocratic Middle East. We now live with the consequences: an impoverished political practice, incapable of addressing the crises that threaten to end the age of carbon democracy—namely, the disappearance of cheap energy and the carbon-fueled collapse of the ecological order.

Carbon Technocracy - Victor Seow

Carbon Technocracy argues for the centrality of fossil fuel energy to the making of global industrial modernity and to the emergence of East Asian technocratic imaginaries in the first half of the twentieth century. It advances the premise that coal and later oil enabled not only the transformation of human society’s material foundations, but also allowed for new kinds of publics and politics.

Anthropocene

The Anthropocene defines Earth's most recent geologic time period as being human-influenced, or anthropogenic, based on overwhelming global evidence that atmospheric, geologic, hydrologic, biospheric and other earth system processes are now altered by humans.

Decolonise The Concept Of Anthropocene

Does Mother Earth have rights? Can glaciers listen? Should invisible elves be consulted about development projects? The Anthropocene concept asks us to imagine a world in which humans act as a dominant geophysical force on the global scale—a force powerful enough to melt the polar ice caps, surpass planetary boundaries, and even bring about a sixth mass extinction. It's as if we're an asteroid colliding with the Earth and altering its orbit.

Anthropocene will necessarily be a time of experimentation and ferment in the sciences and humanities. This moment is not especially exhilarating, what with the widespread ecological disasters we face. But it's one that I think we should nevertheless seize. How we answer basic questions about the ontogenesis and composition of the Anthropocene world will have profound implications for how we know, value, and dwell in that world. In other words, how we answer these questions will shape how and for whom we go about making the world habitable.

Decolonization, at its most basic, is about dismantling the epistemic practices and political institutions of Euro-American domination and replacing them with alternatives that respect self-determination, equality, and difference. Firstly, then, it seems self-evident that any conversation about habitability in the Anthropocene should include diverse voices.

Colonized and marginalized peoples have far more to say about the challenges of the Anthropocene than they have opportunities to make their voices heard. It is time we listen.

Capitalism Made This Mess, and This Mess Will Ruin Capitalism

To understand climate change, one environmental historian says we need to realize we've entered a new era: the Capitalocene.

Capitalocene is a kind of critical provocation to this sensibility of the Anthropocene, which is: We have met the enemy and he is us. So the idea that we're all going to cover our footprints, we're going to be more sustainable consumers, we're going to pay attention to population, are really consequences of a highly unequal system of power and wealth.

It's very clear that the problem is not technological—there are the technological means to decarbonize very rapidly. Still, if you solarize and go with wind, you have to store all the energy, you have to rebuild the electrical grids. It's usually costly, and finance capital is really wary of those long-term projects.

Anthropocene Or Capitalocene? Nature, History, and the Crisis of Capitalism

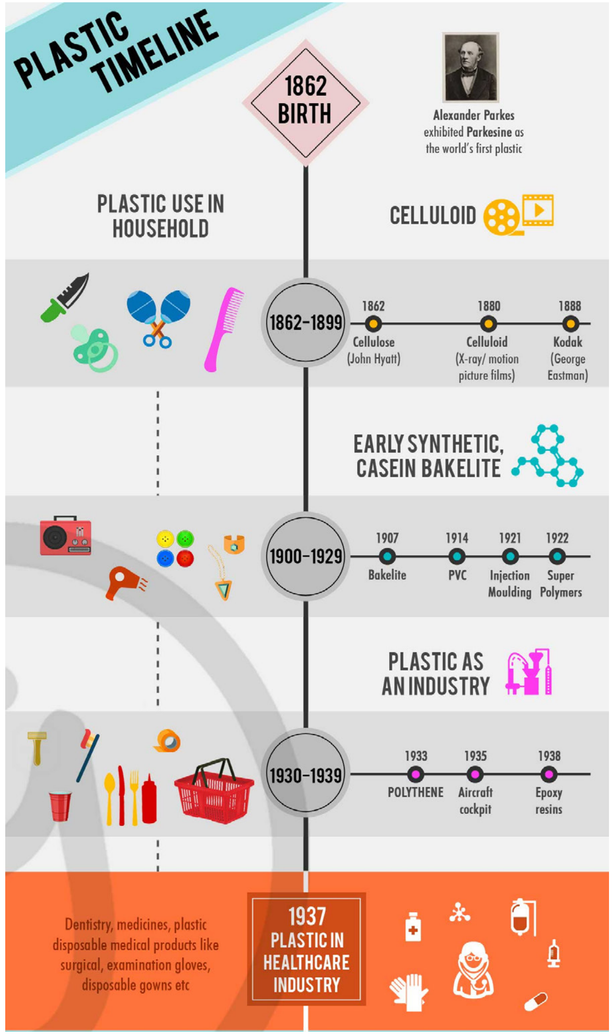
Capitalocene is an ugly word for an ugly system. As Haraway points out, "the Capitalocene" seems to be one of those words loating in the ether, one crystallized by several scholars at once—many of them independently.

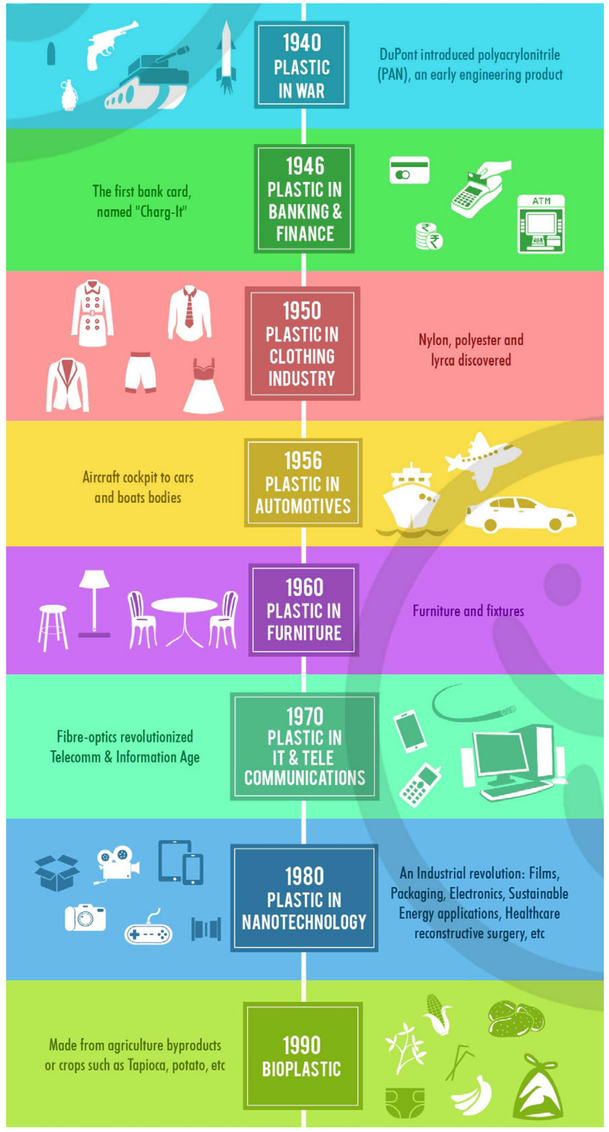
The Anthropocene sounds the alarm—and what an alarm it is! But it cannot explain how these alarming changes came about. Questions of capitalism, power and class, anthropocentrism, dualist framings of "nature" and "society," and the role of states and empires—all are frequently bracketed by the dominant Anthropocene perspective. Second, the contributors to Anthropocene or Capitalocene? all seek to go beyond critique. All argue for reconstructions that point to a new way of thinking humanity-i -nature, and nature-in-humanity.

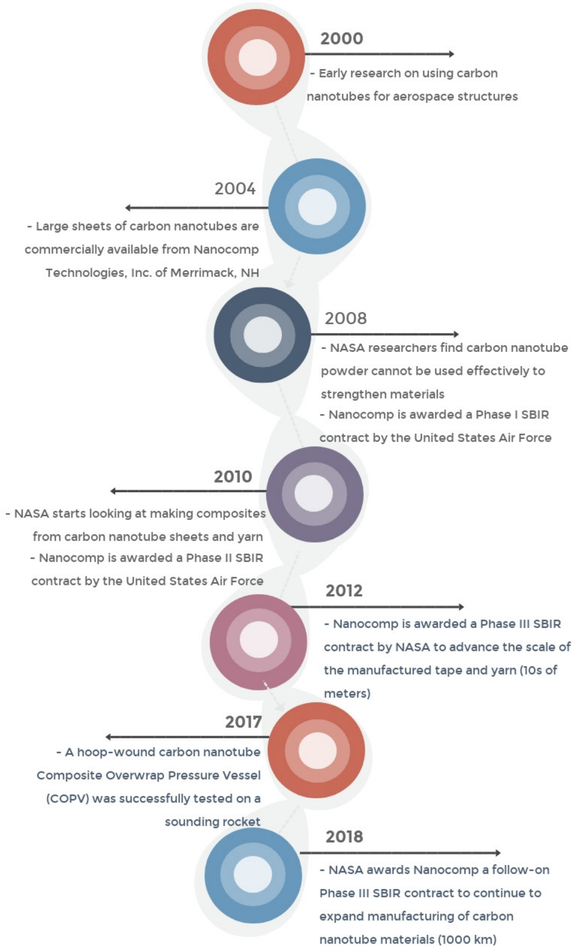
CLIMATE emergency biennale

Role & Relevance

To Future It Now


PLASTIC TIMELINE
1862
BIRTH
Alexander Parkes
exhibited Parkesine as
the world's first plastic
PLASTIC USE IN
HOUSEHOLD
CELLULOID
1862–1899
1862
Cellulose
(John Hyatt)
1880
Celluloid
(X-ray/ motion
picture films)
1888
Kodak
(George
Eastman)
EARLY SYNTHETIC,
CASEIN BAKELITE
1900–1929
1907
Bakelite
1914
PVC
1921
Injection
Moulding
1922
Super
Polymers
PLASTIC AS
AN INDUSTRY
1930–1939
1933
POLYTHENE
1935
Aircraft
cockpit
1938
Epoxy
resins
Dentistry, medicines, plastic
disposable medical products like
surgical, examination gloves,
disposable gowns etc
1937
PLASTIC IN
HEALTHCARE
INDUSTRY


1940
PLASTIC
IN WAR
DuPont introduced polyacrylonitrile
(PAN), an early engineering product
The first bank card,
named "Charg-It"
1946
PLASTIC IN
BANKING &
FINANCE
ATM
1950
PLASTIC IN
CLOTHING
INDUSTRY
Nylon, polyester and
lycra discovered
Aircraft cockpit to cars
and boats bodies
1956
PLASTIC IN
AUTOMOTIVES
1960
PLASTIC IN
FURNITURE
Furniture and fixtures
Fibre-optics revolutionized
Telecomm & Information Age
1970
PLASTIC IN
IT & TELE
COMMUNICATIONS
1980
PLASTIC IN
NANOTECHNOLOGY
An Industrial revolution: Films,
Packaging, Electronics, Sustainable
Energy applications, Healthcare
reconstructive surgery, etc
Made from agriculture byproducts
or crops such as Tapioca, potato, etc
1990
BIOPLASTIC


2000
- Early research on using carbon
nanotubes for aerospace structures
2004
- Large sheets of carbon nanotubes are
commercially available from Nanocomp
Technologies, Inc. of Merrimack, NH
2008
- NASA researchers find carbon nanotube
powder cannot be used effectively to
strengthen materials
- Nanocomp is awarded a Phase I SBIR
contract by the United States Air Force
2010
- NASA starts looking at making composites
from carbon nanotube sheets and yarn
- Nanocomp is awarded a Phase II SBIR
contract by the United States Air Force
2012
- Nanocomp is awarded a Phase III SBIR
contract by NASA to advance the scale of
the manufactured tape and yarn (10s of
meters)
2017
- A hoop-wound carbon nanotube
Composite Overwrap Pressure Vessel
(COPV) was successfully tested on a
sounding rocket
2018
- NASA awards Nanocomp a follow-on
Phase III SBIR contract to continue to
expand manufacturing of carbon
nanotube materials (1000 km)

Underground Tunnel and its Ventilation Tower w.r.t. Governors Island

The Brooklyn–Battery Tunnel connects Red Hook in Brooklyn with Battery Park in Manhattan. The tunnel consists of twin tubes that each carry two traffic lanes under the mouth of the East River. With a length of 9,117 feet (2,779 m), it is the longest continuous underwater vehicular tunnel in North America.

