

# DESIGNS FOR SUSTAINABILITY



In 2015, the United Nations adopted the [2030 Agenda for Sustainable Development](#) with seventeen goals aimed at ending global poverty, fighting all forms of inequality, and restoring human and environmental health. The Agenda defines sustainable development as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (The United Nations, n.d., “The Sustainable Development Agenda”). Around the world, designers are grappling with the sometimes-uncomfortable question of how communities today can be accountable to communities of the future. The three projects featured here are responses to that challenge.

Top: **Mad Horse City**, 2017, designed by Olalekan Jeyifous  
Bottom left: **Cricket Shelter: Modular Edible-Insect Farm**, 2016, designed by Mitchell Joachim  
Bottom right: **Svalbard Global Seed Vault**, designed 2008, original architect, Peter W. Søderman



## Mad Horse City

2017

Single-channel color videos with audio

Designed by

**Olalekan Jeyifous**, American, born Nigeria, 1977  
and

**Wale Lawal**, Nigerian, born 1992

Courtesy of the designers

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## About the Project

Lush, green foliage branches into the open spaces of a bright, cylindrical structure. The organic forms of trees and leaves contrast with industrial red and yellow containers arranged like apartments around a central courtyard. From the viewer's low vantage point inside the structure, the trees stretch upward toward a patch of blue sky crisscrossed by wires and worn walkways. Sunlight permeates everything, radiating through openings and reflecting off organic and man-made materials. Could this be the ruin of a civilization reclaimed by nature? Look closely and you will see glowing satellite dishes and antennae hinting at the inhabitants of this place.

This is the world of *Mad Horse City*, an animated video trilogy produced by artist and architect Olalekan Jeyifous and writer Wale Lawal. The title comes from a term Lawal uses to describe the energy of his home city of Lagos, Nigeria. *Mad Horse City* imagines the lives of the city's inhabitants in the year 2115 through the lens of issues facing Lagos today—the seemingly unstoppable forces of technology and capitalism, environmental degradation, and the expendability of the homes and lives of poor people in the name of development.

Lagos is one of the fastest-growing cities and economies on earth. According to the University of Toronto's Global Cities Institute, Lagos will be our planet's largest urban center by the year 2100. Such rapid growth has strained resources, the environment, and infrastructure and pushed



the city's poorest residents further to the margins. In some cases, they have been pushed off the land entirely. For example, more than 100,000 Lagosians whose families once occupied the traditional fishing village of Makoko now live in makeshift settlements of stilt houses spread out across the city's highly polluted lagoon. In a time of economic regeneration and investment in commercial development, marginalized communities are often either ignored or actively displaced. Makoko, considered an eyesore by the government of Lagos, is under constant threat of destruction.

*Mad Horse City* centers the stories of those living without institutional power, the materials and strategies by which they organize communities, and the challenges they face to their survival. The Lagos of 2115 imagined by Jeyifous and Lawal is overcrowded and polluted, with social and economic disparities ever more entrenched and encoded in people's lives. The makeshift design of today's informal settlements takes on the scale of formal commercial development. This vision of Lagos in the future is a fantasy, but it is grounded in questions about the present. Whose lives are our cities designed for? Is the current model and pace of urban development sustainable? Is it humane?

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## Learn More

You can find links to more of Jeyifous's videos and "architectural interventions" [here](#) and [here](#).



## Let's Look

- Look closely at this image. Describe everything you see. What kind of materials were used to build the structure?
- What is the viewer's point of view in this image? Why might the artist have chosen this point of view?
- Imagine that this place is the setting for a story. What kind of story is it? Who are the characters? What do you think happens here?

## Let's Look Again

- Look for contrasting elements, like natural and man-made or light and dark. What other contrasts can you find? How do they add to your understanding of the image?
- What do the materials and design tell you about the people who built the structure in this image? What do you think it would be like to live here?
- Imagine this structure without the trees growing through it. How would your impression change?



