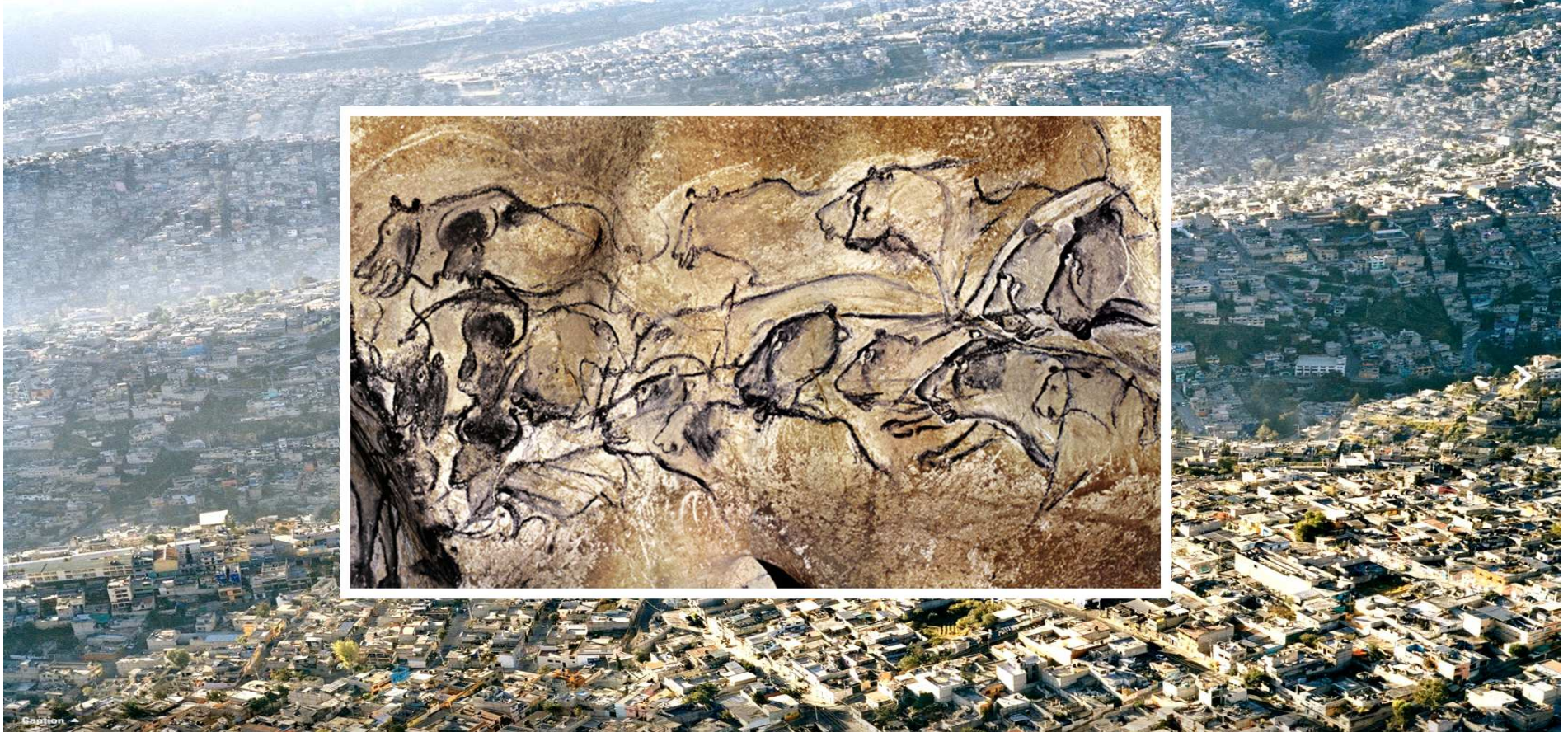


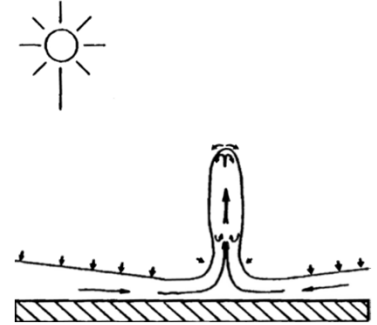
Watching signs of how systems work by themselves: in and out of context & their changing forms of emerging organization as they grow



New systems grow from an energizing spark or seed;

With a good pattern to build on in a secure pool of resources.

Having a chance to multiply their designs without competition.



Successfully exploiting and growing is one hurdle;

But takes a new life into unfamiliar surroundings.

They may exhaust local resources or become unstable.



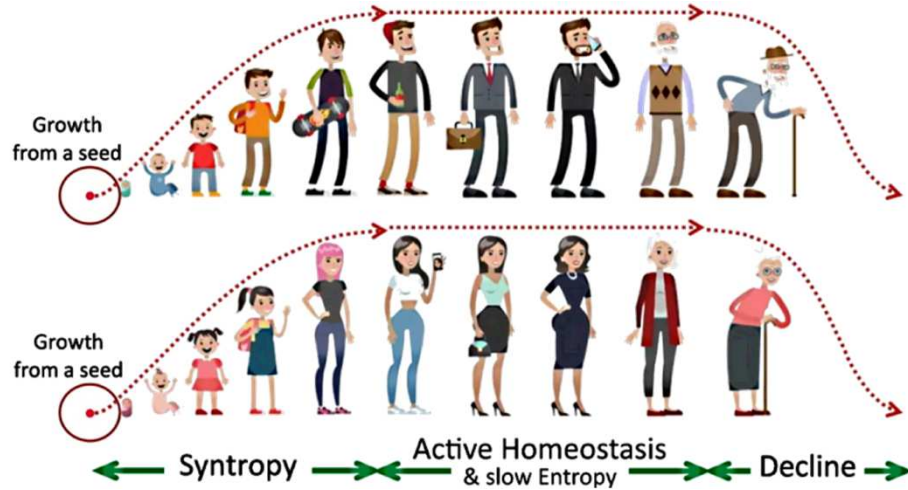
So, many won't survive, but some do

If they have exploratory behavior and self-protective cohesion like having a survival instinct.



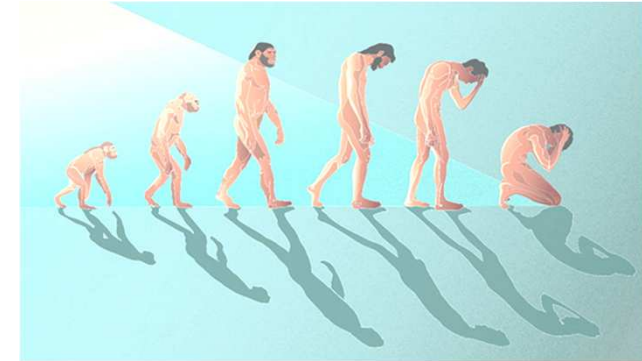
Learning to steer for long creative lives, or into trouble

- reading or misreading the changing contextual signals -



Long eventful lives with many stages

Who & what are we referring to here?



Evolving to pain and suffering

Who & what are we referring to here?

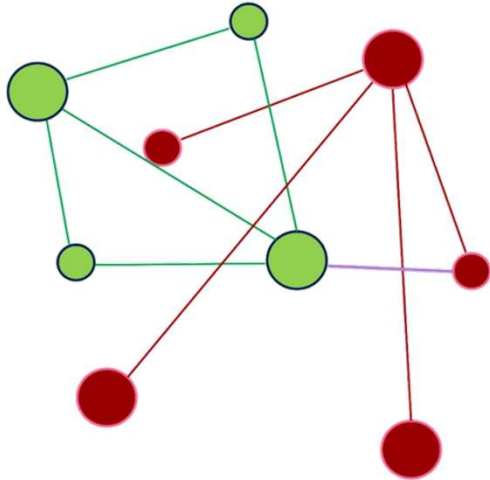
The stages, signs, and signals for steering successful organisms and cultures
Exploit to grow the germ pattern – Adapt to new environment – Engage in new life relationships
Respond to signs of fit for internal & external to risks, resources, relationships & opportunity's,
Feel & react to near-and-far changes, pressures, strains, limits, when to push, or back off.

