

LEGEND

CRESCENT CITY SENSE OF PLACE
AND A NEW DESIGN ECOLOGY

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LEGEND

foundations, principles, theory, methodology, and conceptual framework for the sense of place design ecology

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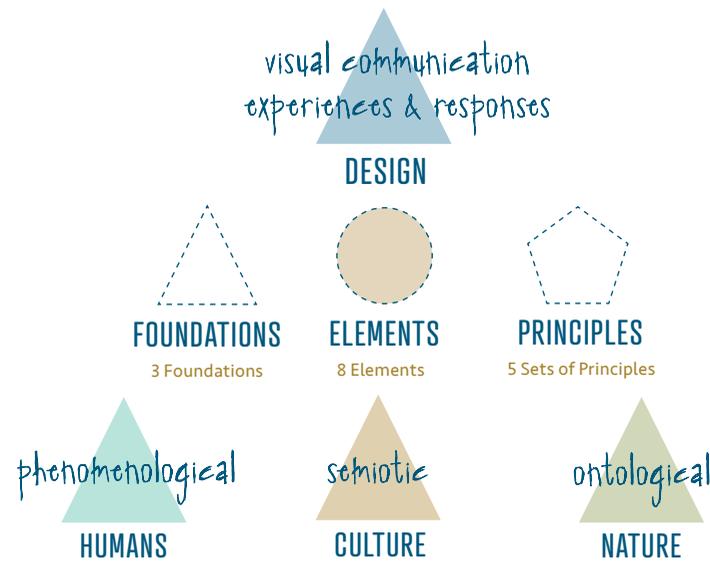
“This grand book the universe...is written in the language of mathematics, and its characteristics are triangles, circles, and other geometric figures without which it is humanly impossible to understand a single word of it; without these, one wanders about in a dark labyrinth.”

— Galiliei Galilio

Rethinking Design

In the opening panel discussion of “Victor Papanek—The Politics of Design” exhibition in 2018 at Vitra Design Museum, the co-creators discussed a timely and existential question: ‘Can design save us?’¹ They ask this in relation to Papanek’s own work and writing on product design’s response to ecology. In the *The Green Imperative*, Papanek writes “ecology and the environmental equilibrium are the basic underpinnings of all human life on earth; there can be neither life nor human culture without it. Therefore, design response must be positive and unifying. Design must be the bridge between human needs, culture and ecology.”² As a product designer, Papanek discusses design mainly about the development of products, tools, machines, artifacts and other devices. However, his point gives food for thought to all aspects of design. He identifies cycles in the life of product design, and the outcomes from these cycles, that have potential for ecological harm. These don’t just occur at the end result of a product, but throughout the stages of development, such as choice of materials, manufacturing, transportation, packaging, and so on.

In his book, *Synthesis of Form*, architect Christopher Alexander labels these kinds of demands on design that interfere with a solution being a good fit as ‘misfits’ that must be decomposed of in order for solutions to be truly responsive and representational for addressing the requirements of a solution to a problem. Throughout his book, Alexander explains that responding to conditions we want to change really requires focus on the misfits, the demands they make, and the requirements needed to decomposes them to reach an acceptable fitness between problem and solution. This is a process and system of patterns and relationships, not isolated but interconnected.³ Using Papanek’s point about how affects of design are not just at one point but in the systematic cycles and outcomes, and Alexander’s method of decomposing misfits could be a pathway for rethinking a graphic design theory and methodology that addresses both, and ecology of sorts that approaches design for bridging humans with culture and nature as a system.



The Chart section includes rethinking design while exploring sense of place through identity, place, and design. Three essential subsets of sense of place are identified: humans, culture, and nature. They are examined from phenomenological, ontological, and semiotic approaches. Pathways of rethinking through philosophical, psychological, sociological and scientific theories lead to identifying and synthesizing the many characteristics and influences of sense of place into eight elements. The foundations and principles explored in the Legend section add to the formation of a sense of place design ecology and framework as a theoretical and methodological foundation for rethinking design in building a bridge between humans, culture, and nature.

Because design interacts with so many ways of life, and influences our ways of being, design would have just as many opportunities to interact with audiences as a catalyst for sense of place. The Chart section functions as the territory for the framework—humans, nature, and culture. Like the legend of a map or chart, and this Legend along with the Keys section function to enhance understanding of the territory through phenomenology, ontology, and semiotic approaches. Together with the characteristics, contexts, conditions, and elements explored in the territory of the Chart, the sense of place design ecology takes form.



