Appreciating Systems Changes via Multiparadigm Inquiry:

Architectural Design, Ecological Anthropology, Classical Chinese Medicine, Systems Rhythms

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■ *Research Paper*

Rethinking Systems Thinking: Learning and Coevolving with the World

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Much of systems thinking, as commonly espoused today, was developed by a generation in the context of the 1950s–1980s. In the 2010s, has systems thinking changed with the world in which it is to be applied? Is systems thinking *learning* and *coevolving* with the world? Some contemporary systems thinkers continue to push the frontiers of theory, methods and practice. Others situationally increment the traditions of their preferred gurus, where approaches proven successful in prior experiences are replicated for new circumstances. Founded on interactions with a variety of systems communities over the past 15 years, three ways to rethink systems thinking are proposed:

1. 'parts and wholes' snapshots → 'learning and coevolving' over time
2. social and ecological → emerged environments of the service economy and the Anthropocene
3. episteme and techne → phronesis for the living and nonliving

These proposed ways are neither exhaustive nor sufficient. The degree to which systems thinking should be rethought may itself be controversial. If, however, systems thinking is to be authentic, the changed world of the 21st century should lead systems thinkers to engage in a reflective inquiry.

Keywords systems thinking; learning; coevolution; world

INTRODUCTION: IS SYSTEMS THINKING

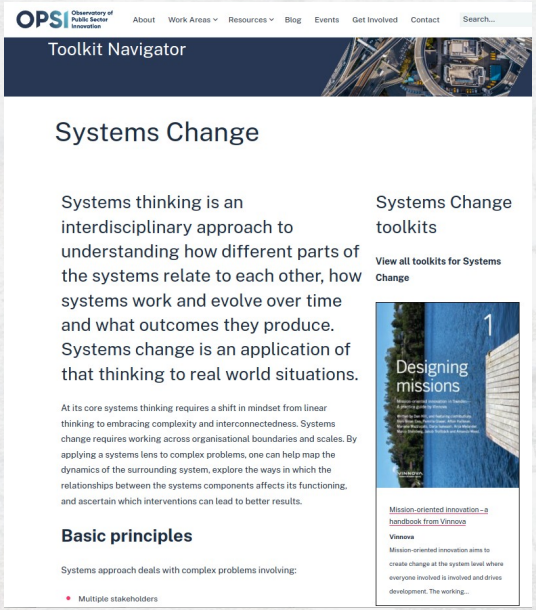
International Society for the Systems Sciences—

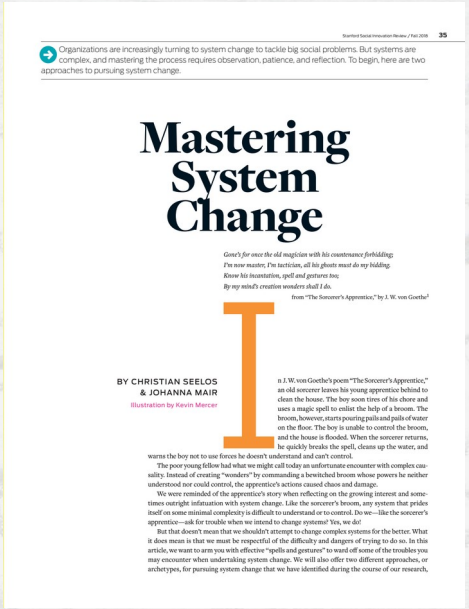
Agenda: At year 4 of 10 of the journey of the *Systems Changes Learning Circle*

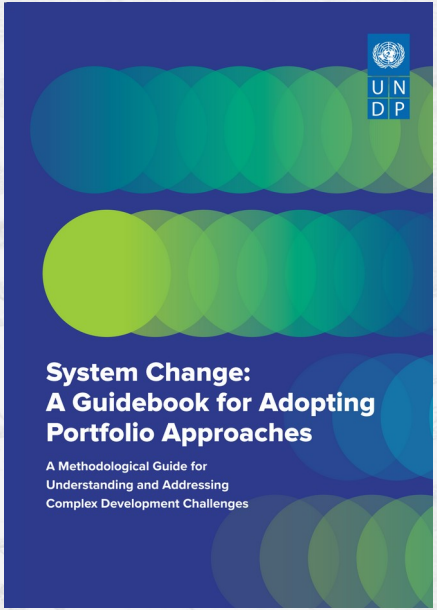
A. Rising interest in System(s) Change(s)			
B. Appreciative Systems (Vickers)			
C1. Philosophy of Architectural Design	C2. Philosophy of Ecological Anthropology	C3. Philosophy of Classical Chinese Medicine	C4. Philosophy of Rhythms
D. Methods: Multiparadigm Inquiry, Open Theorizing			
E. Systems Changes via Three Philosophies → Systems Rhythms			
F. Contributions that Systems Rhythms Offer to Systems Changes			

A. Rising Interest in System(s) Change(s) ...

Which is/are *system(s) change(s)* c.f. ***not*** *system(s) change(s)*?







OECD Observatory of Public Sector Innovation

"… (rare) use" by governments of systems approaches towards making public services more effective and resilient"
(Cook & Tõnurist, 2017, p. 4).

Stanford Social Innovation Review

… a way for "policymakers, foundations, NGOs, and social enterprises tackling issues like poverty, preventable disease and poor education" to "solve the root causes" of these intractable problems (Seelos & Mair, 2018, p. 35).

United Nations Development Programme

… a three phase methodology: (i) sense and frame; (ii) engage and position; and (iii) transform (Wellsch, 2022, p. 1)

Forum for the Future + McConnell Foundation

"What is systems change?"
"… asked people attending and unable to attend to offer their definitions of systems change" (Birney & Riddell, 2018, p. 5)

Systems change: a field building convening

Wasan Island, Canada
18th - 21st June 2018

Who participated?

Jennifer Berman *Garfield Foundation*	Ed Krishok *Academy for Systems Change*	Loretta Rose *Bertha Centre at Capetown University*
Anna Birney *Forum for the Future*	Annabel Membrillo Jimenez *Vibrancy Network*	Wendy Schultz *Infinite Futures*
Valeria Budinich *Ashoka*	Praveen Nahar *National Institute of Design India*	Rachel Sinha *The Systems Studio*
Tim Draimin *McConnell Foundation*	Darius Polok *International Alumni Center*	Mary Tangelder *Mastercard Foundation*
Alice Evans *Lankelly Chase Foundation*	Bill Reed *Regenesis Group*	Benjamin Taylor *RedQuadrant*
David Ford *Expert Link*	Vanessa Reid *Living Wholeness Institute*	Marieke Verhagen *DRIFT*
Tatiana Fraser *Meta Lab*	Rob Ricigliano *Omidyar Foundation*	Laura Winn *Forum for the Future*
Russ Gaskin *CoCreative Consulting*	Darcy Riddell *McConnell Foundation*	
Peter Jones *OCADU*	Ruth Rominger *Garfield Foundation*	

Further contributors to pre-read

Gurpreet Singh *Skoll Foundation*	Marta Ceroni *Academy of Systems Change*	Elisabeth Cramer *Impact Hub*
Ray Ison *Open University*	Heather Grady *Rockefeller Philanthropy Advisors*	Katherine Milligan *Schwab Foundation*
Cheryl Rose *Banff Centre*	Darya Shaikh *Leaders Quest / Future Stewards*	Bill Sharpe *H3Uni / Future Stewards*

Our intent

In the context of growing use of the term “systems change” and increasing interest in systemic approaches to address some of the world’s most complex challenges, we wanted to convene a retreat bringing together practitioners, academics, funders to explore together how we might work together to build the field of systems change.

Birney, Anna, and Darcy Riddell. 2018. “Systems Change: A Field Building Convening.” Wasan Island, Canada: McConnell Foundation, Forum for the Future. https://www.forumforthefuture.org/systems-change-field-building-convening

What is Systems Change?

In the run-up to the retreat, we asked people attending and unable to attend to offer their definitions of systems change, and of field-building. The following pages are a collation of these multiple definitions we shared in the pre-read.

Birney, Anna, and Darcy Riddell. 2018. “Systems Change: A Field Building Convening.” Wasan Island, Canada: McConnell Foundation, Forum for the Future. https://www.forumforthefuture.org/systems-change-field-building-convening

What is your definition of systems change?

Taking a complexity-based approach to social change, looking at many aspects of systems - economic, political, psycho-cultural, ecological - and working together from different locations in the system to address root causes. Systems change is a deliberate approach to work with the self-organizing and evolutionary properties of our human and natural systems to create more just, sustainable, compassionate societies.

Cultivating the conditions for our current systems (e.g. institutions, markets, industries, organizations) to evolve in service of different values

Changing the mindsets, patterns, and underlying structures in a given system for the purpose of building conditions for/creating a new reality

Tackling a challenge and pursuing solutions through a systems lens. This means looking at the interconnected nature of elements within a system and identify how and where to best influence change, vs. approaching the challenge from a technical, programmatic, or sector-based perspective.

Systems change means fundamentally, and on a large scale, changing the way a majority of relevant players solve a big social challenge, such that a critical mass of people affected by that problem substantially benefit.

We support leaders with the power to convene systems. We support them to raise their 'inner game' in order to meet the challenges of the 'outer game'. These leaders are willing to pioneer new approaches that are outside the dominant paradigm and who will use their agency to stand up for new patterns as they take root. We distinguish innovation that simply improves the existing system and innovation that transforms it, shifting towards new patterns and configuring new sources of abundance.

Changing the structures, relationships, and dynamics of a given system in ways that are resilient and lasting so that the system systematically produces better results for all stakeholders.

System change is…

shifting
changing
transforming

- mind-sets, mental models, paradigms
- patterns, underlying structures, ways of operating,
- dynamics, reconfiguring relationships

...in order to

- address underlying root causes,
- deal with complex, uncertain, interconnected systems that are ever changing,
- engage in the potential of living systems,
- solve big social challenges

through

- taking a complexity approach, living systems approach
- Growing the number of people who think and act systemically
- cultivating the conditions
- enabling/ supporting leaders with the power to convene systems
- Capacity, capability and processes to engage
- strategic, multi-stakeholder approaches, coming together across systems, working together
- working with many aspects of systems
- having an inner awareness of the whole

with the outcome of

creating
ensuring
positively affecting

- different behaviours and outcomes
- resilient and lasting /better results
- Building a bridge to a better tomorrow
- increased systems health
- social change
- positive change
- just, sustainable, compassionate societies
- a more sustainable society
- a new normal, the emergence of a new system, a new reality

intentional process and design
purposeful interventions
consciously attempting
deliberate approaches
such as...

Systemic change, shifting root causes at the systems, structure & cultural levels

Systems change as practiced by the philanthropy sector can be described as an intentional process to alter the status quo with purposeful interventions. Funders increasingly recognize that many of the chronic challenges we want to address sit within complex, adaptive systems, and have no easy solutions. Systems change aims to transform underlying structures and the mechanisms that support them. Funding is designed to go beyond piecemeal approaches and incremental change, and aim instead at creating more fundamental changes in policies, routines, relationships, resources, power structures, values, attitudes, and behaviors. At its most ambitious, this approach encompasses altering the linkages and interactions that form a system's architecture – the rules and standards, goals and norms that make systems work the way they do. Systems approaches compel funders, as well as those they fund, to challenge the mental models and ways of thinking that so often drive human behavior toward outcomes that are, in the long-term, negative.

I see System Change as both an outcome – the large-scale transition we are working towards to create a more sustainable society – and as a process. I hold the belief that creating the change we want to see in the world (outcome) will require a growing number of people to think and act more systemically (process).

The emergence of a new pattern of organisation or system structure - systems change is both a process and an outcome. A process of that embodies a living systems perspective and seeks a transformational shift in our deep structures of organising (including paradigms).

Enabling people to recognise complexity and sustainability in their everyday lives and how to apply & harness principles & activities that are in line with those. The fact that everyone and everything on this planet is interconnected and we all have power because we are making up the (sub)systems. So that complexity and sustainability will become mainstream; the new normal.

I define transformational change as a reconfiguration of the relationships of identity and viability. This is what most people are interested in when talking about systems change.

I define systems change as referring to positively affecting complex dynamic systems in order to increase their health and the outcomes they produce (poverty, violence, well-being, etc.). I am careful to distinguish this level of change from affecting "structural systems" like the healthcare or education system, which consists of institutions, policies, people, etc. These systems are complicated, but still clock like, versus the adaptive, infinite, ever-changing nature of complex systems.

Systems change is the process whereby a collection of inter-connected parts whose sum is more than those parts starts to change. it could be for the better or for the worse. we think about it as people seeing themselves as part of an interconnected whole. And it's a place where people want to, know how to and are free to change the systems they're working within.

It's a process and an outcome that involves deep shifts in mental models, relationships, and taken-for-granted ways of operating as much as it involves shifts in organizational roles and power structures, metrics and performance management, and goals and policies. Some of this change might be visible and measurable (such as the shift of an ecosystem or a community towards higher wellbeing) and some of it might be intangible and invisible, and yet very substantial.

Transformation of practices and mindsets within a critical social system or institution on which people in a society depend upon for social and economic support.

Shifting the dynamics of a system so that the system has different behaviours and produces different outcomes. This means shifting the dynamics and relationships of, e.g. power, norms and beliefs, and resource distributions across the different scales of the system.

Rather than actors from government, civil society, or the private sector pulling levers for change from their own individual perches, a coming together across sectors to affect positive outcomes for communities from a position that is aware of the whole. A shift from “ego-system” (blinded by individual biases and priorities) to “ecosystem” awareness and ensuing action.

* to me systems change change field building relates to capturing, mapping and connecting various knowledge and practice domains/linkages whah in some ways helps understand and practice ideas of systems and systems change.
* Understring elements, bounties, relations, cause and qualities of existing system and seeks tradition towards change.

It is an organising principle or badge which connotes working towards change that is both systemic and systematic in situations usefully framed as (complex, uncertain, messy, wicked etc); it also implies working purposefully with purpose to realise a system or systems that can actually effect transformations that deliver on purpose.

Consciously attempting profound transformations in the current state of play to build a bridge to better tomorrow.

I'm not a big fan of definitions - and only partly because I'm not very good at them. Changing things for the better in a sustainable, or preferably a way that develops positive adaptation. Change rooted in understanding systems. Change rooted in understand the energy effort and learning the system is putting into staying the same.

Systems change is the deliberate approach of tackling the underlying causes of complex social, economic, environmental and cultural problems

For me is to move from a Theory of Systems Change to a Theory of Impact Resilience based on systemic, strategic, multi-stakeholders approaches that allow to build up the internal awareness and capacity of the system to shift including a professionalization of how we approach systems change that includes systemic scorecards, rigorous and comprehensive strategies, consciousness of the development stages and pathways (individually and collectively), short, medium and long term vision, etc.

Shifting the arrangement of people, structures, etc from which undesired phenomena arise, to a different arrangement from which desired phenomena MAY arise.

The capacity, capability, and processes required to engage with the patterns and potential of nested living systems.

