

Regenerative Sustainability and Timber Buildings

Martin Brown, Fairsnape, UK
UK Living Building Challenge Ambassador
Living Future Europe Advisor
Vice Chair RESTORE EU Cost Action

TIMBER - A HEALTHY FUTURE
FOR SUSTAINABLE BUILDINGS

March 7th | Koper, Slovenia



2019



Regenerative Sustainability Insights

RESTORE, EU Cost Action,

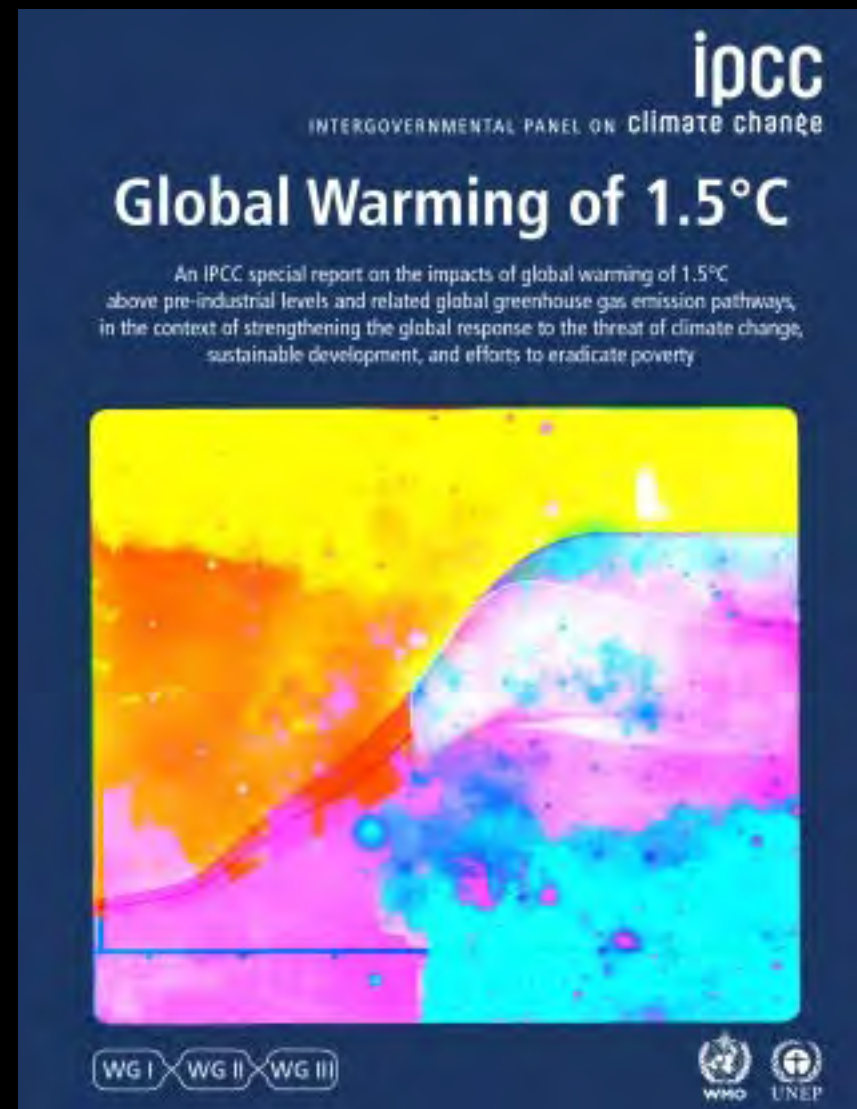
FutuREstorative,

