**Appreciating Systems Changes
via Multiparadigm inquiry:
Architectural design, Ecological anthropology, Classical Chinese Medicine, Systems Rhythms**

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# Abstract

Is the subject of *systems change(s)*, as a whole, distinct from a reduction into (i) systems and (ii) changes? For practice, theory and methods to be authentically rigourous, the philosophy underlying an approach to systems changes can be explicated. An appreciative systems framework surfaces presumptions of (i) what are and are not systems changes; (ii) when, where, and for whom, systems changes are prioritized for attention; and (iii) how systems changes should be addressed. Philosophies of (i) architectural design; (ii) ecological anthropology, and (iii) Classical Chinese Medicine are explored through multiparadigm inquiry, and open theorizing. The resulting influence of these three philosophies is considered, leading to a philosophy of systems rhythms more explicitly proposed as a foundation on which to approach systems changes.

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# Keywords

systems changes, appreciative systems, multiparadigm inquiry, systems rhythms

# 1 | Introduction

A rising interest in system(s) change(s), if authentic, could signal a corresponding exploration of the arts and sciences of systems. The distinction between approaches considered “system(s) change(s)”, and those “**not** system(s) change(s)”, is uneven from descriptions and reports of activities in recent years.

* *Systems change*, as described by Observatory of Public Sector Innovation in 2017, points out the “(rare) use” by governments of systems approaches towards making public services more effective and resilient (Cook & Tõnurist, 2017, p. 4). Their *systems approach* towards transformation is rather complete in reviewing theory, differences and complements with design thinking, systemic change processes, and systemic change cases in Iceland, the Netherlands, Canada and Finland. (OECD, 2020).
* *Systems change*, as led by Forum for the Future, was the key term for a convening of practitioners, academics and funders, at Wasan Island in 2018. On “What is systems change?”, the meeting “asked people attending and unable to attend to offer their definitions of systems change” without converging on an agreed definition, and focused instead on field building (Birney & Riddell, 2018, p. 5). This interest has is associated with the School of System Change, as a “global community of change agents” to “accelerate a transition to a sustainable future” (Forum for the Future, 2018).
* *System change*, for Stanford University scholars, is 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). Towards enacting effective change in the cause-effect architecture of systems, two archetypes are introduced: (i) “changing a system by building a system” that attracts by luring towards desirable properties in the new; and (ii) “changing a system by isolating a subsystem” by transforming a subsystem to alter behavior towards more desirable outcomes.
* *System change*, in a guidebook from the United Nations Development Programme in 2022, prescribes a three phase methodology: (i) sense and frame; (ii) engage and position; and (iii) transform (Wellsch, 2022, p. 1). This integrated portfolio approach to innovation was followed in initiatives to support circular economy transition in urban centers, as well as youth unemployment in Asia-Pacific. Ongoing work is proceeding in responses to COVID-19, climate action, blue economies and digital transformation, and access to financing.

A scrupulous view of these descriptions notices change as a singular event, rather than an ongoing process. These would be consistent with the unfreezing 🡪 moving 🡪 refreezing three steps ascribed to, but in fact a post hoc reconstruction of work by, Kurt Lewin (Cummings et al., 2016). In addition, scholars immersed in systems thinking are careful in using *systems* in the plural. This recognizes that open systems are not isolated from their environments, so that changes are rarely completely contained within their boundaries.

Beyond each system as singular, and change as singular, the two-word agglutinative whole of s*ystems changes* is a recasting and reification of a neologism (Ing, 2022). Systems changes may be appreciated as moving spatially, sequentially, cyclically or rhythmically. This elevation of attention may be better explicated through foundational work across a variety of philosophies of science. In section 2 below, (i) the appreciative systems framework is described as way of organizing inquiry, (ii) across three philosophies of science in (a) architectural design, (b) ecological anthropology, and (c) Classical Chinese Medicine, leading towards (d) systems rhythms. In section 3 below, the methods of (i) multiparadigm inquiry and (ii) open theorizing are reviewed. In section 4 below, systems changes are appreciated through the detailing of the three philosophies, leading to a philosophy of systems rhythms.

The theoretical contribution that a philosophy of systems rhythms adds to approaching systems change include: (i) not only recognition of the legacy of systems research in the 20th century, but also a philosophy compatible with ongoing progress in the systems sciences in the 21st century; (ii) a trajectory of complementary praxis, theoria and poiesis so that systems changes learning can be adopted by practitioners, explored by researchers, and replicated by methodologists; and (iii) an exposition on open theorizing on online platform platforms initiated by a core team, open for extended participation. Thes contributions are detailed as conclusions in section 5 below.

# 2 | Appreciating Philosophies of Design, Anthropology, Chinese Medicine 🡪 Rhythms

Exploring systems changes from metaphysics can lead back to ancient Greece, with (i) reality being defined by Parmenides of Elea as that which did not change, as a “changelessness state”, as compared to (ii) reality being defined by Heraclitus as that what did change, as “a state of change, not a a change of state” (Hawk, 1999, p. 61). More practically, the dominance of a substance philosophy on *systems* in the West comes with presumptions not valid in a process philosophy of *systems changes*. Instead of centering on stability, order and being, the processual view centers on flux, transformation and becoming (Nayak & Chia, 2011).