Homes are secure centers – With connections

For the hives of 1-1 relationships inside that energize the 'nodes,' 'networks,' and 'life'

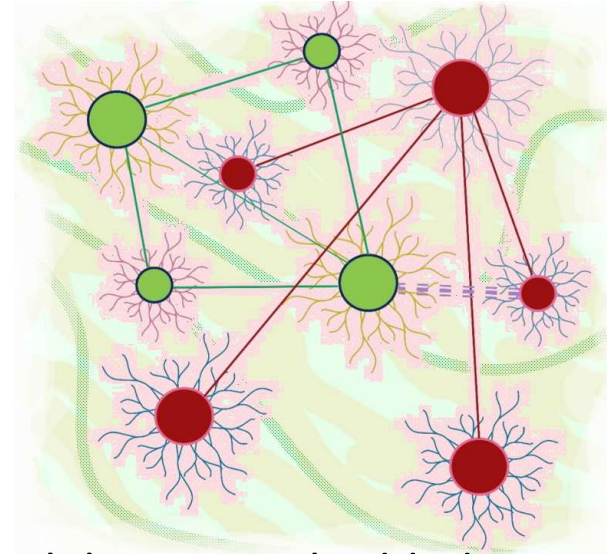
Seeing only connections blinds you to the hives of relationships out of context

Seen as distant relations
of just the connections



Abstract concepts without context

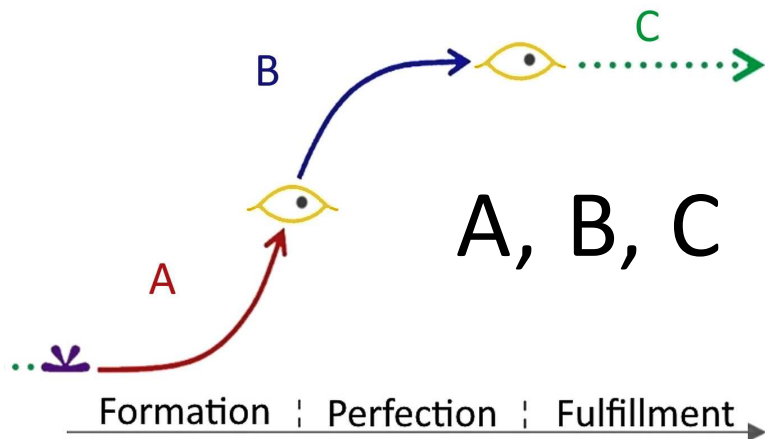
Living systems of homes
of hubs + hives inside in context



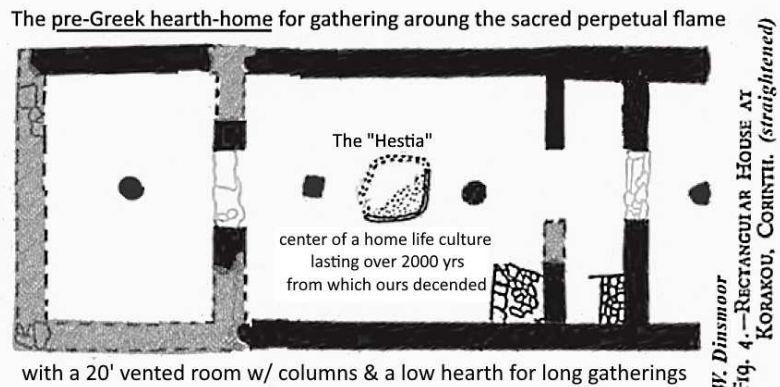
v. Rich homes embedded in contexts

How nature does it – more like family – each with roots

Nature's Integral



The first real family home, Bronze Age Aegean proto-Greek culture



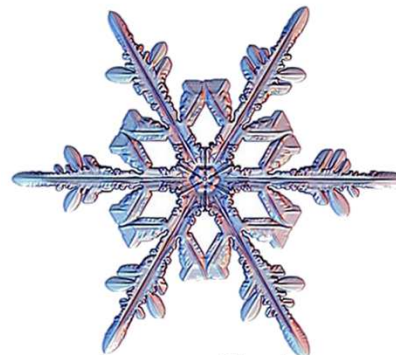
Storm



Tree



People



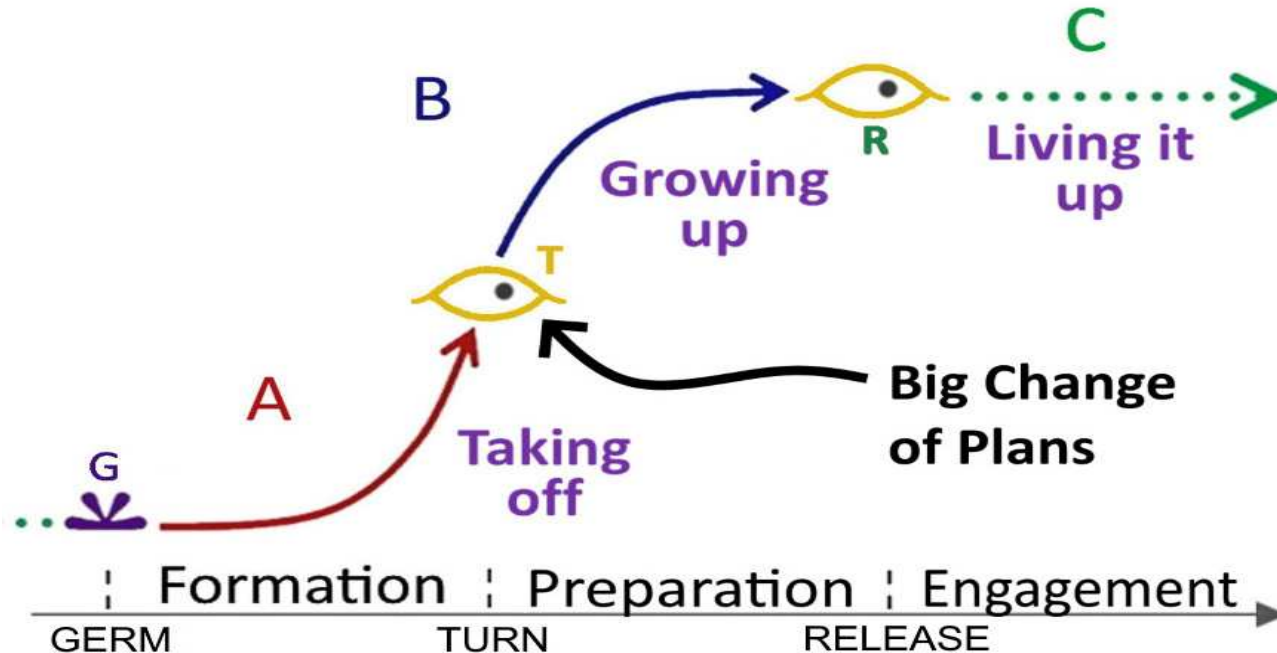
Snowflake



City

How NATURE does it – starting with an exploratory ‘endless’ spiral
THAT responds to change and then seeks perfection

How it all adds up
Nature's Integral



Learning the signals of living systems for self-control



The similarity between internal signs for steering
Closely observing

- Relationship designs: **stable, changing, on hold, transforming**
- **Connected, coupled, and responsive changes**, to also recheck later
- Signs of **tension, welcome, need, fear, offer, evade. Search Patterns & Pattern Search**
 - Notice systems, **read and respond**, human, animal, environmental, large and small.

Elinor Ostrom

A) **Nobel Prize** for conflicts resolved helping competitors see the environments to serve

Gerald Midgley

A) Leading scientist applying the method for cultural and economic conflicts.

Guided Context Engagement – Needed by All Decision Makers as World Systems Change

- A) Learning contexts relationships by immersion and exploration, discovering the signals
- B) Get to know a context and make lists of all the things in it related to key issues.

