

The Green Movement 101: How Going Green Can Grow Your Business

Eric Corey Freed

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www.organicarchitect.com



Craft & Hobby Association



WHERE IS
GREEN
GOING
AND WILL YOU BE
THERE

**YOUR VISION
OF GREEN**



**TIME TO DO
SOMETHING**

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

-Edward Abbey

In the last 100 years, we have:

Lost 50% of the world's wetlands

Cleared 50% of the world's forest

**Depleted 70% of the world's major
marine fisheries**

Put nearly 60% of coral reefs at risk

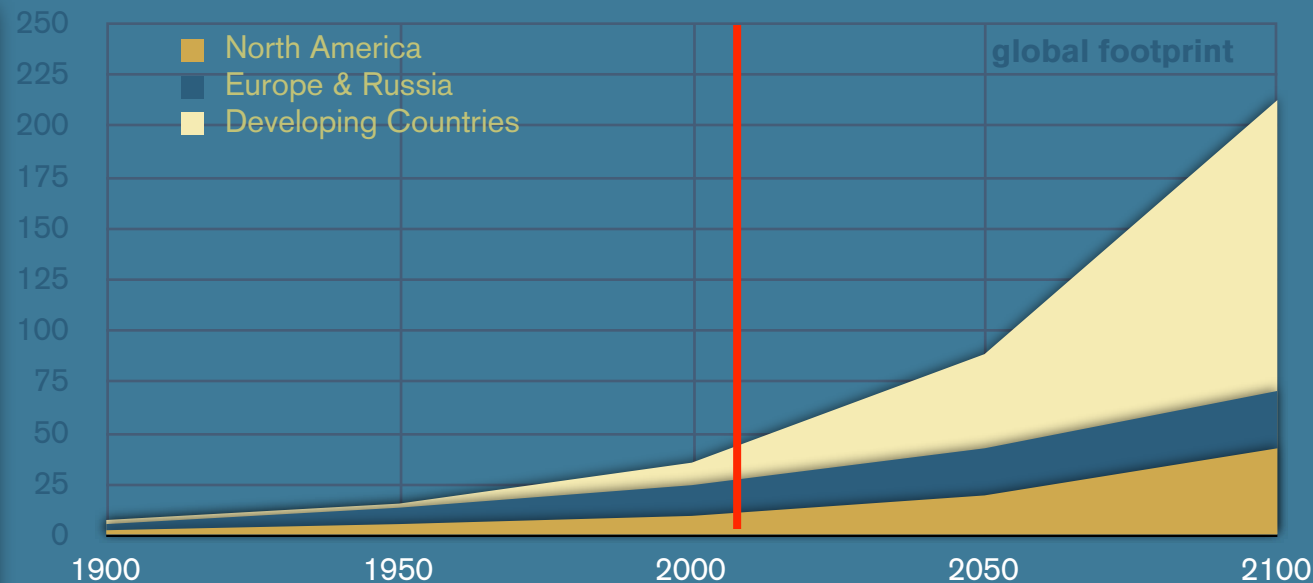
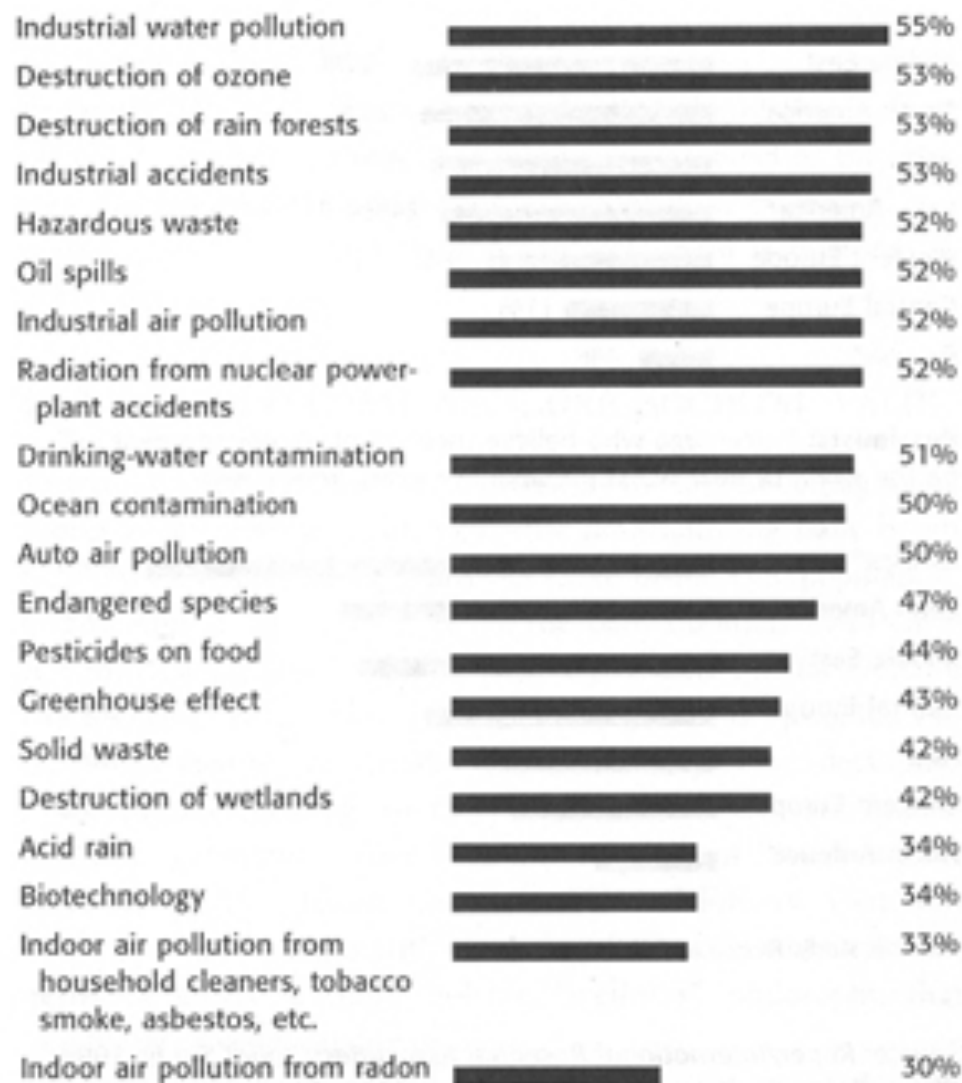


Exhibit 1.1

"Very Serious" Environmental Concerns

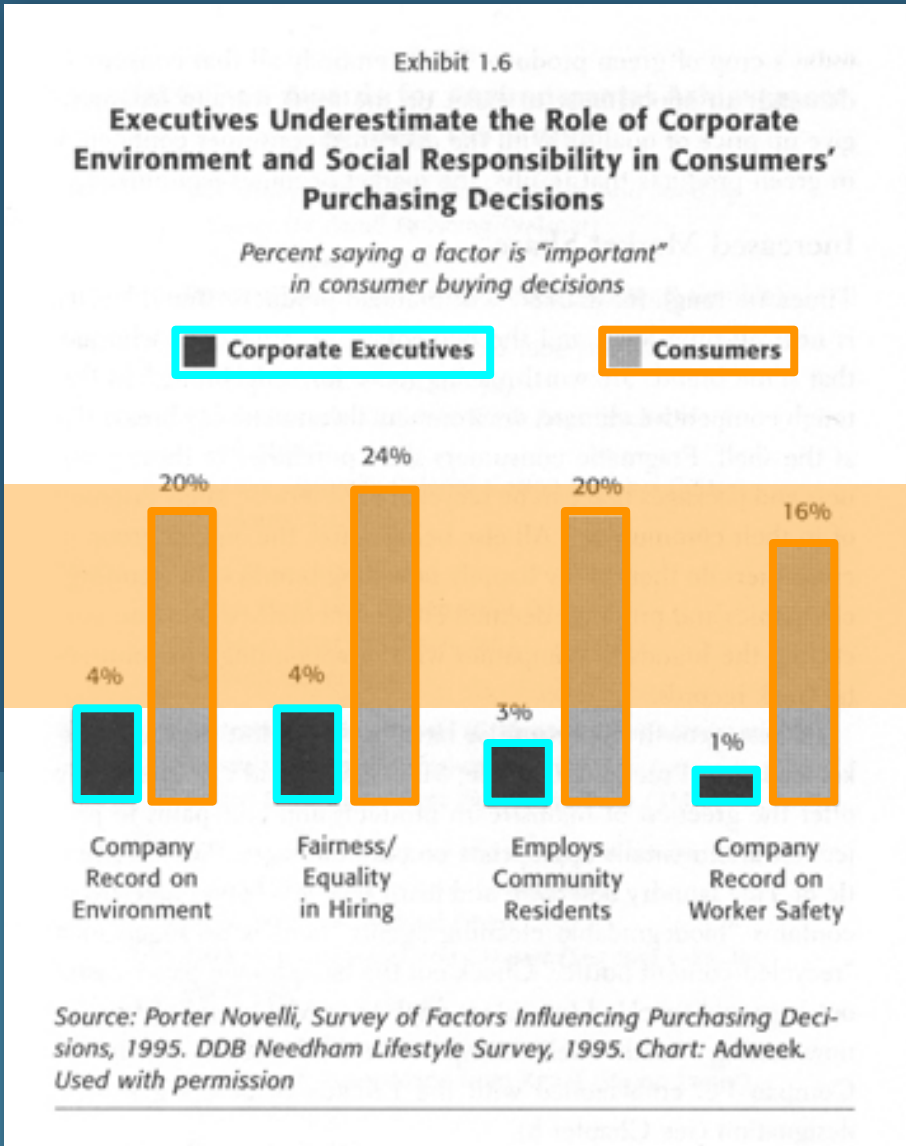
Percent describing as "very serious" problems



Source: Roper Starch Worldwide, Green Gauge, 1996. Used with permission

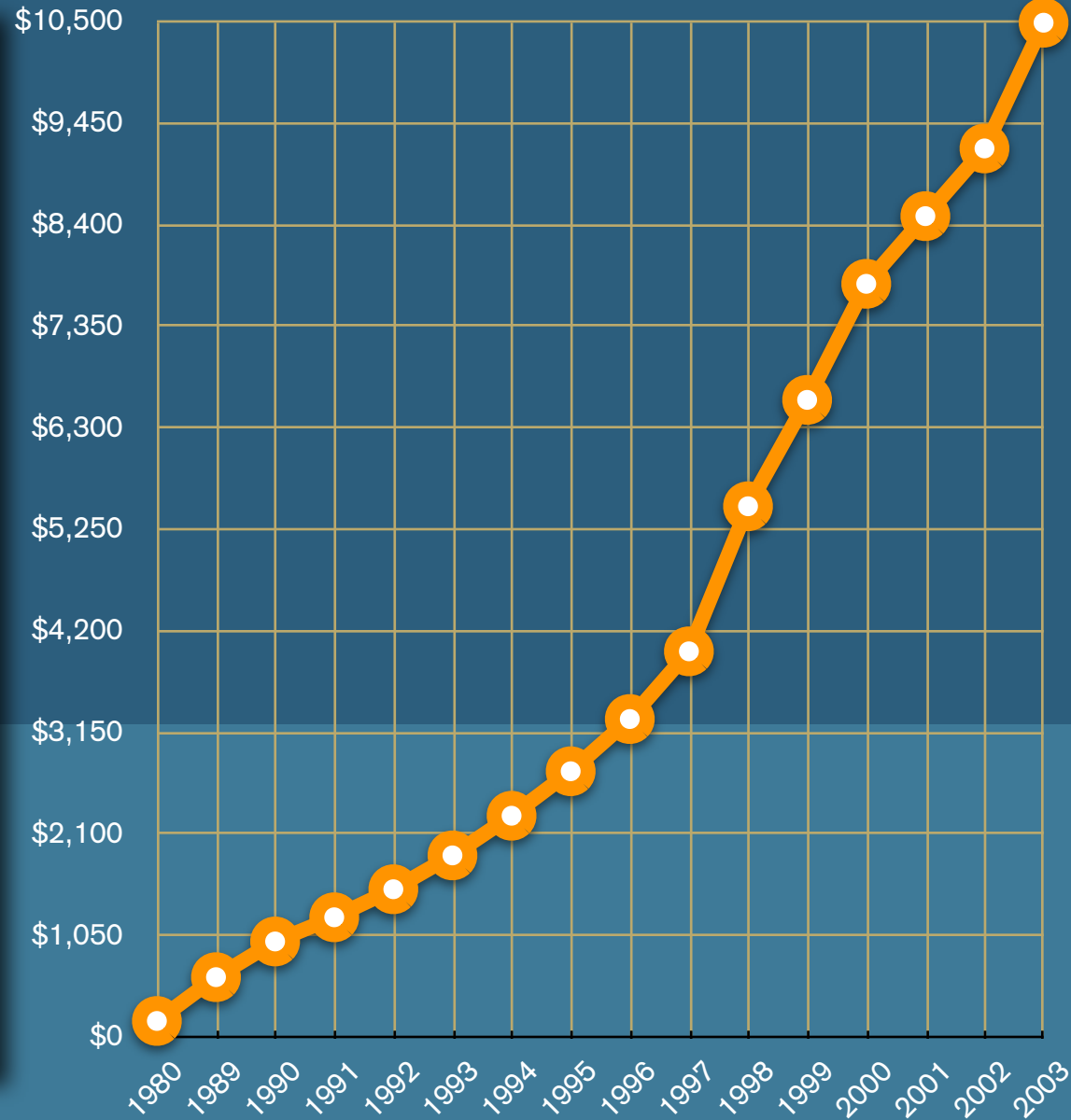
THE UNTAPPED MARKET

Very Serious Environmental Concerns



SOURCE: Ottman Consulting

Organic Industry Sales Trends



www.time.com AOL Keyword: TIME

SPECIAL REPORT
TIME

W
SAVE
TH

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

ARRIED.
ERY
ARRIED.

isn't some vague
—it's already
planet at an alarming
w it affects you, your
kids as well

TIPPING POINT
ITENS YOUR HEALTH
INDIA CAN HELP
ORLD—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

AUGUST 1998 \$2.00

TIME

Our Filthy Seas

Killer
Surprise Offer

MY SUPER SWEET 16 • THE BIGGEST LOSER • HEROES

MAD^{IND}

We Salute
GLOBAL WARMING!



