

BUILDINGENERGY BOSTON

Regenerative Economics for Regenerative Times

Zbigniew Grabowski, Alliance for the Mystic River Watershed

Michael Hindle, Passive to Positive

Gus Dunn-Hindle, Passive to Positive

Curated by Nick Pittman

Northeast Sustainable Energy Association (NESEA) | March 21, 2025

REGENERATIVE ECONOMICS FOR **REGENERATIVE** TIMES



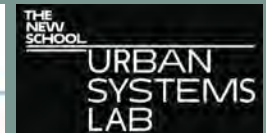
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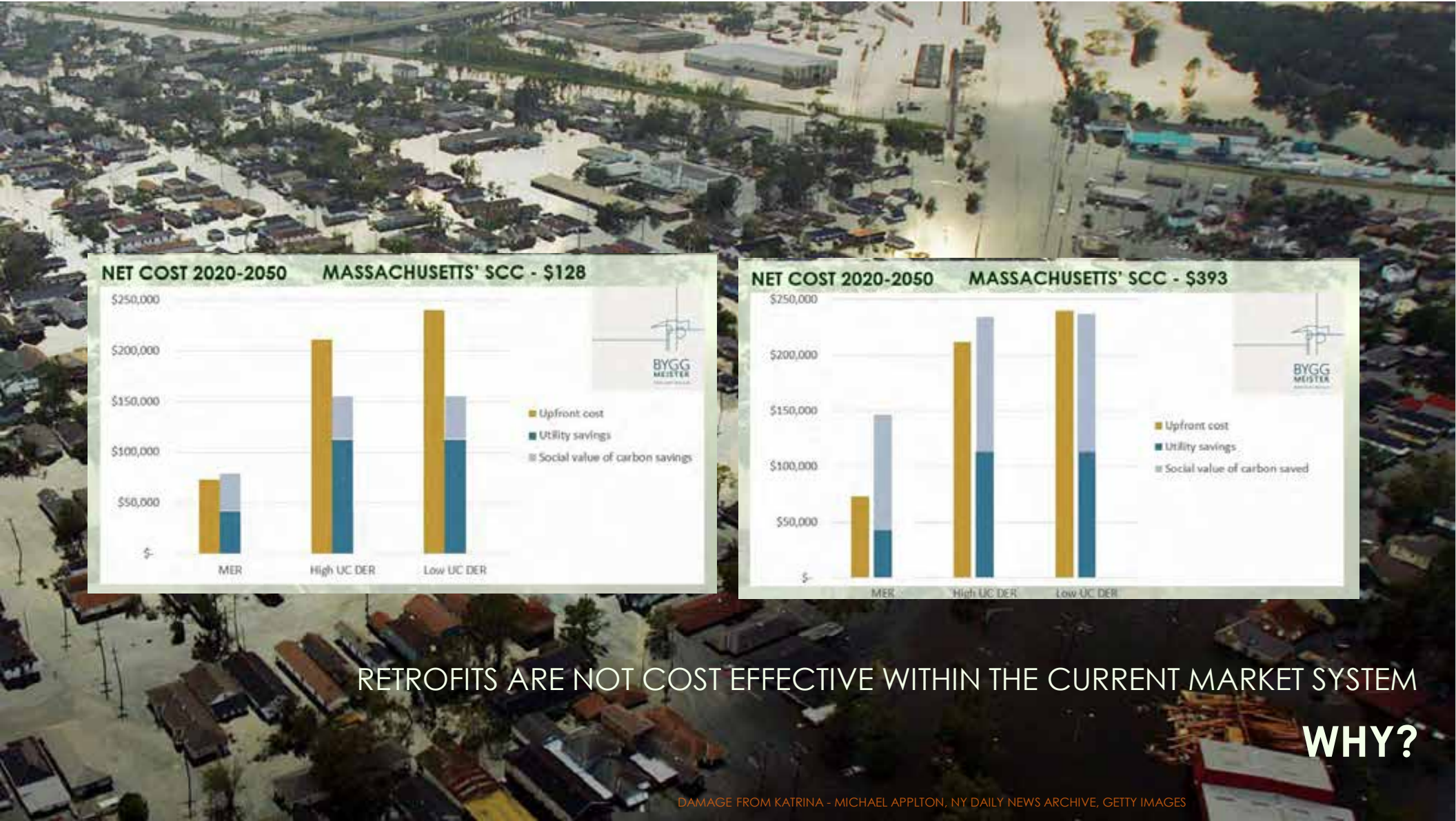
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Dr. Zbigniew Grabowski

Executive Director of the Alliance for the Mystic River Watershed
Faculty Fellow, Urban Systems Lab @ The New School

Passive to **POSITIVE**
PASSIVE HOUSE AND LOW IMPACT DESIGN





RETROFITS ARE NOT COST EFFECTIVE WITHIN THE CURRENT MARKET SYSTEM
WHY?

DAMAGE FROM KATRINA - MICHAEL APPLTON, NY DAILY NEWS ARCHIVE, GETTY IMAGES




MARKET FAILURES





Child care workers are going hungry: 'We have a dollar store in town and sadly fill up on cheap junk to survive'

 **Romina Ruiz-Goiarena**
USA TODAY

Published 5:17 a.m. ET March 6, 2022



EXTRACTIVE TO THE POINT OF SYSTEMIC FAILURE



EXTRACTIVE TO THE POINT OF SYSTEMIC FAILURE

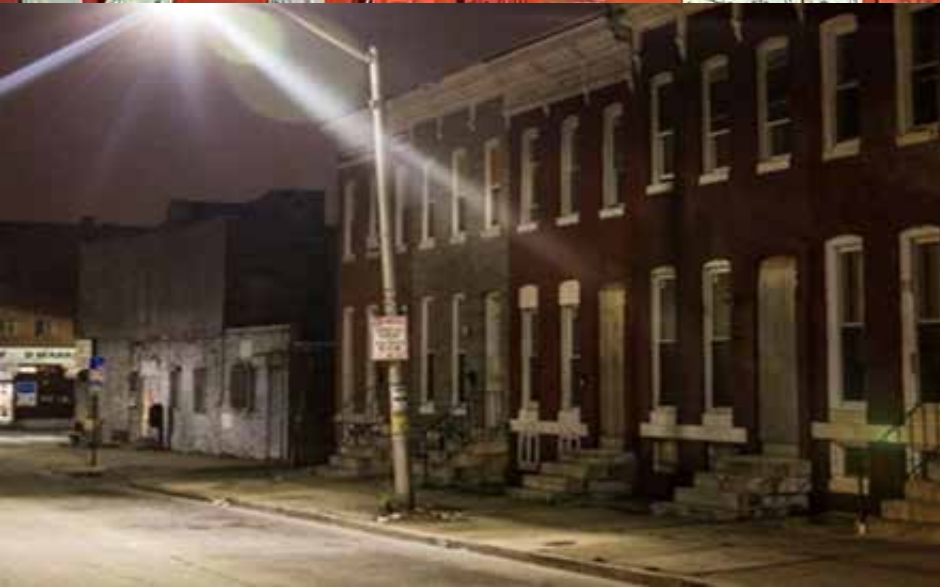
REDLINING 1934
Restricting to the purchase of property, or charging more for property such as housing, insurance, because of race, ethnicity, color, or social structure, thereby denying access and/or reducing investment. The term "redlining" was coined in the late 1930s by Jack Allmonor, a sociologist and urban planner. It refers to the practice of marking a red line on a map to indicate the areas where banks would not loan, thus the practice of redlining. The term also refers to the practice of redlining, or charging more for property such as housing, insurance, because of race, ethnicity, color, or social structure, thereby denying access and/or reducing investment. The term "redlining" was coined in the late 1930s by Jack Allmonor, a sociologist and urban planner. It refers to the practice of marking a red line on a map to indicate the areas where banks would not loan, thus the practice of redlining. The term also refers to the practice of redlining, or charging more for property such as housing, insurance, because of race, ethnicity, color, or social structure, thereby denying access and/or reducing investment.

1935 Home Owners Loan Corporation

URBAN RENEWAL 1930-1980
The process of clearing and redeveloping urban areas. It involves the demolition of existing structures and the construction of new ones. The term "urban renewal" was coined in the late 1930s by Jack Allmonor, a sociologist and urban planner. It refers to the practice of marking a red line on a map to indicate the areas where banks would not loan, thus the practice of redlining. The term also refers to the practice of redlining, or charging more for property such as housing, insurance, because of race, ethnicity, color, or social structure, thereby denying access and/or reducing investment.

DISPLACEMENT

BRONX URBAN RENEWAL



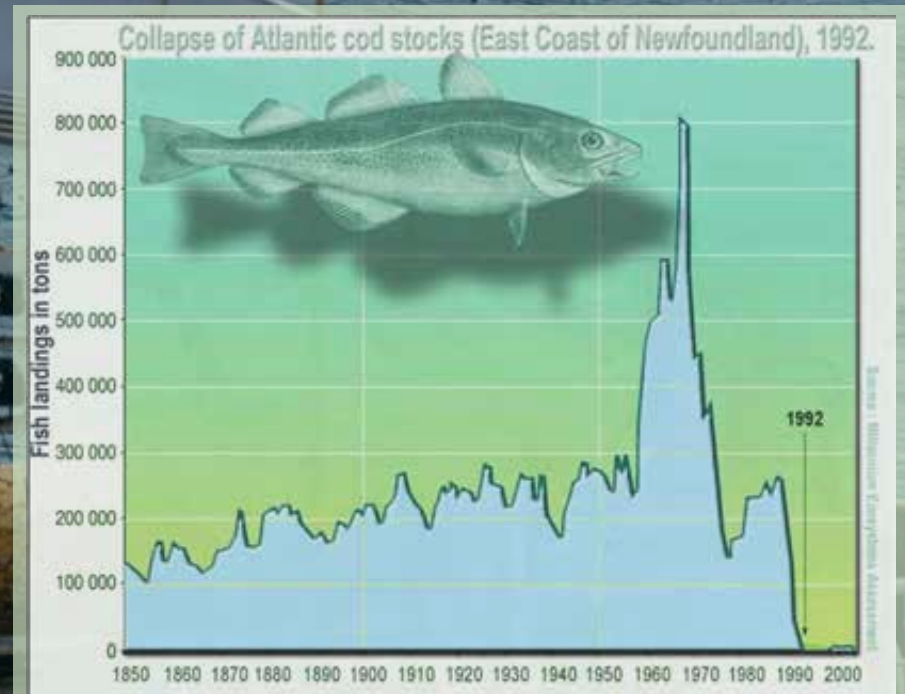


Smoke rises from an illegally lit fire in a section of Amazon rainforest, south of Novo Progresso in Para state, Brazil, on Aug. 15, 2020. Credit:

MARKETS ARE BLIND – OR CYNICAL + SELF DESTRUCT



MARKETS ARE BLIND IN MANY WAYS AND if THEY recognize limits, they tend to invest MORE in extraction and accelerate decline of the resource, leading to collapse!





**40% OF AMERICANS WILL HAVE CANCER AND 10%
HAVE RARE GENETIC DISEASE**

**IMPACTS ARE BEING FELT BROADLY BUT ARE NOT ATTRIBUTED TO THEIR
SOURCE (CHEMICAL MANUFACTURERS)**

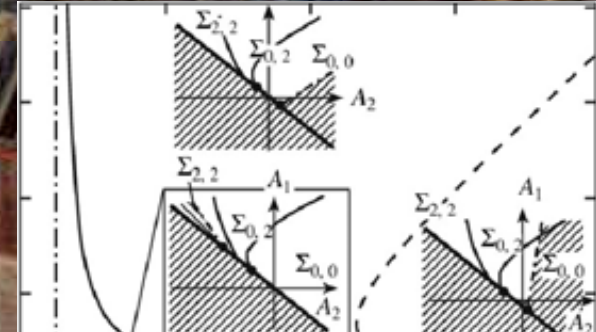
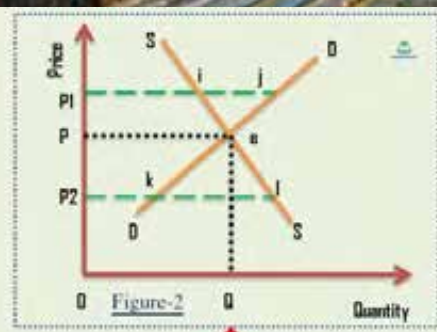
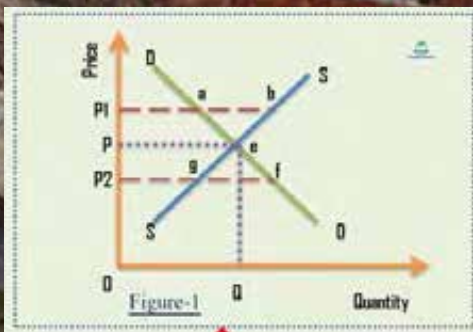
**MARKETS ARE BLIND TO DIFFUSE SIGNALS AND COLLECTIVE WELL
BEING**



BUILDINGS ARE EMBELMATIC OF THIS PROBLEM

THE MARKET HAS NOT DELIVERED HEALTHY, HIGH PERFORMANCE BUILDINGS

NEWTONIAN, REDUCTIVIST THEORY OF ECONOMICS



Druckendrod
© Copyright 2015
http://www.artbyuk.com

NEO-CLASSICAL VIEW OF ECONOMICS

Except that it claims to defy GRAVITY!



NEO-CLASSICAL VIEW OF ECONOMICS

Except that it claims to defy GRAVITY!



ALL MARKETS ARE CONSTRUCTED

THEY ARE DESIGNED
THEY ARE BASED ON RULES
RULES REFLECT INTENTIONS AND VALUES OF
THE DESIGNERS



ALL MARKETS ARE CONSTRUCTED

THE
WEALTH
OF
NATIONS



ADAM SMITH

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ALL MARKETS ARE CONSTRUCTED

THEY ARE DESIGNED
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THE DESIGNERS

PUBLIC RISK + PRIVATIZING GAINS



TEXAS STANDARD
THE NATIONAL DAILY NEWS SHOW OF TEXAS

ALL OUR STORIES TOPICS FIND A SHOW

When It Comes To Federal Hurricane Protection Dollars, Oil Companies Get First Dibs

The U.S. Army Corps of Engineers prioritizes projects based on national – not regional – need. The logic goes that if oil refineries along the Gulf Coast go down in a hurricane, the entire country is affected.

By Laura Wiles | August 29, 2018 3:27 pm
Energy & Environment

Wreckage litters the curb along Seawall Drive on Galveston Island after Hurricane Ike in 2008.

Bloomberg

Live TV Markets Economics Industries Tech Politics Businessweek Opinion More

Markets

Oil Refiners Shrug Off Harvey to Rake in Fat Post-Storm Profits

- Higher margins boosted earnings for makers of gasoline, diesel
- Midwest refiners benefited when storm shut Texas facilities

An aerial photograph of a landscape, possibly agricultural fields, viewed from a high angle. The image is overlaid with a dark blue gradient that is darkest on the right side and fades towards the left. The text is centered within this gradient.

OK, SO WHAT SHOULD WE **DO** ?

WHAT ABOUT CARBON TRADING?

MARKET - BASED SOLUTIONS!!

VOLUNTARY MARKETS

These markets require intermediaries to act as third-party verifiers of carbon reductions.

Under the patronage of Sheikh Ahmed Daimook Al Maktoum, Blue Carbon was formed to create environmental assets, nature-based solutions and register carbon removal projects using modern methodologies.



"The **UAE Carbon Alliance** aims to establish the UAE as a leading hub for **high integrity, high quality carbon markets**. Carbon abatement efforts are fundamental and non-negotiable for the health of our planet, and this partnership commits to focus on the **financial, environmental, and social viability** of these efforts."

BUT ACCESS IS ONLY FOR **CORPORATIONS AND THE RICH**

GREEN GROWTH

WHAT ABOUT CARBON TRADING?

COMPLIANCE MARKETS

MARKET - BASED SOLUTIONS!!



The image shows a screenshot of a website titled 'CARBON CREDITS.com' with the subtitle 'Live Carbon Prices'. The table is organized into two main sections: 'Compliance Markets' and 'Voluntary Markets'. Each row lists a market, its current price, the percentage change from the previous period, and the percentage change year-to-date (YTD). Prices are shown in various currencies: Euros for the European Union, Pounds for the UK, and Dollars for California, Australia, New Zealand, South Korea, and China. Voluntary markets include Aviation Industry Offset, Nature Based Offset, and Tech Based Offset.

	Last	Change	YTD
Compliance Markets			
European Union	€56.31	-0.23 %	-30.18 %
UK	£35.60	-0.11 %	-21.76 %
California	\$28.66	-	0.00 %
Australia (AUD)	\$36.75	+2.60 %	+9.70 %
New Zealand (NZD)	\$66.25	-0.75 %	-4.19 %
South Korea	\$6.86	-	+1.33 %
China	\$11.21	-2.41 %	+0.31 %
Voluntary Markets			
Aviation Industry Offset	\$0.83	-	+40.68 %
Nature Based Offset	\$1.53	+0.88 %	+88.13 %
Tech Based Offset	\$0.65	-	+10.17 %

CarbonCredits.com Real-time Pricing

[Click here to learn how carbon credits are priced.](#)



The background of the slide is a photograph of a devastated area, likely the aftermath of a natural disaster. Debris is scattered everywhere, and several people are seen wading through a large, muddy puddle. The scene is somber and illustrates the human impact of climate change.

