



# Learning from Collapse

Andrew Curry  
Director of Futures, SOIF

Presentation, 26th September 2024





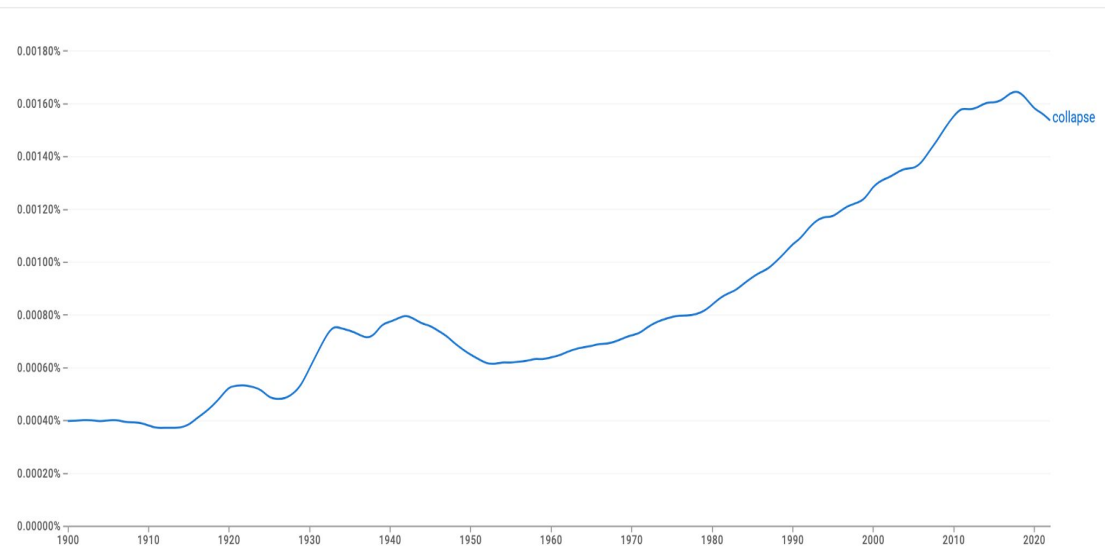
# What I'm going to say

- Some basics about 'collapse'
- Four theories—or centres of gravity
- Collapse and modernity
- Collapse as a policy aide

---

## Collapse is becoming mainstream

(Google Ngram viewer,  
1910-2022)



# The collapse literature is both large and inter-disciplinary

'Collapse' is a boundary object.

It is of interest to archaeologists, historians, anthropologists, environmentalists, philosophers, literary critics, narratologists, systems theorists, futurists...

But this means that there's inconsistency in agreeing what it is.

361 76

**In a systemic bibliographic search Brozovic (2022) found more than 350 articles and approaching 100 books on collapse**

# Collapse is one of futures scenario 'archetypes'

But: There is wide divergence on:

1. Speed of collapse
2. Its distinguishing features
3. Its scale

Or why some collapse **scenarios** end in collapse and others do not.

(Guy Middleton)

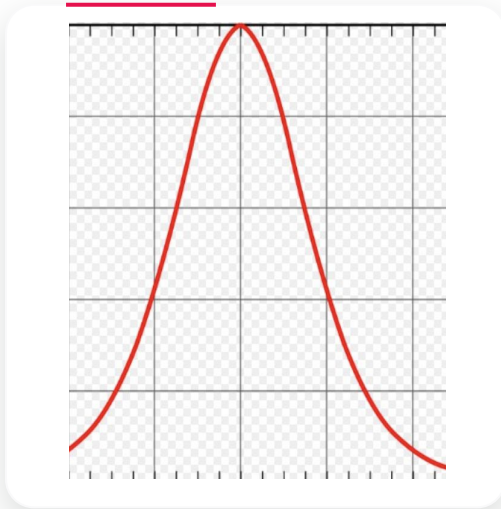
---

“[A] second alternative future is ‘Collapse’ from some cause or another... and either to extinction or to a ‘lower’ stage of ‘development’ than it currently is”