UNITED STATES



#477 MAY 2007 \$3.99 CHEAP!

madmag.com

**PLUS WE
PUT THE HEAT ON:
LOVABLE STALKERS
DOUBLE-TALKING TEACHERS
ANNOYING AIRPORT SECURITY**

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



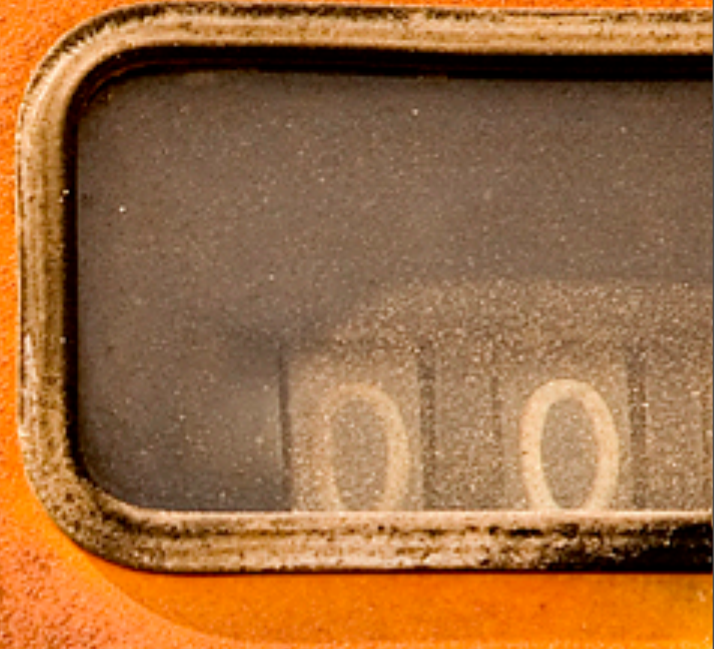
193,000

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



=



1,500,000 barrels
100,000 cars



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%

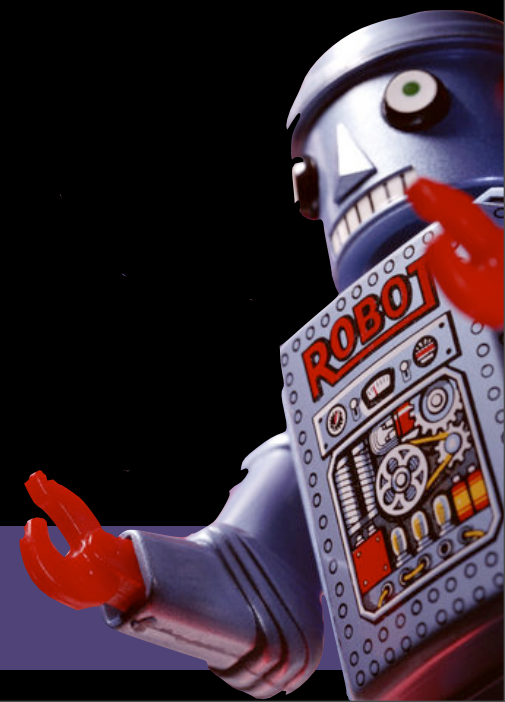
LAWNS: SPILT MILK

17,000,000

gallons/gas



24 March 1989



bleak future: WATER









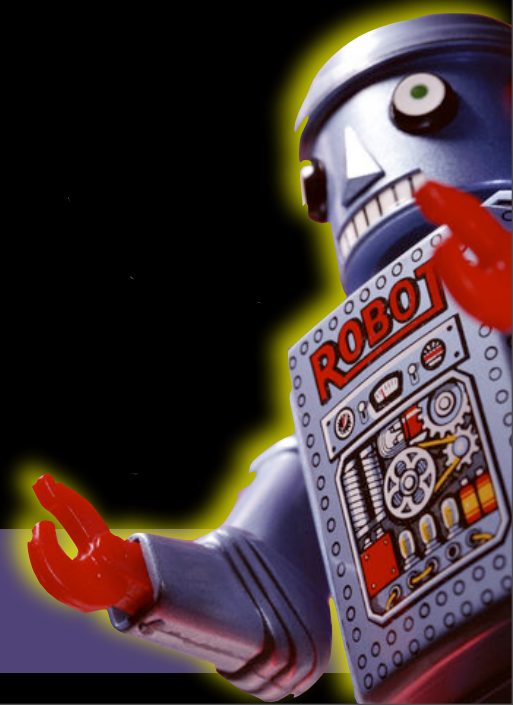
- **Union Issues**
- **3 year ROI**
- **Same price**

WATERLESS URINALS:

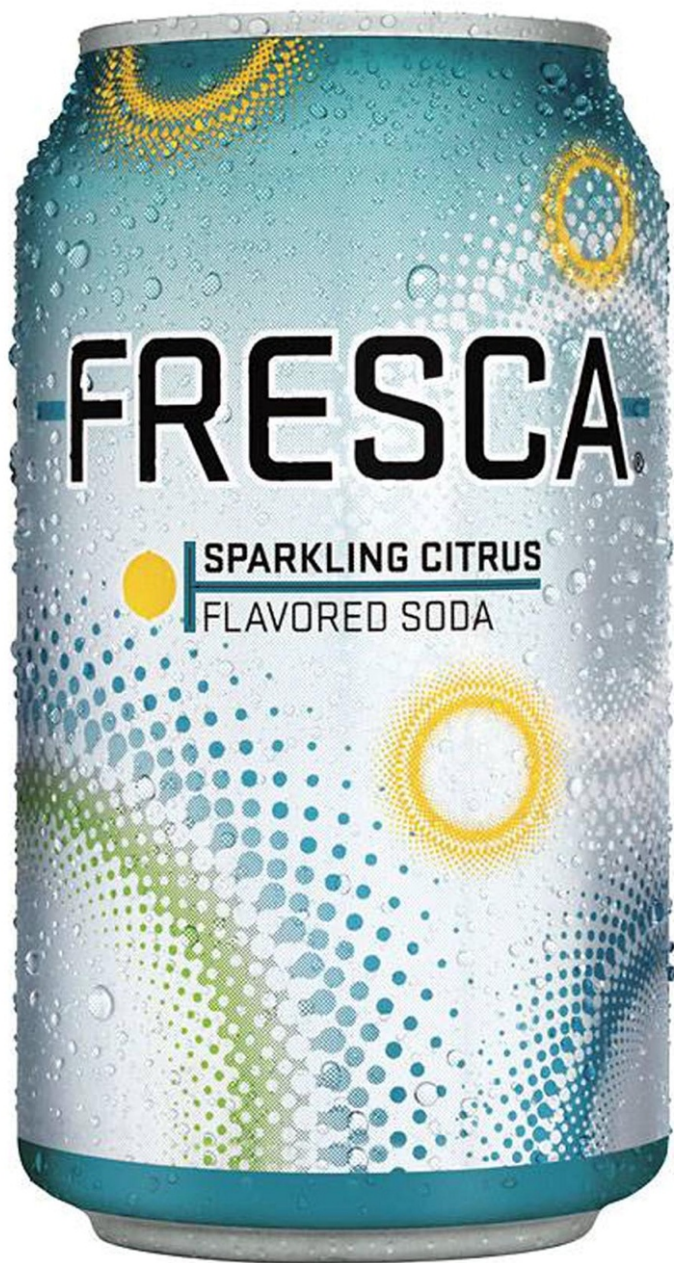
$$\begin{aligned} & 1.0 \text{ gal/flush} \times \underline{32} \text{ flushes/day} \\ & \quad \times 365 \text{ days/year} \\ & = \underline{11,680} \text{ gallons saved} \\ & \times \$ \underline{.0021} \text{ /gallon} = \$ \underline{24.52} \end{aligned}$$





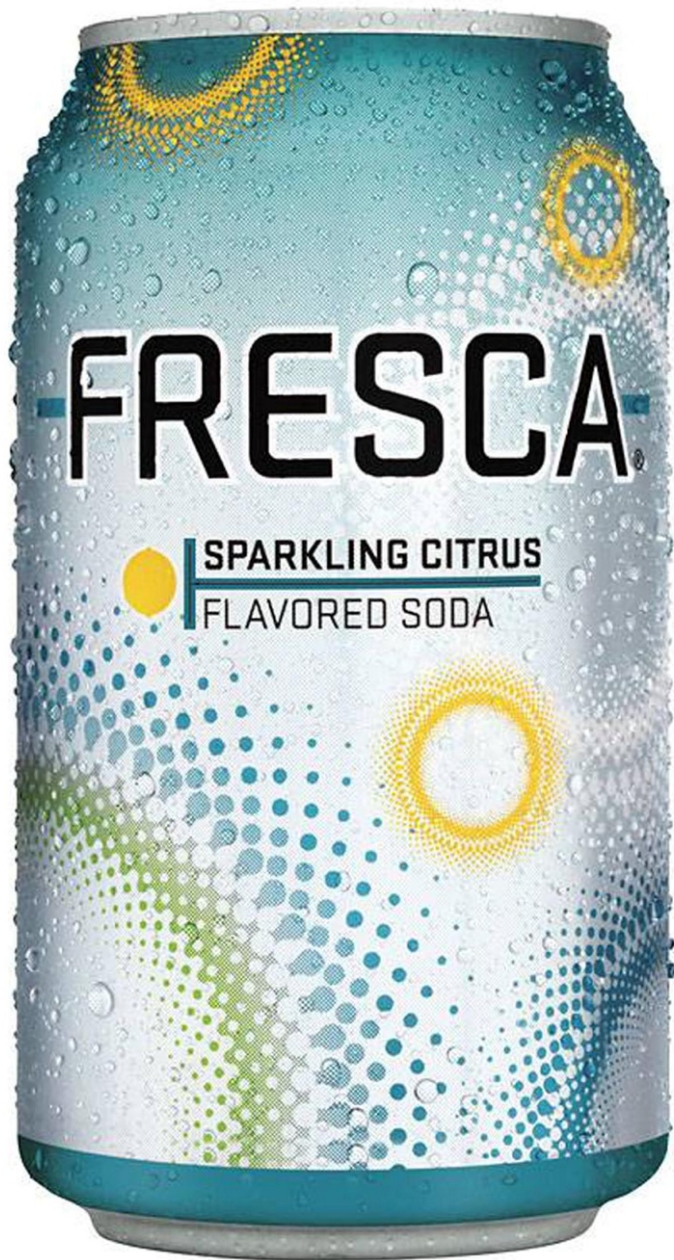


bright future: WATER



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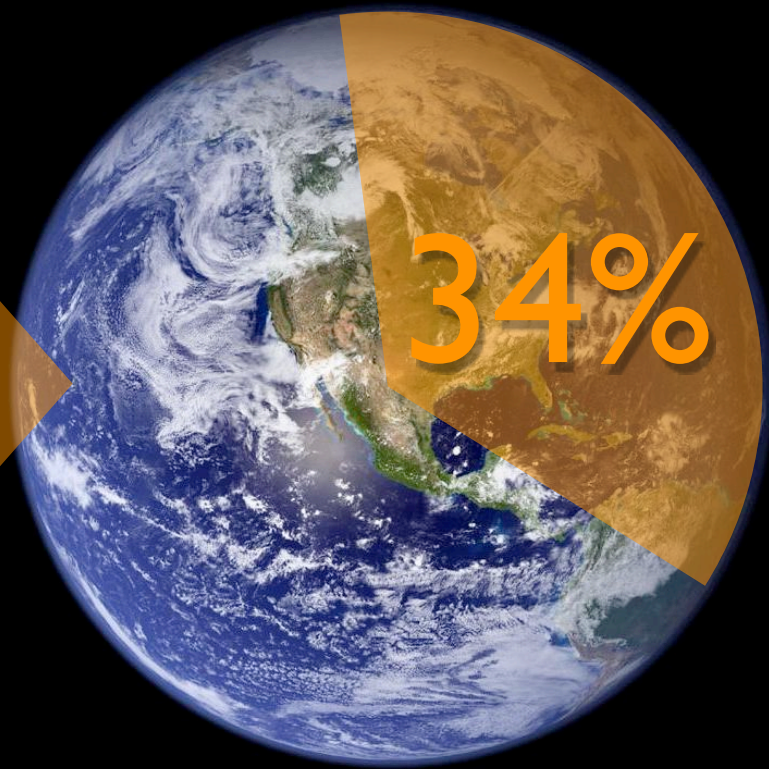
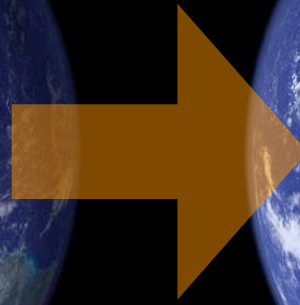
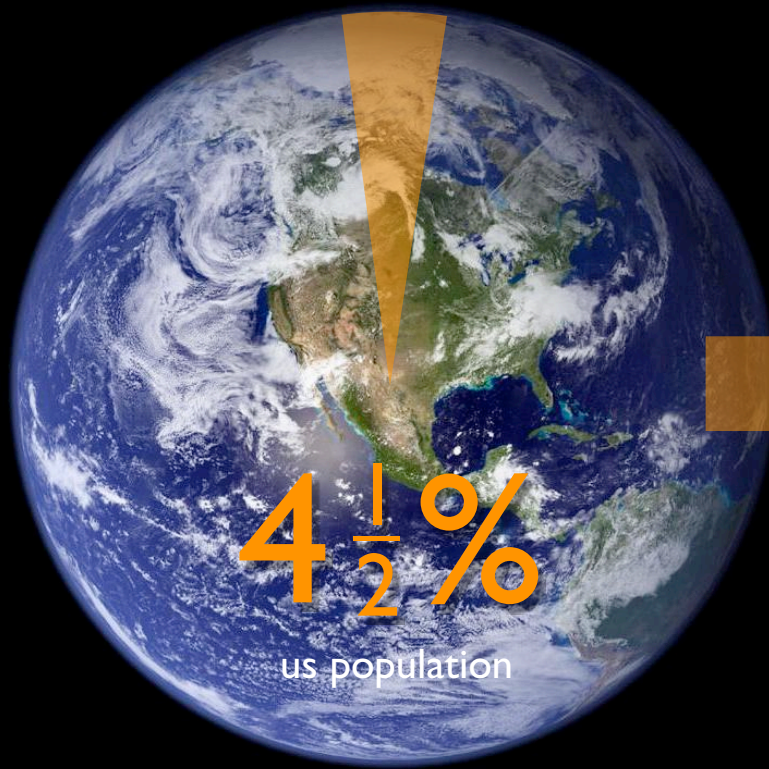




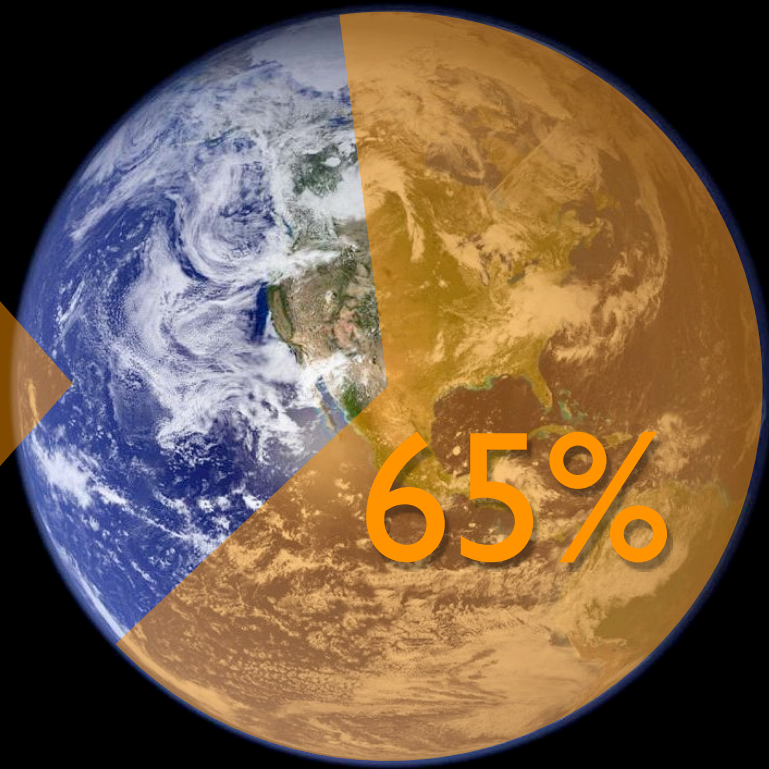
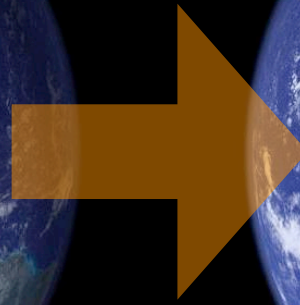
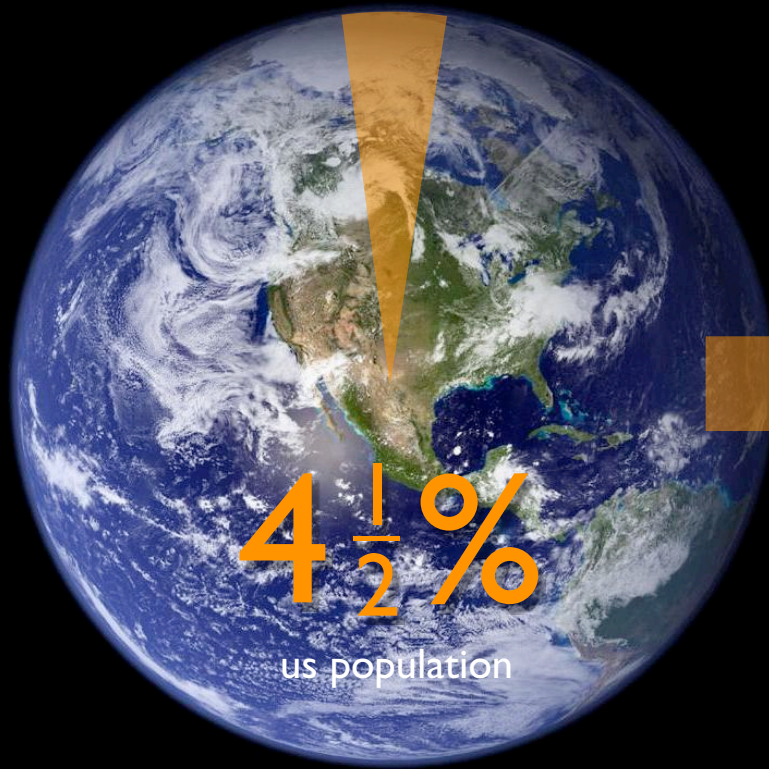