In this context, systems change is about the intentional design and implementation a change agenda that targets specific dynamics in a complex system to shift them in a way that accelerates a transition to a healthy system state (a long term goal determined by diverse stakeholders)

A. Rising Interest in System(s) Change(s) ...

"Change as Three Steps" as attributed to Kurt Lewin is a "largely post-hoc reconstruction"; he never wrote "refreeze"

human relations

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human relations
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Unfreezing change as three steps: Rethinking Kurt Lewin's legacy for change management

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Abstract
Kurt Lewin's 'changing as three steps' (unfreezing → changing → refreezing) is regarded by many as the classic or fundamental approach to managing change. Lewin has been criticized by scholars for over-simplifying the change process and has been defended by others against such charges. However, what has remained unquestioned is the model's foundational significance. It is sometimes traced (if it is traced at all) to the first article ever published in *Human Relations*. Based on a comparison of what Lewin wrote about changing as three steps with how this is presented in later works, we argue that he never developed such a model and it took form after his death. We investigate how and why 'changing as three steps' came to be understood as the foundation of the fledgling subfield of change management and to influence change theory and practice to this day, and how questioning this supposed foundation can encourage innovation.

Keywords
CATS, changing as three steps, change management, Kurt Lewin, management history, Michel Foucault

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[Change as Three Steps] has come to be **regarded** both as an **objective self-evident truth** and an idea with a **noble provenance** [p. 3]

unfreeze → change → refreeze

Unfreezing change as three steps | Sage Publishing | Youtube

Lewin never wrote 'refreezing' anywhere.

As far as we can ascertain, the **re-phrasing of Lewin's freezing to 'refreezing'** happened first in a 1950 conference paper by **Lewin's former student Leon Festinger**

(Festinger and Coyle, 1950; reprinted in Festinger, 1980: 14).

Festinger said that: 'To Lewin, life was not static; it was changing, dynamic, fluid. Lewin's unfreezing-stabilizing-refreezing concept of change continues to be highly relevant today'.

It is worth noting that Festinger's first sentence seems to **contradict** the second, or at least to contradict later interpretations of Lewin as the developer of a model that deals in static, or at least clearly delineated, steps.

Furthermore, Festinger **misrepresents** other elements; **Lewin's 'moving' is transposed into 'stabilizing'**, which shows how open to interpretation Lewin's nascent thinking was in this 'preparadigmatic' period (Becher and Trowler, 2001: 33). [p. 5]

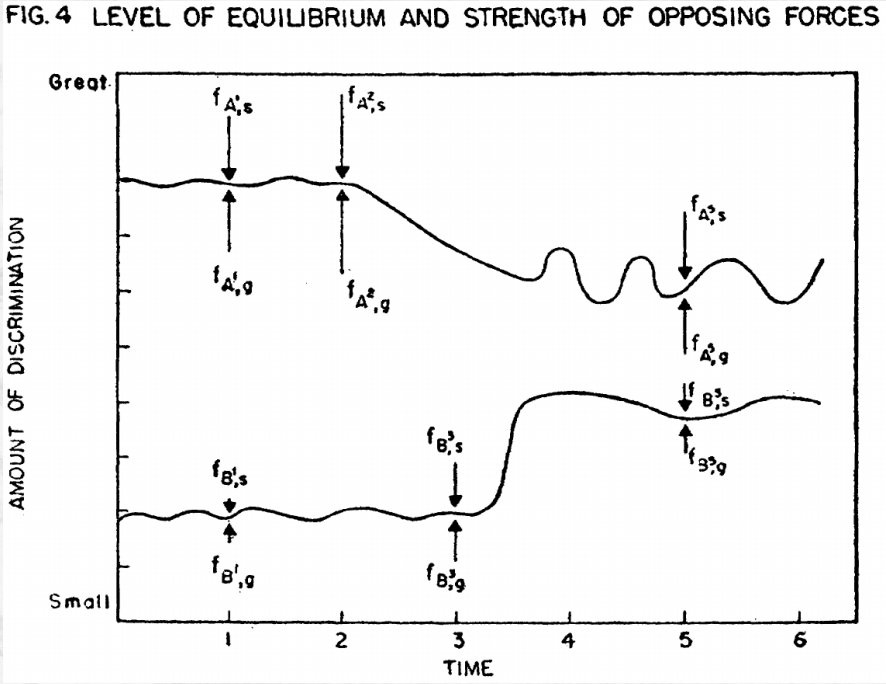
Cummings, Stephen, Todd Bridgman, and Kenneth G Brown. 2016. "Unfreezing Change as Three Steps: Rethinking Kurt Lewin's Legacy for Change Management." *Human Relations* 69 (1): 33–60. https://doi.org/10.1177/0018726715577707 .

A. Rising Interest in System(s) Change(s) ...

Kurt Lewin refers to *quasi-stationary equilibria* "which, like a river, continuously changes its elements even if the velocity and direction remains the same" [p. 15]

(a) Change and constancy are relative concepts; group life is **never without change**, merely differences in the amount and type of change exist;

(b) Any formula which states the conditions for change implies the conditions for no-change as limit, and the conditions of constancy can be analyzed only agains **a background of "potential" change**. [p. 13]

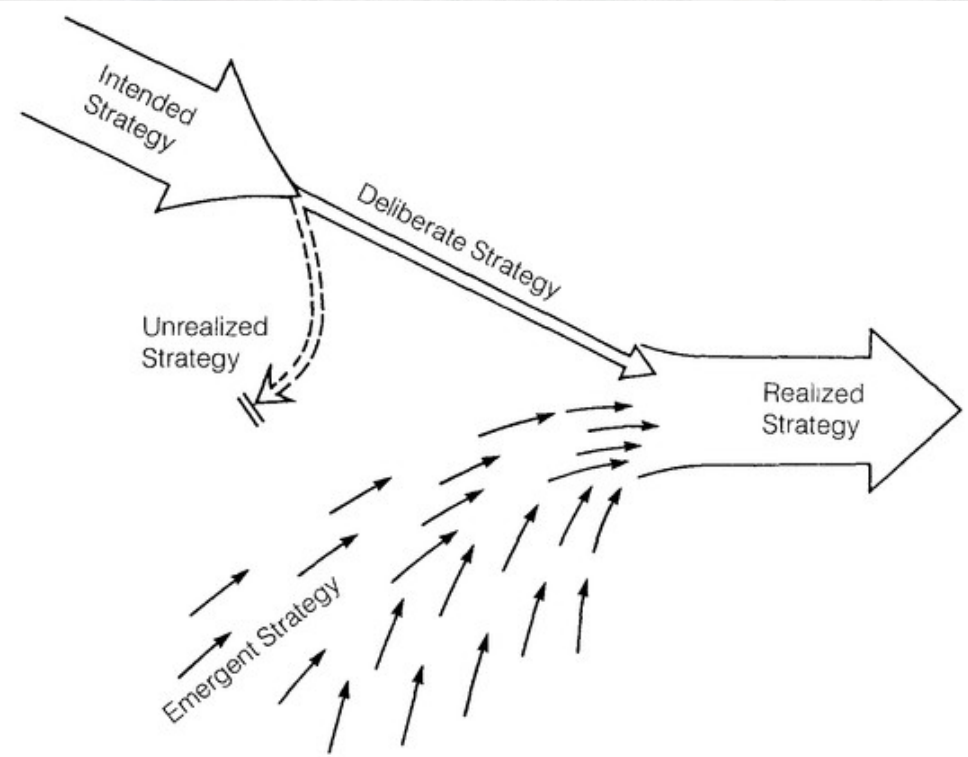


(1) Why does the process under the **present circumstances proceed** on this particular level (for instance, why does the **water in this river move** with this particular velocity)? and

(2) What are the **conditions for changing the present circumstances**? [p. 15]

Lewin, Kurt. 1947. "Frontiers in Group Dynamics: Concept, Method and Reality in Social Science; Social Equilibria and Social Change." *Human Relations* 1 (1): 5–41. https://doi.org/10.1177/001872674700100103 .

In contrast to strategy as *plan*, strategy as *pattern* in a stream of actions is defined by consistency in behavior, whether or not intended



To paraphrase Hume, strategies may result **from human actions**,
but **not human designs**.

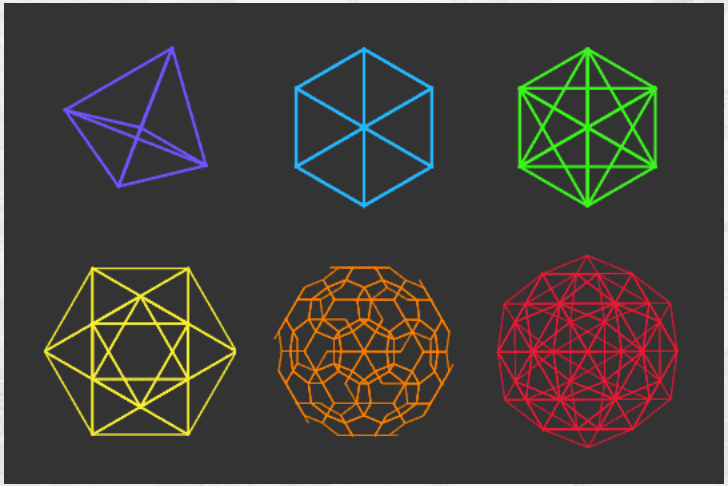
If we label
the first definition ***intended* strategy**
and the second ***realized* strategy**,
as shown in Figure 1, then we can distinguish between
***deliberate* strategies**,
where intentions that exists previously were realized, from
***emergent* strategies**,
where patterns developed in the absence of intentions, or
despite them (which went ***unrealized***).

Mintzberg, Henry. 1987. “The Strategy Concept I: Five Ps For Strategy.” *California Management Review* 30 (1): 11–24. https://doi.org/10.2307/41165263 .

Two ways of seeing nature, since ~500 BCE, have set how humans beings negotiate with themselves and in their world(s)

Reality as a **changelessness state**

- Parmenides of Elea, Confucius
- Shift → stability → sustainable
- Analytic paradigm



Hyper Platonic, by Nathan P. Seddig (natpbs.tumblr)

Reality as a **state of change, not a change of state**

- Heraclitus of Ephesus, Laotse
- Beauty of dynamic (c.f. protection of static)
- Contextual appreciation

Walking, by Dominique Taswell (strawberrylicorice.tumblr)

Hawk, David L. 1999. “Changelessness, and Other Impediments to Systems Performance.” In *Proceedings of the Conference to Celebrate Russell L. Ackoff, and the Advent of Systems Thinking*, edited by Matthew J. Liberatore and David N. Nawrocki. Villanova University. http://davidhawk.com/wp-content/uploads/2018/09/Ackoff-Birthday-Conference.pdf#page=59 .

In which *systems* would you like to see *changes* occur?

The *Systems Changes Learning Circle* is an open collaborative community, initiated in Toronto, Canada. A call for participation was launched in January 2019 at the monthly Systems Thinking Ontario meeting. The web site was will evolve as contributions and knowledge are added.

The plurals in the program name are significant.

- There are multiple system**s** simultaneously at play, not just a single system.
- Change**s** include those within a field that individual and groups can influence, and those in an extended environment that are beyond our abilities.

The program is initially facilitated by David Ing. Collective learning is encouraged with the cooperation of Systems Changes Learning Circle members.

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B. Appreciative Systems (Vickers) ...

Human individuals and collectives undergo a social process of three judgments, with tacit elements on events and activities unfolding over time

	Appreciative Systems		
	Reality Judgments	***Value Judgments***	***Instrumental Judgments***
Human Activities	Concerning **what is or is not** the case -- ranging from basic **cause-and-effect beliefs** to more subtle and complex **"facts"**	Concerning **what ought or ought not** be the case -- including **imperatives, wants and desires**, prudential or self-interested considerations, and **individual and collective goals and norms**	Concerning the best **means** available to reduce the mismatch **between is and ought** -- including the **personal resources** of time, attention, intellect, passion, money, and power, along with those **social resources** that can be marshaled and applied (by influence or command) through communication, coalition, and access to social institutions
Human Meaning	Knowing	Evaluating	Acting

Adams, Guy B., Bayard L. Catron, and Scott D.N. Cook. 1995. "Foreword to the Centenary Edition of The Art of Judgment." In *The Art of Judgment: A Study of Policy Making*, by Geoffrey Vickers, Centenary Edition, xii–xxiv. Thousand Oaks, CA: Sage Publications.

Operationalizing *Appreciative Systems* (Vickers) led to *Soft Systems Methodology* (Checkland) as a systemic inquiry process emerging from action research

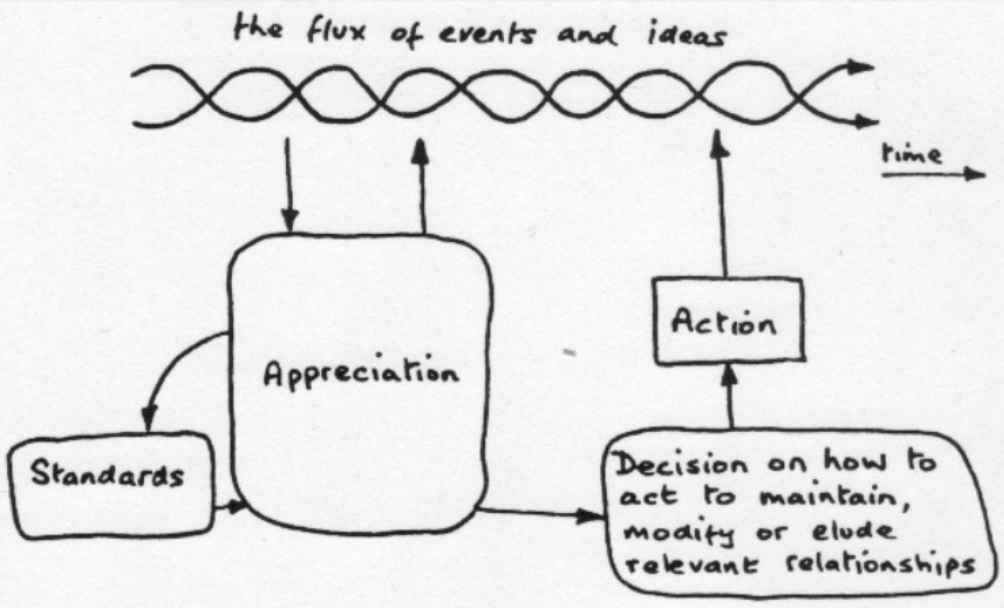

Figure 3: Appreciation leading to action

… both reality and value judgements stem from **standards** of both **fact** and **value**: standards of what is, and standards of what is good or bad, acceptable or unacceptable. [p 5]

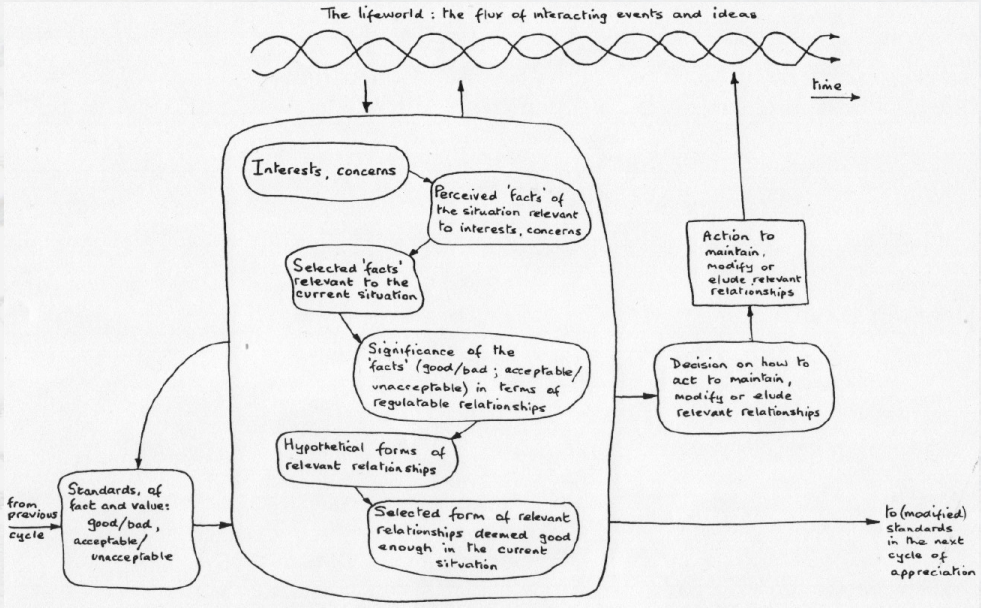

Figure 4: The model of an appreciative system

[From] a **decision** on **how to act** to maintain, modify or elude certain forms of relevant relationships … **action follows**. [p 5]

Checkland, Peter B., and Alejandro Casar. 1986. "Vickers' Concept of an Appreciative System: A Systemic Account." *Journal of Applied Systems Analysis* 13 (3): 3–17.