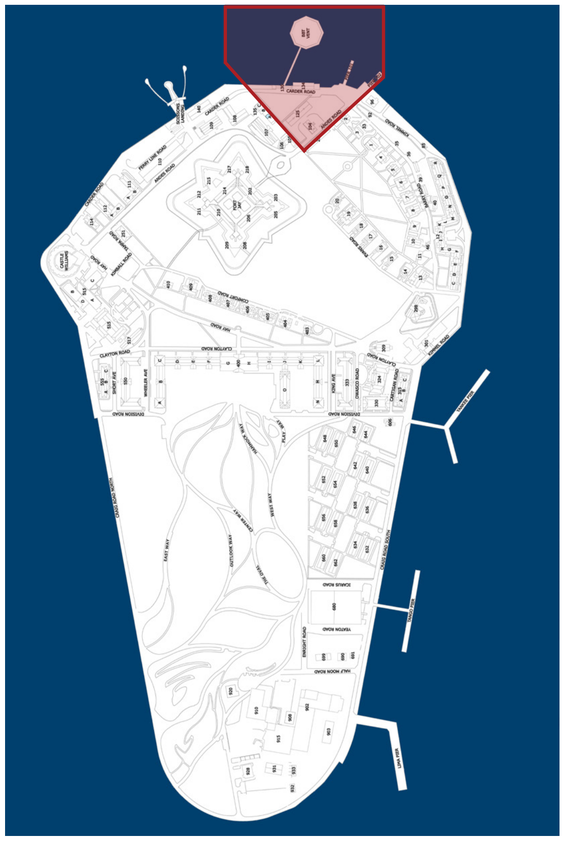
The tunnel is constantly sucking fumes out and bringing in fresh air from the surface. This is all because of the four ventilation chambers in Manhattan, Brooklyn, and Governor's island that are so powerful that they can completely replenish the entire tunnel with fresh air every 90 seconds. As of 2016, the tunnel is used by 54,076 vehicles on an average weekday. The tunnel carries 28 express bus routes that connect Manhattan with Brooklyn or Staten Island. 38.36 metric tonnes of CO2 emitted per day, only through the tunnel.

CLIMATE emergency biennale | Governors Island
To Future It Now

Carbon Fumes Spreading Over the Island, Dominating the Planted Green

During construction, tunnel engineers touted the ventilation system as being so efficient that the ventilation towers could blow 25,000 tons of clean air into the tunnel every hour. The system consists of 53 fans that each had a diameter of 8 feet (2.4 m).

The Brooklyn–Battery Tunnel is part of the Interstate Highway System, which is a 50,000-mile (80,000 km) system, consisting of five east–west routes and 10 north–south routes. IHS is approximately 28,800 times of Brooklyn-Battery Tunnel. If the prototype at the Governor's Island can tackle 14,000 tonnes of CO2 every year along the 9,117 feet tunnel, it can also tackle 0.4 Gigatonnes across the entire Interstate Highway System.



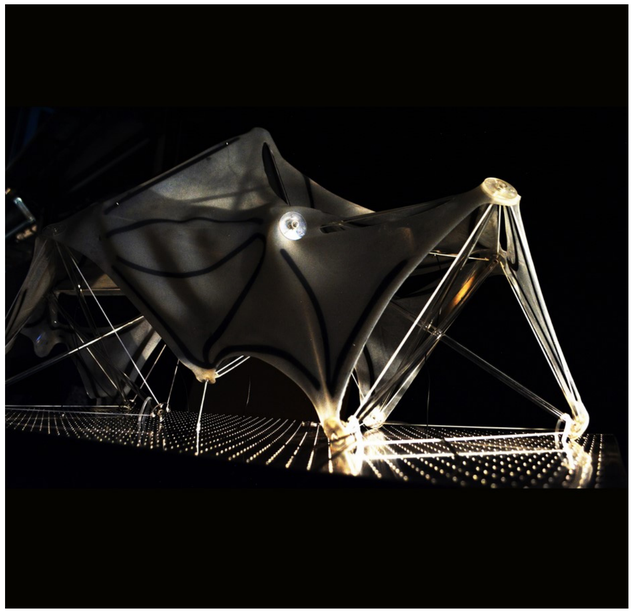
Site Under Consideration and Site Images Alongside

Mycelium & Graphene

Mycelium's fast-growing fibers produce materials used for packaging, clothing, food and construction—everything from leather to plant-based steak to scaffolding for growing organs. Mycelium, when harnessed as a technology, ***helps replace plastics*** that are rapidly accumulating in the environment.

The strongest of the bricks can withstand a load of several tons. Therefore, all sorts of structures can be built with these bricks, including the complex vault at the center of the Hy-Fi tower, which was built in less than a week

At the end of the two-month exhibition, the tower was dismantled and ***the bricks were taken to composters, taking advantage of their natural biodegradability.***



Carbon that is 5% of steel's density but 200 times it's strength.

Graphene is considered to be the ***world's thinnest, strongest and most conductive material - of both electricity and heat.*** All of these properties are exciting researchers and businesses around the world - as graphene has the potential to revolutionize entire industries - in the fields of electricity, conductivity, energy generation, batteries, sensors and more.

Thermal applications

Graphene is the most heat conductive found to date. As graphene is also strong and light, it means that it is a great material for making heat-spreading solutions, such as heat sinks or heat dissipation films. This could be useful in microelectronics (for example to make LED lighting more efficient and longer lasting)

Energy storage

Since graphene is the world's thinnest material, it also extremely high surface-area to volume ratio. This makes graphene a very promising material for use in batteries and supercapacitors. Graphene may enable batteries and supercapacitors (and even fuel-cells) that can store more energy - and charge faster, too.

Coatings, sensors, electronics

Graphene has a lot of promise for additional applications: anti-corrosion coatings and paints, efficient and precise sensors, faster and efficient electronics, flexible displays, efficient solar panels, faster DNA sequencing, drug delivery, and more.

We Invite Artists, Architects, Building Construction Industry, Climate Activists, Researchers, Historians, Scientists, Environment Enthusiasts, and Everyone Else.

CLIMATE emergency biennale

Audience

To Future It Now

Data Visualisation and Research Agency

Narrative

***Studio Folder**, Italy*

Focused on present scenario of land excavations for fossil fuels and it's impact on climate and people through the example of Kiruna.

Architect, Film Director, Author

Narrative

***Liam Young**, Australia*

Focused on the future of urban densification and need to surrender the land for ground replenishment through the example of Planet City.

Artist, Arts & Community Organizer, Non-institutional Teaching

Experience

***Sissel Marie Tonn**, Netherlands*

Focused on impacts of land excavation in the future years through her 'Intimate Earthquake Archive's' multi sensory experience.

Artists, Architects, Programmers, Engineers, Animators, Mathematicians

Experience

***Team Lab**, US, UK, China, Australia, South Korea, Singapore*

Focused on exploring relationship between humans and nature through art, science and technology and thus creating an immersive experience.

Educators

Workshop

***Guerilla Science**, US, UK*

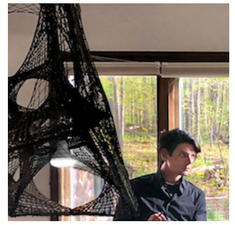
Focused on connecting people who believe 'science is not for them' with science through practical training workshops and live performances.

CLIMATE

SCIENCE

ARCHITECTURE

PEOPLE



***Ezio Blasseti**, Greece*

Focused on new material- Graphene, a carbon composite, and it's methods of fabrication, use and the potential to revolutionize the building material industry.

Material- Universal

Architect, Educator

***V8 Architects**, Netherlands*

Focused on building a biotope with an intense sensory experience uniting water, enery and food; further focusing on growing of mushrooms and it's use as a sustainable material.

Material- Universal

Sustainable Architecture Firm

***Waiwai**, UAE, Japan*

Focused on replacing concrete with Subkah, a wetland formed in UAE, and making it compatible for world use and weight bearing, in order to largely reduce CO2 emissions.

Material- Local

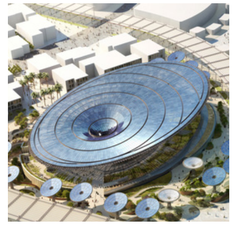
Sustainable Architecture Firm

***Achim Menges**, US, UK*

Focused on new material- Graphene, a carbon composite, and it's methods of fabrication, use and the potential to revolutionize the building material industry.

Material- Local

Architect in Computational Design, Researcher, Educator



***Grimshaw**, US, UK, UAE, France, Australia*

Focused on implementation of leading edge technology for long term sustainable future with the focus on leaving net zero carbon footprint.