S.GROSS

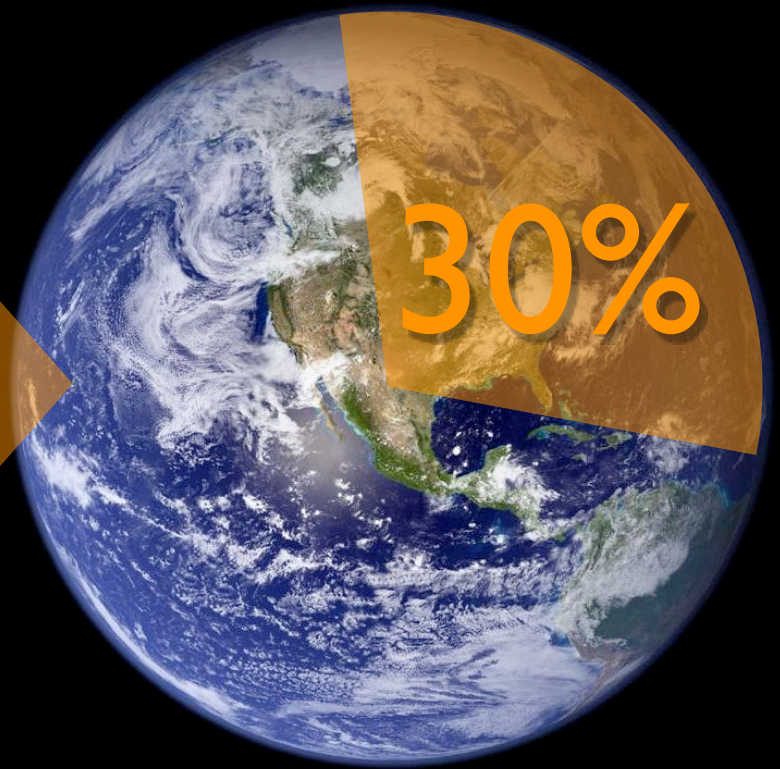
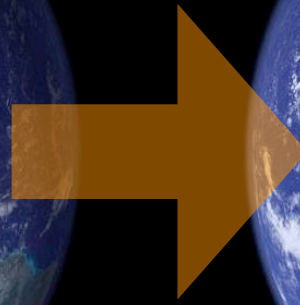
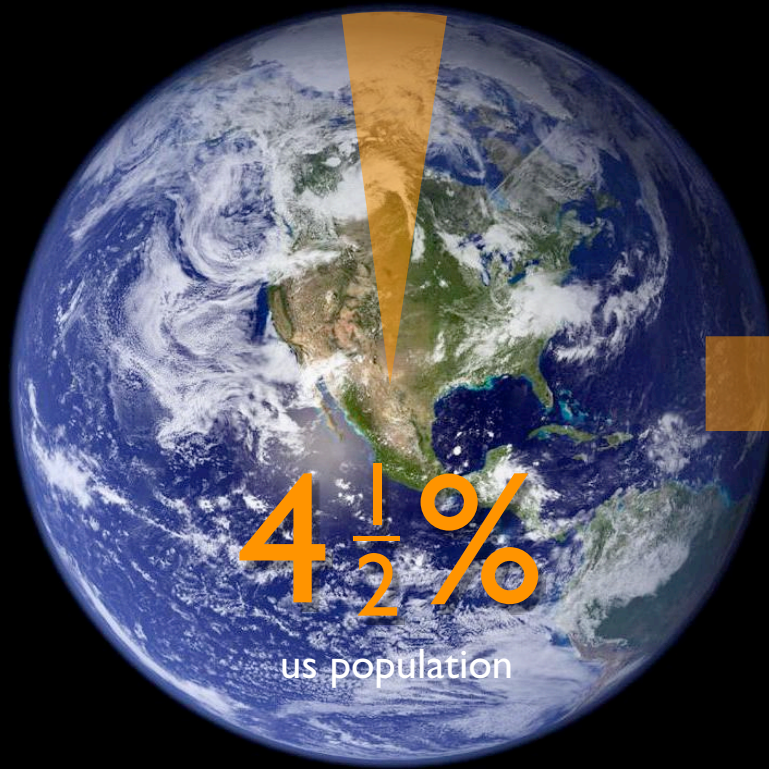




energy use



electricity



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



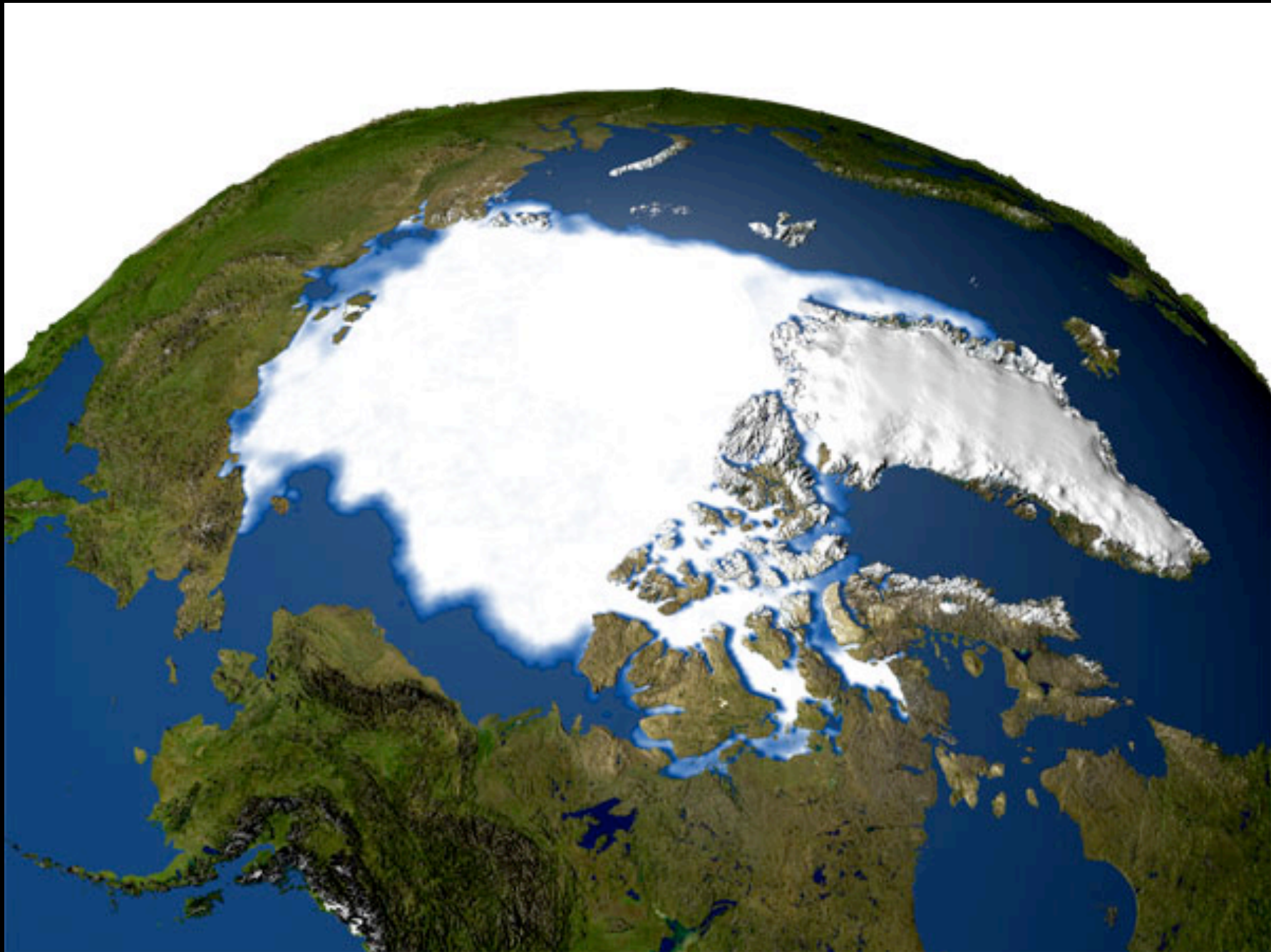
COOL ROOF SAVINGS



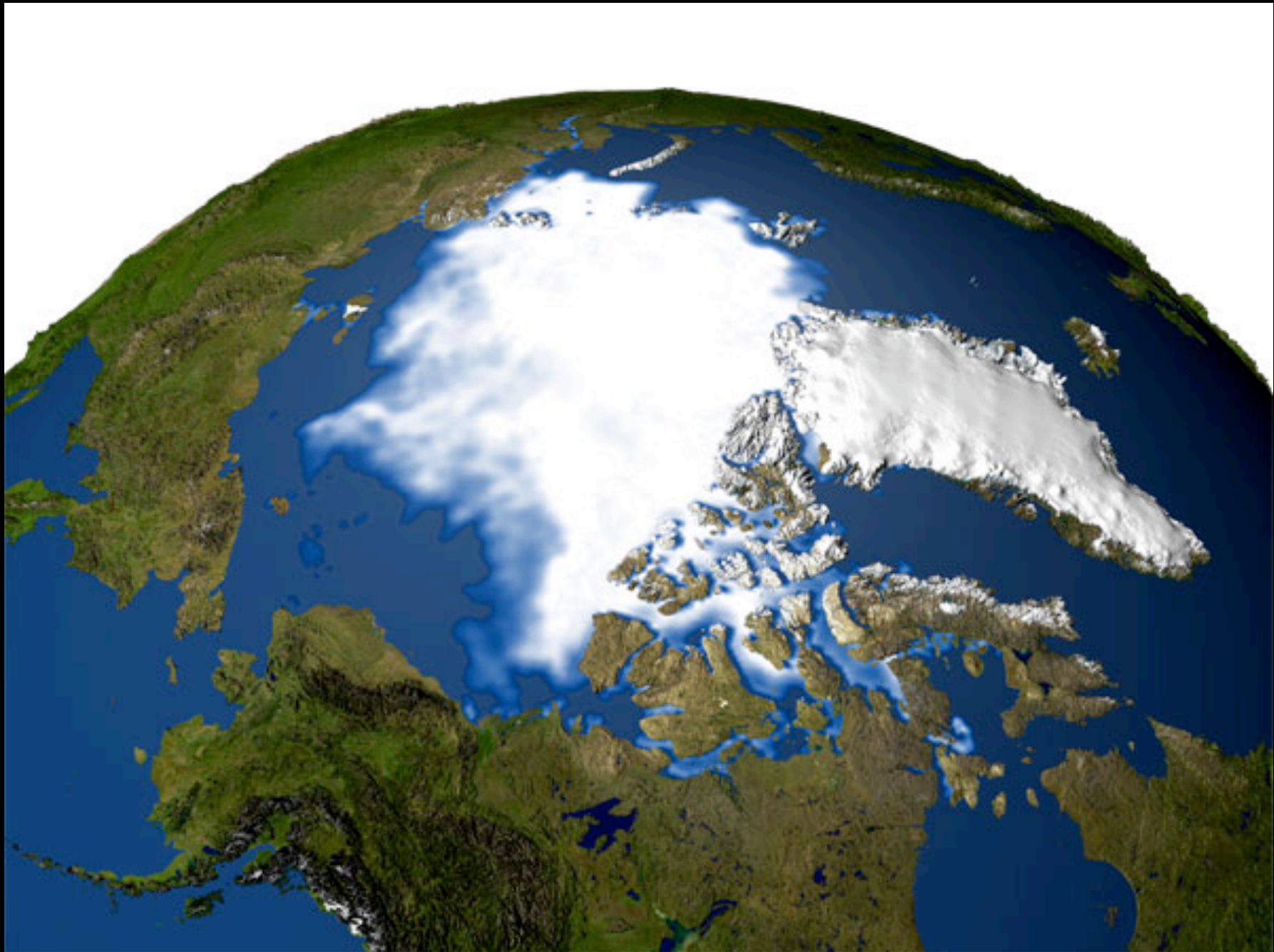
70°
40° C
cooler

A photograph of a green roof with a central white vent. In the background, a wheelbarrow is visible on the roof. The text '40% energy savings' is overlaid on the image.