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Christopher Alexander, Horst Rittel, C. West Churchman

At U.C. Berkeley in the 1960s, Christopher Alexander, Horst Rittel and C. West Churchman could have had lunch together. While disciplinary thinking might lead novices to focus only on each of pattern language, wicked problems and the systems approach, there are ties (as well as domain-specific distinctions) between the schools.

Circa 1968-1970: Christopher Alexander, Horst Rittel, West Churchman

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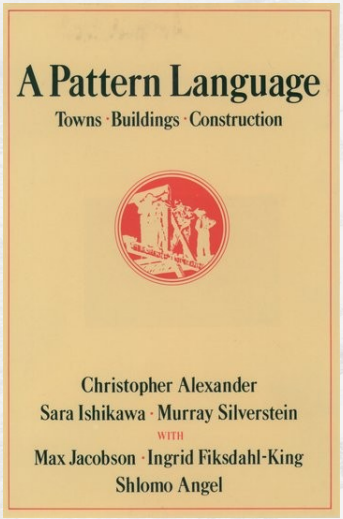
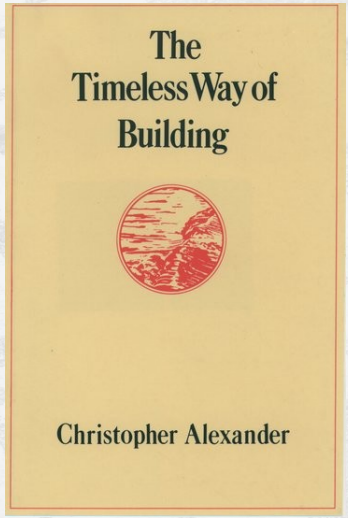
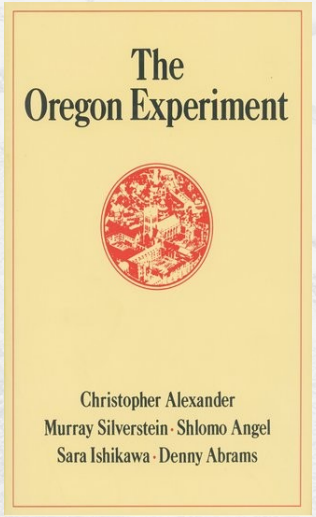
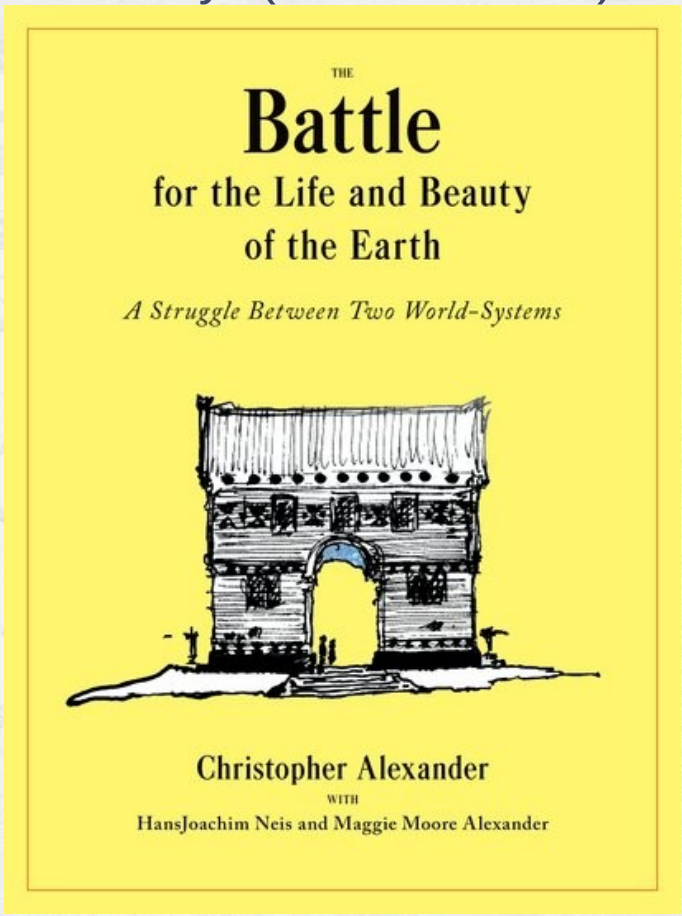
The Timeless Way of Building (1979) theorized *A Pattern Language* (1977) towards building and maintaining generative systems with "life and beauty" (1985 → 2012)









Systems generating systems — architectural design theory by Christopher Alexander (1968)

The systems thinking roots from architect Christopher Alexander aren't completely obvious in his work on pattern language. A republished version of an 1968 article resurfaces some clarification on a perspective on systems thinking originating from practices in architecture. This article introduced ways in which systems thinking could be most directly applied to built environments. The cross-appropriation of pattern languages across a variety of domain types — object-oriented programmers were the earliest motivating adopters — could be enlightened by revisiting the foundations. Alexander concisely presented 4 points, and then provided detailed reasoning for each:

> 1. There are two ideas hidden in the word system: the idea of a *system as a whole* and the idea of a *generating* system.
>
> 2. A *system as a whole* is not an object but a way of looking at an

Molly Wright Steenson, as part of her 2014 dissertation, has a 66-page digest of Alexander's work between 1962 and 1968. Her deep reading was reflected in a 2009 recorded presentation on "Loving and Hating Christopher Alexander". Generally speaking, interaction designers love Christopher Alexander's approach, while architects hate Christopher Alexander's approach.

Max Jacobson (Ph.D. Berkeley 1973) says Pattern Language is **not** for wicked problems!

coevolving.com/blogs/index.php/archive/exploring-the-context-of-pattern-languages/

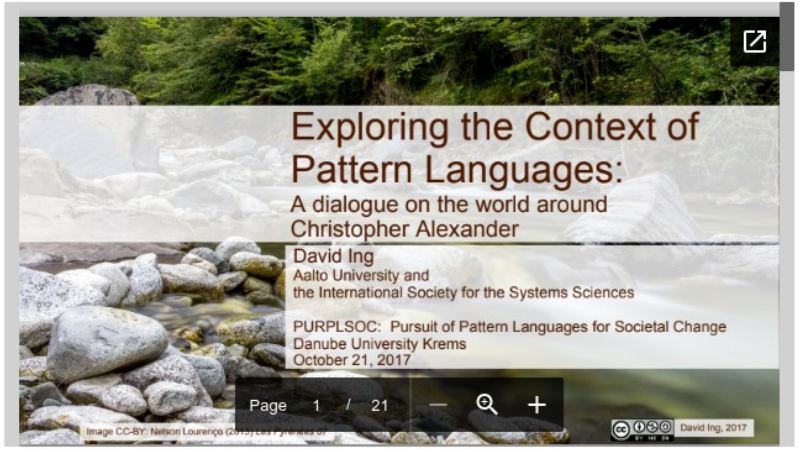
Exploring the Context of Pattern Languages

Pattern language is not for wicked problems, said Max Jacobson, coauthor with Christopher Alexander of the 1977 *A Pattern Language: Towns, Building, Construction*. In addition, the conventional definition of an Alexandrian pattern as "a solution to a problem in context" when applied to social change might better use the term "intervention", rather than "solution".

These are two of the major ideas that emerged at Purplsoc 2017 conference last October. A 90-minute workshop was run in parallel with other breakouts.

For about the first hour, vocal participants included Max Jacobson (who had given a plenary talk on "A Building is not a Turkish Carpet"), Christian Kohls (who gave a plenary talk on "Patterns for Creative Space") and Peter Baumgarnter (one of the Purlpsoc chairs).

As an impetus to discussion, we stepped through slides that had been posted on the Coevolving Commons.



For people who would like the next-best experience to being there, the slides have now been matched up with the digital audio recording, for viewing as a web video.

Agenda: At year 4 of 10 of the journey of the *Systems Changes Learning Circle*

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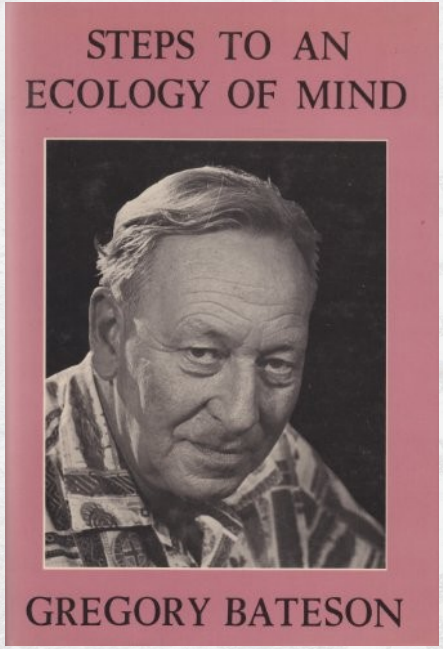
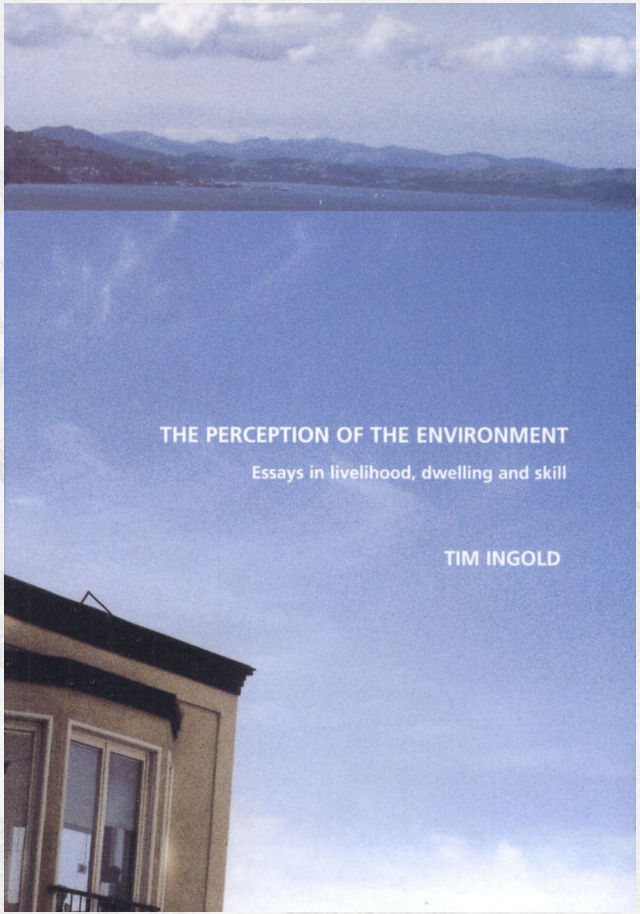
F. Contributions that Systems Rhythms Offer to Systems Changes			

The Perception of the Environment (Ingold, 2000) extends ecological epistemology as by Gregory Bateson in "Form, Substance and Difference" (1970)



"the mental world … is not limited by the skin"
[Bateson 1972, p. 461]



… an '**ecology of life**' … all hinges on a particular answer to Bateson's question:
what is this 'organism plus environment'?

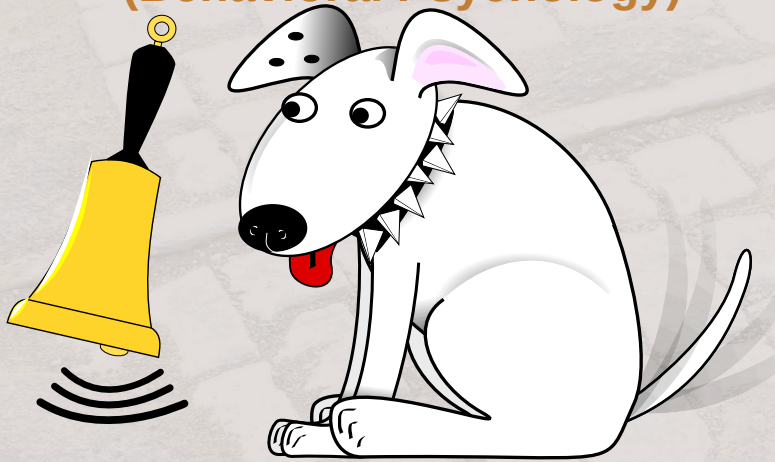
For conventional ecology, the 'plus' signifies a simple addition of one thing to another, both of which have their own integrity, quite independently of their mutual relations. ….

A **properly ecological approach**,
to the contrary, is one that would take, as its point of departure,
the whole-organism-in-its-environment.

In other words, **'organism plus environment'** should denote not a compound of two things, but **one indivisible totality** (Ingold, 2000, p. 19).

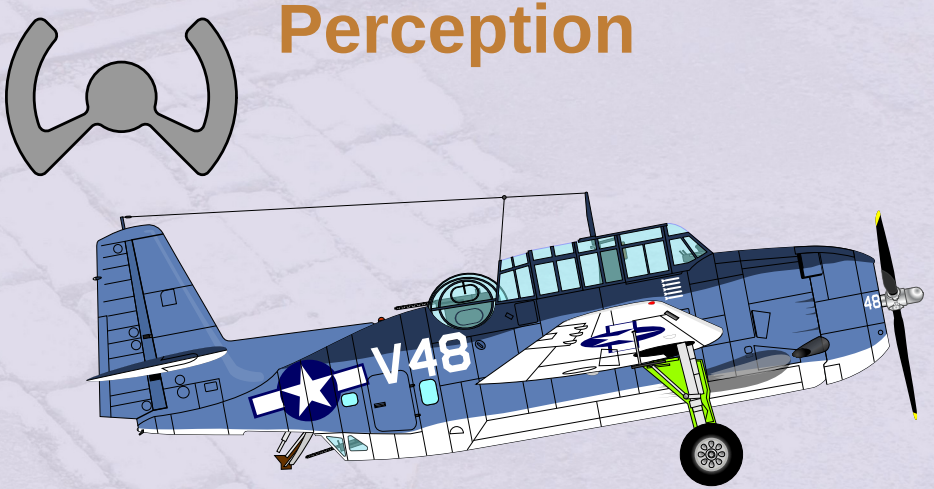
While Behavioral Psychology asked "*What's inside your head*", an Ecological Approach asks "*What's your head inside of?*"

Stimulus – Response
(Behavioral Psychology)



[In the 1950] ... the **psycho-physical** program was … traditional in considering **perception** to be **a set of responses to presented stimuli** (albeit "higher order" stimuli).