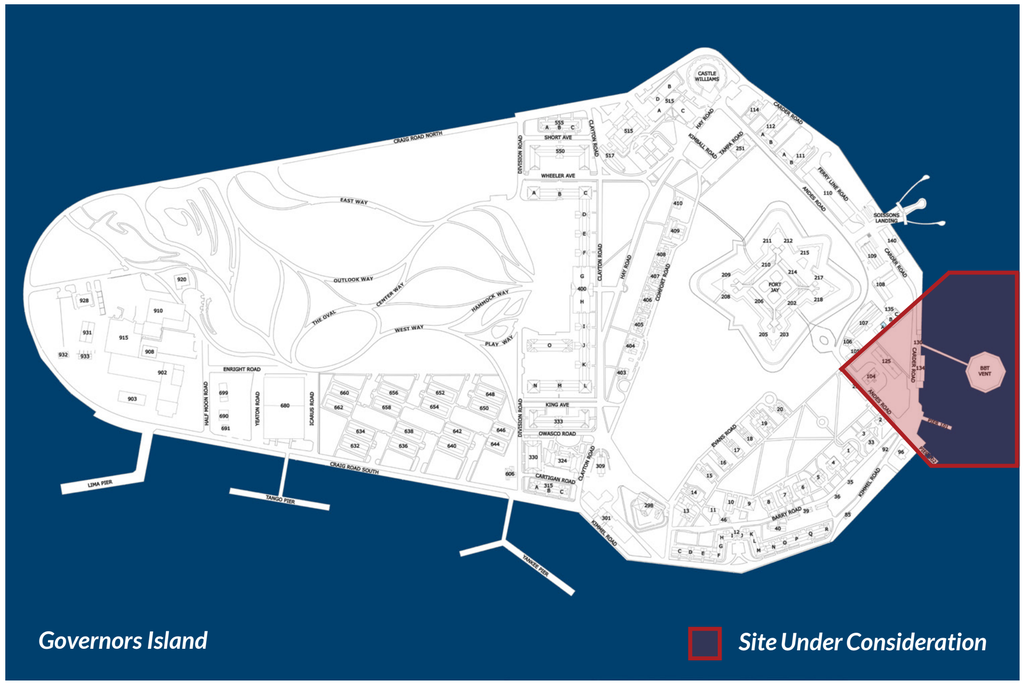
Sustainability

Sustainable Architecture Firm

CLIMATE emergency biennale

Participants

To Future It Now



1. Life's On The Edge

Studio Folder
Liam Young
Sissel Marie Tonn

2. Nature Saves Nature

V8 Architects
Waiwai Studio

3. Believe It's True

Team Lab

4. Fabricating Future

Ezio Blasseti
Achim Menges
Grimshaw Architects

5. Time Travel Tomorrow

Guerilla Science

CLIMATE emergency biennale

Journey

To Future It Now

Introduction

Studio Folder participated in ArkDes's exhibition Kiruna Forever. Located in Lapland, within the Arctic Circle, Kiruna and many of its 18,000 residents are being relocated to New Kiruna, two miles to the east over the next 20 years. We invite Studio Folder to exhibit a narration of this urban relocation and it's impact on residents.
'Planet City' is an urgent examination of the productive potential of extreme densification in an imagined future where ten billion people surrender the rest of the planet to a global wilderness. In a vision that runs counter to our current world, we invite Liam Young to describe a radical reversal of planetary sprawl, where humans retreat from our vast network of cities and supply chains into one hyper-dense metropolis.

Collaborators

Studio Folder
Liam Young
Sissel Marie Tonn

Brief - Storytelling

Studio Folder, Liam Young and Sissel Marie Tonn together build a narrative on how the land today is shifting for our need to extract fossil fuels, and how the planet is densified by human dominance. They translate the impacts of unhealthy extraction practices, burning of non-renewables and carbon saturation in the environment into a physical experience.
The pavilion tells the story of how we are truly living on the edge, risking that last push into an apocalypse.

Experiences

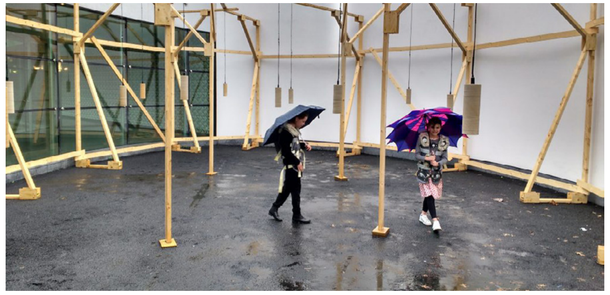
- Physical models to showcase shifting edges, urban densification, and digital projection over it to communicate future possibilities if current unsustainable practices sustain.
- A film directed by Young narrating alternate optimistic future if we surrender the planet for its replenishment.
- Experience an emotional rollercoaster ride through physically connecting all your senses with impacts of urban sprawl like earthquakes, contaminated air for breathing, etc.
- Performance artists challenging human perceptions doing day to day activities.

CLIMATE emergency biennale

Participants

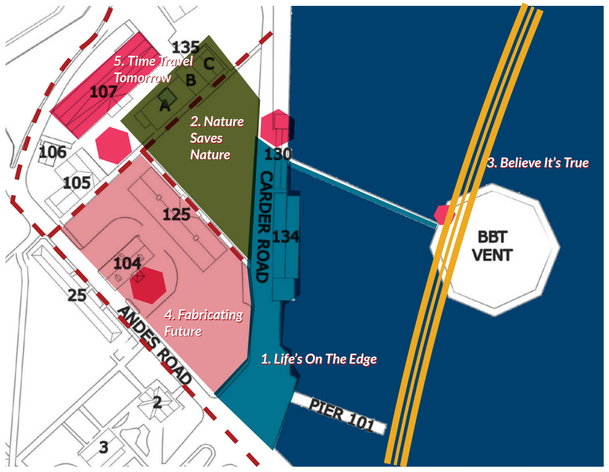
To Future It Now

Life's On The Edge



The Intimate Earthquake Archive

We invite Sissel Marie Tonn with her interactive wearable art-work, tactile earthquake vests and haptic compositions derived from the seismic archive of the Groningen gas fields, interactive radio broadcast system sandstone earth core samples, wooden scaffolding.



Introduction

This pavilion is the embodiment of the V8 architects' concept of 'uniting water, energy, food' that demonstrates the connection this country is so good at making between sustainable energy, water management, agriculture and circularity.
The exhibition will explore how the salt compounds found in the UAE's sabkha (salt flats) could inspire alternative renewable building materials.

Collaborators

V8 Architects
Waiwai Studio

Brief - Producing Food, Water & New Material

We invite V8 Architects to create a temporary Biotope which can largely produce mushrooms, to be further used for creating mycelium. The Pavilion also aims at generating food and clean water on a drinking-water-deprived site.
We invite Waiwai studio to demonstrate their research on Sabkha- a potential replacement for concrete in the world. They encourage each country to look for local materials that can serve as a wealth to fight climate crisis across the planet.

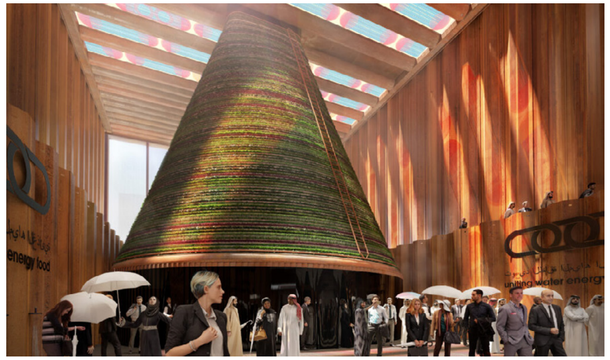
Experiences

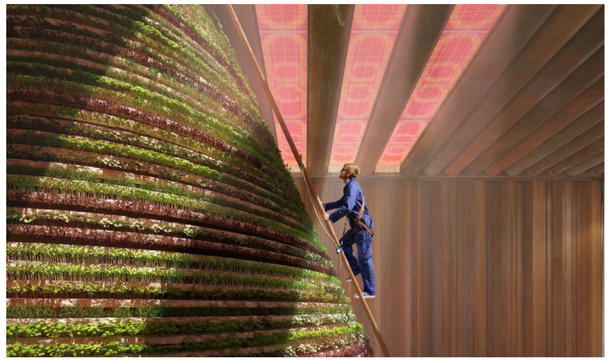
-People can contribute in harvesting mushrooms and other food ingredients, while learning it's translation in meals and materials.
-Visitors can witness the construction method and materialization that makes the closed-loop circularity concept intelligible here, expressed through drawings and guides.
- A sensorially rich experience of skills in the field of innovative water, energy and food harvesting.
- Experince new material textures, it's load bearing capacity, and vision to replace concrete in the future through physical exhibits.

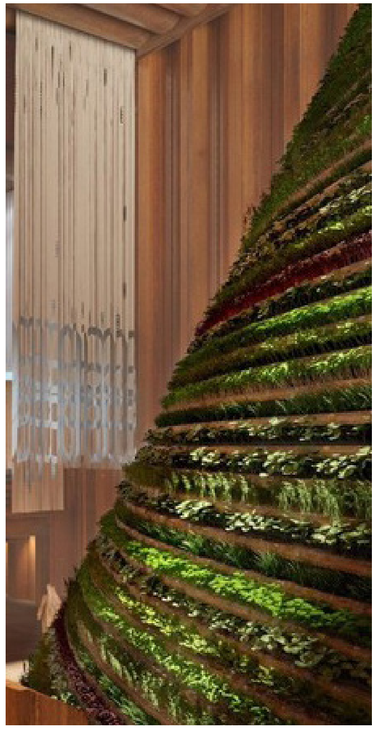
CLIMATE emergency biennale | Participants

To Future It Now

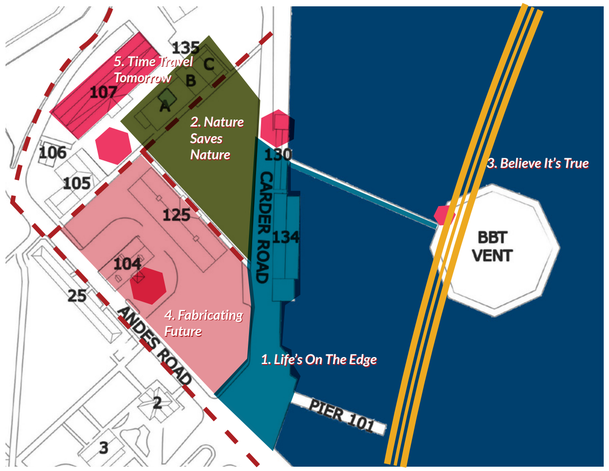
Nature Saves Nature







The pavilion will be built using a construction method and materialization that makes the closed-loop circularity concept intelligible. To minimize transport, the entire pavilion will be constructed with locally sourced construction materials. All materials will be either given back or recycled after the expo closes, a strategy that will keep the pavilion's ecological footprint as small as possible.



Introduction

TeamLab is an international art collective, an interdisciplinary group of various specialists such as artists, programmers, engineers, CG animators, mathematicians and architects whose collaborative practice seeks to navigate the confluence of art, science, technology, and the natural world.
TeamLab aims to explore the relationship between the self and the world and new perceptions through art.

Collaborators

Team Lab

Brief - Advertising Exhibition Events and Climate Crisis

We invite TeamLab to use Graphene as an energy chip in their production technology. Further, energy conserved by 'Fabricating Future' Pavilion can be used for additional electricity requirements. TeamLab would become the primary source of advertisement throughout the timeline of the Biennale.

Experiences

- A new user interface on visitor's mobile application of CEB covering various topics of climate crisis.
This can be used as a filter on social media sites.
- A continuous data updating visuals projected below the ventilation tunnel as a form of advertisement.
- These data include CO2 emmisions from cars, carbon capture technology by MIT students implemented on site, new event updates about the exhibitions, etc.