40%
energy savings

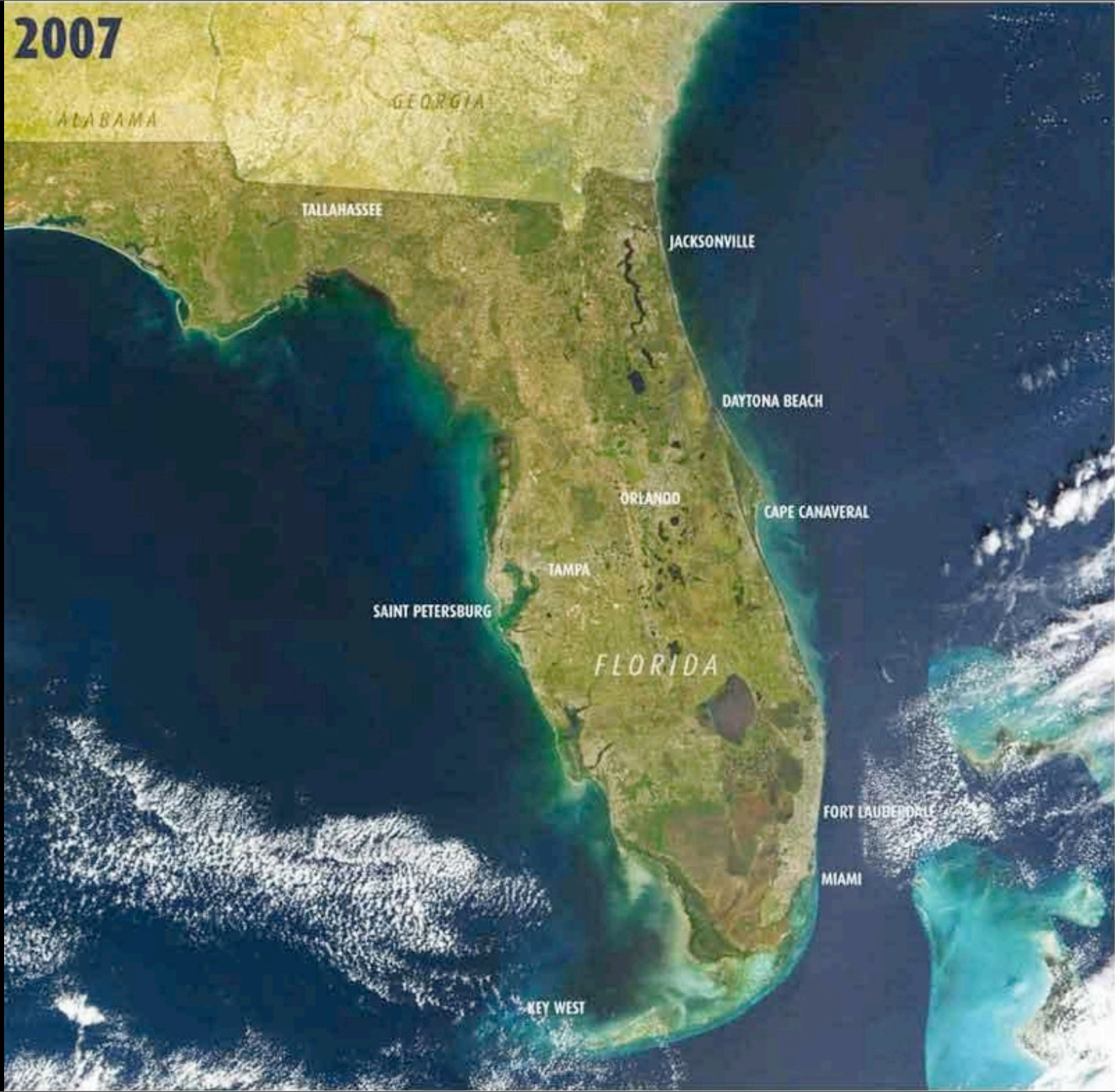


1979



2003

2007



ALABAMA

GEORGIA

TALLAHASSEE

JACKSONVILLE

DAYTONA BEACH

ORLANDO

CAPE CANAVERAL

TAMPA

SAINT PETERSBURG

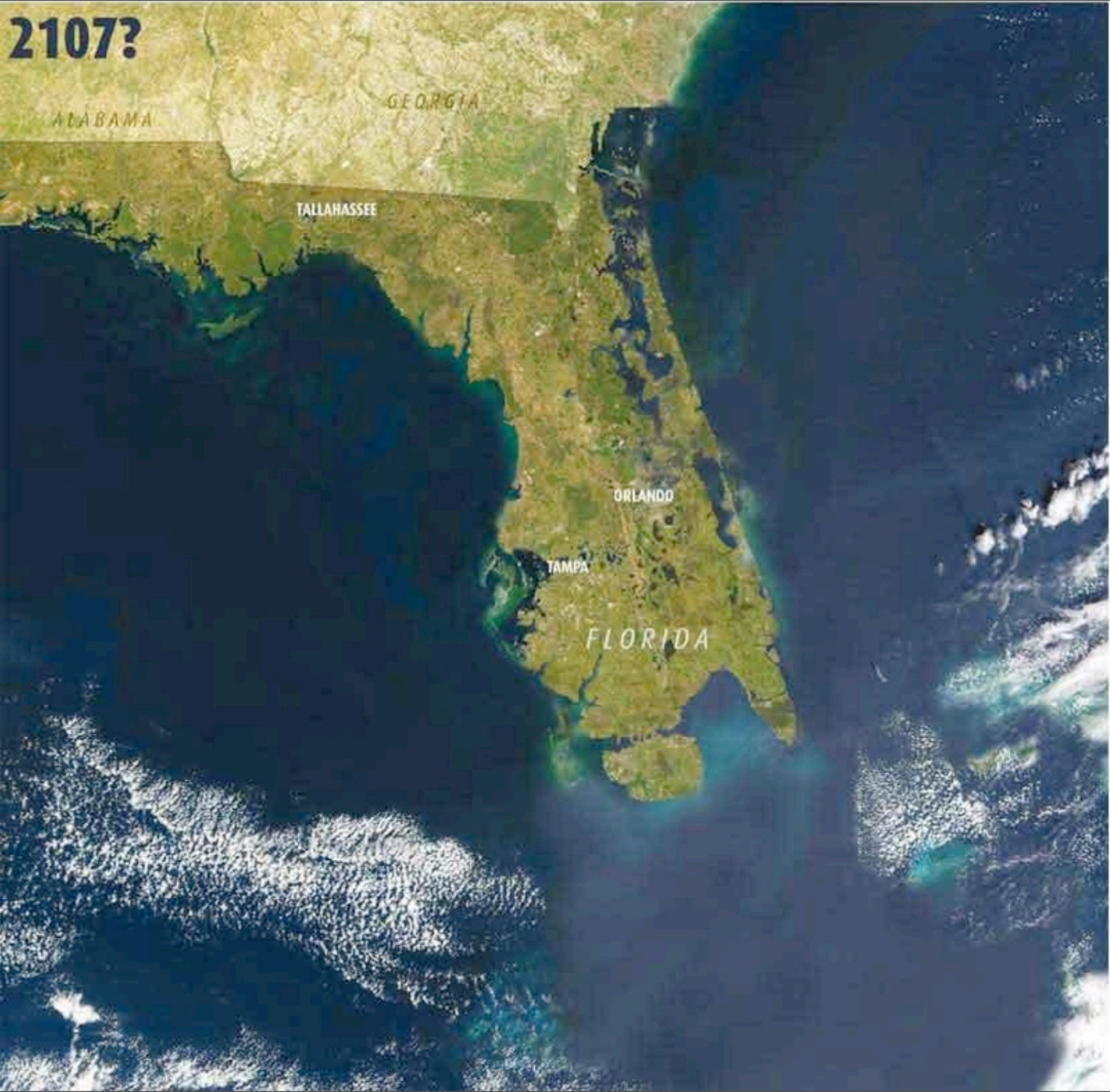
FLORIDA

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

NOVEMBER 21, 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

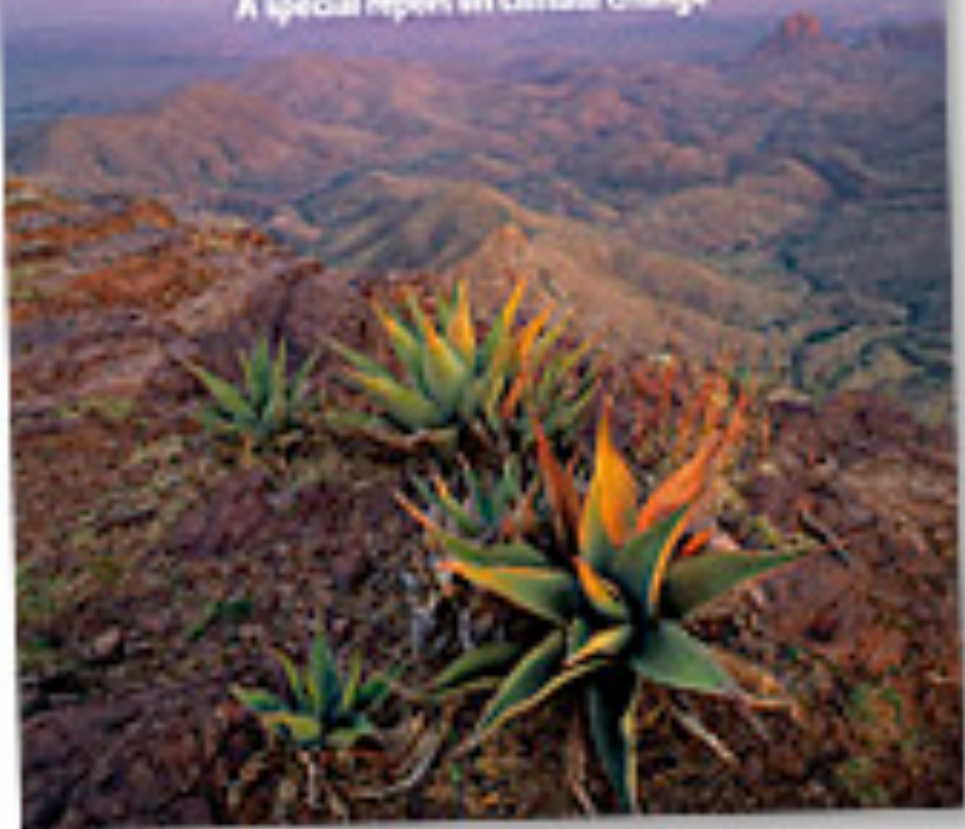
An named in-flight announcement

Catastrophe looms in Doha

Is any a Swedish model?

The heat is on

A special report on climate change



NO EXIT

© Andy Singer



OIL INDUSTRY: 2008

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
 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

straying from research strategy into speculative findings here.

Competitive Enterprise Institute
www.cei.org

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
 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. ~~It is possible~~
 024
 025
 026 From "Discovery" to "Comparative Analysis"
 027 Because of the scientific accomplishments of USGCRP and other research programs during the
 028 last decade, a period that could be termed a productive "period of discovery and characterization,"
 029 the CCRI, in coordination with the USGCRP, will move into a new "period of comparative
 030 analysis of response strategies." In this new phase of the climate science programs, information
 031 that compares the potential consequences of different responses to global changes, including
 032 climate change, will be developed in a form useful to national debate and decisionmaking. ~~This~~

understanding
 reduce the significant remaining uncertainties associated with human-induced climate change and

might allow
 focus of pursuit

Competitive Enterprise Institute
www.cei.org

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 warm scientifically inconclusive

PHILIP COONEY

Advisor, White House / Ex



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

JIM INHOFE

Senator (R), Oklahoma



WE THE PEOPLE



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

MYRON EBELL

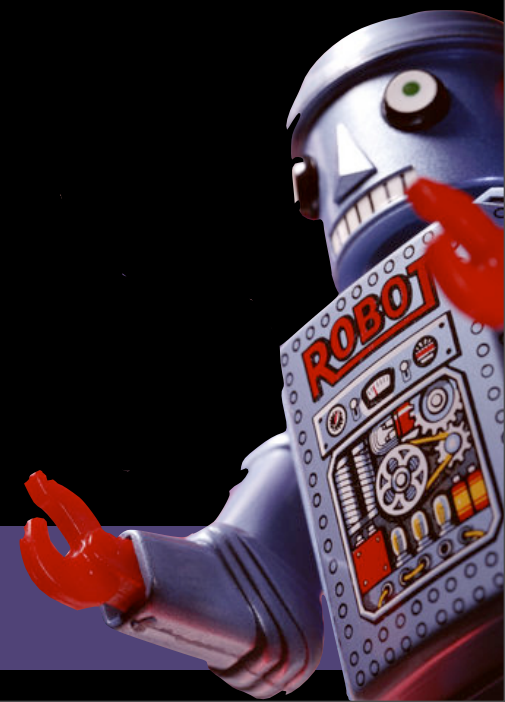
Director, Competitive Enterprise Institute



“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

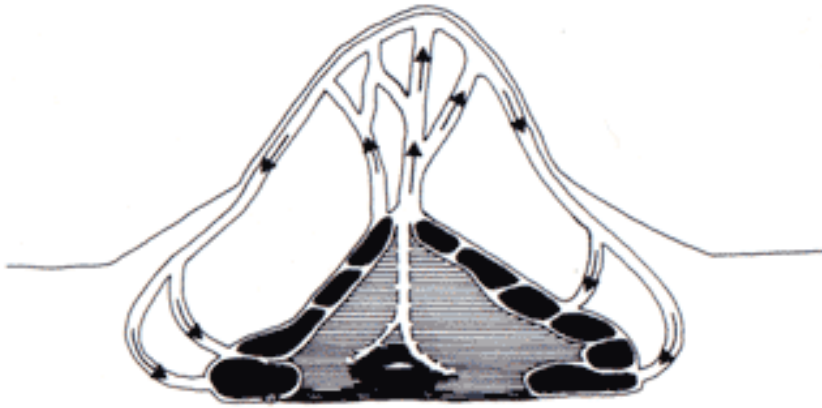
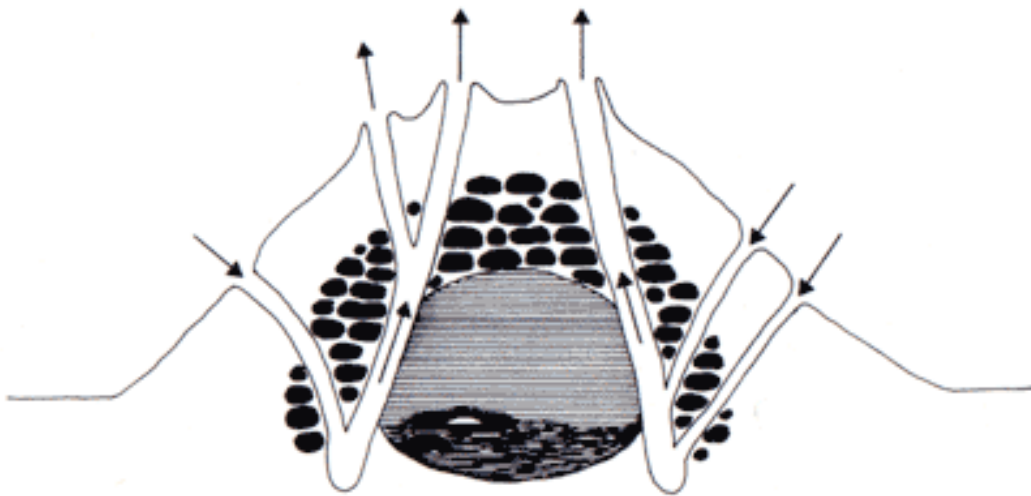










A. *Macrotermes michaelseni*B. *Macrotermes subhyalinus*

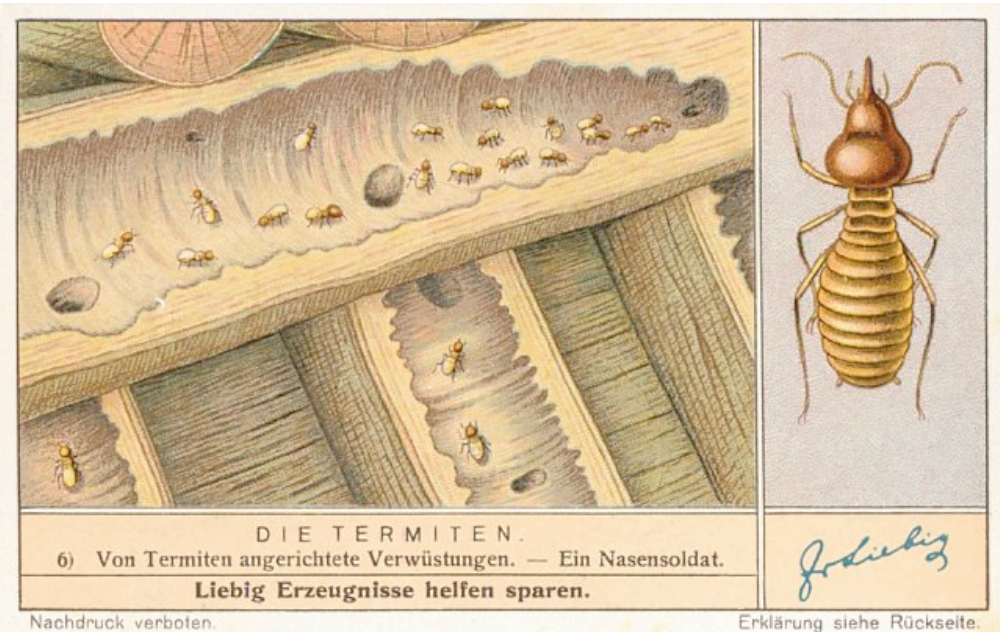
↗ Direction of air movement

● Fungus combs

▨ Nursery galleries

○ Royal cell

1 m



Nachdruck verboten.