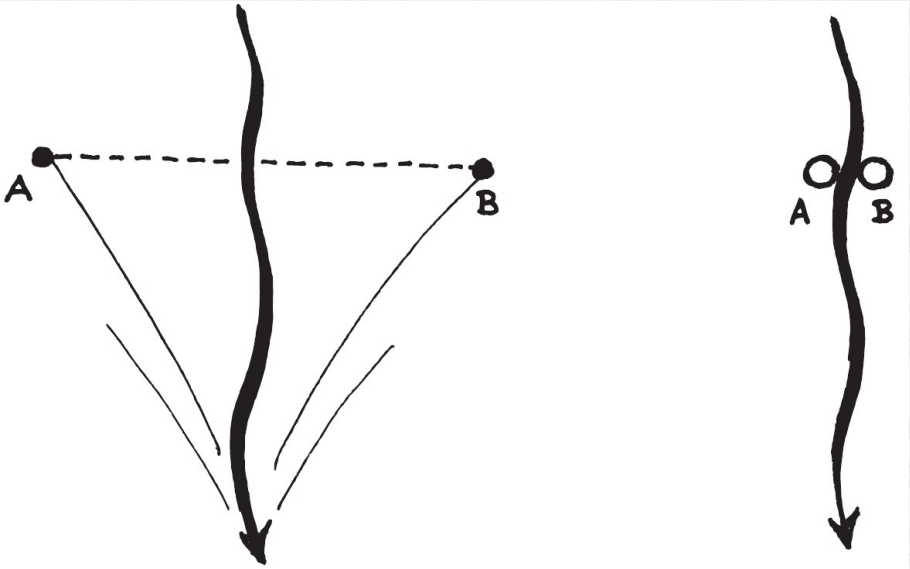
Ecological Approach to Perception



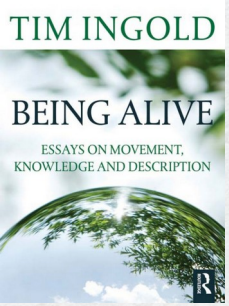
[**James J. Gibson**] has tried to develop enough theory … to demonstrate that **direct perception** is indeed plausible ... The … analysis of the optic array, stimulus organization, and the functional organization of **perceptual systems** are what Gibson oftens points to as **radical features** ….

William M. Mace 1977. "James J. Gibson's Strategy for Perceiving: Ask Not What's inside Your Head, but What Your Head's inside of." In *Perceiving, Acting, and Knowing: Toward an Ecological Psychology*, edited by Robert Shaw and John Bransford, 43–65.

Life, with ongoing openness that “will not be contained”, can be appreciated as a bundle of lines of becoming, overflowing boundaries



... a line of becoming has neither beginning nor end… [It] has only a middle ... A becoming is always in the middle: one can only get it by the middle. A becoming is neither one nor two, nor the relation of the two; it is the in-between, the ... line of flight ... running perpendicular to both. (Deleuze and Guattari 2004, p. 323)



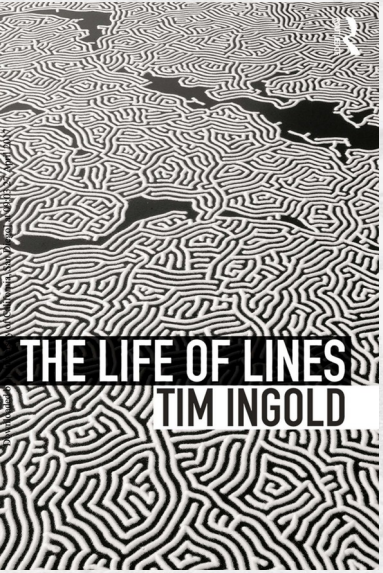
Ingold, Tim. 2011. “The Meshwork.” In *Being Alive: Essays on Movement, Knowledge and Description*, 63–65. Routledge. https://doi.org/10.4324/9780203818336 .

Thus, far from inhabiting a sealed ground furnished with objects, **the animal lives and breathes in a world of** earth and sky -- or **becoming earth and becoming sky** -- where to perceive is to align one’s movements in counterpoint to the modulations of day and night, sunlight and shade, wind and weather.
It is **to feel the currents** of air as it infuses the body, **and the textures** of the earth beneath one’s feet. [pp. 87-88]

In the open world, to leave the last word to Deleuze ….
These haecceities are not *what* we perceive, since in the world of fluid space there are no objects of perception. They **are rather what we perceive *with***.
In short, **to perceive the environment is** not to look back on the things to be found in it, or to discern their congealed shapes and layouts, but **to join with them in the material flows and movements** contributing to their -- and our -- ongoing formation. [p. 88]

Each subject in becoming can be represented with a (life)*line*, *co-responding* with others, in a larger *meshwork* of relationships

Interaction is between; correspondence in-between.
The **life of lines** is a **process of correspondence**.
Thus for the between-ness of subjects, in Arendt's formulation, I substitute the *correspondence of lines*, and for the **web of human relationships**, the **meshwork**. [...]



Correspondence thinking, however, acknowledges what the people among whom we work already know, namely, that the **lines *are* persons**. **Kinship**, then, is **a mesh of lines**, not a net of connections. And what do kinspersons do? They *attend* to one another, in the sense of abiding with each other, caring for them and doing their bidding, ...

Indeed we could go so far as to define kinship as a correspondent process of **anthropogenesis** – of the **making-in-growing of persons** – whose constituent lines, far from articulating end-to-end, join in the middle, in the midst of things. [p. 156]

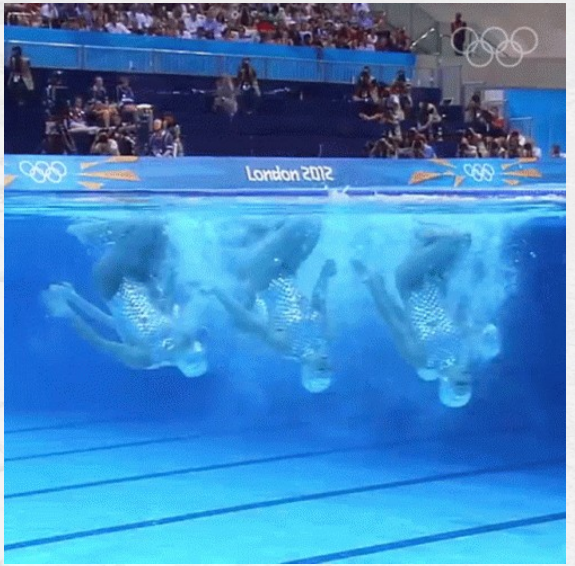
Ingold, Tim. 2015. "The Correspondence of Lines." In *The Life of Lines*, 154–58. Oxford, UK: Routledge. https://doi.org/10.4324/9781315727240 .

I suggest that in a world where things are continually **coming into being** through processes of growth and movement -- that is, in a world of life -- **knotting** is the fundamental principle of coherence. It is the way in which contrary forces of tension and friction, as in pulling tight, are generative of forms [p. 10].

Correspondence, in this sense, is the **process** by which beings or things literally **answer to one another over time**, for example in the exchange of letters or words in conversation, or of gifts, or indeed in holding hands. In what follows I aim to show that such correspondence rests on **three essential principles**.
The **first** is **habit**, the **second** what I shall call '**agencing**', and the **third attentionality**.

Ingold, Tim. 2017. "On Human Correspondence." *Journal of the Royal Anthropological Institute* 23 (1): 9–27. https://doi.org/10.1111/1467-9655.12541 .

Embodied Becoming (action, being) comes from *Knowing from Within* and *Co-responding alongside others in the meshwork*



[The Sami people] did not inform me of *what* is there, to save me the trouble of having to inquire for myself. Rather, they told me *how I might find out*. They taught me what to look for, how to track things, and that knowing is a process of active following, of *going along*.

… you know as you go ... **knowing *is* movement**.

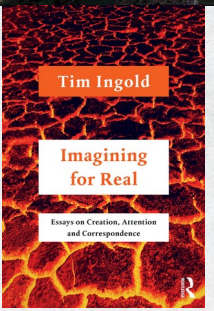
Ingold, Tim. 2013. “Knowing from the Inside.” In Making: Anthropology, Archaeology, Art and Architecture, 1–14. Routledge. p.1.

… **the ground of knowing** … **is itself the very ground we walk**, where earth and sky are tempered in the ongoing production of life.

Ingold, Tim. 2015. “Knowledge.” In The Life of Lines, 46–50. Oxford, UK: Routledge. pp. 48-49.

Sustainability of everything, in the *second life of trees*, cautions progressive development overtaking continuity of life in world renewal

"Japanese traditional style house exterior"
CC-BY TANAKA Juuyoh 2010



Ingold, Tim. 2022. "*The Sustainability of Everything*." In *Imagining for Real*, 325–36. New York, NY: Routledge. http://doi.org/10.4324/9781003171713-27 .

Traditionally, **Japanese foresters** would look after trees for a generation, and then cut them for use as house timbers. In the house, the timbers enjoy what the foresters call a **second life**. In this phase the direction of care is reversed.

For where **foresters had nurtured trees in their first life**, it is now **the trees that nurture** the foresters and their families **in the second**, by furnishing the warmth, shelter, and comfort of the dwelling.

During this time, the foresters are looking after **a new generation** of growing trees, which will eventually, in their turn, become replacement house timbers. And so it would continue, **generation after generation**. Here, the lives of foresters and their trees **go along together**, responding to one another in **a cycle of mutual care** that, in principle, can continue indefinitely.

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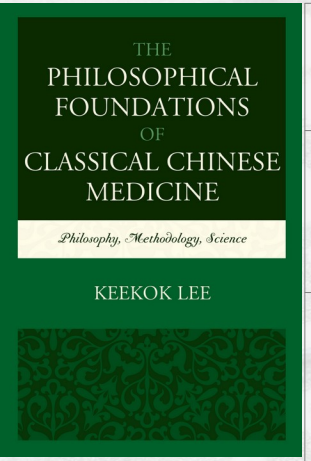
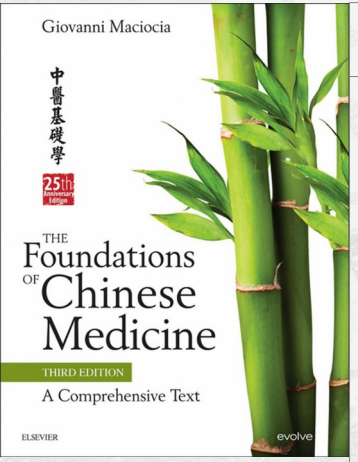
In contrast with a science based on the universals + duals, Chinese medicine follows traditions of contexts + dyads



Dualistic (Modern Western formal logic)		**Contextual-dyadic (Classical Chinese implicit logic)**
Abstract and permanent, is independent of context • Can extrapolate from propositions	**Truth - Falsity**	Application and meaning is relative to a particular context • Evaluate assertion as embedded
Oppositions Superior ↔ Inferior Superordinate ↔ Subordinate Intrinsic value ↔ Non-intrinsic value Human ↔ Nonhuman	**Pairings**	*Characteristics under context* A term presupposes it opposite • e.g. *cat* implies *non-cat*, not universe Context-dependence • e.g. men or women superior when/where?
Hierarchical Reductionist Entity- (thing-) ontology	**Frames**	Yin-Yang Harmonious whole Mutually engendering or constraining

Lee, Keekok. 2017. *The Philosophical Foundations of Classical Chinese Medicine: Philosophy, Methodology, Science*. Lexington Books. https://rowman.com/ISBN/9781498538886/The-Philosophical-Foundations-of-Classical-Chinese-Medicine-Philosophy-Methodology-Science.

The primordial dyad of a hill with (i) *yang* as the sunny side, and (ii) *yin* as the shady side, embeds correspondences in Chinese traditions



As two phases of a cyclical movement

Yang	*Yin*
Light	Darkness
Sun	Moon
Brightness	Shade
Activity	Rest
Heaven	Earth
Round	Flat
Time	Space
East	West
South	North
Left	Right

As two states of density of matter

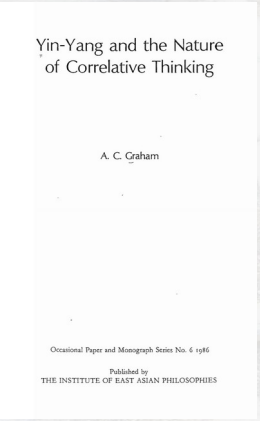
Yang	*Yin*
Immaterial	Material
Produces energy	Produces form
Generates	Grows
Non-substantial	Substantial
Energy	Matter
Expansion	Contraction
Rising	Descending
Above	Below
Fire	After

As qualities in clinical practice

Yang	*Yin*
Fire	Water
Heat	Cold
Restless	Quiet
Dry	Web
Hard	Soft
Excitement	Inhibition
Rapidity	Slowness
Non-substantial	Substantial
Transformation / change	Conservation / storage / sustainment

Maciocia, Giovanni. 2015. *The Foundations of Chinese Medicine: A Comprehensive Text*. Elsevier Health Sciences., pp. 4-11

”As has long been recognized, China tends to treat opposites as complementary, the West as conflicting”



Earliest pairs (from the Ma-wang-tui manuscript of Lao-tzu)

Yang	*Yin*
Heaven	Earth
Spring	Autumn
Summer	Winter
Day	Night
Big states	Small states
Important states	Insignificant states
Action	Inaction
Stretching	Contracting
Ruler	Minister
Above	Below
Man	Woman
Father	Child

Yang	*Yin*
Elder brother	Younger brother
Older	Younger
Noble	Base
Getting on in the world	Being stuck where one is
Taking a wife, begetting a child	Having a funeral
Controlling others	Being controlled by others
Guest	Host
Soldiers	Labourers
Speech	Silence
Giving	Receiving

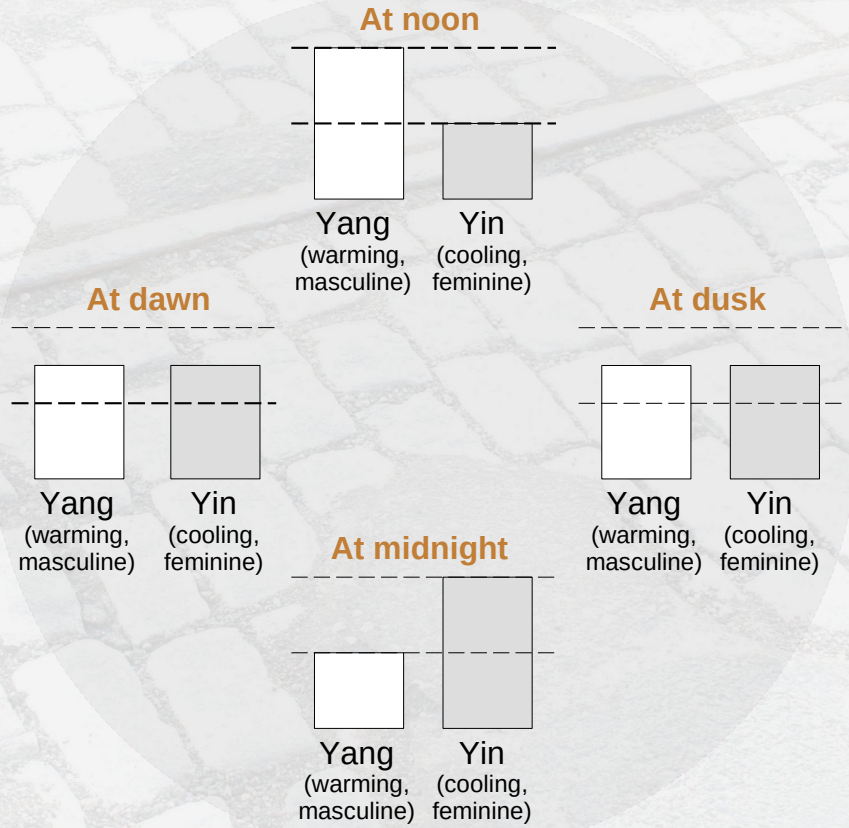
The cosmos (from Hui-nan-tzu)

Yang	*Yin*
Clear and subtle	Heavy and muddy
HEAVEN	EARTH
Hot	Cold
FIRE	WATER
SUN	MOON
Round	Square
Illuminates	Retreats to dark
Expels	Holds in
Does to	Is transformed by
Scatters	Congeals
RAIN and DEW	FROST and SNOW
FURRED and FEATHERED	SHELLED and SCALY
Flies or runs	Hibernates or hides
Goes up	Goes down

* NOMINAL CONCEPTS IN UPPER CASE, Verbal concepts lower case

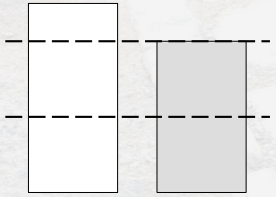
Graham, Angus Charles. 1986. *Yin-Yang and the Nature of Correlative Thinking*. Institute of East Asian Philosophies.