CLIMATE emergency biennale | Participants

To Future It Now

Believe Its True

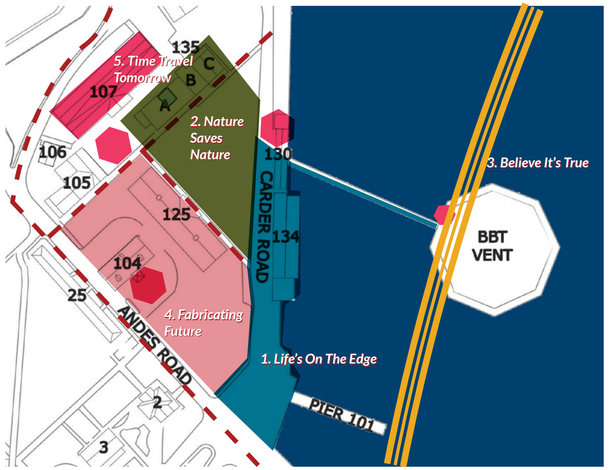
The flowers grow according to the size of the space. If you are surrounded by ceilings or walls, they become the size of the space they are surrounded by, and if you are in a large area outside, they become very large. You can enjoy it anywhere you like, participate in it, and share it with the world. Your home or the place where you are becomes an art space.
With the real flow of time, the flowers bloom, changing day by day according to the seasons. In the world seen through the camera of a smartphone with the TikTok app, flowers influenced by the environment of the real space will be born in real time.

We invite Team Lab to translate this work of art on the exhibition's mobile application too.

Masses (Megaliths) of different space-times are clustered in the bath house ruins. The forest surrounding the bath house ruins is home to 3,000-year-old trees, and it changes daily with the imperceptible, slow flow of time, repeating every year, as a space where the endlessly long time accumulates. The bath house was made in modern times, but after just a short period, it was abandoned, becoming a space-time where time had stopped completely. And this group of megaliths is also a mass made up of compressed space-times where the flow of time varies.

The artwork is continuously rendered in real time by a computer program. It is neither prerecorded, nor on loop. As a whole, previous states never recur, and the artwork is continuously changing due to the movement of people. Every moment is unique and can never be seen again.

When a person moves, a force is applied in that direction. When the flow accelerates, a rotation phenomenon is produced due to the difference in the surrounding flow velocities, creating a vortex. The faster a person moves, the more force is applied in that direction. If a person stops or leaves the artwork, the flow will cease, and nothing will exist in the space.
This idea can be projected in the tunnel below the vent tower, with visuals of upcoming exhibition events, carbon story of the vehicles and other climate emergency topics.



Introduction

There is a conscious redefining of material constrains through pattern and code, which incubates a search for progressive manufacturing methods. Pure algorithmic design encapsulates the potential for new patterns, which manifest around generative procedures through scripted logic. This abstract material logic embodiment enables an engagement with the complexities of organizational space.

Collaborators

Ezio Blasseti
Achim Menges
Grimshaw Architects

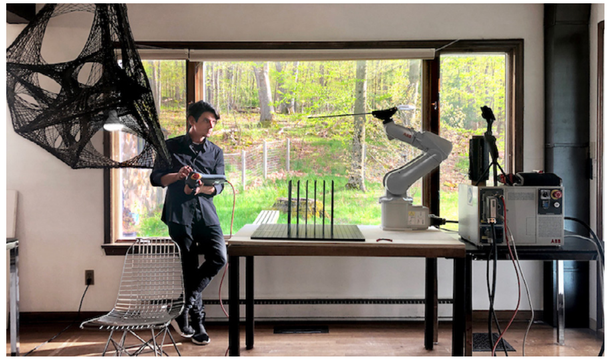
Brief - Fabricating Street Furniture, Producing Mycelium and Graphene

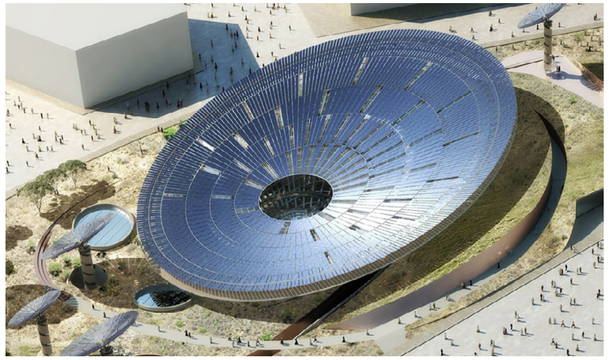
Fabricates mycelium from mushrooms and graphene from captured carbon.
Fabricates mycelium produsts like chairs, benches, shades, packaging material, partition boards etc.
Captures and Conserves energy through kinetic pavilion.

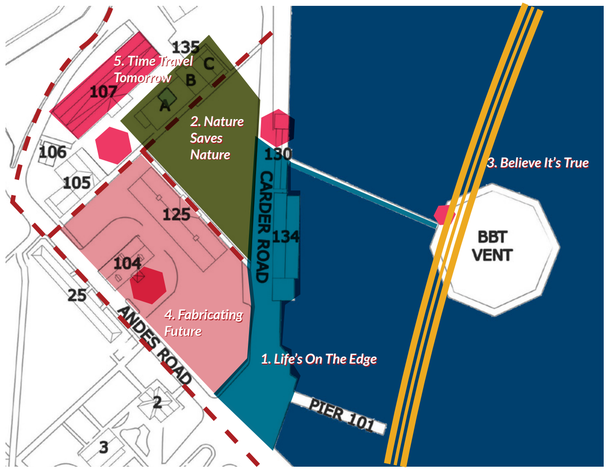
Experiences

- A robot working on the grounds to produce new furniture through 3 months of timeline.

Fabricating Future







CLIMATE emergency biennale

Participants

To Future It Now

Introduction

Guerilla Science is on a mission is to revolutionise how people connect with science through transformative experiences.

Guerilla Science brings the world's greatest discoveries out of cloistered laboratories and stuffy classrooms and into the realm of playful celebration, with the conviction that scientific insights belong to everyone and should be enjoyed by all.

They specialize in connecting audiences to scientific thinking by combining science with art, music and play to tell stories that inspire, challenge, and amaze. All of their work is driven by a core belief that science belongs to everyone, regardless of age, ethnicity, gender, education or socio-economic status.

Collaborators

Guerilla Science

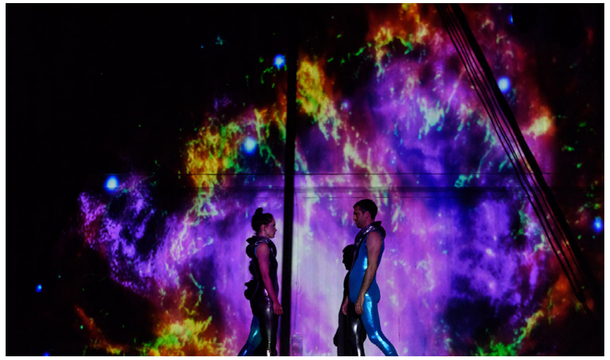
Brief - Promote On-Site Produces

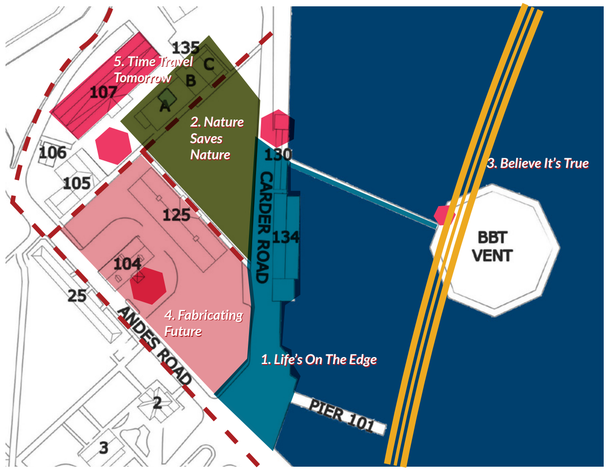
Guerilla Science connects all the pavilions with its smaller stalls of food, science laboratory, workshops and gathering areas. These stalls are made with materials produced by 'Fabricating future' Pavilion and the food is prepared by the 'Biotope' ingredients.

Experiences

-They question the general human perception of food by tweaking the tastes with a legally allowed medical tablet. This involves experiments with food texture, eating while playing different music, changing color of original raw materials, etc, thus charging up all the senses.
- They conduct training workshop for people to understand science of day to day life.
-People from training workshops come together to develop a live perfomance at the end of the training week. This can be a dance recital, or a movie production or a hypothetical travel buerau to Mars.

Time Traveling Tomorrow





CLIMATE emergency biennale

Participants

To Future It Now

THEN - NOW - WHEN

PAST
A talk by Prof. John Haldon

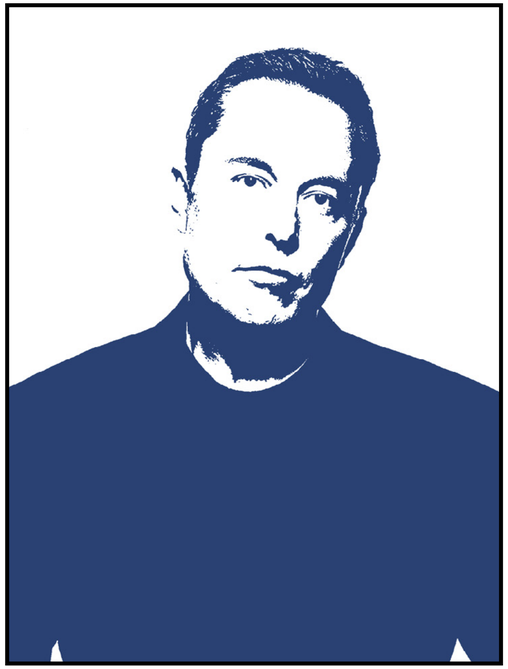
Talking about his long-term project:
the PIIRS Climate Change and History Research Initiative; entitled A comparative approach to climate, environment and society in Eurasia, 300-1900. Towards understanding the impact of climate on complex societies

PRESENT
Press Conference by AOC

Taking up questions and addressing climate change:

Her propaganda and political agenda associated with environmental concerns
&
Her answer to the question that the biennale proposes

FUTURE
Presentation by Elon Musk



Putting out his idea about a new future:

With examples from his upcoming works, an imaginary scenario of a positive climate change.