Living Building Challenge,

Cuerden Valley Visitor Center, 1st LBC in UK/EU,

BRUNDTLAND 1987

DO NOTHING TODAY
TO COMPROMISE
TOMORROW'S GENERATION

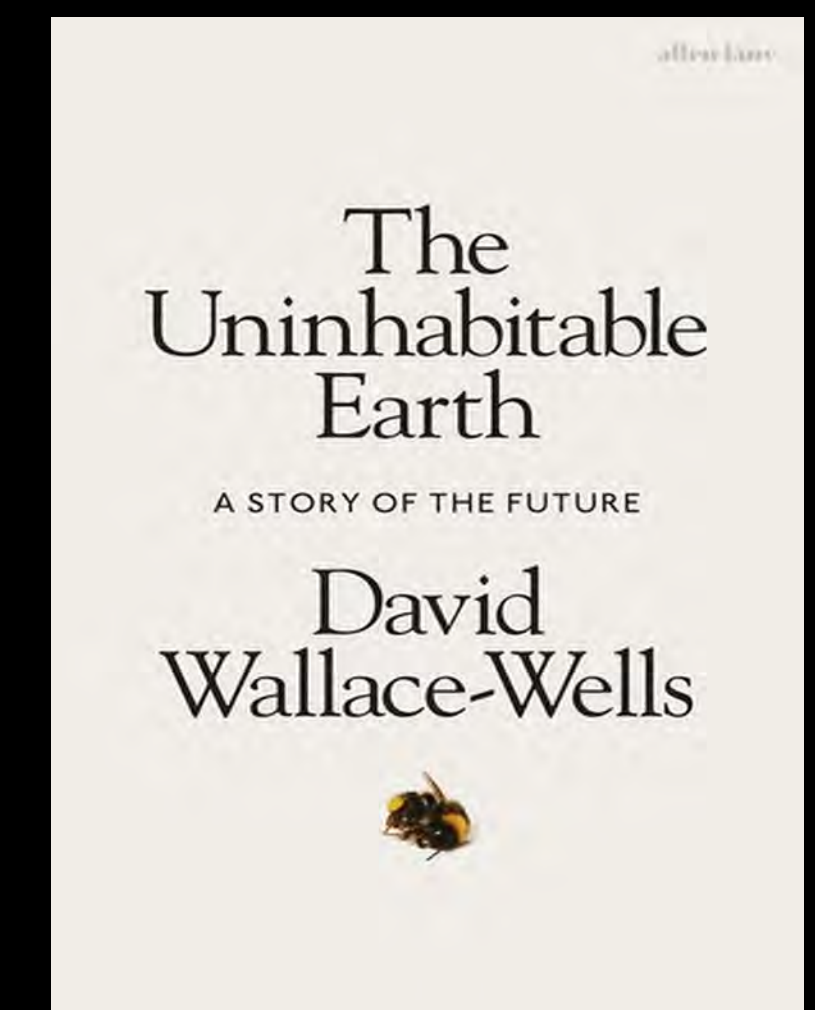


2018 IPCC

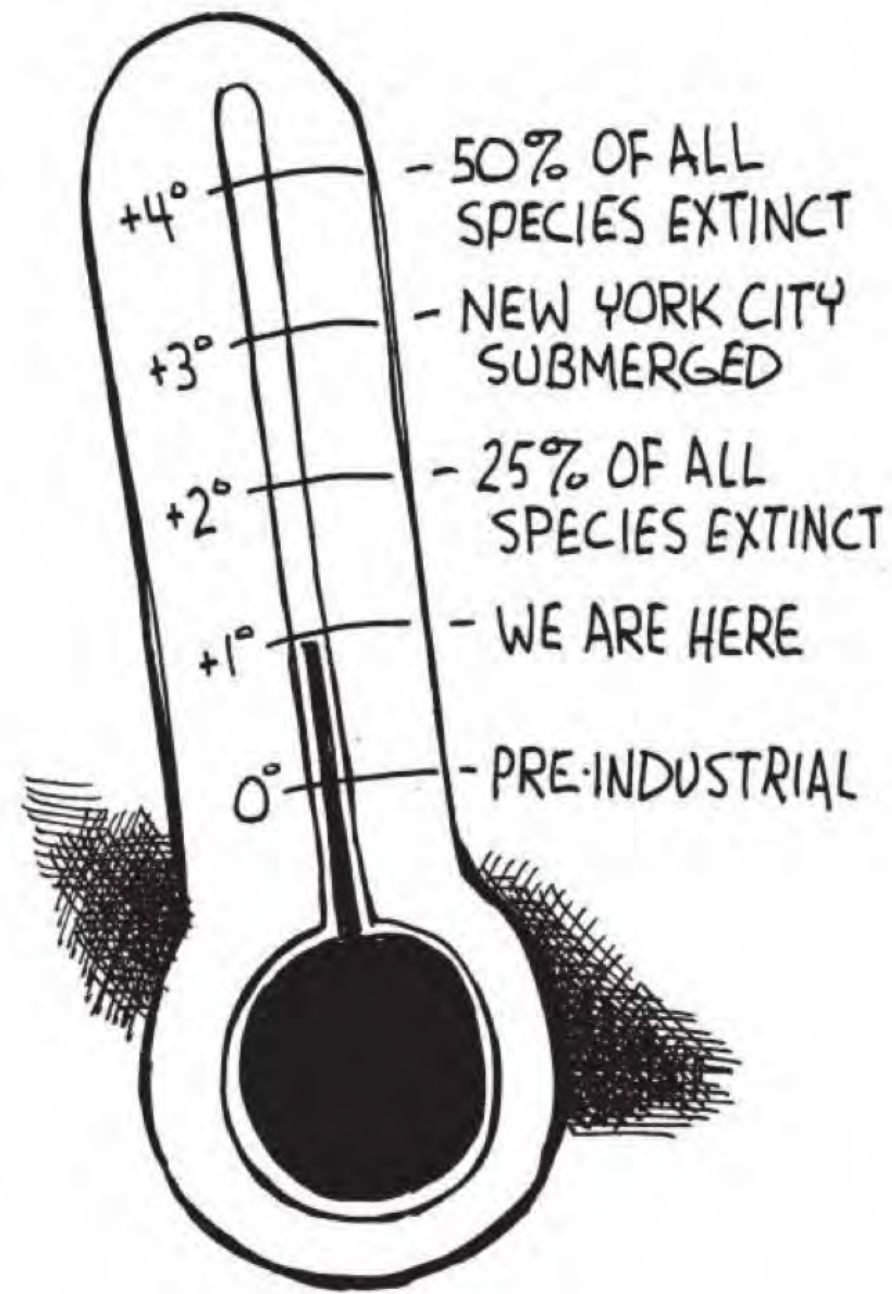
We have **12 years** to limit
climate change catastrophe.

2019

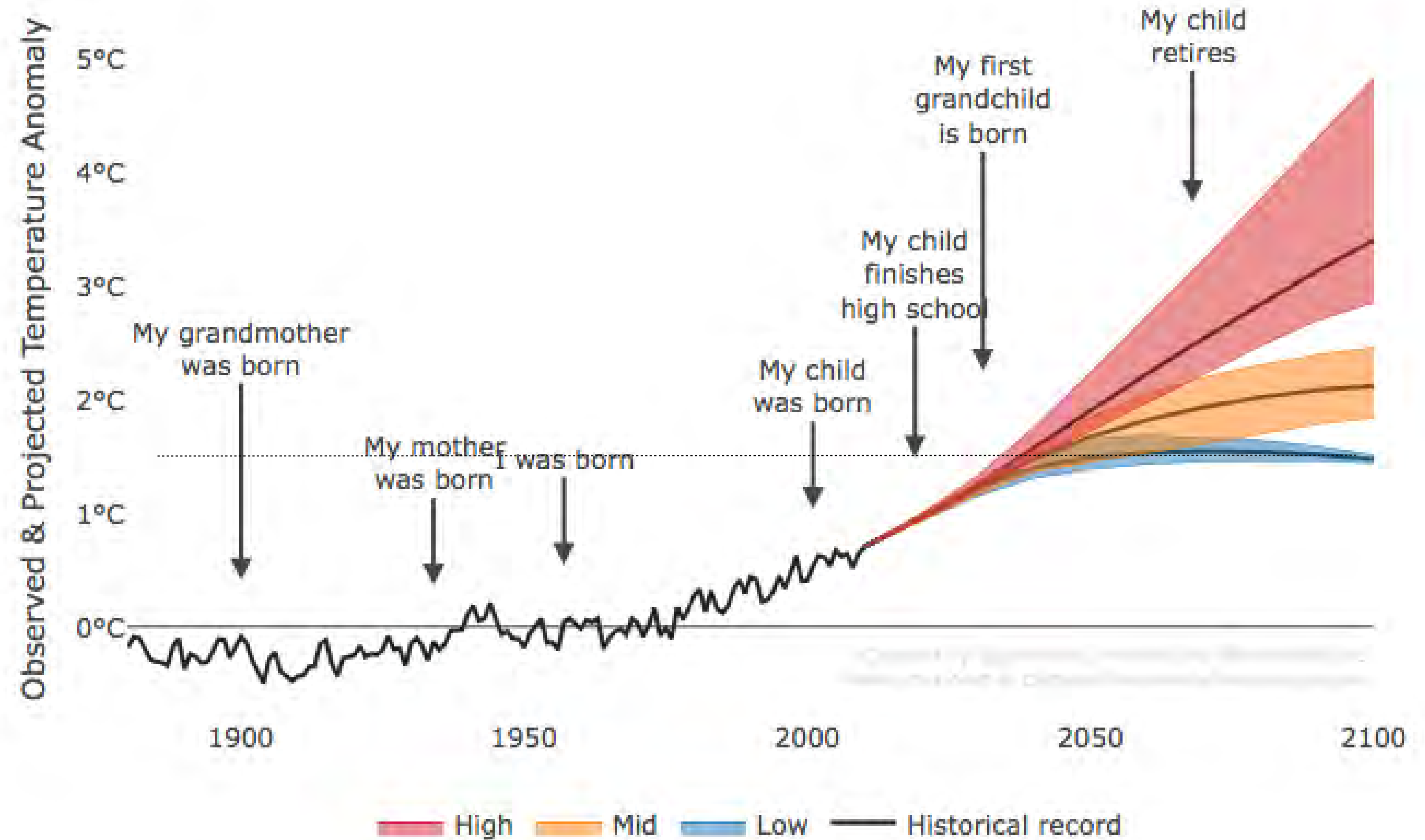
Its **worse, far worse** than you
could ever imagine.



