

# THE SCIENCE OF THRIVING

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Center for Housing Solutions. Pattern for Progress

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Mohonk Mountain House



HUDSON VALLEY  
**PATTERN *for* PROGRESS**

# On the agenda:

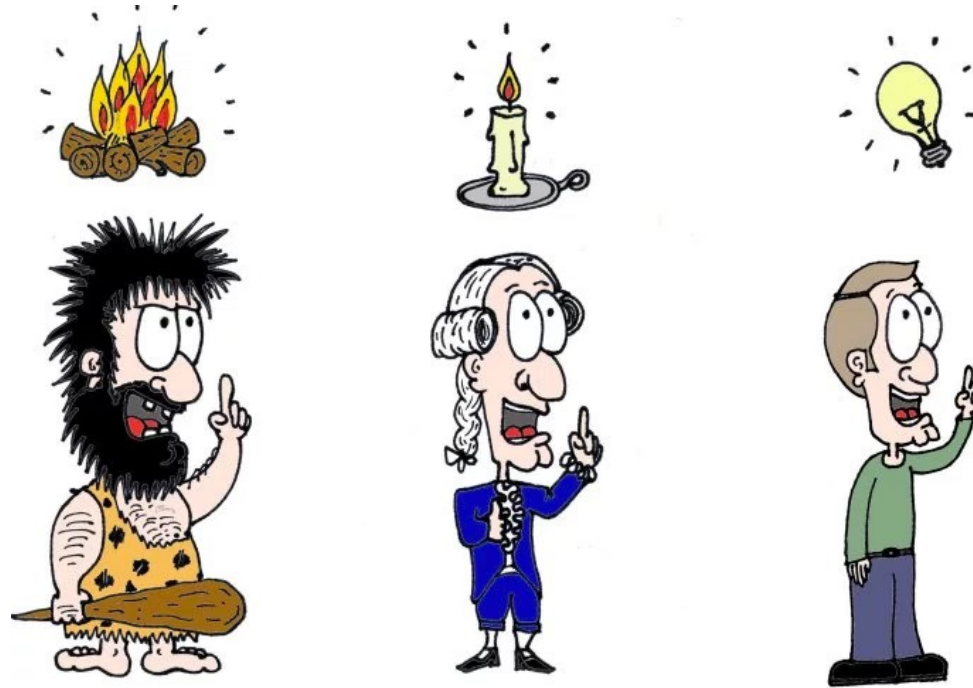
## **1. What's "science"?**

- How science influences all parts of our society and economic systems
- How science is evolving and why our systems need to follow suit

## **2. What's "thriving"?**

- What science says about what humans need to thrive
- How social & economic systems (informed by science) can either promote or hinder our ability to thrive – together and as individuals

## **3. What's "thriving together"?**



## EVOLUTION OF IDEAS

**“When a worldview complex becomes invisible, it circumscribes the capacity to evolve one’s work.”**

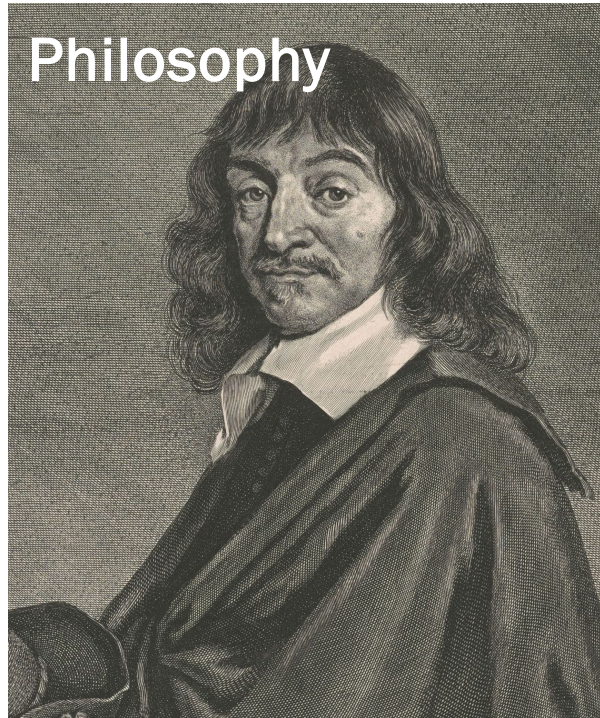
Mang & Reed (2012)