Let's shift cosmology as *dyadic* with (i) sunny change (light, fire) ***and*** (ii) cloudy change (dark, water), not *dualistic* (i) change ***or*** (ii) no change

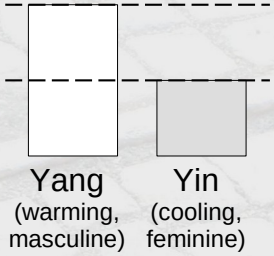


Context then puts dynamics changes (e.g. sunny and cloudy) as (a) freely intercoursing, or (b) blocked into excess or deficient levels

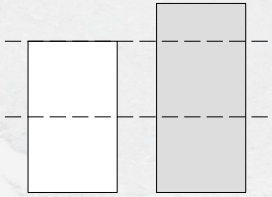
Excess Yang (Full Heat)



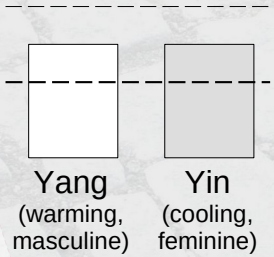
At noon



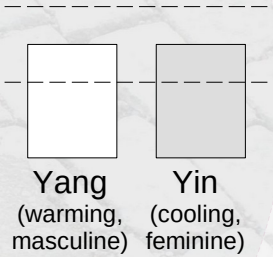
Excess Yin (Full Cold)



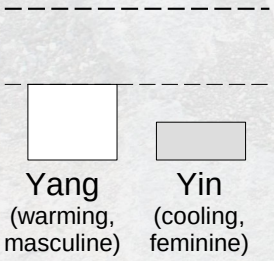
At dawn



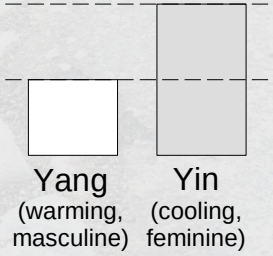
At dusk



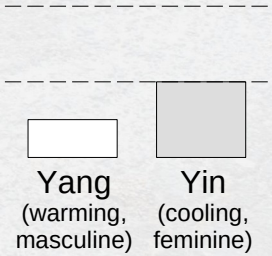
Deficient Yin (Empty Heat)



At midnight



Deficient Yang (Empty Cold)



Post-colonial philosophy of science in Taiwan hybridizes correlativity in TCM pulse + tongue diagnosis, alongside analytical biomedicine

[Dr. Lee] works with a body that has circulating qi and meridians. [….]
Dr Lee adds the biomedical results to her findings. They supplement her diagnosis.

Lin, Wen-yuan, and John Law. 2014. "A Correlative STS: Lessons from a Chinese Medical Practice." *Social Studies of Science* 44 (6): 801–24. https://doi.org/10.1177/0306312714531325.

Images: "Chinese Medicine" by Kian2018 (2015) on Pexels; "Examination" by Semevent (2017) on Pixabay; "Sphygmomanmeter" by Pavel Danilyk (2021) on Pexels

Willful action and *non-intrusive action* are central in Chinese thinking

為
wèi

無為
wú wèi

为 （為） wéi: p. 517
I (动， verb)
1. **do; act**: 敢做敢 ~ gǎn zuò gǎn ~ bold in action
2. **act as; serve as**: 以此 ~ 凭 yí cǐ ~ píng This will serve as proof.
3. **become**: 变沙漠 ~ 良田 biàn shā mó ~ liáng tiān turn the desert into arable land.
4. **be; mean**: 一公里 ~ 二华里 yī gōng lǐ ~ èr huā lǐ One kilometer is equivalent to two li.

无 （無） wu2: p. 526
I (名， noun) **nothing; nil**: 从 ~ 到有 cóng ~ dào yǒu start from scratch
II (动， verb) **not have; there is not; without**: ~ 一定计划 ~ yī dìng jì huà have no definite plan
III (副， adverb) **not**: ~ 须多谈 ~ xǔ duō tǎn need not go into details

Concise English-Chinese Chinese-English Dictionary (2004), 3ed, Commercial Press and Oxford University Press

Wei meant application of **the force of will-power**, the **determination** that things, animals, or even other men, should do what they were ordered to do, but ***wu wei*** was the opposite of this, **leaving things alone**, letting **Nature** take her course, profiting by **going with the grain** of things instead of going against it, and **knowing how not to interfere**.

Needham, Joseph. 2004. “General Conclusions and Reflections.” In The Social Background, edited by Kenneth Girdwood Robinson. Vol. VII:2. *Science and Civilisation in China*. Cambridge University Press. p. 16

Some scholars have argued that the interpretation of ***wuwei*** as “**non-intrusive action**” or “**non-interfering action**” is more philosophically profound and interesting. These latter translations support a meaningful rendition of the concept *wuwei* **both at the sociopolitical level** (arguing against the imposition of artificial, conformist and universally binding norms) **and at the metaphysical level** (acknowledging the inappropriateness and fatality of imposing egocentric or anthropocentric norms upon other individuals or species).

Lai, Karyn. 2003. “Conceptual Foundations for Environmental Ethics: A Daoist Perspective.” *Environmental Ethics* 25 (3): 247–66. https://doi.org/10.5840/enviroethics200325317 .

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Rhythms in living systems, beyond precision of *chronos* (clock time) can exhibit the groove of *kairos* (human, felt time)

Chronos is 'the **chronological, serial time of succession**. . . time measured by the chronometer not by purpose' ... it is typically used to measure the timing or duration of some action.

In contrast, ***kairos***, named after the Greek god of **opportunity**, refers to 'the **human and living time** of intentions and goals ... the time not of measurement but of human activity, of opportunity' ....

While rhetoricians have always seen **chronos** as **objective and quantitative**, they have long **debated** the status of **kairotic time**.
Some believe it is given and independent of the actor, ...
Increasingly, however, rhetoricians has suggested the kairos is shaped by the actor ...

Orlikowski, Wanda J., and JoAnne Yates. 2002. "It's About Time: Temporal Structuring in Organizations." *Organization Science* 13 (6): 684–700. https://doi.org/10.1287/orsc.13.6.684.501 .

Rhythms have been studied less than harmony (2014 → 2019)

philosophersmag.com...

Essays

JENNY JUDGE ESSAYS 24 FEBRUARY 2016

Why Do Philosophers Have No Rhythm?

Jenny Judge argues it's time music was rescued from the sidelines of philosophical inquiry.

You might well think, upon becoming acquainted with the philosophy of music, that philosophers have no rhythm. Discussions of ontology, form and expression abound in the literature, but rhythm seldom receives attention. But rhythm is, if not uniquely, then at least paradigmatically musical – how could philosophers have ignored something so central?

One reason is methodological. The philosophy of music focuses almost exclusively on instrumental works drawn from the Western classical canon. Such works are indisputably great artistic achievements that demand theoretical scrutiny, but it's worth noting that the primary raw materials of this artistic tradition are tonal rather than rhythmic. Consider a classical symphony, where percussion (if it is present at all) just about manages the occasional impassioned interjection at a moment of high drama – only to be immediately silenced by the violins.

What's more, it's rare for contemporary art music to be accompanied by rhythmic engagement of any kind on the part of its listeners. Even though we may feel like dancing to the beat of a symphonic waltz, we remain frozen in our seats, knowing that such displays of rhythmic appreciation are strictly *verboten*. One would no more dance in a modern concert hall

BSA BRITISH SOCIETY OF AESTHETICS

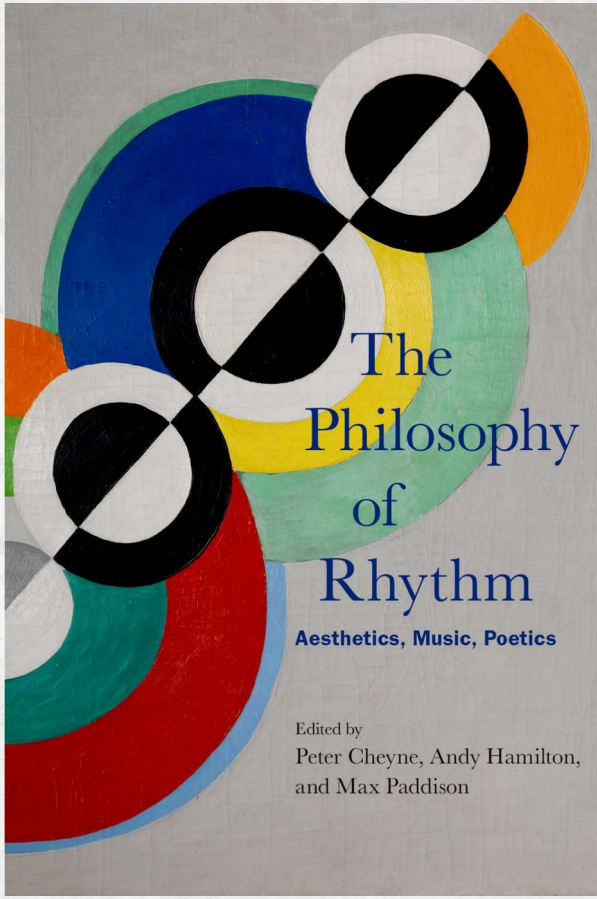
Colloquium: The Aesthetics of Rhythm

by Caroline Auty | posted in: British Society of Aesthetics, Event, Supported by the BSA |

Music Department, Palace Green, Durham University
28-29 June 2014

Andy Hamilton and Max Paddison are hosting a colloquium on "The Aesthetics of Rhythm", as part of their project on this a neglected topic in aesthetics. The project draws on philosophical aesthetics to broaden technical debates within disciplines into more conceptual areas of investigation concerning the nature of rhythm, both within the arts and more generally. We consider how bodily experience and natural rhythms inform rhythm in music, dance and poetry, and seek to identify general principles concerning our response to rhythm across the arts. We aim to explore how rhythm operates at all levels of artworks from micro to macro, and bears on issues of artistic form and space.

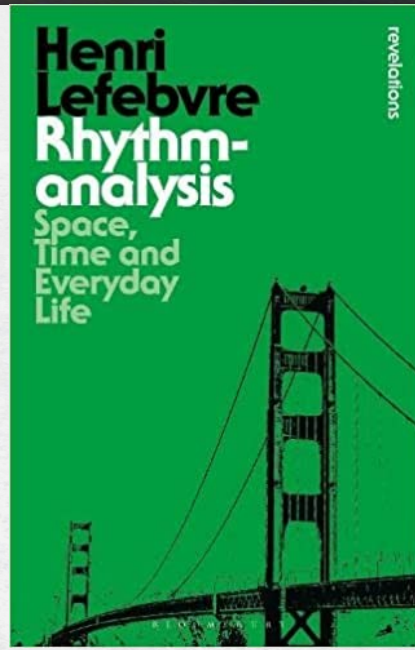
Participants are:
Philosophy: Garry Hagberg, Clare MacCumhaill, Matthew Nudds, Max Paddison, Louise Richardson, Peter Simons,



The Philosophy of Rhythm, 2019. Oxford Press. https://doi.org/10.1093/oso/9780199347773.003.0001

Polyrhythmia is an alignment of multiple organic repetitions in time and space, beyond metrics of mechnical regularity

Polyrhythmia		
Isorhythmia is an equality of rhythms, in an identity of temporalities	**Eurhythmia** is an association of heterogeneous rhythms, as normal in a healthy living body	**Arrhythmia** is a breaking apart of rhythms, altering and bypassing synchronization
Isorhythmia is present in symphonic and orchestral music, but otherwise is rare.	Eurhythmia is present in living bodies as diverse rhythms in a metastable equilibrium unified with the environment.	Arrhythmia appears as functional disruption than can manifest into illness and progress into morbid and fatal disorder.



Lefebrve, Henri. 2004. “The Rhythmanalyst: A Previsionary Portrait.” In Elements of Rhythmanalysis: An Introduction to the Understanding of Rhythm, translated by Stuart Elden and Gerald Moore, 19–26. *Rhythmanalysis: Space, Time and Everyday Life*. Continuum.

Agenda: At year 4 of 10 of the journey of the *Systems Changes Learning Circle*

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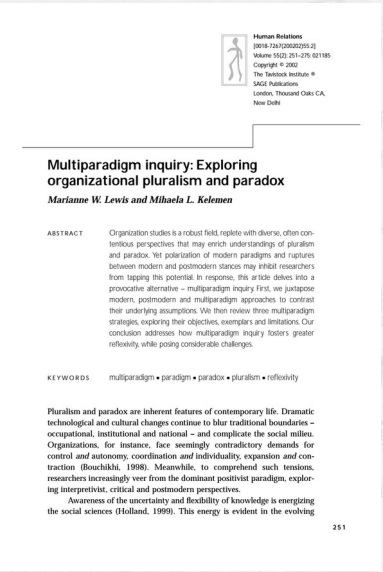
D. Methods: Multiparadigm Inquiry ...

Multiparadigm inquiry enables investigating different modes of rationality, linking *modern* desires for order, with *postmodern* emphasis on flux



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Multiparadigm inquiry: Exploring organizational pluralism and paradox

Marianne W. Lewis and Mihaela L. Kelemen

ABSTRACT Organization studies is a robust field, replete with diverse, often contentious perspectives that may enrich understandings of pluralism and paradox. Yet polarization of modern paradigms and ruptures between modern and postmodern stances may inhibit researchers from tapping this potential. In response, this article delves into a provocative alternative – multiparadigm inquiry. First, we juxtapose modern, postmodern and multiparadigm approaches to contrast their underlying assumptions. We then review three multiparadigm strategies, exploring their objectives, exemplars and limitations. Our conclusion addresses how multiparadigm inquiry fosters greater reflexivity, while posing considerable challenges.