These markets reflect the value of credits to companies who must reach emissions targets, i.e. 55% below 1990 levels - **not a value of carbon's effects**

GREEN GROWTH



\$200 million on:

- 25,000 tons CO₂ removal by Direct Air Capture over 9 years +
- 28,500 tons from Bio-Oil over 5 years
- = 53,500 and \$3,738/ton

TECHNOLOGY OR CONSERVATION?

BIG OIL – SO CONCERNED ABOUT THE CLIMATE MARKET - BASED SOLUTIONS!!



EXTERNATILITES

- TECHNOLOGICAL SHIFT
- SPATIAL SHIFT
- TEMPORAL SHIFT



GREEN GROWTH

MARKET - BASED SOLUTIONS!!

2018 Nobel Prize: focus on sustainable growth

By Sergei Guriev

11 Oct 2018



The 2018 Nobel Prize in Economics was awarded to William Nordhaus and Paul Romer who have both been expected to get this prize for many years. However, the conventional wisdom was that they would get it separately: Nordhaus for "environmental economics" (probably shared with others) and Romer for "endogenous growth" (also likely to be shared with others). The fact that the Nobel Prize was awarded to Nordhaus and Romer together sends a powerful message: we need economic growth and we can and we should make this growth sustainable.



The Economic Rationale
For Green Investments



SO HOW IS THAT SUPPOSED TO WORK ?

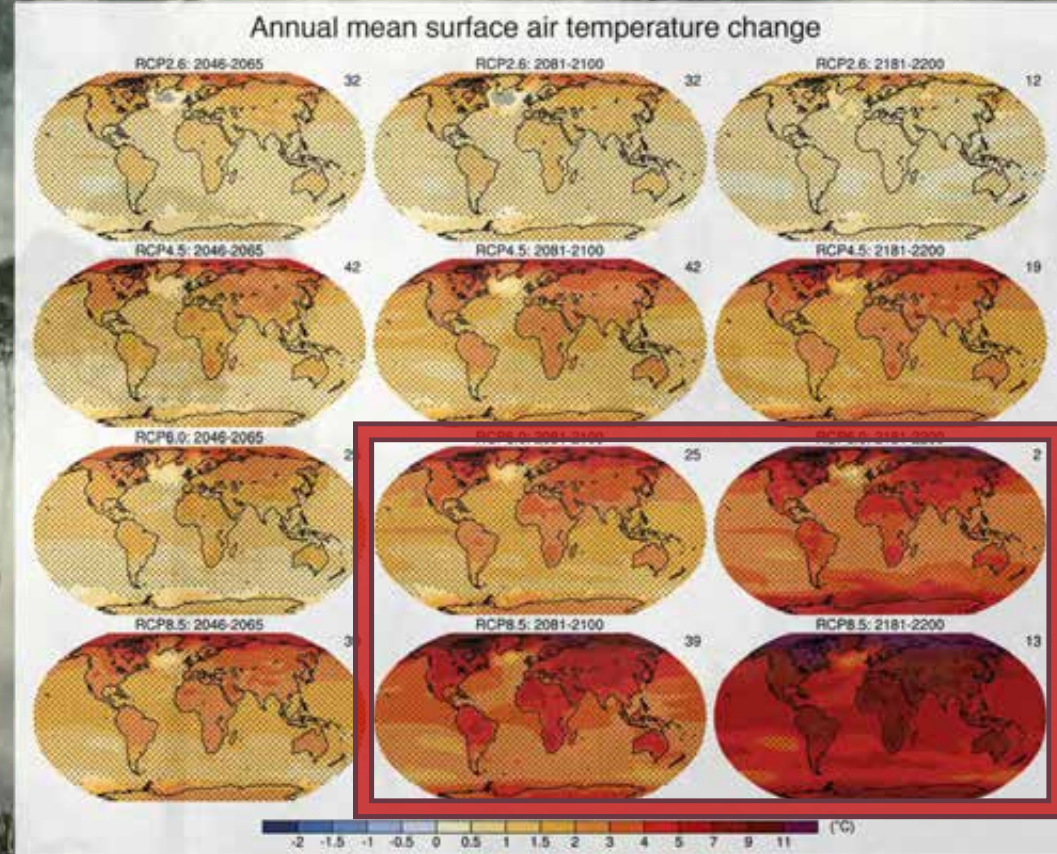
2018 Nobel Prize: focus on sustainable growth

By Sergei Guriev

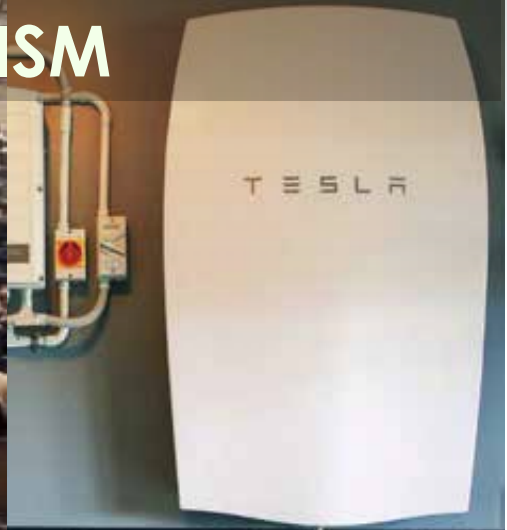
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CAPITALISM HAS NEVER EXISTED WITHOUT COLONIALISM

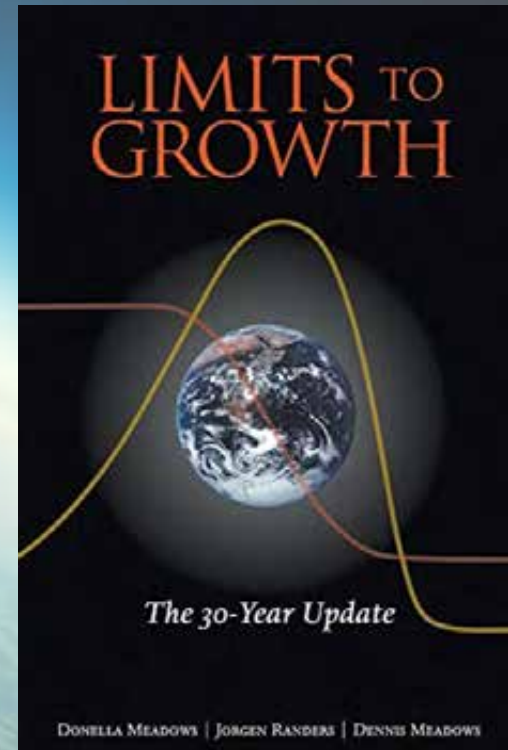
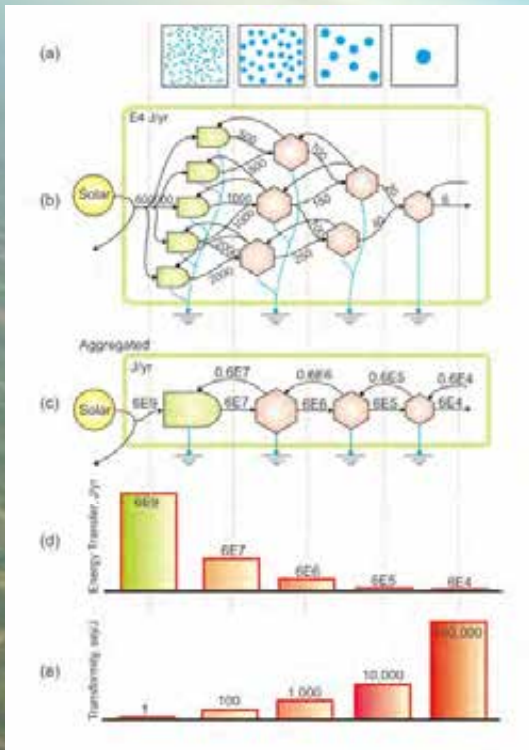


THERE MUST BE SOMETHING **BETTER**

A SCIENTIFICALLY VALID + HOLISTIC APPROACH?



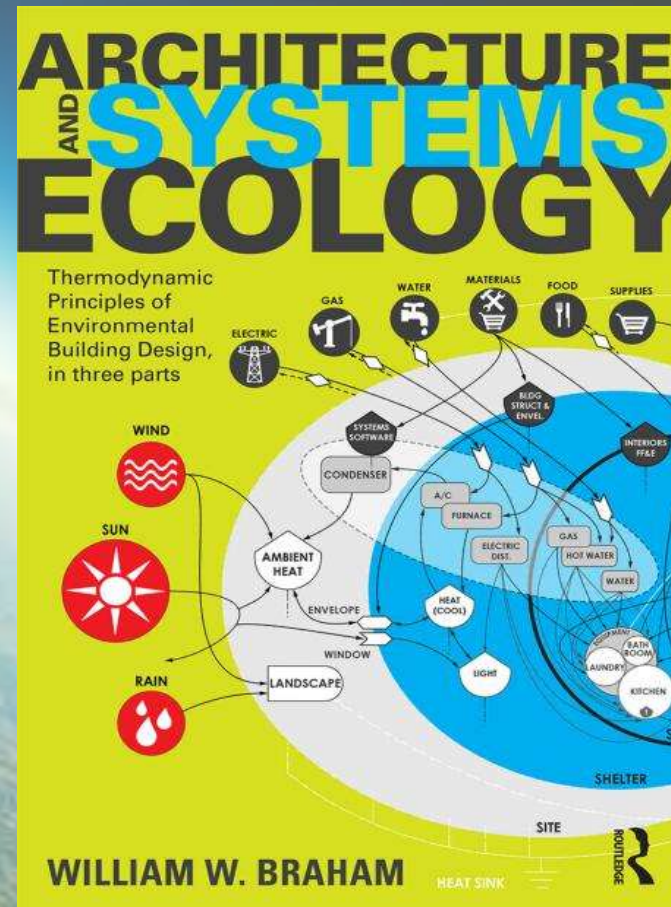
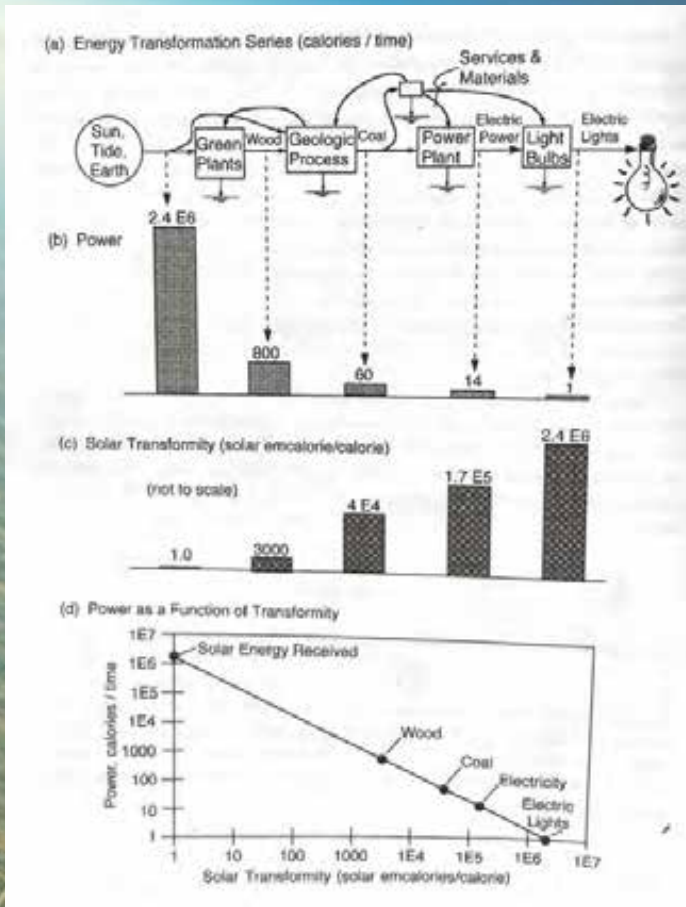
ECOLOGICAL ECONOMICS + THE LIMITS TO GROWTH



PEOPLE HAVE UNDERSTOOD FOR OVER 50 YEARS THAT SOCIETIES IGNORE ECOLOGICAL LAWS AT THEIR OWN PERIL

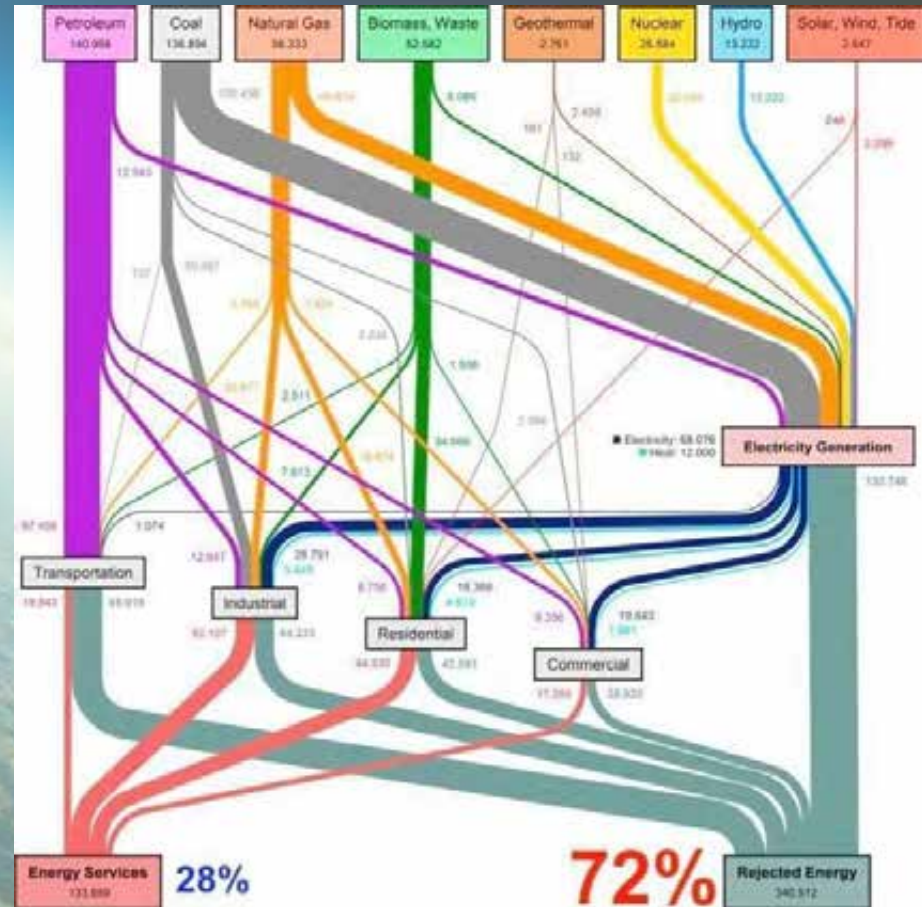
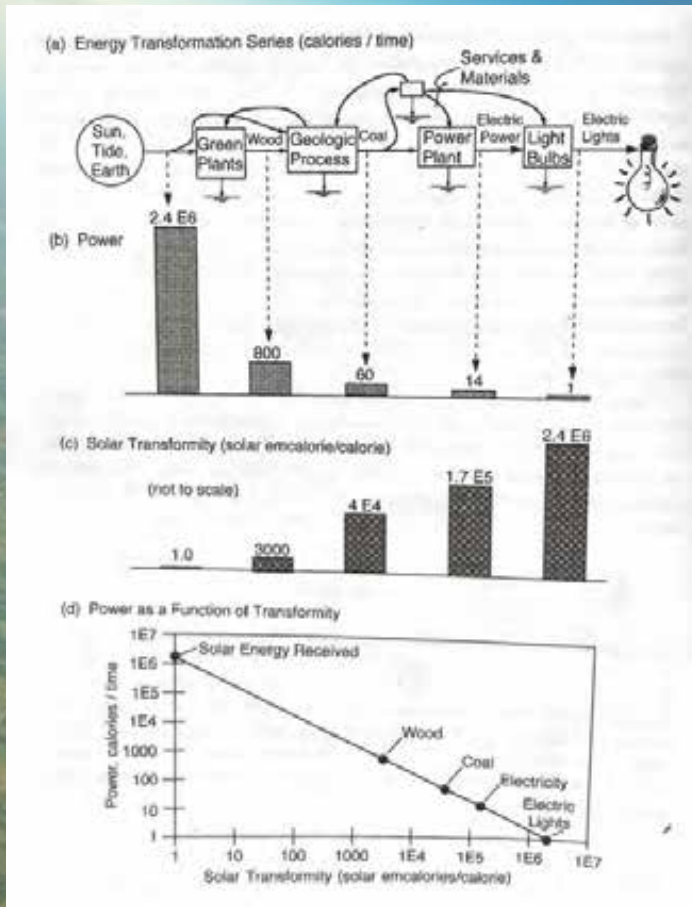
FIT INSTITUTIONS AND INDUSTRIES TO GLOBAL ECOLOGICAL REALITIES

