

ERIC COREY FREED

Principal, organic architect



15 years of experience in green building

LEED Accredited Professional, US Green Building Council

Author: "Green Building for Dummies"

Author: "The Inevitable Architect: A Phase By Phase Guide to Green Building"

Founding Chair of Architecture, The San Francisco Design Museum

Board of Directors, Architects/ Designers/ Planners for Social Responsibility

Advisory Boards: Green Home Guide, Ecosa Capital, West Coast Green

Co-Founder, ecoTECTURE: The Online Journal of Ecological Design

Syndicated Columnist, GreenerBuildings.com, Luxe Magazine

Developer: Sustainable Design Curriculum Academy of Art University
University of California Berkeley

in the future
every building will be a
GREEN BUILDING





**YOUR VISION
OF GREEN**



**TIME TO DO
SOMETHING**

“SENTIMENT
without
action
is the ruin of the
SOUL...””

-Edward Abbey

www.time.com AOL Keyword: TIME

SPECIAL REPORT
TIME

HOW TO SAVE THE EARTH

The hot and wild weather is a sign of things to come. But fresh ideas and new technology can cool us down and make this a **GREEN CENTURY**

www.time.com AOL Keyword: TIME

SPECIAL REPORT GLOBAL WARMING
TIME

WARRIED. WARRIED.

It isn't some vague threat—it's already here. The planet is already warming, and it affects you, your kids as well.

TIPPING POINT
IT AFFECTS YOUR HEALTH
INDIA CAN HELP THE WORLD—OR DESTROY IT
CRUSADERS

APRIL 9, 2001 \$3.50 www.time.com AOL Keyword: TIME

VANITY FAIR

SPECIAL [GREEN ISSUE]

A THREAT GRAVER THAN TERRORISM: GLOBAL WARMING

How much of New York, Washington, and other American cities will be underwater?

GEORGE CLOONEY, JULIA ROBERTS, ROBERT F. KENNEDY JR., AND AL GORE and the call for A NEW AMERICAN REVOLUTION

PLUS EXCLUSIVE BOOK EXCERPT! THE BOSTON STRANGLER
MY MOTHER'S BRUSH WITH DEATH BY SEBASTIAN JUNGER

Dr. Bush's Rx for Health Care

TIME

VANISHING OZONE

THE DANGER MOVES CLOSER TO HOME

AUGUST 13, 1998 \$2.00

TIME

Our Filthy Seas

Special Offer

[EXCLUSIVE INVESTIGATION] THE CASE FOR IRAQ WAR CRIMES By PHILIPPE SARIN

VANITY FAIR



A LETTER TO THE NEXT PRESIDENT
By Robert F. Kennedy Jr.

SELLING OUT POLAR BEARS
By Michael S. Schmidt

OUR THIRD ANNUAL
GREEN ISSUE

MORNINGTON'S ASSAULT ON FARMERS
By Donald L. Baer

CHINA'S PLAN TO CONTROL THE WEATHER
By William Landsburg

There's still just one last
dance to dance.
By Andrew Ross Koppelman

MADONNA

UNBOWED. UNCOWED. STILL TAKING ON THE WORLD.

By Tina Jordan & Paul Haggis

www.vanityfair.com



Plus:
DOMINICK DUNNE
AT THE PRINCESS DIANA INQUEST...

And: **DORIS DAY:**
AMERICA'S LONELY SWEETHEART
Exclusive Book Excerpt

www.vanityfair.com

WATER

ENERGY

MATERIALS

IAQ

SITING

COMMUNITY



PROBLEMS

SOLUTIONS



97%
OCEAN



2%
FROZEN

only 1% usable

HOUSEHOLD WATER USE



293 gallons
per day
AMERICAN



5 gallons
per day
AFRICAN



495,000

gal/person/yr



193,000

gal/person/yr



153,000

gal/person/yr



GALLO

a leaky faucet losing
one drop
a second

loses



of water
a month



BOTTLED WATER

6,900,000,000 gal/yr



=



4x water

1,500,000 barrels

100,000 cars

30,000,000,000

bottles

65000

cubic meters

WATER used by

60,000

THAI VILLAGERS per day

WATER used by

1

THAI GOLF COURSE per day

LAWN CARE

54,000,000 americans

20,000,000 acres

5% CO₂

100 miles driving



30-60%

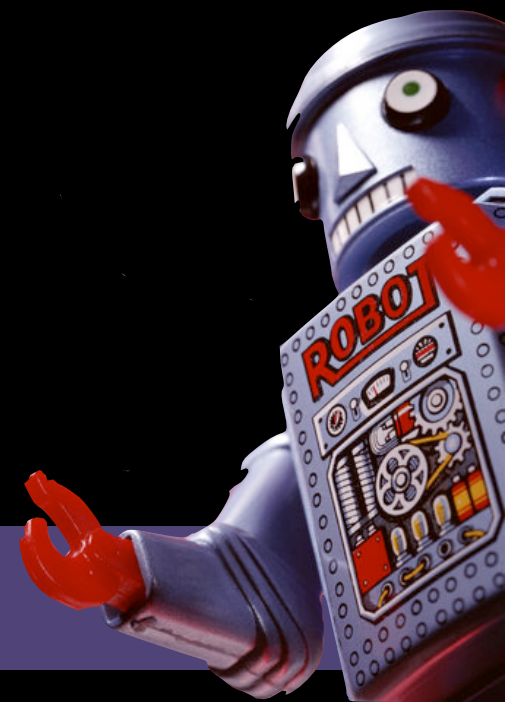
LAWNS: SPILT MILK

17,000,000

gallons/gas



24 March 1989



bleak future: WATER









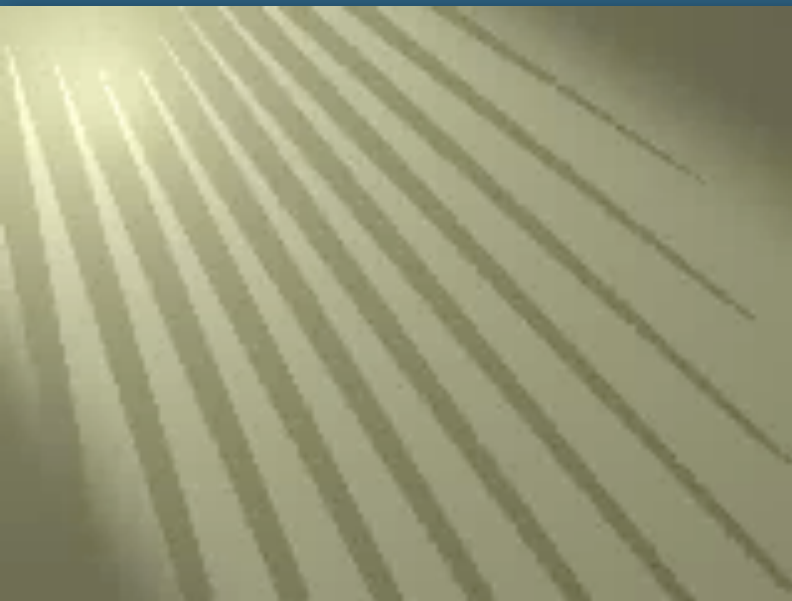




- **Union Issues**
- **3 year ROI**
- **Same price**

WATERLESS URINALS:

$$\begin{aligned} & 1.0 \text{ gal/flush} \times \underline{32} \text{ flushes/day} \\ & \quad \times \underline{365} \text{ days/year} \\ & = \underline{11,680} \text{ gallons saved} \\ & \times \$ \underline{.0021} \text{ /gallon} = \$ \underline{24.52} \end{aligned}$$





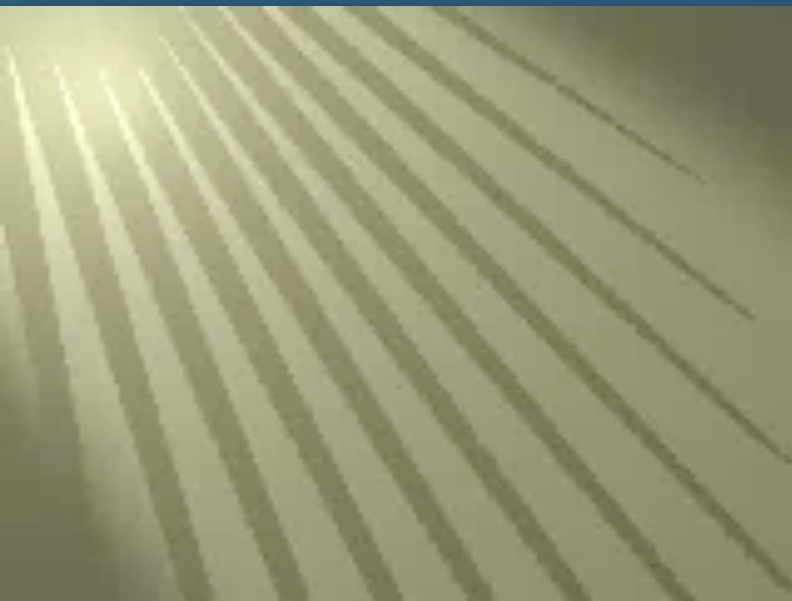


WATER CATCHMENT:

$$1000_{sf} = 632 \text{ gal/in}$$

$$= \underline{21} \text{ inches per year}$$

$$\times \underline{632} \text{ gallons} = \underline{13,000} \text{ gallons/year}$$



Waterless Urinals

saves the cost of **pipes, drains,
vents & valves**

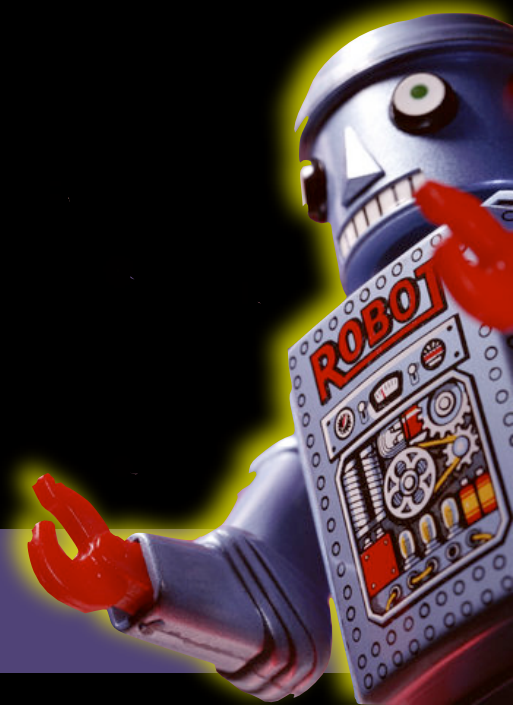
Green Roof

saves the cost of **insulation &
wastewater treatment**

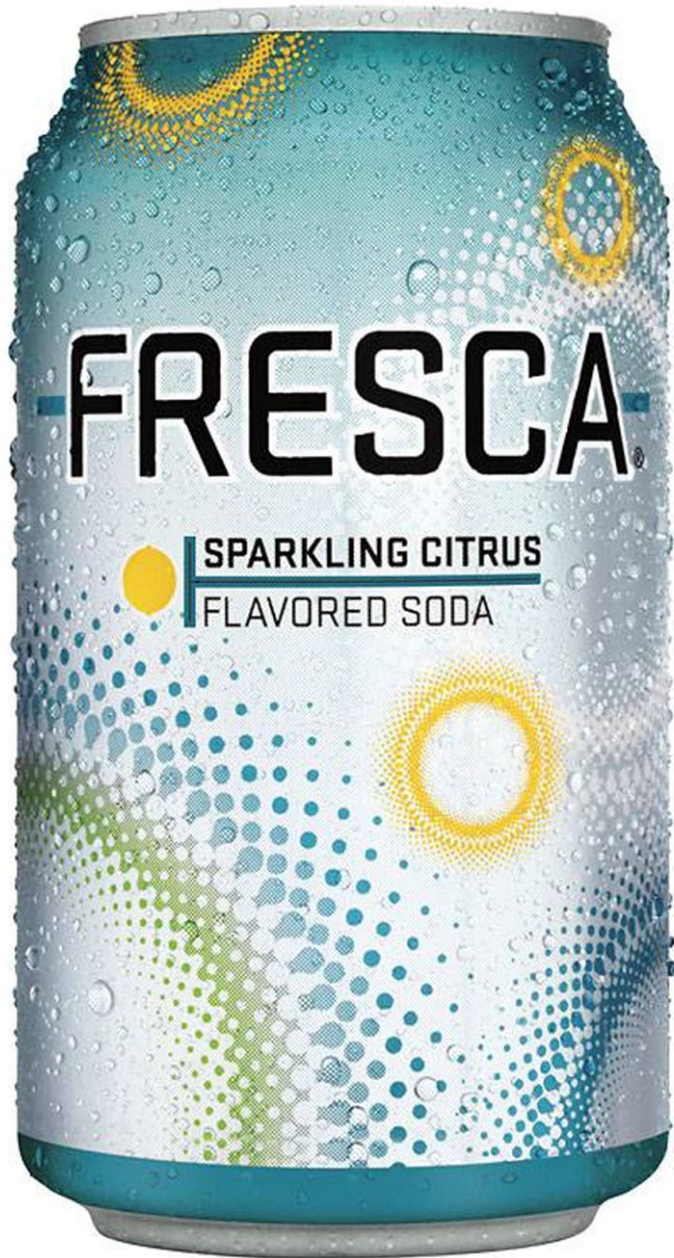
Porous Paving

saves the cost of **retention ponds &
treatment facilities**

SAVINGS



bright future: WATER



=





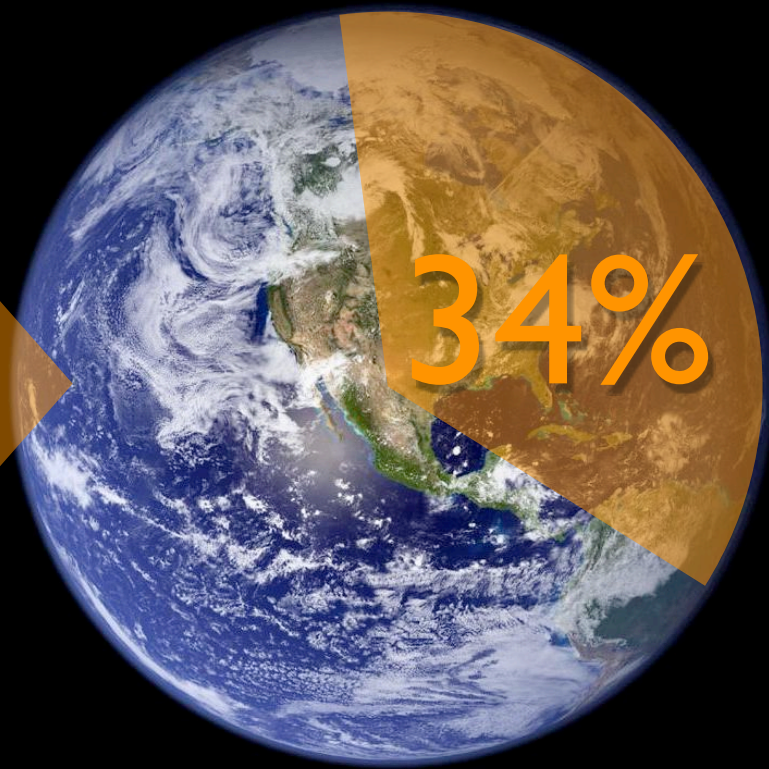
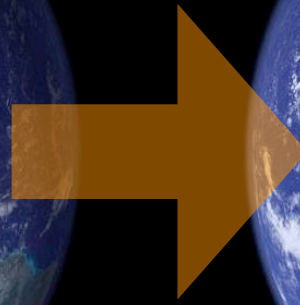
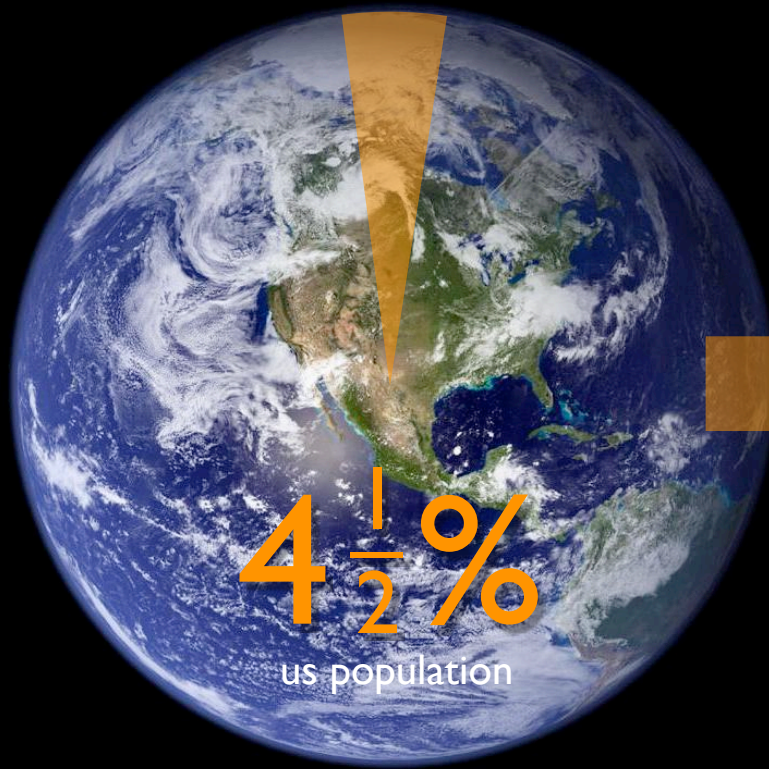
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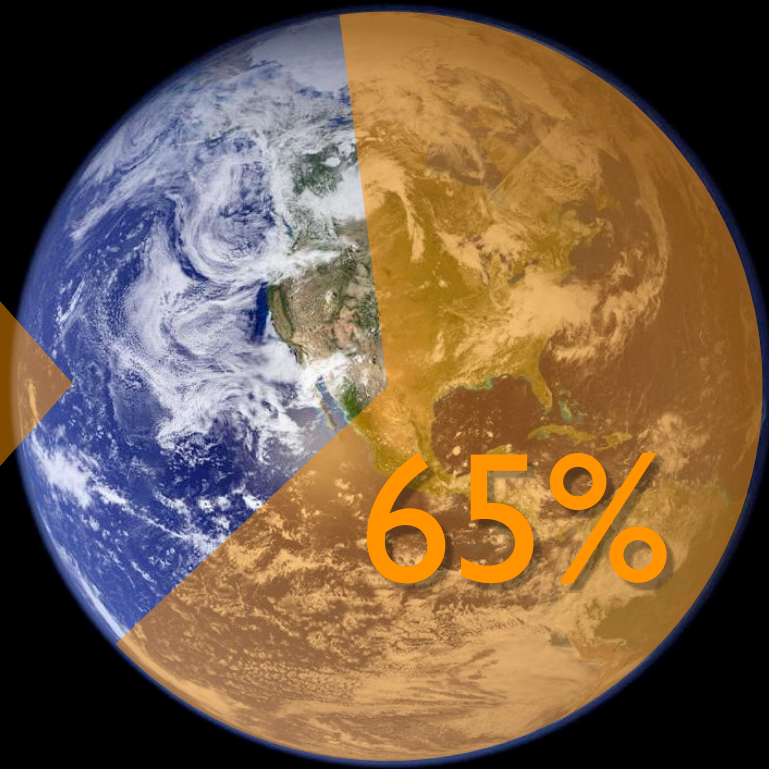
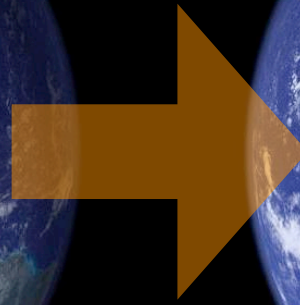
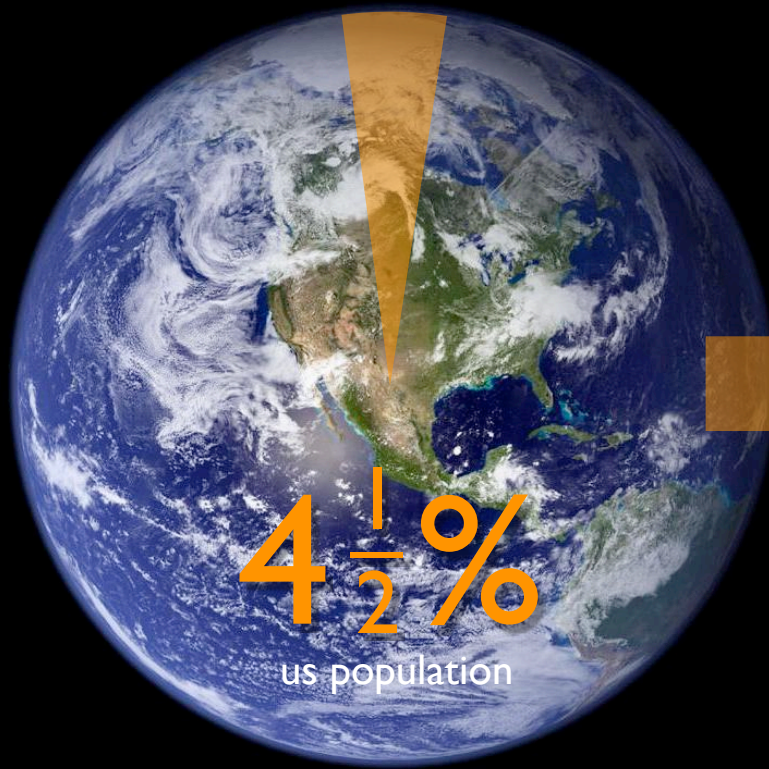