Looking into a philosophy underlying systems changes can be less ambitious than the metaphysical. A predisposition towards philosophy of science acknowledges other branches such as ethics and aesthetics, while placing them into the background. In the interests of concreteness, philosophies of architectural design, ecological anthropology and Classical Chinese Medicine can be centered on specific individuals as gateways into a larger appreciation.

This philosophical approach to the systems sciences thus relies more on the practical, rather than the universe of systems philosophies. The traditions of systems thinkers from the 20th century are respected. The breadth of research places systems luminaries into seven categories: (i) early cybernetics; (ii) general systems theory; (iii) system dynamics; (iv) soft and critical systems; (v) later cybernetics; (vi) complexity theory; (vii) learning systems (Ramage & Shipp, 2020, pp. xviii–xix). In the last decade, rethinking systems thinking for the 21st century was proposed (Ing, 2013). Continuing research sweeps in three new persectives with across diverse philosophes of science. As a way to deal with incommensurability, appreciative systems is used as a framework, as shown in Exhibit 1 below.

**Exhibit 1.** Appreciative Systems Framework, and Three Philosophies Leading to a Fourth Philosophy

|  |  |
| --- | --- |
|  | §2.1 Appreciative Systems |
|  | Reality Judgments | Value Judgments | Instrumental Judgments |
| §2.2 Philosophy of Architectural Design | §4.1.1 | §4.1.2 | §4.1.3 |
| §2.3 Philosophy of Ecological Anthropology | §4.2.1 | §4.2.2 | §4.2.3 |
| §2.4 Philosophy of Classical Chinese Medicine | §4.3.1 | §4.3.2 | §4.3.3 |
| §2.5 Philosophy of Rhythm | §4.4.1 | §4.4.2 | §4.4.4 |

In section 2.1 below, the appreciative systems framework, with (i) reality judgements, (ii) value judgments, and (iii) instrumental judgments, is described. Background on the philosophy of architectural design appears in section 2.2 below, and explicated in sections 4.1.1, 4.1.2, and 4.1.3. The philosophy of ecological anthropology is reviewed in section 2.3 below, and explicated in section 4.2.1, 4.2.2 and 4.2.3. The philosophy of Classical Chinese Medicine provides a gateway into a non-Western philosophy of science in section 2.4 below, and explicated in sections 4.3.1, 4.3.2 and 4.3.3. The philosophy of rhythm, generally recognized as underdeveloped by scholars, is outlined in section 2.5 below, with extension into a philosophy of systems rhythms in sections 4.4.1, 4.4.2 and 4.4.3.

## 2.1 | Appreciative Systems

In the 1960s-1980s, Sir Geoffrey Vickers extended systems theories in distinguishing human systems as a subtype of systems in general, alongside natural and man-made systems (Vickers, 1983). Human activity has an inherent moral character in the organization and regulation of human systems, at individual and cultural levels. This scope features a practical understanding of the across epistemology, evaluation, and the world of action.

Alongside the flux of events and activities unfolding over time, a social process of appreciation leads to action.

‘Appreciation’ is occaisioned by our ability to select, to choose. Appreciation perceives (some of) reality, makes judgements about it, contributes to the idea stream, and leads toactions which become part of the event stream. … There is a recursive loop in which the flux of events and ideas generates appreciation, while appreciation itself contributes to the flux. Appreciation also leads to action which itself contributes to the flux (Checkland & Casar, 1986, p. 5).

Appreciation can be unpacked into two parts: reality judgments and value judgments. Action follows from instrumental judgments.

The exercise of appreciative judgment … has three components.

* The first is the making of reality judgments: those judgments concerning what is or is not the case -- ranging from basic cause-and-effect beliefs to more subtle and complex “facts.”
* The second facet is the making of value judgments: those 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.
* The third is the making of instrumental judgments: those 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 (Adams et al., 1995, p. xix, editorial paragraphing added).

These foundations are at the root of Soft Systems Methodology, and the development of social learning systems from the 1980s (Vickers, 2010).

For systems changes that may or may not lead to human action, the three judgments of appreciative systems is useful as framework for comparison.

## 2.2 | Philosophy of Architectural Design

The Centre for Environment Structure at Berkeley was founded to develop *pattern language* (Alexander et al., 1967). In the series of publications, *The Timeless Way of Building* (Alexander, 1979) provided the theory and instructions for use of the pattern language, while *A Pattern Language* (Alexander et al., 1977) detailed patterns for towns and neighbourhoods, houses, gardens and rooms. The third in the series, *The Oregon Experiment* (Alexander et al., 1975), defined the process to develop a master plan for a university campus, that might be modified for other communities. The last book published in the series, *The Battle for the Life and Beauty of the Earth* (Alexander, 2012), relates the story from 1981-1990 of the Eishin School project, from inception through design and construction, reflected in hindsight.

Pattern language was adopted by the software development community (Gabriel, 1996) with the founding of annual meetings (Coplien & Schmidt, 1995) that continue the tradition. Alexander himself focused on built environments, encouraging software developments to take greater responsibility for building and maintaining generative living structures (Alexander, 1999). While Alexander would continue to explore this challenge in built physical environments in the four-volume *The Nature of Order* (Alexander, 2002a, 2002b, 2004, 2005), the stronger emphasis on geometric forms has been less applicable to other domains. Pattern language remains Alexander’s most popular influence.