CLIMATE emergency biennale

Speakers

To Future It Now

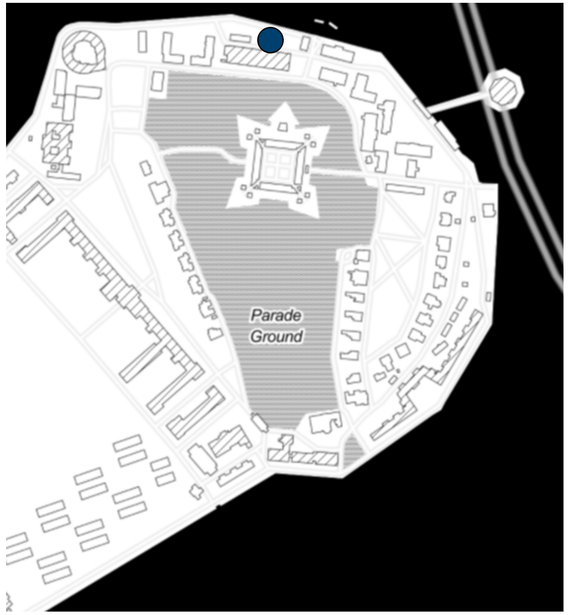
STRATEGY

- A single platform where the talk happens on the Governor's Island

-Larger outreach by projecting the panellists' speech on multiple screens placed on the island

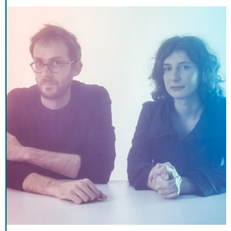
-Posters on the App

-Getting in a larger crowd by involving globally known names



1. Life's On The Edge

Studio Folder
Liam Young
Sissel Marie Tonn



Kabage Karanja and Stella Mutegi

Founders of Cave Bureau

Carson Chen

He has variously curated and overseen more than 30 international exhibitions of contemporary art and architecture.

Architecture Writer, Curator

2. Nature Saves Nature

V8 Architects
Waiwai Studio


Greta Thunberg

Youth Icon for Climate Change since she was 14 years old is internationally known for challenging world leaders to take immediate action for climate change mitigation.

Swedish Climate Activist

Leonardo DiCaprio

Board Member of World Wildlife Fund, Global Green USA, and the International Fund for Animal Welfare; was named UN Messenger of Peace on Climate Change in 2014

American actor, film producer, and environmentalist

United Nations

A virtual conference with the team from UN where they address the Sustainablity Development Goals and the need to achieve them in the drawn timeline.

Intergovernmental Organization

UNITED NATIONS

3. Believe It's True

Team Lab

Jaden Smith

Founder of JUST WATER, a company that strives to make an alternative to petroleum-based products that require plastic and emit CO2 in production.

American actor, rapper, singer, and songwriter

Ellen DeGeneres

American talk show host, comedian and climate activist

4. Fabricating Future

Ezio Blasseti
Achim Menges
Grimshaw Architects



MIT Students

Students who designed the technology for capturing carbon at source which is implemented at the ventilation building on Governors Island

Students, Researchers

Chris Sacca

Founder of the 'Lower carbon capital' company which serves as a platform for all the start-up ideas relating to achieve net neutral carbon environment.

Founder and Chairman

Jing Liu

Liu envisions spaces for culture, learning and innovation while advocating for socio-political issues faced in the field of architecture.

Architect, Educator, Co-founder of SO-IL

5. Time Travel Tomorrow

Guerilla Science

Mark Ruffalo

Founder of the clean water organization 'Water Defense' since 2010, The Earth Avenger doesn't just see green as the Hulk. Activist of ending use of chemicals in water bodies.

American actor and producer

CLIMATE emergency biennale

Speakers

To Future It Now

mycelium products

Circle of Sustainability

5. Time Travel Tomorrow

Guerilla Science

Promotes mushroom as a food, and food grown on biotope through innovative engagement strategies

1. Life's On The Edge

Studio Folder
Liam Young
Sissel Marie Tonn

Narrates the stories of sustainability, thus completing the circle

3. Believe It's True

Team Lab

Uses conserved electricity and graphene for storing data, constructing reflective surfaces for projections, actual projections etc

4. Fabricating Future

Ezio Blasseti
Achim Menges
Grimshaw

Fabricates mycelium from mushrooms and graphene from captured carbon

Fabricates mycelium produsts like chairs, benches, shades, packaging material, partition boards etc.

2. Nature Saves Nature

V8 Architects
Waiwai Studio

Produces food and drinking water for visitors

Produces energy and mushrooms for pavilions

CLIMATE emergency biennale

Sustainable Approach

To Future It Now

Social Media Partners

Underground Tunnel Projections

NYC Parades

CLIMATE emergency biennale | Advertising

To Future It Now

CLIMATE emergency biennale

Quis iur? Upideli gendent.
Is a is excesequost acerum quaspit ***magnit adioratius.***
Otatecabo. Ommolum quam quo volo tecti iderum ea dissect iatur, nus et, voluptibus pra et arum ***que nihil idunto*** beriatecto voles susam,Int et aria qui te

1
23 &
4567

Sub heading

//Edionseque voluptat mo delbusdaectem. Nam que archit mo illaute volupturia dolorae peria parion est et mossenihil is enimus aceat.

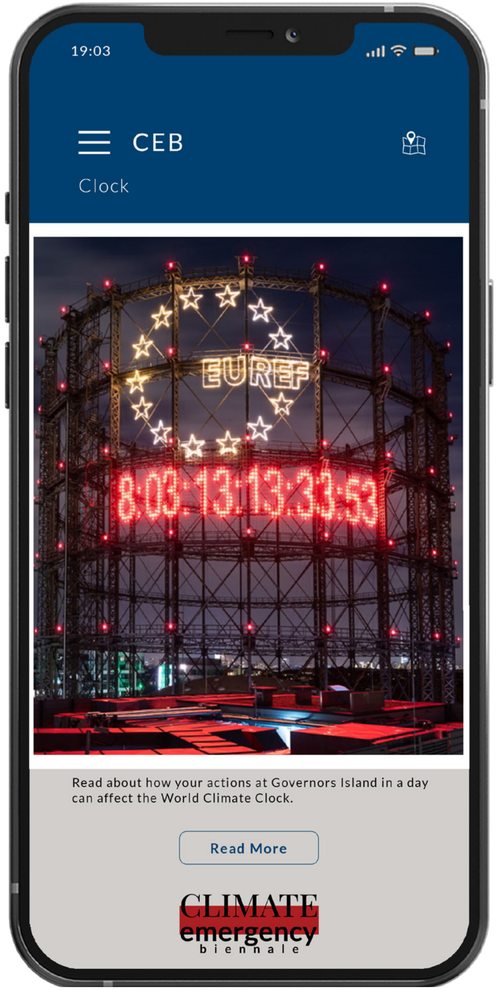
//Edionseque voluptat ***mo delbusdaectem***. Nam que archit mo illaute volupturia dolorae peria parion est et mossenihil is enimus aceat.

CLIMATE emergency biennale | **Enter exhibition titles here**

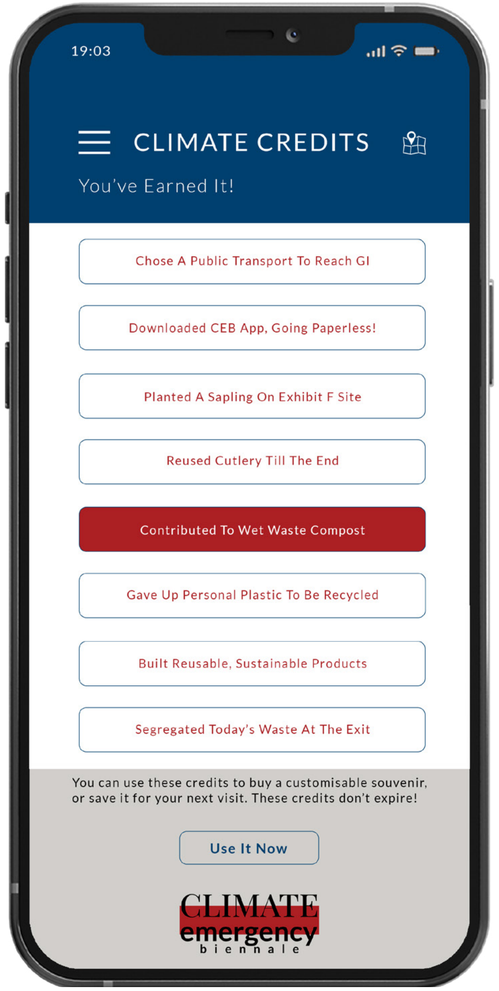
CLIMATE emergency biennale | Graphic Language
To Future It Now

Site map can be quickly accessed from the top right icon. Visitors can filter through pavilions, live events, food booths, public participation areas, restrooms, etc.

Guests can prioritize their visit to the pavilions based on climate emergency topic, hands-on engagement, use of technology, etc. Pavilions can be sorted on the app.



People can learn more about the World Climate Clock, and find ways to contribute in sustainable ways in day-to-day life activities.

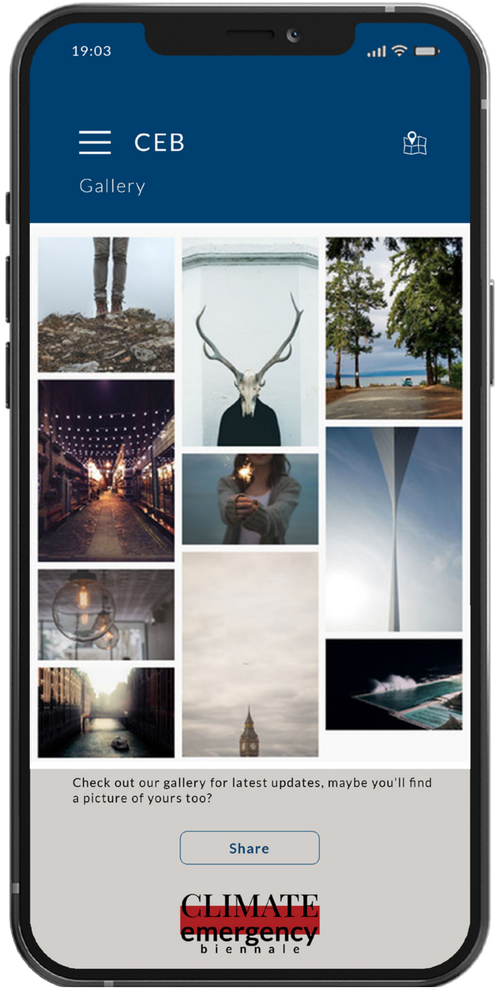


Based on their activity/actions on Governors Island, visitors can earn Climate Credits, which they can use to get themselves a souvenir.