S.GROSS

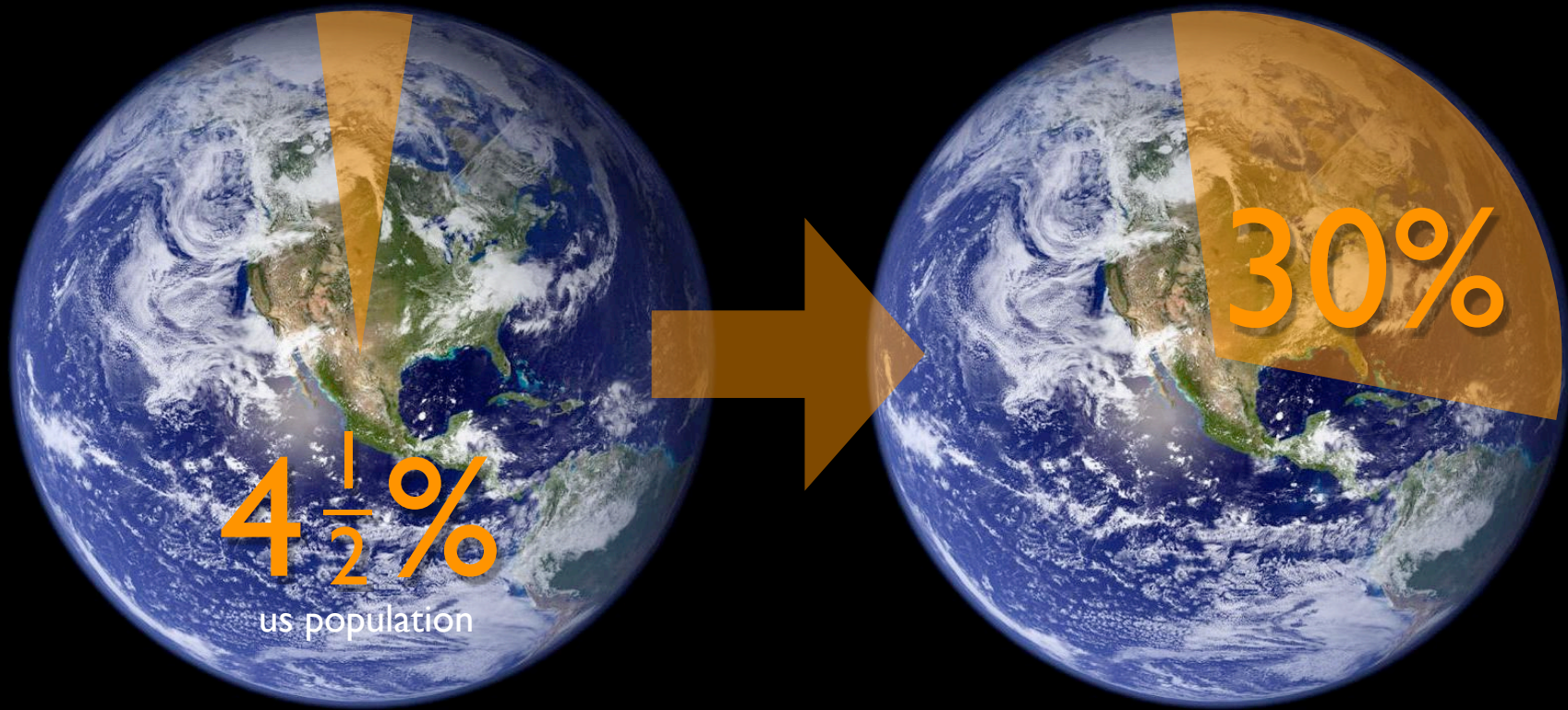




energy use



electricity



4 1/2%

us population

30%

greenhouse
gas emissions

The Economist

AUGUST 27TH-SEPTEMBER 2ND 2005

Iraq, the war and the constitution

PAGES 22-24

America's unhappy borders

PAGES 13 AND 31

Brother Roger, Taizé's melodic monk

OBITUARY, PAGE 70

Yum! Brands' finger lickin' growth

PAGES 60-62

The oilholics



Argentina \$16.00
Australia \$16.00
Canada \$16.00
France \$16.00
Germany \$16.00

Italy \$16.00
Japan \$16.00
Mexico \$16.00
New Zealand \$16.00
Russia \$16.00

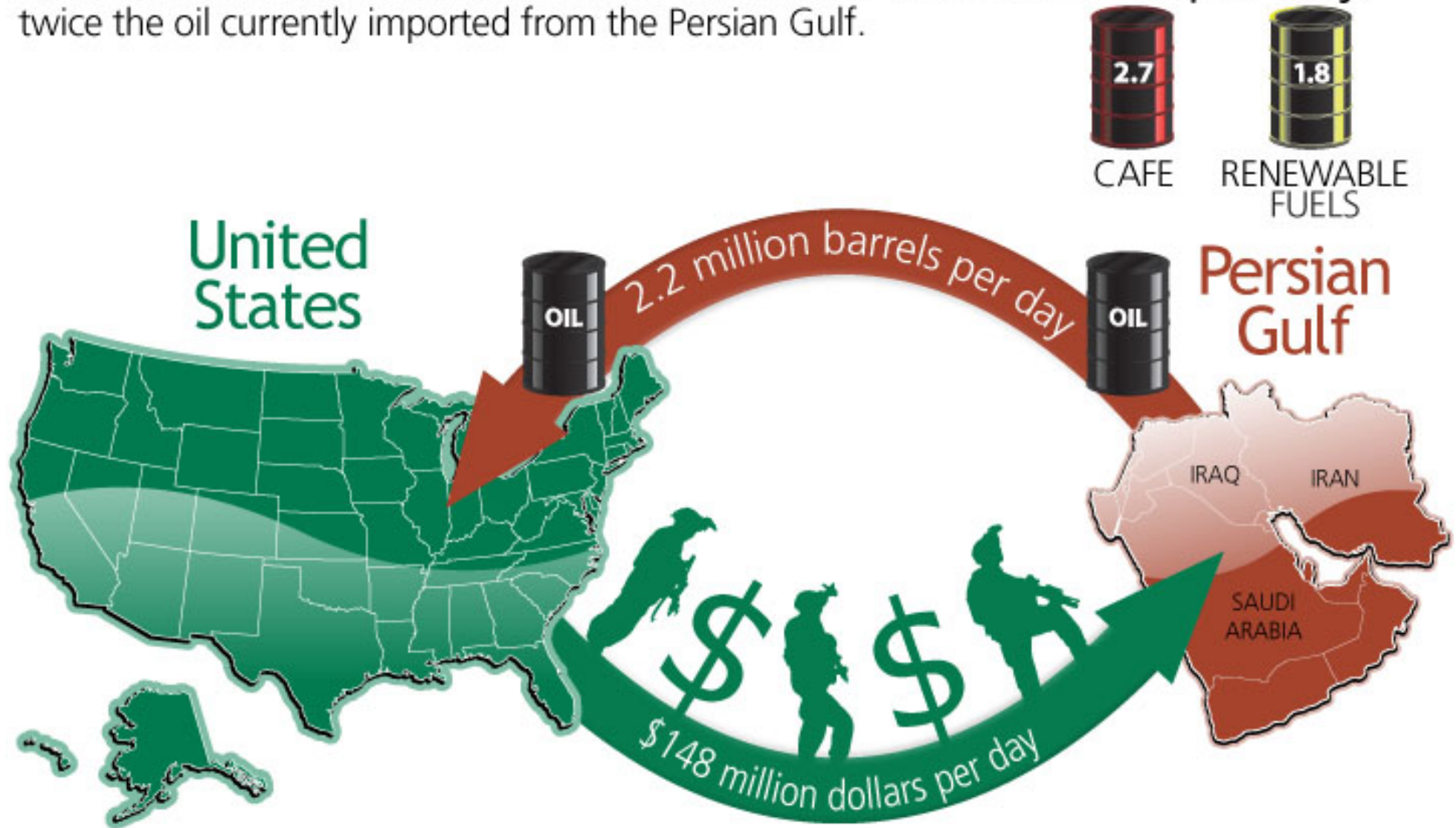
Spain \$16.00
UK \$16.00
USA \$16.00
South Africa \$16.00

Subscription rates for 2005
Single copies \$5.00

The Energy Bill:

A National Security Priority

By 2030, The Energy Bill saves more than 4 million barrels of oil per day, twice the oil currently imported from the Persian Gulf.



**AMERICA
IS GOING BROKE
BECAUSE OF OIL**







I HOPE
THEY'RE
NOT
LOOKING
FOR OIL

**When you ride ALONE
you ride with Hitler!**



**Join a
Car-Sharing Club
TODAY!**

UN-INSULATED HOMES

2,000,000 barrels per day
wasted



OIL IMPORTS



2,181,000 barrels per day



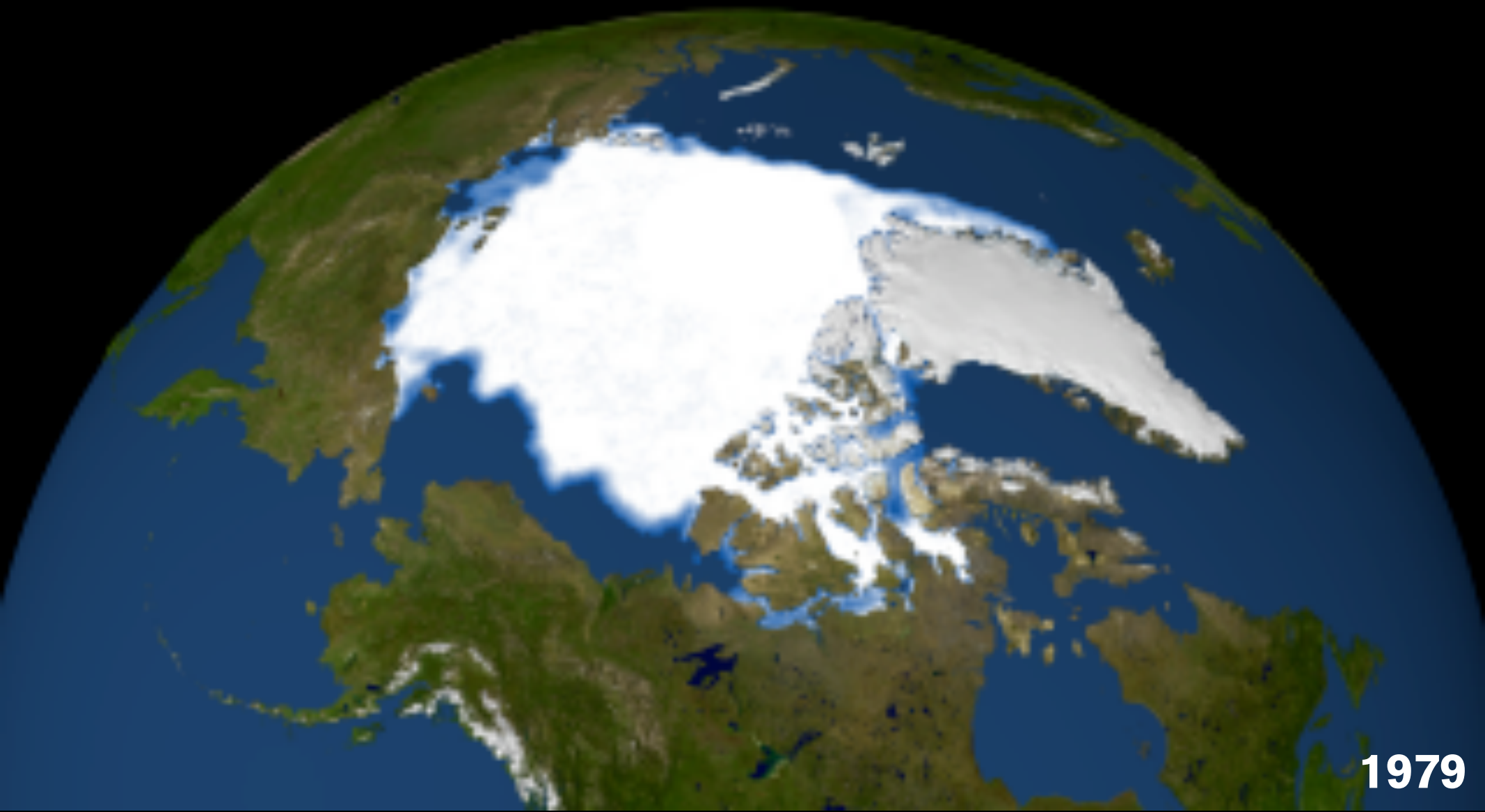
1,537,000 barrels per day

2,000,000
wasted in un-
insulated homes

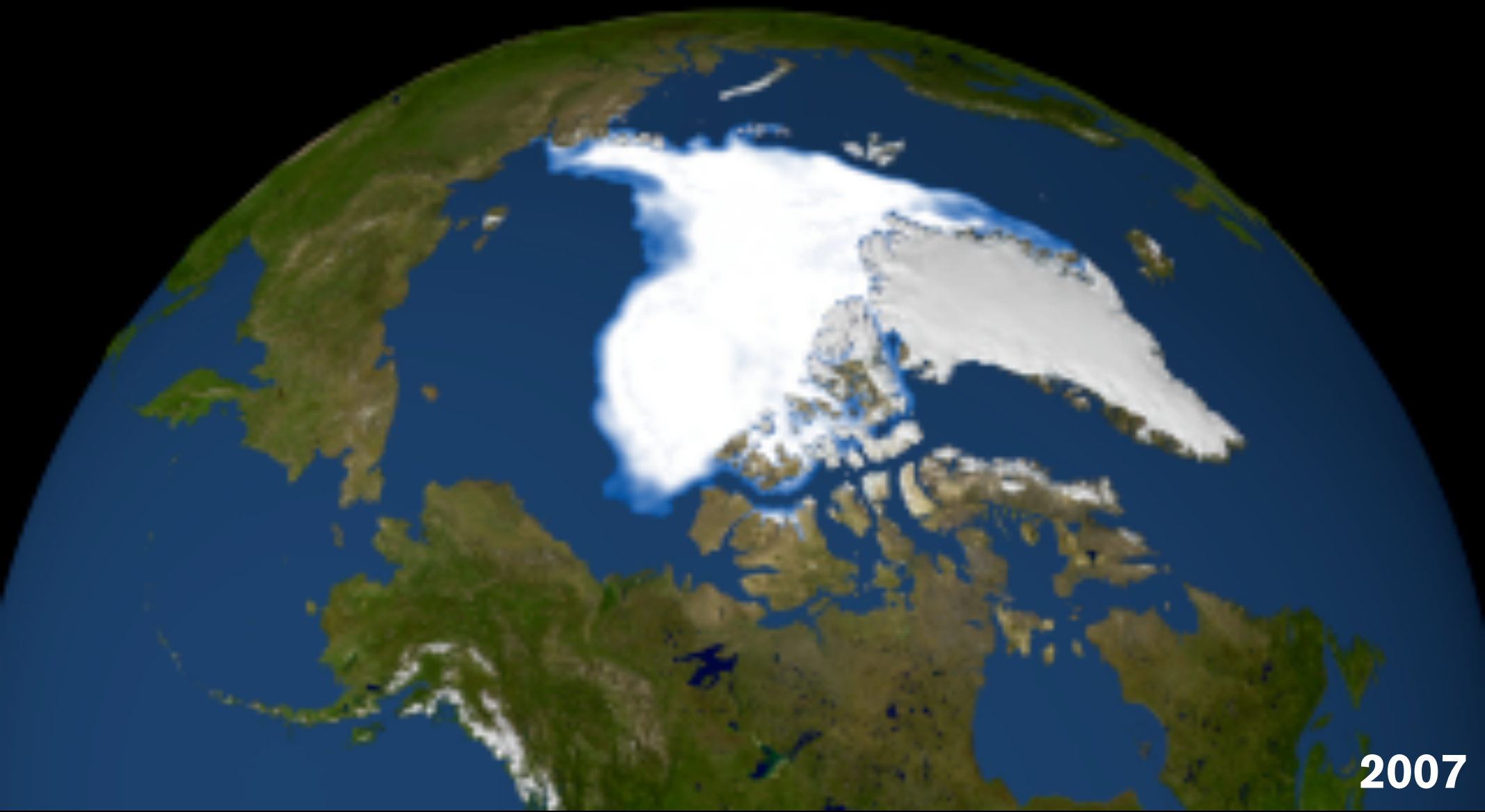
COST OF WAR

\$11,000,000 per hour

The background image is a faded, semi-transparent photograph of a military scene. On the left, a soldier in full camouflage uniform and a tactical vest is walking towards the right, carrying a rifle. In the center and right, a military Humvee is parked on a paved road. The vehicle has a spare tire mounted on its roof and some equipment on the back. The overall scene is set in a bright, open environment, possibly a desert or a training area.