ECOLOGICAL ECONOMICS



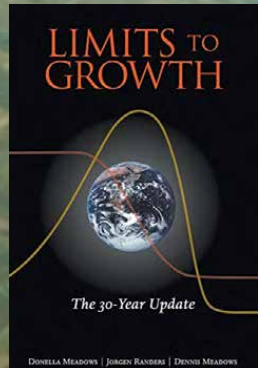
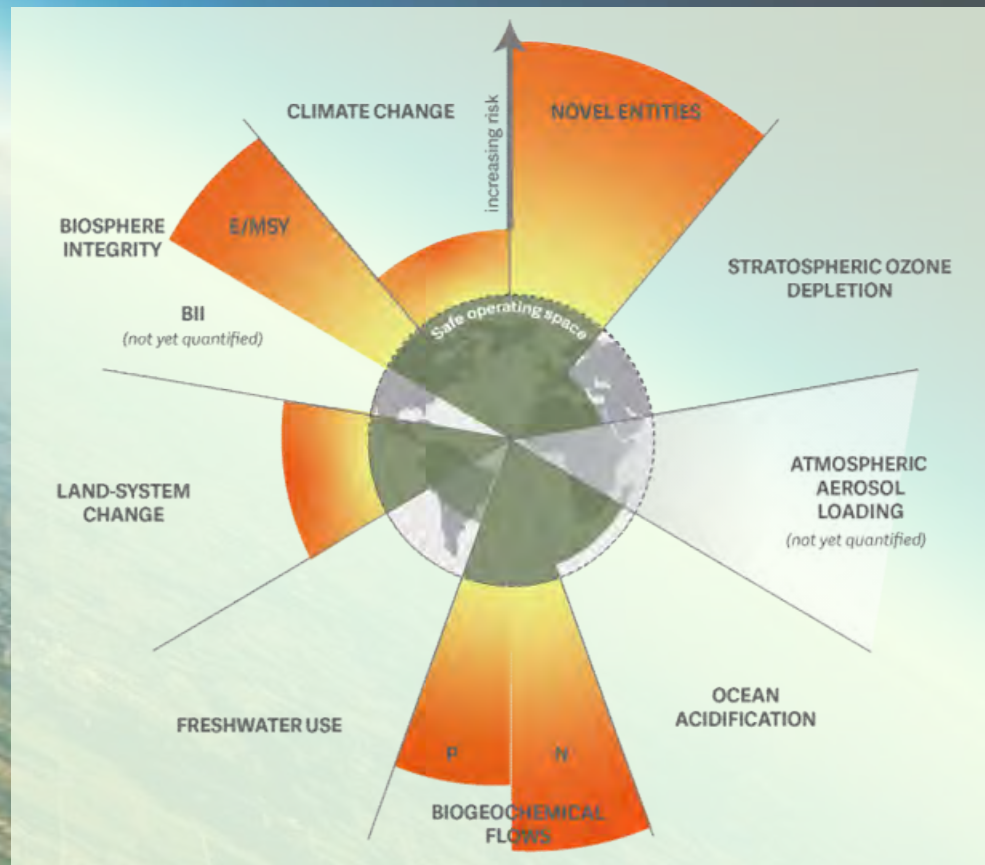
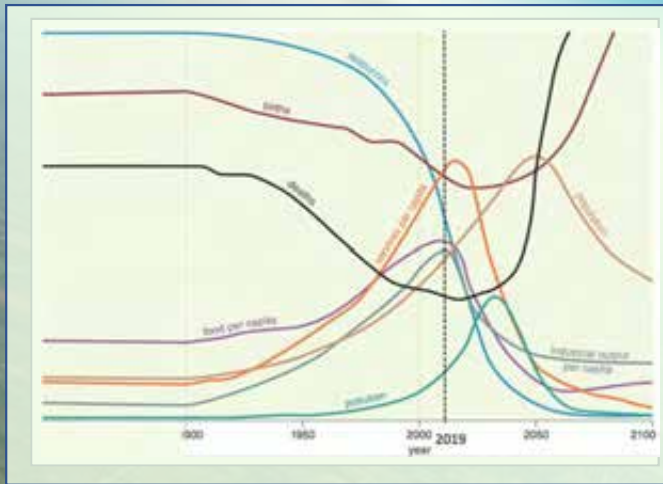
THE SECOND LAW OF THERMODYNAMICS AND THE PATH TO ZERO

ECOLOGICAL ECONOMICS



THE SECOND LAW OF THERMODYNAMICS AND THE PATH TO ZERO

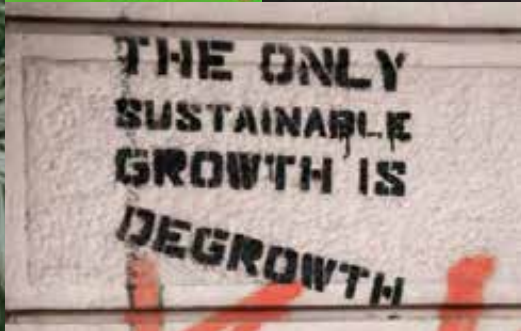
ECOLOGICAL ECONOMICS + LIMITS TO GROWTH + PLANETARY LIMITS



JOHAN ROCKSTROM + THE CONCEPT OF PLANETARY LIMITS

DEGROWTH + STEADY STATE

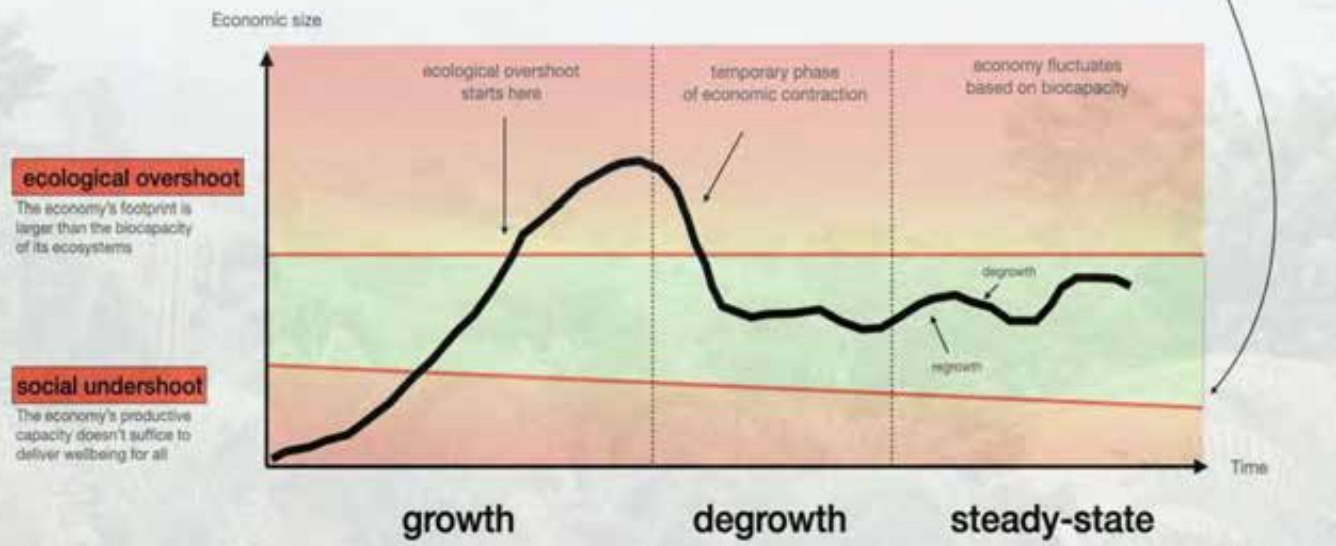
FUNCTION WITHIN PLANETARY LIMITS AND THE CAPACITY FOR REGENERATION



Degrowth towards a steady-state economy

A transition pathway for Europe

socio-technical progress can slightly decouple wellbeing from environmental pressures



DE-GROW TO REACH **DYNAMIC EQUILIBRIUM**



REGENERATIVE ECONOMICS WOULD EMULATE DYNAMICS OF LIVING SYSTEMS

ALL IMPACTS ARE INTEGRAL TO THE SYSTEM

DYNAMIC EQUILIBRIUM WITHIN NATURAL LIMITS

RESOURCE SHARING + MUTUAL AID

SYMBIOSIS

COMPETITION

INTER-BEING



CAPITAL INSTITUTE

DONATE NOW



NEW WAYS OF SEEING, THINKING, BEING AND
LEADING FOR THE 21ST CENTURY

We are a non-partisan think tank working to
create a more just and sustainable way of
life on earth



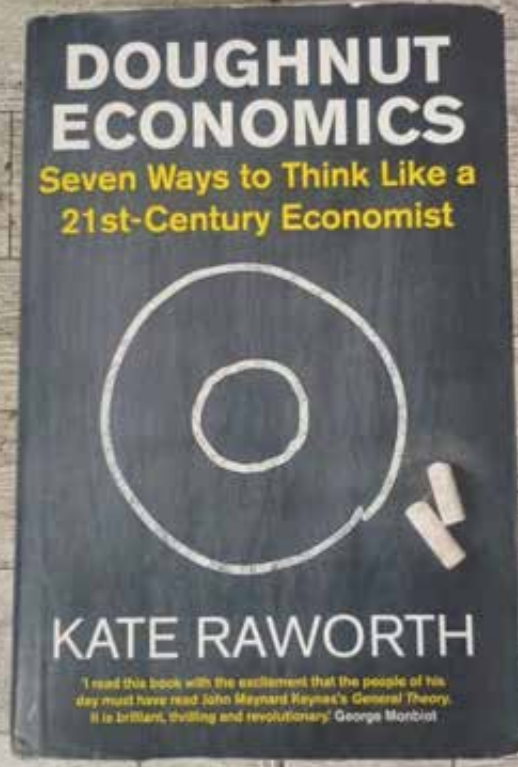
HOW UNIVERSAL PRINCIPLES AND PATTERNS WILL
SHAPE OUR NEW ECONOMY



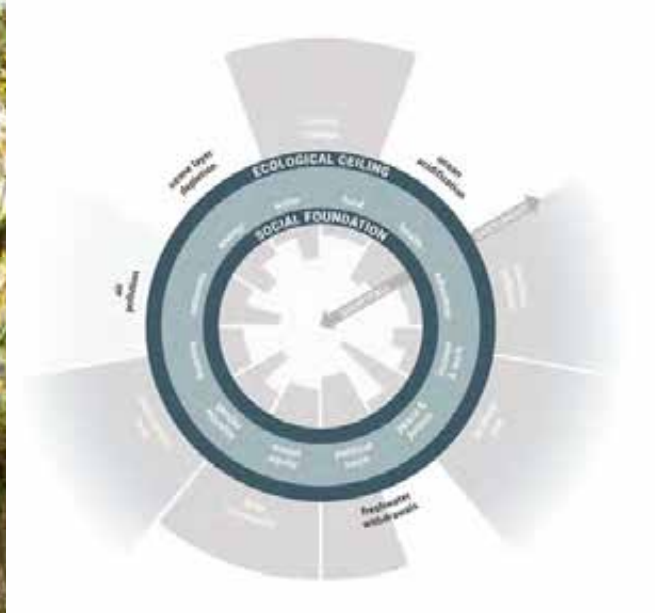
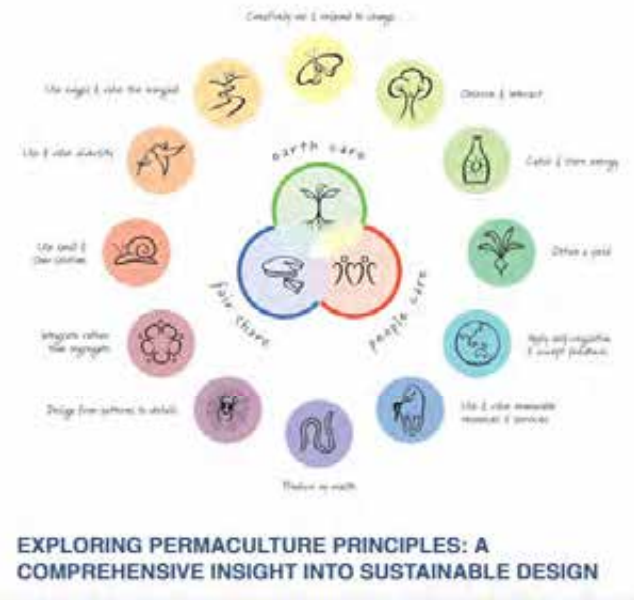
John Fullerton

Founder, Capital Institute

REGENERATIVE **ECONOMICS**



REGENERATIVE ECONOMICS



REGENERATIVE ECONOMICS



EXPLORING PERMACULTURE PRINCIPLES: A COMPREHENSIVE INSIGHT INTO SUSTAINABLE DESIGN

Doughnut Principles of Practice

To ensure the integrity of the ideas of Doughnut Economics, we ask that the following principles are followed by any initiative that is working to put the ideas of Doughnut Economics into practice.

<p>Embrace the 21st Century Goal</p> <p>Aim to meet the needs of all people within the means of the planet. Seek to align your organization's purpose, networks, governance, ownership and finance with this goal.</p>	<p>See the big picture</p> <p>Recognize the potential roles of the household, the company, the market and the state – and their many synergies – in transforming economies. Ensure that decisions serve the weak rather than the strong.</p>	<p>Nurture human nature</p> <p>Promote diversity, participation, collaboration and reciprocity. Strengthen community networks and work with a spirit of high trust. Care for the wellbeing of the least.</p>
<p>Think in systems</p> <p>Experiment, learn, reflect, monitor and aim for continuous improvement. Be open to dynamic effects, feedback loops and tipping points.</p>	<p>Be distributive</p> <p>Work in the spirit of open design and share the value created with all who co-created it. Be aware of power and seek to redistribute it to improve equity amongst stakeholders.</p>	<p>Be regenerative</p> <p>Aim to work with and within the cycles of the living world. Be a sharer, regenerator, innovator. Always. Reduce travel, maximize rights, be climate and energy smart.</p>
<p>Aim to thrive rather than to grow</p> <p>Don't let growth become a goal in itself, those whom to let the work spread but not others rather than scale up in size.</p>	<p>Be strategic in practice</p> <p>Be where the energy is – but always ask whose needs is left out. Balance openness with integrity, so that the work spreads without capture. Share back learning and innovation to unleash the power of peer-to-peer inspiration.</p>	

REGENERATIVE ECONOMICS

REGENERATIVE DESIGN + ECONOMICS

ADMIRABLE SENTIMENTS, BUT HOW DO WE APPLY THESE TO DESIGN AND CONSTRUCTION?

AND HOW DO WE OVERCOME THE INSTITUTIONAL INERTIA OF A GLOBAL FINANCIAL SYSTEM AND FOSSIL FUEL -BASED ECONOMY?

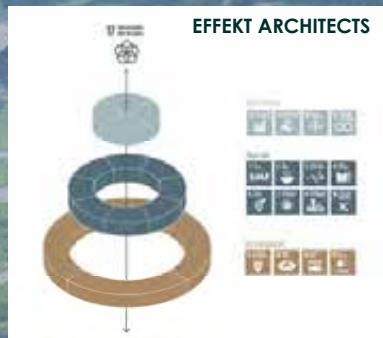


MASS DESIGN GROUP, RWANDAN INSTITUTE FOR CONSERVATION AGRICULTURE

REGENERATIVE DESIGN + ECONOMICS

MACRO

ALTERNATIVE NARRATIVE OF SOCIAL CONTRACT – CHANGE IN CULTURE – SOCIAL BEFORE TECHNICAL



CENTRAL BANKS POLICY

MEZZO

SOCIO-METABOLIC ANALYSIS

RESTORATION OF THE COMMONS

SYSTEMS OF GOVERNANCE

DEMOCRATIC PLANNING

REGENERATIVE DESIGN + PRACTICE

ALTERNATIVE MODES OF PRODUCTION

ALTERNATIVE SYSTEMS OF EXCHANGE?