# **1: WHAT'S SCIENCE?**

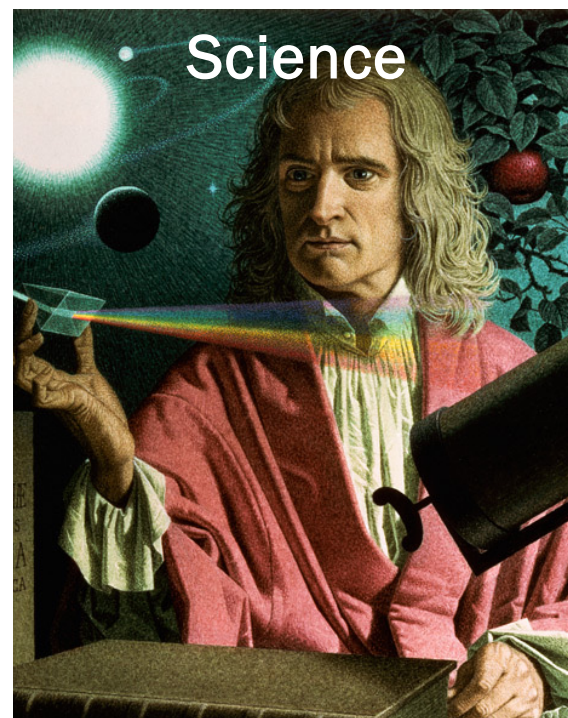
# Medieval Times: Divine Right of Kings



# Enlightenment (1685-1815): Empiricism, Secularism, Free Speech



**Descartes (1596-1650):**  
No difference between natural and artificial; humans as “masters and possessors of nature.”

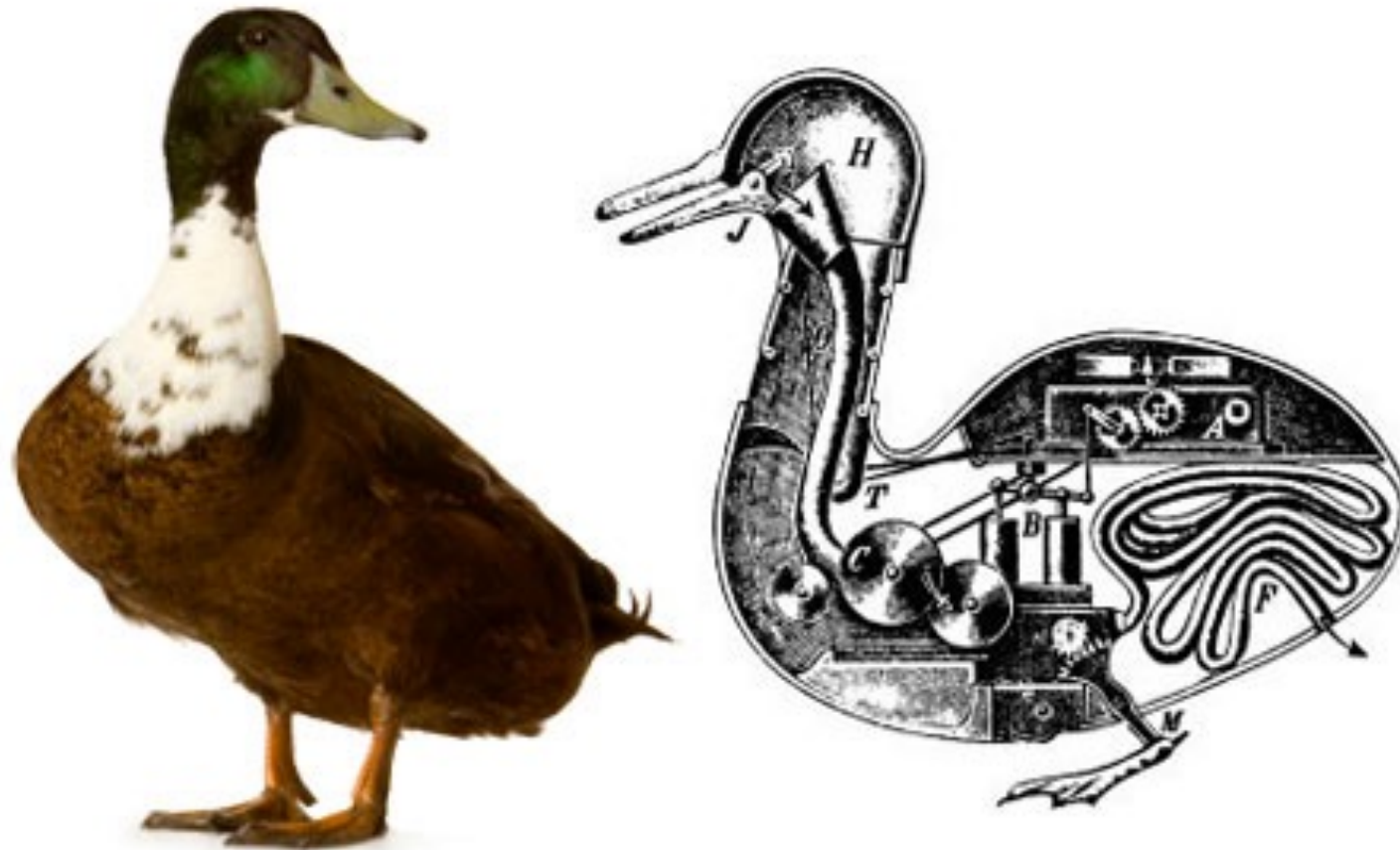


**Newton (1643-1727):**  
“Nature is pleased with simplicity” = breaking things down into small parts / reductionism



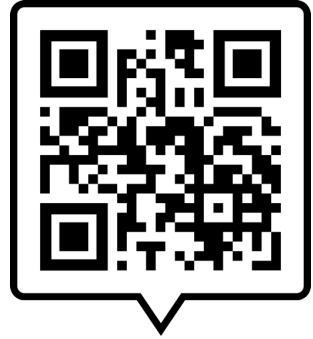
**Vaucanson (1709-1782):**  
Automata (robots): automatic loom, lathe, etc.

# Epitome of the worldview shift: From Divine Kings to Digesting Ducks



Le Canard Digérateur – Vaucanson 1764

# Cultural & economic applications of linear thinking



Modern Times (1936)

## “Scientific Management”

Frederick Winslow Taylor (1856-1915):  
Managers should “insure all of the work  
being done in accordance with the  
principles of the science which has been  
developed.”

## Industrial Production

Henry Ford: First Moving Assembly Line  
(1913)



# SOCIETY AS A PRODUCT OF SCIENCE



## NATURE

Observation →  
Understanding  
Causal relationships  
(A leads to B)  
Competition



## SCIENCE

Application:  
Empirical, linear  
process



## SOCIETY

Efficiency  
Simplification  
Individualism  
Product over process

**Scientific Method** = testing one variable at a time by controlling all variables in an environment closed to external influences.