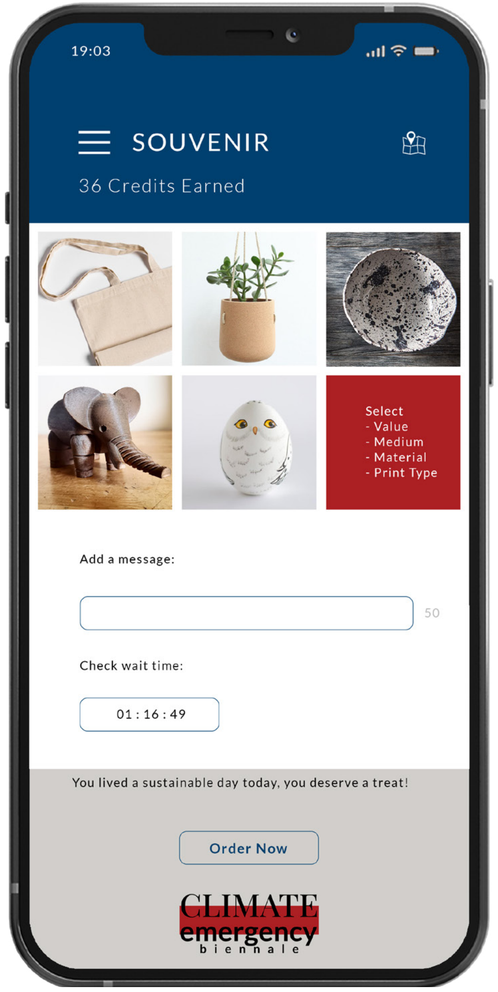
CLIMATE emergency biennale

Public Participation - Mobile App

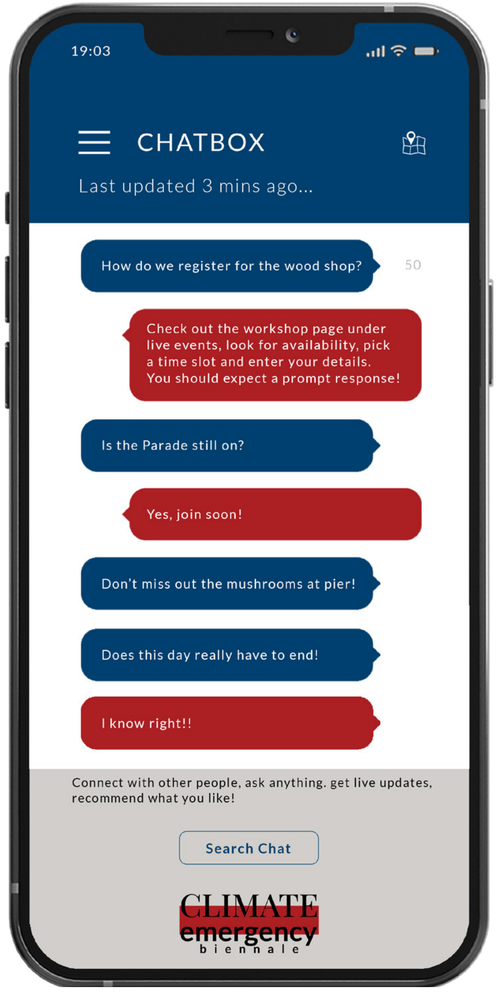
To Future It Now



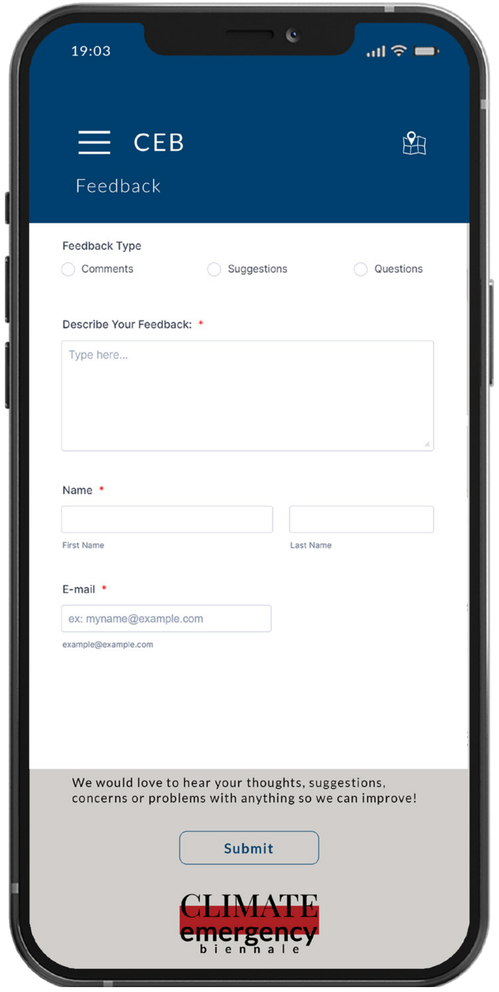
Organisers of the biennale go live on updating the gallery, visitors can find their pictures and share it on social media pages. #ClimateEmergency



Visitors can customize the souvenirs based on the values they want to take back home, pay on the app and collect it at the exit.



Everybody can use the chatbox to ask questions, or post live updates about the events, even recommend the food they enjoyed!



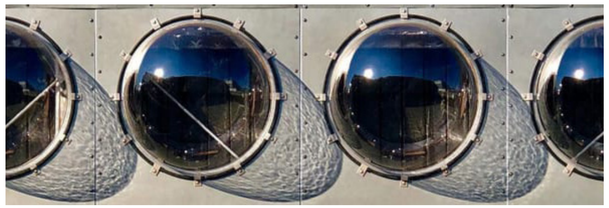
It's always good to get some feedback in the end.

CLIMATE emergency biennale

Public Participation - Mobile App

To Future It Now

The concept of 'Human Library' for exhibition to begin a discourse and leave an impact on the visitors.



An incredibly poignant artistic piece by designer Chiu Chih. Forces the viewer to think about tough issues like the environment and our ever changing conditions.

In collaboration with biolab seoul, kuo duo has created a series of masks made from mushroom mycelium, definitely gettings some heads turned.

A 'Climate Correcting Machine' for people to come together and share a dialouge.

The exhibition proposes to talk about climate change in respect of time-space quality, the possibility of what the future could hold. The idea is to visualise how life can be a few decades ahead when we would have achieved carbon neutrality, and eliminated the constant need for search of climate solutions. The biennale wants the visitors to leave with some sense of hope about an optimistic future but also with awareness of the urgency and burden of individual responsibility.

CLIMATE emergency biennale

Values Of The Exhibition

To Future It Now

CLIMATE
emergency
biennale

dshah46@pratt.edu

Communicating Climate Science Through The Arts

2021

Foreword by Mark Rosin

When I first volunteered at the Bristol Science Festival as an undergraduate physics student over 15 years ago, the migration of scientists out of the ivory tower was already well underway. In the intervening years, I've witnessed a series of dramatic changes in the landscape of public engagement with science in both the United States and Europe. Gone are the days of scientists and scientific experts staying behind the scenes. Now more than ever, this academic group is speaking out about the role they want their discoveries to play in the world and taking charge of and adapting the way they engage with the public. With more widespread recognition of social, racial, and gender-based inequity in science, there has been a call for a new social contract between scientists and the communities they serve, live in, and are supported by. It was against this background and in response to strong continued community demand that in July and August of 2021, we convened our fourth annual Communicating Science through the Arts Workshop.

Convening:

bringing together a community

Here at Guerilla Science, we remain dedicated to bringing communities together to engage in science in ways not only new and engaging but accessible and inviting. Our Communicating Climate Science through the Arts workshop invited a select group of applicants to participate in three design sessions relating to new and emerging climate science practices, giving participants valuable insights into what the future of science and design might look like.

GUERILLA
SCIENCE

Our Approach

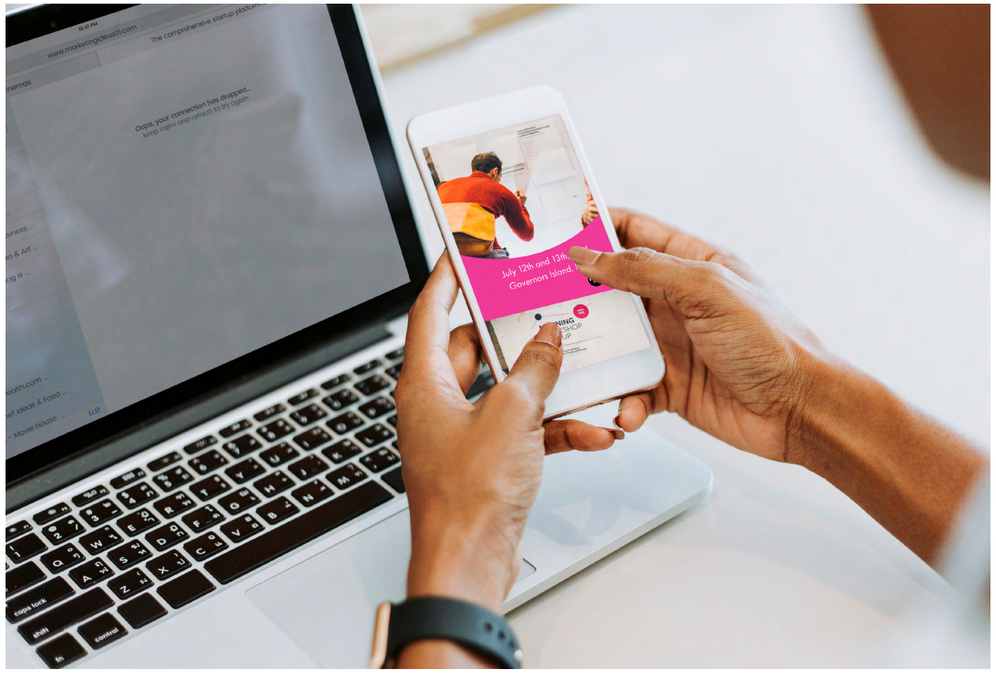
Following a year of sustained global stress caused by the COVID19 pandemic, 2021 saw new levels of climate change induced disaster. Widespread flooding across the world, devastating wildfires across the Pacific Northwest, and Hurricane Ida battering the Northeastern corridor are just some of the few challenges we've faced in this year alone. Humanity's future is now one in which climate disaster is, sadly, an existential threat. Fortunately, it is also largely within our power to stop it. To do so is to take a complex and ever-changing problem and combat it with a novel, multidisciplinary approach involving strong scientific and political leadership. It requires social systems and communities to adapt and change and scientists, citizens, and creators to work together to develop new solutions to even newer problems. As such, we could think of no better focus under which to bring together our nascent community of scientists, architects, designers, and artists for the latest Communicating Climate Science through the Arts workshop.

Call For Participants

Guerilla Science provides a platform for scientists who seek a creative outlet and connection to a broader audience; and creative professionals who wants to inspire others with a passion for science.

In May 2021, we put out a call for participants to local arts organizations, universities, research centers, community groups, and education providers with special attention paid to those that center environmental justice in their work. We supplemented these calls with a strong digital marketing push. Our resultant applicant pool totaled over sixty people, with approximately a quarter from outside the local tri-state area. After a multi-person review process, we selected thirty applicants to join this, our forth workshop, on Communicating Climate Science through the Arts. Half the cohort were scientists, primarily from the biological and ecological sciences. The other half of the cohort held a range of professions, and identified themselves primarily with architecture, design, or socially engaged art.

Part of our search for potential participants involved strong social media outreach. During this campaign, we engaged with our potential audience through platforms like Instagram and Facebook by describing our anticipated workshop and inviting those interested in applying. Maintaining consistent branding throughout, our campaign showcased Guerilla Science's greatest potential and welcomed community members to our doors.