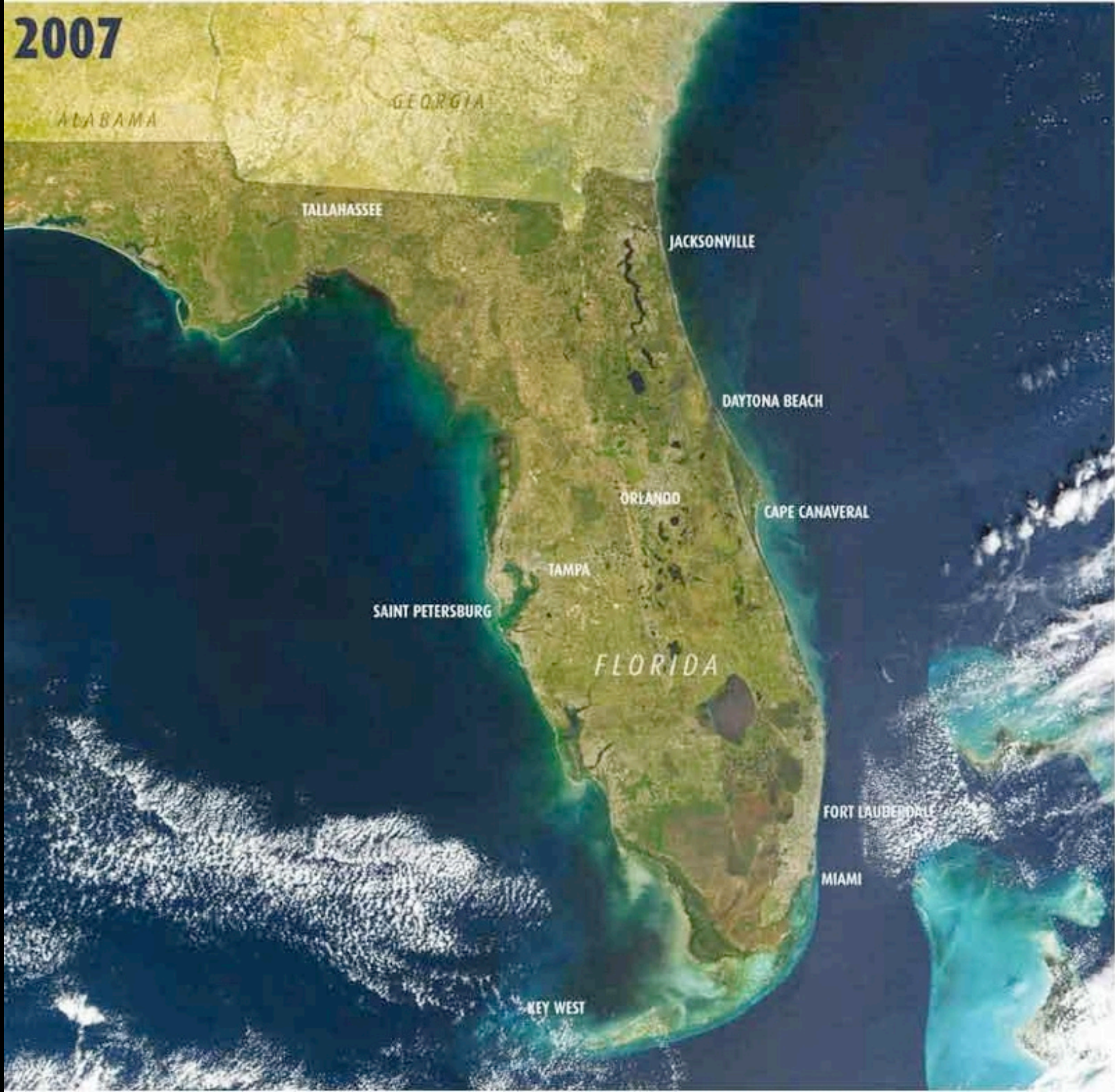
1979



Climate
is changing



2007



ALABAMA

GEORGIA

TALLAHASSEE

JACKSONVILLE

DAYTONA BEACH

ORLANDO

CAPE CANAVERAL

TAMPA

SAINT PETERSBURG

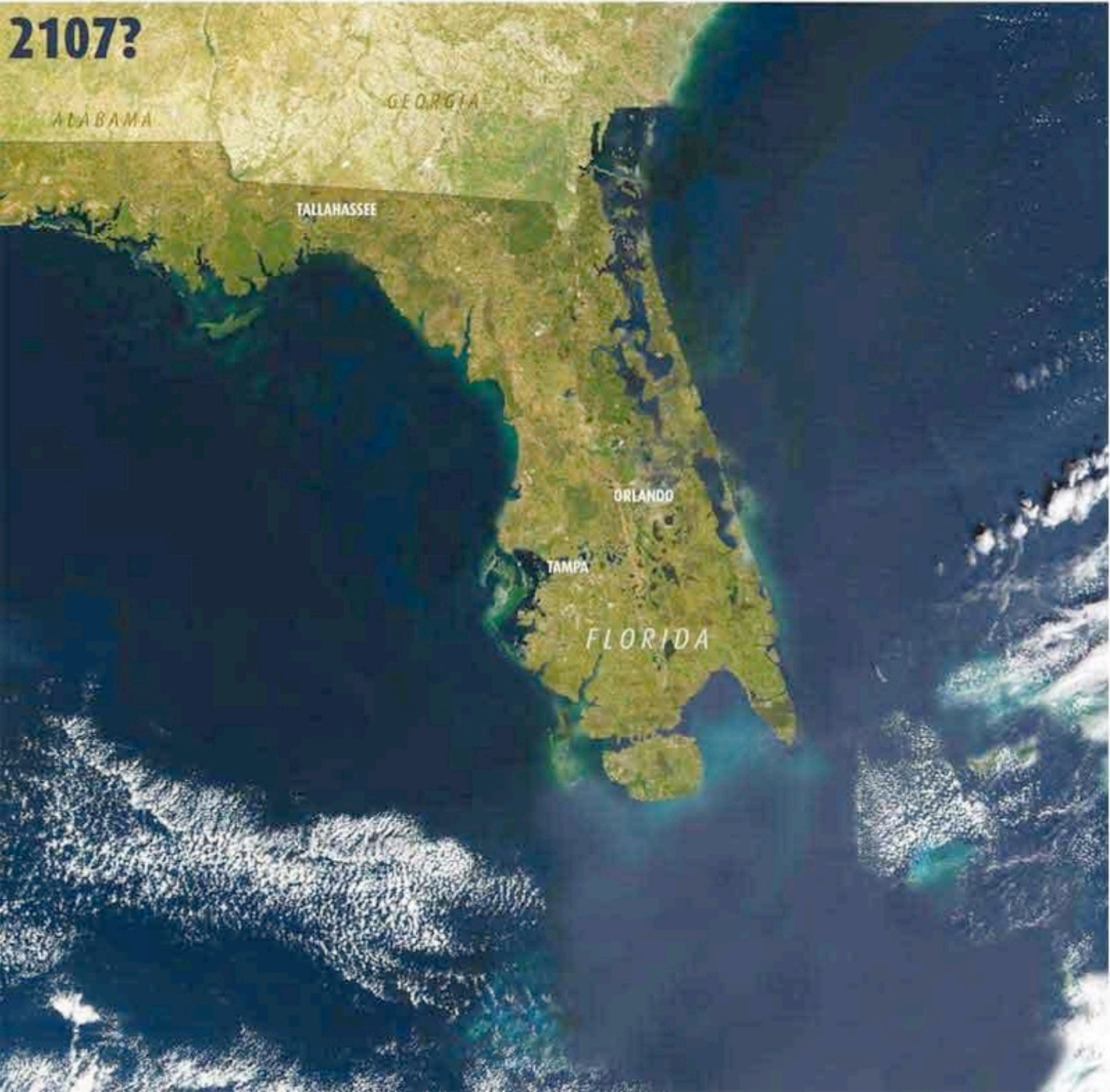
FLORIDA

FORT LAUDERDALE

MIAMI

KEY WEST

2107?



2ND-QTR SIZZLE
PROFITS AT 900
COMPANIES (P. 74)

PAYING FOR COLLEGE
BEWARE OF THOSE
HIGH 529 FEES (P. 96)

TERRORISM WHAT
COMPANIES STILL
NEED TO DO (P. 26)

The McGraw-Hill Companies

BusinessWeek

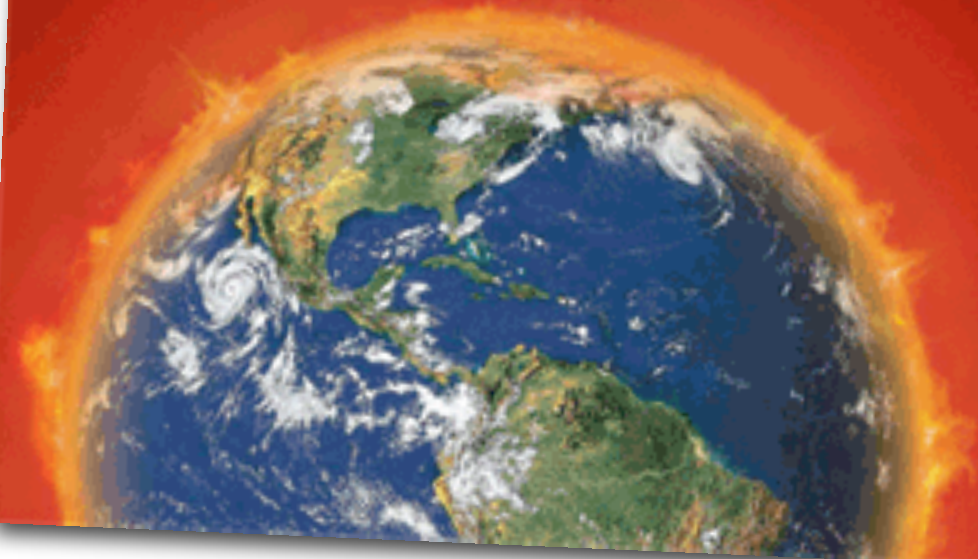
AUGUST 24, 2004

www.businessweek.com

GLOBAL WARMING

Why Business Is Taking It So Seriously

BY JOHN CAREY (P. 60)



The Economist

ISSN 0950-0804

www.economist.com

The Blair leadership crisis

The new boss at Ford

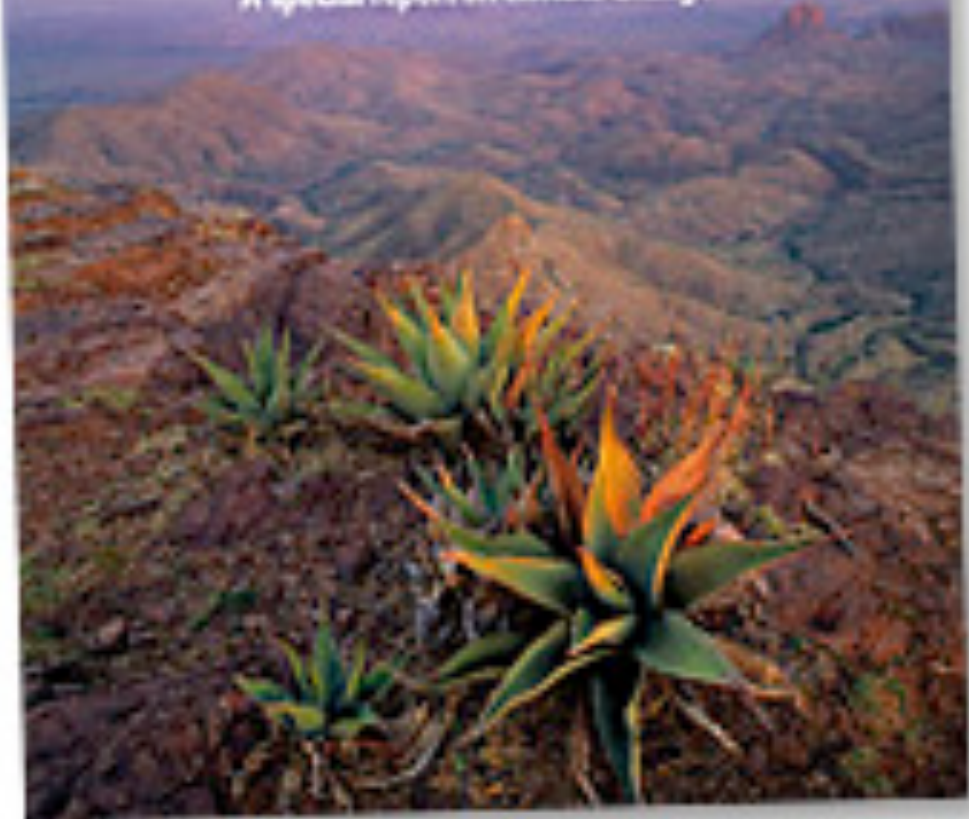
An named in-flight announcement

Catastrophe looms in Doha

Is any a Swedish model?

The heat is on

A special report on climate change





COLA INDUSTRY: 1940

For a better start in life
start **COLA** earlier!



- Promotes Active Lifestyle!
- Boosts Personality!
- Gives body essential sugars!

How soon is too soon?

Not soon enough. Laboratory tests over the last few years have proven that babies who start drinking soda during that early formative period have a much higher chance of gaining acceptance and "fitting in" during those awkward pre-teen and teen years. So, do yourself a favor. Do your child a favor. Start them on a strict regimen of sodas and other sugary carbonated beverages right now, for a lifetime of guaranteed happiness.

The Soda Pop Board of America
1515 W. Hart Ave. - Chicago, ILL.

OIL INDUSTRY: 2002



An Editor in the White House

Handwritten revisions and comments by Philip A. Cooney, chief of staff for the White House Council on Environmental Quality, appear on two draft reports by the Climate Change Science Program and the Subcommittee on Global Change Research. Mr. Cooney's changes were incorporated into later versions of each document, shown below with revisions in bold.

"STRATEGIC PLAN FOR THE U.S. CLIMATE CHANGE SCIENCE PROGRAM," DRAFT TEXT, OCT. 2002

- k 14 wetlands will expand in areas where meltwater resulting from deeper and longer thaw
 d) 15 periods does not have a natural drainage path to the ocean.
 16
 17 Warming will also cause reductions in mountain glaciers and advance the timing of the melt
 18 of mountain snow packs in polar regions. In turn, runoff rates will change and flood
 19 potential will be altered in ways that are currently not well understood. There will be
 20 significant shifts in the seasonality of runoff that will have serious impacts on native
 21 populations that rely on fishing and hunting for their livelihood. These changes will be
 22 further complicated by shifts in precipitation regimes and a possible intensification and
 23 increased frequency of extreme hydrologic events. Reducing the uncertainties in current
 24 understanding of the relationships between climate change and Arctic hydrology is critical
- Handwritten notes:*
 would
 would
 straying from research strategy into speculative findings happens here.

PUBLIC REVIEW DRAFT, NOV. 2002

Warming **could** also lead to changes in the water cycle in polar regions. Reducing the uncertainties ...

FINAL REPORT, JULY 2003

The paragraph does not appear in the final report.



"OUR CHANGING PLANET," DRAFT TEXT, OCT. 2002

- 019 the next, and perhaps even beyond.
 020 The challenge for the USGCRP is to provide the best possible scientific basis for documenting,
 021 ~~diagnosing~~, and projecting changes in the Earth's life-support systems, and the role for CCRI is to *understanding*
 022 facilitate full use of ~~the~~ scientific information in policy and decisionmaking on response strategies
 023 for adaptation and mitigation at the international, national, and regional scales. *possible*
 024
 025
 026 *might allow* From "Discovery" to "Comparative Analysis" *reduce the significant remaining uncertainties associated with human-induced climate change and*
 027 *issues of Pursued.*
 028 Because of the scientific accomplishments of USGCRP and other research programs during the
 029 last decade, a period that could be termed a productive "period of discovery and characterization,"
 030 the CCRI, in coordination with the USGCRP, will move into a new "period of comparative
 031 analysis of response strategies." In this new phase of the climate science programs, information
 032 that compares the potential consequences of different responses to global changes, including
 033 climate change, will be developed in a form useful to national debate and decisionmaking. *This*

FINAL REPORT, 2003

The challenge for the USGCRP is to provide the best possible scientific basis for documenting, **understanding**, and projecting changes in the Earth's life-support systems, and the role for CCRI is to **reduce the significant remaining uncertainties associated with human-induced climate change and** facilitate full use of scientific information in policy and decisionmaking on **possible** response strategies for adaptation and mitigation.

ENEMIES OF THE STATE



“The existence of global warming is scientifically inconclusive”

PHILIP COONEY

Advisor, White House / Ex



“alarmist reports...”
“extortion by environmentalists...”

MYRON EBELL

Director, Competitive Enterprise Institute



WE THE PEOPLE



“Global warming is the worst hoax ever perpetrated on humanity...”