Separating Alexander’s approach to architectural design invokes a review of some history. At a conference in London in 1962, the *Design Methods Movement* was centered on the work of four figures: Bruce Archer, John Chris Jones, Christopher Alexander and Horst Rittel (Langrish, 2016, p. 9). While this led to many academics aiming to make the process of design “more scientific”, Christopher Alexander wrote a disavowal from the movement of separating research from practice.

… I reject the whole idea of design metnods as a subject of study, since I think it is absurd to separate the study of designing from the practice of design (Alexander, 1973).

Broading the scope on a philosophy of design introduces more complications. After considering alternatives of design as “the intentional creation” of “a new thing”, and/or problem-solving, and/or planning, beyond just imagining and not constructing, a proposed definition is provided:

Design is the intentional solution of a problem, by the creation of plans for a new sort of thing, where the plans would not be immediately seen, by a reasonable person, as an inadequate solution (Parsons, 2016, p. 17).

This definition leads to ontological questions about the thing produced by designers, as substances or properties.

Epistemological problems also arise when considering design in relation to wicked problems (Rittel & Webber, 1973). The above definition is specifically challenged by the claim that “the problem can’t be defined until the solution is found”. A wicked problem is an ill-defined problem.

The challenge of planning resides entirely in deciding how to interpret the problem in the first place. But how to interpret the problem is a political choice, not a technical problem, since there is really no such thing as the problem (Parsons, 2016, p. 46).

In the pattern language community, Max Jacobson, as one of Alexander’s original coauthors and a researcher in contact with Rittel, clarified that “pattern language is not for wicked problems” (Ing, 2018). This delimits the scope of Alexander’s work to built environments.

For systems changes, the centrality of “Patterns of Events” (Alexander, 1979, Chapter 4), “Being Alive” (Alexander, 1979, Chapter 3) and “The Quality without a Name” (Alexander, 1979, Chapter 2) are complementary. More current research in systemic design, from an axiomatic and epistemological basis (Jones, 2014b) and methods for shared practice and action (Jones, 2014a) is acknowledged, and less aligned with the primary interest in systems changes.

## 2.3 | Philosophy of Ecological Anthropology

In the context of systems changes, the work ecological may not mean what the layman thinks. Behavioral psychology in the 1950s, with stimulus-response approach to perception (e.g. Pavlov’s dog salivating), can be described as understanding *what’s inside your head*. The ecological psychology of J.J. Gibson, illustrated by fighter pilots successfully landing on an aircraft carrier despite motion parallax, can be described as understanding *what your head is inside* (Mace, 1977). A behavioral perspective to systems is outside in, from wholes to parts. An ecological perspective to systems is inside-out, from wholes alongside other wholes.

 Reading Gregory Bateson, in ecology of mind where “the mental world … is not limited by the skin” (Bateson, 1972, p. 461), led Tim Ingold to consider an ecology of life.

… 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).

This indivisible totality has a parallel in organizational ecology as a field. “Fields consist of systems and environments” (M. Emery, 2000, p. 625). “The field of these interwoven indirect relations constitutes the contextual, as distinct from transactional, environment” (Trist, 1977, p. 162).

In contrast to a philosophy that might follow a point moving over time, Ingold recenters thinking in terms of lines, in two classes. “A thread is a filament of some kind, which may be entangled with other threads or suspended between points in three-dimensional space” (Ingold, 2007a, p. 41). “In our terms the trace is any enduring mark left in or on a solid surface by a continuous movement” (Ingold, 2007a, p. 43). Threads and traces can become knotted into a texture, or a weave. “The verb ‘to weave’, in Latin, was texere, from which are derived our words ‘textile’ and – by way of the French tistre – ‘tissue’, meaning a delicately woven fabric composed of a myriad of interlaced threads”(Ingold, 2007a, p. 61).

This philosophy had a parallel development in the 1930s with contextualism. “A texture by its very nature is a complex whole having what are technically called internal relations. …. A strand is relative to a texture” (Pepper, 1934, p. 111). This led to research developed in the 1960s on Socio-Ecological Systems Theory. “A main problem in the study of organizational change is that the environmental contexts in which organizations exist are themselves changing, at an increasing rate, and towards increasing complexity
 (F. E. Emery & Trist, 1965, p. 21). This roots have continued into current management research “.CTT [Causal Texture Theory] deals with systems trying to survive and thrive in their environments in a sustainable way” (Ramírez et al., 2008, p. 18).

While a network might be considered a complex of interconnected points, a meshwork is a complex of interconnected lines. “[It] is in the entanglement of lines, not in the connecting of points, that the mesh is constituted” (Ingold, 2007b, p. 81). With a reminder that lives can also be drawn as lines of becoming, the meshwork can be drawn as threads and traces over time.

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 (Ingold, 2015, p. 154).

To reduce overloading of the noun “correspondence”, a verbal form of “co-responding” may clarify meaning. A simile of two boats navigating down a river, in parallel, invokes co-responding in between the parties to avoid collisions. When lifelines co-respond, the meshwork rests on three essential principles: (i) of *habit*, rather than volition; (ii) *agencing*, rather than agency; and (iii) *attentionality*, rather than intentionality (Ingold, 2017).

For systems changes, the concepts of lines, textures and meshworks well address parallel and intersecting synchrony of living systems in general. Human beings are living systems. Animals are living systems. The earth is a living system.