The roots of our terms for natural systems & their meaning

English etymology traces how the syllables of modern words came from
The very earliest recognition of meanings in nature

System (n): sy-stem = together-stand

from Greek *systema* "organized whole, a whole compounded of parts," from stem of *synistanai* "to place together, organize, form in order," from *syn-* "together" (see [syn-](#)) + root of *histanai* "cause to stand," from PIE root [*sta-](#) "to stand, make or be firm."

Physics (n.): from "nature and emerging" to (properties of matter and energy) "physis" - ancient Greek term for "nature", from the verbal noun φύσις, "phusis", meaning "growing", "becoming", itself from φύω, "to grow", "to appear". From "physis" grow our words "physics" (in sense of 'study of nature'), "physique", "physiology", etcetera. Feb 25, 2018

Grow (v.): become green to flourish and expand

from Proto-Germanic **gro-* (source also of Old Norse *groa* "to grow" (of vegetation), Old Frisian *groia*, Dutch *groeien*, Old High German *gruoen*), from PIE root **ghre-* "to grow, become green"

Observe (v.): Ob-serve = attend-faithfully
from Latin *observare* "watch over, note, heed, look to, attend to, guard, regard, comply with," from *ob* "in front of, before" (see [ob-](#)) + *servare* "to watch, keep safe," from PIE root **ser-* (1) "to protect."

Sense of "watch, perceive, notice" is from 1560s, via the notion of "see and note omens."

We successfully steer growth systems all the time.

Sometimes its from the outside of systems, but mostly from inside.

We often overcome barriers and stuck points,
We often need a little extra leverage to get us through them.



It was,

- My brother who told me about how focused executives are today about family security , unaware of growth putting them in ever greater danger!
- My work as an architect that showed me the three stages of system design, taking form, maturing, and serving their world
- A neighborhood friend and homelife professor who showed me how to decode revisionist histories.

And looking around and interest in ironies.

the Natural Growth Path – a plan to change plans

Slides & ref's:

Slides: <https://synapse9.com/EnTrans/2023-0320-NatGroPlan&Steer.pdf>

#1 Photos Chauvet Cave https://en.wikipedia.org/wiki/Chauvet_Cave

& Mexico city https://www.sfmoma.org/artist/Pablo_L%C3%B3pez_Luz/

#6 Natural Systems - Design & Steering <https://synapse9.com/ISSS-22/HNS1-MS-Design&Steering.pdf>

#7 Elinor Ostrom's Nobel Lecture - <https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/lecture/>

Gerald Midgley's model talk - <https://lnu.se/en/meet-linnaeus-university/current/events/2021/seminar-midgley-210304/>

Part 2. The trouble we got into & finding how to steer out

Follow the Natural Growth Path – a plan to changing plans



Ugolino and his sons –

A sculpture at the NY Metropolitan Art Museum of characters in Dante's Inferno.

Ugolino was fated to make a bet with the devil for the lives of his sons, that he could change fate (like our world's belief and bet on boundless growth to save us) and lost the bet.

Global warming CO2, the World, World Refugee Migration

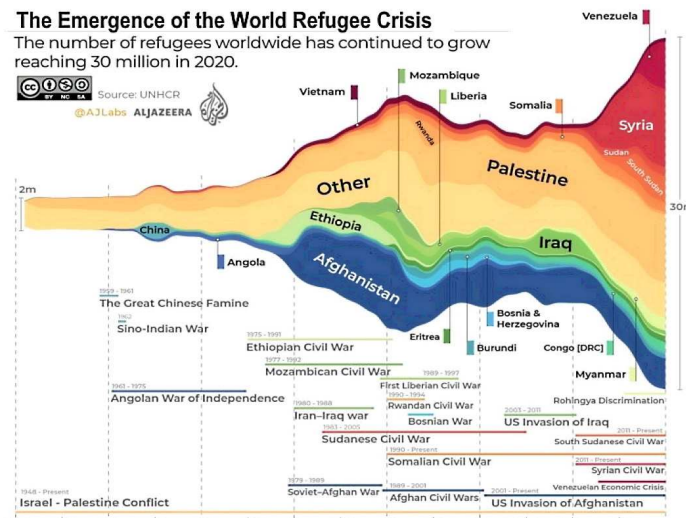
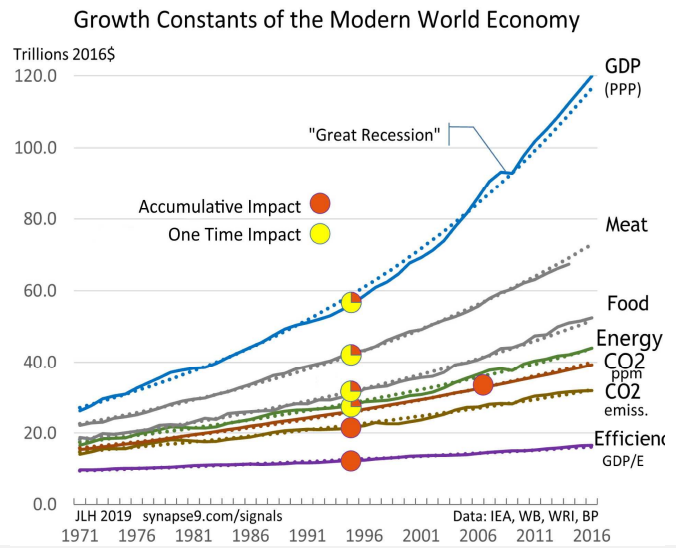
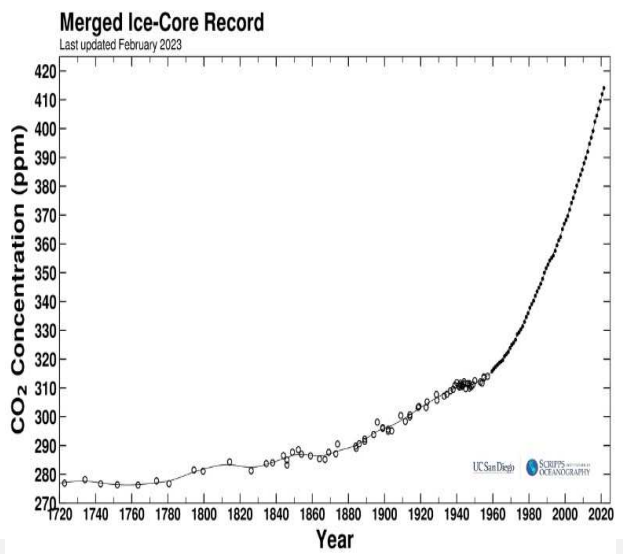
– All on the same path –

Why is one system connected to all systems?

Anything that works, works as a whole. With exploratory parts filling the gaps.

In the economy it is opportunistic money making the gap filling fast

And when that coordinating systems breaks down, the whole does too



The trouble we got into and finding how to steer out

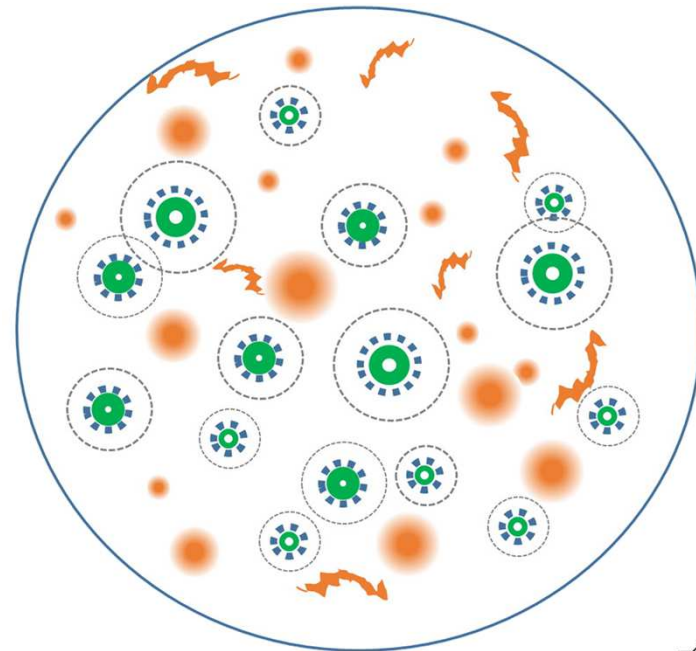
But how does natural growth climax in perfection instead?

