

E A R L Y / M O R N I N G / O P E R A

TODAY

HOLOSCENES was inspired by a photo made by the tremendous photojournalist Daniel Berehulak during the widespread flooding in Pakistan in 2010. I wondered: how does the sheer beauty of this photograph relate to my experience of the devastation depicted? I had been registering the onslaught of floods around the world since Hurricane Katrina hit the Gulf Coast in 2005, but this image is what focused my attention on the evolving story of water in the 21st century.

For a few months thereafter, I daydreamed the same scenario: a man in an aquarium-like sculpture calmly reading a newspaper, while flood waters surged around, the paper disintegrating in his hands as he continued to turn the pages.

The choreography of HOLOSCENES is born from everyday behavior — from making the bed to selling fruit in a market. Accumulated, these daily micro-cycles become the predominant patterns of our lives.

Several scientists working on climate issues helped me understand that climate change is a mirror. At this point, the climate crisis is as much about us — the behavioral and cognitive science behind how we make decisions, think and act in the long-term, and feel empathy — as it is about CO2 or melting glaciers.

Climate science also makes clear: our biosphere, our communities, our daily behaviors are all part of a single, deeply-connected system. How might we act accordingly?

A sprawling team of artists, engineers, scientists, and producers collaborated to develop HOLOSCENES over four years. I'm deeply thankful to each of them for their thoughtful work and passion, and for a gift they have given me: belief in the power of a collective daydream that is pursued.

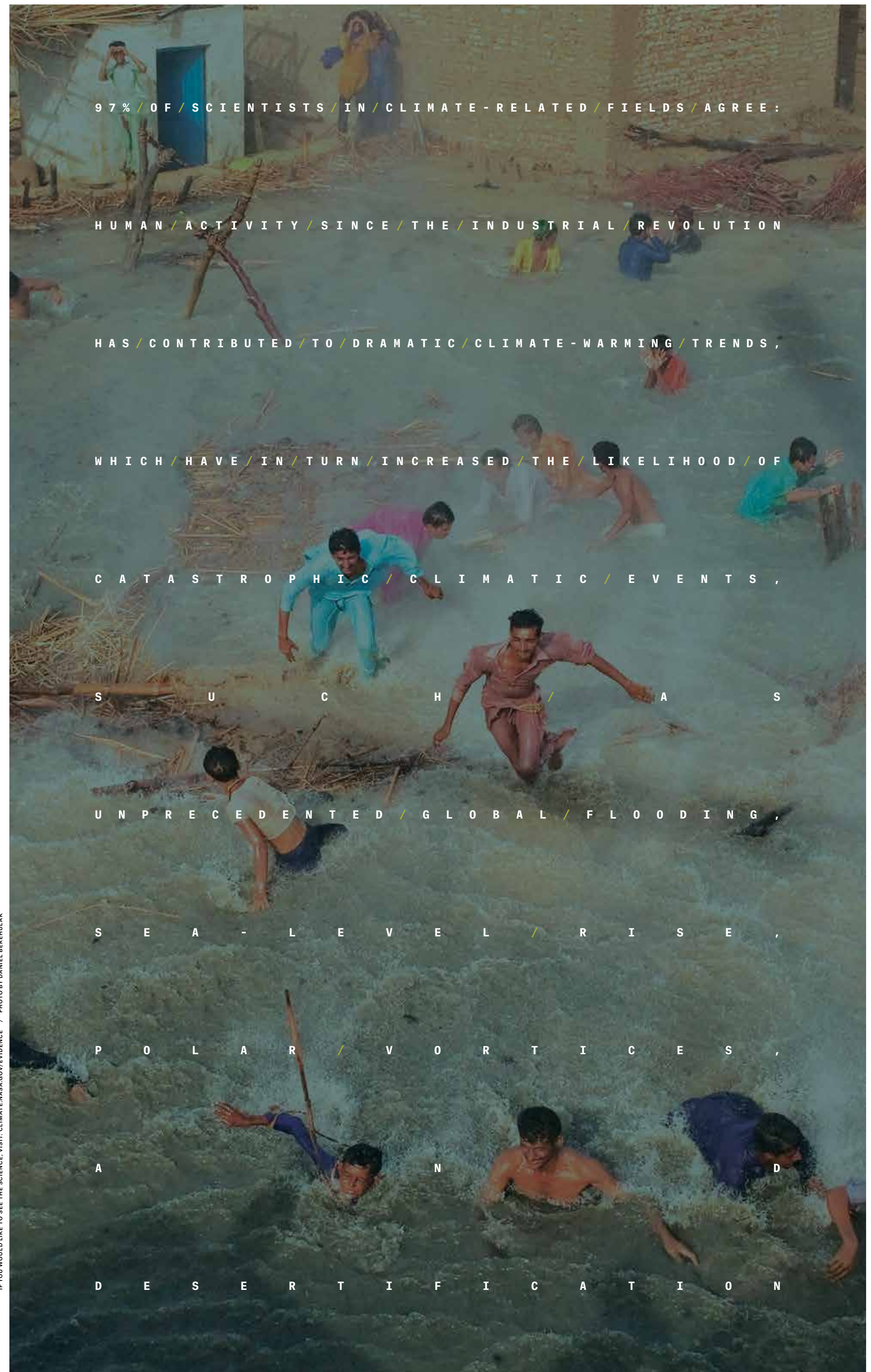
It's probably true that people change very,