## 2.4 | Philosophy of Classical Chinese Medicine

In the history of Chinese classics, there is a *Book of Changes*, known as the *I Ching*, or *Yi Jing*. English-language translations have been published in the 1800s (Legge, 1899), the 1900s (Wilhelm, 1950), and the 2000s (Minford, 2014). While permutations of the 64 hexagrams in pairs is exhaustive, this work carries senses of divination not readily accepted in conservative philosophies of science.

Traditional Chinese Medicine (TCM) has roots in Classical Chinese Medicine (CCM), with a body of science that is incompatible with Western Philosophy. Keekok Lee has published works on the philosophical foundations of CCM that help to reduce misperceptions of researchers with Western-oriented education. “one should not judge a cat show by the standards of a dog show and conclude that a cat is a sub-standard dog, or indeed, not a dog at all” (Lee, 2017a, p. 4).

Practitoners of CCM base their science on *yinyang*. At a greater depth, they model on *Wuxing*, the five phases or five elements. With the shift to *yinyang* from Western philosophy already an intimidating challenge, the finer details of *Wuxing* are left to medical professionals. *Yinyang* immediately presents appeal as a strong foundation for appreciating systems changes.

To use today’s language, one could say that change is the default mode; or to use more traditional Western philosophical vocabulary, we say that behind the Appearance of stability (no change) is the Reality of change. Behind No Change/constancy stands Change, just as behind Change stands No Change/constancy .... This indicates that at the core of ancient Chinese philosophy is the view that the polar contrasting terms in a pair of such terms mutually relate to each other in a complex, intricate manner, embodying a unique perspective ... (Lee, 2017d, p. 154).

This places CCM outside of the Western views of science that are based on a philosophy tracing back to ancient Greece.

Lee proposes an ontology for Chinese philosophy, called contextual dyadc thinking. This contrasts to the universalist orientation in “hard sciences” such as physics.

The Contextual Mode in general amounts to this: the two values, truth and falsity, have no proper application in the abstract or in a vacuum -- they only have application and meaning relative to a particular context. They are context-bound. The two instances of female beauty cited above make clear this point—they embodied beauty in the human context. If the beholder were not a human, but a fish, a bird, or a deer, they would even be repelled by such a sight which would inspire in them fear and flight (Lee, 2017b, p. 220).

With the contextual mode, dyadic thinking in Chinese philosophy is contrasted with dualistic thinking in Western philosophy.

2. In dyadic thinking, strictly speaking, a term presupposes its opposite. For instance, “cat” implies the class of “non-cat.” An oppositional pair may then be drawn out, namely, cat and non-cat.

3. However, in the real world beyond that of strict logic, the class of non-cat is a very large class indeed, as it includes dogs, buttercups, humans, indeed, virtually everything else in the universe other than cats.

4. In the real world, therefore, depending on the context, that negative category is delimited to say dogs, such as when we are talking about a cat show as opposed to a dog show, or when we discuss the merits of keeping cats as opposed to dogs as pets. How we pick out “the other category” depends on the context; contextualism, in turn, means that the oppositional pair created is not a dualism but a dyadism.

5. Dualism implies permanence, as it is context-independent -- hence, men are (in all contexts) superior to women, mind/soul is superior to body (or body to mind in Biomedicine), humans are superior to non-humans, and so on. Under dyadism, as it is context-dependent, men are superior to women in certain contexts such as, in general, possessing greater physical strength, while women, in general, are superior to men, for example, in grasping nuances in emotional relationships; women can bear children but men cannot, and in this sense, men may be said to be “inferior” to women. Inherent inferiority or inherent superiority is not part and parcel of dyadic but only of dualistic thinking (Lee, 2017b, pp. 224–225).

This explanation of contextual-dyadic thinking as foundational not only describes the variance of presumption with philosophy of science on which CCM is founded; it provides insight as to how *yinyang* is an entirely different worldview. Any pairs from the dualistic *yinyang* mindset that a natural to Chinese due to correlative thinking (Graham, 1986) won’t make sense from a Western dualistic perspective.

While *yinyang* can be described as a process philosophy, the condition that drive change are different than in Western philosophy.

Heraclitus … saw polar contrasts in terms of conflict, and that it was conflict between them which propelled change in the world. …. Opposites – such as king/ruler and ruled, slaves and free men, war and peace, satiety and hunger, winter and summer, and day and night – exhibited conflicting powers. This conflict was the basis of change and variety in the world. On the other hand, the Chinese saw polar contrasting states of affairs, not in terms of conflict, but of harmony and Wholeness, for instance, that yin and yang are both ontologically as well as functionally/causally entwined, propelling each other forward to achieve the next level of dynamic equilibrium (Lee, 2017c, pp. 207–208).

The entwining of *yin* and *yang* are often illustrated with the *taiji* (*taichi*) symbol of swirling teardrop shapes, where there is a dot of dark in the light, and a dot of light in the dark.

For systems changes, since contextual-dyadic takes a processual view where change is omnipresent, when is attention merited? From Classical Chinese Medicine, we can look for pathologies of yin-yang imbalance (Maciocia, 2015b). Since the balance is not only dualistic, but also dynamic in waxing and waning over time, there is the complication of full and empty conditions (Maciocia, 2015a).

## 2.5 | Philosophy of Rhythm

As a provocation, the question of “Why Do Philosophers Have No Rhythm?” (Judge, 2016) hints as an under-researched area.

Art

(Cheyne et al., 2019)

Henri Lefebevre, Francois Jullien

# 3 | Method: Multiparadigm Inquiry, Open Theorizing

Crossing multiple philosophies, multiparadigm inquiry is applied. In order to counter criticisms, open theorizing is practiced.