World Econ Forum - Global Risks Report 2 Year and 10 Year Impact Assessments

1. Cost of living crisis
2. Natural disasters, extreme weather
3. Geoeconomic confrontation
4. Failure to mitigate climate change
5. Social cohesion loss & polarization
6. Large-scale environmental hazard
7. Failure of climate-change adaption
8. Widespread cybercrime, insecurity
9. Natural resource crises
10. Large-scale involuntary migration

1. Failure to mitigate climate change
2. Failure of climate-change adaption
3. Natural disasters, extreme weather
4. Biodiversity loss, ecosystem collapse
5. Large-scale involuntary migration
6. Natural resource crises
7. Social cohesion loss & polarization
8. Widespread cybercrime, insecurity
9. Geoeconomic confrontations
10. Large-scale environmental damage

HDS – Whole System Crises Report Top 100 World Crises Growing with Growth



The World Crises it is Growing

The Top 100+ World Crises Growing with Growth — first look for the patterns

<https://synapse9.com/r3ref/100CrisesTable.pdf>

Types & Sources of Data Surveyed

- Impact Documentation Aggregators
- Approach to Limits of Systemic Distress
- Systemic Gaps in Impact Assessment and Response
- Sub Keys: Zone, Responsibility, Severity

Key 1	Key 2
<u>Locations zones</u>	<u>Type of Responsibility</u>
Sys = Systemic	DA => impact can be measured and
Reg = Regional	<u>Directly Attributed to</u>
Loc = Local	those responsible
Eco = Environmental	CA => impact is
Soc = Societal	systemic and only
Ecn = Economic	<u>Collectively</u>
Gov = Governance	<u>Attributed to shares</u>
Fam = Family	of responsibility for
New Entry	the economy as a whole
	<u>Economic cost</u>
	<u>Text dividers</u> , to keep each entry a single line without line breaks as needed to paste into the XLS file

No of Growing World Crises of each type.

- 9 - **Organizational distress** - Crowding, Overload, Congestion, Confinement
- 7 - **Mental Distress** - Misunderstanding, Changing Signals, Information Overload
- 7 - **Increasing Solution Failure**
- 19 - **Economic and Social** Disruption/Breakdown
- 16 - **Environmental** Disruption/Breakdown
- 16 - **Human Resource** Disruption/Breakdown
- 12 - **Natural Resource** Disruption/Breakdown
- 27 - **Societal Unmanageability** - Loss of Resilience, Rising Overhead, False Vision, Confusion, Conflict
- 5 - **Cultural breakdown** Discontinuity & Separation, Failing ways of life, working, & knowing

The steering built into of self-organizing systems

Every living system steers, and some non-living ones too.

Complex systems start so small, they multiply quickly to start.

That takes active steering, first quickly using up small resources in small reach, needing the seed to be exploratory and opportunistic.

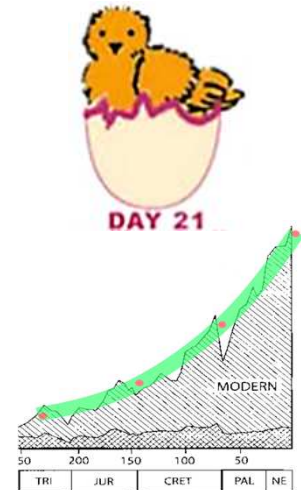
Nature has been exploratory & opportunistic in the extreme.

For hundreds of years, finding new resources and uses for them doubling in scale two or three times a human lifetime

Business has **not** responded to strains & disruptions caused though.

A system with a survival instinct would respond. Is it errors in its steering? Its profit-making has become so unprofitable

We'll explore.



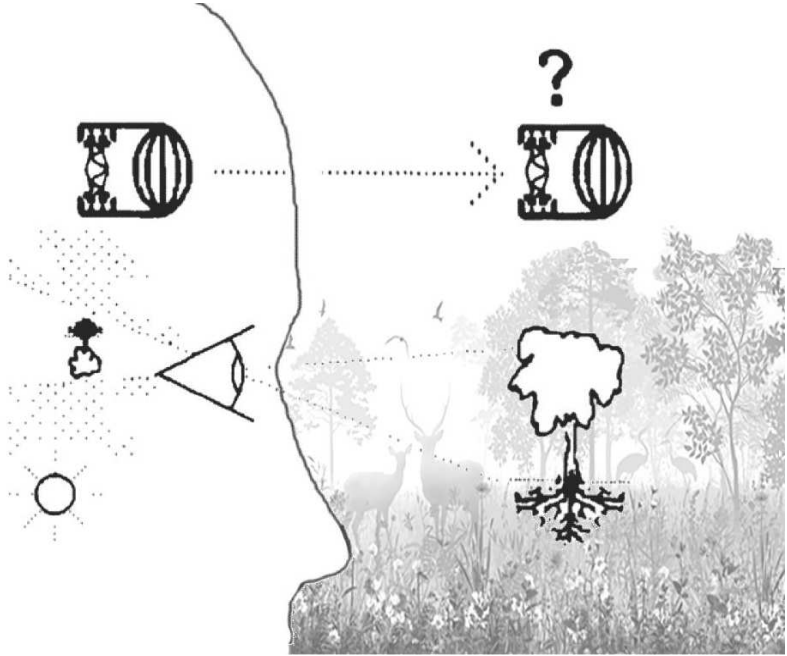
a practical natural science of observable systems

What are we looking at, systems or models?

Either way, growth requires moving from one design to the next

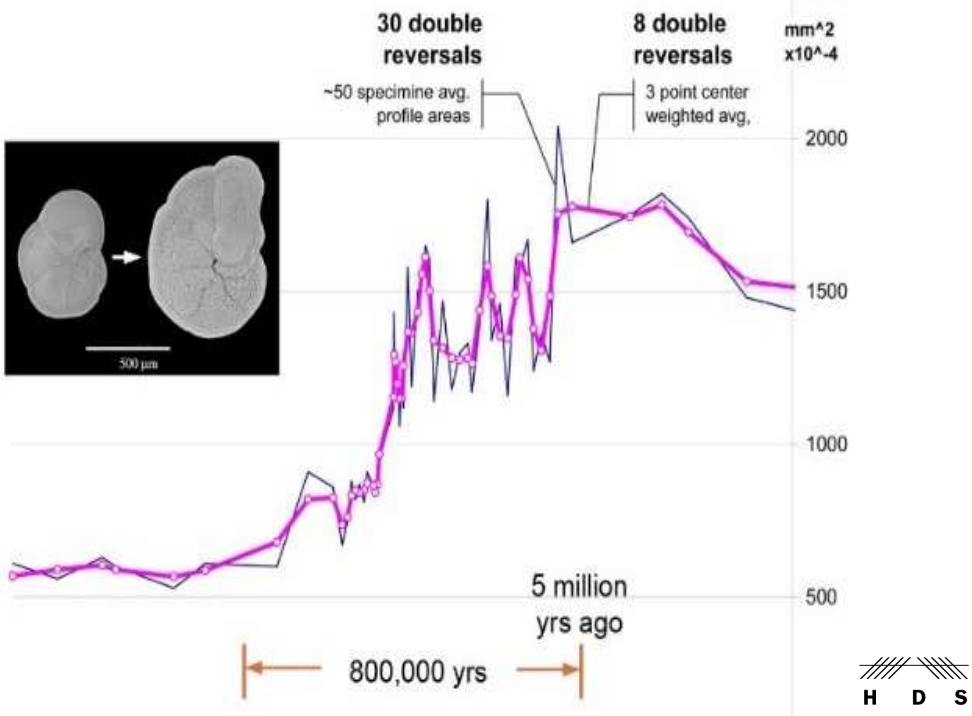
Real organization or concepts

If it's fixed it's a concept, detached from



A speciation event, try try again!