Site: Governors Island

Governors Island is a 172 acre island in the heart of New York City's harbor; a five minute public ferry ride away from Brooklyn and Lower Manhattan. It hosts a rich array of arts, culture and educational programs as well as expansive open spaces and historic buildings. Our community came together in Building 14 (the "Pratt House") - an exhibit space for various projects on climate ecologies and ways to engineer environmental resilience in urban environments - and at three sites across the island that served as the focus for our cohort's public projects.

Workshop

development and co-design

GUERILLA
SCIENCE

Putting talented and enthusiastic individuals together in the same room is only the first step in forming a Community of Practice. To support our community to create and develop their own public engagement activities we structured a multi-tiered process consisting of a series of team building activities, active learning modules, and co-design sessions in which participants created their own climate-themed public engagement.

Team Building

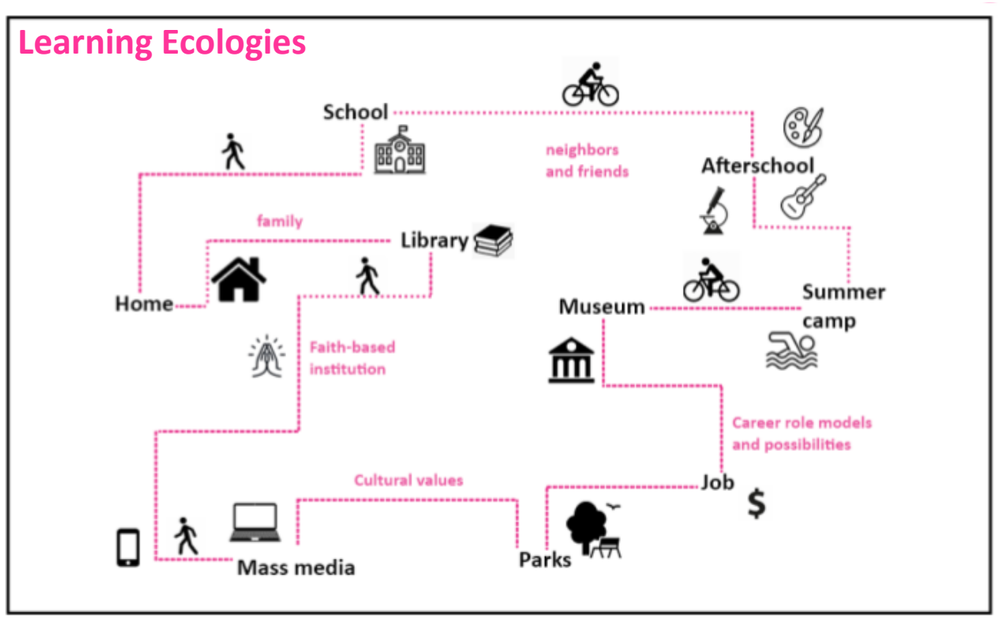
The active learning modules included creating engaging events, rationales for public engagement with science, audience profiling, and planning for access and inclusion. Participants chose to join one of three different co-design sessions, each led by a practicing scientist or STEM professional working in climate resilience who shared their latest research as inspiration, and helped facilitate the development of the group's activity.

Effective science communication involves bringing the public into meaningful contact with inter-disciplinary teams of scientists, artists, and educators. Since there is no one-size-fits-all model to engaging the public with socio-scientific topics, it is essential to empower science communicators to develop their own approaches. With this in mind, the approach of our training programs focuses on the development of a science communication Community of Practice (CoP)

Our model for engaging the public in science takes place over three steps:
1. Bring together scientists and artists together to form a CoP alongside community groups, local and national organizations.
2. Support the nascent CoP to learn, collaborate, and create together in response to a theme and public need.
3. Facilitate the CoP to produce and deliver a science communication activity that is of interest and use to a specific public audience.

Barriers to Engagement (Maslow)

In 1943 psychologist Abraham Maslow proposed a model known as the Hierarchy of Needs. This consists of tiers of human needs, which need to be met in order to reach self-actualization. A person's most basic need is for physical survival, and this will need to be fulfilled in order for the person to progress to the next level up.
The model can be used to design events in order to fully engage with the audience, for each tier to be considered as a potential barrier if they are not fulfilled.

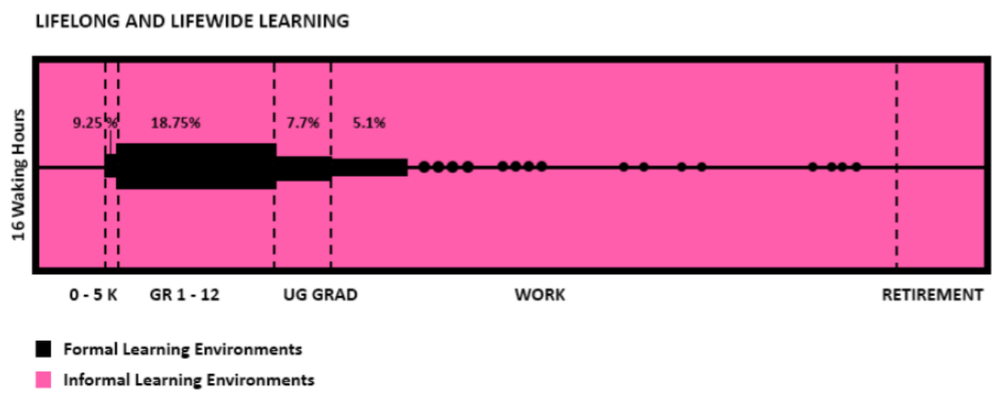


STEM Learning Ecosystems

- Places
- People
- Pursuits

Historical and cultural, value-laden shaped by social structures (sexism, racism, xenophobia, otherism)

Ecological Perspectives



Day 02

Many people who believe that science is “not for them”, have only ever encountered it via formal, largely passive, classroom experiences.

The conference is designed for individuals interested in creating experiences that mix science with installation art, theatre, and play, to introduce new audiences to the excitement of scientific discovery and social relevance of climate science.

Pollinator’s Pavilion - Reimagining Pollination

The Pollinators Pavilion is a constructed or artificial habitat for native bees. Its rounded spiky form is shaped like a bee’s bristling compound eye and a grain of pollen. These “spines” serve as canopies to protect bee nesting tubes from rain while housing a solar-powered monitoring system (camera and microprocessor). The monitoring system inside the Pollinators Pavilion’s panels harvests images of the solitary bees, which relay to a database and AI model to automate insect identification, and help fill data gaps on these pollinators. Much remains unknown about the 4,000 species of solitary bees in America..

Playing on the form of the bee’s compound eye, our Pollinators Pavilions produces new habitat for solitary bee species at the Old Mud Creek Farm, a 2,500 acre model of regenerative organic agriculture in New York’s Hudson Valley. The pavilion’s innovative paneling system houses hundreds of nesting tubes for solitary bees and a solar-powered electronic monitoring platform. The diverse micro-conditions that we develop with our pavilion’s novel paneling system provide artificial nesting structures for solitary bees and models environmental stewardship in our Anthropocene age.

Biogels - Reimagining Backyard Waste

Field is a bio-arts laboratory and research space that creates new discourse around our relationships with nature, time and the body. Field prompts audiences to reflect on their own relationships to manicured public lawns and engage within their cities to rethink the homogeneity, order, and control present within the built environment. Ultimately, Field asks us to reflect on our own biases, assumptions, and desires while navigating shared space.
Field is a critique of the urban typology of the manicured civic park, replicated within cities the world over, and the billion-dollar industry it advances. It is estimated that lawns comprise more than 3 times the acreage of agricultural corn production in the US, making them the single largest irrigated crop—covering about 128,000 sq.km. of public and private land (Milesi 2005). In recent years, movements such as “no-mow” lawns are being popularized in order to rethink our relationships with these grasses. Field seeks to shift our ecological and aesthetic understandings of these grasses, and to rethink the current policies embedded within contemporary urban development programs that perpetuate their use. The project is a means to engage city workers, planners, and architects to generate discourse around power, space, and expanded ecology. The resulting landscape interventions engage urban dwellers from all walks of life. They are affective and embodied experiences of the urban ‘wild’ for adults and children alike.

Blueblocks - Reimagining Land/Water Divide

A living prototype, exploring how plants and biophilic structures can improve the waterways of the Hudson River Estuary, BlueBlocks is a collaboration between thread collective and the RETI Center. BlueBlock Gardens create small salt marsh archipelagos that provide a range of ecological benefits for humans and other species: they increase habitat for a broad range of marine life, introduce plant ecologies at engineered urban edges, improve water quality, and serve as platforms for hands-on high school science. The constructed landscapes are designed specifically for urban coastal conditions and communities, linking positive ecological impacts and sustainable production practices, jobs, and education. We are in the process of building and installing a series of prototypes, following our first successful floating pilot in March of this year. In addition to accessible docks and planting areas, we are currently exploring how every level of the floating garden can be calibrated to actively support life, with specific focus on the underwater-scapes. The design of the BlueBlocks Garden is multi-layered, mimicking an integrated ecological system that supports life along a deep sectional column. Elements being developed for the underwater-scape include: biophilic concrete as the anchor on the seafloor and as undulations and indentations integrated into the underside of the garden to facilitate sub-aquatic growth; mussel single-drop stockings, kelp and oyster farms. The biophilic concrete elements are being provided by collaborator Evelyn Tickle. Her proprietary concrete mix is formulated to match the oyster shell and provides early stage nutrition to a range of species, and has been tested and used widely to demonstrable success. The BlueBlocks Garden system is sustainable, modular, and multipurpose. Production will serve as a model for sustainable, local manufacturing and resilience for industrial coastlines. The modular design allows for serial production, and expansion into archipelagos for multiple site conditions and uses. Components can be adapted to function as walkways, coastline buffers, gathering spaces, oyster and mussel nurseries, kelp gardens, renewable energy fields, and seal sunning platforms. We are also excited to imagine other possibilities together.

Fieldwork

communicating climate science to students

GUERILLA
SCIENCE

Beam Center

The public activities developed during the workshop were based on important, local socio-scientific issues, namely the role of climate change in urban environments and the disparate effect is already having on communities across the world.

Over four days in August 2021, the scientists and artists from the Communicating Climate Science through the Arts brought their activities to an audience on Governors Island. These included high-school students from the Beam Center's summer program, everyday passers-by, and visitors to the Invengenuity Fest, a free public festival over the weekend of 21st and 22nd August.

Over the course of the 4 days, over 2,000 members of the public engaged with the newly developed activities. In addition, we developed and ran several in depth bespoke classes for Beam Center high schoolers as part of their summer program. This was a new opportunity for many of the students, mostly from underserved public schools, to meet with, talk to, and engage with practicing scientists and researchers around issues of sustainability and climate science.

Beam Center brings together youth, artists, engineers, and educators to produce ambitious, collaborative projects that support youth to take bold steps towards meaningful futures and foster conditions for educational equity.

Beam Center reaches NYC youth who might not otherwise get the chance to build, create and learn within a collaborative environment. We help students and teachers integrate projects and hands-on creation into the culture of the classroom.