JIM INHOFE

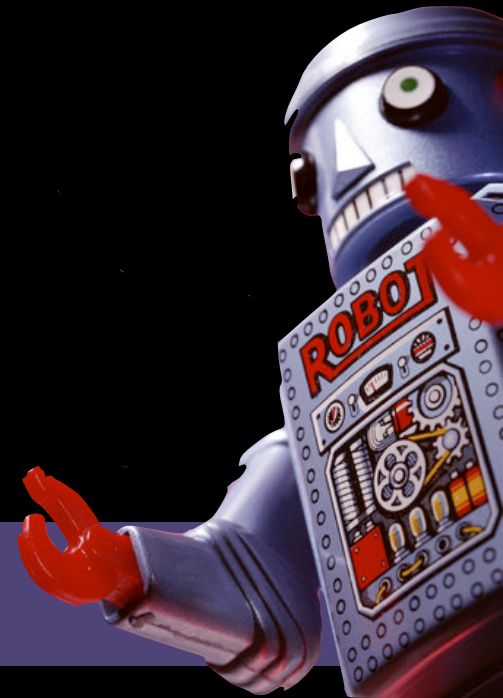
Senator (R), Oklahoma



“anyway, the truth is that no one but God really knows why the climate is changing...”

BILL O'REILLY

Talk Show Host, Fox News



bleak future: ENERGY













\$130
per
SIGN



75 percent savings on
ENERGY

\$ **6500** year

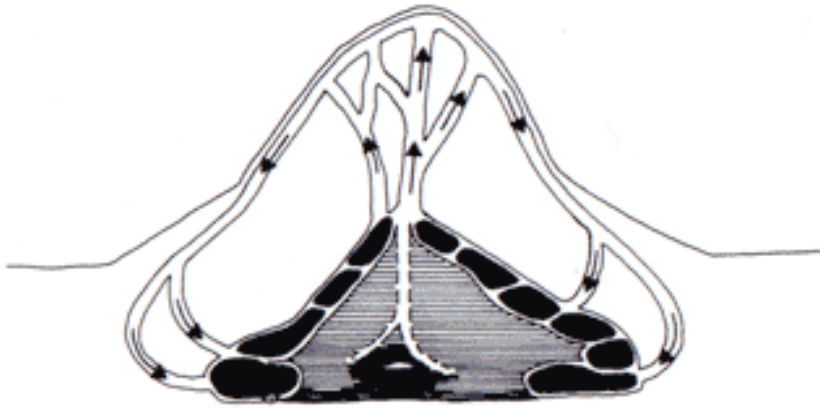
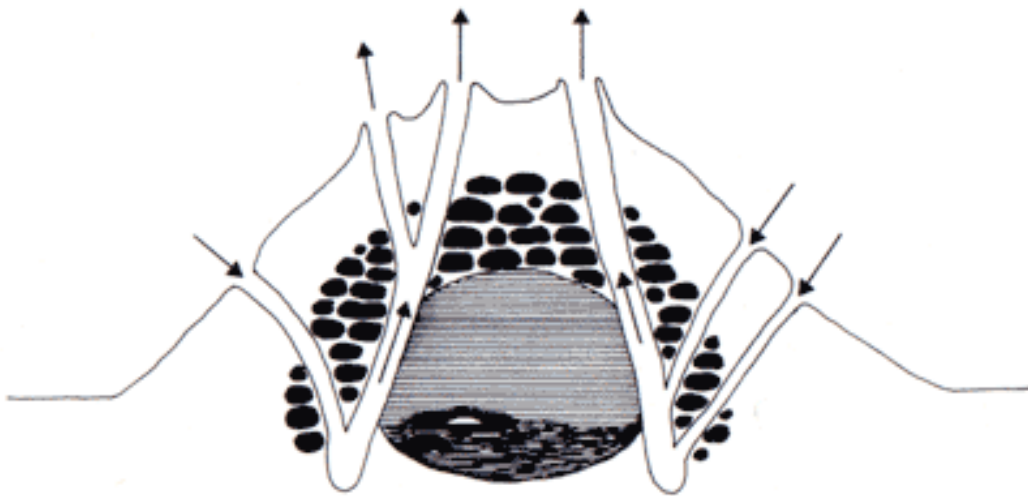
COOL ROOF SAVINGS



70[°] 40° C
cooler

A photograph of a green roof. The roof is covered in low-growing, green and greyish plants. In the center, there is a white, cylindrical vent. In the background, a white tarp is stretched across the roof edge, and a wheelbarrow is visible. The sky is blue with some trees in the distance.

40%
energy savings

A. *Macrotermes michaelseni*B. *Macrotermes subhyalinus*

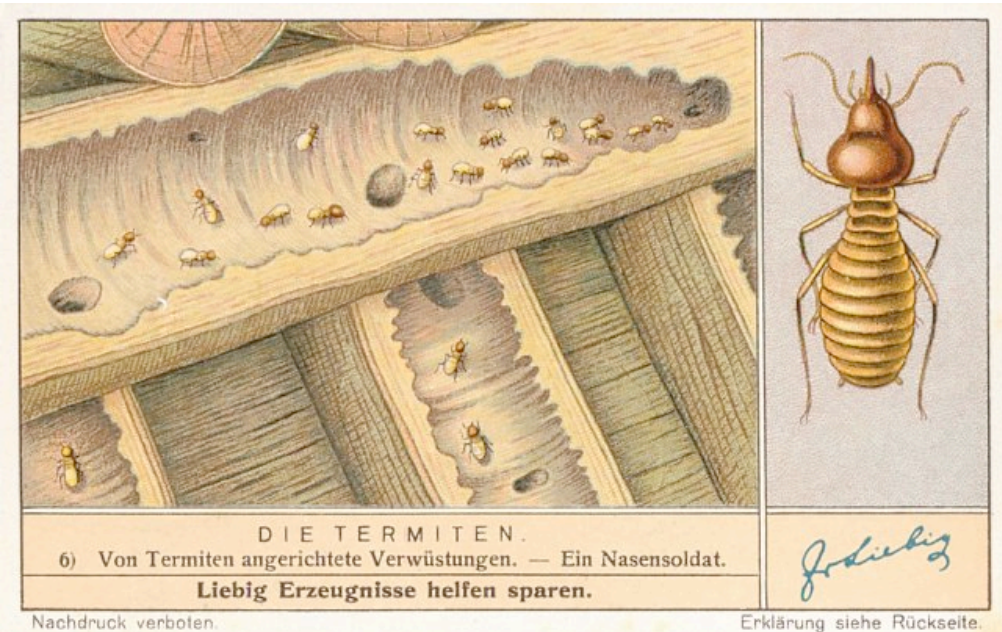
↗ Direction of air movement

● Fungus combs

▨ Nursery galleries

○ Royal cell

1 m



Nachdruck verboten.

Erklärung siehe Rückseite.