What does 1.5 Deg C mean?



The Celsius temperature scale.





Our Earth Was Once Green

BUILT ENVIRONMENT
THE 40% SECTOR

Solastalgia – mental or existential distress from environmental change

Source: FutuREstorative 2016

We no longer have the
luxury of being less bad ...

REGENERATIVE

SUSTAINABLE

POSITIVE GOOD

REDUCING IMPACT

GREEN

RESTORATIVE

BUSINESS AS USUAL



SUSTAINABILITY:

Limiting impact. Balance point where we give back as much as we take.

RESTORATIVE:

Returning social and ecological systems to a healthy state.

REGENERATIVE:

Enabling social and ecological systems to maintain a healthy state and to evolve.

Regenerative Sustainability

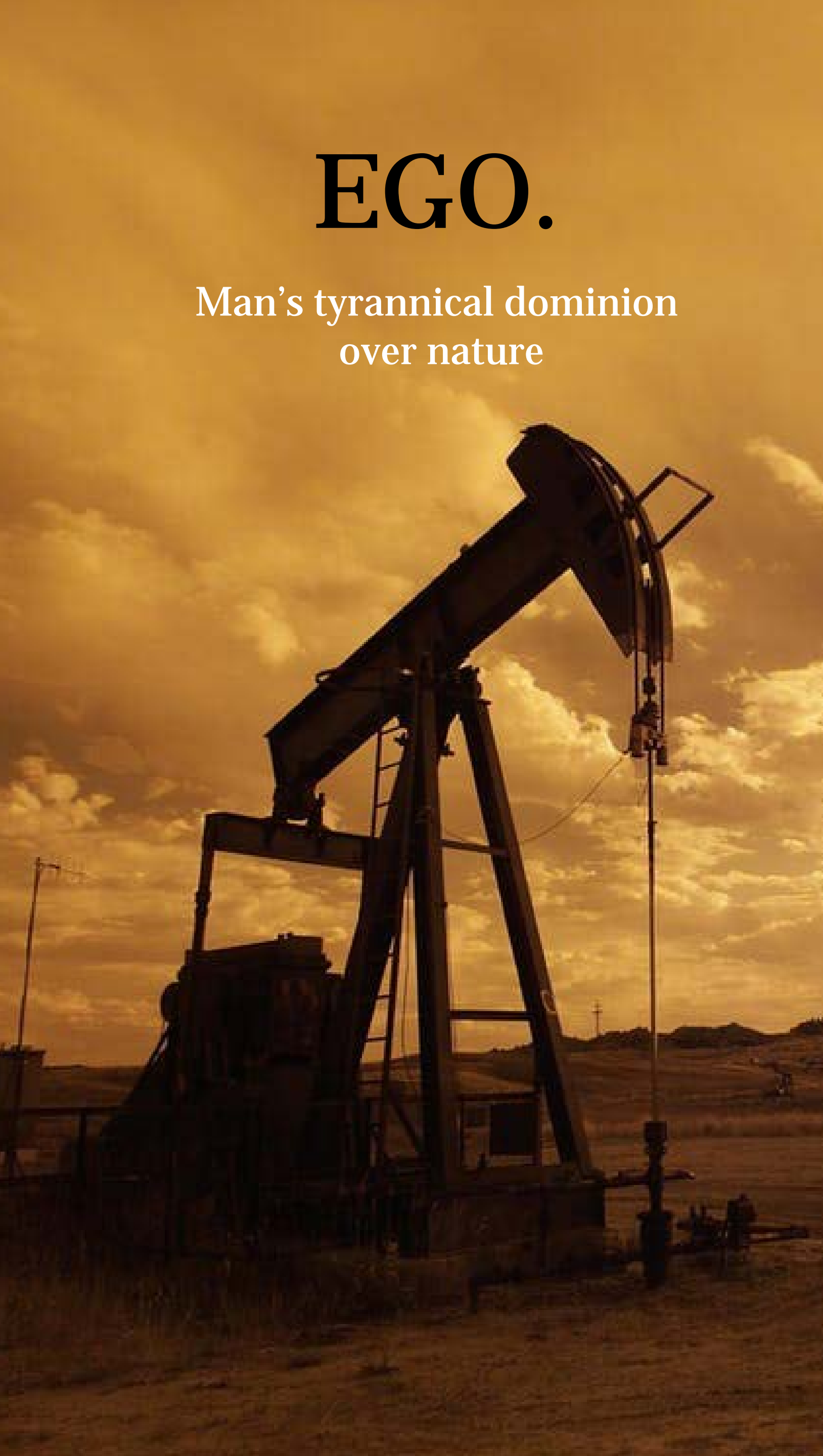
Its where ...

$$1 + 1 = 3$$

... and where magic happens

EGO.