ALTERNATIVE MODELS OF OWNERSHIP

ALTERNATIVE RULES OF THE MARKET

ALTERNATIVE INVESTMENT VEHICLES

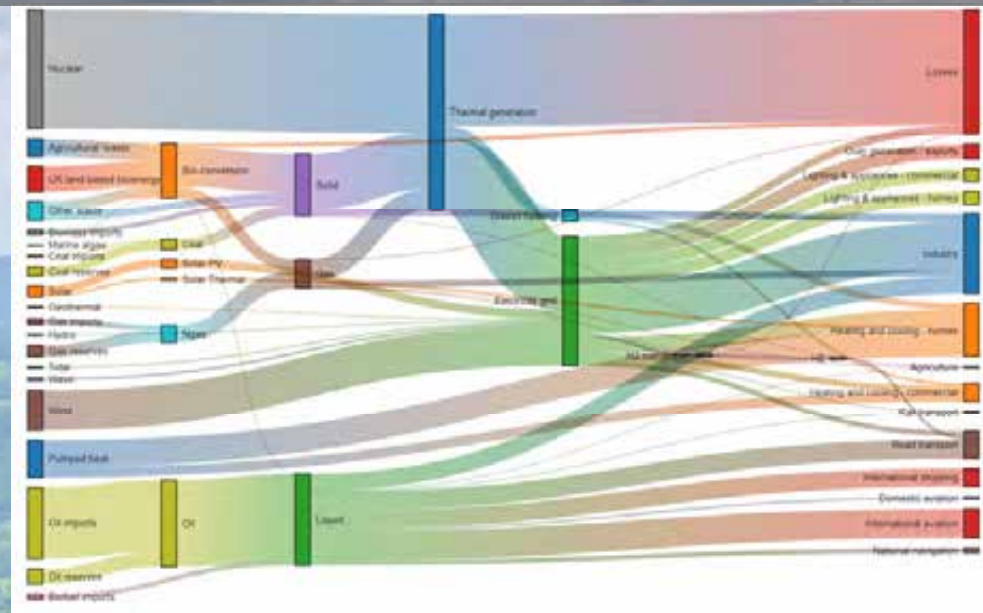
INTEGRATION WITH GLOBAL MARKET

MICRO

RECOGNIZE RELATIONALITY + INTERDEPENDENCE

SOCIOMETABOLIC ANALYSIS TO DEFINE OUR LIMITS

Total GHG emissions worldwide: 53.7 Gt CO₂eq (2017)

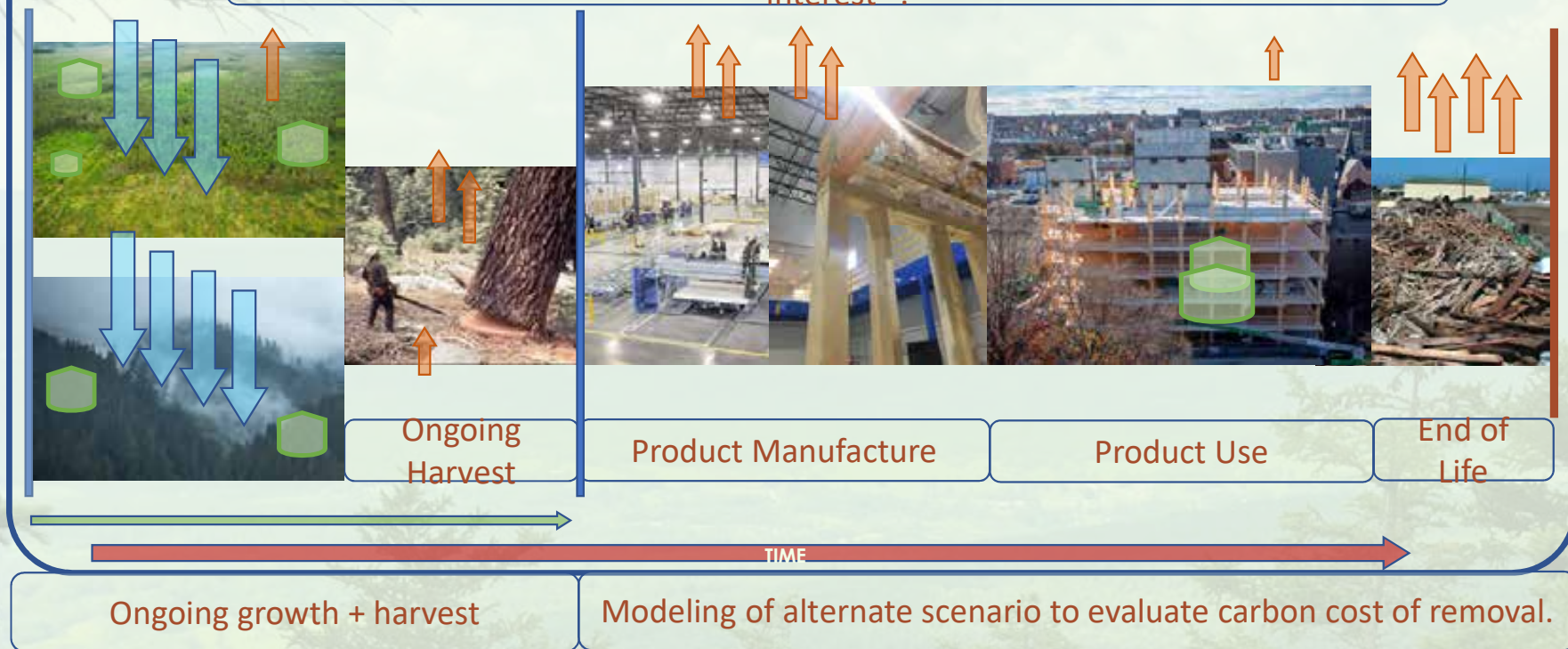


ECONOMY-WIDE RESOURCE AND ENERGY FLOW ACCOUNTING

RECOGNIZE RELATIONALITY + INTERDEPENDENCE

SOCIOMETABOLIC ANALYSIS TO DEFINE OUR LIMITS

APPROACH 4: Compares net Carbon removals from “supply area” over “period of interest” .

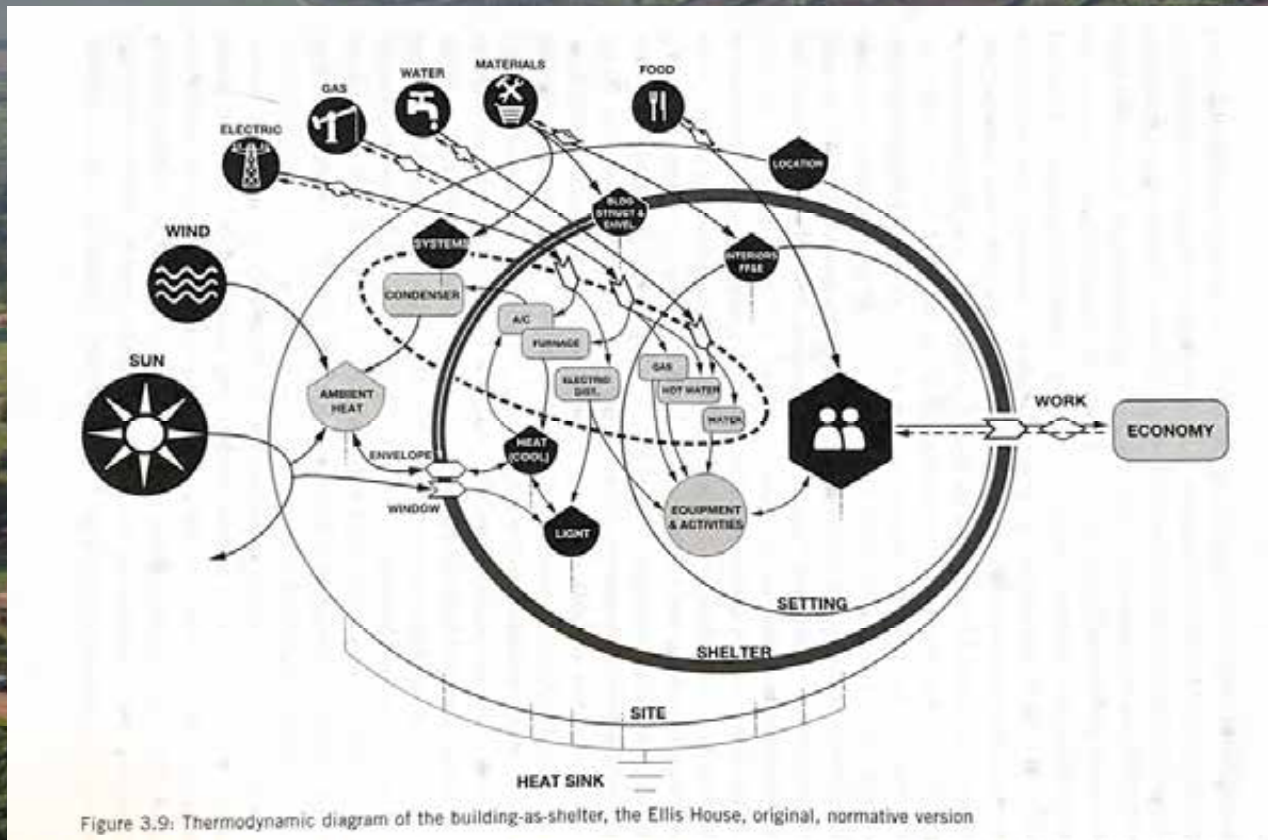


ADAPTED FROM CLF SEMINAR PRESENTATIONS BY REID MINER, RETIRED
NCASI

ECONOMY-WIDE RESOURCE AND ENERGY FLOW ACCOUNTING

RECOGNIZE RELATIONALITY + INTERDEPENDENCE

SOCIOMETABOLIC ANALYSIS TO DEFINE OUR LIMITS



BUILDINGS AS A CATALYST FOR SYSTEMIC CHANGE

RECOGNIZE RELATIONALITY + INTERDEPENDENCE

EMBODIED RELATION TO GEOGRAPHY, ECOLOGY + CULTURE

MASS DESIGN GROUP, RWANDAN INSTITUTE FOR CONSERVATION AGRICULTURE

EMPLOYMENT OF LOCAL POULATION - 90% OUT OF WORKFORCE OF 700 WAS LOCAL RESIDENTS

90% OF SUPPLY CHAIN WAS FROM WITHIN 500 MILES

LOCAL WOOD FOR FLEDGLING , LOW CARBON INDUSTRY

PRODUCTS FABRICATED FROM ONSITE RESOURCES

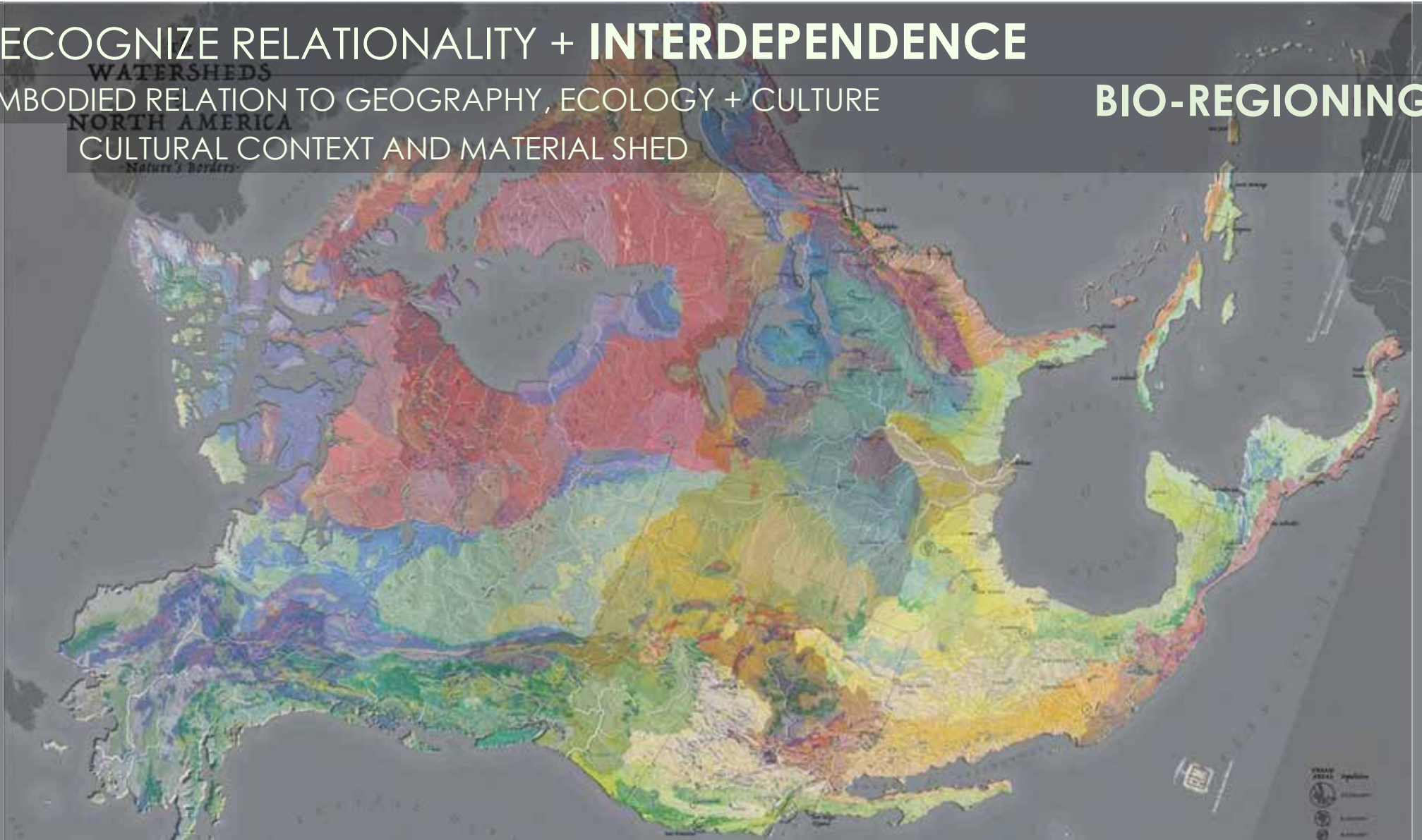
CLIMATE POSITIVE BY 2024

MASS DESIGN GROUP, RWANDAN INSTITUTE FOR CONSERVATION AGRICULTURE

RECOGNIZE RELATIONALITY + INTERDEPENDENCE

WATERSHEDS
EMBODIED RELATION TO GEOGRAPHY, ECOLOGY + CULTURE
NORTH AMERICA
CULTURAL CONTEXT AND MATERIAL SHED

BIO-REGIONING



THE REGENERATIVE DESIGN + ECONOMICS OF HEMP

The secret ingredient in Paris' green public housing

How cannabis can be part of an affordable housing future — not just one for eco-conscious cities.



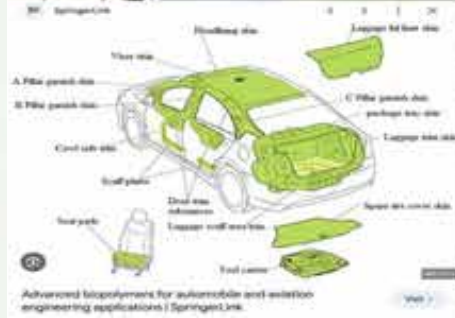
Hemp acreage across Europe

Portion of total hemp surface area in 2018

- 3%
- 4%
- 7%
- 8%
- 37%



Source: ERS.
© 2019 Marijuana Business Daily. All rights reserved.



WHAT WOULD OUR BIOREGION LOOK LIKE



REGENERATIVE **ECONOMICS**

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

EMBODIED RELATION TO GEOGRAPHY, ECOLOGY + CULTURE

SOCIO-METABOLIC ANALYSIS

CULTURE AND HISTORICAL CONTEXT

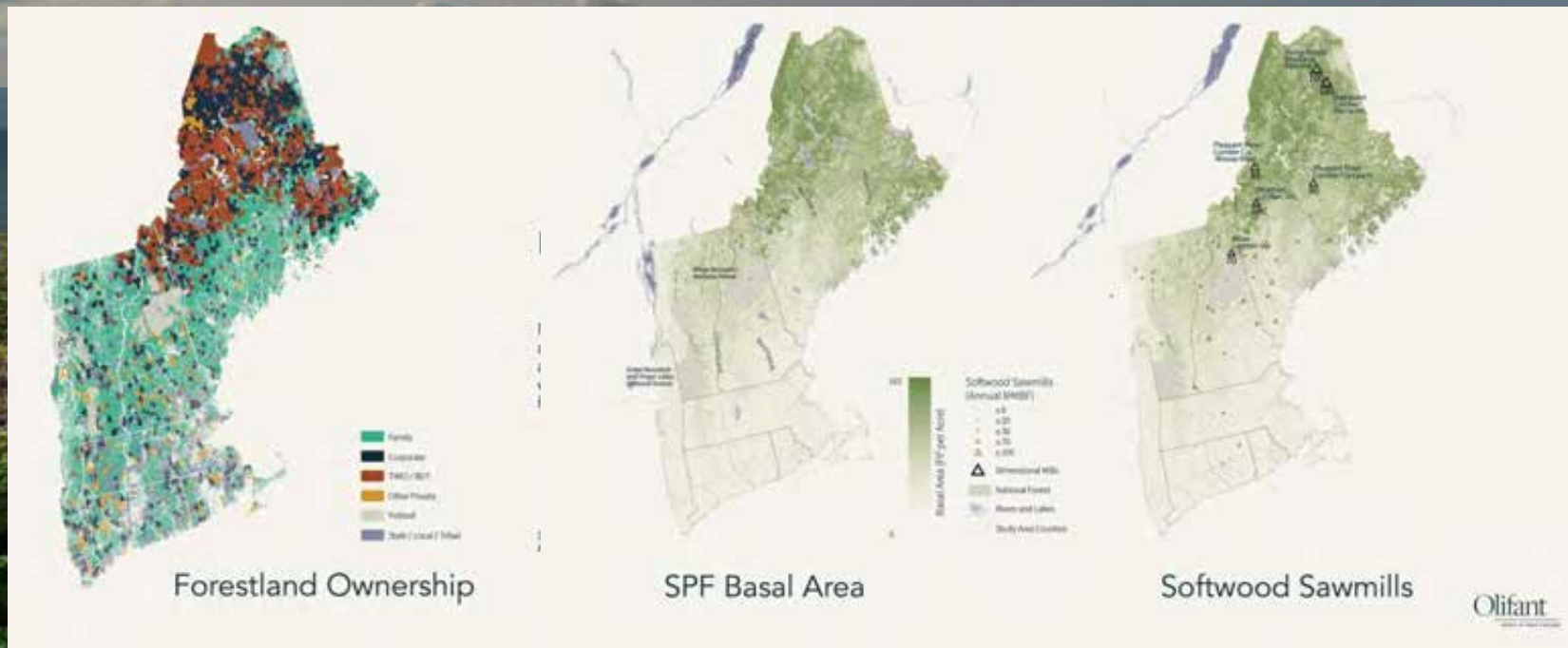
WHAT ARE APPROPRIATE MATERIALS + TECHNOLOGIES?