Till the innovations finds its fit



People know a lot about steering new systems to grow to perfection

We use nature's method SO successfully — we know all about it

Start small, **N**ourish growth, **U**pon taking form, **G**uide to **fit** with the world
SNUG

A universal plan for creating things to perfectly work and fit
children, dinner, projects, relationships, careers, organizations, businesses!

- And Mostly Relies on Nonverbal Signals and Familiar Contexts

- **What could go wrong??**

- You could be, at work, using rules to remote control things

- **Out of Context**



So, Humanity Seems to Have Created
an Advance Civilization – With a suicidal design
As nature's test to see if *we* are a “we” and develop
an instinct for whole system survival

And change plans!

- 
- **Before we maximized investment in creating something**
 - Normally we read the context to stay on track
 - So, the context that does much of the steering.
 - Unless you're blind to it.
 - **To survive in style, needing to invest all we can caring for what we grew**
 - But the system is steering for ever growing profits NOT reading the context
 - As if following a “never-steer” rule

Part 2.

Notes and Citations

the Natural Growth Path – a plan to change plans

Slides & ref's (slide #'s may change)

Slide set: <https://synapse9.com/EnTrans/2023-0320-NatGroPlan&Steer.pdf>

- #11 Ugolino's story. [https://en.wikipedia.org/wiki/Ugolino della Gherardesca](https://en.wikipedia.org/wiki/Ugolino_della_Gherardesca)
- #12 Research: Flowing processes in species change - <https://www.synapse9.com/pub/GTRevis-2007.pdf>
- #12 Research: Why Nature Starts all New Lives with Compound Growth - <https://synapse9.com/ISSS-21/ISSSJul11NewSci-IndividSys-MS.pdf>
- #13 WEF Global Risks Report - <https://www.weforum.org/reports/global-risks-report-2023/digest> Natural
- #14 Top 100 Systemic Crises List - <https://synapse9.com/r3ref/100CrisesTable.pdf>

+15 slides FYI

the Natural Growth Path – a plan to change how we steer

Natural Systems Science came from what physics avoided helping to fill in what's omitted

My background: a science family, a small town where *everything* worked,
big world where increasingly everything wasn't, close friends on the case

- **This work started as physics**, noticing that all events started with a little burst of energy, that physics didn't study, emerging systems
- **Then seeing growth was organization** not numbers, equations, not "cause and effect" a 'BIG Ah Ha' that growth builds systems by "find and connect" ... As we do!
- **Centuries of denial hide useful signs**, so putdowns or boasting can be signs of hiding something interesting that rules don't see
- **Ironies and extreme differences too** as how home (communal) and work life (power) cultures differ – same nice people but having very different affects on life.

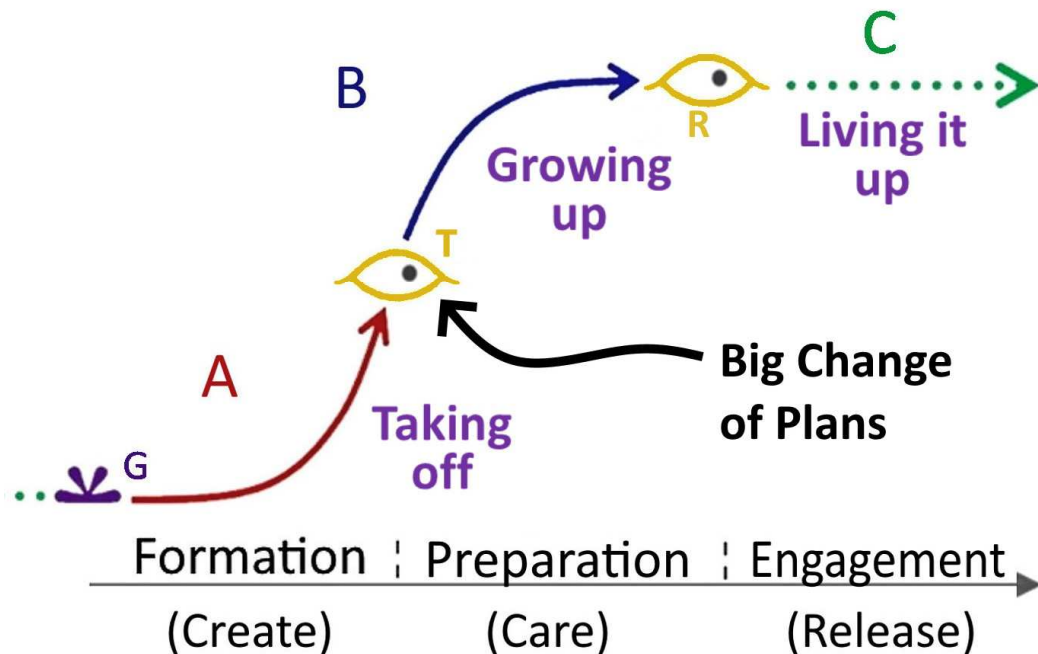
<https://synapse9.com/signals/why-natural-growth-is-our-natural-and-likely-only-way-out/>

The General Model, with three Big Events and three Life Stages

Each transformation event **G, T, R**, starts the next transformation process **A, B, C** handing off to the next, the prior stage's evolution – energy – and resources

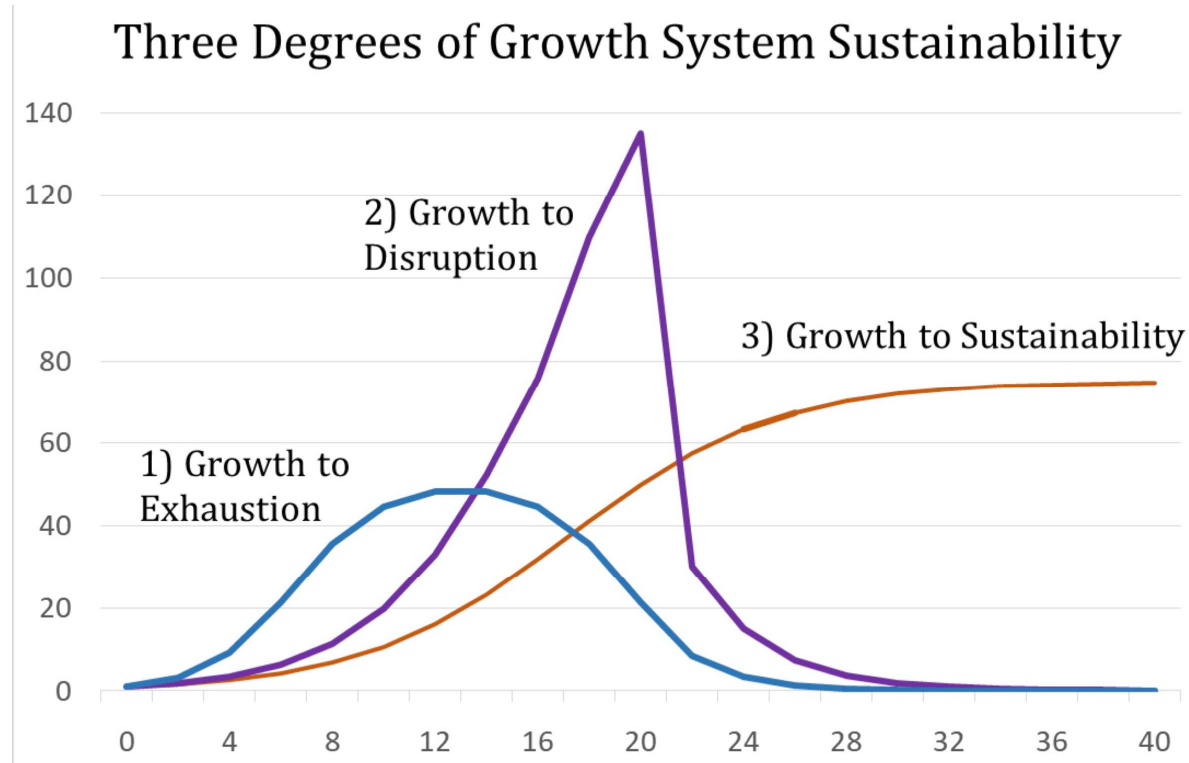
The System Steering shifts abilities, & resources in response to feeling the System Needs.