Radiant Heat

saves the cost of **ducts, chases & equipment**

Tankless Water Heater

saves the cost of **pipes & insulation**

Natural Daylight

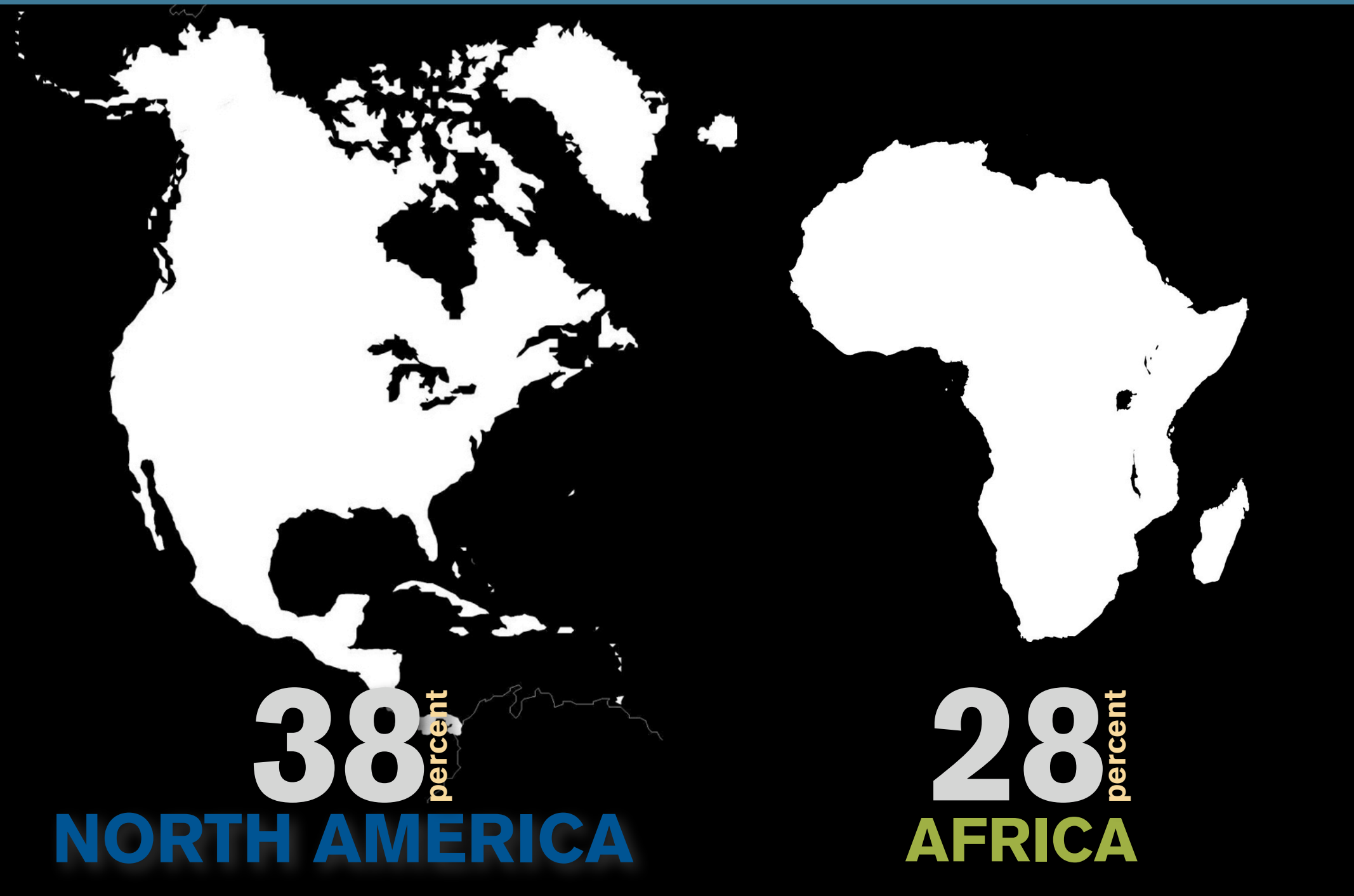
saves the cost of **lighting fixtures**

SAVINGS



bright future: ENERGY

WILDERNESS



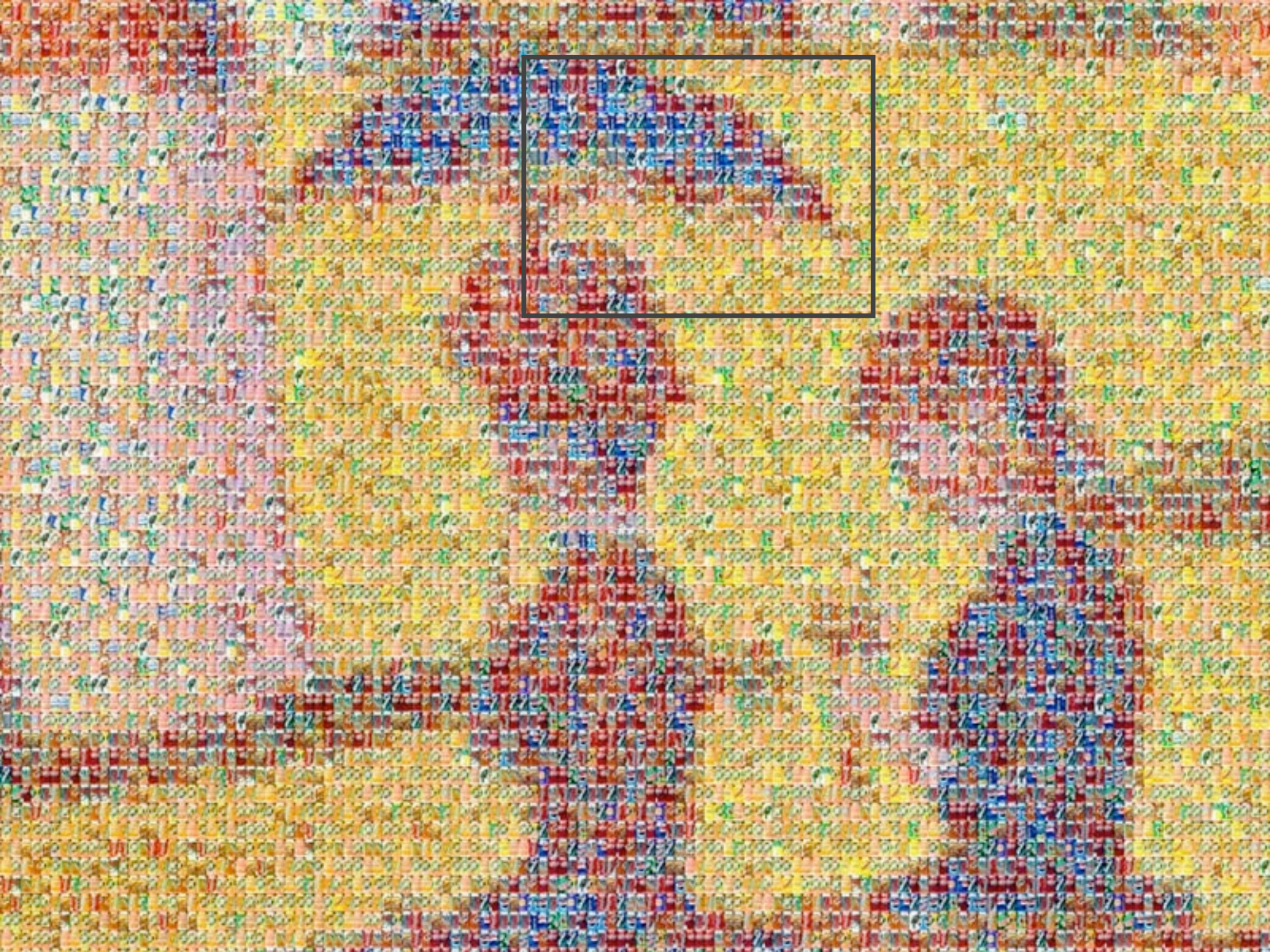
38 percent

NORTH AMERICA

28 percent

AFRICA



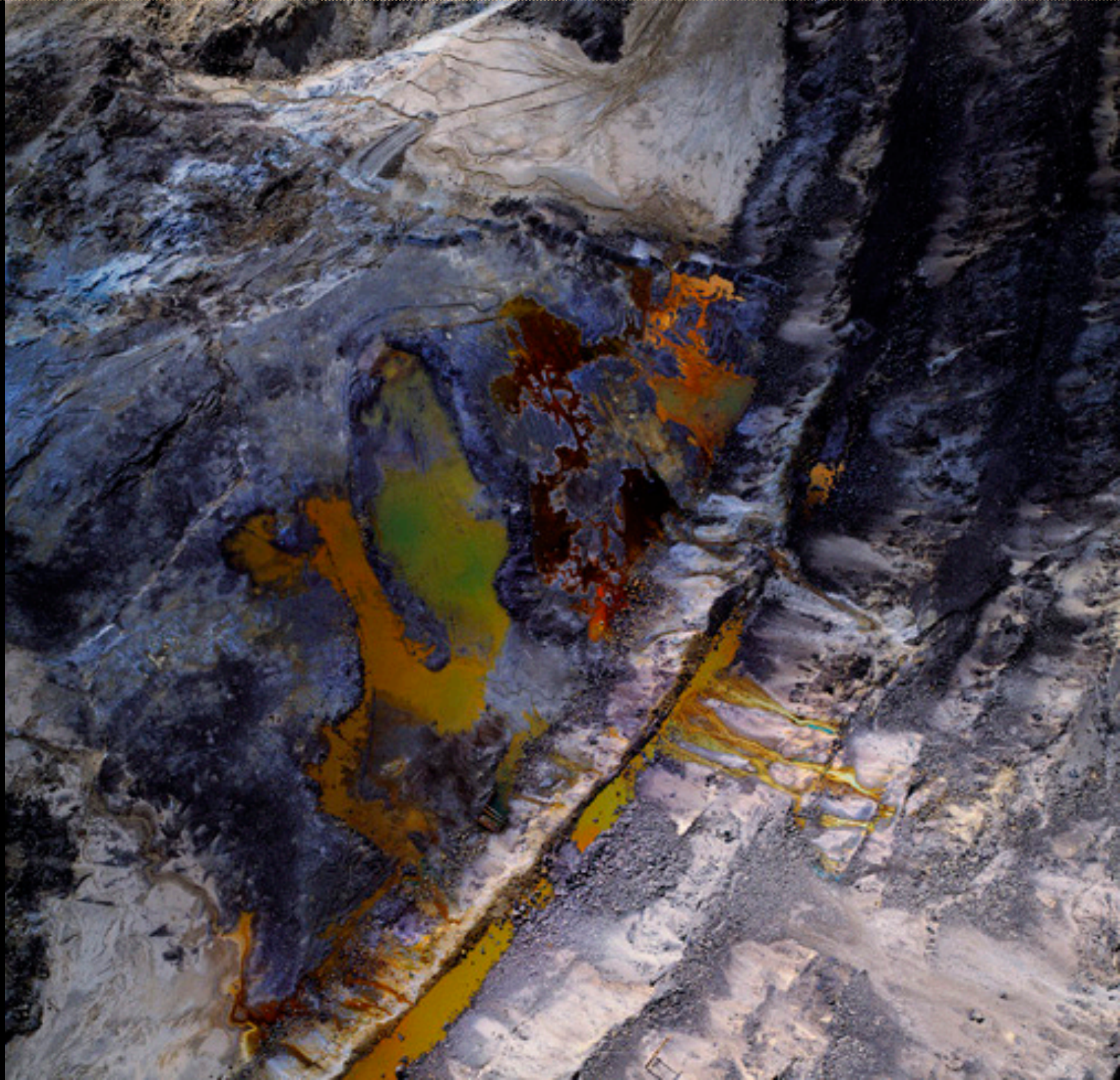




106,000 cans
CONSUMED EVERY
30 seconds



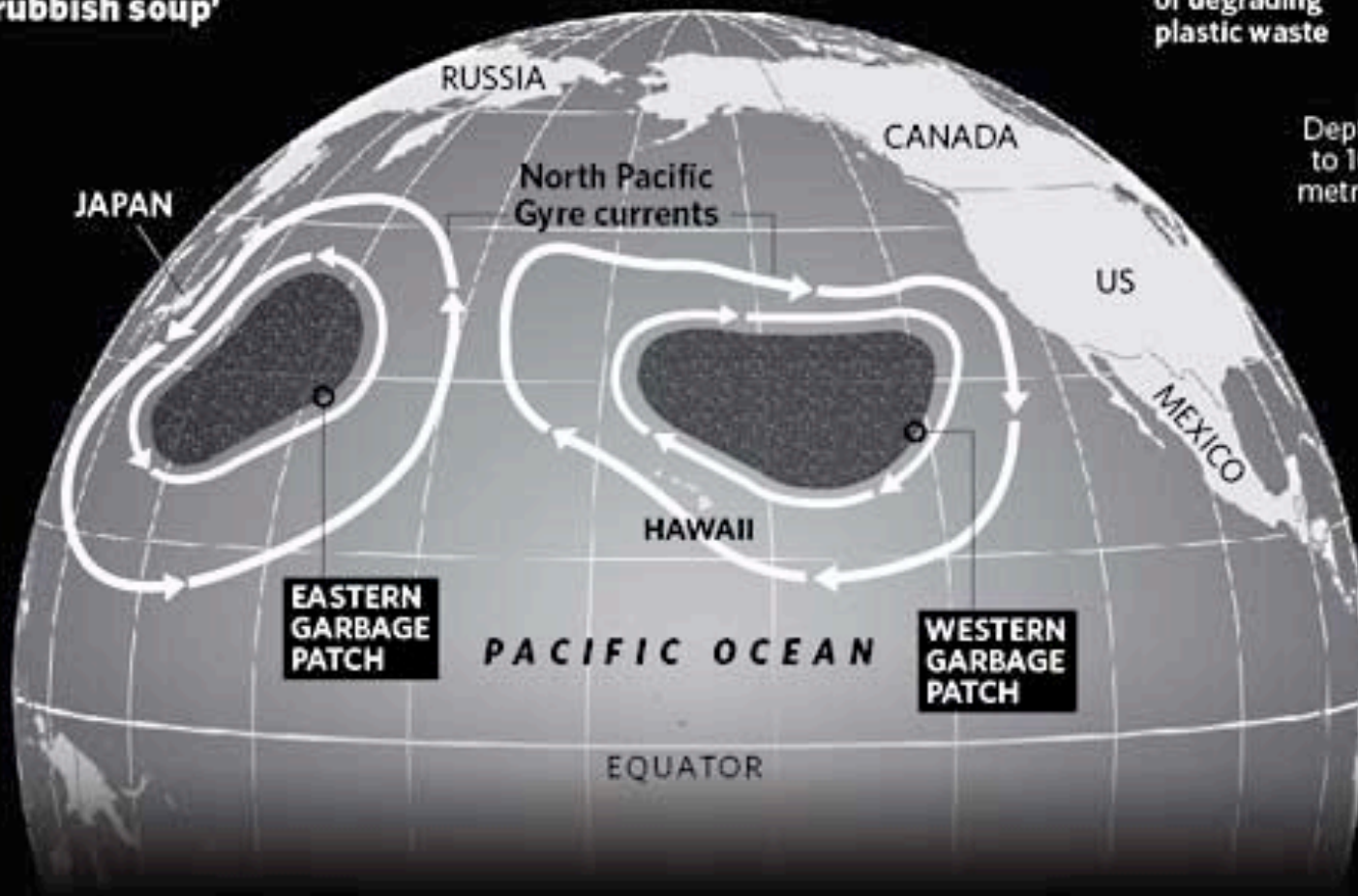




Out of sight, out of mind

The continent-sized vortex of plastic waste blighting the Pacific

Approximate areas of 'rubbish soup'



Translucent soup of degrading plastic waste

Depth to 10 metres



North Pacific Gyre currents keeps soup in constant movement

2

times

the size of Texas



the Pacific Gyre
GARBAGE PATCH





buildings of the world
consume

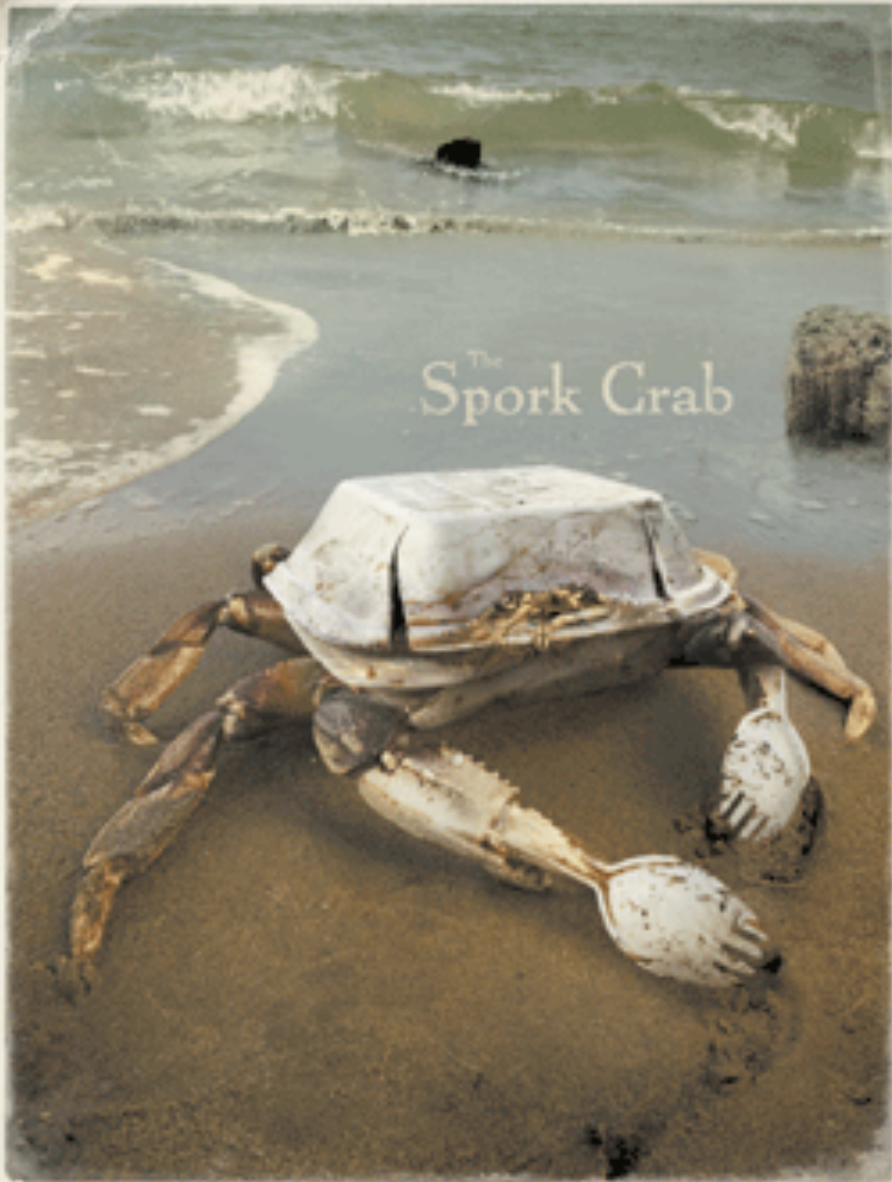
40%
of the world's energy & materials

25%
of the wood harvested

17%
of our water



Non-Native Species of the California Coast



The Spork Crab

CALIFORNIA COASTAL CLEANUP DAY
September 17th • 9am-noon

Non-Native Species of the California Coast



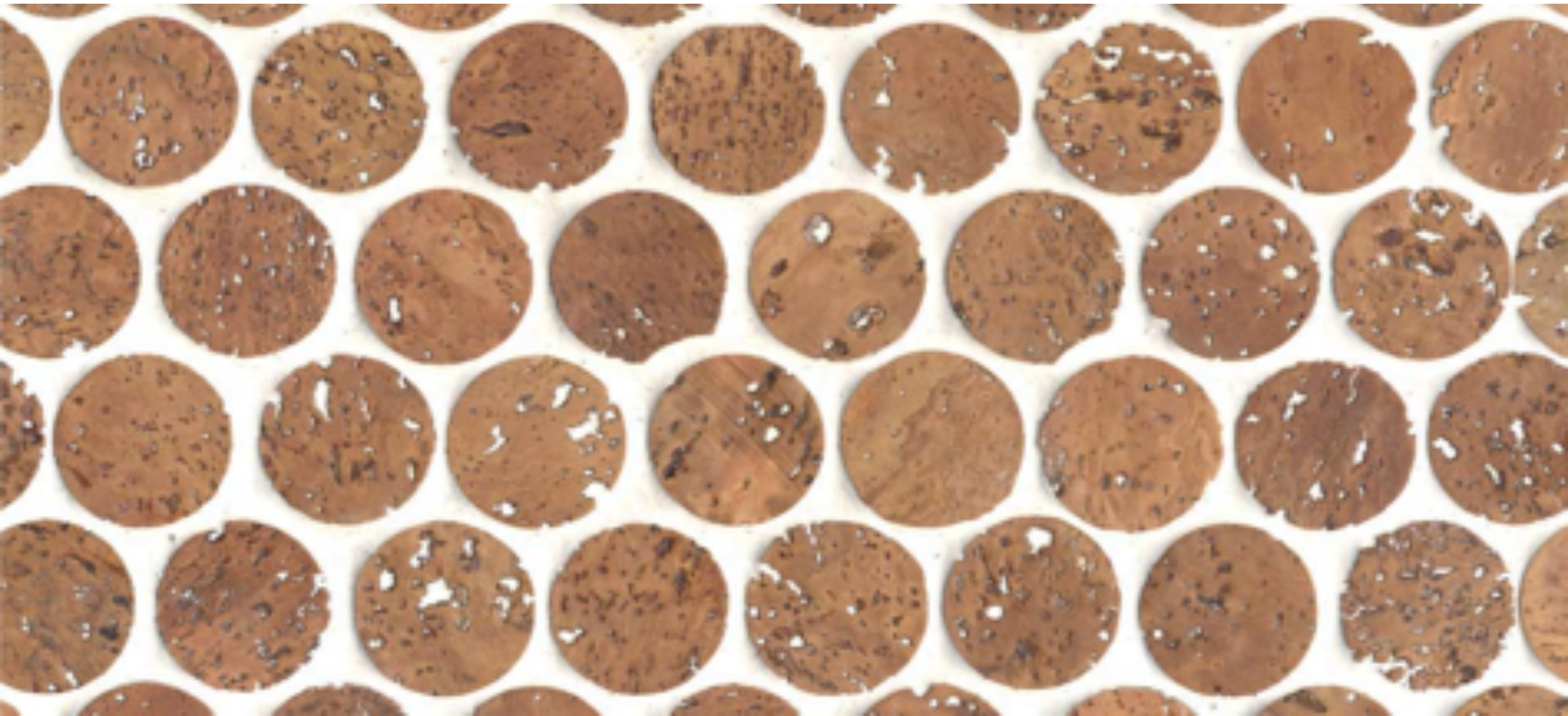
The Cola Bass

CALIFORNIA COASTAL CLEANUP
September 17th • 9am-noon









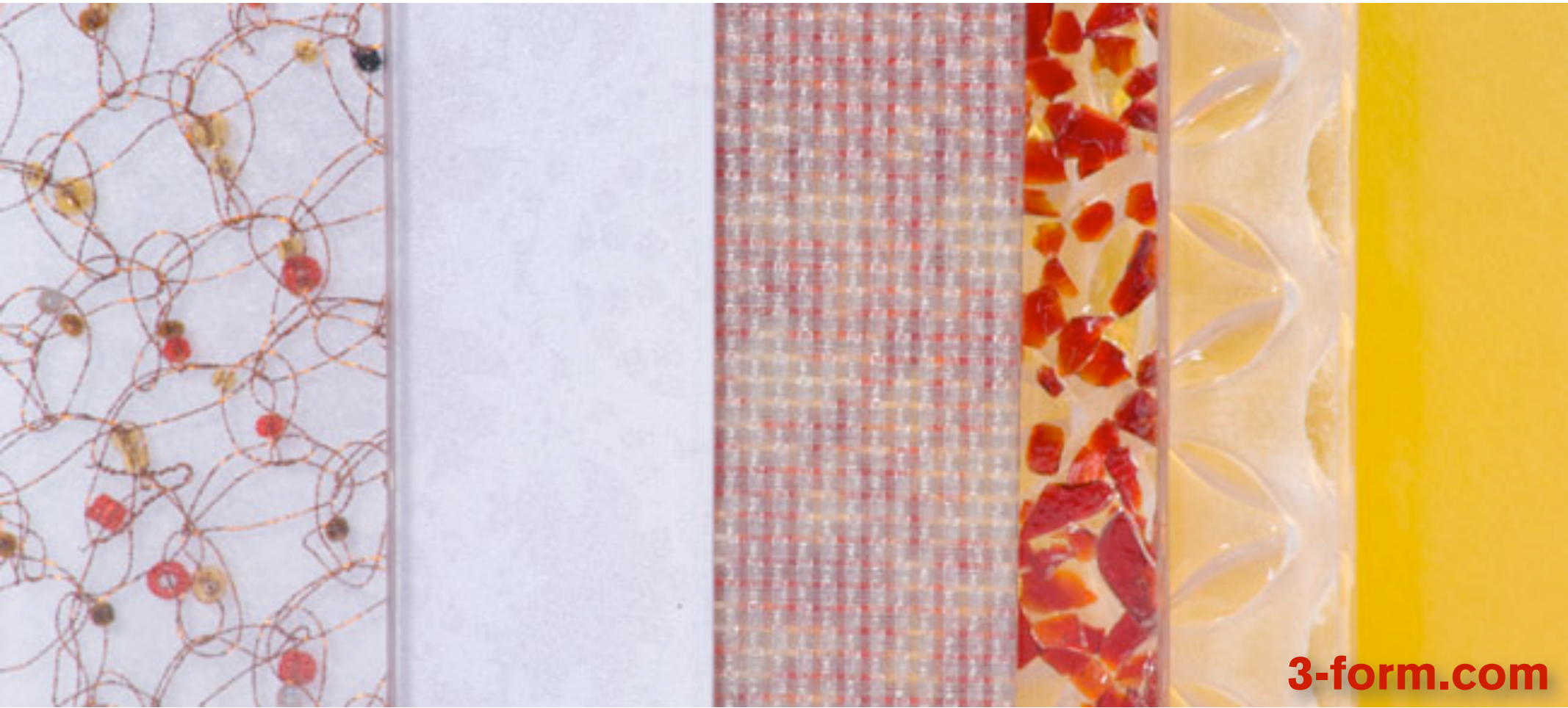
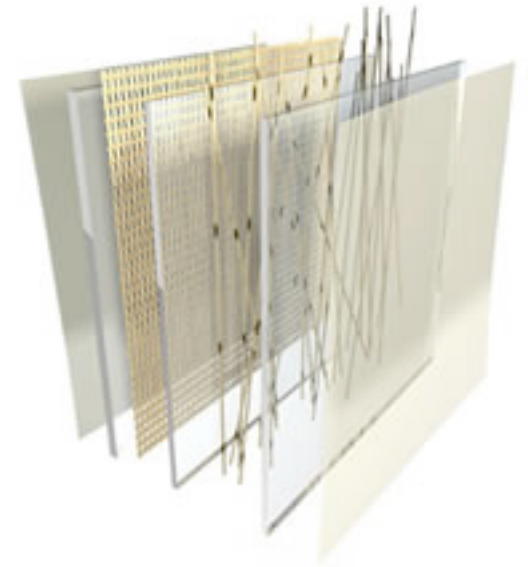