"The Communicating Climate Science through the Art program was a fantastic way for our young people to engage with cutting edge research and meet real scientists. The team's interdisciplinary and equity-focused approach really resonated with what we aim to achieve at the BEAM Center, and we look forward to working with them again."

- Brian Cohen, Executive Director, Beam Center

Bee’s Pollinator

One out of every three bites of food Americans consume comes from a plant pollinated by honeybees or other pollinators. Yet 90% of pollinating bees are not honeybees: native bees live in dirt, reeds, cracks in rock and other unobtrusive spaces. We know relatively little about their nesting habitats except that their natural habitats are greatly diminished and under constant threat by development. Which in turn threatens the pollination of 75% of global non-agricultural environments.

How can we build habitat for the species that are foundational to our food production?

How can we introduce the idea of native bees to inform people’s understanding of critical and overlooked participants in their gardens and green spaces?

Learning Objectives

After a fun-filled day out in the sun getting closer to nature, our participants left this session with a renewed sense of appreciation for our pollinating friends. Not only did participants develop a new walking tour and event around the novel ball game Rug-bee, but they also learned to inhabit and embody the life of a bee. Guests left the session having experienced bee vision and foraging, having designed various habitats at different scales, and a new understanding of a bee's visual framework. All in a day's work for a busy bee!

Professor Ariane Harrison making elongated straws to sip sun-tea; to drink like a native bee.

Yellow aproned honey bees getting instructed on chasing native bees to collect pollen balls.

Yellow aproned honey bees getting instructed on chasing native bees to collect pollen balls.

,

Blueblocks Gardens

We are woefully unprepared for the sea level rise and stronger storms that come with a changing climate. But it's important to recognize that the climate mitigation and adaptation solutions we need are already here. These include renewable energy, replanting ecosystems, regenerative farming, retrofitting buildings, electrifying transportation and reducing waste.

How can we as designers support conversations about positive human and non-human co-habitation of the urban environment to create more diverse urban coastal habitats?

Could we imagine invisible habitats, and make them visible and comprehensible to the public at large?

Learning Objectives

The blue waters and gentle waves of the nearby Atlantic couldn't have been better for our Blueblocks co-design session. In this event, participants learned valuable lessons about marine life's role in our overall environment and carbon cycle. Participants not only enjoyed the surf and water-based game but reflected on their own personal and sensory (real or imagined) experiences with blue carbon ecosystems. They also left this session with imaginations reinvigorated and illuminated to the value of ecosystems historically under-appreciated.

''The longer we wait to enact strong ocean and climate policies, the more vulnerable people of color and low-income people in coastal communities will become. Our solutions must be grounded in environmental justice and create good jobs in the Blue Economy.''

Excerpt from the Opinion piece written by Ayana Elizabeth Johnson in the Washington Post, December 10,2019.

Professor Elliott Maltby, wearing blueblock fascinator, talks through the training brief.

Beam Center students engrossed in a string game, and solving ecological puzzles.

Participant Dolores Bartholomew aka a microbe, teaching microbe moves to students.

Field Biogels

Urban manicured lawns are ecologically unsustainable, require extensive resources, water, fertilizer, soil, maintenance and care. Yet these grasses have psychological associations to social order and safety. A well kept lawn affords visibility and surveillance over shared public space. In our suburbs, lawns are a symbol of wealth, beauty, home ownership, and the American dream.

How might we as designers engage with wider audiences to rethink our shared relationships with urban grasses, nature, and our own diverse bodies?

How might we engage with our shared biases around safety, beauty, aging, and time?

Learning Objectives

After tackling both the sky and the sea with our previous two sessions, we decided to take a closer look at the land around us, more specifically: grass. With recent movements rising up against the curated and manicured lawns of the past, participants were invited to get their hands dirty, converting grass to pulp and pulp to bioplastics. Participants gained valuable insights into what alternatives the future might hold if we repurpose these grass spaces and substances. Members of the public also practiced the art of manufacturing novel materials using simple and accessible techniques.

"Materials and making are tools and processes that can bring people together. As these projects prove, working on a common undertaking with a common purpose generates and knits together groups and communities, engaging in minds and hands."

Radical Matter: Rethinking materials for a sustainable future, Kate Franklin and Caroline Till

Kids getting their hands *grassy, engaging with nature in minds and hands.*

Participants exploring different recipies with grass to create bioplastics.

Participants posing with their grass based bio-plastics.

Participants

GUERILLA
SCIENCE

Ariane Lourie Harrison

Principal and co-founder of Harrison Atelier
Coordinator of the Masters of Science in Architecture and Urban Design programs at the Graduate School of Architecture, Pratt Institute

Bee's Pollinator

Design Team:
Ariane Harrison, AIA, LEED AP, PhD, Co-founder, Harrison Atelier ariane@harrisonatelier.com
Seth Harrison, MFA, Cofounder Harrison Atelier seth@harrisonatelier.com
Yuxiang Chen, Project leader, Designer / Machine Learning, Pratt MS 2018, Harrison Atelier, rickxbrs0825@gmail.com
Donghan Kang, Designer, Pratt MS 2020, Harrison Atelier

AI Team:
Zhengyang Chen, AI / Machine Learning, College of Computing, Georgia Institute of Technology, victorchen945@gatech.edu
Hanwen Zheng, University of Munich, hanwen.zheng@tum.de

Scientific Advisors:
Kevin Matteson, PH.D Ei, Associate Director, Graduate Programs of Social and Ecological Change, Miami University, matteskc@miamioh.edu
Jerome Rozen, Ph.D. Curator Emeritus, Apoidea Collection, American Museum of Natural History, Professor Emeritus, Richard Gilder Graduate School, rozen@amnh.org
Christina Grozinger, Ph.D. Distinguished Professor of Entomology; Director, Center for Pollinator Research, Pennsylvania State University cmgrozinger@psu.edu
Sam Droege, USGS, Wildlife Biologist. Patuxent Wildlife Research Center sdroege@usgs.gov

Training Brief

Elliott Maltby

Founding Partner Of Thread Collective
Professor In Pratt's Panning And Sustainable Environmental Systems Programs

Blueblocks Pavilion

Elliott Maltby, urban and landscape design director
Ms. Maltby believes that art and design can improve the sustainability and vitality of the urban environment. She brings a detailed and nuanced understanding of landscape elements to each project, including how plants can be compelling design elements, carrying sensory experiences and cultural narratives, while also providing ecosystem services. Her research explores the influence ecological conditions have on the current built and cultural environment. Most recently, she has detailed the history of Collect Pond, identifying its widely varied influence on the contemporary city ranging from our municipal water supply to the founding of Chase Manhattan Bank. In addition to working with architects, Ms. Maltby has collaborated over the years with artists and scientists to creatively address urban design, climate change, and resiliency.

Gita Nandan, sustainability + interiors director, principal, RA, LEED AP
Ms. Nandan believes in sustainability as a holistic and supple design approach, integral to all aspect of design and construction. She is at the forefront of sustainability in New York, having served in various roles to help shape public policy, most recently board co-chair of the New York Rising Community Reconstruction Program Red Hook Community Committee ; member of the Homes Committee for Urban Green Codes Task Force (2012); and the Building Resiliency Task Force (2013). Gita further puts her beliefs into practice as an architectural educator, currently a visiting assistant professor at Pratt Institute and the School of Visual Arts where she teaches the Green Infrastructure Studio, Sustainable and Resilient Existing Building Design and thesis. Gita received her Master of Architecture from UC Berkeley and is a registered architect in New York and New Jersey, an accredited LEED professional and Enterprise Green Communities Technical Assistant.

RETI Center / Four Pillars

RETI Center was conceived and born in response to the need to strengthen economically and environmentally vulnerable urban coastal areas. As urgent needs arise, we respond using a myriad of solutions that fall under our four core competencies:

RESILIENCE: PLACE-BASED PLANNING AND COMMUNITY DEVELOPMENT
EDUCATION: THE GREEN-BLUE PIPELINE
TRAINING: GREEN-BLUE COLLAR WORKFORCE
INNOVATION: RESILIENT PRODUCT DEVELOPMENT

Training Brief

Jessica Fertonani-Cooke

Brazilian socio-ploitical researcher, activist and multidisciplinary artist.

Field Biogels

Supermrin is an Indian artist working at the intersections of architecture, art, and design. She is interested in conceptions of reality, pleasure, and nature within eastern practices. Supermrin is a Visiting Artist at the Graduate Architecture and Urban Design (GAUD) Program at Pratt Institute, and an Assistant Professor of Art at the School of Art, University of Cincinnati. She founded Streetlight in 2016 as a critical spatial research and design laboratory for decolonizing public space.

Jessica Fertonani-Cooke's mestiza heritage (Brazil and Hawaii), informs her research of third-place identities. Influenced by her involvement with indigenous communities throughout the Americas (primarily Tohono O'odham and Guarani), her performances utilize tribal knowledge to create border-crossing rituals between sites and identities. Her projects on the US-Mexico border are the foundation for Field's territorial research. Her past works equip her to engage with diverse communities and develop collaborative performances within politically loaded spaces.

Jil Berenblum is an industrial designer at the Cartier Innovation Lab and a biomaterials researcher with Expressive Matter at Genspace. She is working on building a set of skills that both understand the needs of existing commercial fabrication spaces, but can also answer the urgency with which we need to integrate more sustainable and responsible practices in design.

Ane Gonzalez Lara is an Assistant Professor of undergraduate architecture at Pratt Insitute's School of Architecture, and the co-founder of Idyll Studio. Her professional work with Idyll balances social and cultural concerns with extensive formal and material research. She has developed academic research initiatives as part of her studio teaching that have examined the United States-Mexican border and the Korean demilitarized zone, and has attended conferences on these topics including a roundtable at the 2018' Venice Biennale.

Training Brief

Pratt Team

(L-R) Ariane Lourie Harrison, Jubin Titus, Simran Shah, Dhvani Shah, Mark Rosin, Vineeta Mudunuri

Mark Rosin

Director, Guerilla Science
Professor of Maths and Science, Pratt Institute

Guerilla Science

Founded in 2008, Guerilla Science is on a mission is to revolutionise how people connect with science through transformative experiences. We believe in a world in which everyone feels that science belongs to them and where science is celebrated as an intrinsic part of human culture.

Our ethos of practicing ‘science by stealth’ has enabled us to stretch traditional boundaries of how people engage with science, inspiring them to examine the everyday and the spectacular with an alternative perspective.

Guerilla Science has directly reached over 100,000 adults across the UK and US via our live events. We have a strong media profile with an accumulative reach of over 10 million people through coverage including The New Yorker, VICE and the BBC.

Guerilla Science brings the world’s greatest discoveries out of cloistered laboratories and stuffy classrooms and into the realm of playful celebration, with the conviction that scientific insights belong to everyone and should be enjoyed by all.

We specialize in connecting audiences to scientific thinking by combining science with art, music and play to tell stories that inspire, challenge, and amaze. All of our work is driven by a core belief that science belongs to everyone, regardless of age, ethnicity, gender, education or socio-economic status.