Erklärung siehe Rückseite.





bright future: ENERGY

WILDERNESS



38 percent

NORTH AMERICA

28 percent

AFRICA



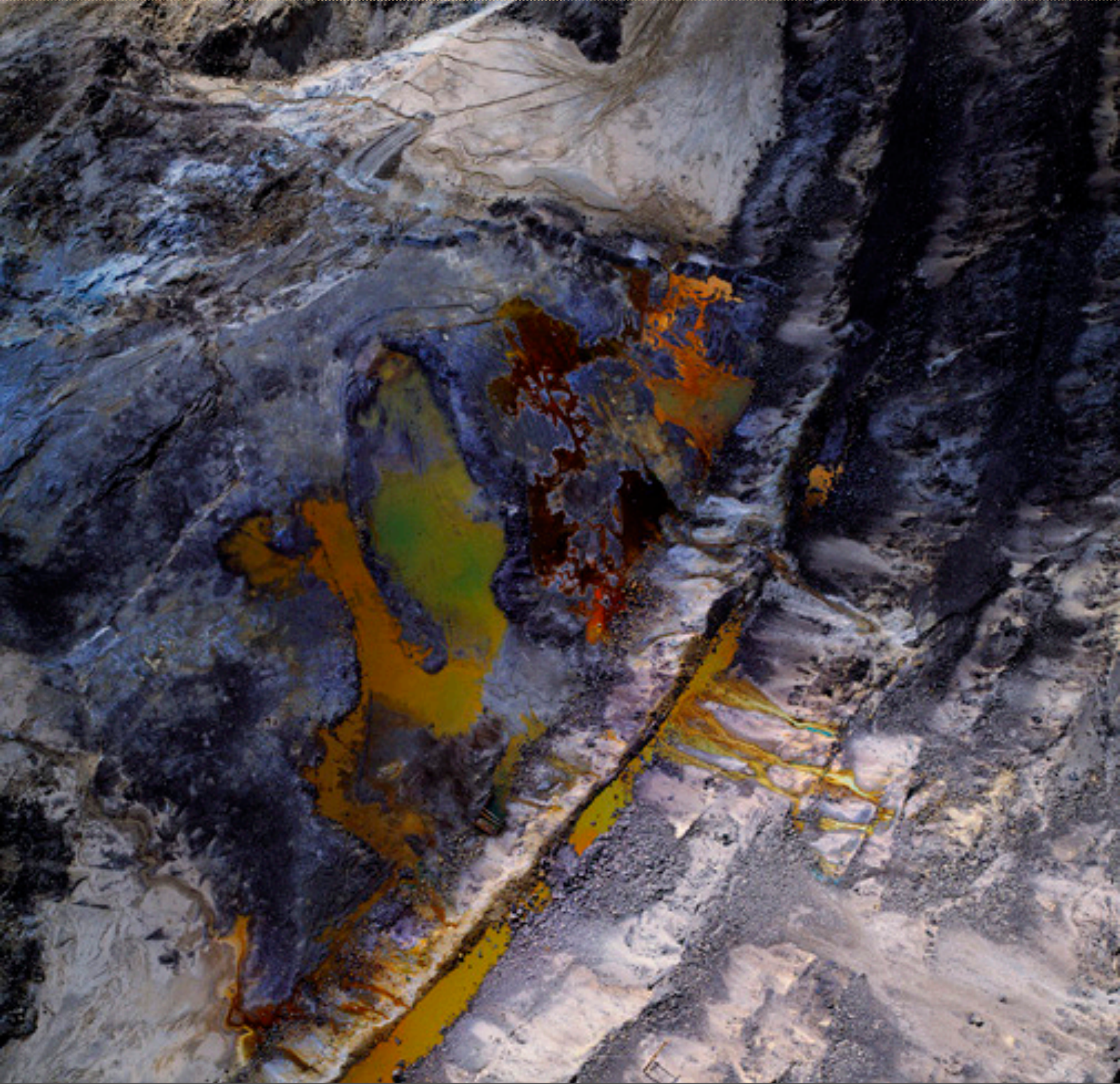




106,000 cans
CONSUMED EVERY
30 seconds







2

times

the size of Texas



the Pacific Gyre
GARBAGE PATCH

buildings of the world
consume

40%

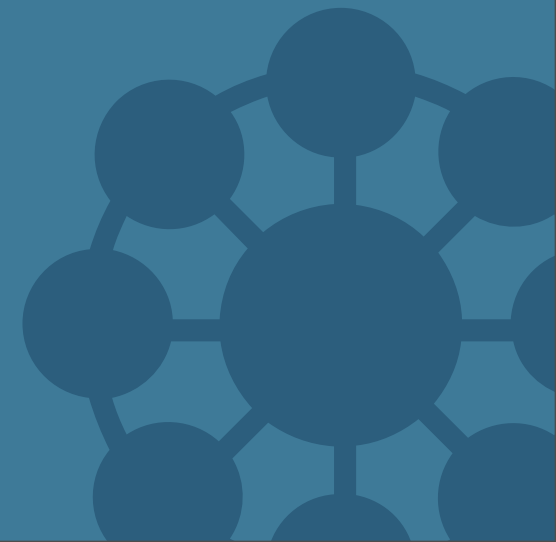
of the world's energy & materials

17%

of our water

25%

of the wood harvested



PROBLEM 1
Few designers
UNDERSTAND
how to
EXPLAIN
this to their clients



EXPLAINING SUSTAINABILITY:

every

MATERIAL & PRODUCT

has a

LIFECYCLE

and some parts of that are...



EMBODIED ENERGY:

**All of the energy:
DIRECT & INDIRECT
used to
extract, manufacture, transport
and install
a material or product.**



BY PRODUCTS:

The resultant materials, both
GOOD & BAD
caused from the
**extraction, manufacture, transport
and installation**
a material or product.



WASTE:

A man-made

LABEL

used to describe

potentially valuable resources

we have yet to find a use for.



there's
no such thing as
WASTE

LIFECYCLE:

a look at the entire life of a

MATERIAL or **PRODUCT**

from

**extraction, manufacture,
transport & installation**

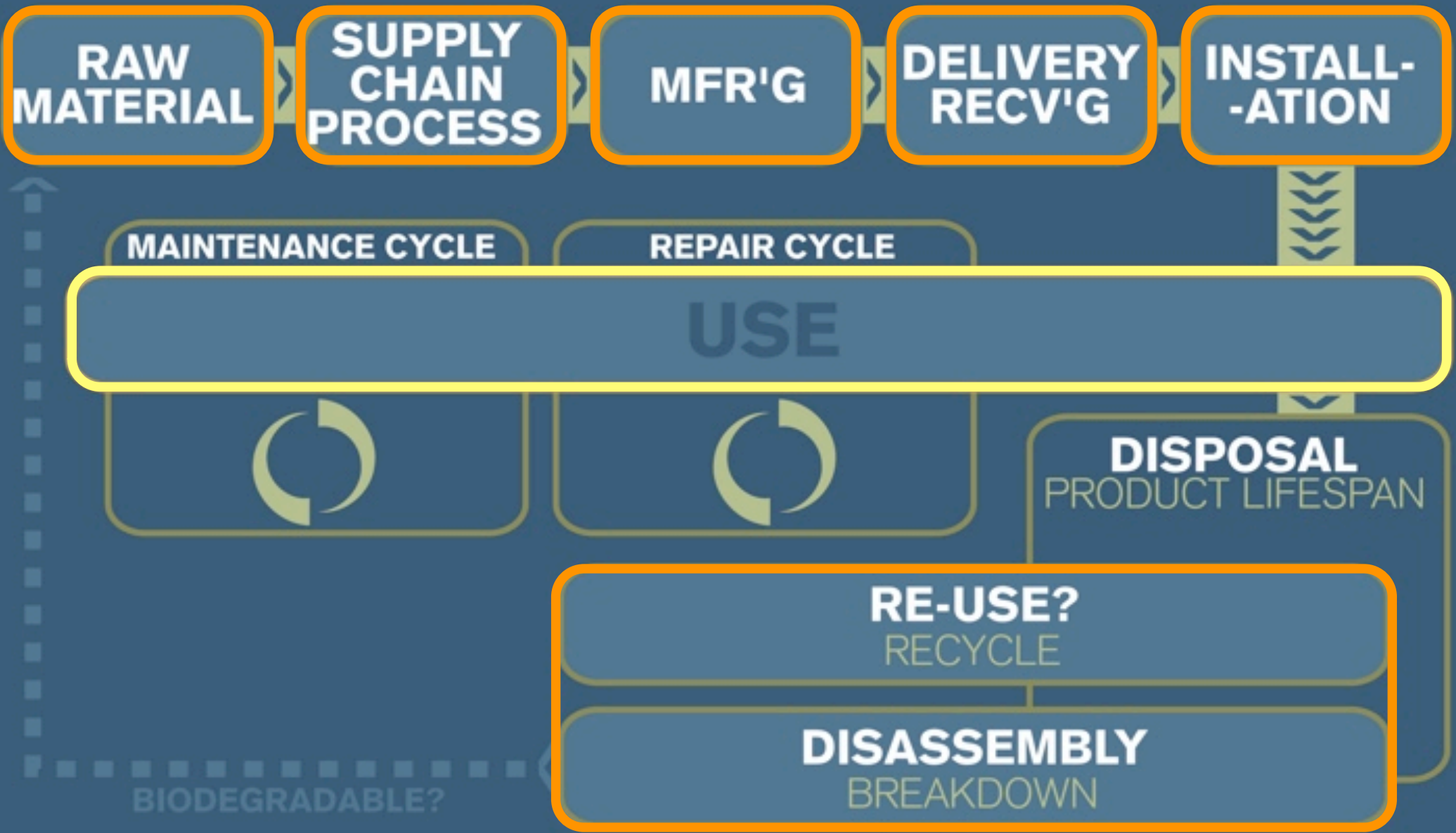
through

USE

and including

disposal





THE LIFECYCLE OF ANY PRODUCT

HOW DO WE EMBRACE SUSTAINABILITY WITH DESIRE?

AT EACH STAGE of the LIFECYCLE:

ENERGY
is provided

ENERGY
is lost



AT EACH STAGE...

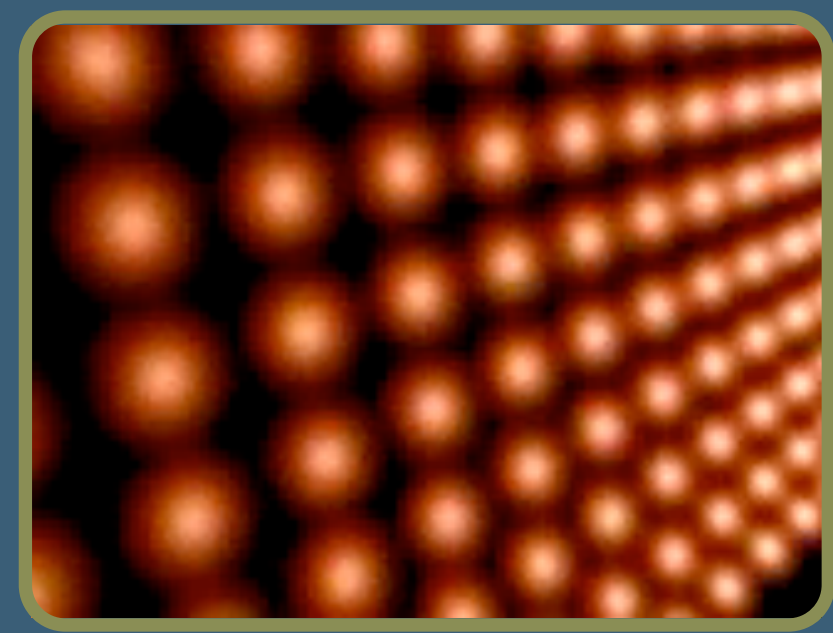
OPPORTUNITIES

AT EACH STAGE of the LIFECYCLE:

BYPRODUCTS
are given off

BYPRODUCTS
are lost

(Some call this WASTE)



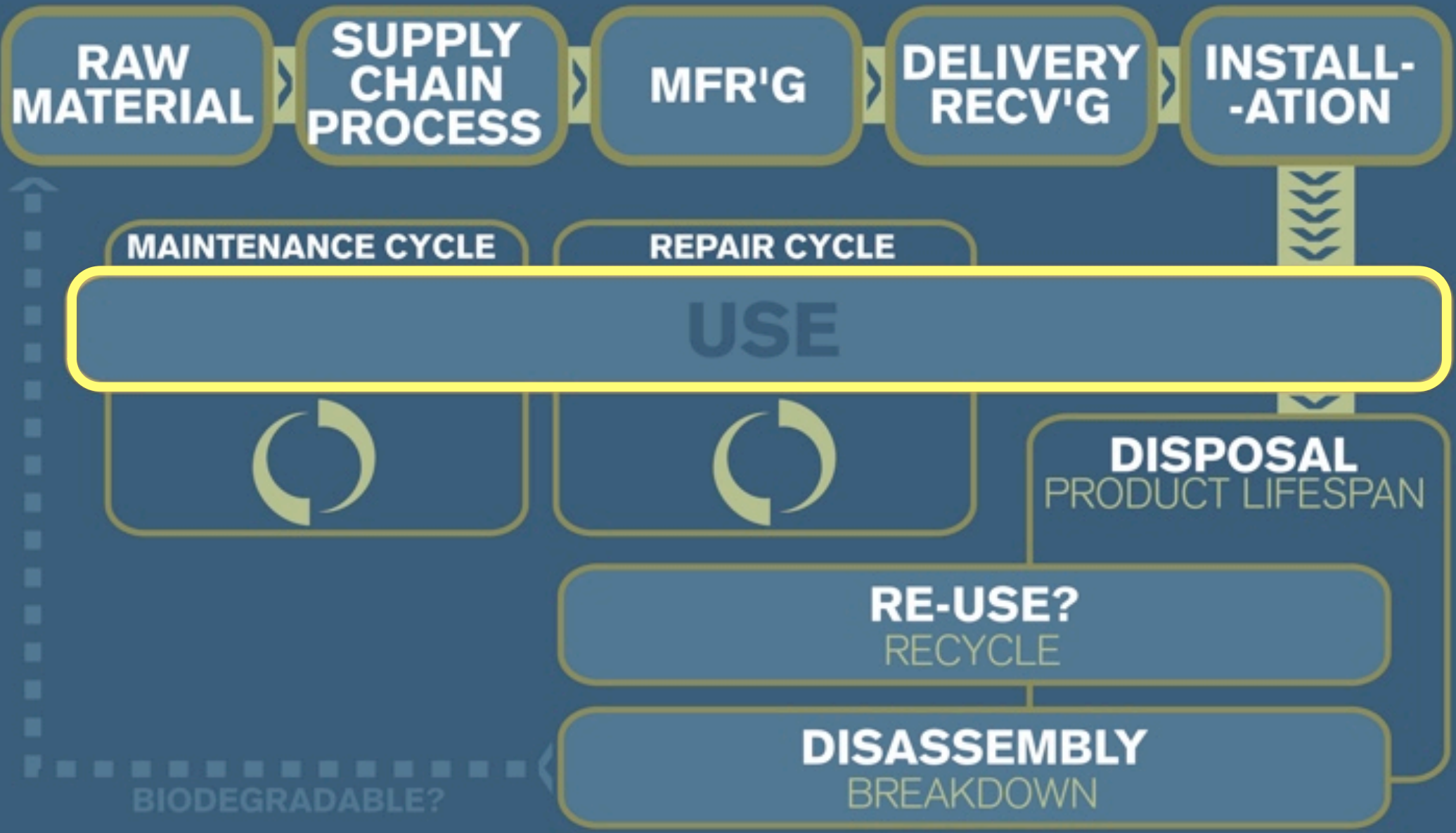
AT EACH STAGE...
OPPORTUNITIES

**Most designers only
concern themselves with
USE**



AT EACH STAGE...

OPPORTUNITIES



THE LIFECYCLE OF ANY PRODUCT

HOW DO WE EMBRACE SUSTAINABILITY WITH DESIRE?