## 3.1 | Multiparadigm Inquiry

From the literature in management, the core methodological foundation proposed is multiparadigm inquiry.

Despite their differences, most researchers on both sides of the Atlantic now recognize that a single paradigm is necessarily limiting, helping expose certain facets of organizations, while obscuring others (Burrell, 1996; Weick, 1999). This recognition has fostered growing interest in a provocative alternative – multiparadigm inquiry. Multiparadigm advocates use divergent paradigm lenses to contrast their varied representations and explore plurality and paradox (e.g. Lewis & Grimes, 1999; Schultz & Hatch, 1996; Ybema, 1996). Indeed Mingers (1997) praised organization studies for exemplifying reflexivity and encouraging multiparadigm interests in the ‘hard sciences’ (e.g. physics, biology, operations research) (Lewis & Kelemen, 2002, p. 252).

Beyond sociological paradigms (Burrell & Morgan, 1979), we look to systems paradigms more generally. A process of abductive theory creation (published from 2021) would support a synthesis of Western and Chinese philosophies of science.

Our central proposition is that abductive theory creation is usefully viewed as a cyclical process of identifying and confirming anomalies and generating and evaluating hunches at individual and collective levels, as shown in Figure 1. We submit that abductive reasoning is not a single flash of inspiration; instead, it is a sensemaking process (Weick, 1995) involving four steps that may recur to make sense of complex phenomena: observe anomaly, confirm anomaly, develop hunches, and evaluate hunches. These four steps are useful in articulating the moves of abductive reasoning,and in providing a discipline for enhancing the quality and novelty of theory creation by employing the methods outlined in Figure 1 (Sætre & Van de Ven, 2021a).

The description of hunches is further refined, in criticism of an interpretation centered on idea generation, with a reference back to (Weick, 1989).

A central tenet of our theory is that the individual process of abduction follows an evolutionary process of variation, selection, and retention, as Weick (1989) proposed. However, at the collective level, abduction is inherently dialectic—thesis, antithesis, and synthesis. The collective level is important because it can help in reducing the inherent bias and noise that are inherent in human judgement (Kahneman, Sibony & Sustein, 2021) (Sætre & Van de Ven, 2021b)

As compared to the *comparative* philosophy between Western and Chinese philosophy, a new paradigm of *constructionist* philosophy has been suggested.

... the discipline of comparative philosophy ... did not seek to establish the superiority of Western philosophy, but actively engaged Chinese philosophy as a corrective to Western traditions and as a viable content for dealing with philosophy’s fundamental questions.

There is an emerging third paradigm for the study of Chinese philosophy developing from the growing appreciation for the full range of Chinese philosophical traditions and the serious ways in which Chinese thought has been understood through the work of comparative philosophers. I call this paradigm “constructionist philosophy.” This third paradigm is not directed toward some new theory that unlocks all the riddles or solves all the quandaries arising from comparative philosophical work. Instead, the goal is to create a different sort of philosopher. These new philosophers bend language and culture. They do not so much inhabit one or both of the standpoints represented by the traditions from which they draw, as they give birth to an emerging standpoint different from both the history of Chinese philosophy and that of Western philosophy (Littlejohn, 2022, pp. 151–152).

The way in which paradigm interplay is suggested is in three steps.

Interplay is explicated as a three-step process: First, separate analyses are conducted in each paradigm; second, the analyses are then contrasted, and in light of each other, they indicate possible improvements and point toward a venue for paradigm interplay (in our example, this is achieved with a new theoretical framework). Third, the analyses are placed in interaction in this framework, revealing implications for theory development in cross-cultural management research (Romani et al., 2011, p. 433).

Looking into the philosophies of architectural design and ecological anthropology rooted in the West, and the philosophy of Chinese medicine clearly from the East, a philosophy of systems rhythms is abduced.

## 3.2 | Open Theorizing

Theory creation by an individual is a risk. Open theorizing is a way of validating discoveries through open access publishing, as the Systems Changes Learning Circle has done.

Open theorizing occurs when loosely coordinated researchers realize they can draw on one another’s empirical, methodological, or theoretical material to develop theoretical contributions. These contributions can take various forms, including models, texts, and typologies (Sandberg & Alvesson, 2021) (Leone et al., 2021, p. 727).

Of the four types of open theorizing, the first three years of collaboration within the Systems Changes Learning Circle have been coconstructing, with the concentrating of vocabularies.

In “coconstructing,” researchers from the same research program draw on one another’s data,research material, or theoretical scaffolds to address the same topic. Coconstructing thus takes place among researchers who share the same analogy and topical interest. Research programs, as mentioned above, coalesce around a hard core of theoretical and methodological assumptions. Hence, sharing resources within programs to advance and fine tune theoretical explanations appears relatively straightforward, as researchers tend to assign similar meanings to the concepts they develop (Leone et al., 2021, pp. 730–731).

With an espoused collective journey of 10 year, the type of open theorizing is expected to shift to “branching out”, with the extension of vocabularies.

In a topology of theorizing, the work of the Systems Changes Learning Circle can be seen as provoking.