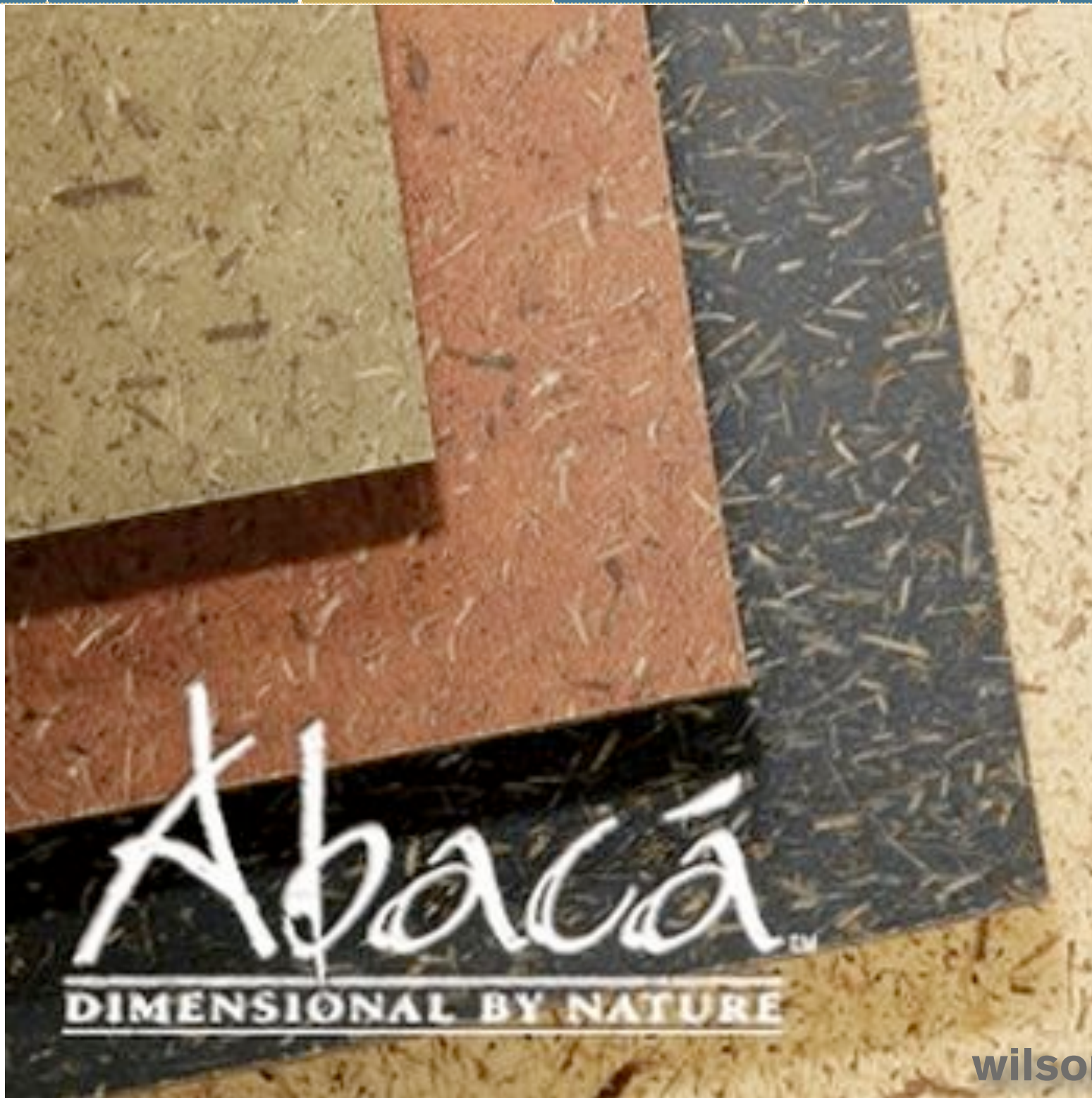










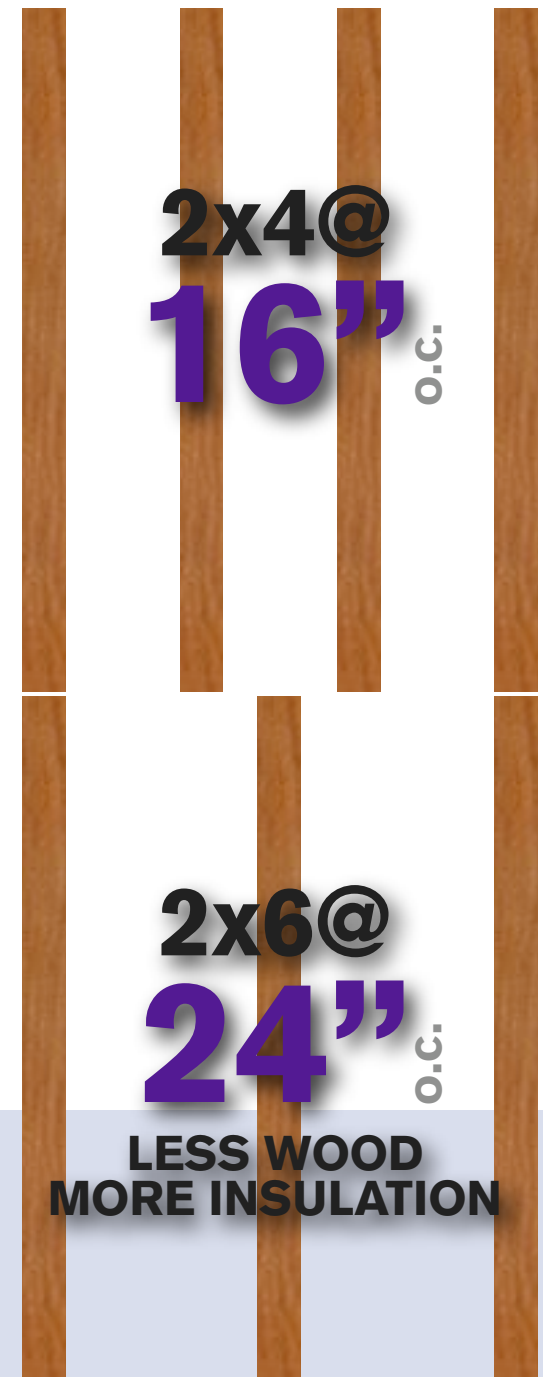
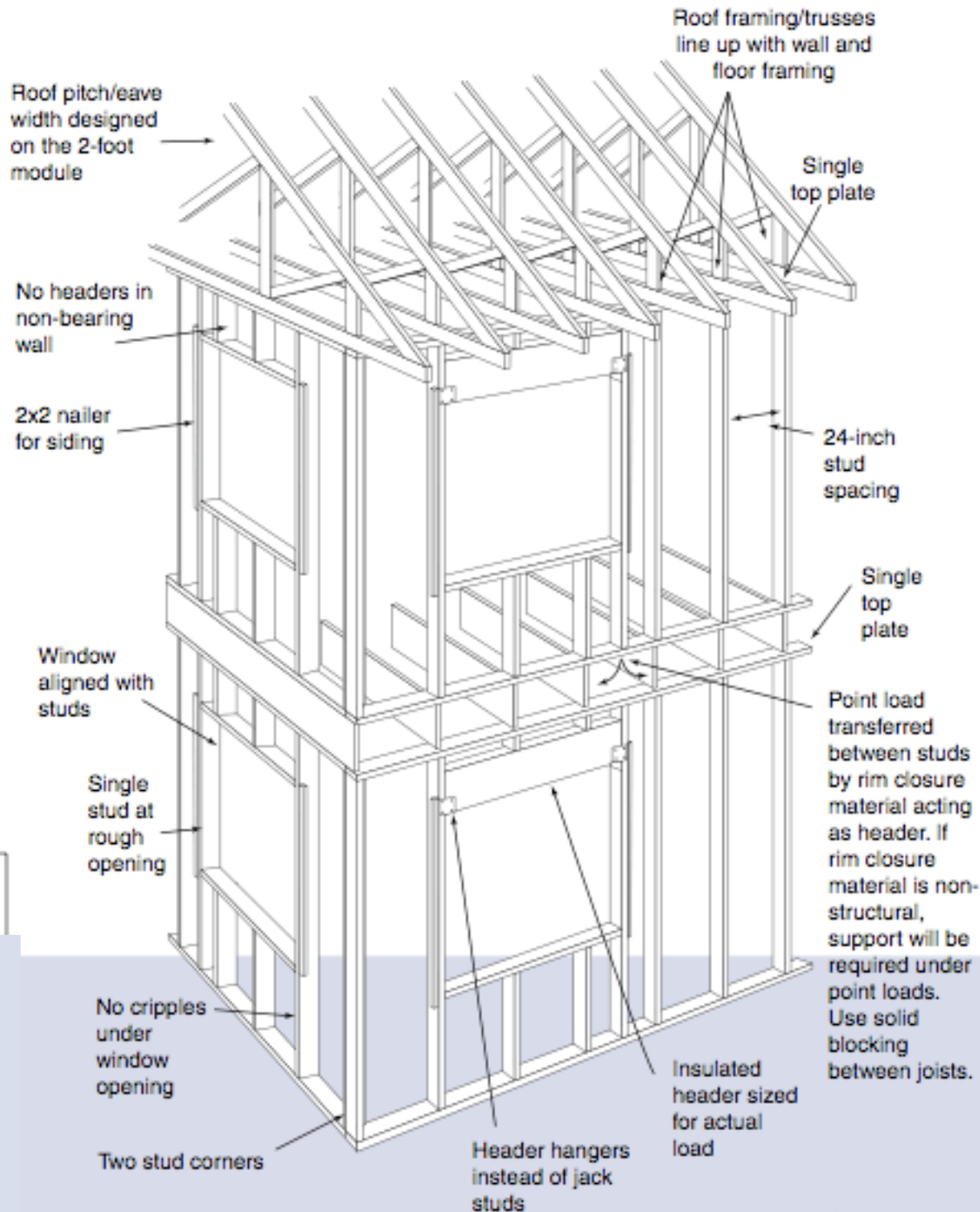


Abacá[™]
DIMENSIONAL BY NATURE









Local Materials

saves the cost of **shipping &
storage**

Construction Salvage

saves the cost of **dumping &
hauling**

Integral Colors

saves the cost of **prep &
painting**

SAVINGS



bright future: MATERIALS

WATER

ENERGY

MATERIALS

IAQ

SITING

COMMUNITY



3 percent
IN 1980



9 percent
IN 2003

22 percent

higher on
S.A.T.'s





bleak future: AIR QUALITY











**Non-toxic
Paints**

saves the cost of

**disposal &
clean up**

**Avoiding
formaldehyde**

saves the cost of


**future
compliance**

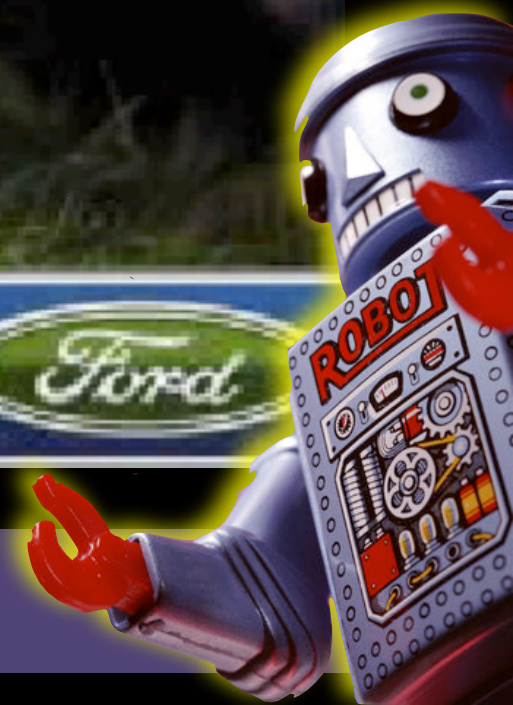
**Non-toxic
cleaners**

saves the cost of

**gloves &
aspirin**

SAVINGS

H₂ Ohhh! the new hydrogen-powered **H** from 

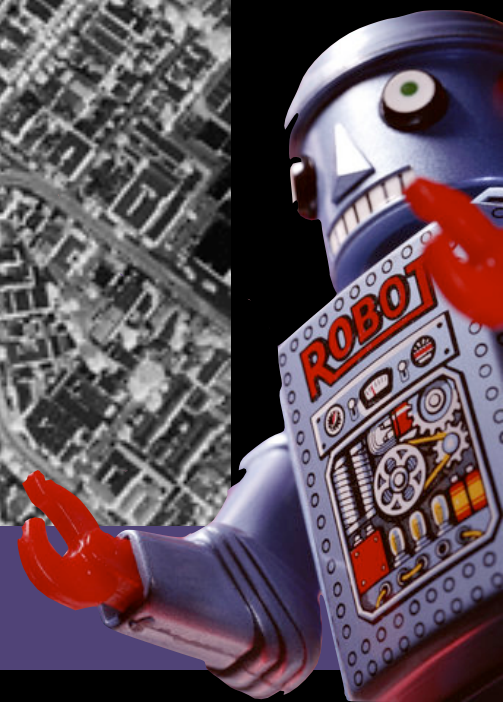


bright future: AIR QUALITY





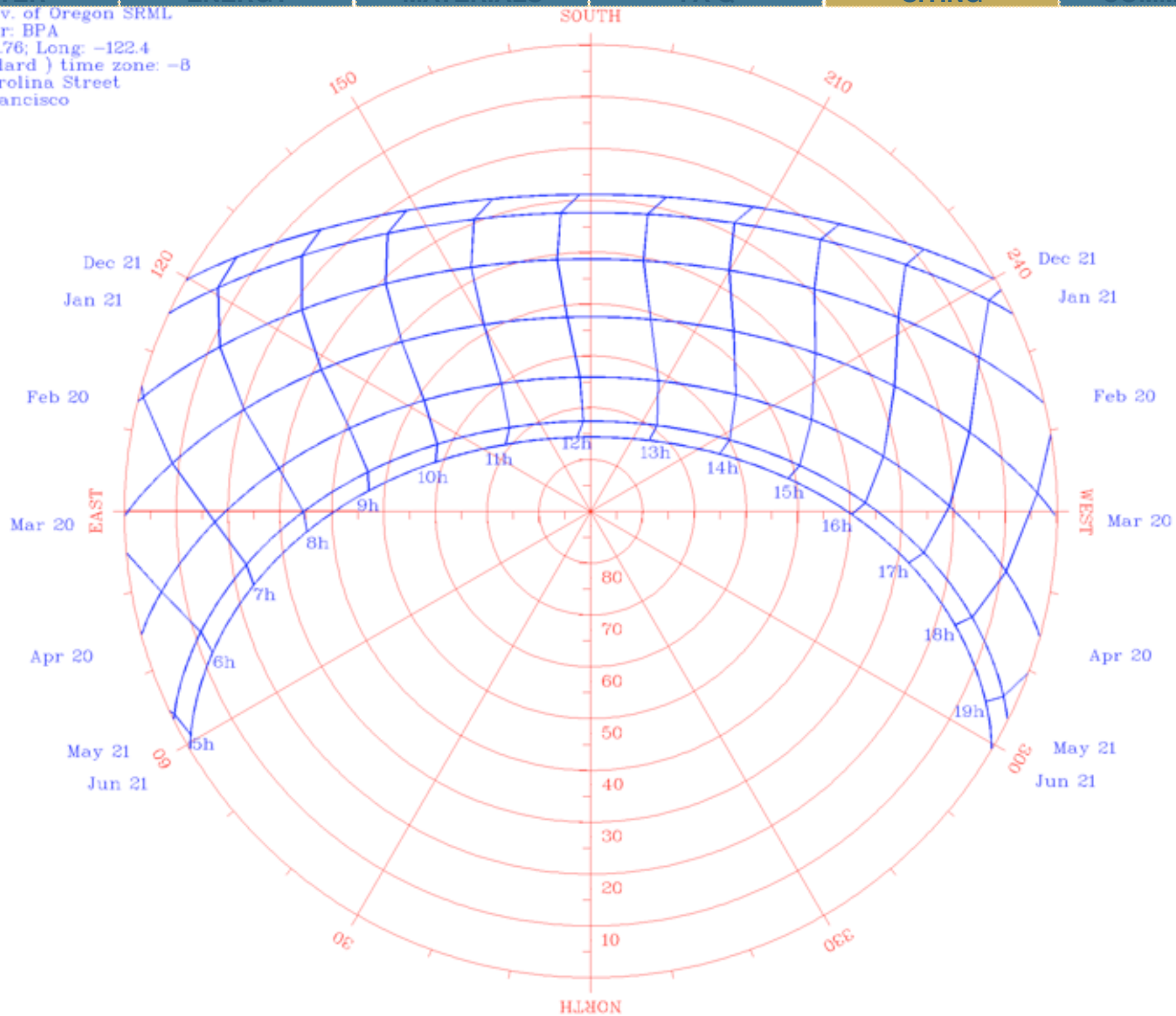


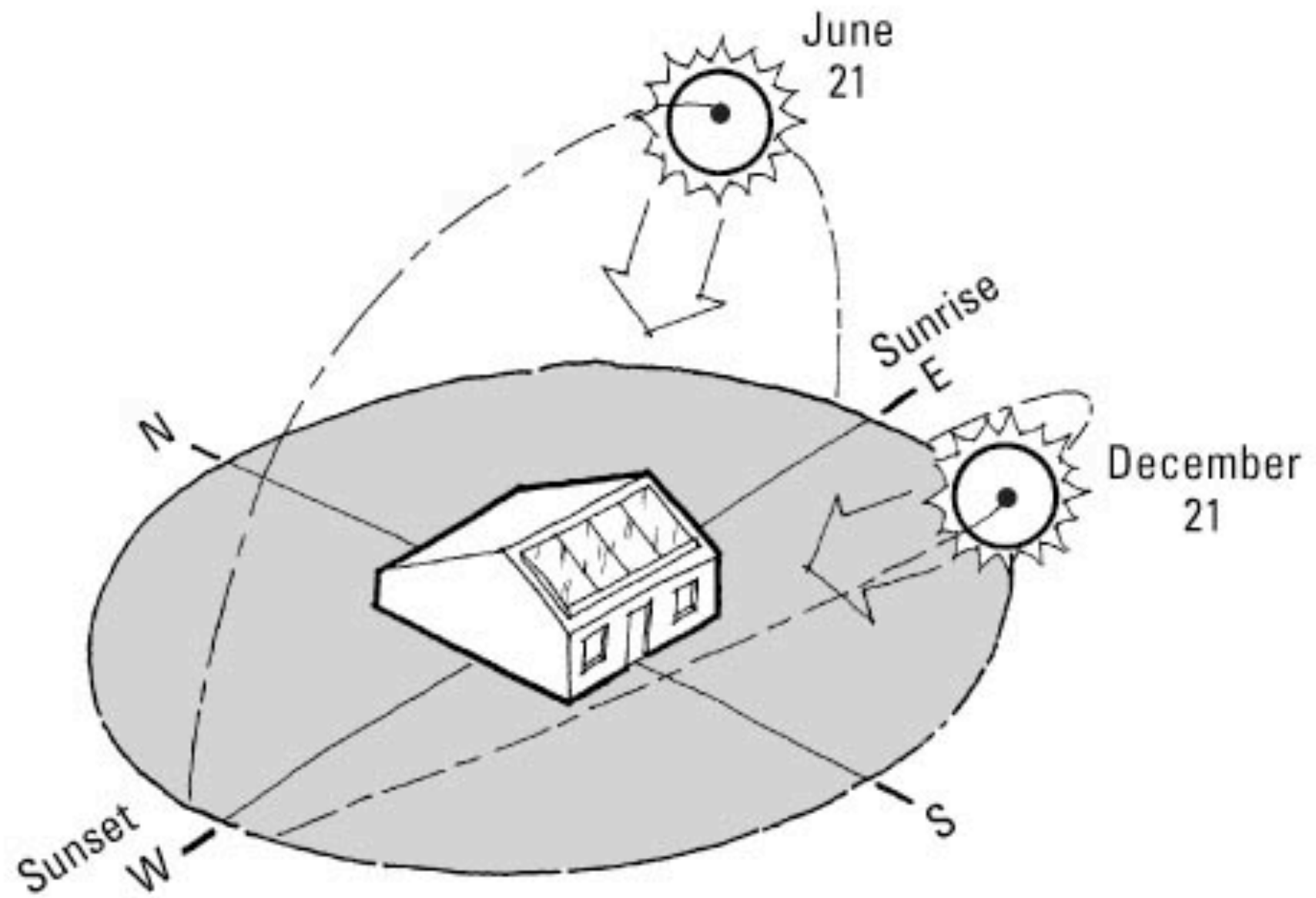


bleak future: SITING



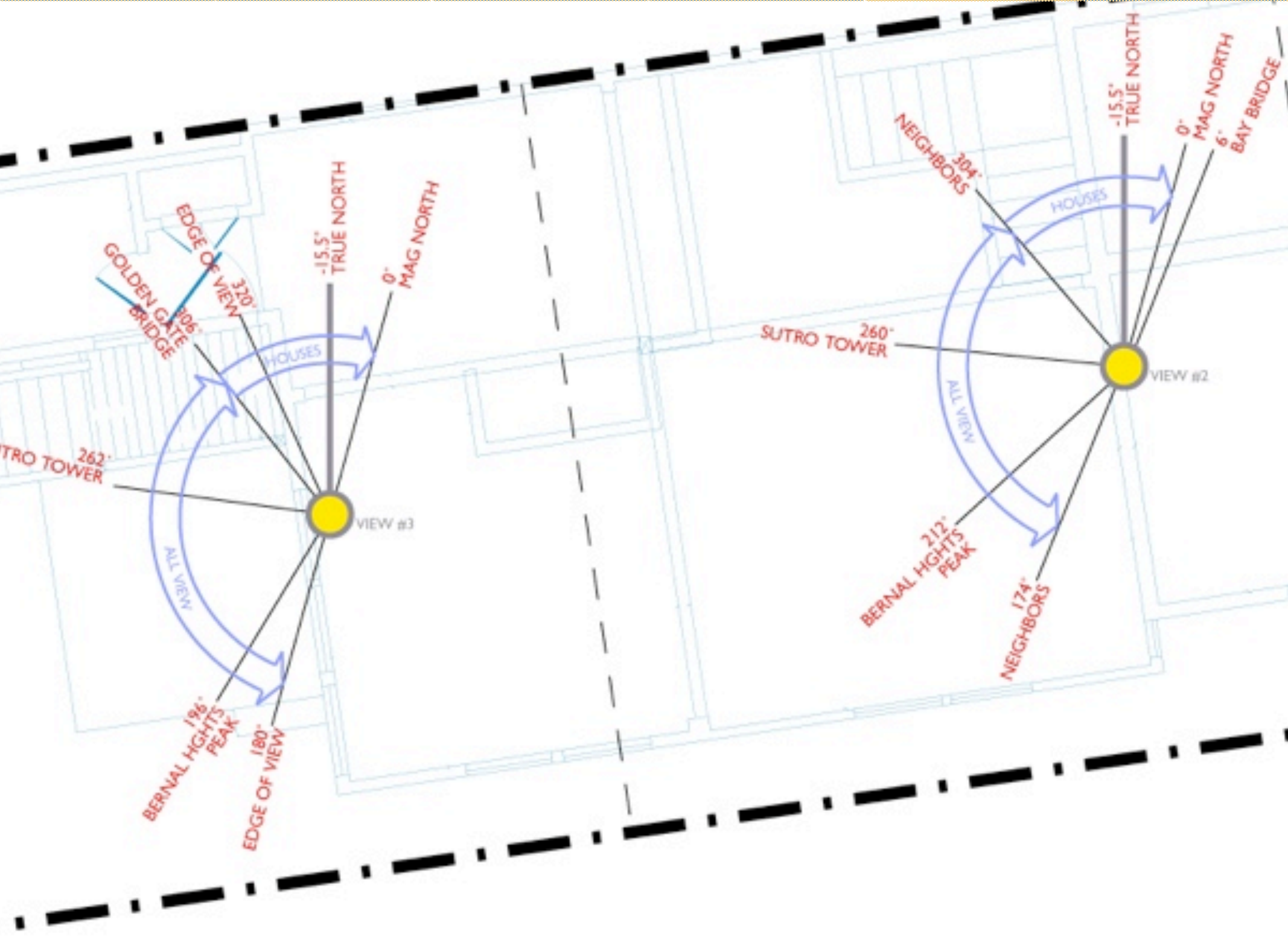
(c) Univ. of Oregon SRML
 Sponsor: BPA
 Lat: 37.76; Long: -122.4
 (Standard) time zone: -8
 888 Carolina Street
 San Francisco