Man's tyrannical dominion
over nature



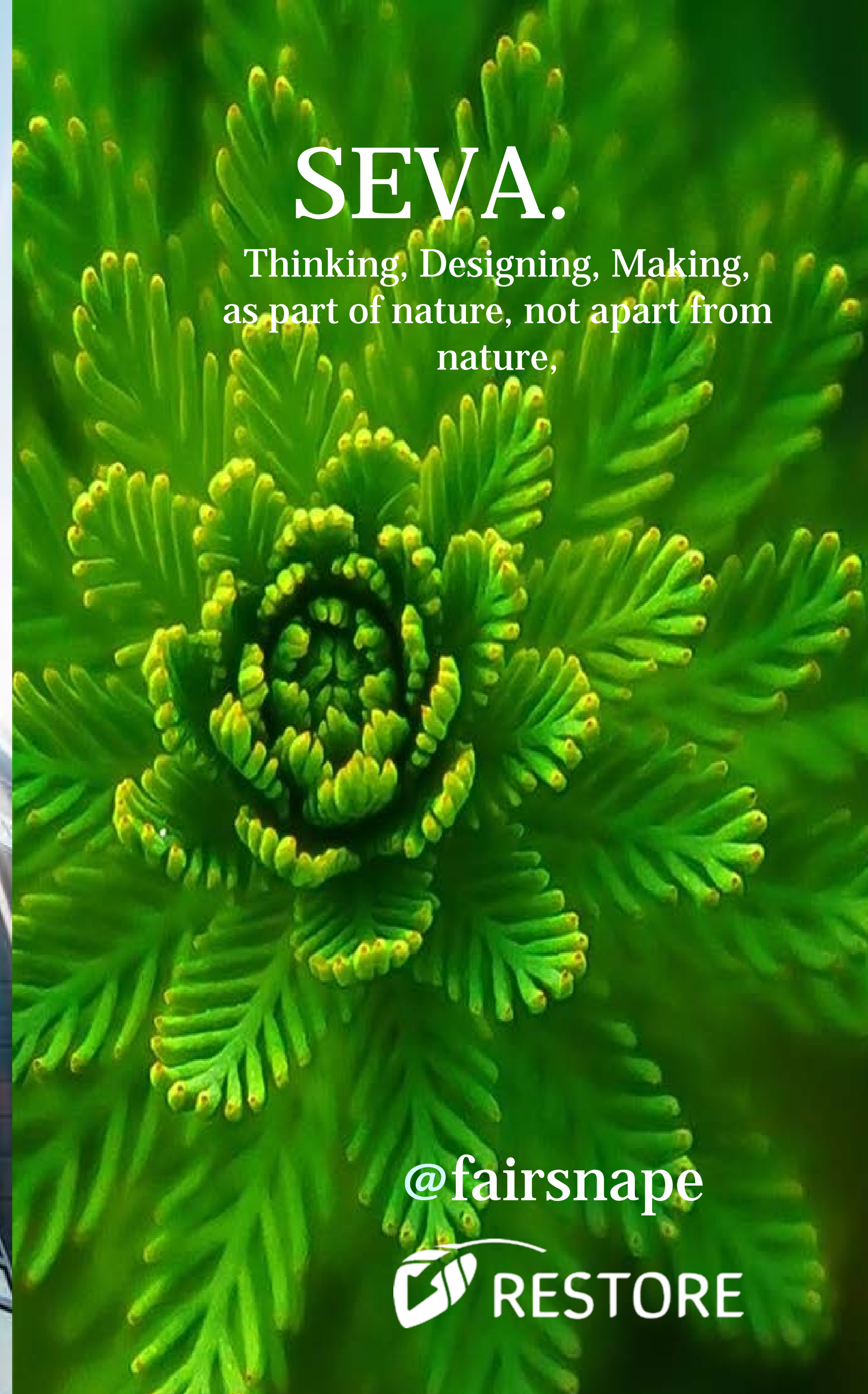
ECO.

Earth friendly actions to reduce
our impact on the planet



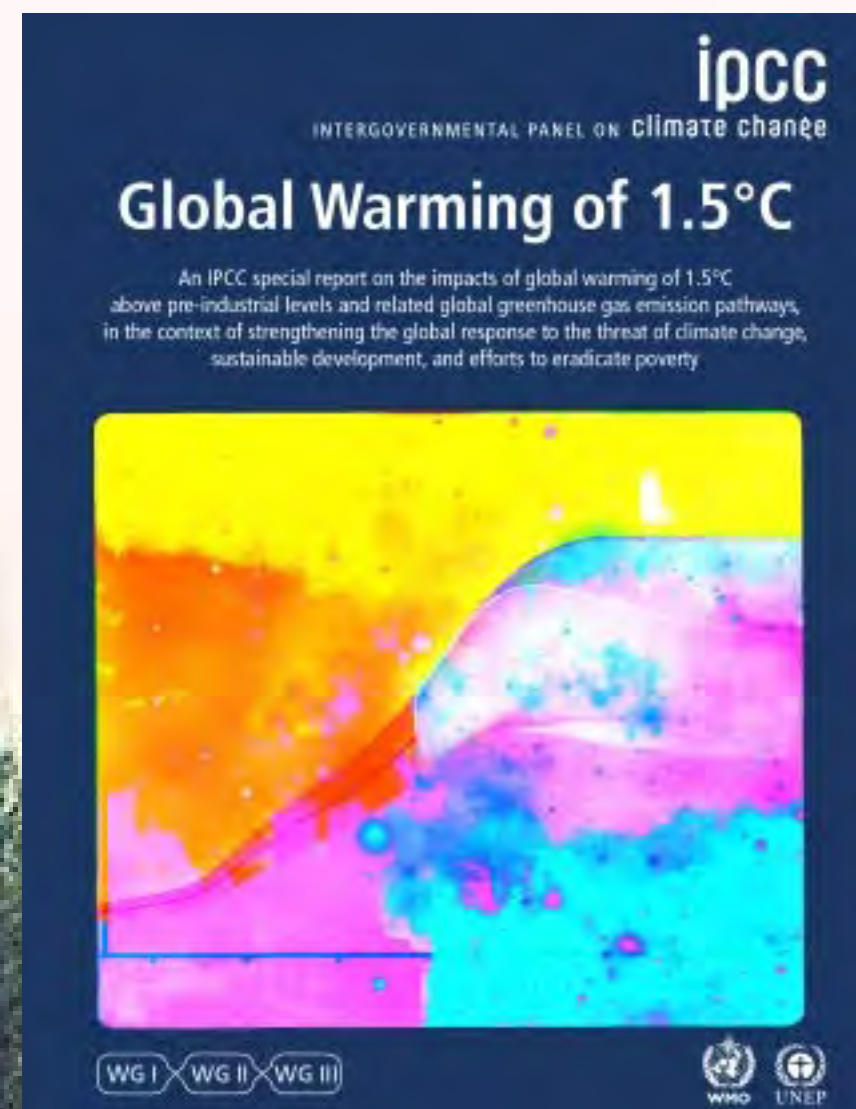
SEVA.