v
e
r
y
slowly.

But, then, that was supposed to be the case for the biosphere too — and just look how quickly that's evolved. I have faith that we'll be next.

From one to another,

Lars Jan
Artistic Director, Early Morning Opera
December 2, 2015



IF YOU WOULD LIKE TO SEE THE SCIENCE, VISIT: CLIMATE.MASA.GOV/EVIDENCE / PHOTO BY DANIEL BEREHULAK

Holocene

holo = entirely, cene = recent

The Holocene refers to the geological epoch following the last major Ice Age about 11,700 years ago. While humans were roaming the Earth as early as 200,000 years ago, human civilizations only began to form and flourish during the Holocene with the advent of agriculture and eventual rise of Industrialism. A group of geologists and climatologists has recently suggested that the unforeseen effects of the Industrial Age have ushered our planet into the Anthropocene.



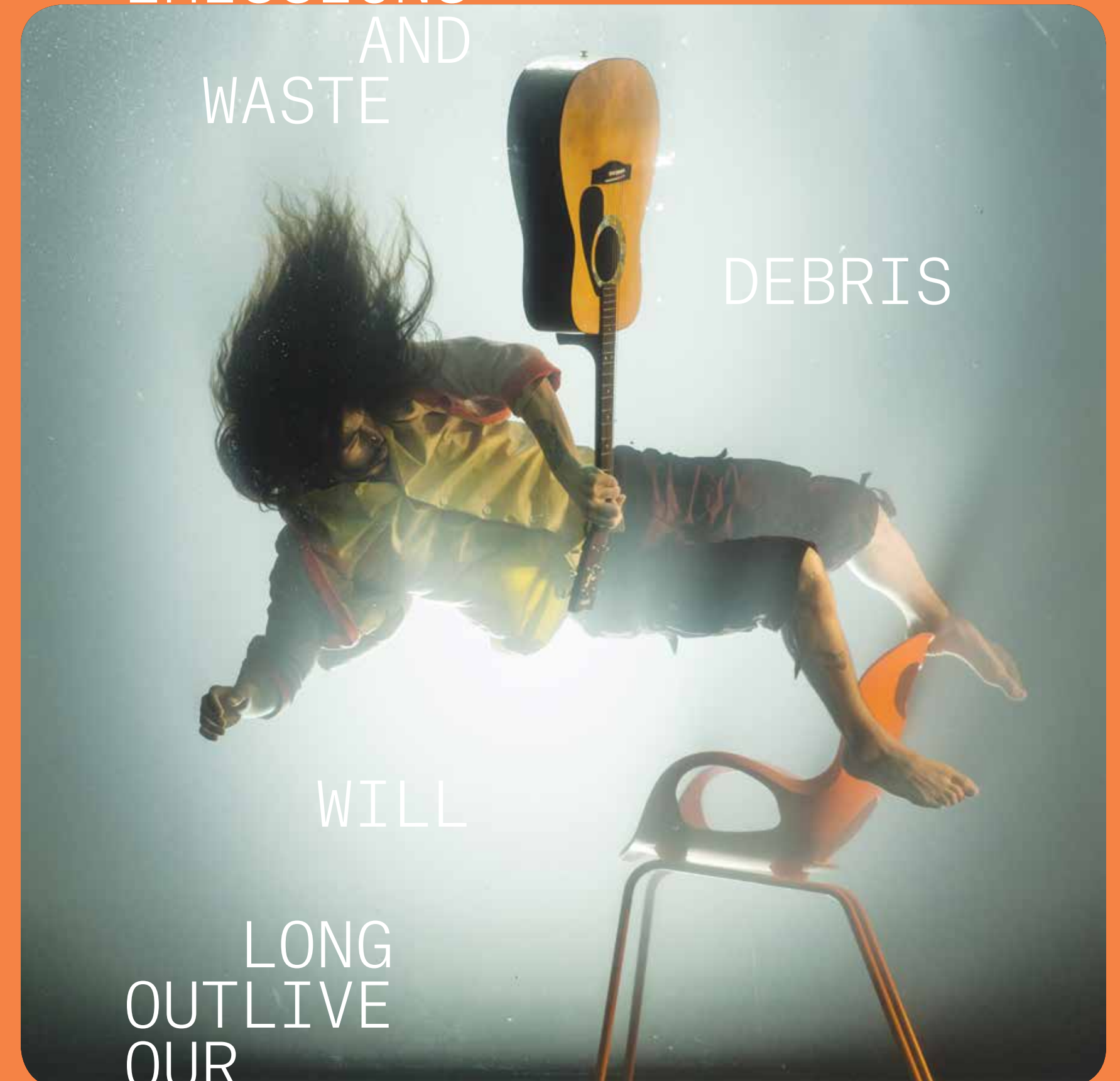
Anthropocene

anthropo = human, cene = new

The Anthropocene refers to the dawn of an epoch in which humans have begun effecting large-scale and long-lasting changes to the environment. Popularized in 2000 by Nobel Laureate and atmospheric chemist Paul Crutzen, the term stresses that the man-made markings left on our planet are undeniable and deserving of distinction.

While the Earth's climate has changed throughout its 4.6 billion year history, human activity has rapidly set a series of climatic changes in motion. We have extensively extracted and burned ancient fossil fuels from deep within our earth and oceans, and released their carbon-rich byproducts into our atmosphere. This carbon disequilibrium has efficiently trapped heat in our atmosphere. The resulting warming has melted ancient icecaps and glaciers, risen our seas, and warmed our oceans, which has in turn contributed to increasingly erratic and extreme weather patterns. We've further shifted our planet's chemical equilibrium by overloading our soil with nitrogen from fertilizers, acidifying our waters with uprooted carbon, and fabricating artificial islands from plastic detritus.