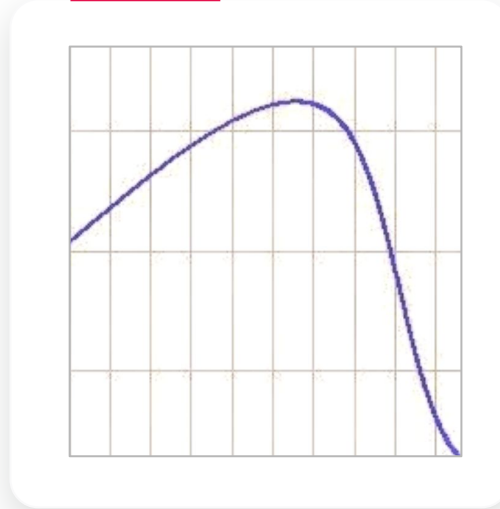
Jim Dator

# There is more agreement on the shapes of collapse

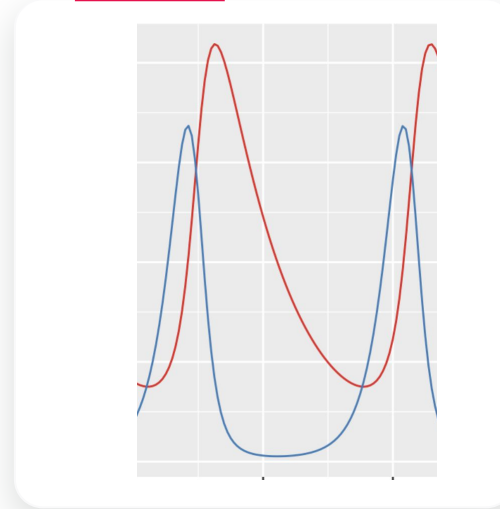
**Hubbert Curve**

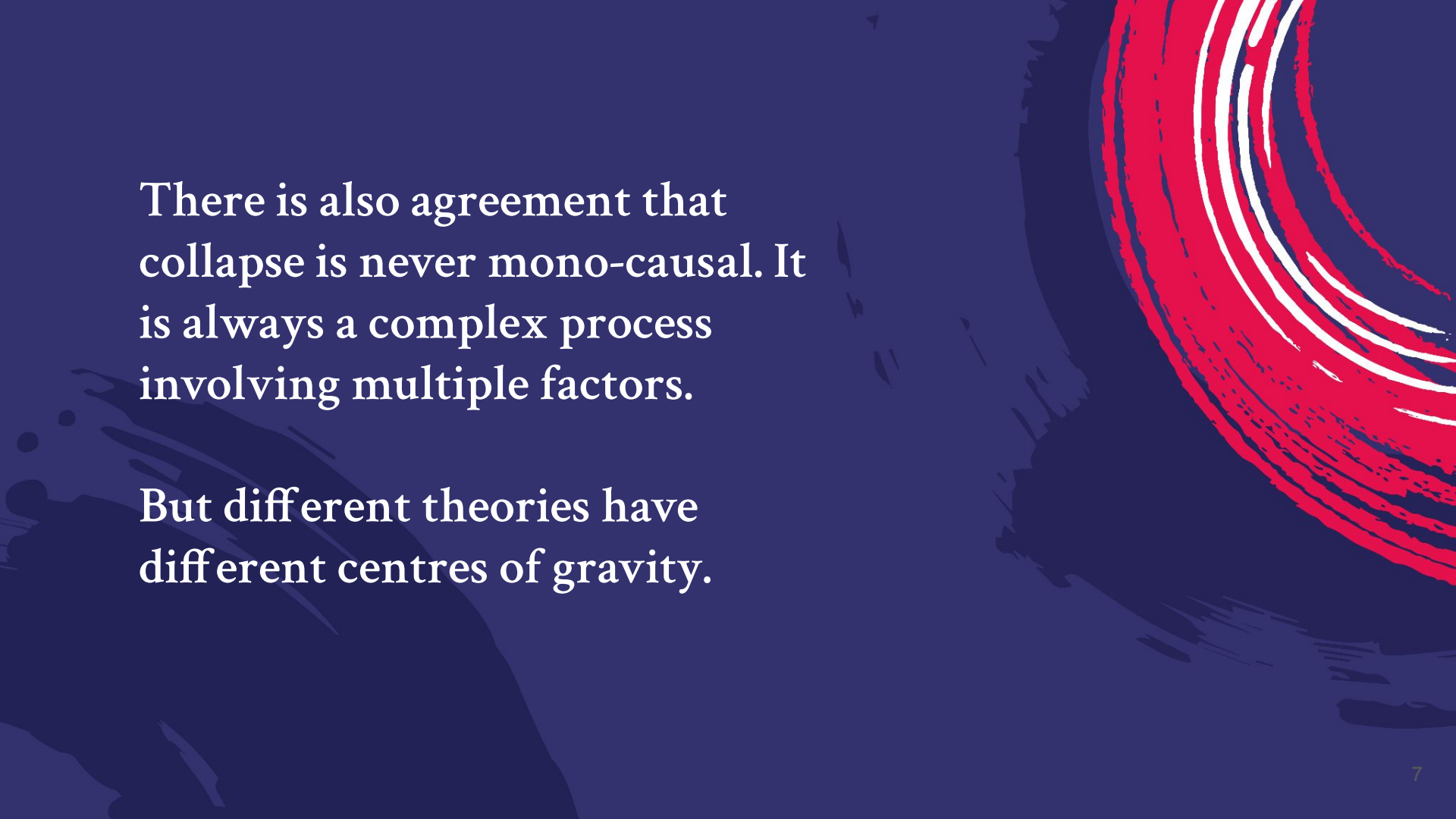


**Seneca Curve**



**Lotke-Volterra Curve**



The background features a dark blue field with expressive, painterly brushstrokes. On the right side, there are prominent, concentric, curved strokes in bright red and white, creating a sense of dynamic movement and depth. The overall aesthetic is modern and artistic.

There is also agreement that collapse is never mono-causal. It is always a complex process involving multiple factors.

But different theories have different centres of gravity.

# There are four types of collapse in the literature

## **Complexity**

Collapse happens because systems become over-complex (associated with Tainter)