Provoking theory does not aim primarily to provide explanation, comprehend meaning, order or articulate the dynamics of phenomena. Instead, its main purpose is to show alternative, often eye-opening and disruptive ways of seeing phenomena. Its focal concern is to challenge established mind-sets and open up other modes of thinking through dialectics between existing theory and a counterpoint. Provoking theory thereby suggests not only ‘that things [phenomena] could be otherwise than they are, but that things are already otherwise than the ways in which they are represented’ (Linstead, 2016, p. 171). This means that what appears to be a ‘given’ phenomenon is challenged by reconstructing it through theorizing (Sandberg & Alvesson, 2021, p. 504).

Drawing of the philosophy of science underlying Classical Chinese Medicine is narrower than the larger perspective on yinyang that others might see as spiritual.

# 4 | Analysis and Results: Systems Changes via Three Philosophies 🡪 Systems Rhythms

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## 4.1 | Systems Changes Appreciated through a Philosophy of Architectural Design

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**Exhibit 2.** Appreciating Architectural Design

|  |  |
| --- | --- |
|  | Appreciative Systems |
|  | Reality Judgments | Value Judgments | Instrumental Judgments |
| Philosophy of Architectural Design | Differentiating space | Living Order (Quality Without A Name) | Unfolding Patterns, Constructing, Repairing, Systems Generating Systems |

x

### 4.1.1 | Appreciating Reality Judgments on Systems Changes via Architectural Design

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Within this process every individual ,act of building is a process in which space gets differentiated. It is not a process of addition, in which preformed parts are combined to create a whole: but a process of unfolding, like the evolution of an embryo, in which the whole precedes its parts, and actually gives birth to them, by splitting.

It views design as a sequence of acts of complexification; structure is injected into the whole by operating on the whole and crinkling it, not by adding little parts to one another. In the process of differentiation, the whole gives birth to its parts: the parts appear as folds in a cloth of three dimensional space which is gradually crinkled. The form of the whole, and the parts, come into being simultaneously. (Alexander, 1979, p. 305).

This is preceded by …

Design is often thought of as a -process of synthesis, a process of putting together things, a process of combination.

According to this view, a whole is created by putting together parts. The parts come first: and the form of the whole comes second. (Alexander, 1979, p. 368)

But it is impossible to form anything which has the character of nature by adding preformed parts.

When parts are modular and made before the whole, by definition then, they are identical, and it is impossible for every part to be unique, according to its position in the whole.

Even more important, it simply is not possible for any combination of modular parts to contain the number of patterns which must be present simultaneously in a place which is alive (Alexander, 1979, pp. 368–369).

It is only possible to make a place which is alive by a process in which each part is modified by its position in the whole.

.... In short, each part is given its specific form by its existence in the context of the larger whole (Alexander, 1979, p. 369).

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### 4.1.2 | Appreciating Value Judgments on Systems Changes via Architectural Design

“Living order” shows up in chapter 25 “The Slow Emergence of a Town”, p. 510

In Chapter 2, “The Quality Without a Name” …

There is a central quality which is the root criterion of life and spirit in a many a town, a buildings or a wilderness. This quality is objective and precise but it cannot be named (Alexander, 1979, p. 19).

The word which we most often use to talk about the quality without a name is the word "alive" (Alexander, 1979, p. 29).

But the very beauty of the word "alive" is just its weakness (Alexander, 1979, p. 30).

Another word we often use to talk about the quality without a name is "whole" (Alexander, 1979, p. 30).

But the word "whole" is too enclosed (Alexander, 1979, p. 31).

Another facet of the quality which has no name is caught by the word "comfortable" (Alexander, 1979, p. 32)

Yet the word "comfortable" is easy to misuse, and has too many other meanings (Alexander, 1979, p. 33).

A word which overcomes the lack of ofenness in the words "whole" and "comfortable" is the word "free" (Alexander, 1979, p. 33).

And yes, of course, this freedom can be too theatrical: a pose, a form, a manner (Alexander, 1979, p. 34).

A word which helps restore the balance is the word "exact" (Alexander, 1979, p. 34).

And, yet, of course, the word "exact" does not describe it properly (Alexander, 1979, p. 35).

A word which goes much deeper than the word "exact" is "egoless" (Alexander, 1979, p. 36)

And yet, although the old bench and its carving may be egoless, this word is also not quite right (Alexander, 1979, p. 36).

A last word which can helf to catch the quality without a name is the word "eternal" (Alexander, 1979, p. 37)

And yes, like all the other words, this word confuses more than it explains (Alexander, 1979, p. 38).

And so you see, in spile of every effort to give this quality a name, there is no single name which captures it (Alexander, 1979, p. 38).

And so you see, in spile of every effort lo give this quality a name, there is no single name which captures it (Alexander, 1979, p. 39).

It is not only simple beauty of form and color. Man can make that without making nature. It is not only fitness to purpose. Man can make that too, without making nature. And it is not only the spiritual quality of beautiful music or of a quiet mosque that }comes from faith. Man can make that too without making nature.

The quality which has no name includes these simpler sweeter qualities. But it is so ordinary as well, that it somehow reminds us of the -passing of our life.

It is a slightly bitter quality (Alexander, 1979, pp. 39–40).

In chapter 26 “Its Ageless Character” …

And as the whole emerges, we shall see it take that ageless character which gives the timeless way its name. This character is a specific, morphological character, sharp and precise, which must come into being any time a building or a town becomes alive: it is the physical embodiment, in buildings, of the quality without a name (Alexander, 1979, p. 511).

 Alexander would eventually settle on “wholeness-extending transformations”, leading to “living structures” (Alexander, 2007).