OUR
CARBON
EMISSIONS
AND
WASTE



DEBRIS

WILL

LONG
OUTLIVE
OUR

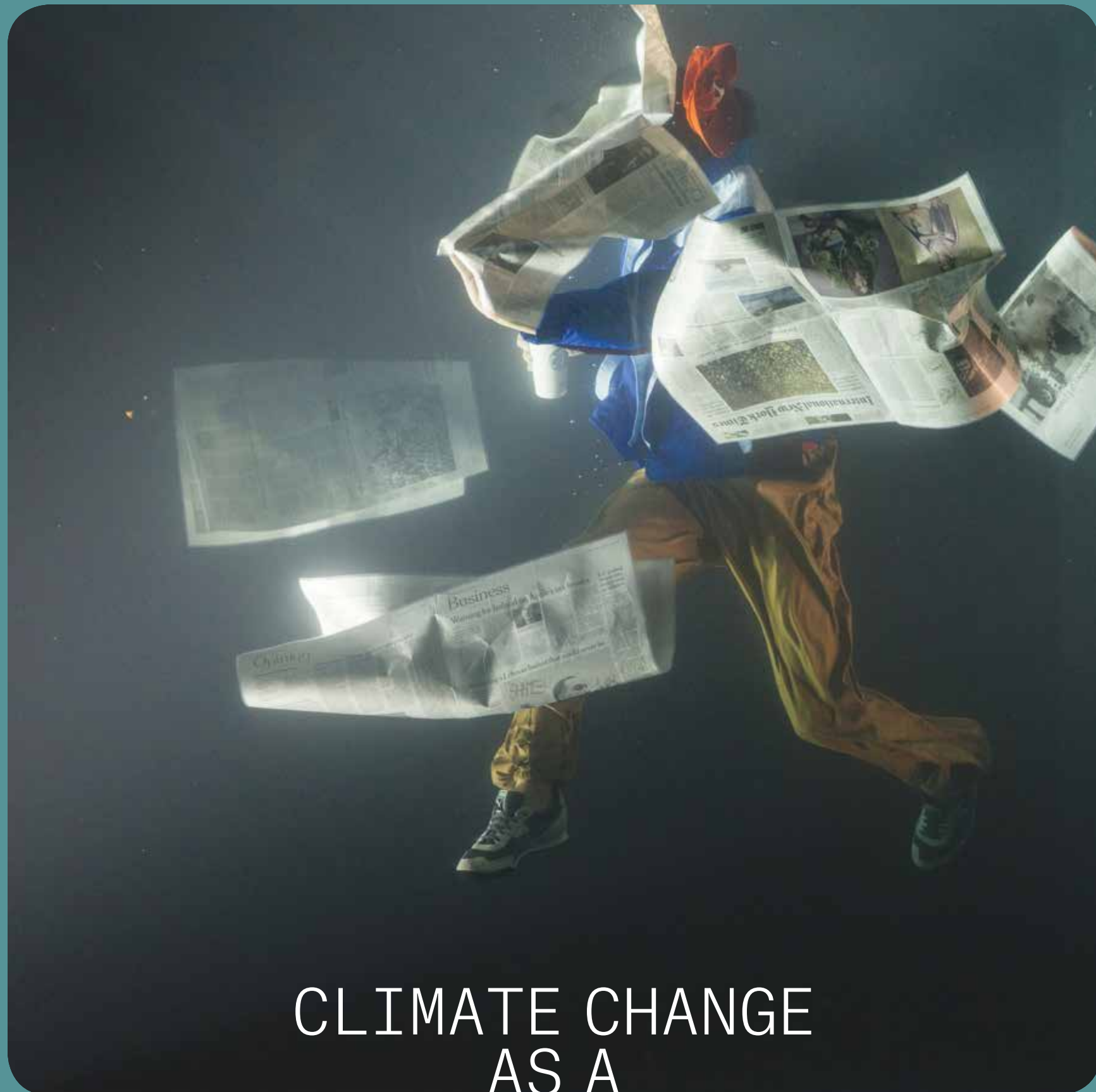
GENERATION.