## **Environmental**

Collapse happens because environmental systems overshoot (Limits to Growth, Diamond)

## **Extraction**

Collapse happens because elites extract too much from the system (Turchin)

## **Regeneration**

Collapse is a normal part of the way in which complex systems work (Bardi, Gunderson and Holling)



# The complexity story

Tainter's theory about the collapse of complex societies is the most widely referenced in the literature:

- Developed by reviewing the archaeological record
- Societies respond to problems by increasing their level of complexity—until this stops working
- We see signs of collapse before it happens

---

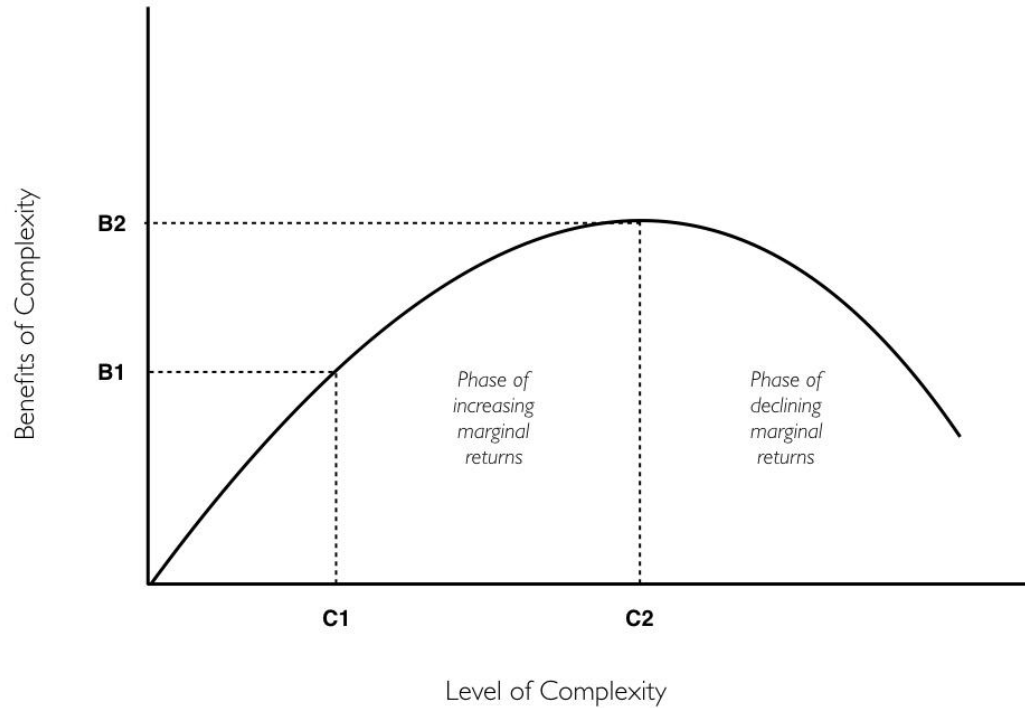
**“Societies tend to evolve toward the maximum level of complexity possible under current technological constraints.”**