**Successes in new technology; falls short in human (complex) systems.**

# CO-EVOLUTION OF SCIENCE AND SOCIETY



**NATURE**  
Observation →  
Understanding  
Self-organization  
Collaboration



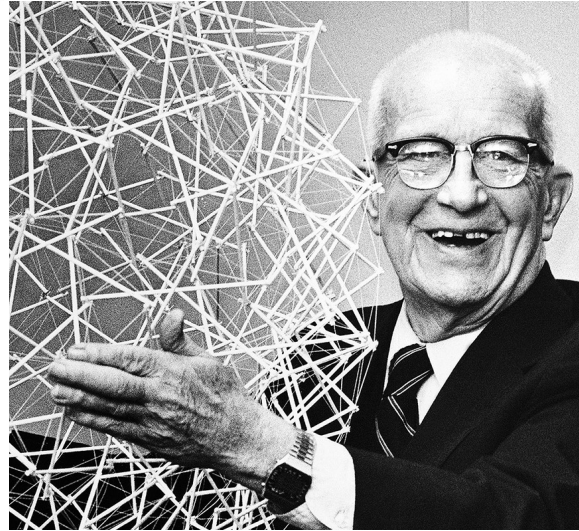
**SCIENCE**  
Application:  
Relationships  
Interdependence is  
important  
Entire ecosystem  
shifted by small  
changes



**SOCIETY**  
Resilience  
Long-term over short-  
term  
Growth is finite;  
health is not.

- **Complex, living systems** = Infinite variables; uncontrollable environment; open to infinite external forces.
- Different parts of a system in isolation are less important than the relationships between the different parts of a system.

**“Make ourselves  
masters and  
possessors of  
nature.”**



**If we build a society  
based on honoring the  
earth, we build a society  
which is sustainable,  
and has the capacity to  
support all life forms.**



**“If we discover the laws that  
govern this system and live  
synergistically within them  
sustainability will follow and  
humankind will be a success.”**



**Science can be a way of  
forming intimacy and  
respect with other species  
that is rivaled only by the  
observations of traditional  
knowledge holders. It can  
be a path to kinship.**

# Characteristics of a complex society that assumes simplicity

- **Focus on the individual**

- Siloed government
- Blaming individual for circumstances: poverty, abuse, etc.
- Therapy focused on coping vs. context

- **Reacting to vs. preventing a problem (symptoms vs. root cause)**

- Antacids for stress-induced ulcer
- Carbon offsetting

- **Closed systems / controlled environments**

- Political boundaries vs. bioregions – smoke from Quebec
- Municipalities absolving themselves of regional housing crisis
- Our lifestyles rely on lax labor and environmental laws in other countries

- **Others...?**

# Characteristics of a healthy complex system

- **Flow of resources rather than pooling surplus**
  - E.g. blood in a body, money in an economy, information in a community, a sense belonging in interpersonal relationships
- **Balance of small, medium, and large**
  - E.g. box stores pricing out mom & pop;
- **Hierarchy of function, not importance**
  - Hierarchy is used to promote flow, not to prioritize any part of the system – functional differences, not importance (e.g. janitor vs manager)
  - Mutual learning between levels AND across strata

# Two more important measures of dynamic systems

## **Resilient**

is a characteristic of a healthy system;  
not a goal on its own

Defined as the capacity of a dynamic system (e.g. person, community, economy) to anticipate and adapt successfully to challenges (acute stress)

**Efficient** = reduces waste

(not the same as productive or speedy!)