TIME

Imagine all of our planet's history was condensed into 24 hours. All of human history—from our evolution up to now—would span two seconds of that Earth-time. Yet within these two ticks, our species has managed to drastically reshape the ecological equilibrium established over millions of years of evolution. So while the more forward-thinking among us may have 5- or 50-year plans for the future, few can conceive periods spanning hundreds or thousands of years, let alone make decisions based on these spans.

We now see signs everywhere calling us to stretch our conception of time. Signs that beg us to make decisions now to avoid disastrous effects that may take decades—or even centuries—to fully materialize. We've witnessed as superstorms flooded our cities, rising tides lapped up our lands, and fires burned our brittle forests.

We've enlisted a fleet of scientists dedicated to diagnosing what ails our Earth by tracking climate change symptoms. Nevertheless, much of our thinking about the consequences of climate change is wrapped up in abstract visions of a world future generations will inherit—from barren dystopia to innovative technological wonderland. But those cli-fi visions often create a false sense of inevitability. They excuse us from actively asking: So what can we do right now?



CLIMATE CHANGE
AS A
PROBLEM OF

SPACE

There is no one unified climate reality to rally behind because climate change does not affect us all in the same way across the globe. While China, the United States, India, Russia, Japan, and Germany are collectively responsible for 60% of the world's carbon emissions, countries with virtually no footprint like Bangladesh, Haiti, Cambodia, Malawi, and the Philippines stand to be the hardest hit by climate extremities. In our own country, large areas of Miami and New Orleans are slated to be under water by 2050, while Los Angeles and Las Vegas face chronic bouts of drought.

Though the effects may be regionally specific, they are all symptoms of the same global disease. Climate change is asking us to broaden our conception of space so that we might recognize that the futures of our communities have interlocked as never before. Great geographical lengths have been bridged by unprecedented communication and transportation technologies. But those same technologies have also come to dominate—and scatter—our attention.

Still, can we employ technology, not as an escape, but rather as a tool to enrich the scope of our awareness and foster a newfound connectivity?