### 4.1.3 | Appreciating Instrumental Judgments on Systems Changes via Architectural Design

In chapter 20 “One Pattern at a Time” …

The process of unfolding goes step by step, one pattern at a time. Each step brings fust one pattern to life: and the intensity of the result depends on the intensity of each one of these individual steps (Alexander, 1979, p. 385).

Suppose now, that for a given act of building, you have a pattern language, and that the patterns in this language are arranged in proper sequence.

To make the design, you take the patterns one by one, and use each one to differentiate the product of the previous patterns (Alexander, 1979, p. 390).

In chapter 21 “Shaping One Building” …

From a sequence of these individual patterns whole buildings with the character of nature will form themselves within your thoughts as easily as sentences (Alexander, 1979, p. 401).

In chapter 22 “Shaping a Group of Buildings” …

In the same way, groups of people can conceive their larger public buildings, on the ground, by following a common pattern language, almost as if they had a single mind (Alexander, 1979, p. 22).

With the Eishin School …

In chapter 23 “The Process of Construction” …

Once the buildings are conceived like this, they can be built directly from a few simple marks made in the ground -- again within a common language, but directly and without the use of drawings (Alexander, 1979, p. 55).

That showed up in the construction of the Eishin School

In chapter 24 “The Process of Repair” …

Next, several acts of building, each one done to repair and magnify the product of the previous acts, mill slowly generate a larger and more complex whole than any single act can generate (Alexander, 1979, p. 475).

.,.. several acts of building, in a row, will generate an even more coherent and more complex whole, piecemeal -- by making sure that every act contributes to the order of the previous acts (Alexander, 1979, p. 479).

In theory, according to chapter i8, every act of building is, with respect to its larger context, an act of repair: a part of the much larger process in which several acts together generate the larger wholes from which a building complex or a town is made. (Alexander, 1979, p. 479).

This process, like the simple differentiating process is able to make wholes in which the parts are shaped according to their place.

But this process is still more powerful: because it can make groups of buildings which are larger and more complex.

And it is more powerful above all, because it leaves no mistakes: because the gaps get filed, the small things that are wrong are gradually corrected, and finally, the whole is so smooth and relaxed that it will seem as though it had been there forever. It has no roughness about it, it simply lies there stretched out in time (Alexander, 1979, p. 492).

In chapter 25 “The Slow Emergence of a Town” …

Finally, within the framework of a common language } millions of individual acts of building will together generate a town which is alive, and whole, and unpredictable, without control -- this is the slow emergence of the quality without a name, as if from nothing (Alexander, 1979, p. 493).

The final shape of any one particular oak tree is unpredictable (Alexander, 1979, p. 508).

And a town which is whole like an oak tree, must be unpredictable also (Alexander, 1979, p. 508).

It is vastly more complex than any other kind of order. It cannot be created by decision. It cannot be designed. It cannot be predicted in a plan. It is the living testament of hundreds and thousands of people, making their own lives and all their inner forces manifest.

And, finally, the whole emerges (Alexander, 1979, p. 510).

This is better described in earlier work on “Systems Generating Systems”, <http://coevolving.com/blogs/index.php/archive/systems-generating-systems-architectural-design-theory-by-christopher-alexander-1968/>

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 object. It focuses on some holistic property which can only be understood as a product of interaction among parts.

3. A generating system is not a view of a single thing. It is a kit of parts, with rules about the way these parts may be combined.

4. Almost every ‘system as a whole’ is generated by a ‘generating system’. If we wish to make things which function as ‘wholes’ we shall have to invent generating systems to create them (Alexander, 1968, p. 59).

### 4.1.4 | An influence of architectural design orients towards improving dwelling materially.

Dwelling is used in the sense of Heidegger, that can be read not just as dwelling in place, but dwelling over time.

## 4.2 | Systems Changes Appreciated through a Philosophy of Ecological Anthropology

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**Exhibit 3.** Appreciating Ecological Anthropology

|  |  |
| --- | --- |
|  | Appreciative Systems |
|  | Reality Judgments | Value Judgments | Instrumental Judgments |
| Philosophy of Ecological Anthropology | Living along Lines of Becoming, Meshworks | Living Alongside Other Beings | Co-responding through Habit, Agencing and Attentionality |

x

### 4.2.1 | Appreciating Reality Judgments on Systems Changes via Ecological Anthropology

From “Point, line, counterpoint”

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### 4.2.2 | Appreciating Value Judgments on Systems Changes via Ecological Anthropology

An ecological perspective puts human beings alongside other beings, as non-anthropocentric. However, we rrun into issues of human beings behaving as the nature of human beings might expect.

From “Animals are Us”, Imagining for Real

For those like myself, with a background in the ecological study of human hunting and gathering, pastoralism or farming, the oft-​repeated claim of material culture theorists -- ​namely, that the nonhuman has been marginalised or suppressed in the social sciences -- ​seems preposterous. For it turns a blind eye to the wealth of studies, by both anthropologists and archaeologists, of the manifold ways in which people in different parts of the world, and in different periods of history, have shared their lives with diverse animals and plants. How can we account for this blind spot? There is only one possible answer: so far as our theorists are concerned, these animals and plants are the wrong kinds of nonhumans. They lack the characteristics of fixity, durability and emplacement that entitle them to admission to the collective. As forms of animate life they are intruders on the stage of world history, and should not be there (Ingold, 2022a, pp. 302–303).