Nature's Integral



- 1. **When things connect, Germination (G)** starts a capture of resources used for rapid growth (**A**) of the new system's new form and its coupling to its environment.
- 2. **New a design, jells & takes form Turn (T)** the growth resources pass to the care, learning and maturation (**B**) of the system in preparation for its NEXT new world.
- 3. **When finally ready, its Release (R)** starts its engagement with life (**C**) as a resourceful self-governing individual, with a life ahead, of taking new roles as part of a larger whole.

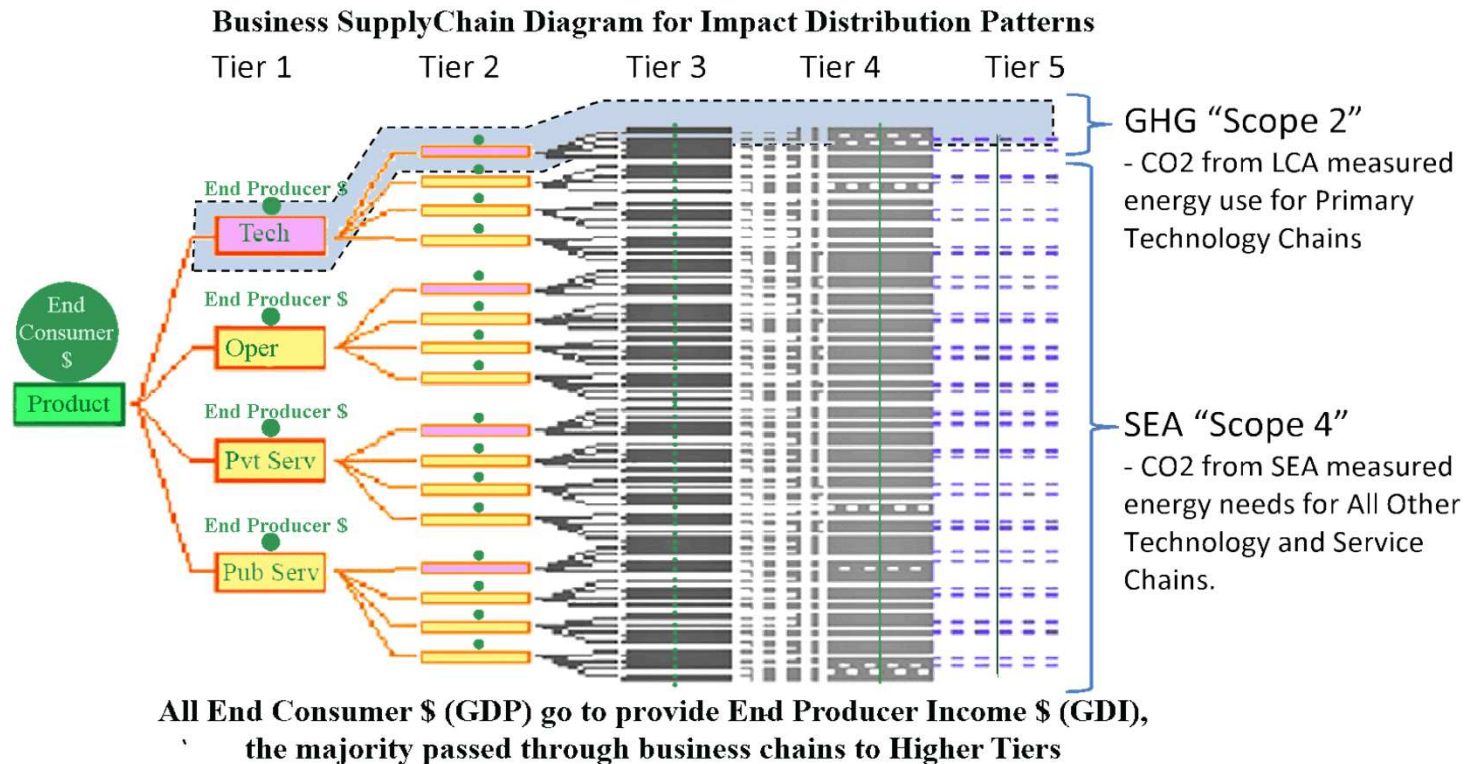
How FINANCE does it – an innovative endless spiral driven to grow to collapse (type 2)



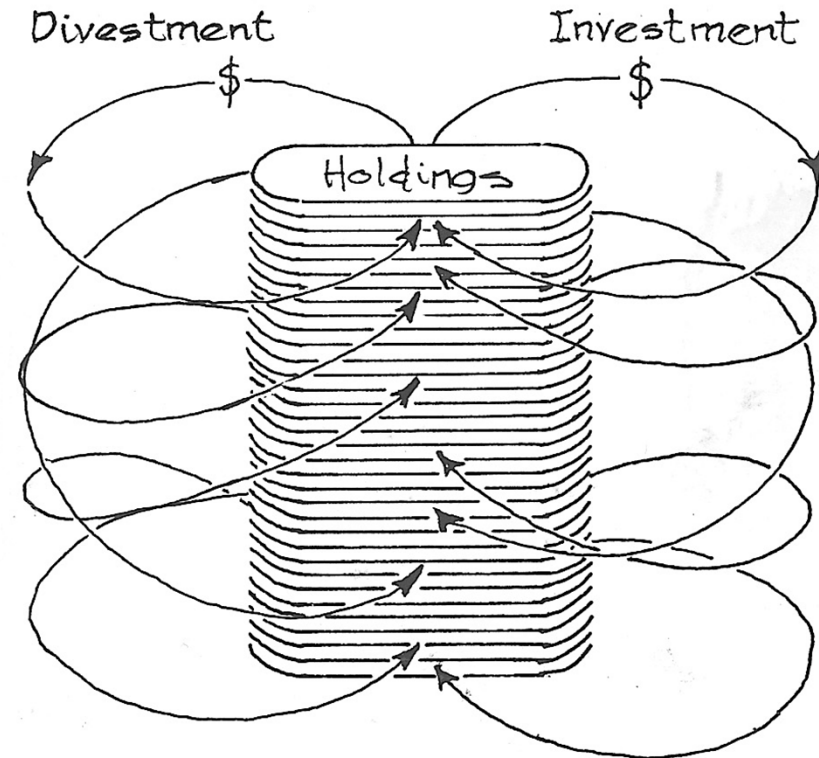
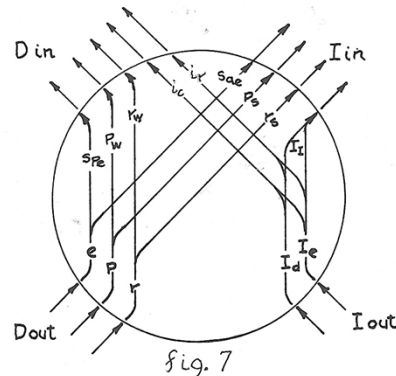
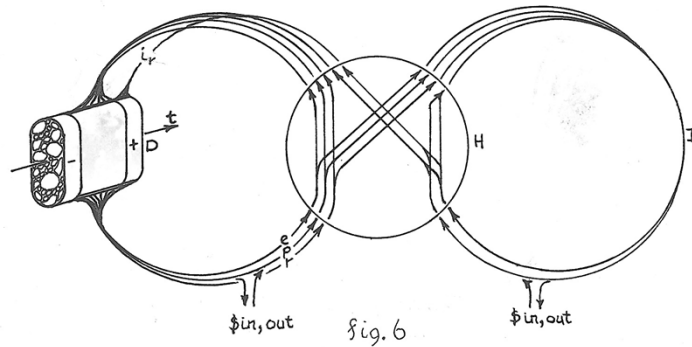
In a globalized economy, all money uses the whole globe, and
 Partitions of GDP pay for an equal share per \$
 For all the good and bad things the economy does