ALTERNATIVE, APPROPRIATE MODES OF PRODUCTION



BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

AVAILABLE RENEWABLE RESOURCES



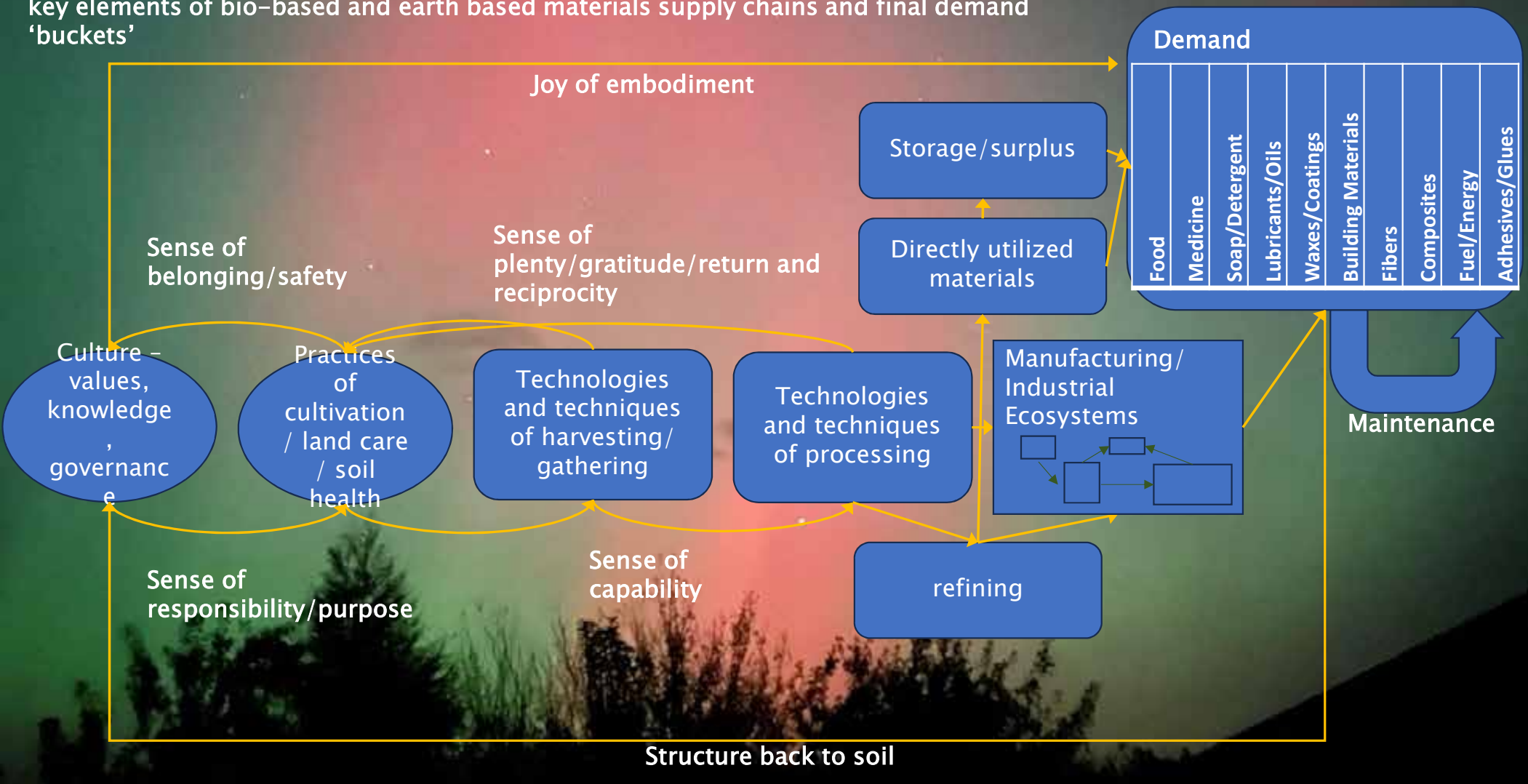
BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

SUPPLY CHAIN



From a culture of care to the embodiment of care

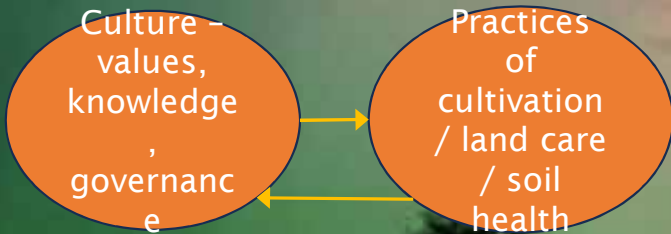
key elements of bio-based and earth based materials supply chains and final demand 'buckets'



From a culture of care to the embodiment of care

- Food
- Medicine
- Soaps and Detergents
- Lubricants and Oils
- Waxes and Coatings
- Building Materials**
- Fibers and Clothing
- Composites
- Fuel/Energy
- Adhesives/Glues

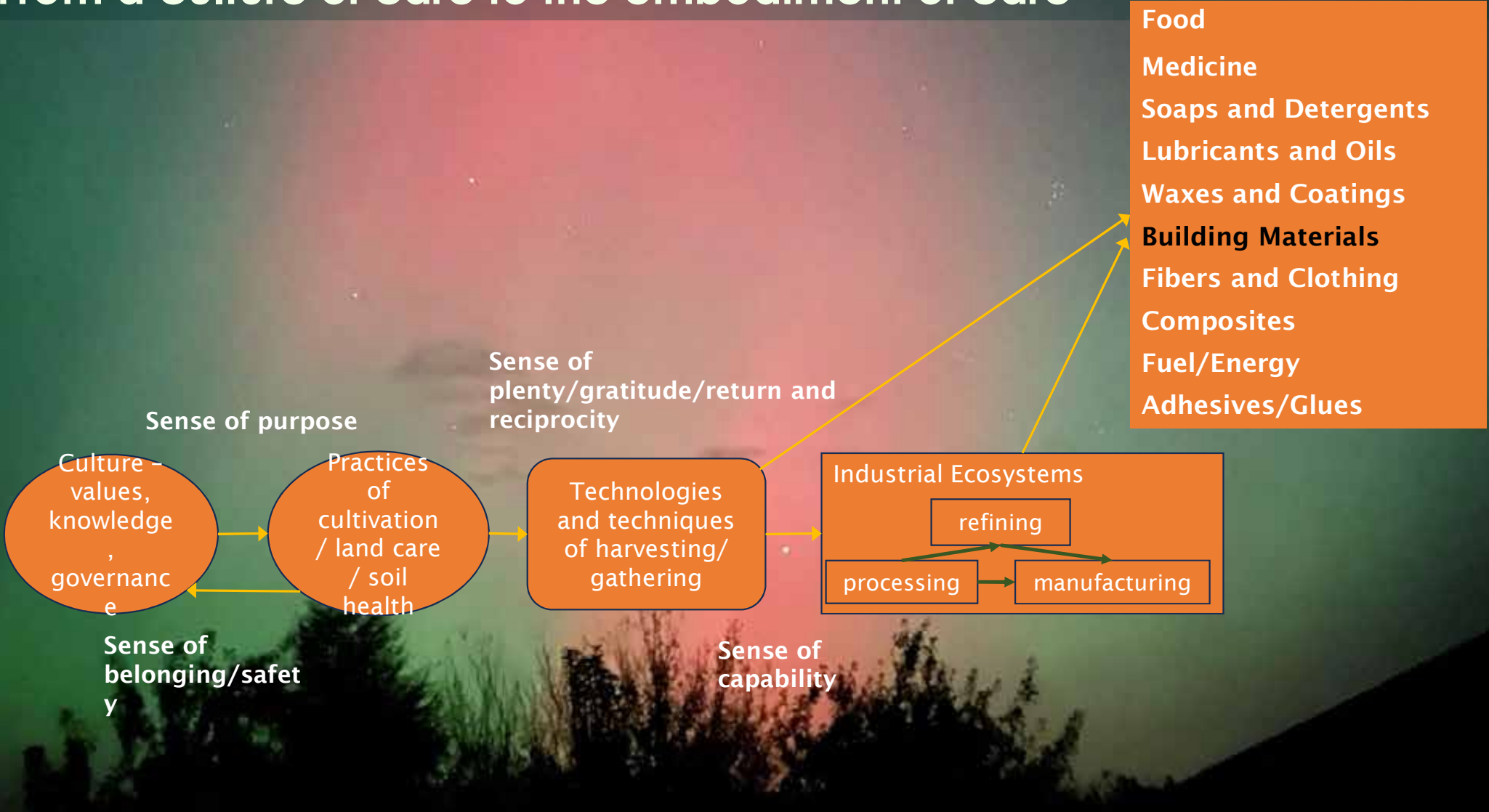
Sense of purpose



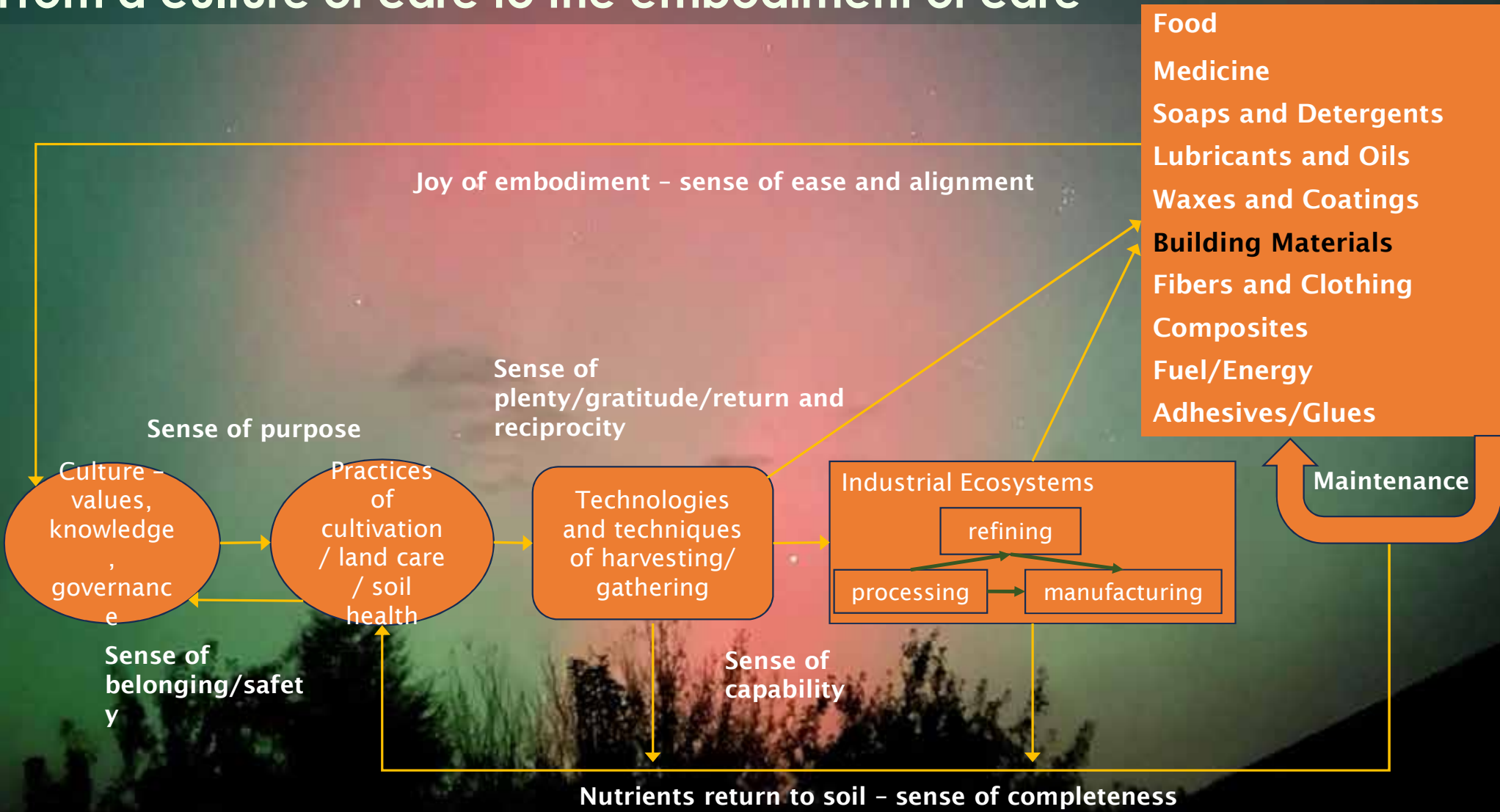
Sense of belonging/safety



From a culture of care to the embodiment of care



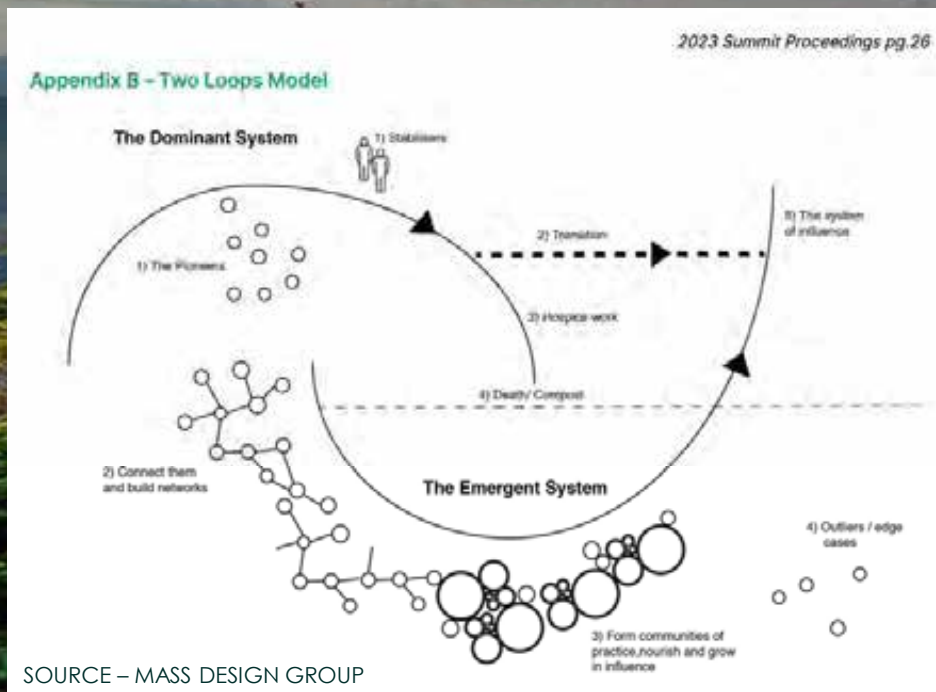
From a culture of care to the embodiment of care



BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

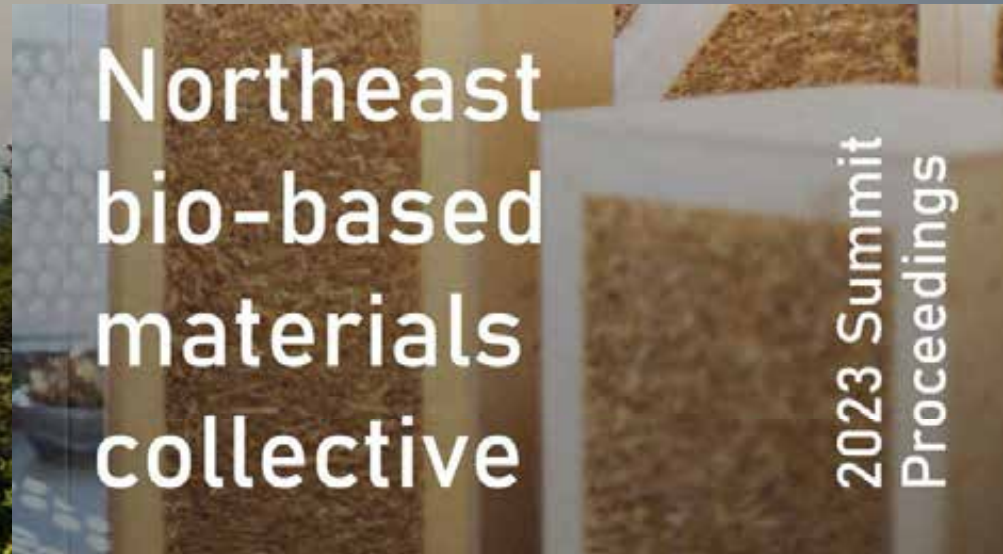
ALTERNATIVE NARRATIVES— CHANGE IN CULTURE – SOCIAL BEFORE TECHNICAL

BUILD CULTURAL AGREEMENT AND SUPPORT THE NEW MARKET



BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

BUILD CULTURAL AGREEMENT AND SUPPORT THE NEW MARKET



BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

BUILD CULTURAL AGREEMENT AND SUPPORT THE NEW MARKET

PASSIVE + CONSERVATION FIRST METHODS

SPECIFY REGIONAL + RENEWABLE MATERIALS

INFORM CLIENTS OF ECOLOGICAL AND SOCIAL IMPACTS

FOSTER RELATIONSHIPS WITH PRODUCERS AND PROCESSORS – REQUEST TRANSPARENCY



BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

EMPOWERED PARTICIPATION – A HOLISTIC VIEW OF EFFICIENCY



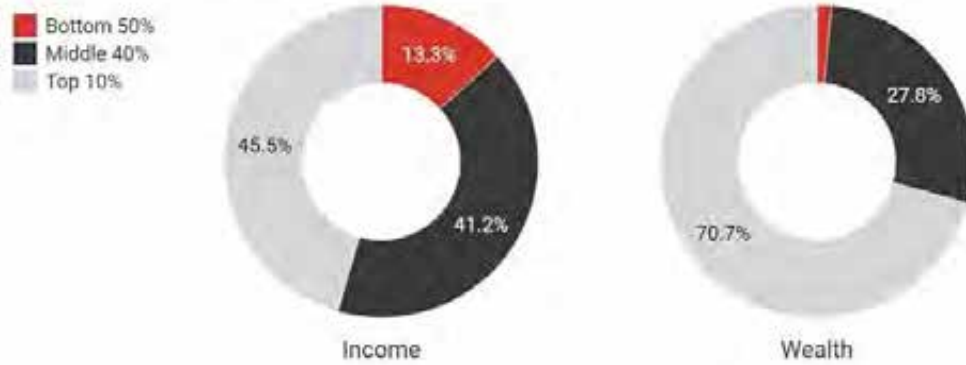
MASS DESIGN GROUP, NORRSKEN KIGALI HOUSE

BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

EMPOWERED PARTICIPATION – A HOLISTIC VIEW OF EFFICIENCY

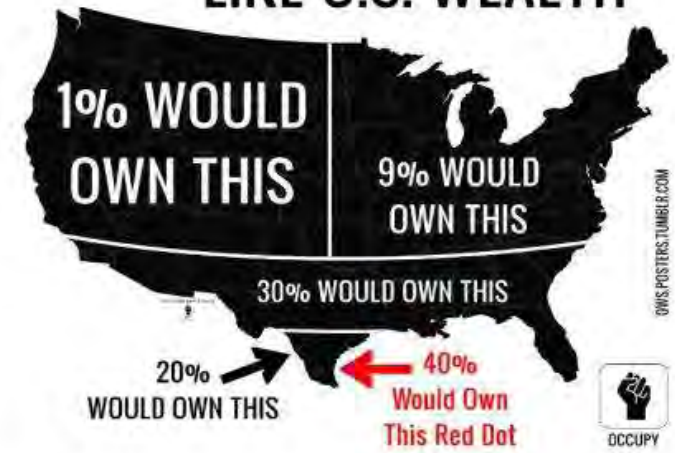
US income and wealth inequality

In the United States, the 10% earning the highest incomes take home nearly half of all income and the richest 10% of all households own more than 70% of all the wealth.