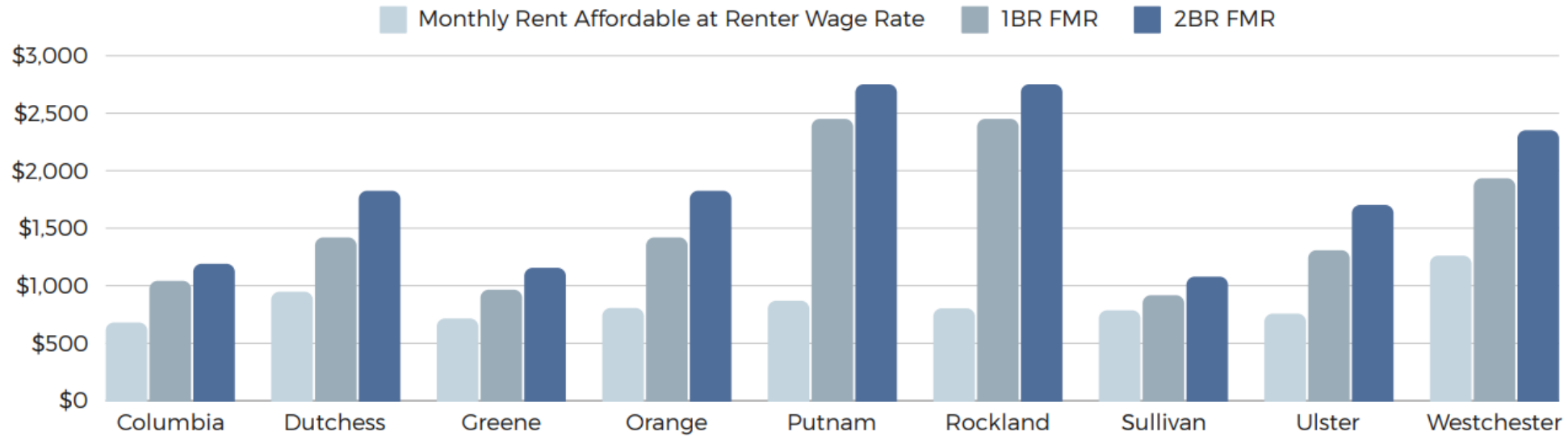


# Poverty: work harder? Or pooling excess?

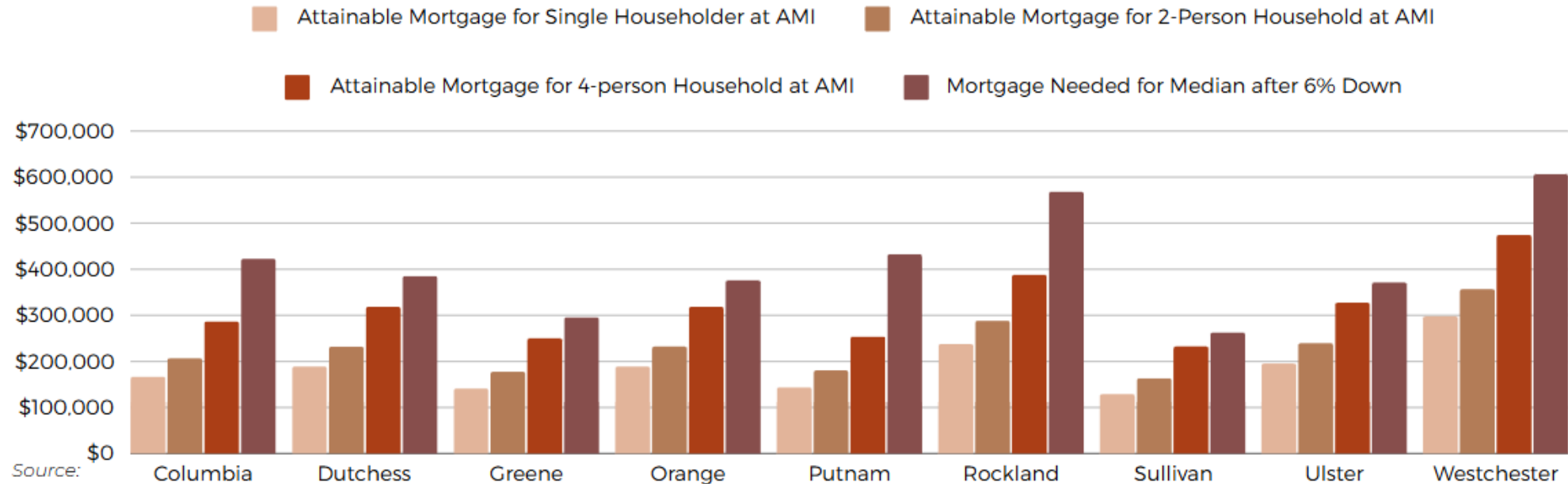
	NEW YORK STATE			
	2010	2021	\$ Change	% Change
<b>Lowest</b>	\$13,684	\$14,054	\$370	3%
<b>Second</b>	\$38,077	\$42,220	\$4,143	11%
<b>Third</b>	\$66,645	\$75,647	\$9,002	14%
<b>Fourth</b>	\$106,499	\$123,318	\$16,819	16%
<b>Highest</b>	\$252,736	\$302,676	\$49,940	20%
<b>Top 5 %</b>	\$474,998	\$574,063	\$99,065	21%