AT EACH STAGE of the LIFECYCLE:

ASK

how can we use this to

INSPIRE OUR DESIGN

and

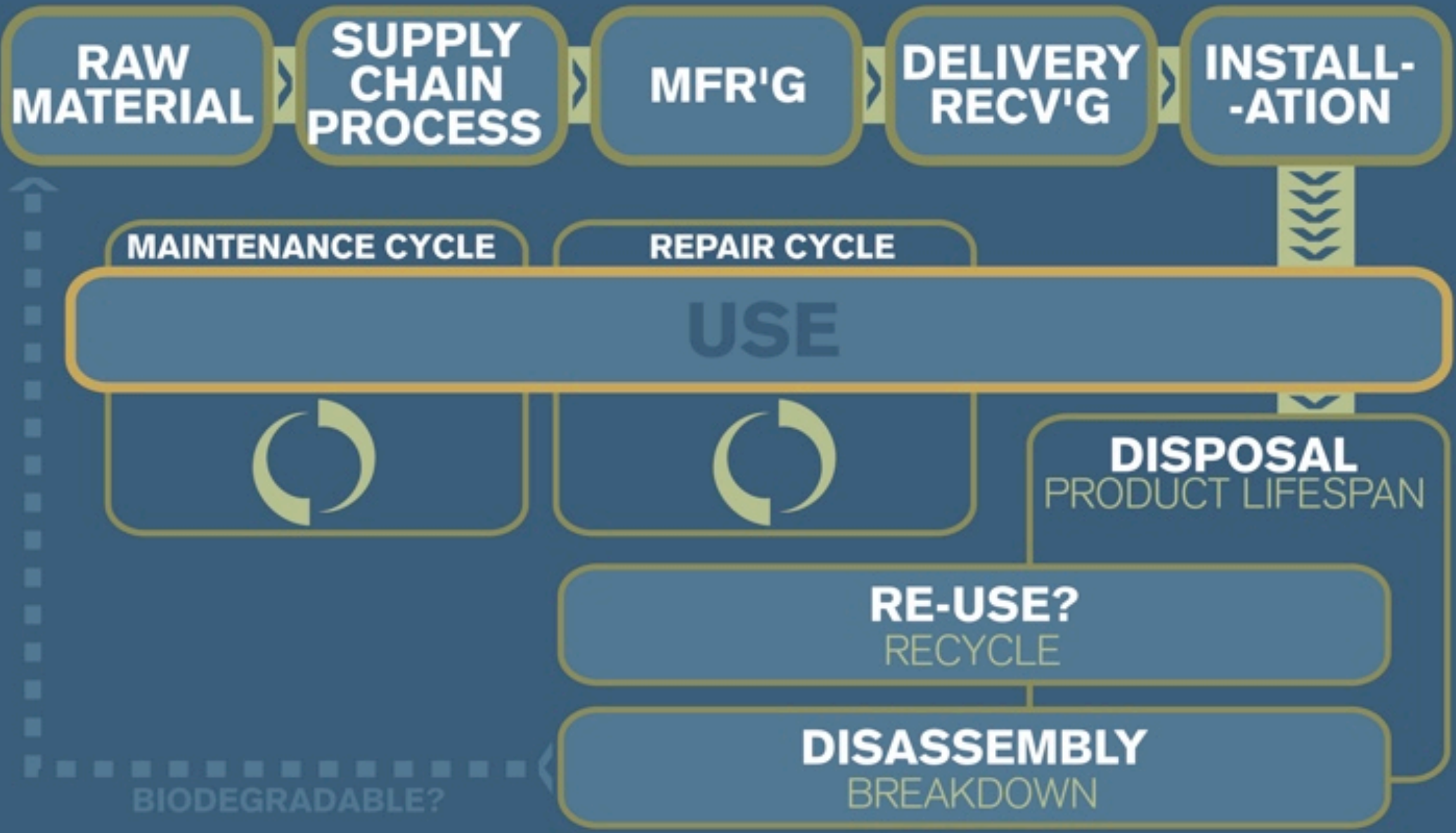
PROTECT OUR RESOURCES



AT EACH STAGE...

OPPORTUNITIES

ADDING SUSTAINABILITY TO YOUR DESIGNS



THE LIFECYCLE OF ANY PRODUCT

HOW DO WE EMBRACE SUSTAINABILITY WITH DESIRE?

CURRENT PARADIGM:

when
BYPRODUCTS
are left unused,
we call this
CRADLE TO GRAVE
(Some call it Industry)

**AT EACH STAGE...**

OPPORTUNITIES

CURRENT PARADIGM:

when we think in terms of
DISPOSAL
we call this
CRADLE TO GRAVE
(Some call it Industry)

**AT EACH STAGE...**

OPPORTUNITIES

NEW PARADIGM:

**IF we think in terms of
REUSE and LIFECYCLE
we call this
CRADLE TO CRADLE**



AT EACH STAGE...

OPPORTUNITIES

INSPIRED BY CRADLE TO CRADLE THINKING



MIRRA CHAIR BY HERMAN MILLER

CHANGE YOUR THINKING

YOUR (NEW) PRIORITIES TOWARDS FINISHES:

- **natural / non-toxic**
- **low embodied energy (includes salvaged)**
- **sustainably harvested**
- **recyclable/biodegradable**
- **recycled content**
- **locally harvested**
- **durability**



we should not
KILL
our clients

CHANGE YOUR THINKING

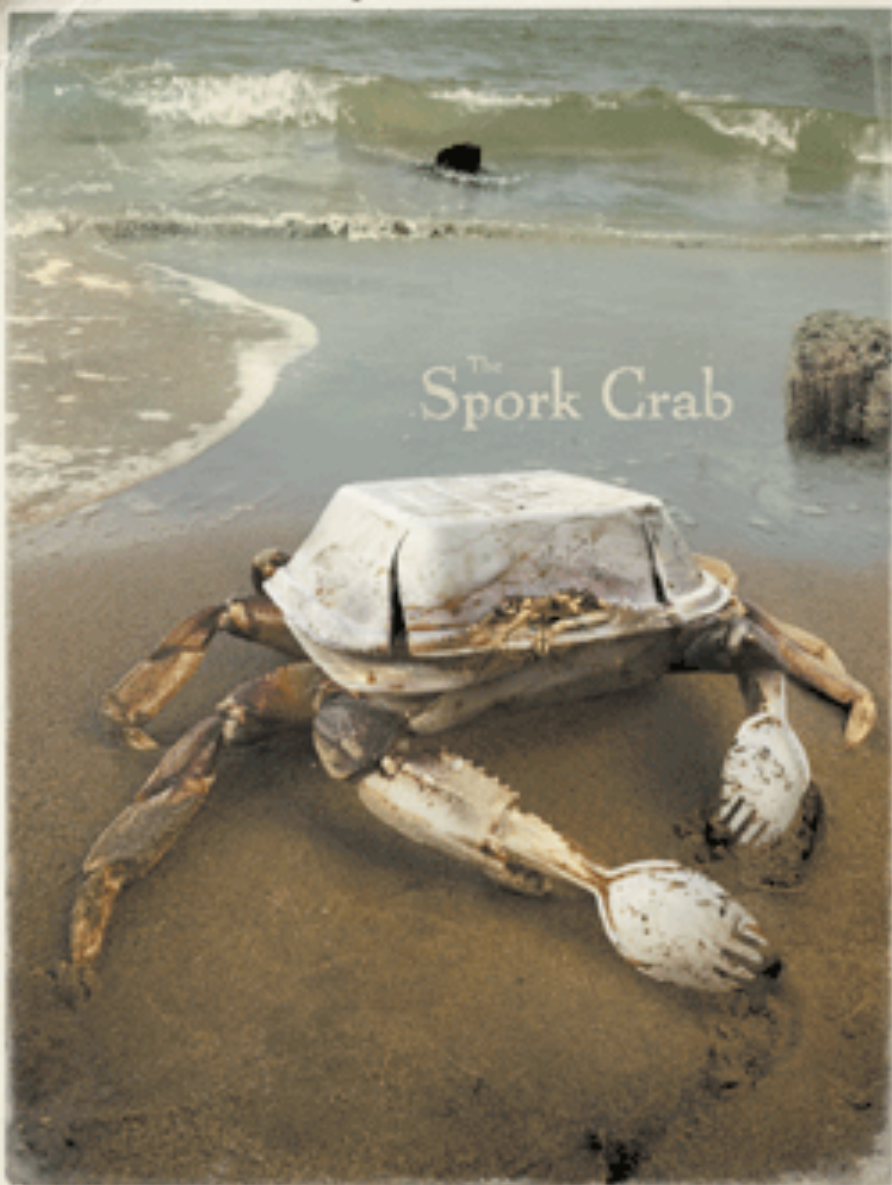
YOUR (NEW) GOALS (shown in priority):

- indoor environmental quality
- water efficiency
- site selection & planning
- energy reduction
- material & resource efficiency
- community building



these are in
ADDITION
to budget & schedule

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

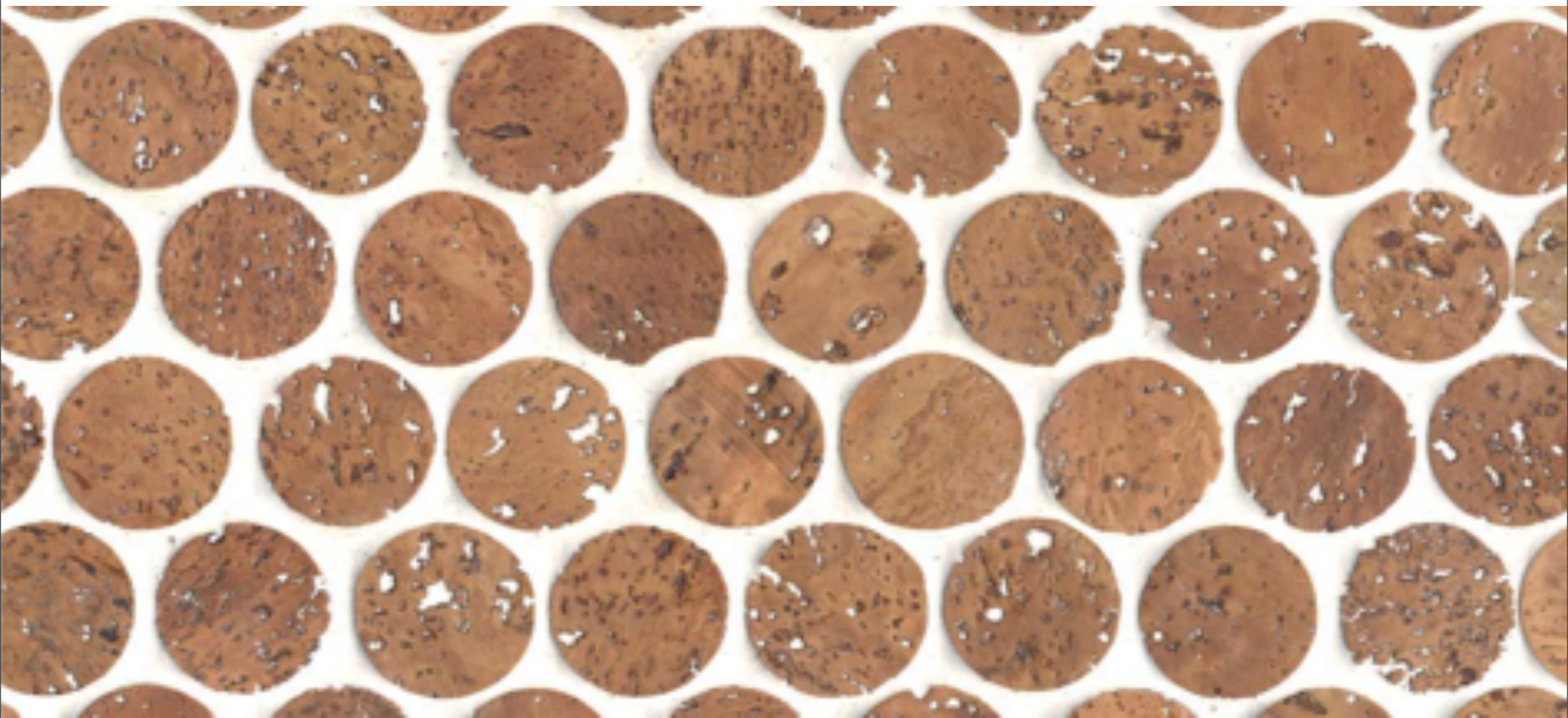
CALIFORNIA COASTAL CLEANUP
September 17th • 9am-noon

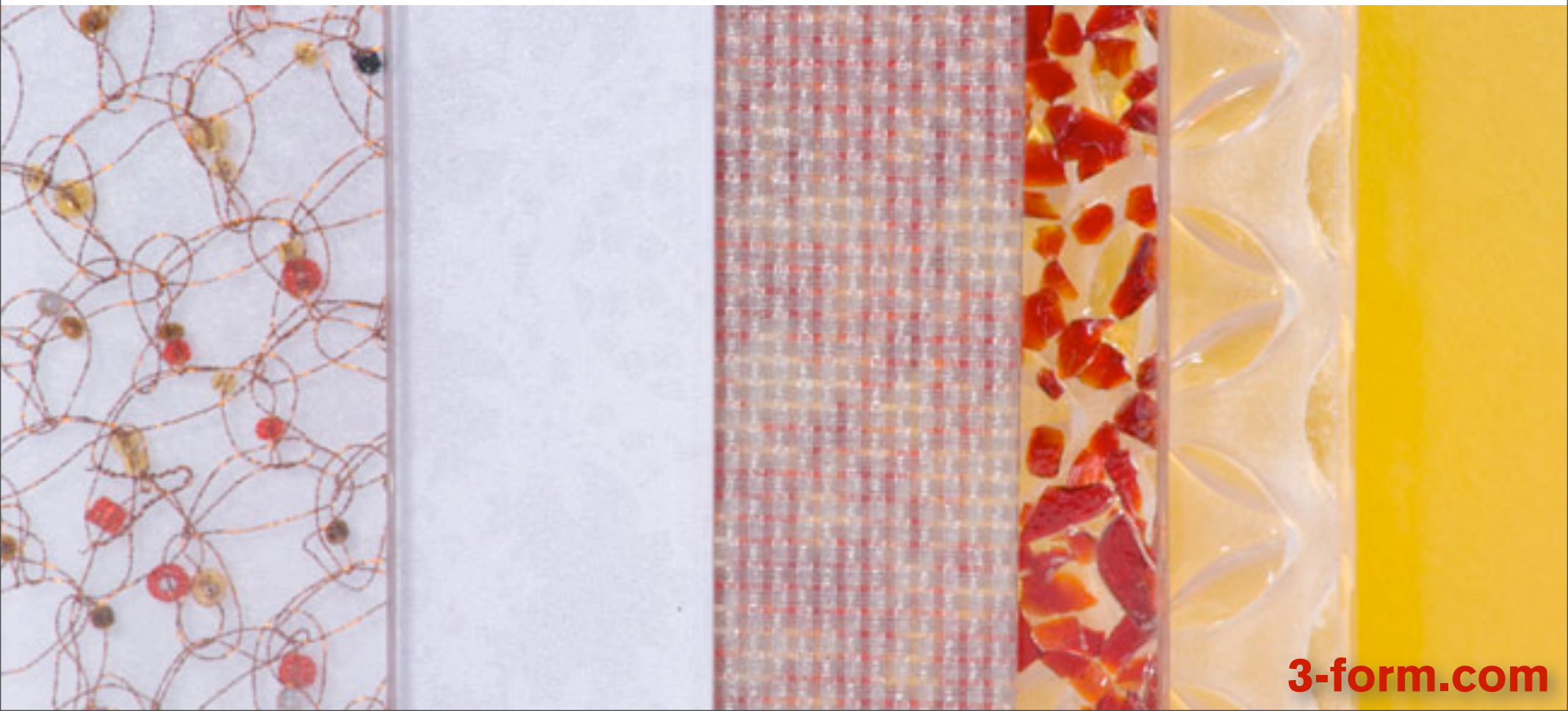
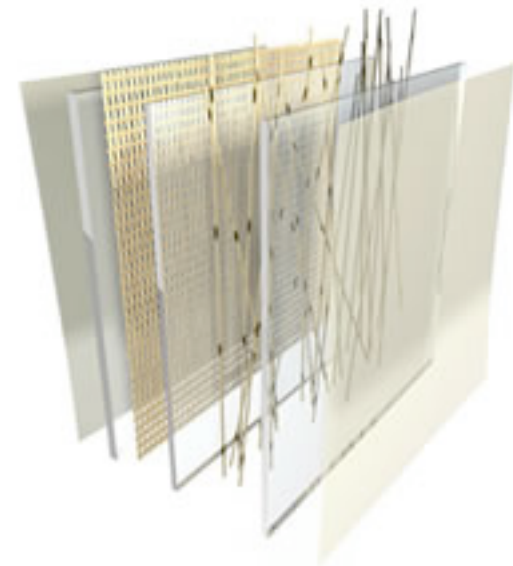
bleak future: MATERIALS

























bright future: MATERIALS



3 percent
IN 1980



9 percent
IN 2003

22 percent

higher on
S.A.T.'s



dwell

"Guilt is not a way to approach environmentalism." —Eric Corey Freed

dwell

Design Like
You Give a Damn
Flooring With a
Conscience

AT HOME IN THE MODERN WORLD

Green Goes Mainstream
Sustainable Homes of Tomorrow, Today

"[Pergo] is the cockroach of wood flooring... it offgasses you in your sleep."