Wealth inequality is measured using the distribution of net household wealth among adults. Income inequality is measured using the distribution of pre-tax national income among adults.

IF U.S. LAND WERE DIVIDED LIKE U.S. WEALTH



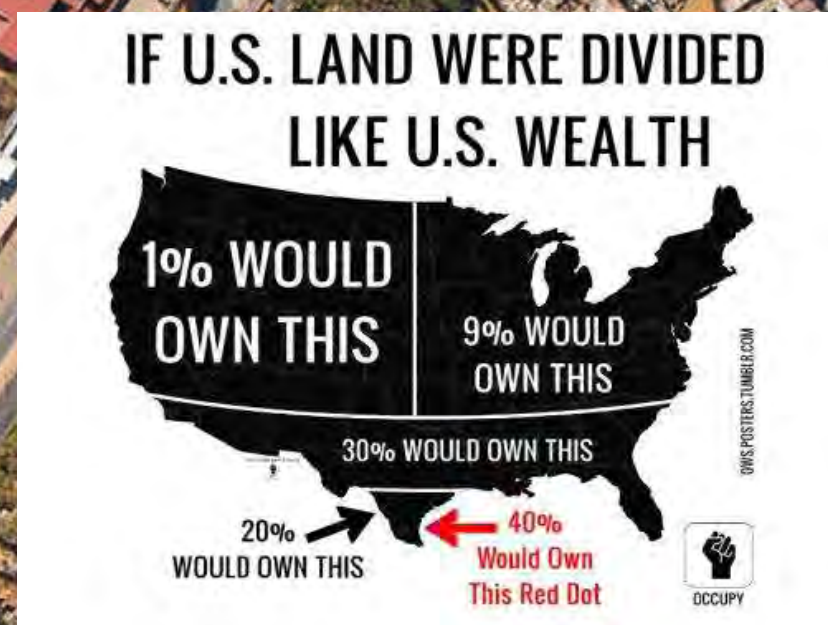
6WS POSTERS.TUMBLR.COM



OCCUPY

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

EMPOWERED PARTICIPATION – A HOLISTIC VIEW OF EFFICIENCY



INEFFICIENCY OF WEALTH A PROPERTY USE TO **THE FEW**



BUILDING THE NEW SOCIO-ECONOMIC SYSTEM
EMPOWERED PARTICIPATION – A HOLISTIC VIEW OF EFFICIENCY

**50% of Land Held by
1% of Landlords**

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

EMPOWERED PARTICIPATION – A HOLISTIC VIEW OF EFFICIENCY



Agroecology:
\$700/hectare
Pasture land:



Land Reform by MST

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

EMPOWERED PARTICIPATION – A HOLISTIC VIEW OF EFFICIENCY

ALTERNATIVE MODES OF **EXCHANGE**



ALTERNATIVE MEANS OF EXCHANGE

INDIGENOUS RECIPROCAL OBLIGATION SYSTEMS

MUTUAL AID AND RESOURCE SHARING

ROTATIONAL LABOR ASSOCIATIONS (ROLAs)

ROTATIONAL SAVINGS AND CREDIT ASSOCIATIONS (ROSCAs)



ALTERNATIVE MEANS OF EXCHANGE

Commitment Pooling - An Economic Protocol Inspired by Ancestral Wisdom

William O. Ruddick - Founder of Grassroots Economics Foundation (will@grassecon.org)



Will Ruddick, founder of Grassroots Economics



Commitment Pooling and Community Asset Vouchers

ALTERNATIVE MEANS OF EXCHANGE

LOCAL ASSET POOLING VOUCHERS

“WE ARE THE ECONOMY. WE ARE THE ONES BACKING OUR OWN MONEY”



ALTERNATIVE MEANS OF **EXCHANGE**

RECIPROCAL OBLIGATIONS



The Evolution of Cooperation; Cooperative Evolution



At least 12% of people on earth is a cooperators of any of the 3 million cooperatives on earth. Cooperatives provide jobs or work opportunities to 10% of the employed population, and the three hundred largest cooperatives or mutuals generate 2,409.41 billion USD in turnover while providing the services and infrastructure society needs to thrive (World Cooperative Monitor).



An aerial photograph of a large, modern residential complex. The complex consists of several high-rise apartment buildings with a distinctive curved facade and a grid-like window pattern. The buildings are surrounded by lush green trees and a central courtyard area. In the background, a cityscape and distant hills are visible under a clear sky.

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EMPOWERED PARTICIPATION – AGENCY THROUGH OWNERSHIP

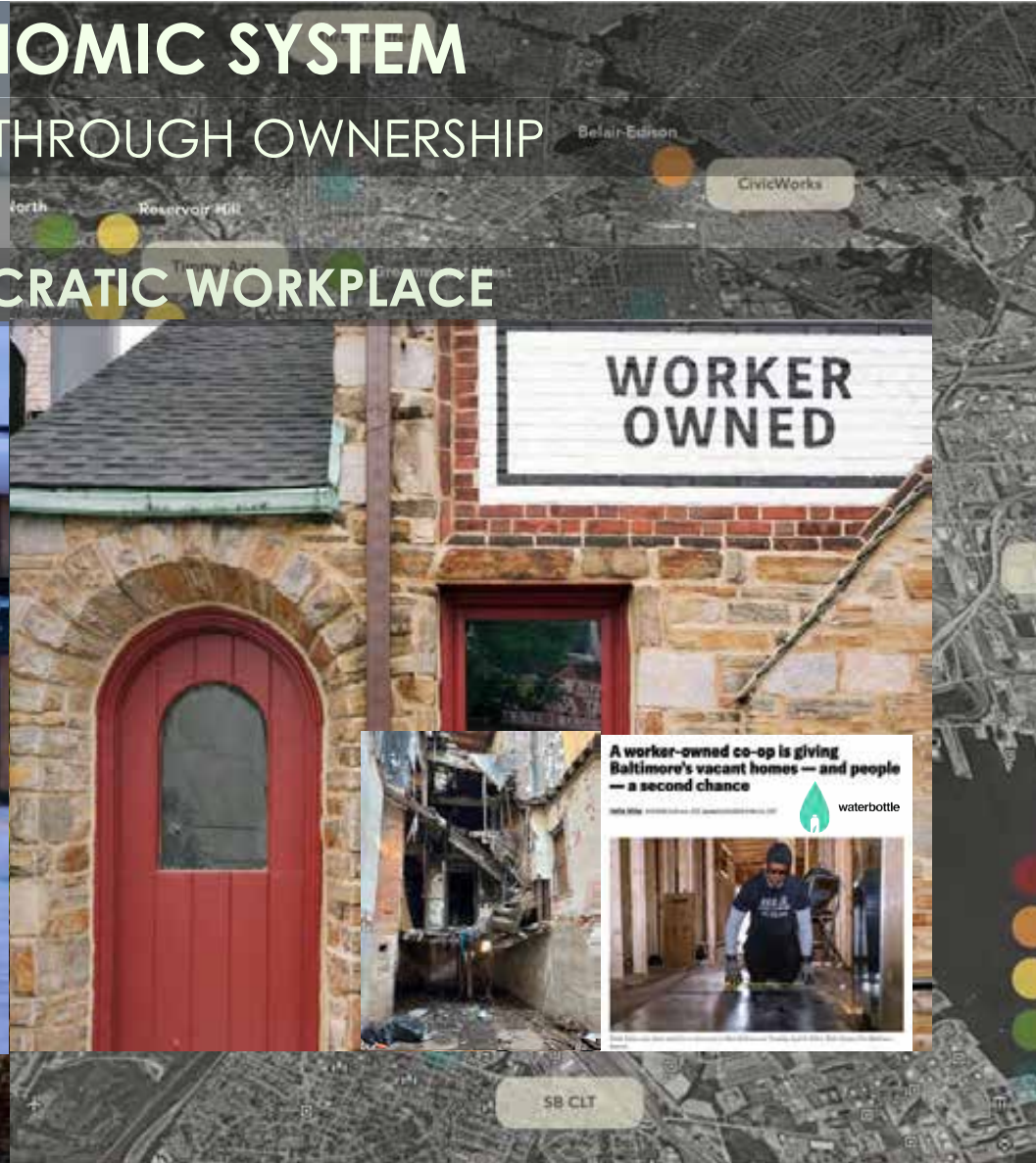
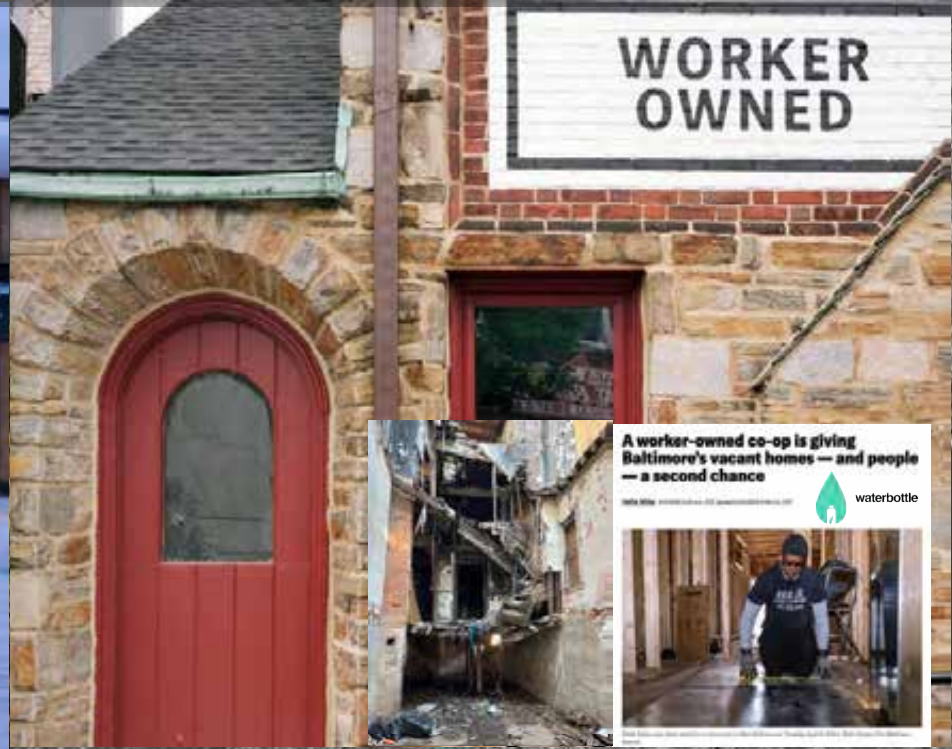
OWNERSHIP + **CO-OPERATIVES**

REGENERATIVE **ECONOMICS**

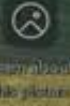
BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

EMPOWERED PARTICIPATION – AGENCY THROUGH OWNERSHIP

WORKER OWNERSHIP FOR A DEMOCRATIC WORKPLACE



MORE PRODUCTIVE, MORE STABLE, **SUCCESSFUL AT SCALE**
AUTOMATICALLY RETURNS VALUE TO THE COMMUNITY

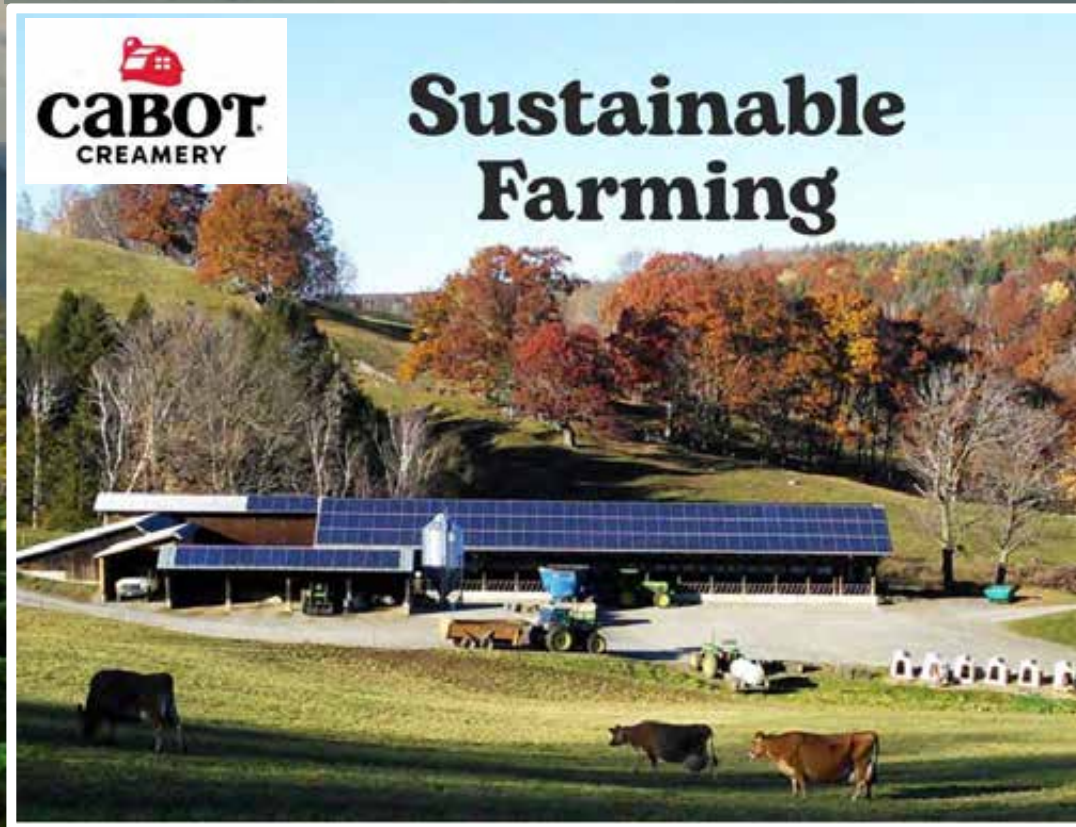


70,000 EMPLOYEES,

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

EMPOWERED PARTICIPATION – AGENCY THROUGH OWNERSHIP

ECONOMIC RESILIENCE



Cooperatives surviving (and thriving in) hostile market conditions

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

EMPOWERED PARTICIPATION – AGENCY THROUGH OWNERSHIP

SOCIAL HOUSING

Public funding creates housing where private investment refuses action

State, Non-profit, or cooperatively owned:
Permanently affordable, Rented **at cost**

Aligns goals of developer with long-term energy performance of the building



BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

EMPOWERED PARTICIPATION – AGENCY THROUGH OWNERSHIP

SOCIAL HOUSING

The Social Housing Secret: How Vienna Became the World's Most Livable City

In the Austrian capital, renters pay a third of what their counterparts do in London, Paris or Dublin. How is it possible?

By Philip Oltermann — January 13, 2024 — 7 Article · No Comments · 11 Mins Read
Source: The Guardian

Can Other Cities Replicate Seattle's Win on Green Social Housing?

How activists sold voters on an excess compensation payroll tax on corporations.

Text by
Anjolie Rao



The New York Times

A New Bill Could Bring 'Social Housing' to New York

The bill would create a state agency to build developments that would be affordable but wouldn't rely wholly on public subsidies.

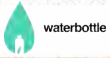
Share full article



More lawmakers have come to agree that more construction is sorely needed to solve a housing crisis. Kirsten Mosen for The New York Times



A worker-owned co-op is giving Baltimore's vacant homes — and people — a second chance



Heights



Belair Edison

CivicWorks



Greenmount West

North
HEAD

Druid Heights

Carri Beer +
Michael Hindle



North Ave Tool Bank



BYI MARKETPLACE AT CHERRY HILL
638 Cherry Hill Road, Baltimore, MD 21225
Every Saturday From 10 AM to 5 PM



- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- BEYOND...