KEYWORDS multiparadigm • paradigm • paradox • pluralism • reflexivity

Pluralism and paradox are inherent features of contemporary life. Dramatic technological and cultural changes continue to blur traditional boundaries – occupational, institutional and national – and complicate the social milieu. Organizations, for instance, face seemingly contradictory demands for control *and* autonomy, coordination *and* individuality, expansion *and* contraction (Bouchikhi, 1998). Meanwhile, to comprehend such tensions, researchers increasingly veer from the dominant positivist paradigm, exploring interpretivist, critical and postmodern perspectives.

Awareness of the uncertainty and flexibility of knowledge is energizing the social sciences (Holland, 1999). This energy is evident in the evolving

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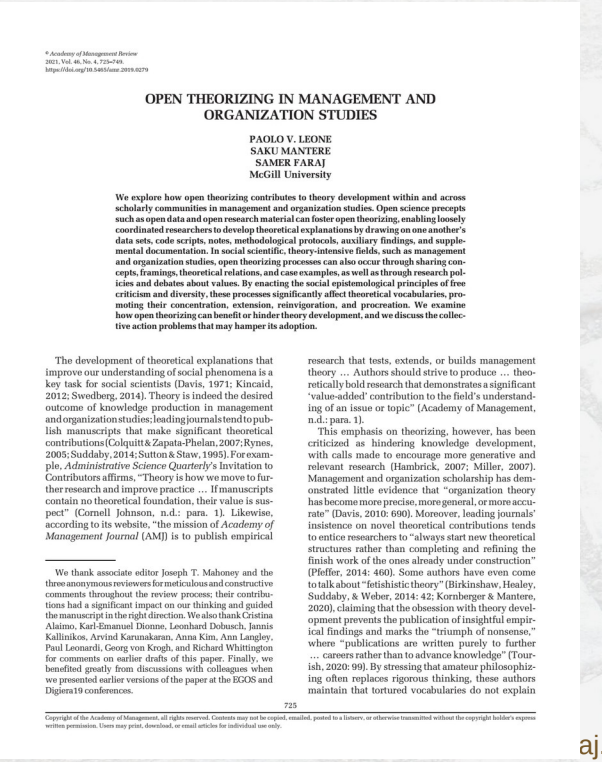
	Modern	*Multiparadigm*	*Postmodern*
Ideology	**Centering** Focus on authorship, promote chosen values, beliefs and issues Sharpen selective focus	**Accommodating** Value divergent paradigm lenses Expore paradox and plurality	**De-centering** Stress fluctuating and fragmented discourses Accentuate difference and uncertainty
Ontology	**Strong** States of being Entities are distinct, determinant and comprehensive	**Stratified** Multiple dimensions Expose interplay of entries and processes	**Weak** Processes of becoming Meanings are indeterminate, in constant flux and transformation
Epistemology	**Restricted** Employ paradigm prescriptions systematically Construct cohesive representations to advance paradigm development	**Pluralist** Apply divergent paradigm lenses Reflect organizational tensions and encourage greater reflexivity	**Eclectic** Use varied methods freely Deconstruct organizational contexts and processes to produce small stories or modest narratives

Lewis, Marianne W., and Mihaela L. Kelemen. 2002. "Multiparadigm Inquiry: Exploring Organizational Pluralism and Paradox." *Human Relations* 55 (2): 251–75. https://doi.org/10.1177/0018726702055002185.

Respecting the systems movement, initial (i) *hybrid theorizing* led to (ii) *cross-pollinating*, now looking to (iii) *branching out*



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https://doi.org/10.5465/amr.2019.0279

OPEN THEORIZING IN MANAGEMENT AND ORGANIZATION STUDIES

PAOLO V. LEONE
SAKU MANTERE
SAMER FARAJ
McGill University

We explore how open theorizing contributes to theory development within and across scholarly communities in management and organization studies. Open science precepts such as open data and open research material can foster open theorizing, enabling loosely coordinated researchers to develop theoretical explanations by drawing on one another's data sets, code scripts, notes, methodological protocols, auxiliary findings, and supplemental documentation. In social scientific, theory-intensive fields, such as management and organization studies, open theorizing processes can also occur through sharing concepts, framings, theoretical relations, and case examples, as well as through research policies and debates about values. By enacting the social epistemological principles of free criticism and diversity, these processes significantly affect theoretical vocabularies, promoting their concentration, extension, reinvigoration, and procreation. We examine how open theorizing can benefit or hinder theory development, and we discuss the collective action problems that may hamper its adoption.

The development of theoretical explanations that improve our understanding of social phenomena is a key task for social scientists (Davis, 1971; Kincaid, 2012; Swedberg, 2014). Theory is indeed the desired outcome of knowledge production in management and organization studies; leading journals tend to publish manuscripts that make significant theoretical contributions (Colquitt & Zapata-Phelan, 2007; Rynes, 2005; Suddaby, 2014; Sutton & Staw, 1995). For example, *Administrative Science Quarterly*'s Invitation to Contributors affirms, "Theory is how we move to further research and improve practice … If manuscripts contain no theoretical foundation, their value is suspect" (Cornell Johnson, n.d.: para. 1). Likewise, according to its website, "the mission of *Academy of Management Journal* (AMJ) is to publish empirical research that tests, extends, or builds management theory … Authors should strive to produce … theoretically bold research that demonstrates a significant 'value-added' contribution to the field's understanding of an issue or topic" (Academy of Management, n.d.: para. 1).

This emphasis on theorizing, however, has been criticized as hindering knowledge development, with calls made to encourage more generative and relevant research (Hambrick, 2007; Miller, 2007). Management and organization scholarship has demonstrated little evidence that "organization theory has become more precise, more general, or more accurate" (Davis, 2010: 690). Moreover, leading journals' insistence on novel theoretical contributions tends to entice researchers to "always start new theoretical structures rather than completing and refining the finish work of the ones already under construction" (Pfeffer, 2014: 460). Some authors have even come to talk about "fetishistic theory" (Birkinshaw, Healey, Suddaby, & Weber, 2014: 42; Kornberger & Mantere, 2020), claiming that the obsession with theory development prevents the publication of insightful empirical findings and marks the "triumph of nonsense," where "publications are written purely to further … careers rather than to advance knowledge" (Tourish, 2020: 99). By stressing that amateur philosophizing often replaces rigorous thinking, these authors maintain that tortured vocabularies do not explain

We thank associate editor Joseph T. Mahoney and the three anonymous reviewers for meticulous and constructive comments throughout the review process; their contributions had a significant impact on our thinking and guided the manuscript in the right direction. We also thank Cristina Alaimo, Karl-Emanuel Dionne, Leonhard Dobusch, Jannis Kallinikos, Arvind Karunakaran, Anna Kim, Ann Langley, Paul Leonardi, Georg von Krogh, and Richard Whittington for comments on earlier drafts of this paper. Finally, we benefited greatly from discussions with colleagues when we presented earlier versions of the paper at the EGOS and Digiera19 conferences.

aj.

2021. "Open Theorizing in Management and Organization Studies." Academy of Management Review 46 (4): 725–49. https://doi.org/10.5465/amr.2019.0279.

	Within Topic	***Between Topics***
Within Research Program	**Coconstructing** The concentration of vocabularies	**Branching out** The extension of vocabularies
Between Research Programs	**Hybrid theorizing** The reinvigorating of vocabularies	**Cross-pollinating** The procreation of vocabularies

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Appreciating philosophies in (i) architectural design, (ii) ecological anthropology and (iii) Chinese medicine led to insights into systems rhythms

	Appreciative Systems		
	Reality Judgments	***Value Judgments***	***Instrumental Judgments***
Philosophy of Architectual Design	Differentiating space	Living order (Quality without a Name)	Unfolding patterns, constructing, repairing, systems generating systems
Philosophy of Ecological Anthropology	Lines of becoming, meshworks	Attending (wayfaring) alongside other beings	Co-responding through habit, agencing and attentionality
Philosophy of Classical Chinese Medicine	Diseases as internal, with external causes	Wei, wuwei	Tonifying yin or yang, expelling pathogenic factors
Philosophy of Rhythms	↓	↓	↓
Philosophy of Systems Rhythms	Rhythmic shifts, in textures	Propensity	Reordering pacing

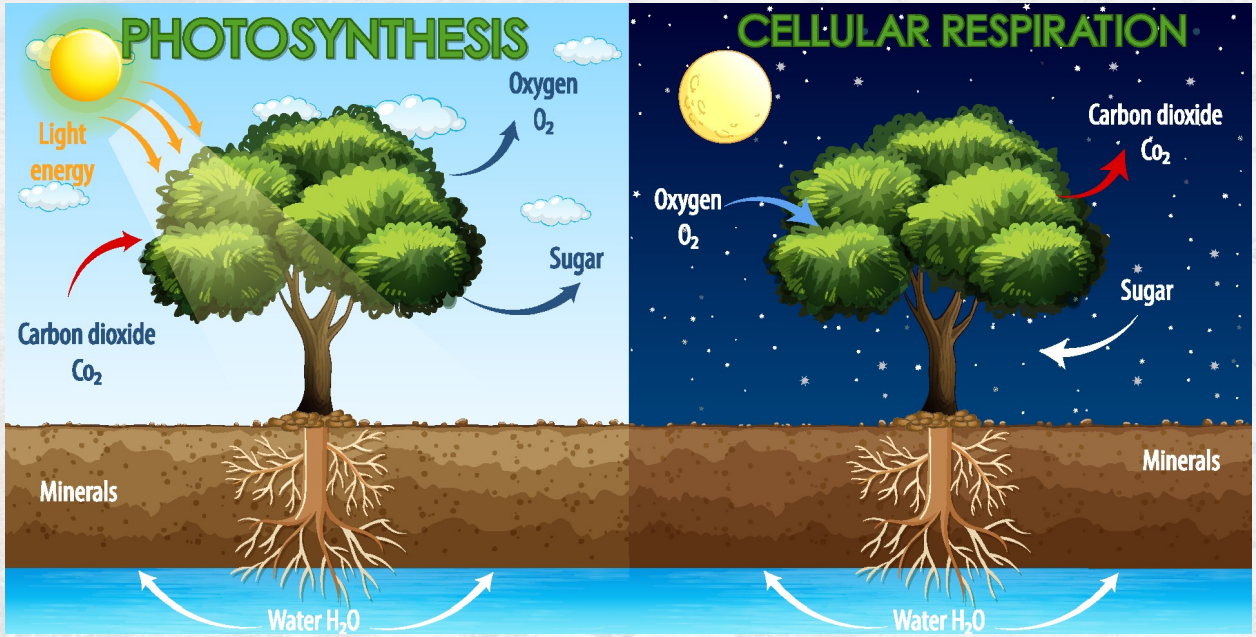
With authentic systems thinking, synthesis precedes analysis

Thinking *synthetically*

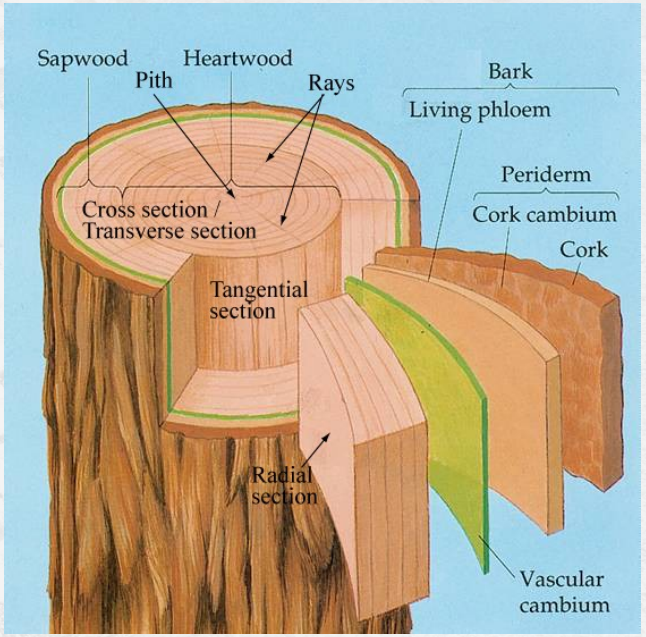
- Placing together parts into wholes

Thinking *analytically*

- Loosening from wholes into parts



"Photosynthesis, Cellular Respiration" BY brgfx (2021)