G.C. Brunk

---

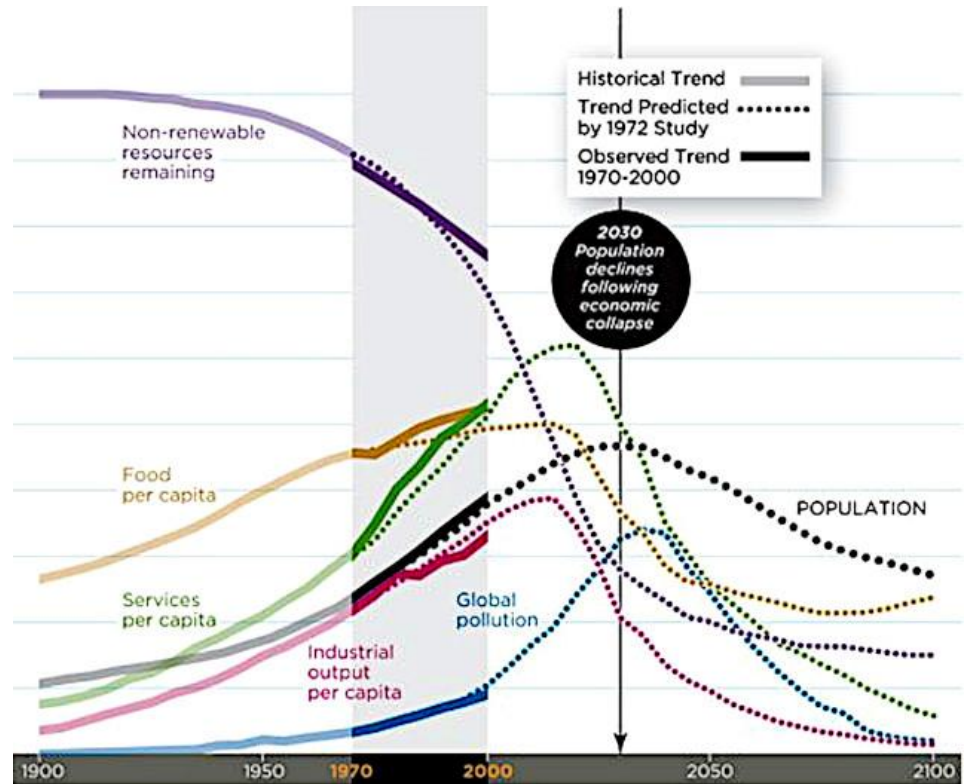
## The returns to complexity start to fall

Because if something can't go on for ever it will stop

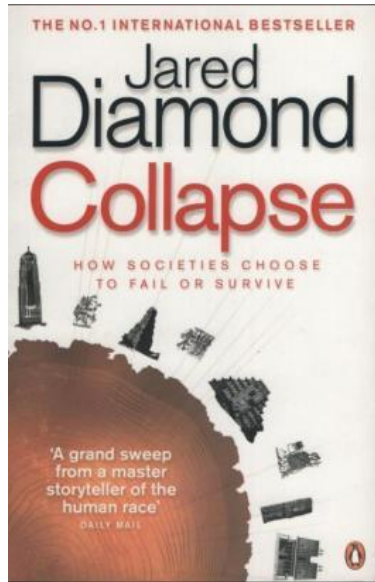


## The environmental story

Limits to Growth modelled planetary overshoot and collapse



## But it's usually just part of the cause



- Jared Diamond constructed a whole theory of environmental collapse, with case studies
- He proposed a five factor model, involving environmental damage; climate change; hostile neighbours; less friendly trade partners; and unsuccessful social response
- But he acknowledges that there's not a single example where environmental factors have been the sole cause of collapse.

# The extraction story

Peter Turchin's 'secular cycles' model is referenced in the literature but is poorly understood.