Halethorpe

Lanowne

A worker-owned co-op is giving Baltimore's vacant homes — and people — a second chance



Belair Edison

CivicWorks



Greenmount West

North BEAD

Druid Heights

Carri Beer + Michael Hindle

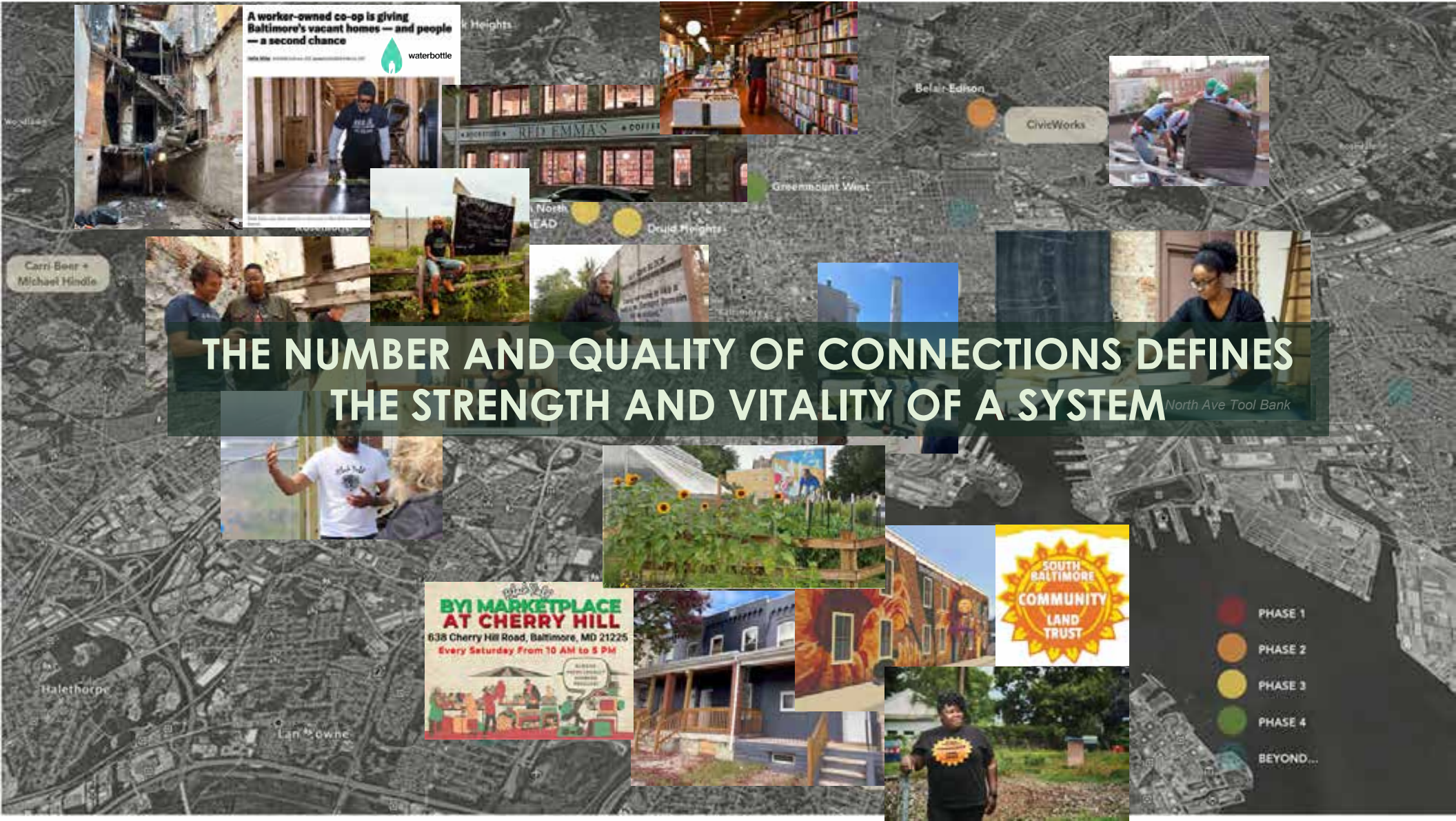


THE NUMBER AND QUALITY OF CONNECTIONS DEFINES THE STRENGTH AND VITALITY OF A SYSTEM

North Ave Tool Bank



- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- BEYOND...





Wilmington

Aberdeen

Dove

Annapolis

Sterling

Reston

Aspen Hill

German town

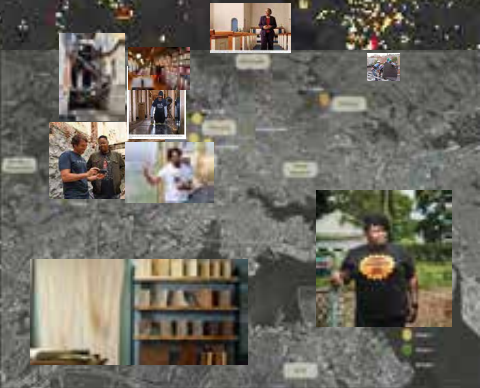
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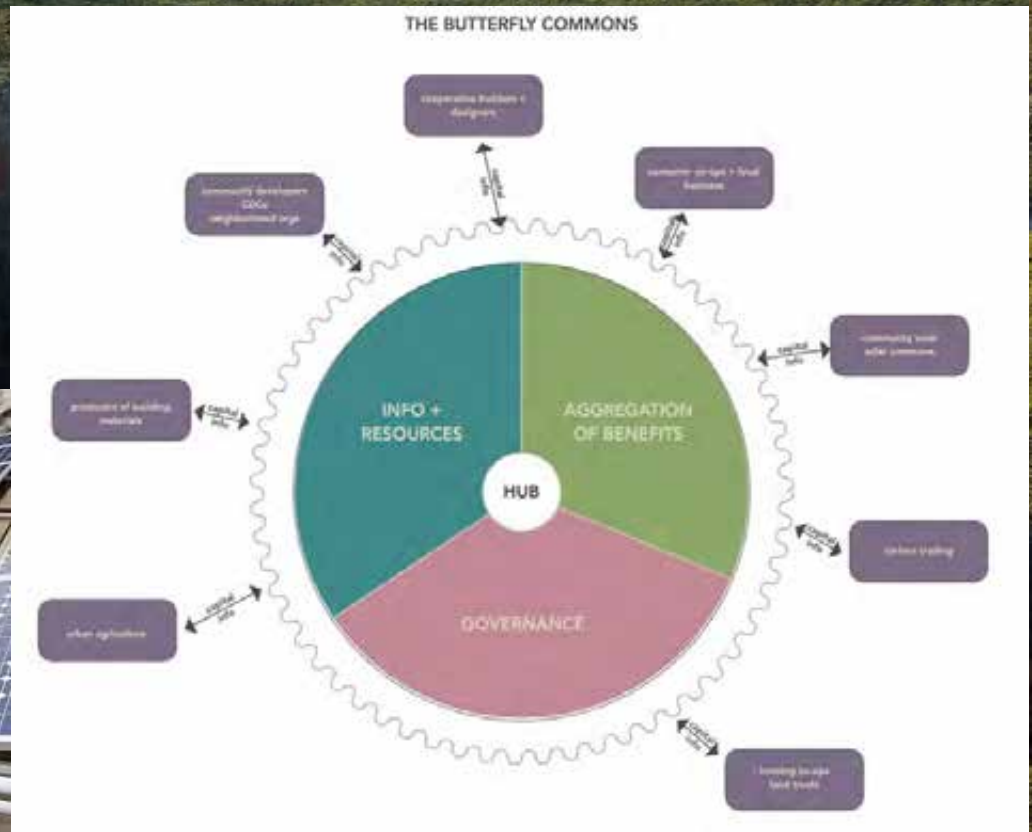
Macdonald's notes for forest, wildlife, and
wildlife resource management



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NETWORKS CO-OPS OF CO-OPS

Co-ops can support one another by doing business and pooling resources
Can create their own economic networks



BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

COMMONS: A VOICE FOR NATURE & A COLLECTIVE BIRTHRIGHT

13 Mile Woods Community Forest



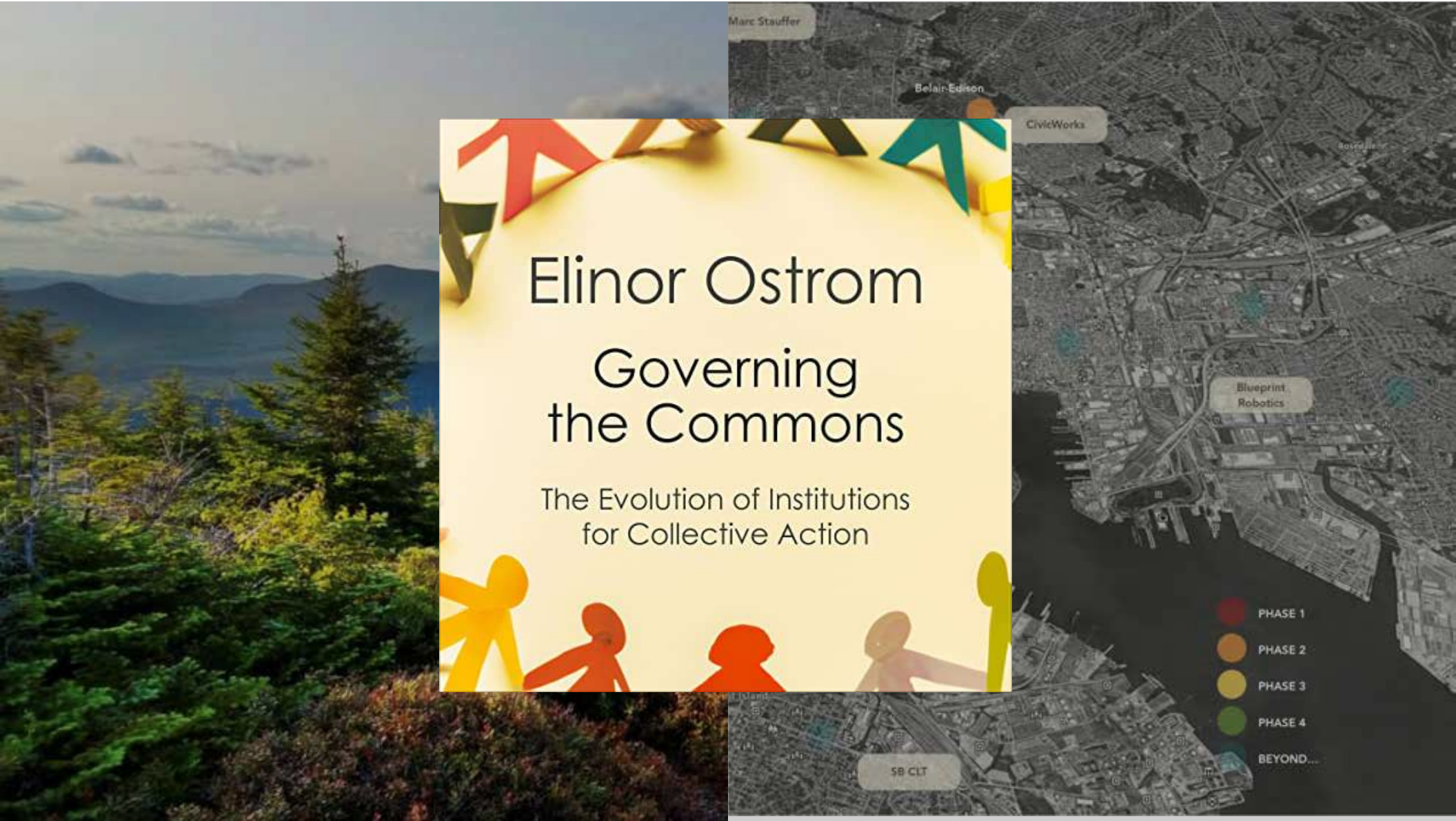
Northern
Forest
Center

LIVE THE NEW
FOREST FUTURE



TRUST FOR
PUBLIC
LAND

\$3.7 million timber sales in first seven years Successful Conservation



Elinor Ostrom

Governing
the Commons

The Evolution of Institutions
for Collective Action

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- BEYOND...

BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

ALTERNATIVE NARRATIVES – CHANGE IN CULTURE – SOCIAL BEFORE TECHNICAL

COLLECTIVE GOVERNANCE



PARTICIPATORY DESIGN

Carri Beer + Michael Hindle

Starling Hardy

Penn North

Reservoir Hill

CivicWorks

PHASE 1
PHASE 2
PHASE 3
PHASE 4
BEYOND...

BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

ALTERNATIVE NARRATIVES— CHANGE IN CULTURE – SOCIAL BEFORE TECHNICAL
COLLECTIVE GOVERNANCE



Abigail Giles / Vermont Public

Jerry Cole retired as town moderator in Cambridge after 43 years. Some of his advice: "We come into this as neighbors, and we're going to leave as neighbors. And so that's the important part."



Owen Carpenter-Zeha / Community News Service

In floor vote, Ryegate voters decided against allowing retail cannabis in the town on Tuesday, March 5.

BIO-REGIONING

COLLECTIVE GOVERNANCE

[CASCADIA](#)[MOVEMENT](#)[ABOUT](#)[STORE](#)[BE A SUPPORTER](#)

Our Theory of Change outlines how we use Cascadia and bioregionalism as a framework for change, and our principles and goals for the movement and region.

[WHAT IS BIOREGIONALISM?](#)[BECOMING A BIOREGIONALIST](#)[WHY BIOREGIONALISM?](#)[CORE PRINCIPLES OF BIOREGIONALISM](#)[CASCADIA: OUR FRAMEWORK FOR CHANGE](#)[CASCADIAN PRINCIPLES](#)[CASCADIA GOALS](#)[WHY THE DOUG FLAG](#)

Regenerative Watershed Relations



Join Today

Donate

*Working Together to Keep Life in Connecticut's
Mystic River Watershed Safe and Flourishing*

Stonington | Groton | Ledyard | North Stonington | Eastern and Mashantucket Pequot Nations

Coordinated climate, ecological, and land relations planning – the Watershed Resilience Action Plan

Model development

Establishing Regenerative Workforce Development Programs

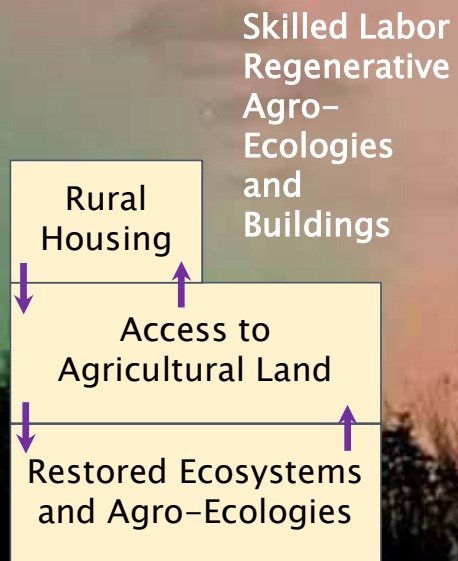
Eastern Pequot Tribal Nation Housing and Infrastructure

Sustainable financing models

Restoring Indigenous Agro-Ecologies + Lifeways

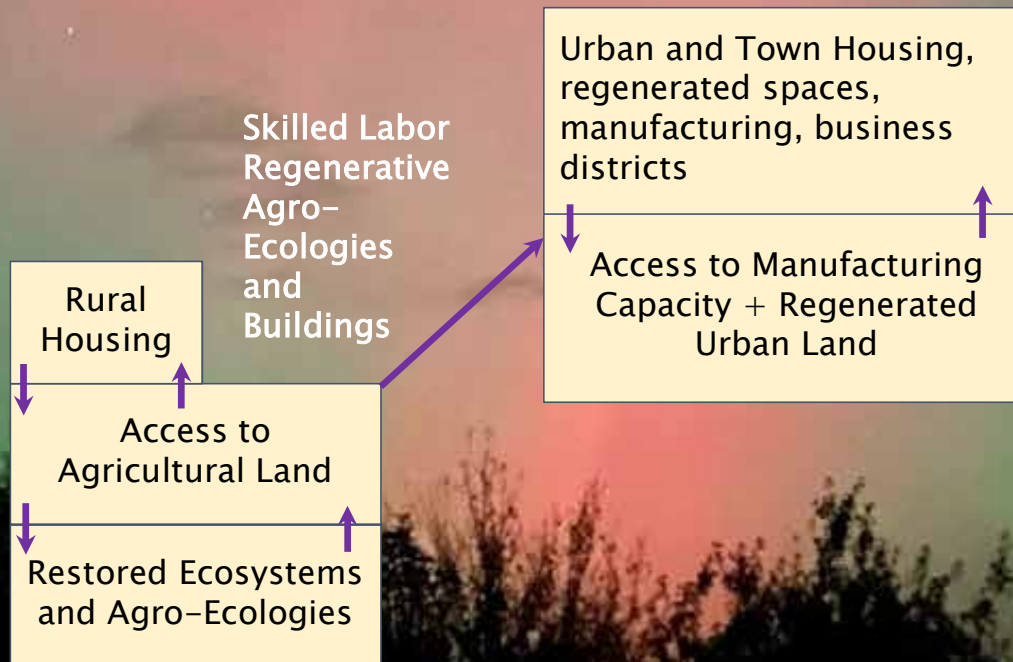
The Virtuous Cycle of Regenerative Economics

Reinvestment in
Land Base =
improved
environmental
conditions and
human welfare



The Virtuous Cycle of Regenerative Economics

Reinvestment in
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The Virtuous Cycle of Regenerative Economics