Thinking, Designing, Making,
as part of nature, not apart from
nature,



@fairsnape

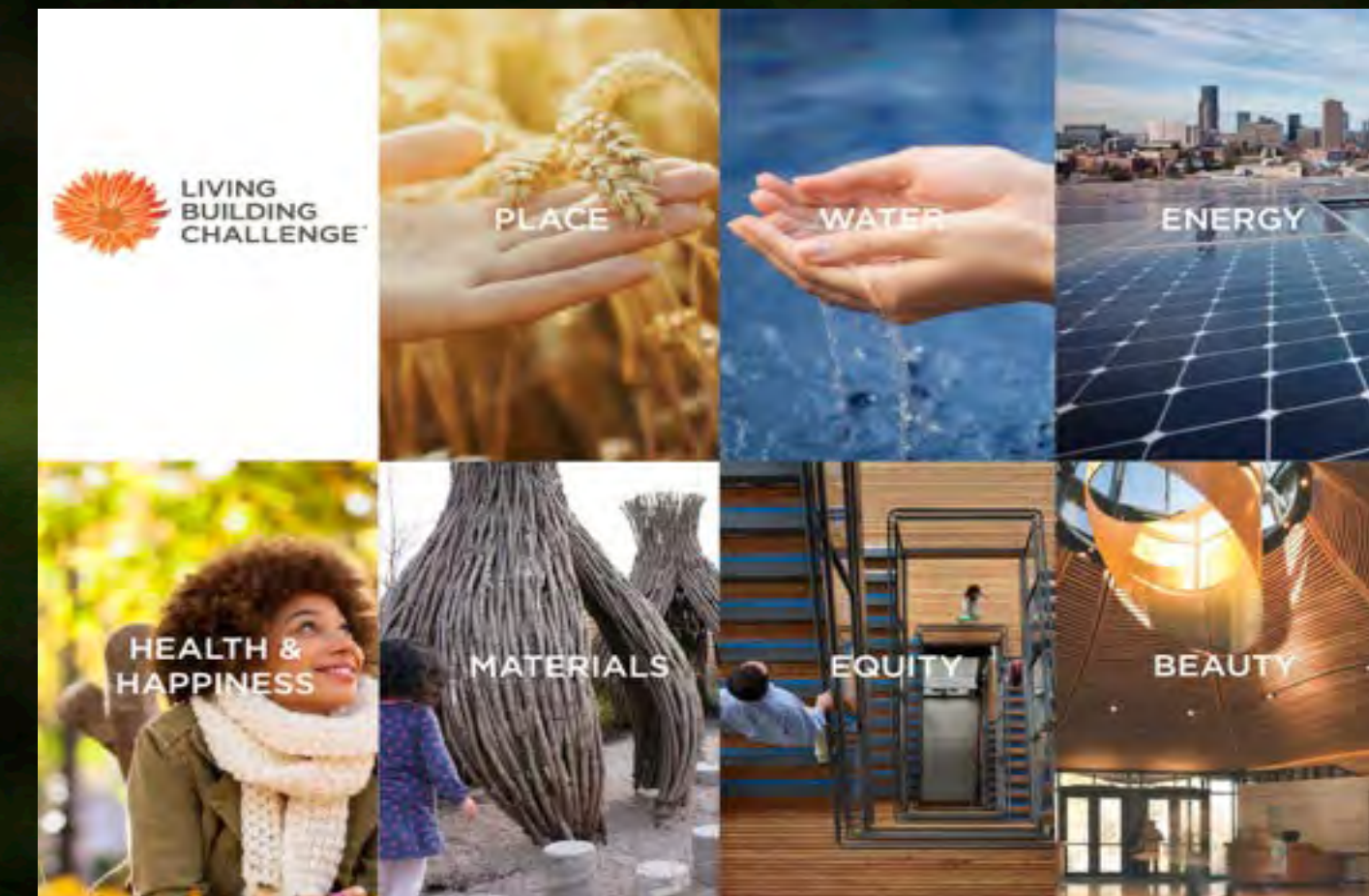
 RESTORE



TREES. BILLIONS.
BUILDINGS. TREES. BILLIONS

Instead of a world that is merely a less
bad version of the one we currently
have, we ask —

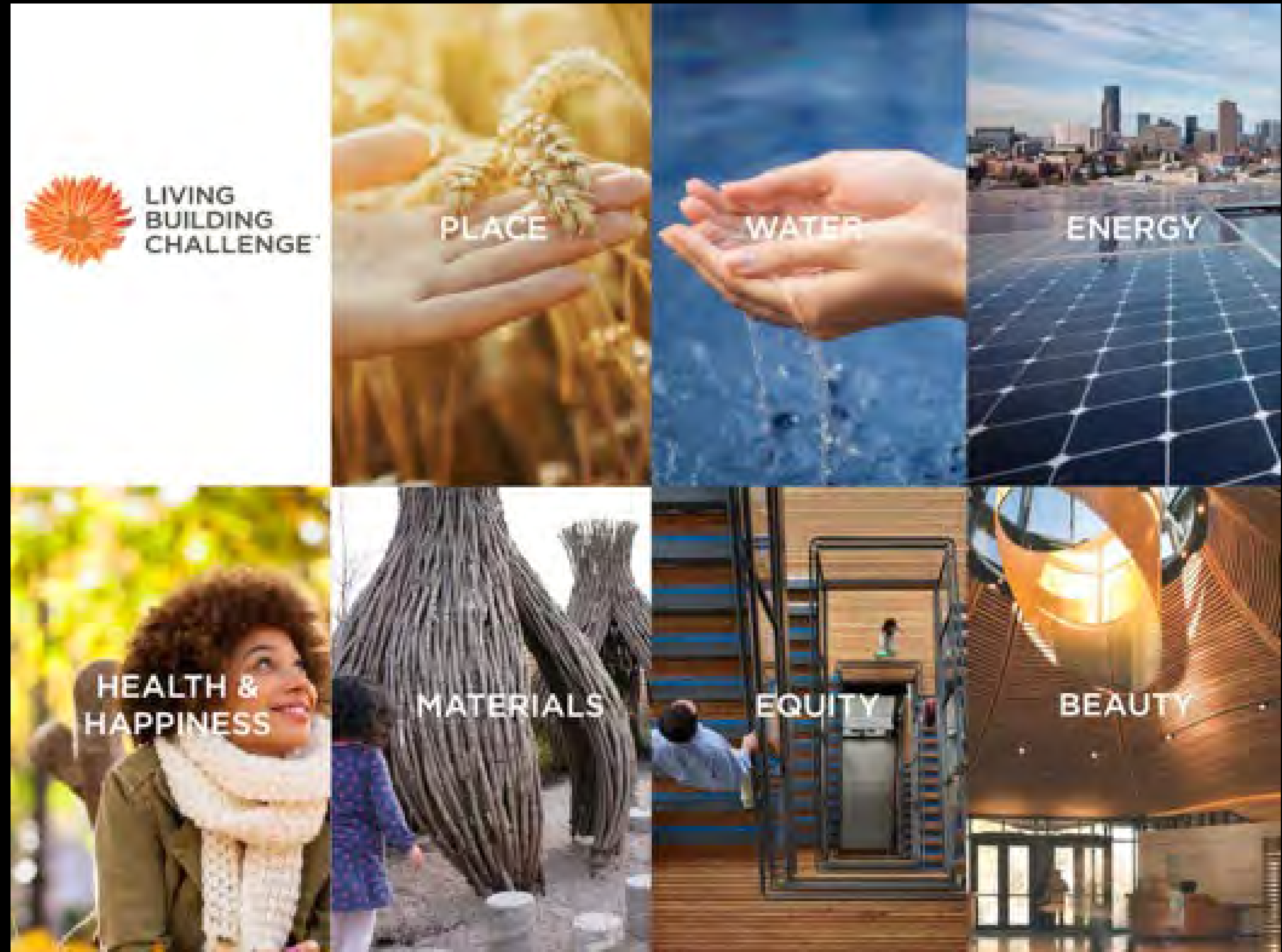
WHAT DOES GOOD LOOK LIKE?