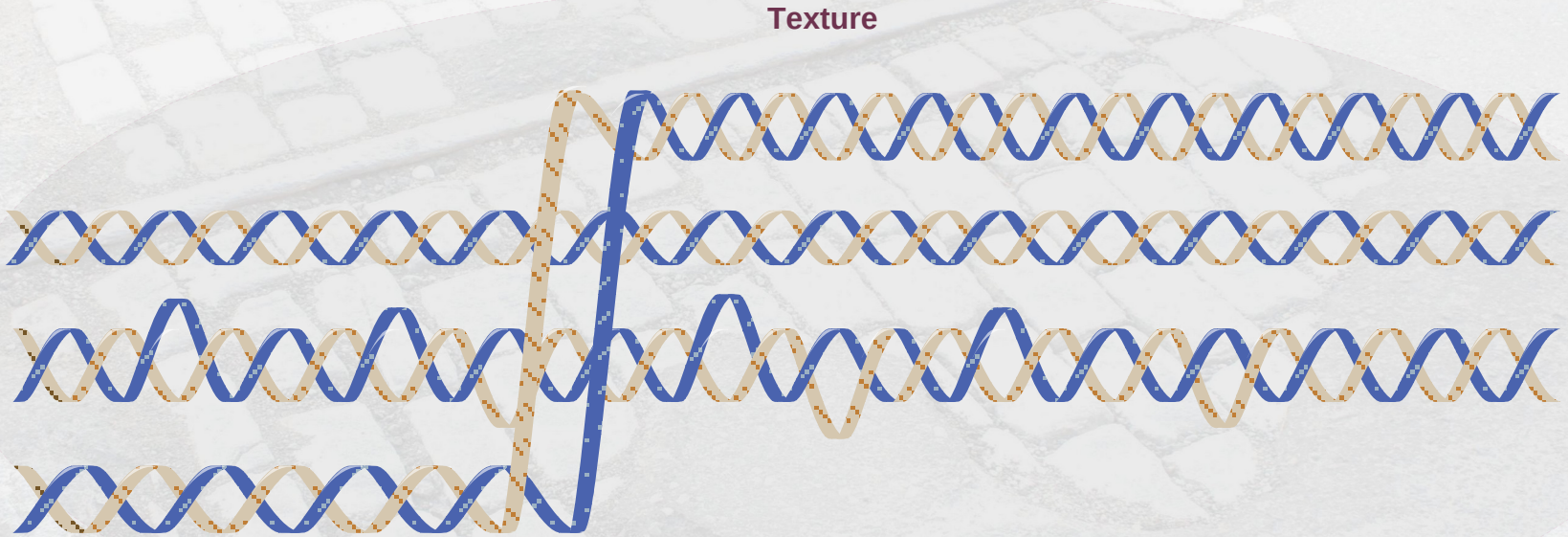


"A cut-through of a tree trunk" CC-BY-NC-SA University of Cambridge 2004

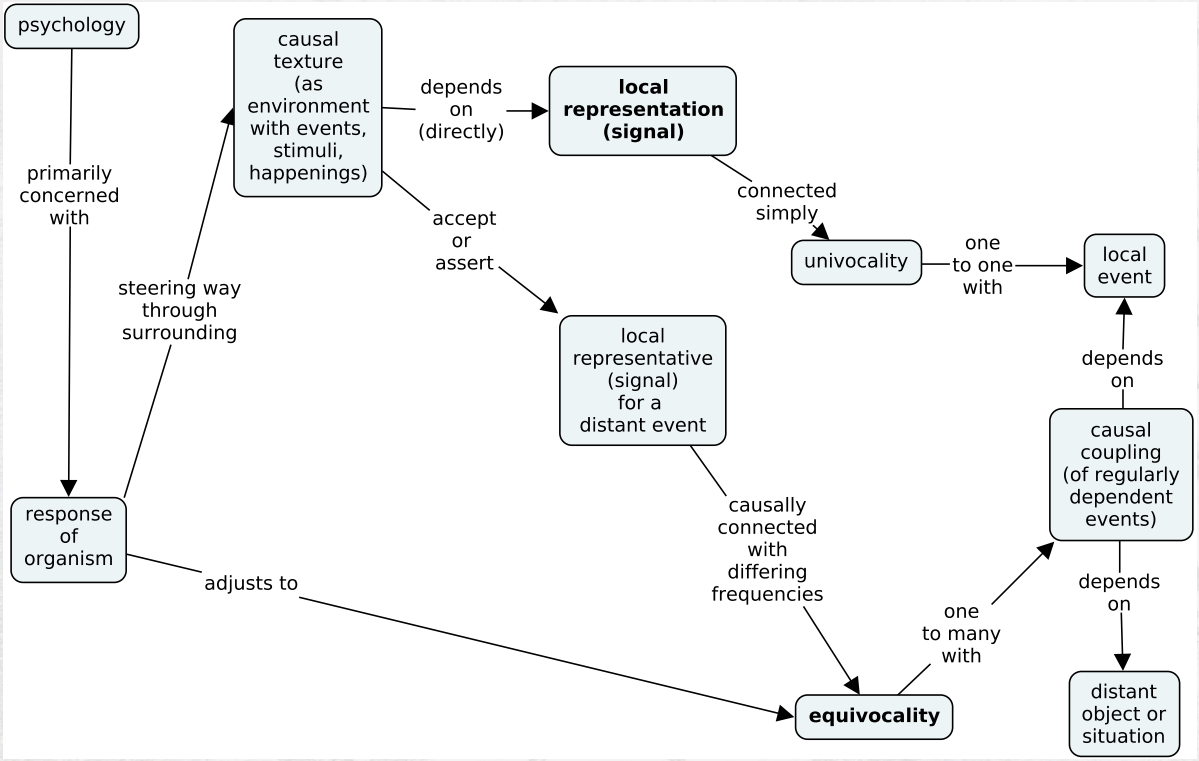
Systems Changes Learning adds ... thinking *dyadically* ... over time

- e.g. the sun *waxing* (increasing in strength) and *waning* (decreasing in strength)
- Dyadic (yinyang waxing and waning) is not dualistic (e.g. sun, no sun)

Our attention is drawn to rhythmic shift(s) in the texture, as the line of the system of interest crosses over co-related systems of influence



Causal texture theory sees perceptual distance with (i) events closer and directly observable; and (ii) events more distant and represented



The system of interest is in the discipline of psychology, primarily concerned with the response of an organism.

The "real world" (in a column at the rightmost) has local events that an organism can perceive directly, as well as distant objects or situations that can't be perceived directly. There's a causal coupling between the local event and the distant objects/situations that also can't be perceived directly.

The organism steers its way through a causal texture, which is an environment.

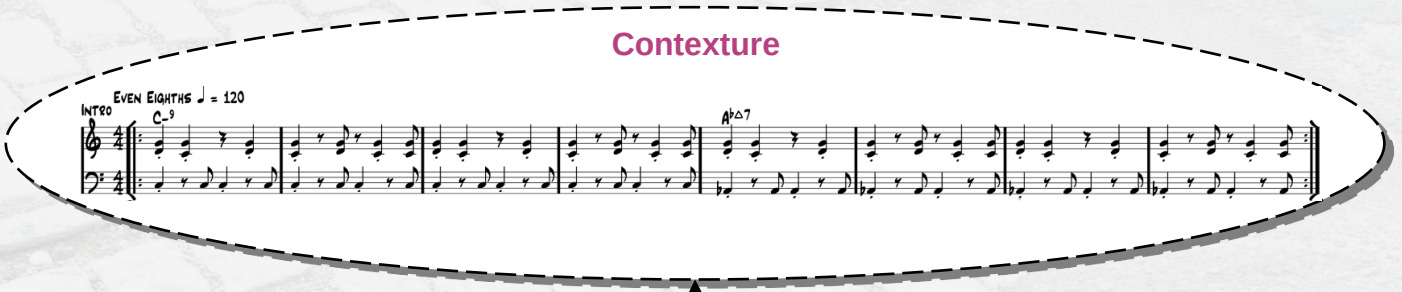
- The causal texture depends directly on a local representation (i.e. a signal) this is connected simply with the local event. The connection has a feature of univocality — like a single speaking in a narrative mode — as there's a one-to-one relationship with the local event. The organism can observe the event, stimulus or happening directly.
- The causal texture accepts or asserts a local representative (signal) for a distant event that it can't observe directly. Organisms are not omnipresent, e.g. they can't have visibility to everything happening in the world.

There's equivocality — ambiguity, with two or more voices in conflict over meaning — both about the causal coupling, and the associated distant objects or situations. The organism recognizes the mediation of signals (i.e. not observing directly), and adjusts responses accordingly.

Tolman, Edward C., and Egon Brunswik. 1935. "The Organism and the Causal Texture of the Environment." *Psychological Review* 42 (1): 43. https://doi.org/10.1037/h0062156.
Ing, David. 2020. "Causal Texture, Contextualism, Contextural." Blog. Coevolving Innovations (blog). June 9, 2020. https://coevolving.com/blogs/index.php/archive/causal-texture-contextural-contextualism/ .

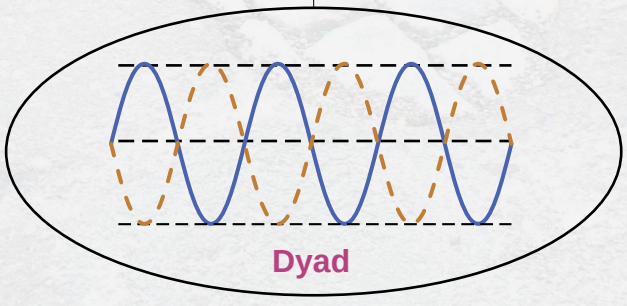
Rhythms of a living system of interest weave into a contexture of co-related systems of influence

"Joseph Shabason at The Redeemer", CC-BY David Ing 2018



consists of (has)

"Giom Perret at The Redeemer", CC-BY David Ing 2018



"David Occhipinti + Mike Murley at The Drake", CC-BY David Ing 2008

Mechanisms ⇒ causality in conditions. Living systems ⇒ propensity in conditions

Water skiing, motion via causality

- Motorboat towing

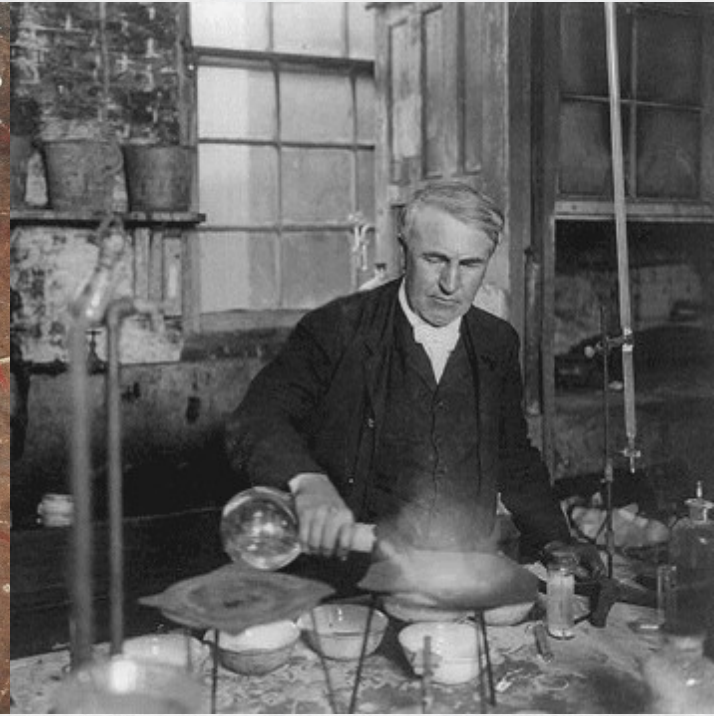
"Water Skier – Ibiza" CC-BY Mark Wordy (2018)

"Jax Beach Pier Surfers" CC-BY Ron Bixby (2012)

Surfing, motion via prospensity

- Waves in the ocean
- Surfer on the board

Taking action recognizes modes of systems changes, as (i) unfolding nature; (ii) fixing problems; and (iii) making history



Unfolding nature

- Systems generating systems

Fixing problems

- Solution (engineering resilience)

Making history

- Disclosing new worlds

Images from Giphy: “Summer Grow” Kristy Good; ”DIY Tools” BY Reuben Armstrong; “Thomas Edison” BY General Electric

Coevolving and learning are constrained by slower-larger layers, and emphemeral in faster-smaller layers

SITE

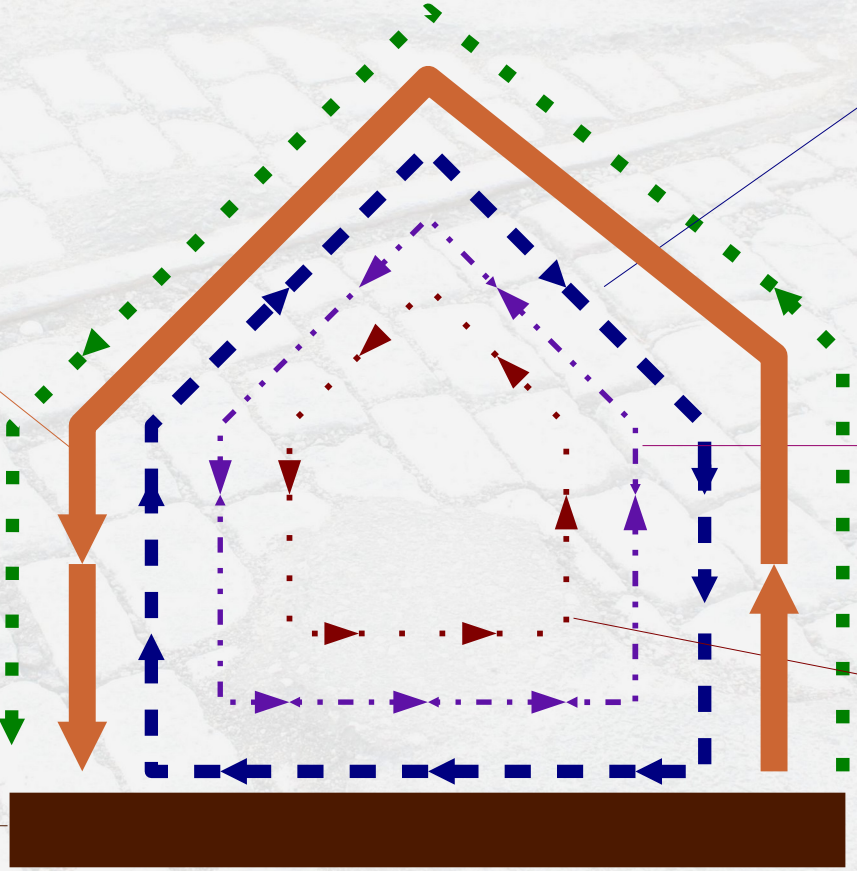
This is the geographical setting, the urban location, and the legally defined lot, whose boundaries outlast generations of ephemeral buildings. "Site is eternal", Duffy agrees.

STRUCTURE

The foundation and load-bearing elements are perilous and expensive to change, so people don't. These are the building. Structural life ranges from 30 to 300 years (but few buildings make it past 60, for other reasons).

SKIN

Exterior surfaces now change every 20 years or so, to keep up with fashion or technology, or for wholesale repair. Recent focus on energy costs has led to re-engineered Skins that are air-tight and better-insulated.



SERVICES

These are the working guts of a building: communications wiring, electrical wiring, plumbing, sprinkler system, HVAC (heating, ventilation, and air conditioning), and moving parts like elevators and escalators. They wear out or obsolesce every 7 to 15 years. Many buildings are demolished early if their outdated systems are too deeply embedded to replace easily.

SPACE PLAN

The interior layout, where walls, ceilings, floors, and doors go. Turbulent commercial space can change every 3 years; exceptionally quiet homes might wait 30 years.

STUFF

Chairs, desks, phones, pictures; kitchen appliances, lamps, hair brushes; all the things that twitch around daily to monthly. Furniture is called mobilia in Italian for good reason.

Source: Stewart Brand. 1994. *How Buildings Learn: What Happens after They're Built*. New York: Viking.