### **Cricket Shelter: Modular Edible Insect Farm**

2016

Plywood, polyethylene terephthalate (PET) plastic, mixed media

Designed by

**Mitchell Joachim**, American, born 1972

Courtesy of the designer

Photograph © Mitchell Joachim, Terreform ONE

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## **About the Project**

Look closely at the shape and design of this structure. What does it remind you of? This is an edible-insect farm and shelter, modeled after an insect's exoskeleton. The structure is made of modular plastic units, set in a plywood frame, that provide habitats for raising more than twenty thousand crickets at a time. It can double as a shelter for humans displaced by the effects of climate change, urbanization, economic upheaval, or armed conflict. Raising insects as mini-livestock also has the potential to improve livelihoods and decrease poverty in the world's developing economies.

According to the [Food and Agriculture Organization of the United Nations](#), edible insects, like crickets, could be a solution to the challenge of sustainable food production and consumption. Edible insects are a source of high-quality, low-cost protein that requires only a fraction of the land, feed, and water required to raise cattle, chicken, and pigs. And insects don't emit harmful greenhouse gases or ammonia at the same levels as the livestock raised in most agricultural systems today. More than two billion people worldwide regularly eat insects as part of their traditional diets, but in most Western countries, insects are viewed with distaste or disgust. What if securing the well-being of future generations means making significant changes to the way we eat today?



### **Svalbard Global Seed Vault**

Designed 2008

Original architect

**Peter W. Søderman**, Norwegian, active early 21st century

Barlindhaug Consult, Tromsø, Norway

Exhibition display courtesy of USDA Agriculture Research Service, National Laboratory for Genetic Resources Preservation

Photograph courtesy of Global Crop Diversity Trust

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## **About the Project**

Within the next decade, the global population is expected to increase by one billion people. At the same time, the world's food security is decreasing, as temperatures rise and weather conditions become less stable. How can we plan to feed people in an unpredictable future? One answer lies deep inside an abandoned coal mine some 600 miles from the North Pole, on an island in Norway's Svalbard archipelago.

The [Svalbard Global Seed Vault](#) houses the world's largest collection of food crop diversity. One million seed samples deposited by almost every country in the world are currently stored in this facility that has a capacity of 4.5 million crop varieties. It is designed to be "the ultimate insurance policy for the world's food supply" (The Crop Trust, n.d., "Svalbard Global Seed Vault").

What makes the Seed Vault ideal for reliable long-term storage? Svalbard is the farthest north people can fly on a scheduled flight, meaning the location is remote but accessible. Only the entrance is visible above ground. The vault's design takes advantage of consistently frozen conditions more than 400 feet deep inside the permafrost. Seeds are kept dormant at a temperature just below 0° Fahrenheit. And it is safe, in a geologically and geopolitically stable area well above rising sea levels. The Seed Vault represents a safeguard against climate change, natural disasters, armed conflict, and other events that might threaten the diversity and availability of the food crops on which humans depend.



## Compare and Connect

- Follow these links to compare the designs of the [Svalbard Global Seed Vault](#) and the [Cricket Shelter](#). How are their parts and purposes alike? How are they different? Do they reflect similar or different visions for the future?
- The designs featured in this resource address concerns such as urban development, poverty, climate change, and food insecurity. What sustainability issues are most urgent where you live? What actions might your community take to address those issues?

# DESIGNS FOR DIFFERENT FUTURES

October 22, 2019 – March 8, 2020

[\*Designs for Different Futures\*](#) explores designs and provocative ideas that respond to human civilization's future needs, desires, and fears.

The exhibition is organized by the Philadelphia Museum of Art, the Walker Art Center, and the Art Institute of Chicago.

In Philadelphia, the exhibition was generously supported by the Annenberg Foundation Fund for Major Exhibitions, the Robert Montgomery Scott Endowment for Exhibitions, the Kathleen C. and John J.F. Sherrerd Fund for Exhibitions, Lisa Roberts and David Seltzer in honor of Collab's 50<sup>th</sup> Anniversary, the Women's Committee of the Philadelphia Museum of Art, the Laura and William C. Buck Endowment for Exhibitions, the Harriet and Ronald Lassin Fund for Special Exhibitions, the Jill and Sheldon Bonovitz Exhibition Fund, and an anonymous donor.

(Credits as of August 29, 2019)

Philadelphia  
Museum of  
Art