**IMAGINE IF EVERY ACT OF
CONSTRUCTION MADE THE
PLANET A BETTER PLACE**

LIVING BUILDING CHALLENGE

What does
GOOD look
like?





**LIVING
BUILDING
CHALLENGE**

**CUERDEN VALLEY PARK VISITOR CENTER, PRESTON, UNITED KINGDOM.
SEEKING LIVING CERTIFICATION**

PLACE



- 01: LIMITS TO GROWTH
- 02: URBAN AGRICULTURE
- 03: HABITAT EXCHANGE
- 04: HUMAN POWERED LIVING

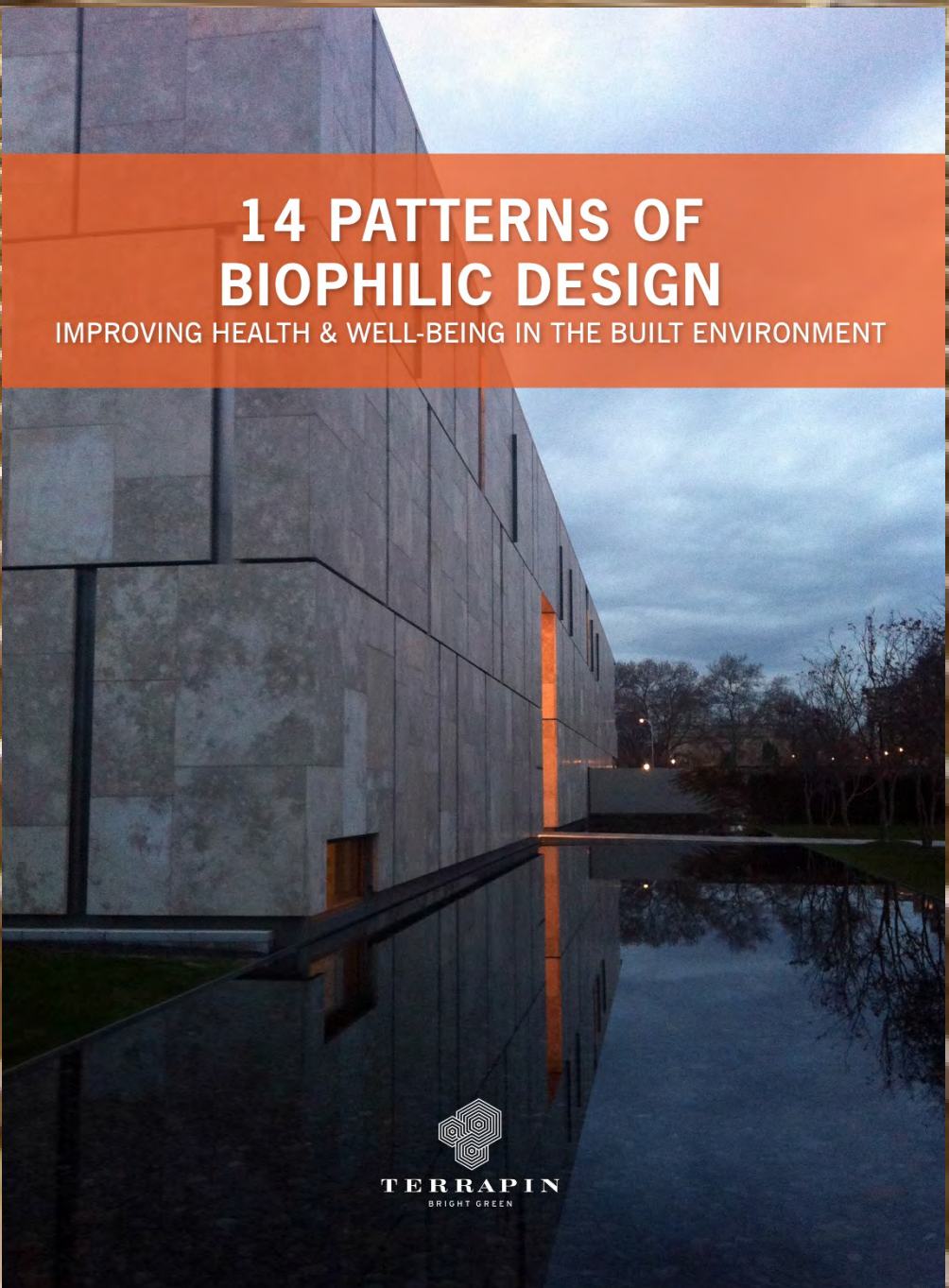
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Biophilic Design ...

Connecting people with nature through the built environment:





THE MATERIALS WE BUILD WITH
CAN AFFECT OUR WELL-BEING
AS MUCH AS THE FOOD WE EAT,
THE WATER WE DRINK AND THE
AIR THAT WE BREATHE

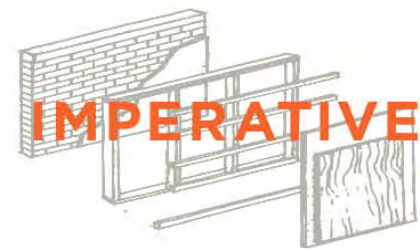
HEALTHY BUILDINGS NETWORK

RED LIST

Taking Toxic Materials out of our buildings

MATERIALS

RED LIST



10



There are temporary exceptions for numerous Red List items due to current limitations in the materials economy. Refer to the v3.1 Materials Petal Handbook for complete and up-to-date listings.