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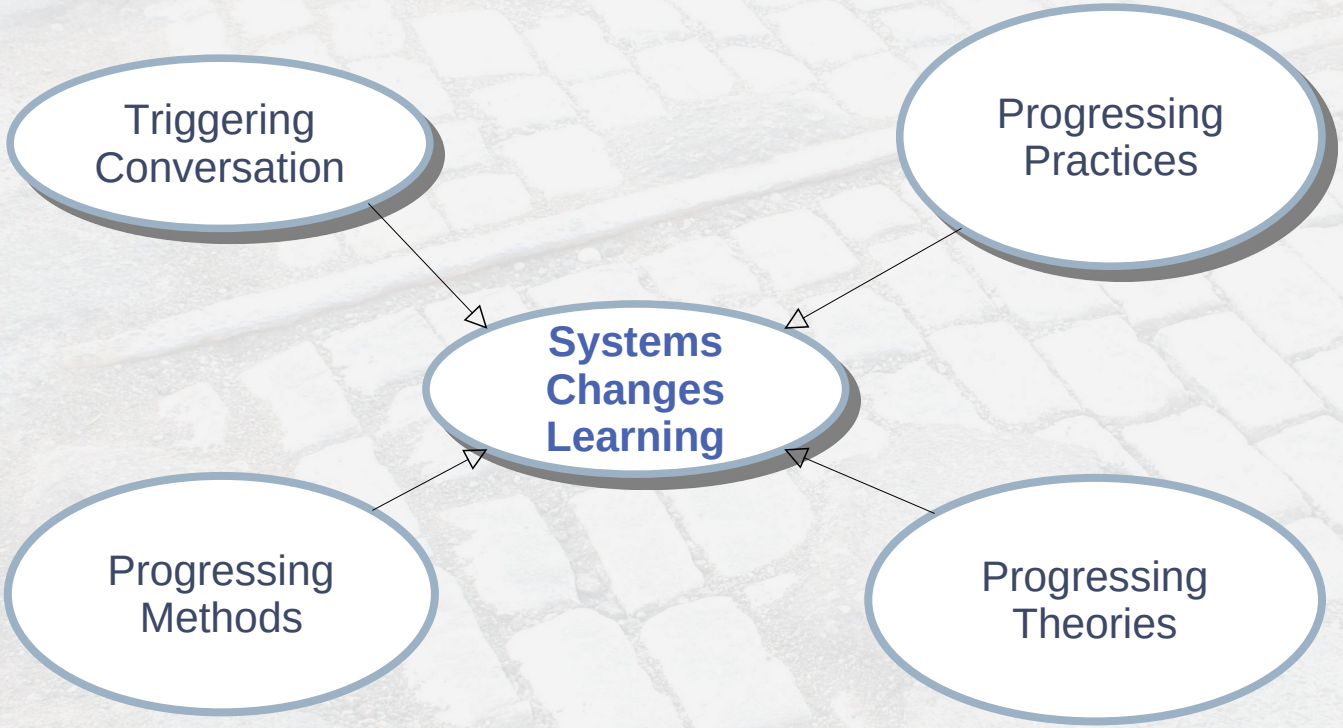
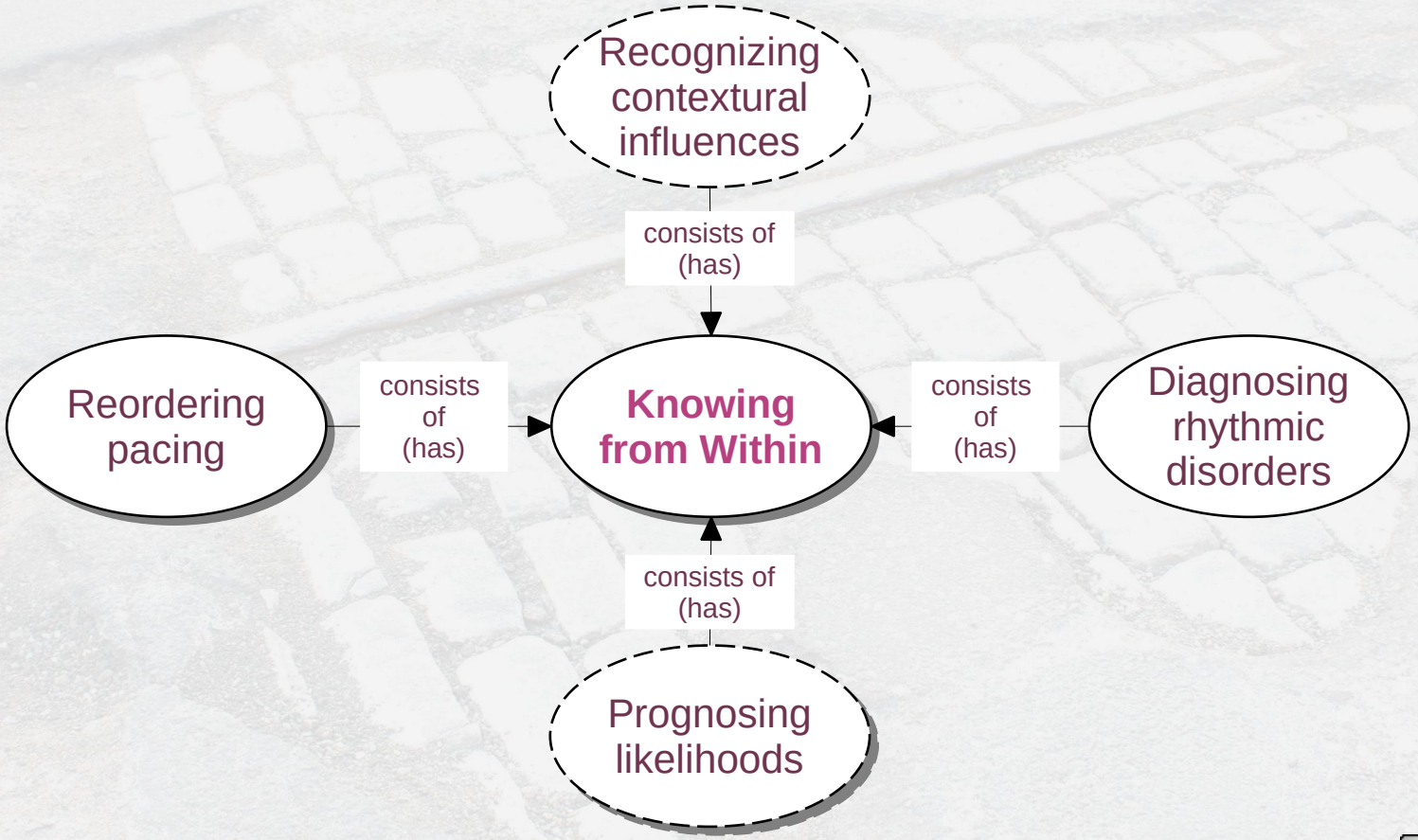
Systems Changes Learning begins with Triggering Conversation, towards Progressing Practices, Theories + Methods



Object Process Language

- *Systems Changes Learning* is physical and systemic.
- *Triggering Conversation* is physical and systemic.
- *Triggering Conversation* is instance of *Systems Changes Learning,*
- *Systems Changes Learning* exhibits *Progressing Practices, Progressing Theories*, and *Progressing Methods*.
- *Progressing Practices* is physical and systemic.
- *Progressing Theories* is informational and systemic.
- *Progressing Methods* is informational and systemic.

Systems Changes Learning centers on a hub of *knowing from within*, appreciated through a cycle of learning along four spokes



***Legend*:**
Object Process Methodology

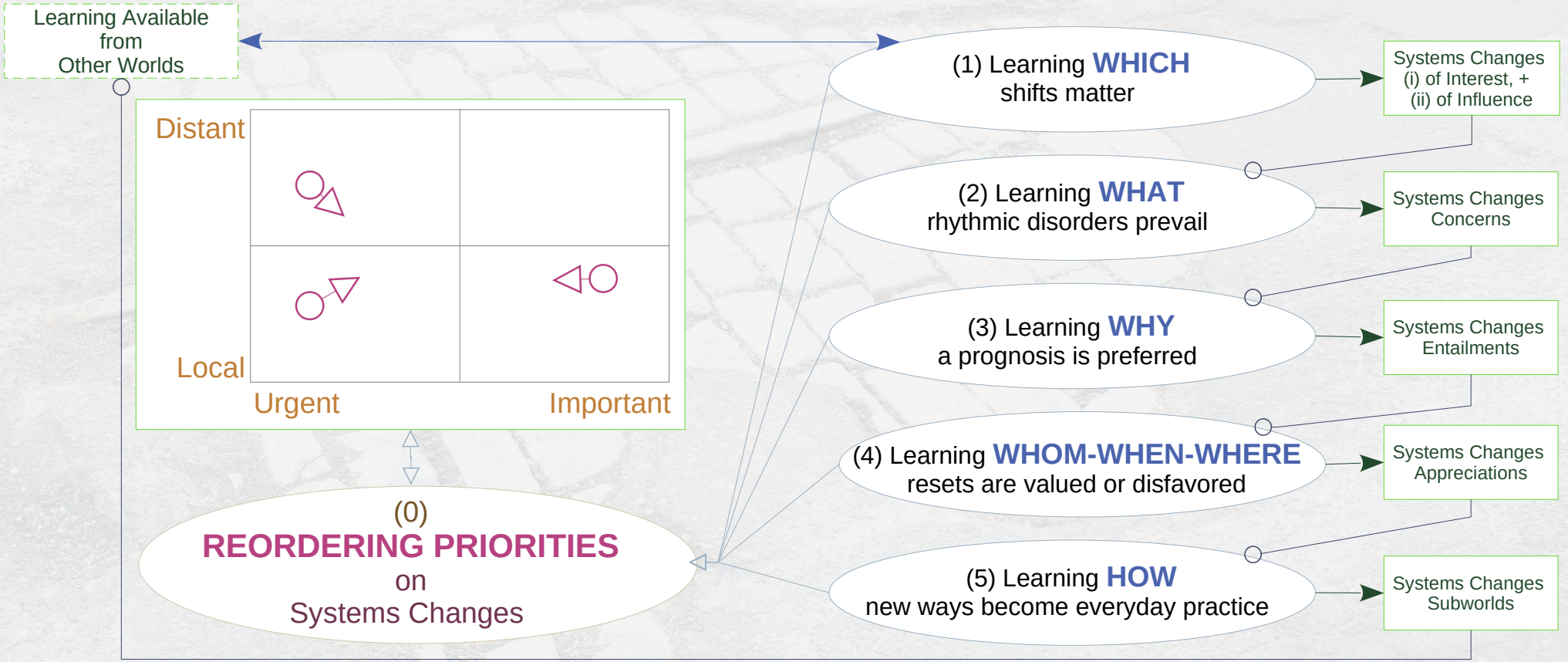
Essence Physical; Origin Systemic

Essence Informational; Origin Systemic

Essence Physical; Origin Environmental

Essence Informational; Origin Environmental

Reordering priorities by local-distant and urgent-important is informed by inquiring through five learnings



2022/08 Systems Changes Learning: Recasting and reifying rhythmic shifts for doing, alongside thinking and making

Abstract

In 2022, the Systems Changes Learning Circle is in its fourth year of 10-year journey on "Rethinking Systems Thinking". In a contextural action learning approach, the Circle has elevated rhythmic shifts as the feature that both resonates with practitioners in the field, and fits with a post-colonial philosophy of science bridging classical Chinese thought with Western professional practices. This multiparadigm inquiry recasts and reifies the activities of doing (praxis), thinking (theoria) and making (poiesis). The facility with this approach is deepened through three levels: (i) educating of attention, orienting novices towards contrasting modes of thought; (ii) learning for co-relating, lending a way for practitioners to critically appreciate their situations, and (iii) learning for articulating, aiding mentors to guide groups productively through mutual learning.

Citation

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Article

Systems Changes Learning: Recasting and reifying rhythmic shifts for doing, alongside thinking and making

David Ing[1]

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Abstract: In 2022, the *Systems Changes Learning Circle* is in its fourth year of 10-year journey on "Rethinking Systems Thinking". In a contextural action learning approach, the Circle has elevated rhythmic shifts as the feature that both resonates with practitioners in the field, and fits with a post-colonial philosophy of science bridging classical Chinese thought with Western professional practices. This multiparadigm inquiry recasts and reifies the activities of doing (*praxis*), thinking (*theoria*) and making (*poiesis*). The facility with this approach is deepened through three levels: (i) educating of attention, orienting novices towards contrasting modes of thought; (ii) learning for co-relating, lending a way for practitioners to critically appreciate their situations, and (iii) learning for articulating, aiding mentors to guide groups productively through mutual learning.

Keywords: systems thinking; systems change; polyrhythmia; ecological epistemology; yinyang; propensity; Chinese medicine; post-colonial science; action learning

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1. Introduction

The *Systems Changes Learning Circle* was formed in January 2019, centered in Toronto, Canada. At inception, a rising interest in a label of "systems change" was noticed, with a coherent view of its meaning left unanswered. On this subject, core members of the Circle pledged to meet triweekly in a slow action learning program, on a 10-year horizon. Building on the long tradition with General Systems Theory as primordial to the Systems Sciences, the program is a response to the challenge of "Rethinking Systems Thinking" beyond its 20th century legacy [1] (Ing, 2013). After 3 years of action learning, the Circle discriminates "systems changes" with (i) "rhythmic shifts" that can be seen as history-making, as compared to (ii) routine patterns that are normally unnoticed as everyday background processes. Predispositions amongst *Systems Changes Learning Circle* members see:

- (a) *systems*, as socio-ecological wholes, with human beings embedded intergenerationally in manufactured subworlds, coevolving alongside coupled natural biophysical ecosystems, increasingly sympathetic towards non-anthropocentric sustainable development [2] (Gallopin 2003);
- (b) *changes*, as polyrhythmic in nature, with ensembles of phases that may present as (i) eurhythmia of living in healthy conditions, or (ii) arrhythmia in disturbance either temporarily or pathologically [3] (Lefebrve 2004); and
- (c) *learning*, as animate beings co-responding in taskscapes, becoming lines of movements or growths gathering to resolve their affairs alongside other species in an entangled meshwork [4] (Ingold 2011).

Systems Changes Learning is proposed as a three-word agglutinative neologism. The three words are a recasting (i.e. discourse adjustment) [5, 6] (Watkins & Pemberton 1987; Pemberton & Watkins 1987) and reifying (i.e. remaking into a thing) [7, 8] (Vandenberghe

Centered in Toronto, the Systems Changes Learning Circle originates from CSI, OCADU SFI and Systems Thinking Ontario

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Zaid Khan

linkedin.com/in/zaid---khan/

discuss.openlearning.cc

Open Learning Commons

Category	Topics
Peer Learning Groups A top-level category for discussing peer learning groups in general, and for containing sub-categories for specific peer learning groups and their discussions. MetaCAugs	7
Pattern Language	8
Systems Aesthetics The Systems Aesthetics category on discuss.openlearning.cc is one of the online resources for an ongoing open access research project, originating as a subgroup of the Systems Changes Learning Circle.	1
Systems Changes The Systems Changes category on discuss.openlearning.cc is one of the online resources for an ongoing open access research project.	63
Systems Thinking The Systems Thinking category on discuss.openlearning.cc aims to be a venue for conversations that will persist over time.	73
Open Learning Commons (Meta) Discussion of Open Learning Commons itself. For example, architectural choices.	6
wiki All topics created in this category are wikis, and therefore editable by all members.	1

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Systems Changes

29 2 Casual chat CC-BY-SA, extending http://systemschange...

daviding Update your status 9:42 AM

In a review of the Stewart Brand biography, we might recognize an emerging journalist who fell into systems thinking and has been in the right place at the right time. The review may be seen as negative, but maybe it's worth remembering that public figures are human beings, too.

> Brand's next big idea combined his receding interest in photography with his increasing interest in "systems thinking," a shift from his Randianism to the faddish work of architectural theorist Buckminster Fuller. On one 1966 acid trip, Brand was struck by an idea: Why hadn't NASA released

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Cooperating-at-scale is mission critical to pursuing the sustainable development goals. We're a cooperative dedicated to nurturing trustworthy technology and organizing principles for cooperating-at-scale, and such recursion is a property of the natural systems that inspire us.

Creative Systemic Research Platform Institute

is an institution aiming to promote research and development of non-profit projects. We focus on investigating the skills needed for Community Resilience, supported by ecological practices and systemic and creative learning.

Existing since 2017 as a non-profit research group, we evolved in December 2020 into the CSRP Institute.

More about

Contact us

Agenda: At year 4 of 10 of the journey of the *Systems Changes Learning Circle*

A. Rising interest in System(s) Change(s)			
B. Appreciative Systems (Vickers)			
C1. Philosophy of Architectural Design	C2. Philosophy of Ecological Anthropology	C3. Philosophy of Classical Chinese Medicine	C4. Philosophy of Rhythms
D. Methods: Multiparadigm Inquiry, Open Theorizing			
E. Systems Changes via Three Philosophies → Systems Rhythms			
F. Contributions that Systems Rhythms Offer to Systems Changes			

Image CC-BY Mike Cassano (2009) *Most Interesting Pothole*