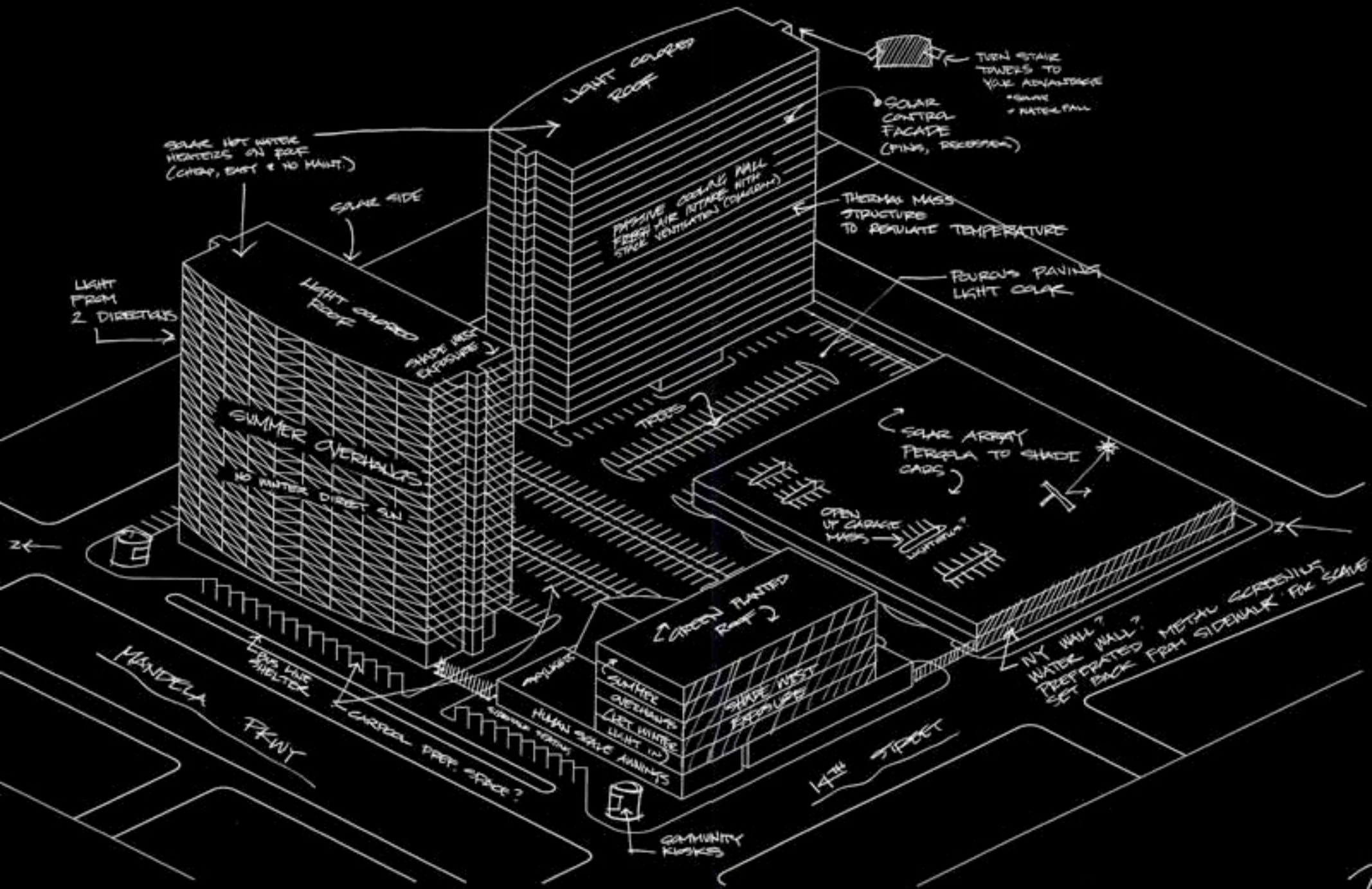


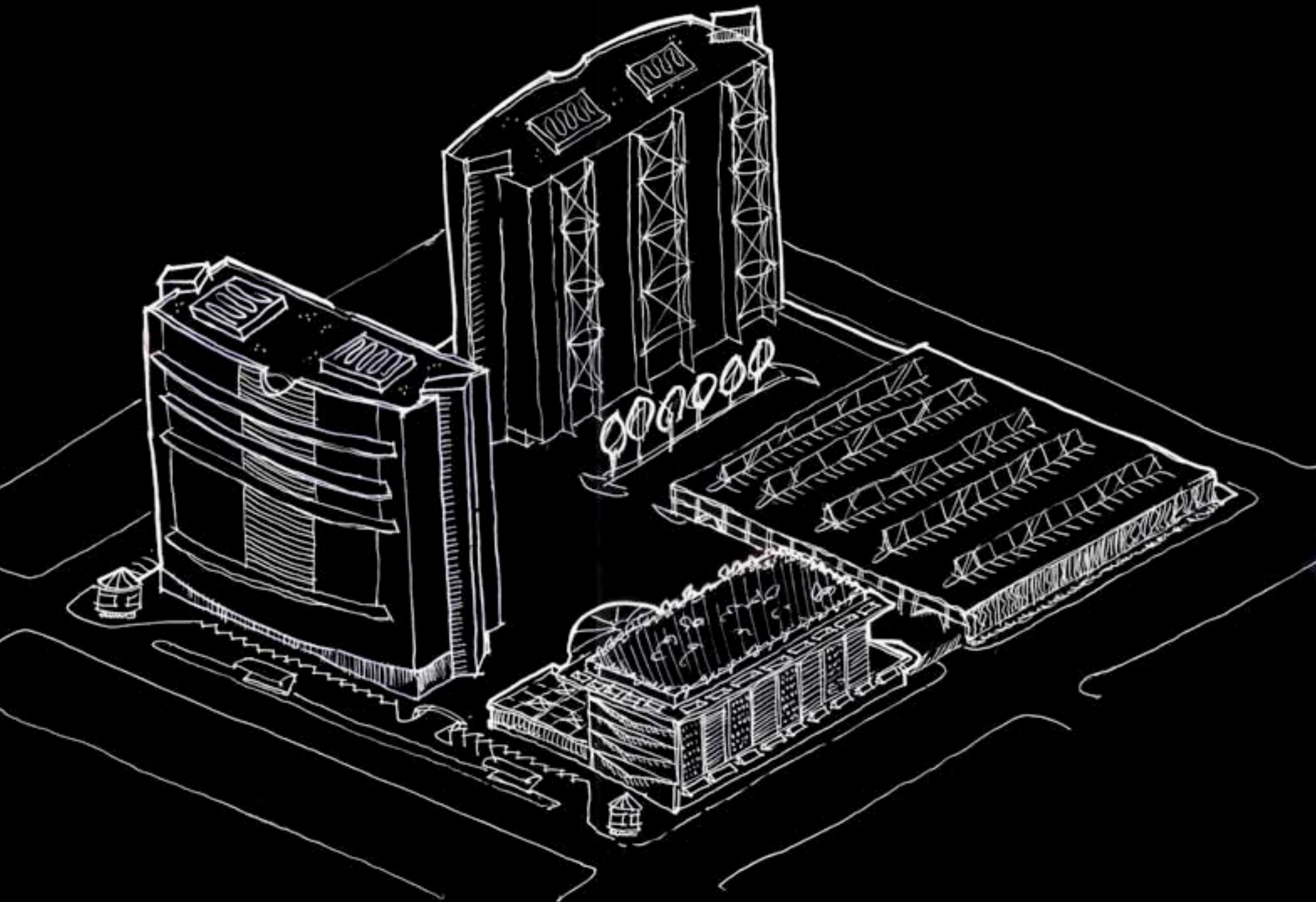












Passive Solar

saves the cost of **size of heater & air conditioner**

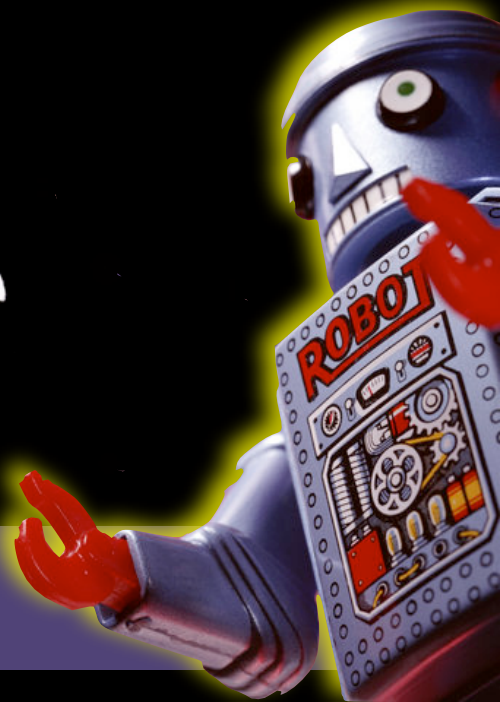
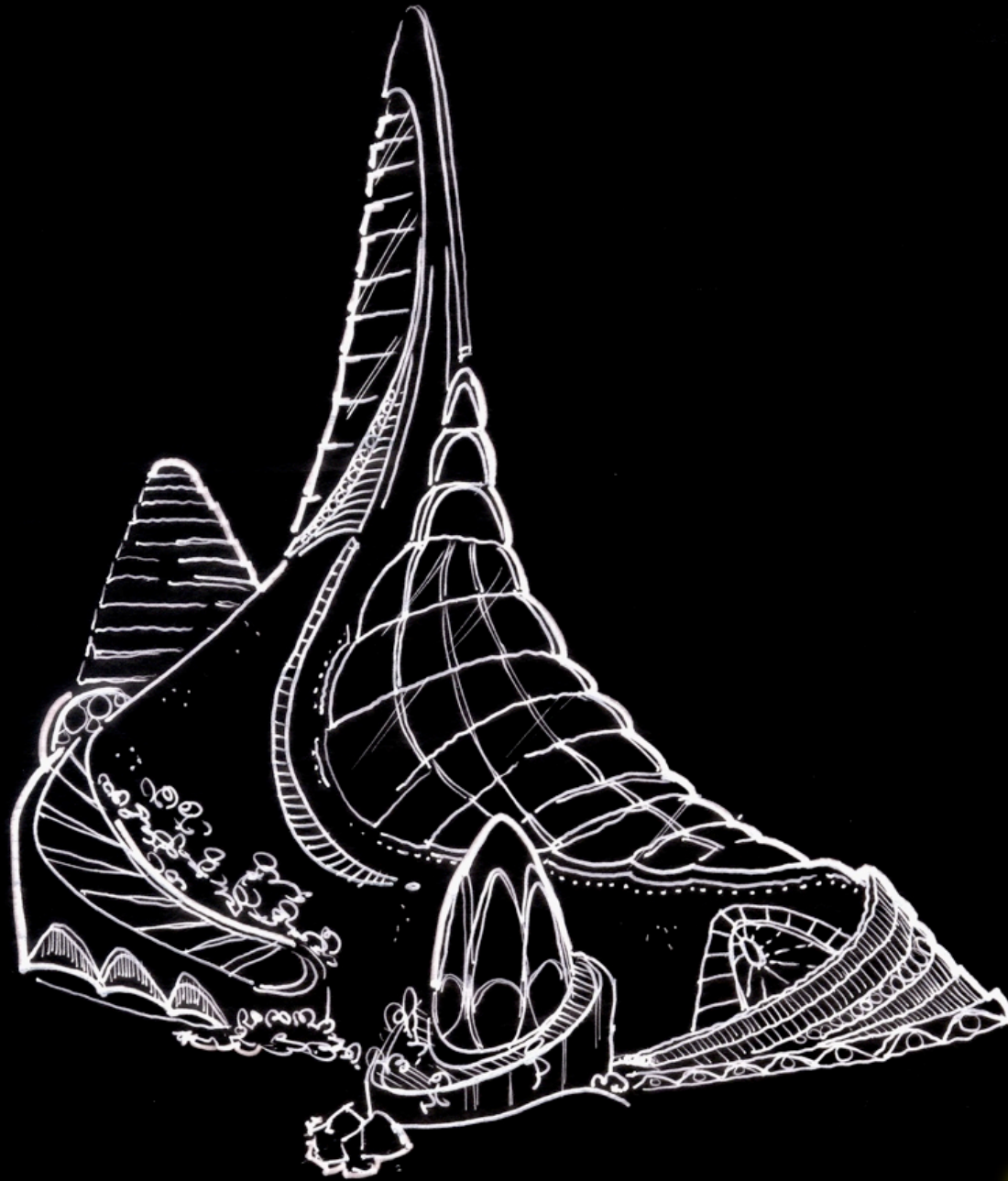
Reducing Excavation

saves the cost of **dumping & hauling**

Cleaning a Brownfield

saves the cost of **taxes & land costs**

SAVINGS



bright future: SITING

WATER

ENERGY

MATERIALS

IAQ

SITING

COMMUNITY



it's the beige one.