CLIMATE CHANGE
AS A
PROBLEM OF

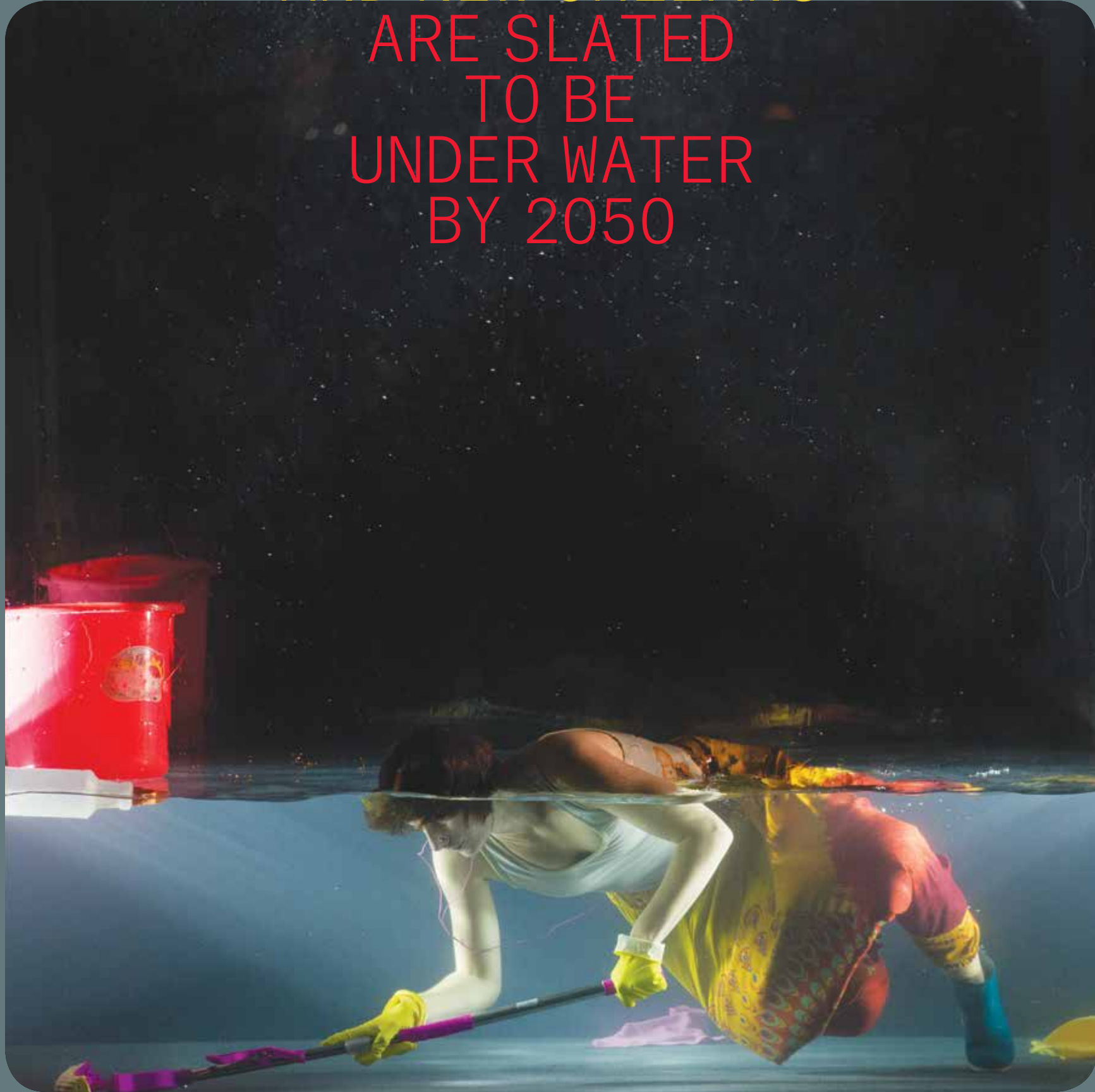
PHOTOS BY LARS JAN

ADAPTATION

Embedded within the climate crisis is a call to innovate. Our success as a species has hinged on our capacity to respond and adapt to change. But as we pride ourselves on a hard-wired ability to solve problems, we cannot rely solely on concocting cutting-edge green technologies. These technologies alone cannot counterbalance the reality that we have built contemporary society on a false assumption: that our atmosphere is an infinitely resilient dumping ground for the carbonous byproducts of our industry and activity. We must take ownership for this massive miscalculation at the heart of the climate crisis—perpetuated over many generations—and demand that those around us follow suit.

Can we accept our own culpability in the climate crisis and adapt to face its realities?

LARGE AREAS
OF MIAMI
AND NEW ORLEANS
ARE SLATED
TO BE
UNDER WATER
BY 2050



PHOTOS BY LARS JAN

I M A G I N E / A L L / O F / O U R / P L A N E T ' S / H I S T O R Y
W A S / C O N D E N S E D / I N T O / 2 4 / H O U R S .
A L L / O F / H U M A N / H I S T O R Y -
F R O M / O U R / E V O L U T I O N
U P / T O / N O W -
W O U L D / S P A N / T W O S E C O N D S / O F / T H A T / E A R T H - T I M E .
Y E T / W I T H I N / T H E S E / T W O / T I C K S ,
O U R / S P E C I E S
H A S / M A N A G E D / T O / D R A S T I C A L L Y / R E S H A P E
T H E / E C O L O G I C A L / E Q U I L I B R I U M
E S T A B L I S H E D / O V E R / M I L L I O N S / O F / Y E A R S
O F / E V O L U T I O N

A CASE FOR EMPATHY

The climate threat has exposed many of our weaknesses, reflecting an inherent short-sightedness and hubris born of our overwhelming success bending the biosphere to our will. So while we have catalyzed climate change, can climate change in turn inspire an evolution in our awareness through space and time? Can we socially evolve as quickly as we have transformed our Earth?