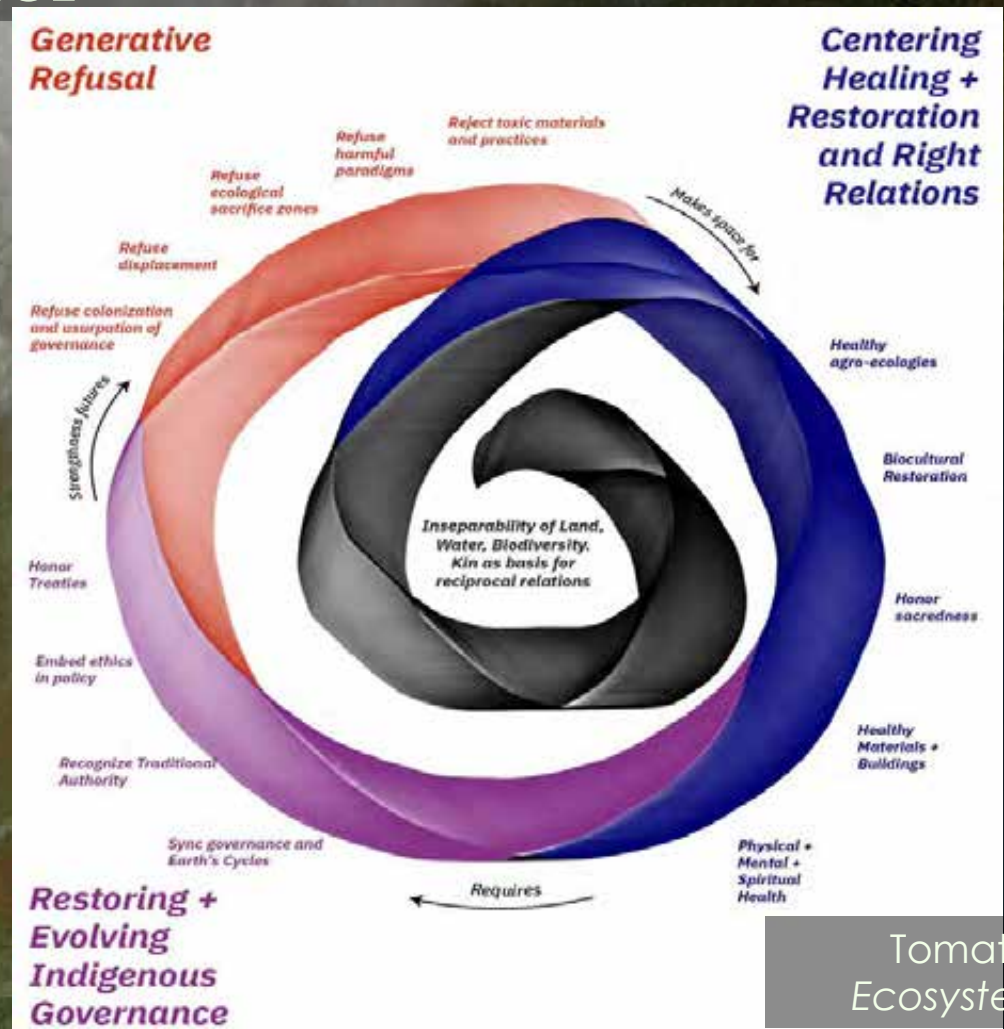
The Virtuous Cycle of Regenerative Economics



BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

DEMOCRATIZING FINANCE

UPWARD SPIRAL OF JUSTIC (IN LAND BASED DESIGN)



Tomateo and Grabowski, Ecosystems and People, 2024

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DEMOCRATIZING FINANCE



BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

DEMOCRATIZING FINANCE

COMMUNITY INVESTMENT VEHICLES



COMMUNITY LAND TRUSTS



CLIMATE CROWDSOURCING



IMPACT INVESTORS

DONOR ADVISED FUNDS

COMMUNITY BENEFIT FUNDS

An aerial photograph of a landscape, likely a river valley or agricultural region. The image shows a winding river or canal system, green fields, and some structures. The overall tone is natural and earthy.

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

DEMOCRATIZING FINANCE

BIO-REGIONAL FINANCE FACILITIES

REGENERATIVE **ECONOMICS**

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

DEMOCRATIZING FINANCE

BIO-REGIONAL FINANCE FACILITIES



REGENERATIVE **ECONOMICS**

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

DEMOCRATIZING FINANCE

BFF OBJECTIVES

Drive decentralization of
financial resource governance



Organize synergistic
portfolios of projects



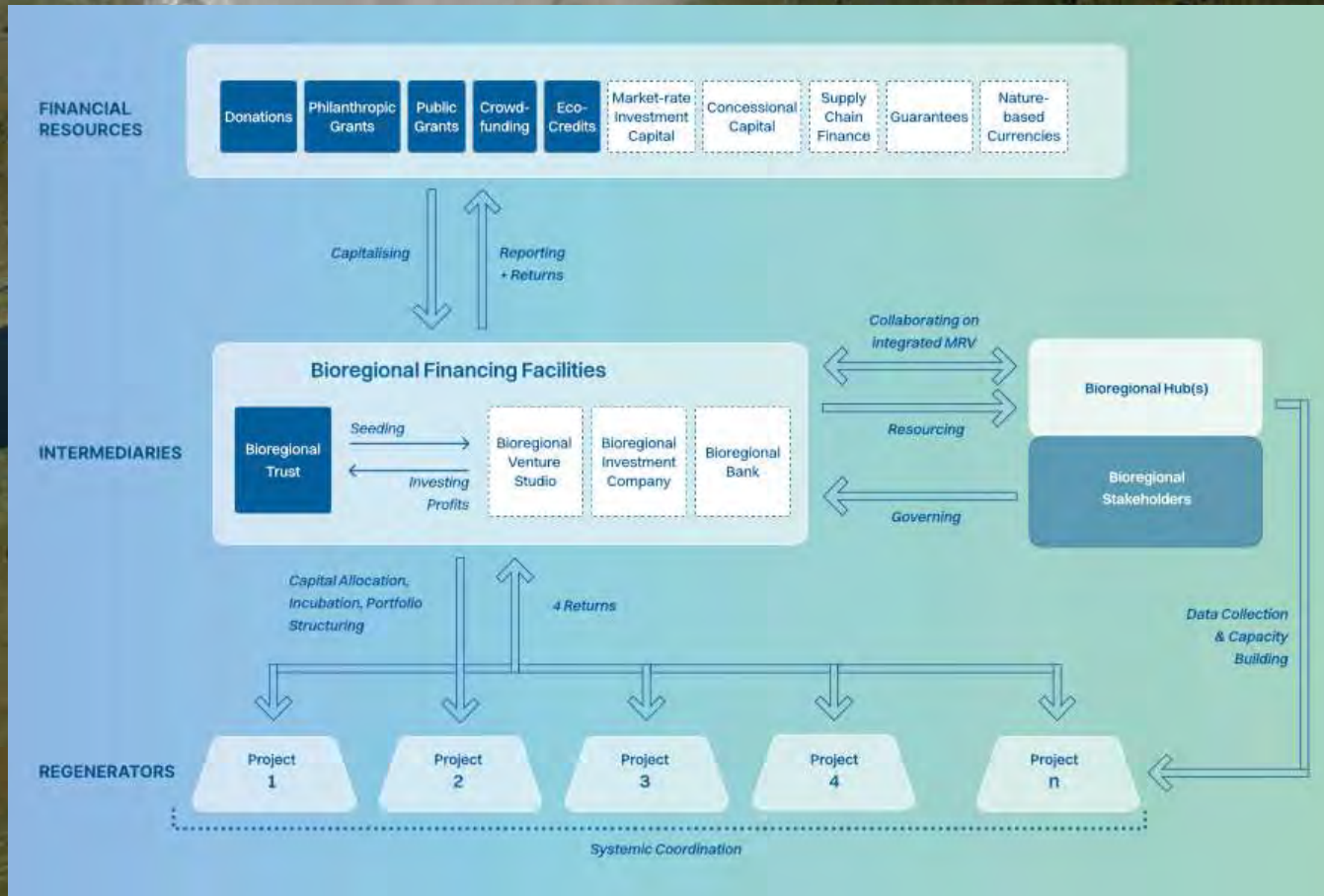
Catalyze the transition to
a regenerative economy



REGENERATIVE **ECONOMICS**

BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

DEMOCRATIZING FINANCE



From Bioregional Finance Facilities by Samantha Power and Leon Seefeld

BUILDING THE NEW SOCIO-ECONOMIC SYSTEM

DEMOCRATIZING FINANCE – PUBLIC BANKS

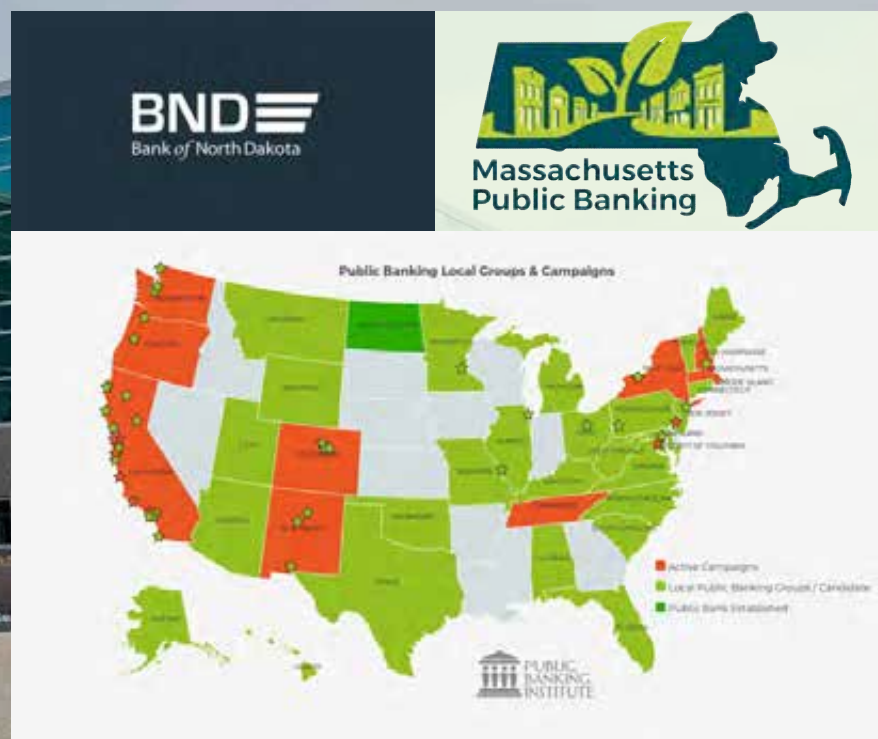
Owned by state or city governments

Mandated to serve the **Public good**, finance **under-funded projects**

Profits are distributed to the **community**

Reduce cost of **public action**

Public Banks ≠ Green Banks



Finance can serve **public purpose** instead of **private accumulation**

An aerial photograph of a farmstead. In the center is a large, multi-story stone barn with a complex roofline. To the left, there are several long, covered structures, likely greenhouses or covered walkways. To the right, there's a smaller red-roofed building. The farm is surrounded by lush green fields, some of which are divided into sections, possibly for different crops or stages of a regenerative agriculture practice. A winding road or path is visible, and a small pond or stream is situated near the stone barn. The background is filled with dense green trees.

REGENERATIVE ECONOMICS AND **ACTION**

WE ARE **CONDITIONED** TO THINK THIS IS ALL FANTASY

BUT IT'S NOT - IT IS ALL **HAPPENING** – WE GET TO **CHOOSE**

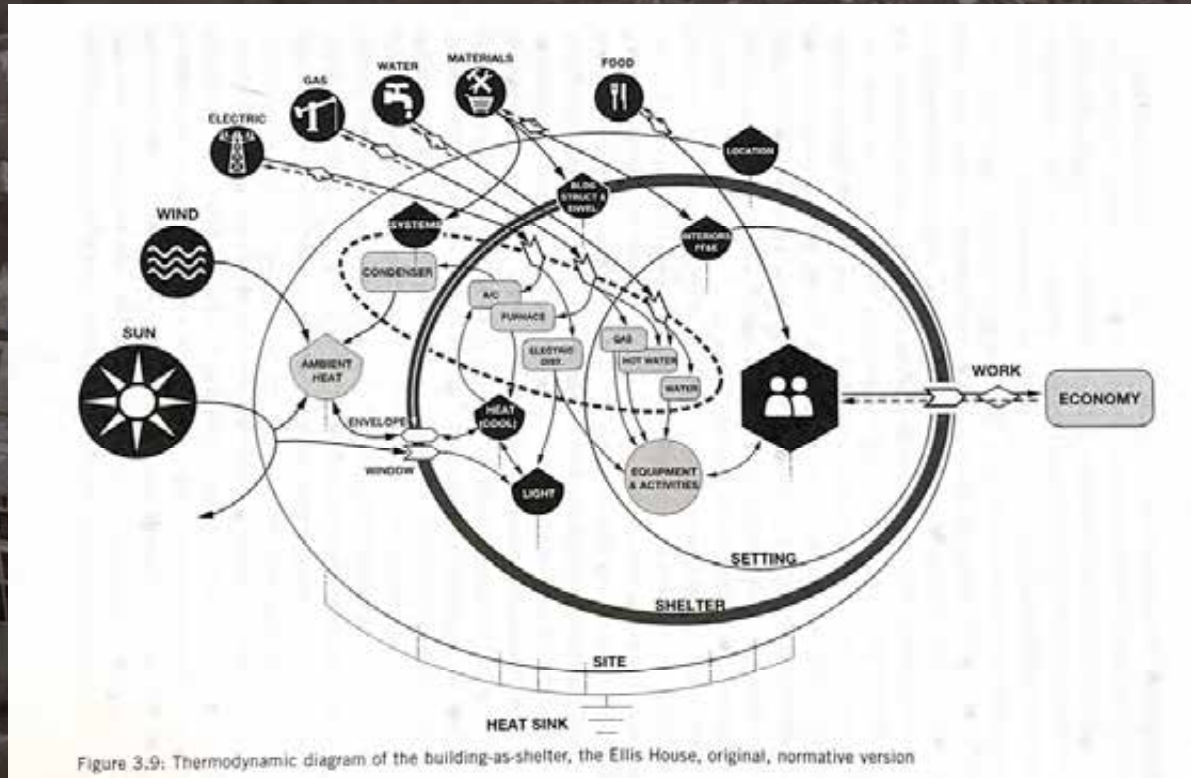


Figure 3.9: Thermodynamic diagram of the building-as-shelter, the Ellis House, original, normative version

BUILDINGS AS A **CATALYST** FOR SYSTEMIC CHANGE

COULD WE EVER BE HAPPY WITH **ENOUGH** ?



MLK at the March on Washington in August 1963 (Credit: Library of Congress/ Public Domain)

The world now demands a maturity of America that we may not be able to achieve. . . The situation is one in which we must be ready to turn sharply from our present ways.

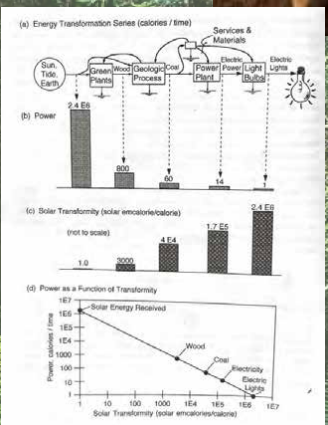
Martin Luther King Jr. "Beyond Vietnam – A Time to Break Silence", April, 4th, 1967, Riverside Church, NYC, NY

Are we as a human culture capable of choosing **NOT** to do certain things, just because we can?

MORAL LEADERSHIP IS THE CLIMATE TECH MOST IN DEMAND

PRIORITIZE LOW IMPACT

PASSIVE + NATURAL SOLUTIONS ARE LOW "ENERGY"



A CONCEPTUAL ENERGY GRAPH COLLEGE OF THE PATH TO ZERO

WHAT WE ALL CAN DO:

BELIEVE THAT THIS IS POSSIBLE

SUPPORT LOCAL AGRICULTURE AND FORESTRY BIO-BASED MATERIAL PROVIDERS

SPECIFY BIO-BASED MATERIALS

RESEARCH AND SUPPORT THE NASCENT BIO-REGIONAL SUPPLY CHAIN

SHARE ECOLOGICAL AND SOCIAL IMPACT INFORMATION WITH CLIENTS

DEVELOP AND SHARE BIO-BASED DESIGN + CONSTRUCTION BEST PRACTICES

SUPPORT. POLICY AND CODE DEVELOPMENT

SEEK OUT AND COLLABORATE WITH COOPERATIVE ENTERPRISES

CONSIDER FORMING COOPERATIVE ENTERPRISES

SUPPORT LEGISLATIVE ACTION ON REGENERATIVE FINANCE

SUPPORT LEGISLATIVE ACTION ON ECOLOGICAL IMPACT TRANSPARENCY

ENGAGE WITH STAKEHOLDERS + SUPPORT LOCAL + REGIONAL GOVERNANCE

SUPPORT THE BIO-BASED MATERIALS COLLECTIVE

DON'T SELF CENSOR ON BEHALF OF THE MARKET

DISCUSSION METHOD: IMMANENT CRITIQUE

1. Notice how you felt about the presentation (bored, excited, angry, etc.)
2. Why did you feel that way?
3. Setting feelings aside, what was the core message?
4. Re-introduce your feelings to find the true implications (and contradictions?) of the presentation

NOT ALLOWED TO SAY THE WORD **“INTERESTING”**

BUILDING THE NEW **SOCIO-ECONOMIC SYSTEM**

SOCIO-METABOLIC ANALYSIS

WHAT ARE OUR LIMITS

WHAT ARE OUR RENEWABLE RESOURCES?

WHAT ARE APPROPRIATE MATERIALS + TECHNOLOGIES?