#19

Scope-4: How the money flows - <https://synapse9.com/signals/whats-scope-4-and-why-all-the-tiers/>



How FINANCE does it – an innovative endless spiral
always driven by a growing threat of collapse
exploiting humanity and nature
to empower the powerful



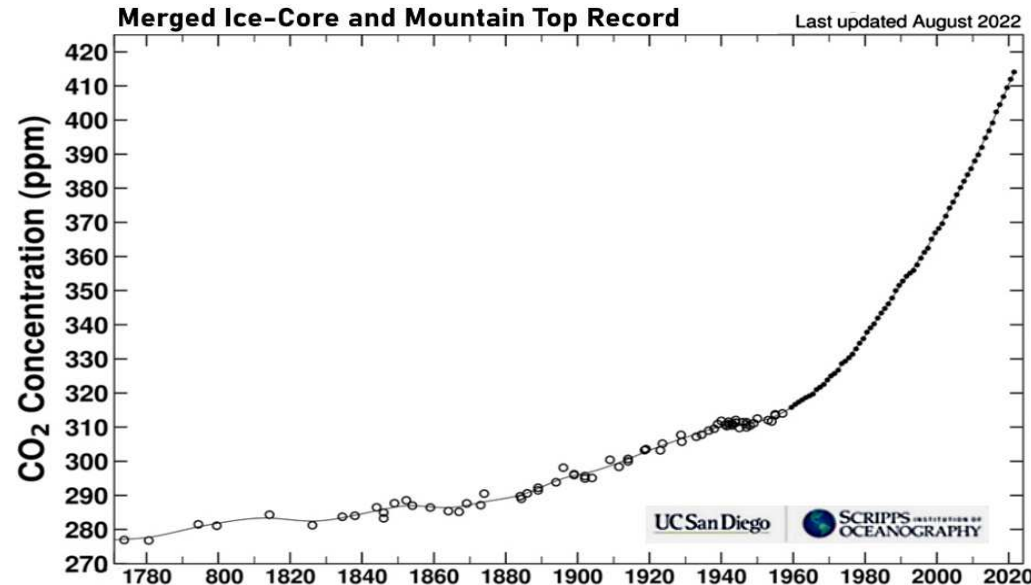
Or like our acting as if deer caught in the headlights.

We do need to ask the big questions!

Or is our thinking explosive change as constant More Cognitive?

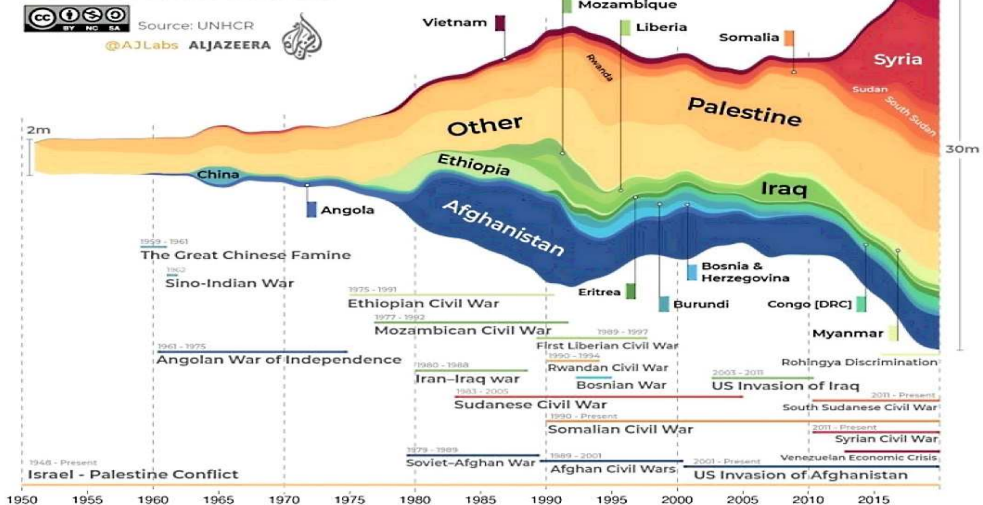
- Our best efforts to reduce CO2 are not changing the system!

- Is it the unexpected result of what business is doing with science?



The Emergence of the World Refugee Crisis

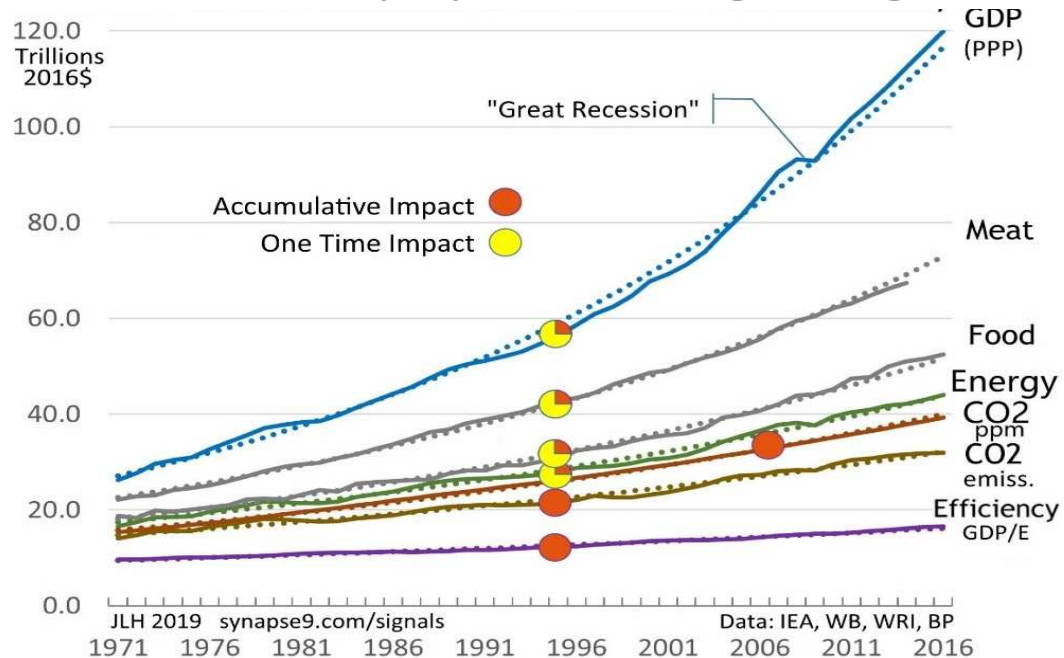
The number of refugees worldwide has continued to grow reaching 30 million in 2020.



<https://synapse9.com/r3ref/100CrisesTable.pdf>

We've also been blindly growing our demands on nature and each other
 Thrilled by the creativity, yes
 but blind to the often-abrupt end to seeking endless growing power

World economy's parts moving all together



- **It looks like something IS steering?** What would do that to every part at once?
- **What else are we NOT seeing or feeling?**
 - a) Complications too much to manage
 - b) Truly destroying the earth
 - c) Threatening every home on earth, including those who manage it!
- **It seems unintended, what IS doing it?**

How we relate to other systems

Looking at nature as following rules. Though nature largely builds relationships!

Unaware our rules are for human use, not nature's

And... separating us from the relationship contexts, our rules ignore.

Relationships are also systems

- A) growing from some energizing seed
- B) starting small and building new connections
- C) by “find and connect” not “cause and effect”

Examples: local or global cultures

- A) economies “working things”
“standing together”
- B) personal growth, levels of education, home activities and projects,

What do we do with systems that grow?

- A) We observe and care for them
- B) We inspire and protect them
- C) We feed and nurture them

What else do we do

- A) We fear and avoid them
- B) We Share and make communities
- C) We invest and profit from them
- D) We ignore and closely watch them

So, how DO we do it? What signs do we read to change plans?

What are some of your useful signals?

Feelings of ? What you notice? What you wait for?

What non-verbal signals of system change would *others* need to know?