Vol. 6

8

September 2006

September 2006
\$4.99 U.S. / \$6.99 Canada

www.dwell.com



6 9 >

0 70992 3305 4

Tree Houses
Grow Up

Portrait by Noah Webb

A Note on Our Expert: Eric Corey Freed, principal of San Francisco-based firm organicARCHITECT, designs houses that incorporate sustainability as a matter of course. "I'm not saying, 'Oh, Mother Earth is dying, please help the butterflies'—because no one would respond to that," he says of his approach to design. "For me, sustainability is always a very logical, common-sense thing.

Why fill a home with toxic materials, or use materials that hurt economies or cultures? It just seems silly. Inspired by holistic predecessors such as Bruce Goff and Frank Lloyd Wright, Freed spreads his green gospel through various college classes, numerous publications, and a monthly "ask the expert" column on the Greener Buildings website, www.greenerbuildings.com.

It's a familiar scenario. You're standing in the checkout line at the supermarket watching your goods trundle down the belt toward the cash register when suddenly the checkout clerk asks, "Paper or plastic?" and you're stuck: Do you contribute to worldwide deforestation

engineered wood (where thin strips of wood are lain over each other in alternating directions then compressed) to reclaimed wood to wood laminate (plywood with a photo of wood adhered on top)—all of which have diverse levels of green credibility.

Whatever you do, however, once your sustainable solution is installed underfoot, don't forget to apply an earth-friendly product to its surface. "The worst thing is to have a green floor and then put some nasty oil-based toxic lacquer on it," Freed warns. And feel free to toss your chemical cleansers; all you really need are water, white vinegar, and a mop. ▶



September 2006 Dwell 95



bleak future: AIR QUALITY

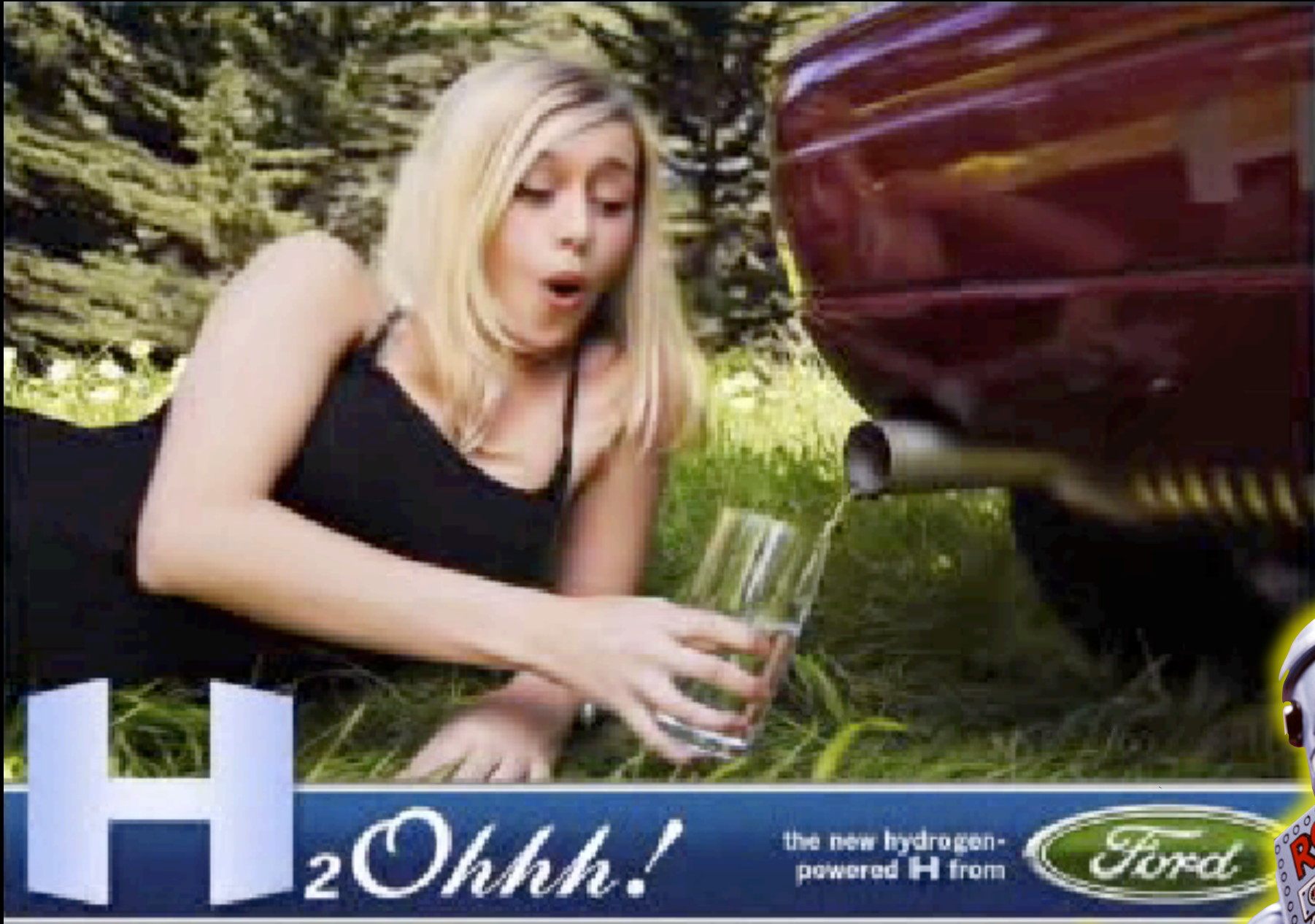












H₂

Ohhh!