The problem is that if we are the best human beings we can be, this may not work well alongside other species.

If the mark of the social lies in those properties of freedom, agency and self-​ awareness that are brought to bear in the conduct of relational endeavours, and if these properties are limited to the kinds of beings we call ‘human’, then social relations are human relations. From here, however, it is but a short step to the conclusion that social relations are human relations because they are with individuals who happen to belong to the same species as we do ourselves. And having once taken this step, the path is clear to extend the concept of the social to cover the interactions that any kind of creature -- human or nonhuman -- may have with its conspecifics (Ingold 1997: 240–​41). For me, social relations are human relations because I happen to be human. Were I a baboon, or a reindeer, then my social relations would be with other baboons, or other reindeer, and not with humans. If I were an ant, they would be with other ants (Ingold, 2022a, p. 304).

Seeking sustainability through the setting of goals may be less fruitful that an emphasis on continuing lives, across the species that live alongside each other on the Earth.

In the rationale of sustainable development, the world is understood not as a plenum to be inhabited but as a totality to be managed, much as a company manages its assets, by balancing the books, living off interest without eating into capital reserves. Sustainability is thus defined in terms of goals or targets to be achieved, along an axis of progressive development. The sustainability of everything, however, runs counter to this axis. Its commitment is not to progress so much as to the continuity of life.

In a study of upland forestry in Japan, anthropologist John Knight (1998) offers a cautionary tale of what can go wrong if the axis of development takes precedence over the axis of continuity. 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. But today, as Knight shows, the cycle has been broken. Conservationists demand that old trees be preserved and not cut. These arboreal veterans are hence denied their second life. And the people, left without timbers to replace old ones as they rot, have taken to building their houses out of concrete instead. Development, here, has trumped continuity.

This example reveals a deeply entrenched fault-​line in ways of thinking about the future. Should it be projected as a steady state, or anticipated as an ongoing concrescence? Even if it were possible, in theory, to balance the ship of the world on its keel, the balance could only be sustained by calming the ocean, putting life and history permanently on hold. The future, then, could be no more than a protraction of the present. Far from ensuring the continuation of everything, sustainability would shut it down. My argument, to the contrary, is that to bring sustainability and everything back into line, we need fundamentally to rethink our relation to the world, to the future, to time and to memory (Ingold, 2022b, pp. 330–331).

### 4.2.3 | Appreciating Instrumental Judgments on Systems Changes via Ecological Anthropology

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### 4.2.4 | An influence of ecological anthropology orients humaning as living alongside others

The field of anthropology has been challenged to not be anthropocentric, but ecological. This puts that task of humaning – what we as humans make of ourselves – forging an existence not only for ourselves and others within the matrix of a common Earth (Ingold & Thomas, 2020).

## 4.3 | Systems Changes Appreciated through a Philosophy of Classical Chinese Medicine

First paragraph Body Text 2

**Exhibit 4.** Appreciating Classical Chinese Medicine

|  |  |
| --- | --- |
|  | Appreciative Systems |
|  | Reality Judgments | Value Judgments | Instrumental Judgments |
| Philosophy of Classical Chinese Medicine | Diseases as internal, with external causes | Wei, wuwei | Tonifying Yin or Yang, Expelling Pathogenic Factors  |

x

### 4.3.1 | Appreciating Reality Judgments on Systems Changes via Classical Chinese Medicine

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### 4.3.2 | Appreciating Value Judgments on Systems Changes via Classical Chinese Medicine

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### 4.3.3 | Appreciating Instrumental Judgments on Systems Changes via Classical Chinese Medicine

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### 4.3.4 | An influence of Chinese Medicine orients resynchronizing internals with externals

Classical Chinese Medicine is internal medicine (Lam, 2020). Each human being have free will, and thus knows from within – consciously, more than cognitively – when systems changes are happening, or should happen.

## 4.4 | Systems Changes Appreciated through a Philosophy of Systems Rhythms

First paragraph Body Text 2

 Reality judgment:

As behavioral change (from inside out) and ecological change (from outside in)

Value judgment: As systemic change (affecting a whole, as distinct from the parts) vs. systematic change (planned, determined, procedural)

Instrumental judgment: Reordering of pacing

**Exhibit 5.** Appreciating Systems Rhythms

|  |  |
| --- | --- |
|  | Appreciative Systems |
|  | Reality Judgments | Value Judgments | Instrumental Judgments |
| Philosophy of Systems Rhyrthms | Rhythmic shift, in texture | Propensity | Reordering pacing |

x

### 4.4.1 | Appreciating Reality Judgments on Systems Changes via Systems Rhythms

First paragraph Body Text 2

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### 4.4.2 | Appreciating Value Judgments on Systems Changes via Systems Rhythms

First paragraph Body Text 2

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### 4.4.3 | Appreciating Instrumental Judgments on Systems Changes via Systems Rhythms

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### 4.4.4 | An influence of systems rhythms orients interpreting shifts when and where auspicious or not

With rhythms innate in living systems, it’s rhythmic shifts that get attention. Those rhythmic shifts may be fortunate or unfortunate. When choice is conditional, we can choose times and places where conscious action may or may not be auspicious.

# 5 | Conclusions: Contributions that Systems Rhythms Offer to Systems Changes

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 GHU prefers Discussion

## 5.1 | Heading 2 Second Level Sub-Heding

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