All steering starts much the same way

A Dinner, Trip, Project, Relationship, a Business Society, Civilization

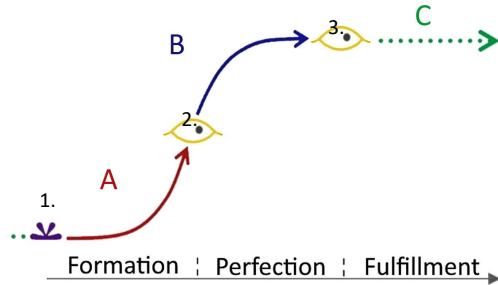
- **What tells you your work is ready to start, or ready to climax?**
- What gives you the urge to start things, tells you it could be viable, and turns you to making it ready to fit the world where it needs to work
- **What were early signs of global growth, and its natural time to climax?**
- What signaled it was ready to take-off, was ready to mature, and needed to change plans for how to live in the world?

We learn how to Steer Big Systems from Small Ones

reading the contexts – timing and shaping each move – watching things fall together

Nature's Integral

Transforming Events (1. 2. 3.), Processes (A B C)

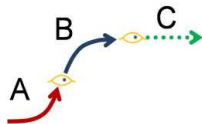


1.→A 2.→B 3.→C

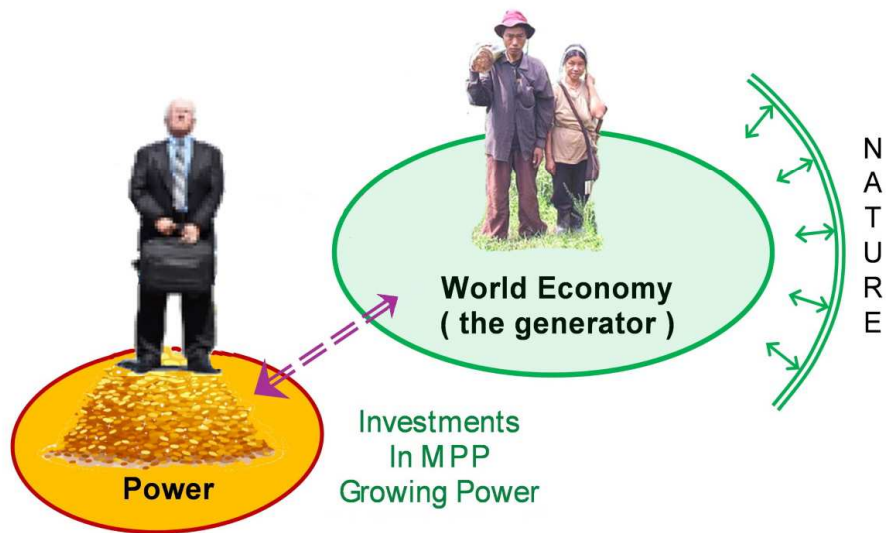
- a) **Making friends** 1. **Something germinates** to start A) things begin to click. It may fade or get intense and collapse, but 2. if it's going to last there's a realization that B) the future matters and if all goes well 3. the partnership graduates and C) carries on for life.
- b) **Making dinner** 1. **An inspiration of what to make** to start A) with collecting and assembling ingredients then at 2. the plan becomes whole and B) adjusts the plans and ingredients ready to perfect the design for finishing touches then 3. serving to the crowd C) for enjoyment.
- c) **Office Projects** 1. **Often a vision of how things could work like magic** to start A) and seems promising as the pieces fall together, leading to 2. a commitment to B) making it work, making the adjustments and testing till it's ready 3. to officially release for C) operation

Who needs to do what steering to exit stage **A** growth
 The trim-tab is connecting people who “feel what” and “know how”

No real life after growth



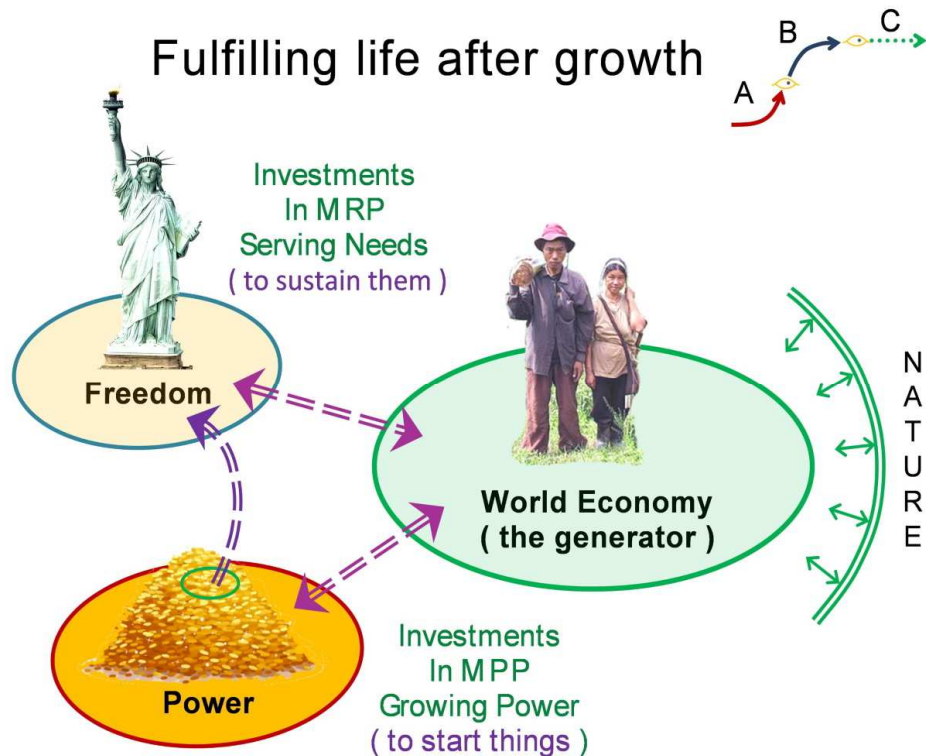
The unconnected parts



- **Social culture values feel what, but not how**
 Values and efficiency don't change the system.
- **Since the Greeks, failing growth systems** relied on strong family cultures to revive
- **The successful professionals who manage the system,** don't feel the threat.
- **Many good moms and dads rely on it to secure** of their families and communities

With enough caring the combination could steer the system
steering a 'trim tab' for removing the blinders

moving economic resources from growth to caring as nature does



The Openings

- **The expert managers of the system** are among our most well educated and successful professionals, most **great moms and dads relying on profit growth** to secure their homes and families, but unaware of the escalating threat to them caused by their work!
- **Activist organizations** looking for environmental and system solutions are great communicators, who deeply care about the earth and society.
- **Neither realizes they need the other** to achieve each other's primary objectives,
- **So 'know how' and 'feel why'** could be the 'trim tab' to move the system as a whole toward safety.

How we might connect: “know how” with “feel what”

The one relies on working concepts, the other on feeling contexts



- **A fresh plan for resolving global growth** with a very solid foundation in learning from nature
- **Every day matters** as our multiple crises develop new branches, and giving new hope is critical.
- **Real care for people can open eyes**, to seeing the need to relieve the system, not just exploit it.
- **Every community has some** who are open to new ideas, so publicizing the need for them to get in touch.
- **We all have friends & family** that cross the divide every day, that you could ask about the their concerns
- **As systems thinkers with fresh insight** find a source examples of the two groups connecting to study

<https://synapse9.com/EnTrans/2022-UN-Plans-AFreshDesignForSteering.pdf>

So... The root of the problem – at work do we seem blind to life?

(a new view that might check out)

Homelife works fine with relationships in uncontrolled contexts

Work-life centers on rules of control, in controlled contexts

So... The ‘trim-tab’ would be a little rudder that frees the big one

- **Mistake #1** - We seem to confuse invented “concepts” (our mental tools) for reality, simplified and reassembled
- **Causing a double-think** – seeing what we define as real, but NOT what we don’t!
- **So, our mental and physical lives** can seem not to share a common world.
- **Even before systematic farming**, people may have learned the power of rules for power and ignored what is uncontrolled
- **Even science picked it up**, representing nature with trusted laws of control.
- **Some Bronze Age societies were different** – something to study!

<https://synapse9.com/signals/betrayed-by-the-power-of-our-minds/>