We base the bulk of our decisions on what we can immediately sense—our own first-hand experiences of the world. While a near-one degree rise in temperature makes little physical difference to us, that very same single degree equates to the ecological tipping point that has ushered in escalating climate catastrophes. So how can we come to feel climate realities immediately and intuitively when they are out of the realm of direct experience?

Fear can be an excellent motivator, but it can also instill a deep sense of hopelessness and resignation. An alternative to the pessimistic plea is to harness the fact that we are fundamentally empathetic beings. Rather than relying on complex, theoretical models to depict climate change, we can appeal to emotion and focus on growing our empathetic capacities. What strikes us in the heart tends to stick in our heads.

How can we feel climate change in our gut?



CASE STUDY: EARTHRISE

“When you’re finally up at the moon looking back on earth, all those differences and nationalistic traits are pretty well going to blend, and you’re going to get a concept that maybe this really is one world and why the hell can’t we learn to live together like decent people.”

— Astronaut Frank Borman, Dec 23, 1968

Apollo 8 launched on December 21, 1968, marking the first human-manned spacecraft to leave Earth’s orbit and travel to the moon. The three-astronaut crew—Commander Frank Borman, Command Module Pilot James Lovell, and Lunar Module Pilot William Anders—became the first humans to witness Earth emerging from behind the lunar horizon. Aboard this vessel epitomizing both the world’s most advanced technologies and the competitiveness of the Cold War, Anders used the comparatively antique technology of a photographic camera to capture Earthrise—an image that is perhaps the most impactful of all time.

For the first time, we were gifted a glimpse our connectivity, our fragility, our atomity. Two years later, on April 22, 1970, tens of millions of people across the globe participated in the first Earth Day. Earthrise had helped catalyze the environmental movement.

There is power in images that provide a new perspective. We cannot escape them. All we can do is open our eyes.



PHOTOS BY LARS JAN



Resources

For More Information

The Environmental Protection Agency features an excellent climate resource center that breaks down environmental impacts by issue and region, and provides information on the relevant science and legislation surrounding climate issues: www.epa.gov/climatechange

NASA's Climate Resource Center includes interactive climate-tracking tools, news updates and features, and a well-curated list of links to resources for climate solutions: climate.nasa.gov

Climate Central is an independent organization that reports on key findings in climate research from leading scientists and journalists in the field: www.climatecentral.org

For Inspiration & Organization

Committed to reducing carbon emissions, 350.org is an international environmental organization building a global climate movement from the grassroots, and has useful resources for organizing in your local community and connecting to the growing network of over 188 countries: www.350.org

Founded and chaired by Al Gore, the Climate Reality Project is dedicated to shifting cultural consciousness in light of climate change. The site is a hub for climate action, from sharing stories and exchanging information to connecting with local climate leaders: www.climate realityproject.org

Credits

Holoscenes / Printed Matter

Written by Maryam Zaringhalam

Edited by Lars Jan

Designed by Rick Valicenti and Bud Rodecker Thirst (www.3st.com)

Holoscenes / Performance

Created by Early Morning Opera

www.earlymorningopera.com

Conceived and directed by Lars Jan

Produced by Mapp International Productions

Performed by Annie Saunders, Lua Shayenne, Geoff

Sobelle, Orlando Pabotoy, and Benjamin Kamino

Choreographed by Geoff Sobelle

Custom Software Design / Programming, and Lighting

Design by Pablo N. Molina

Sound Design by Nathan Ruyle

Costume Design by Irina Kruzhillina

Technical Direction by Eric Lin

Hydraulic Design by Larry McDonald

Automation Design by Erich Bolton

Company Management by Alexandria Yalj

Special Assistance by Chris Kuhl, Jenna Didier, Peter

Zuspan, Blaine O'Neill, Peter Rand, and Barry Farley

Support

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