	ULSTER COUNTY			
	2010	2021	\$ Change	% Change
	\$17,166	\$14,930	-\$2,236	-13%
	\$42,326	\$41,599	-\$727	-2%
	\$68,856	\$71,757	\$2,901	4%
	\$103,348	\$114,479	\$11,131	11%
	\$204,540	\$239,458	\$34,918	17%
	\$340,592	\$406,653	\$66,061	19%

## 2024 AFFORDABLE RENT VS. FAIR MARKET RENTS



## COMPARING MEDIAN SALES PRICES TO ATTAINABLE MORTGAGE



Source:



# Housing: short supply? Or pooling excess?

Region	Housing Units	House holds	# difference	% difference
Northeast	25.1 million	21.5 million	3.6 million	16.8%
Midwest	31.1 million	27.2 million	3.9 million	14.2%
South	57.2 million	52.4 million	4.8 million	9.1%
West	32.0 million	30.3 million	1.7 million	5.6%

# Housing: short supply? Or flow imbalance?

County	Housing Parcels	Investor Owned	Corporate Owned	Corp Share
Dutchess	89,664	20,486	5,156	28.6%
Orange	112,186	35,331	8,025	38.6%
Putnam	33,248	5,671	1,029	20.2%
Rockland	71,640	16,411	4,191	28.2%
Ulster	63172	24,350	3,629	44.2%
Westchester	168474	36,832	17,755	29.6%

## **2: WHAT'S THRIVING?**



## Wellbeing is...

“The set of needs and experiences universally required in combination and balance to weather challenges and have health and hope.”

# The Wellbeing Framework



- Self-determination of what basic needs are important
- Resources are accessible without shame, danger, hardship
- Relevance includes culture
- Feeling like what I do matters
- Effort leads to outcomes
- Sense of choice
- Curiosity
- Influence (not control!)



- Express core identity without danger or shame
- Safety from \_\_\_\_\_

- Relationships
- People we can count on
- Need to be needed
- Belonging
- Anchors / routines
- Familiarity
- Buffer to keep small problems from becoming big problems

# Making tradeoffs

## What happens when...

- All my friends are drinkers and I want to be sober?
- I was offered a great job that's far from my friends and family?
- I live in a hotel and was offered a Section 8 apartment far from my job?
- I am experiencing domestic abuse and am required to leave home (and sometimes even my kids) in order to receive support?
- I have the flu but have no sick time at work?
- I have to skip work to make a social services appointment?

In pursuit of specific outcomes, systems and services can force **tradeoffs** that create havoc in people's lives and undermine lasting change.



# Recap so far...

**1. WHAT'S SCIENCE? There are clear principles of systemic health that can help us thrive as a society, including:**

- Strong relationships and collaboration among all parts of the system
- A healthy flow of resources to all parts of the system
- A balance of resilience and efficiency
- A hierarchy of function, not importance, with a balance between levels of the hierarchy (more small/low than mid, more mid than large/high)

**2. WHAT'S THRIVING? People have a set of wellbeing needs that must be met to thrive:**

- Social connectedness, meaningful access to relevant resources, stability, safety, mastery (agency/purpose/influence)
- We are constantly making tradeoffs
- We can design systems that nurture wellbeing
- Healthy community = healthy self, and vice versa

# **3: WHAT'S THRIVING TOGETHER?**