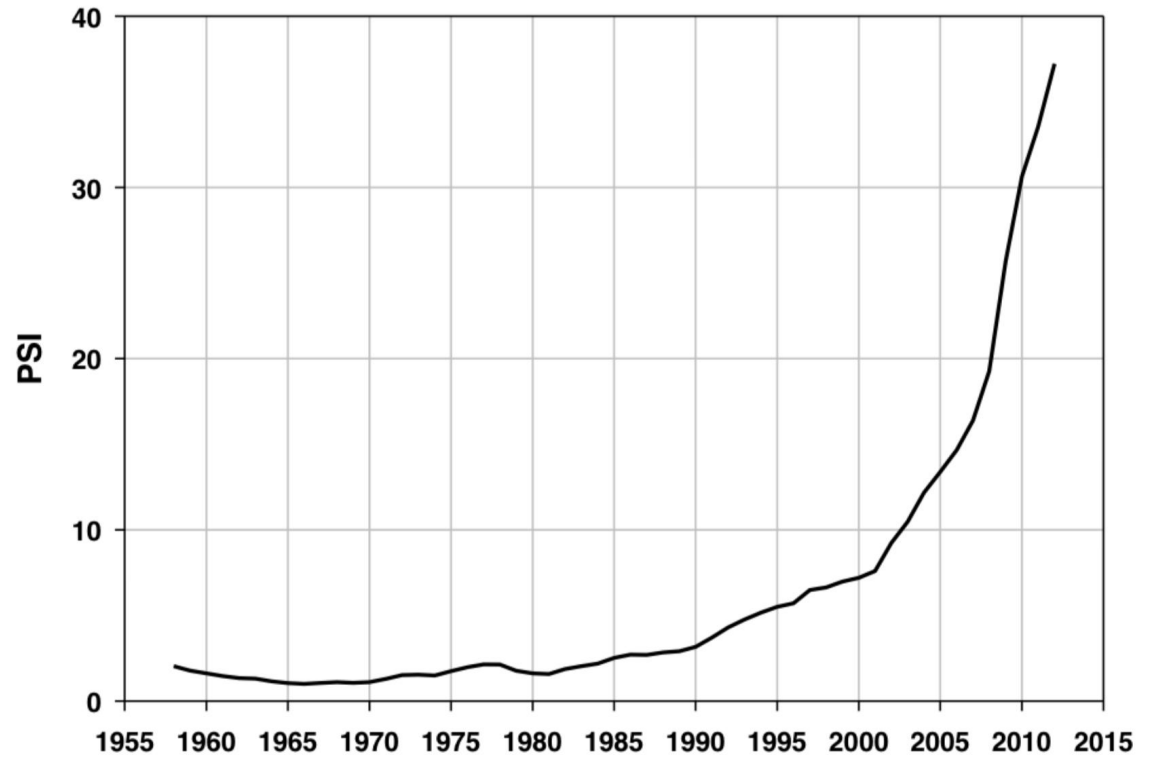
- It connects declines in popular living standards with increases in elite wealth, leading to increased elite competition
- These factors are modelled

---

**“Popular immiseration leading to mass mobilisation potential; elite overproduction resulting in intra-elite conflict; failing fiscal health and weakened legitimacy of the state.”**