WATER

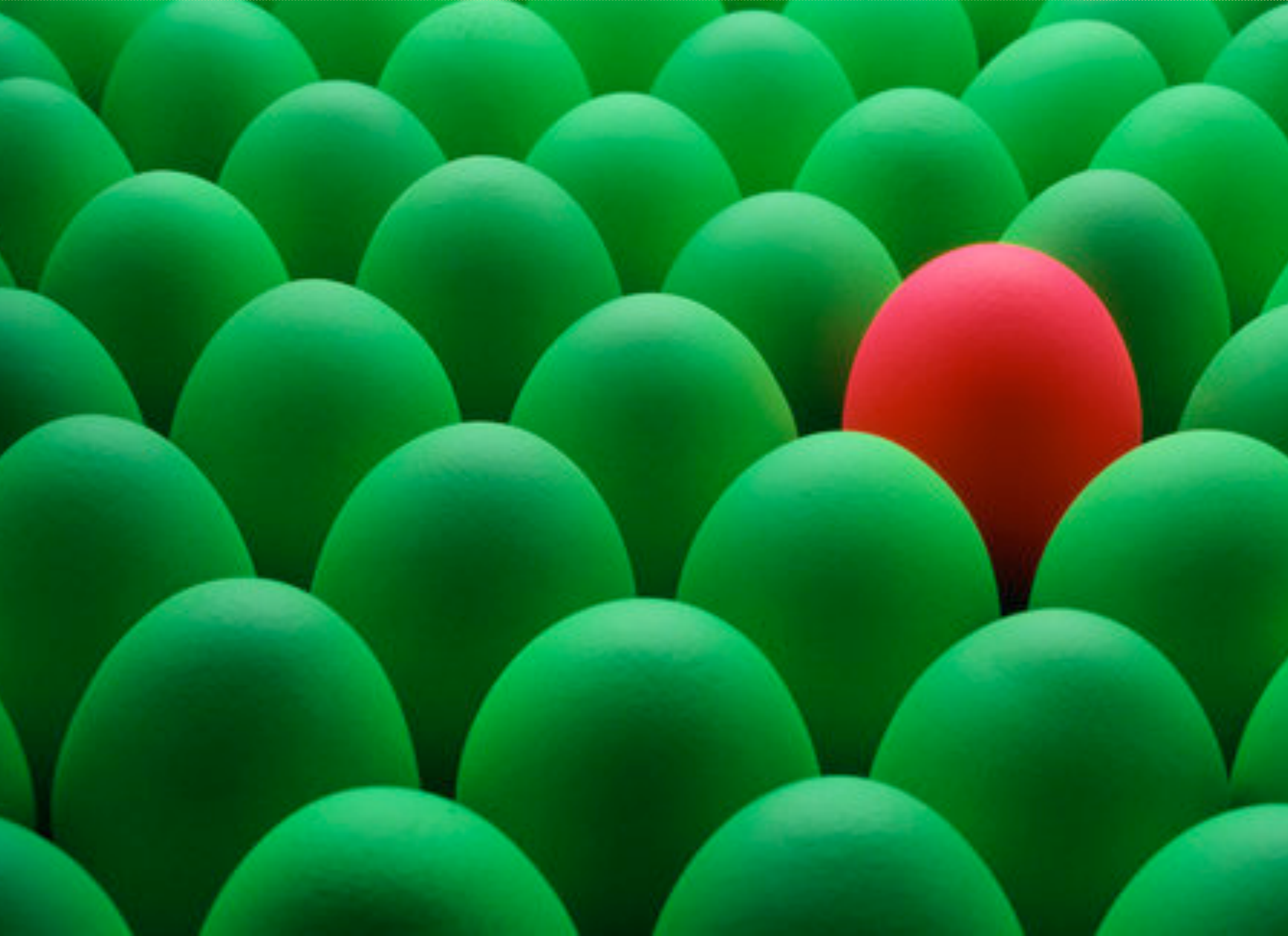
ENERGY

MATERIALS

IAQ

SITING

COMMUNITY







SOTIP



SHITTERTON



WATER

ENERGY

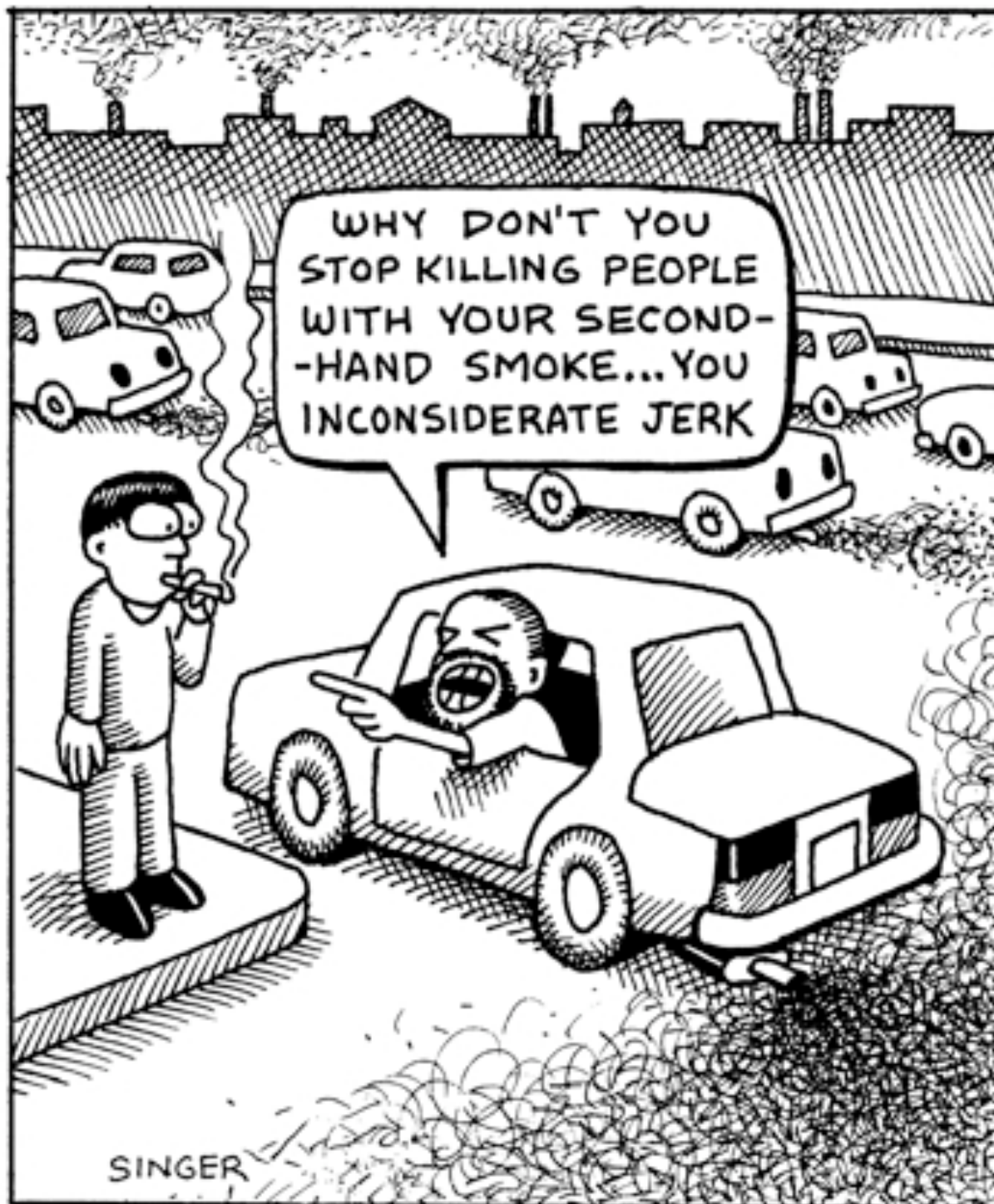
MATERIALS

IAQ

SITING

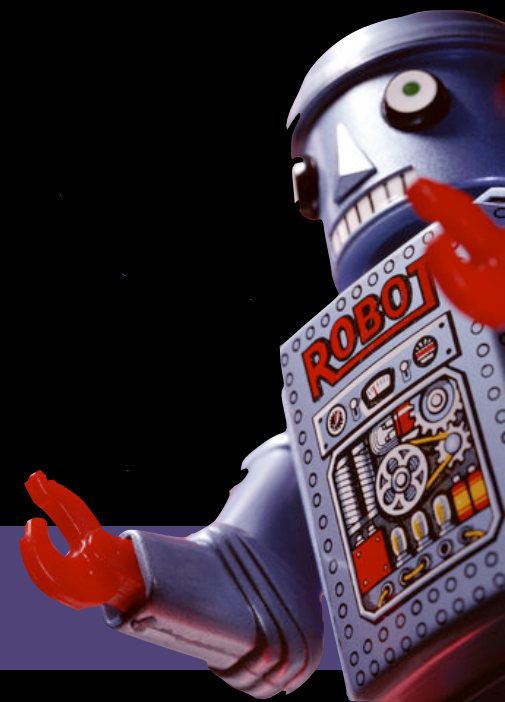
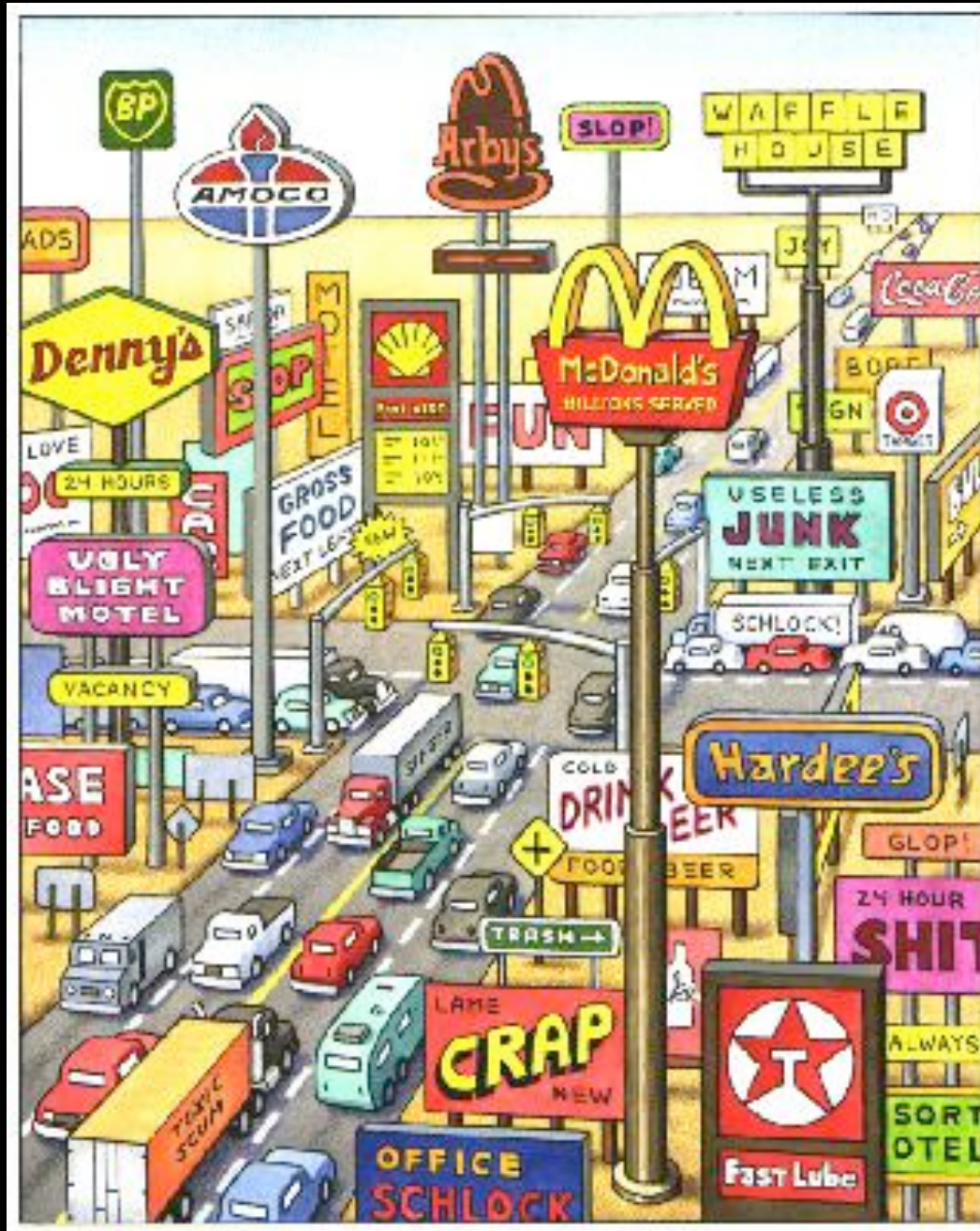
COMMUNITY





WE'VE APPEASED NON-SMOKERS...
NOW, LET'S APPEASE NON-DRIVERS!!
DIVIDE CITIES INTO TWO SECTIONS:
DRIVING AND **NON-DRIVING**





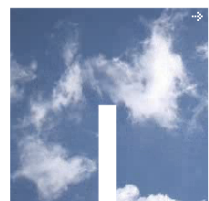
bleak future: COMMUNITY



RE:VISION
COMPETITIONS FOR VISIONARY THINKERS

In January 2007, Archiventure launches the first in a series of idea competitions that explore ways of transforming disengaged communities into energetic, family-centered expressions of sustainable urban life.

> RE:VIEW



archiventure

urbanrevision.com

GreenHomeGuide

Unbiased reviews and advice from professionals and homeowners like you.



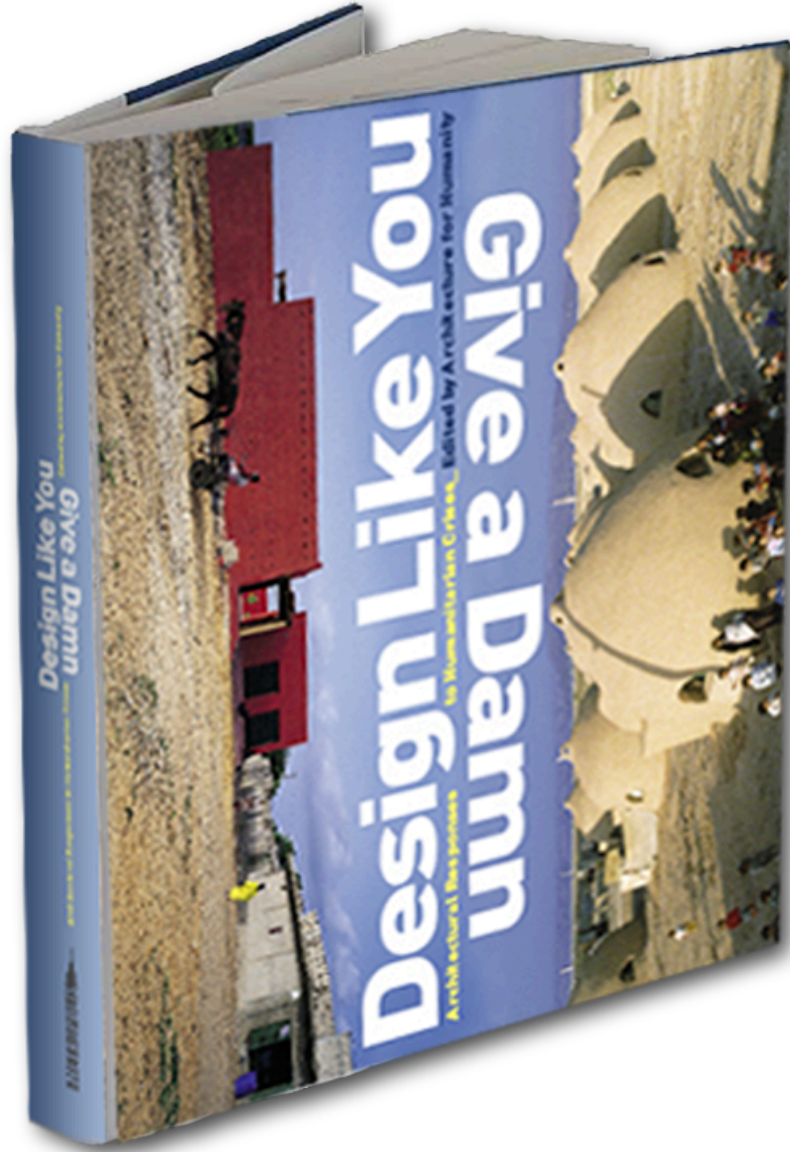
know how



participate



green directory



Greener Buildings

Produced by GreenBiz.com



Natural
World
Museum



UNEP

United Nations
Environment Programme

ART FOR THE ENVIRONMENT

A + D
ARCHITECTURE AND DESIGN MUSEUM > LOS ANGELES



LIVING WISELY » LIVING WELL

natural

HOME

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EASY NATIVE
LANDSCAPING

Green Remodeling

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19+

PRODUCTS FOR
REDECORATING

A REMODELER'S GUIDE TO
CLEAN INDOOR AIR

TREAD
LIGHTLY
ECO-FRIENDLY
FLOORING

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CLOTHING

TRAVEL

CARS

OUTDOOR GEAR

REAL ESTATE

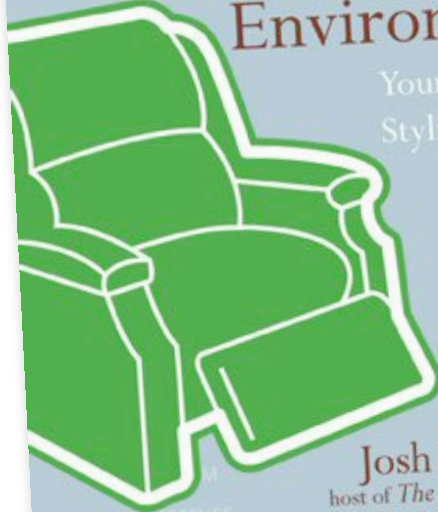
INVESTING

BABIES AND KIDS

ELECTRONICS

HOUSECLEANING

GARDENING



ARCHITECTURE

CONSTRUCTION

ENERGY ALTERNATIVES

FURNITURE

THE KITCHEN

THE BATHROOM

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Yvon Chouinard, founder and owner, Patagonia, Inc.

The Lazy Environmentalist

Your Guide to Easy,
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Josh Dorfman

host of *The Lazy Environmentalist* radio show



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Eric Corey Freed
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what's next:

5

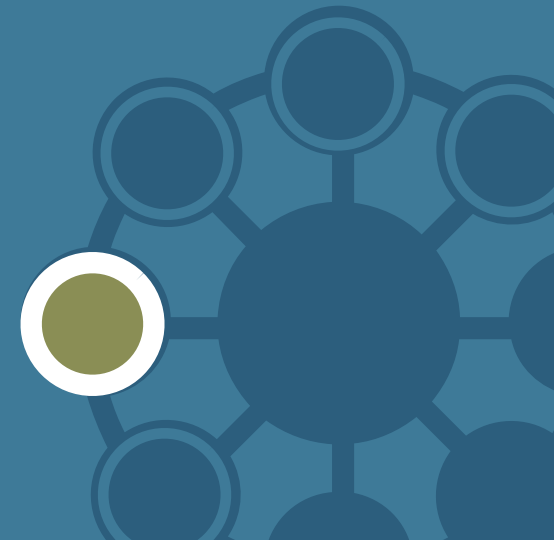
action steps



1 take action.
do something.
think big.



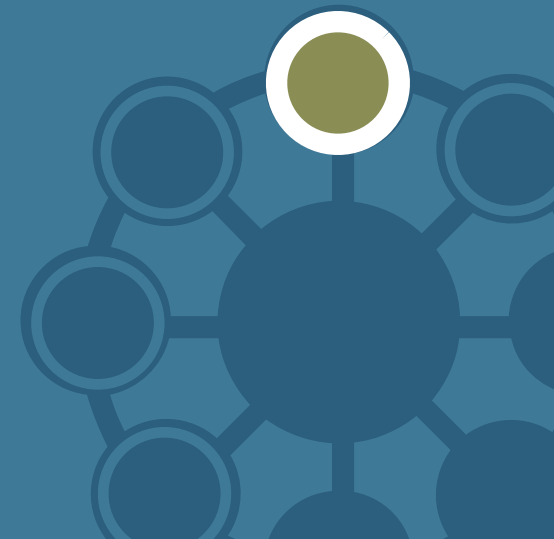
2
**tell others.
share your
enthusiasm.**



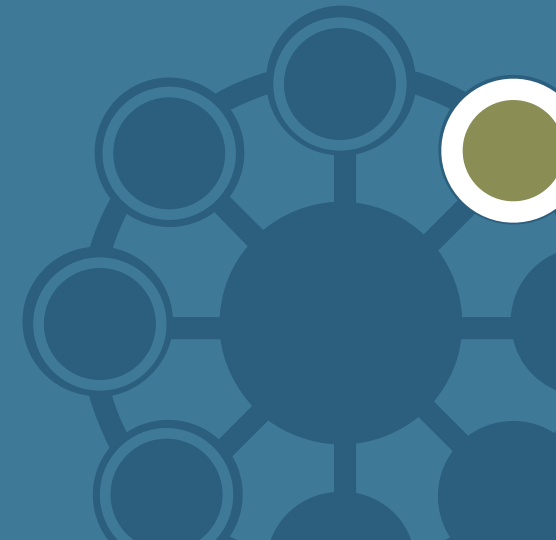
**fill the materials
library with
green materials.**



4 make a list of things you will not compromise.



5 become champion
of one issue.
innovate.





“you must be the
CHANGE
you wish to see in the
WORLD...”

-Mahatma Gandhi

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QUESTIONS