The project cannot contain any of the following Red List materials or chemicals:²³

- Alkylphenols
- Asbestos
- Bisphenol A (BPA)
- Cadmium
- Chlorinated Polyethylene and Chlorosulfonated Polyethylene
- Chlorobenzenes
- Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFCs)
- Chloroprene (Neoprene)
- Chromium VI
- Chlorinated Polyvinyl Chloride (CPVC)
- Formaldehyde (added)
- Halogenated Flame Retardants (HFRs)
- Lead (added)
- Mercury
- Polychlorinated Biphenyls (PCBs)
- Perfluorinated Compounds (PFCs)
- Phthalates
- Polyvinyl Chloride (PVC)
- Polyvinylidene Chloride (PVDC)
- Short Chain Chlorinated Paraffins
- Wood treatments containing Creosote, Arsenic or Pentachlorophenol
- Volatile Organic Compounds (VOCs) in wet-applied products ²⁴

²³ A link to the list of CAS registry numbers that correspond with each Red List item is available in the v3.1 Materials Petal Handbook.

²⁴ Wet-applied products (coatings, adhesives, sealants) must not exceed specific VOC levels. Refer to the v3.1 Materials Petal Handbook for details.

**A DECLARE LABEL
ANSWERS THREE
QUESTIONS:**

**Where does a
product come from?**

What is it made of?

**Where does it go at
the end of its life?**

THE
INGREDIENTS
LABEL FOR
BUILDING
PRODUCTS
Declare.



INTERNATIONAL
LIVING FUTURE
INSTITUTE

Declare.

EcoGrille (FSC Pacific Albus)
9Wood

Final Assembly: Springfield, OR, USA
Life Expectancy: 10 YEARS
End of Life Options: Salvageable/Reusable (100%)

Ingredients:

FSC Pacific Albus (Boardman, OR); Plywood:
FSC Wood, Water, Resin, Soy Flour, Trace
Ingredients* (Eugene, OR); Finish: Propelyne
Glycol N-Butyl Ether, Proprietary Inert*,
Dipropylene Glycol Methyl Ether, Stainless
Steel Staples

LBC Zone Exception (LBC 1.1.1.1) Proprietary Ingredients: 11%

Using Building Challenge Criteria:

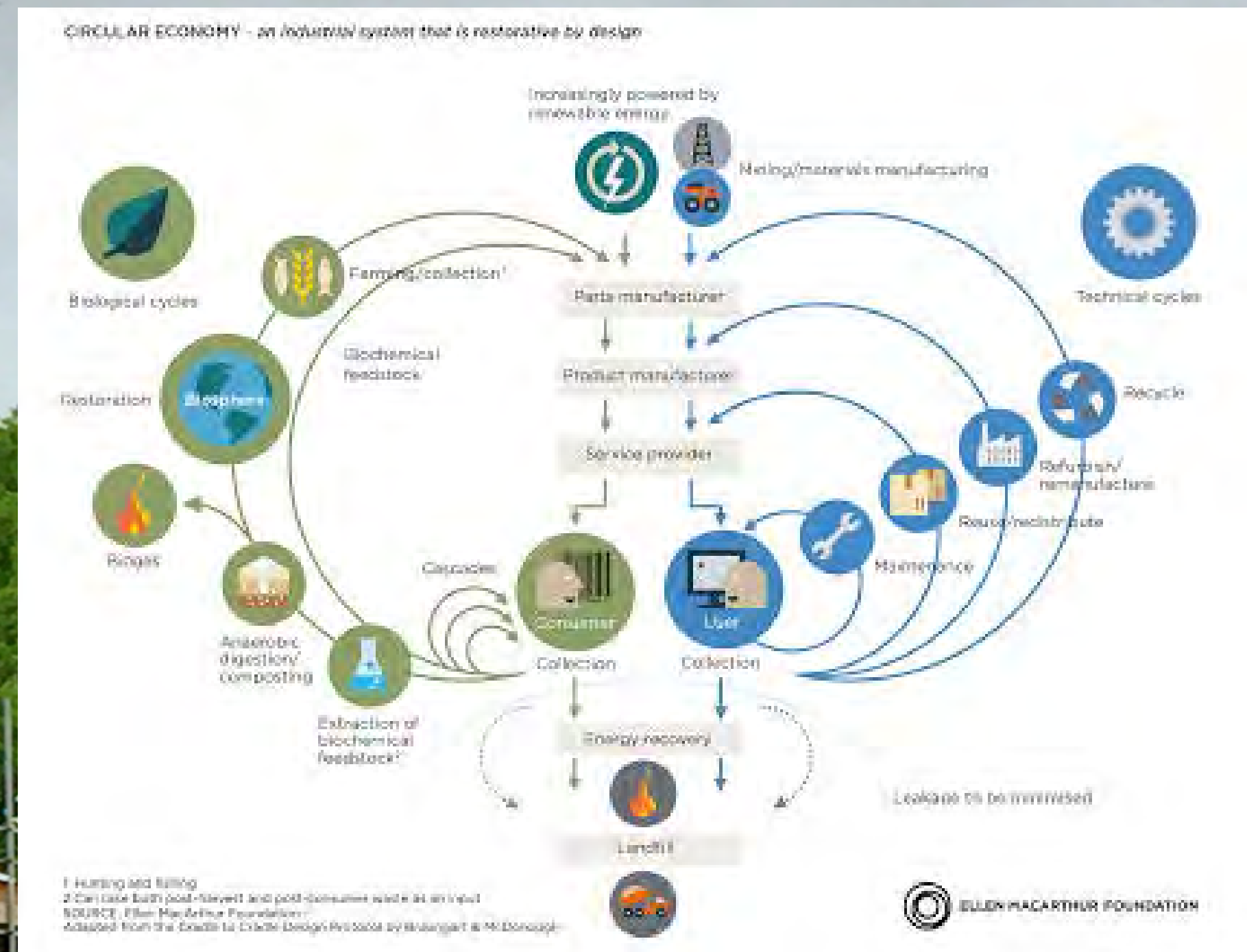
WFO-001
LBC ZONE 2

Declaration Status

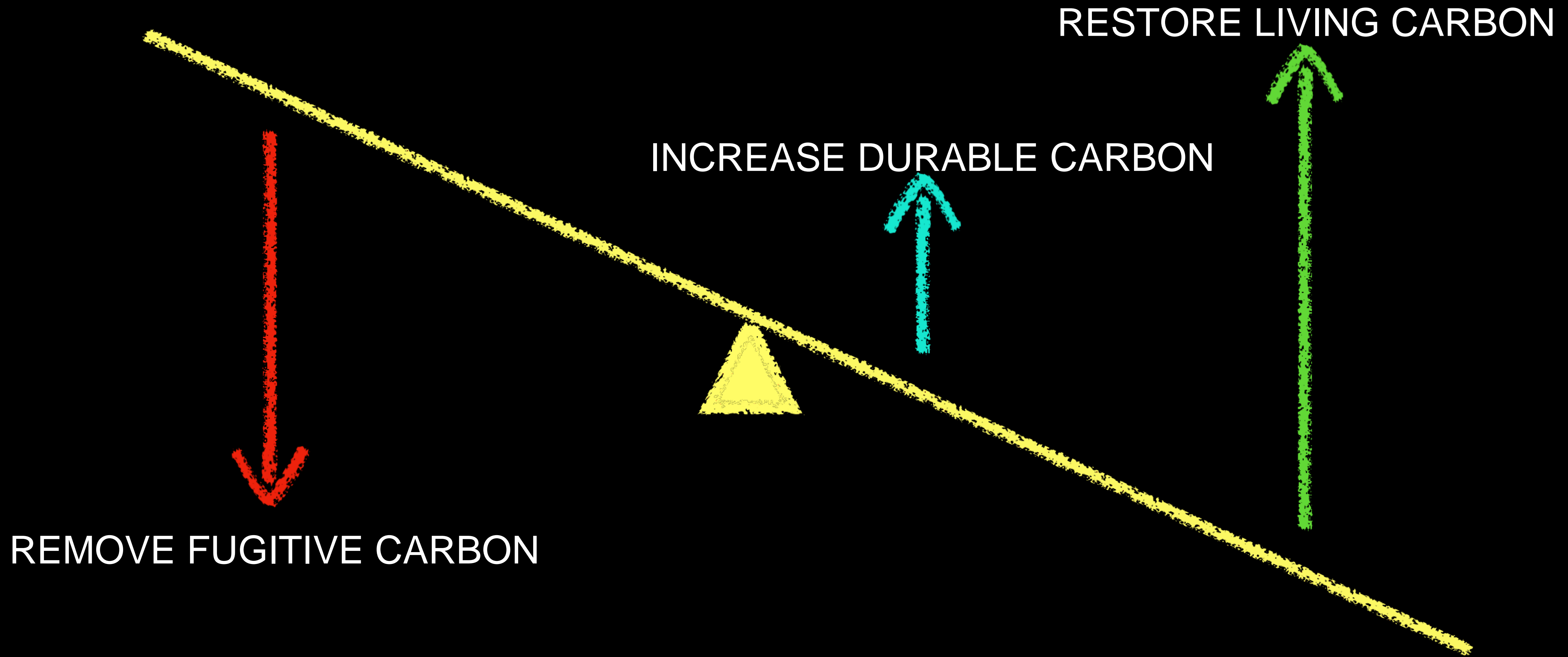
EXP 10/19/2003
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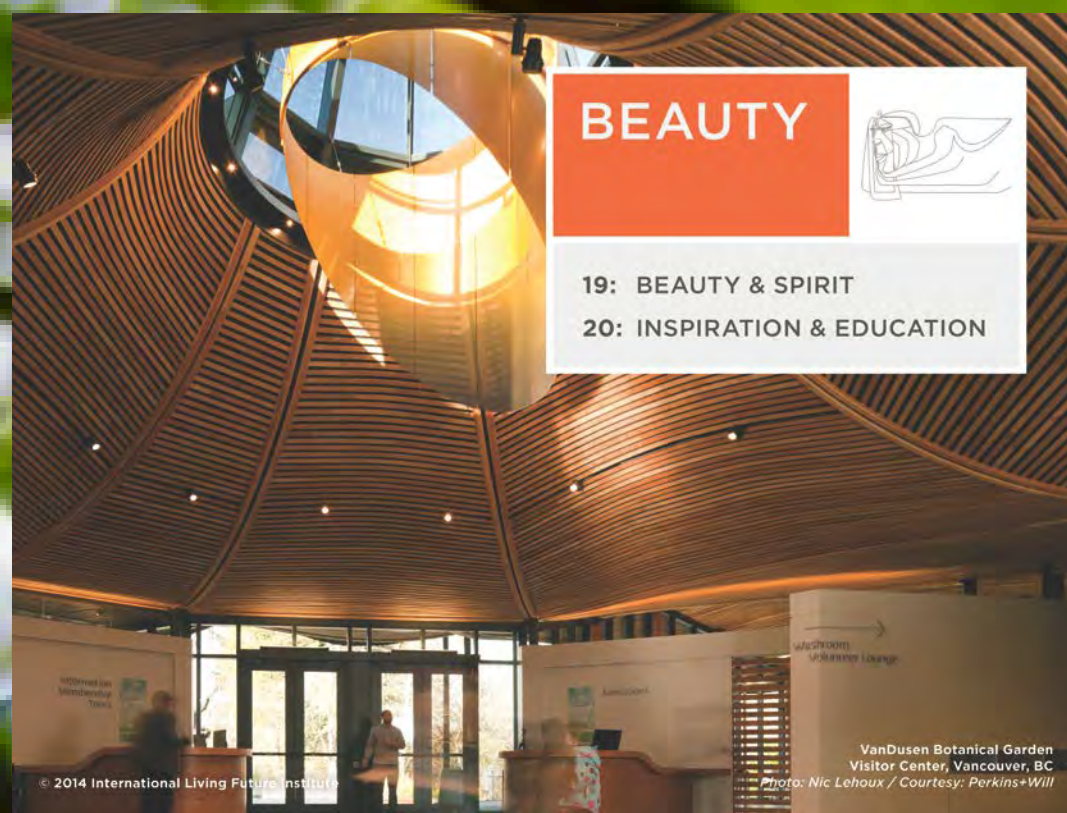
☐ LBC Red List Free
☒ LBC Compliant
☐ Declared

INTERNATIONAL LIVING FUTURE INSTITUTE



REIMAGINE CARBON





Imagine if ...
building design, construction
and MEP services education
started with the ecological
understanding of how a tree
functions?



Connecting people with nature through the built environment.

**The Center and Café, designed as nature,
has helped increase footfall to the park 4 fold**





**“The more clearly we focus our attention
on the wonders and realities of the
universe about us, the less taste we shall
have for destruction.”**

~ Rachel Carson, Silent Spring



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