Peter Turchin

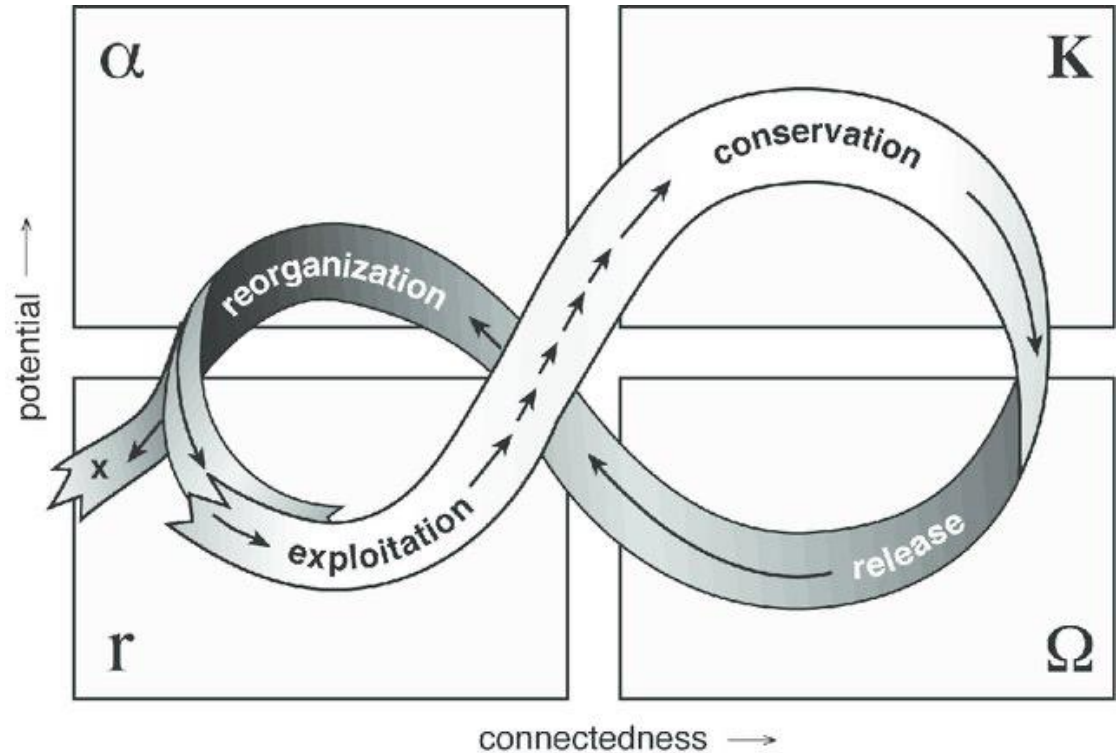
**Peter Turchin's  
'Political stress  
indicator'**



---

## The regeneration story

Collapse is a normal feature of systems processes. Systems usually regenerate, but not always.



The adaptive cycle (from Panarchy, edited by Lance H. Gunderson and C.S. Holling: Figure 2-1 (page 34). Copyright © 2002 Island Press.

# Collapse is not usually an ending

Ugo Bardi researched four significant collapses in Europe over 2,500 years and found they were followed by rapid recovery

- Depopulation freed resources for growth.
- The literature also suggests that communities hold together in the face of collapse

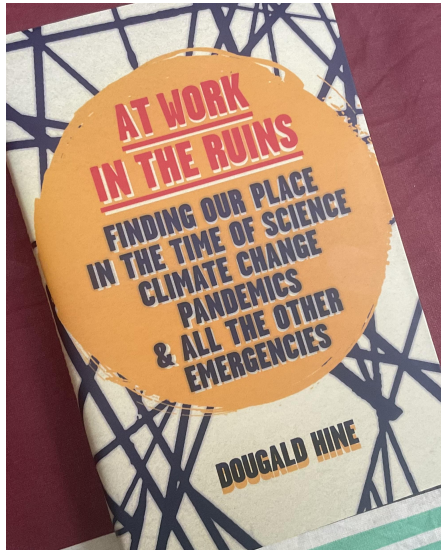
---

**“It is the way the Universe works:  
collapse is not a bug, it is a feature.”**

Ugo Bardi



## But: 'collapse' is also a metaphor



- It is embedded in language and ideas about “growth”, “progress”, and “civilisation”
- Collapse is the shadow side of the Enlightenment
- The notions of “civilisation”, “modernity”, and therefore “loss” are completely entwined.
- ***“The background roar of loss runs through the lives of all of us... Modernity thrives on loss and cannot name it.” (Dougald Hine)***

# Collapse is an action problem, not a research problem

## Capacity

We know that increasing resilience requires an increase in capacity, including problem solving capacity.



## Egalitarian

More egalitarian societies are better at living within their limits.



## Decline

Some form of decline is coming. None of the numbers, or the technologies, add up to anything else.



# Using collapse as policy tool

## Reducing complexity

'Collapse' or 'decline' as a way to think about simplification as an approach to policy



## Adding resilience

The 'what if?' question about collapse opens up discussion of robustness and resilience



## Social innovation

'Collapse' as a route to different types of innovation: "We have no money so we have to think".



---

# Thank you

**Andrew Curry**

**[andrew@soif.org.uk](mailto:andrew@soif.org.uk)**

**The Next Wave (blog):**

**<https://thenextwavefutures.wordpress.com/>**

**Just Two Things (newsletter):**

**<https://justtwothings.substack.com/>**

**'Getting to grips with collapse'**



**[www.soif.org.uk](http://www.soif.org.uk)**