the new hydrogen-powered H from

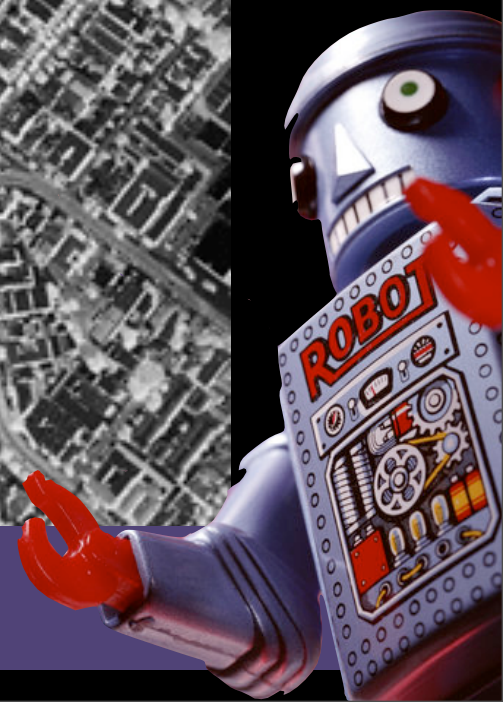


bright future: AIR QUALITY





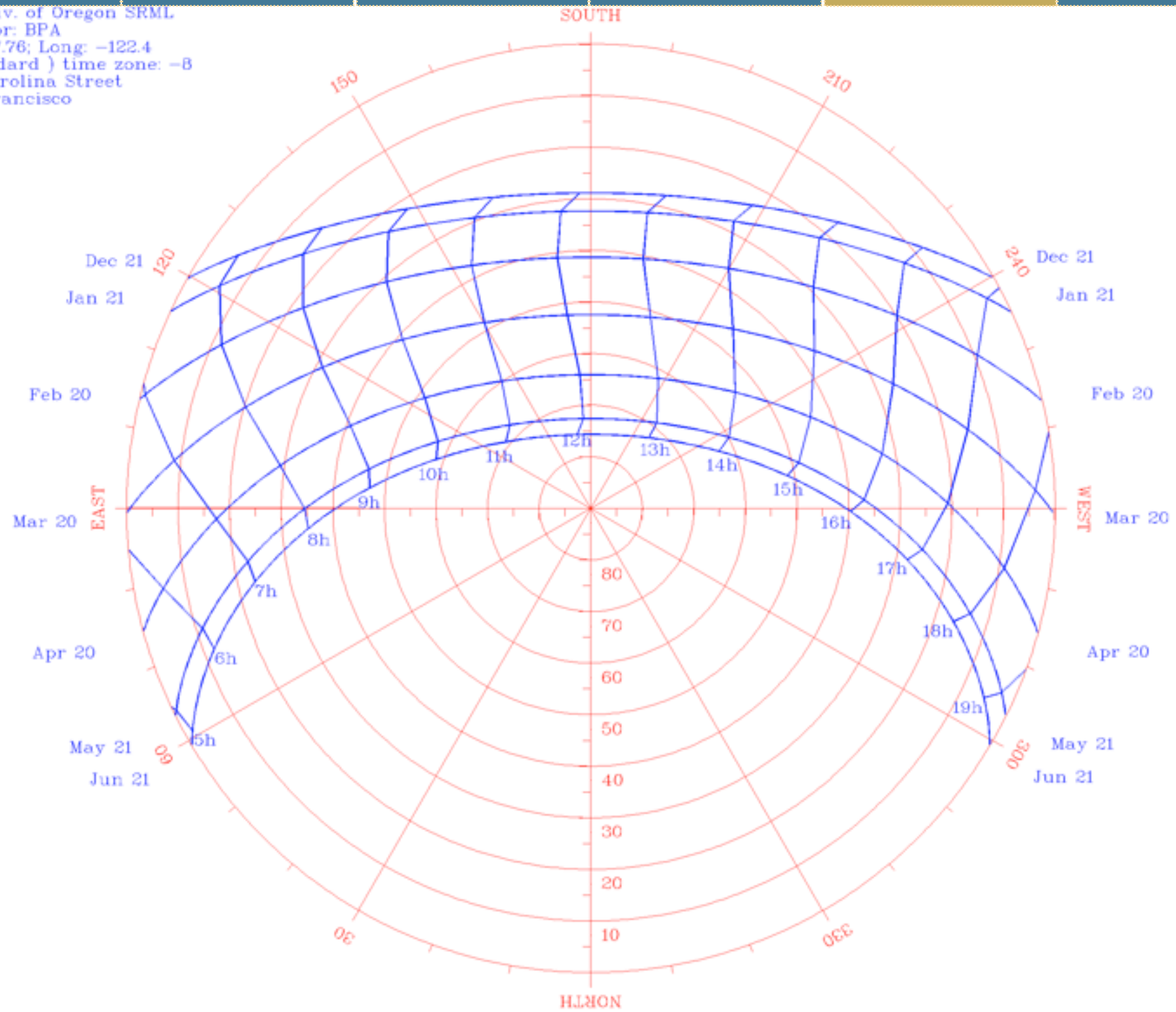


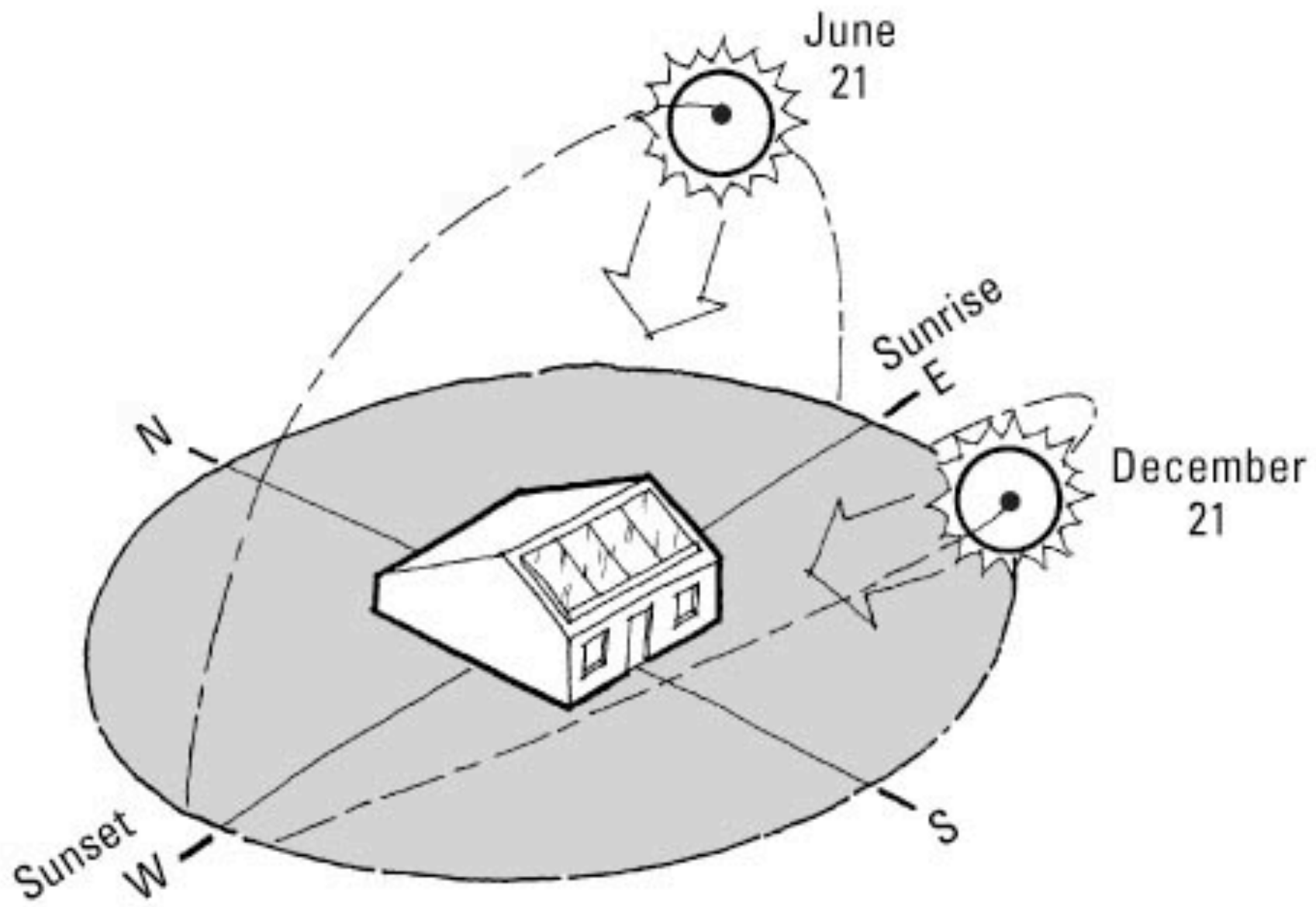


bleak future: SITING



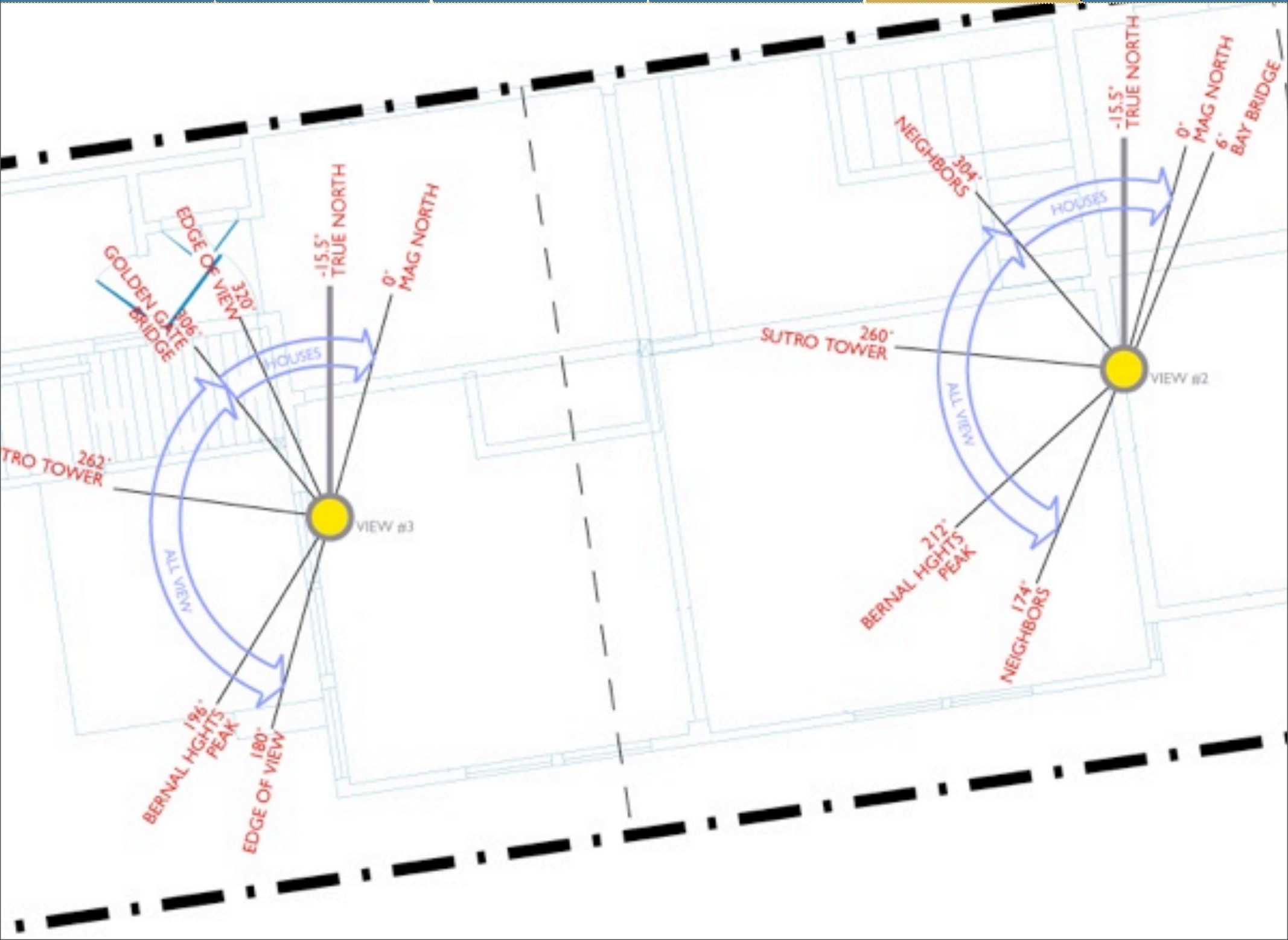
(c) Univ. of Oregon SRML
 Sponsor: BPA
 Lat: 37.76; Long: -122.4
 (Standard) time zone: -8
 888 Carolina Street
 San Francisco

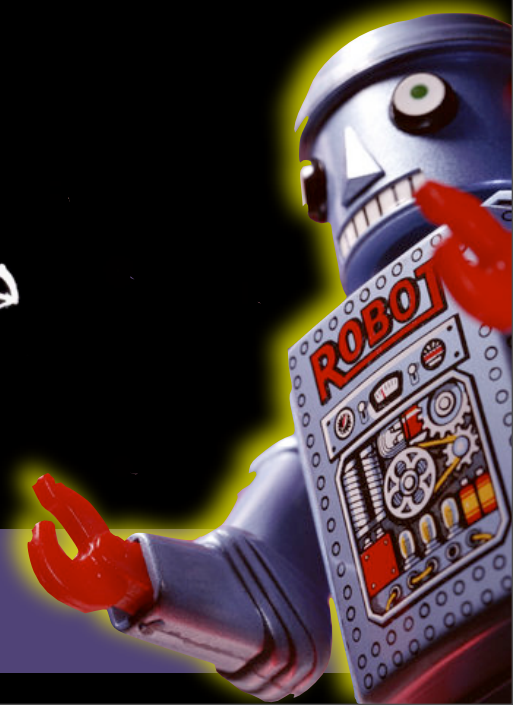
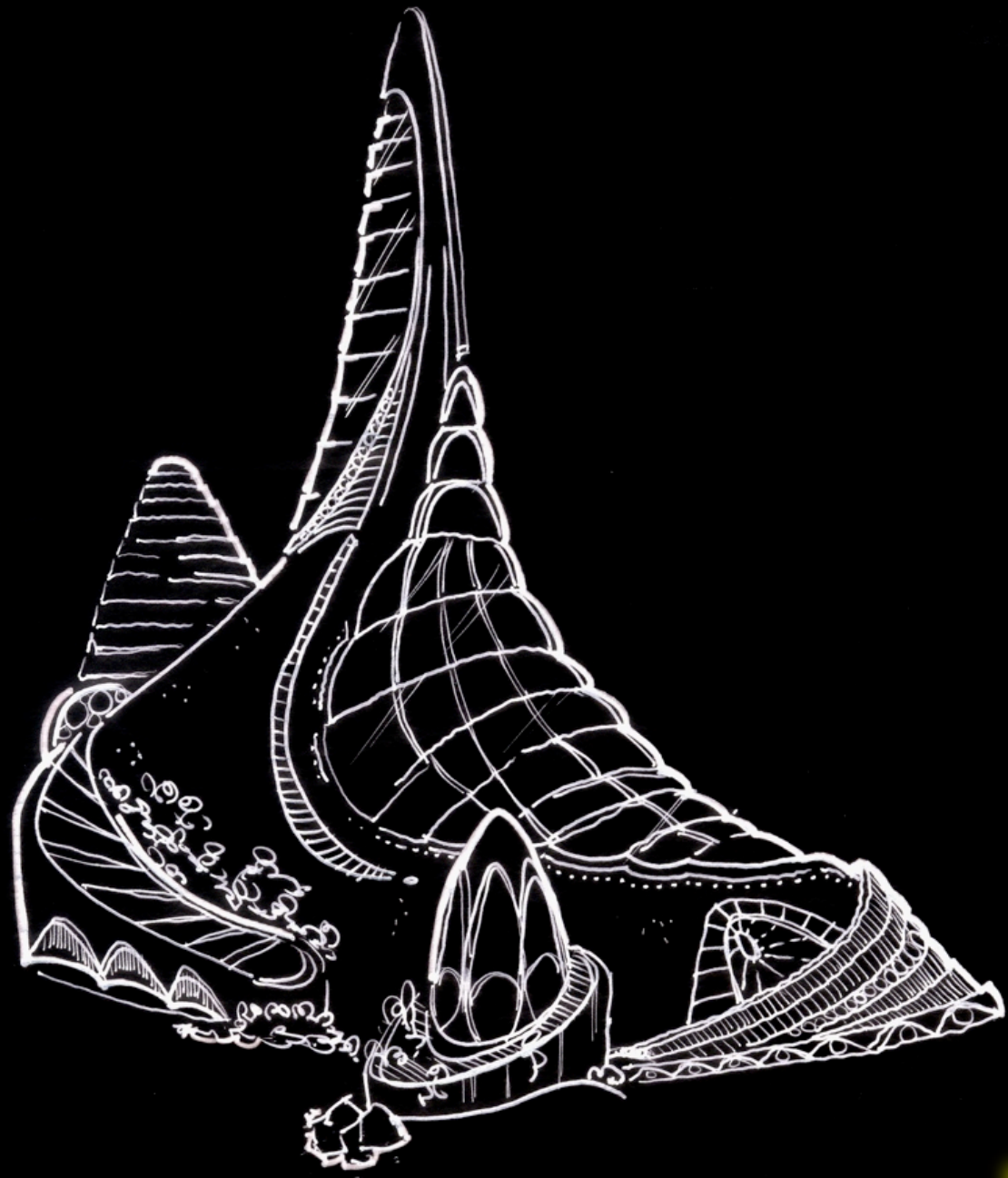












bright future: SITING

WATER

ENERGY

MATERIALS

IAQ

SITING

COMMUNITY



it's the beige one.

WATER

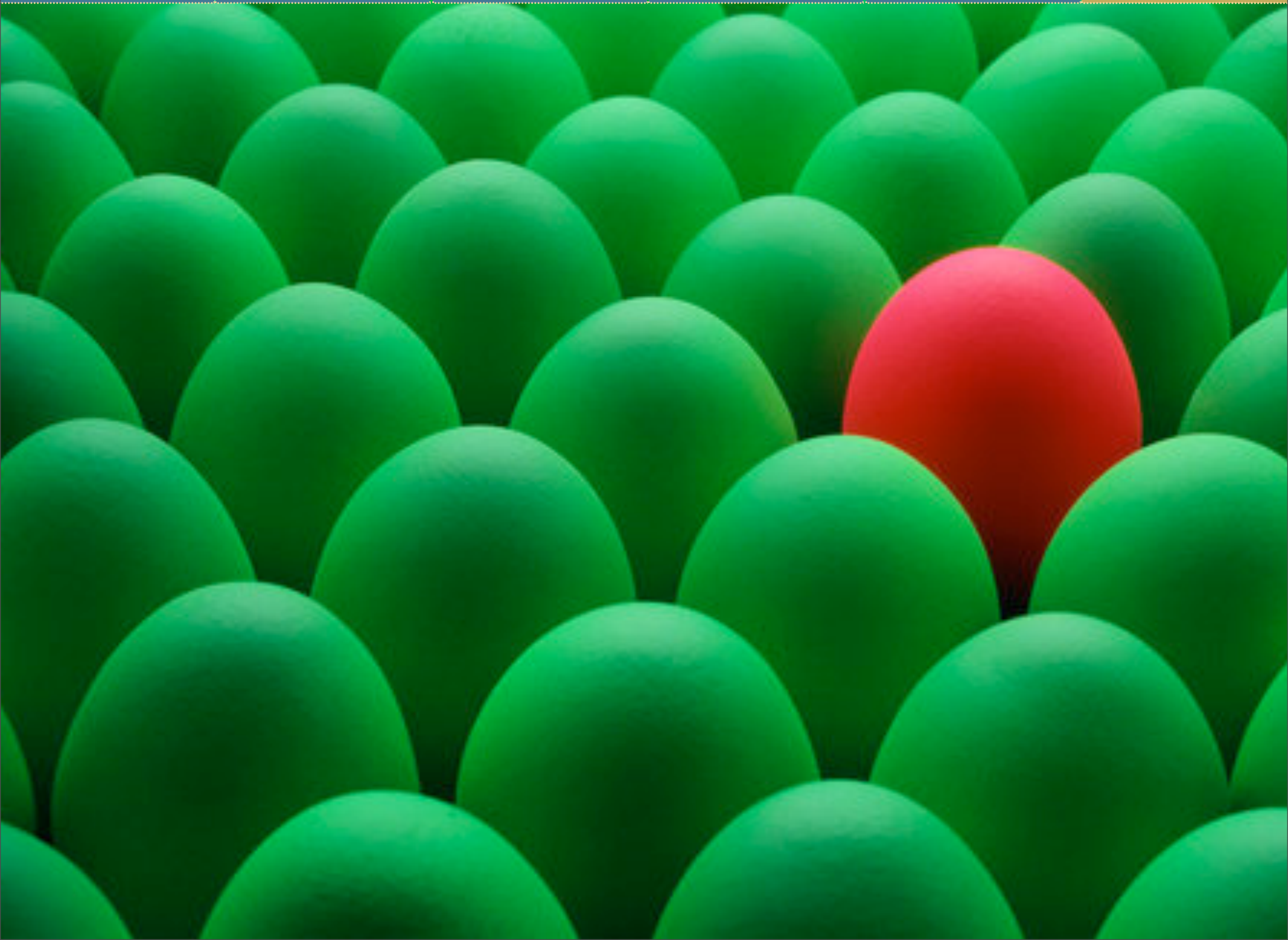
ENERGY

MATERIALS

IAQ

SITING

COMMUNITY







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





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.

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what's next:
5
action steps



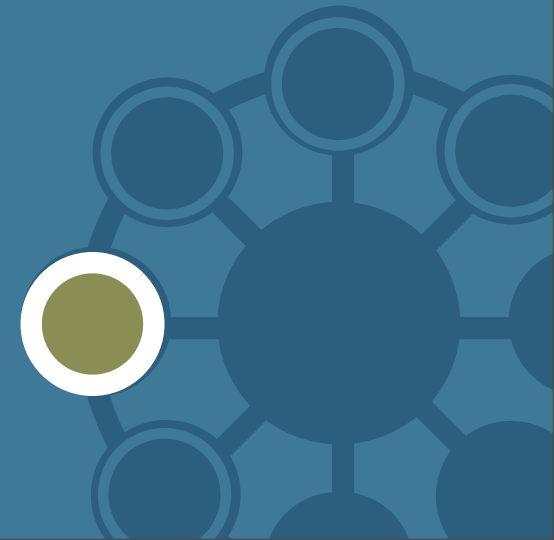
1

opportunities:
recycled content
vegetable, not oil, based
reduce mfg waste



2

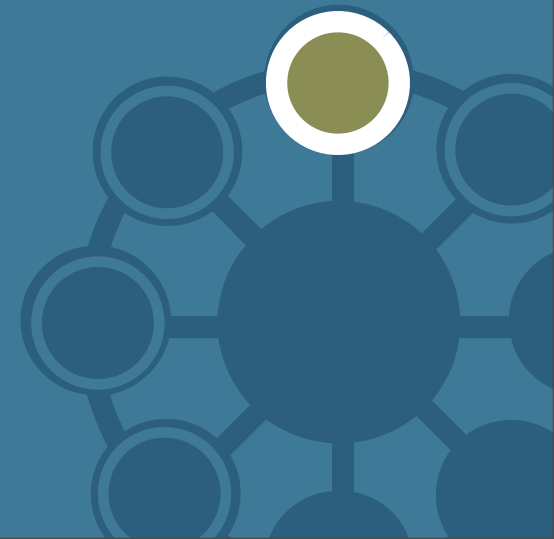
**tell others what you
have learned**



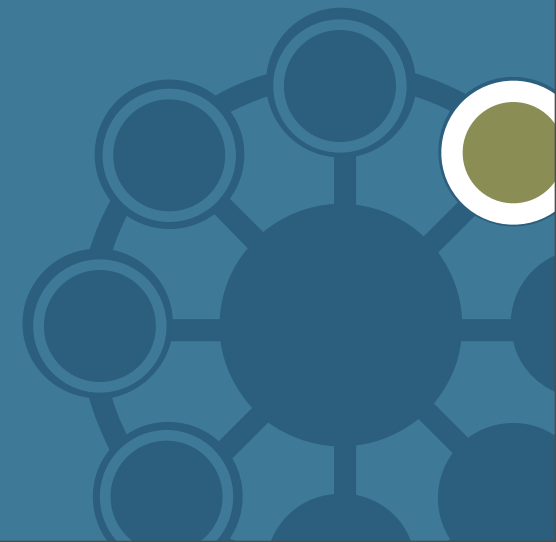
3 create solvent or VOC-free chemistry



4 make every product a green product



5 be honest and
humble about your
green features





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

-Mahatma Gandhi

additional RESOURCES

1 MATERIALS

GreenHomeGuide.com
BuildingGreen.com
GreenSage.com
WorldChanging.com
SustainableStyle.org
TreeHugger.com
Inhabitat.com

2 PUBLICATIONS

EDCmag.com
GreenSourceMag.com
GreenerBuildings.com
iGreenBuild.com
Cradle to Cradle
Building With Vision

3 DIRECTORIES

BuildingConcerns.com
GreenBuildingBlocks.com
BuildItGreen.org
StopWaste.org
WhosGreen.com

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QUESTIONS