Foundations

The Duality of Instincts and Reasoning

Alexander writes that “frequent failure of individual designers to produce well-organized forms suggest strongly that there are limits to the individual designer’s capacity to be able to just intuitively solve the problems. Today more and more design problems are reaching insoluble levels of complexity.”⁴ In other words, while intuition and instincts are essential, we also need reasoning. To add to this, there seems to be a need for solutions to be created at increasing speed and with industry demands for constant newness, especially in Western culture. This gets me thinking about the human capacity for the concept of intuition. Human designer’s are also navigating the incorporation of artificial intelligence and augmented reality’s ability to ‘solve design problems’ and create form. Is human intuition on the way out?

As Alexander asserts, we “must face we are on the brink of times when man may need to magnify his intellectual and inventive capability; just as in the nineteenth century when he used machines to magnify his physical capacity. Again, as then, innocence is lost. And again, the innocence once lost, cannot be regained.”⁵ Embracing our capacity for logic, reasoning, and cognition is a counterbalance to the sense of place design ecology’s foundational core value of embracing intuition, instincts, senses, sensations, and perceptions. Manifesting our instincts, while using the tools at our disposable in a conscious way allows for recognizing and embracing our human duality.

Alexander points out, we can’t make a ‘fetish’ out of instincts and intuition at the expense of not asking reasonable, logical, systematic process-based questions as designers. However, as he also points out, “In this atmosphere today, the designer’s greatest gift, is his/her intuitive ability to organize physical form, is being reduced to nothing by the size of the tasks in front of him/her. It demands attention, not denial.”⁶ Embracing the reasoning side does not negate the powerful and essential qualities of intuition, instincts, sensations, senses, and perceptions—inherent qualities of being human and to rethinking design. In fact, the reasoning side grounds and organizes the instinctual side, so that instincts are realized. The instincts side expands our consciousness, and illuminates the power of the unconscious.

Solutions need foundational structure and patterns, or paths, to follow. They provide a compass for direction and course correction. However, responses also need the counterpart of a life force, the nature spirit, that comes from embracing the bio-physical and spiritual instincts that Carl Jung points out are dormant in modern humans. According to Jung, this dormancy produces a malaise that affects all of those living in modern civilization. Rebuilding our connection to nature, and manifesting our inner instincts, provided to us by our archaic human ancestors through our ways of living



and being, are ways to rebound from this malaise and atrophy.⁷ Rethinking design with phenomenological and semiotic approaches taps into these dormant connections which is a core foundation of the sense of place design ecology's belief and theory. In *The Synthesis of Form*, Alexander's provides another way of thinking about this through his philosophy that divides culture and design into two categories: self-consciousness and unselfconscious. (He credits architects such as Frank Lloyd Wright and Theodore Larsen for originating this idea.)

An unselfconscious process is developed over time with connection to the origins. Cultures gradually adapt as needed. They respond organically. They are self-adjusting. Cultural customs and traditions are honored. There is a temporal thread connecting them to the past, and their visibility and materiality comes is rooted in that connection. In an unselfconscious process, practice of craft and process are important. Processes and form are based on trial and error. I envision this would be without obsession for perfection. Questions are explored and critically thought about instead of grabbing for quick answers. This feels more in sync with the natural world and physical surroundings. Self conscious cultures are the opposite. "In the unselfconscious process there is no possibility of misconstruing the situation: nobody makes a picture of the context, so the picture cannot be wrong."⁸

A selfconscious process is assumption-based, hurried, and more formal. Tradition dissolves. "New forms are constantly required to deal with problems that are entirely new, or at best modifications of old problems. Unselfconscious cultures allows the production of well-fitting forms to persist in active equilibrium with the system."⁹

As a result and outcome, design has become a part of propagating this cultural selfconsciousness, while becoming more selfconscious of itself. As Alexander explains, problems are created within a system for the purpose of solving them within the current system, not necessarily as a response to a part of the world we want to shape or condition we want to change. Design is at its core and by nature 'imaginative and intuitive', as Alexander writes, so our impulse is to solve, connect, and organize follows that same impulse. However, as Alexander also poses, if only the process was that reliable, we could easily trust it. But it has become a selfconscious process. "The selfconscious designer works entirely from the picture in his mind, and this picture is almost always wrong."¹⁰

One final important comparison to consider in rethinking design as part of this ecology is with the role of the individual. In a selfconscious process, "the form-maker's assertion of his individuality is an important feature of selfconsciousness. Think of the willful forms of our own limelight-bound architects. The individual is anxious to distinguish himself from his fellow architects. The artist's selfconscious recognition of his individuality has deep affect on the process of form-making." As Alexander goes on to explain, this is feeds into the perpetuation of a selfconscious process and system. "In the unselfconscious system, the individual is no more than an agent. He does what he knows how to do as best he can. The forms produced in such a system are the work



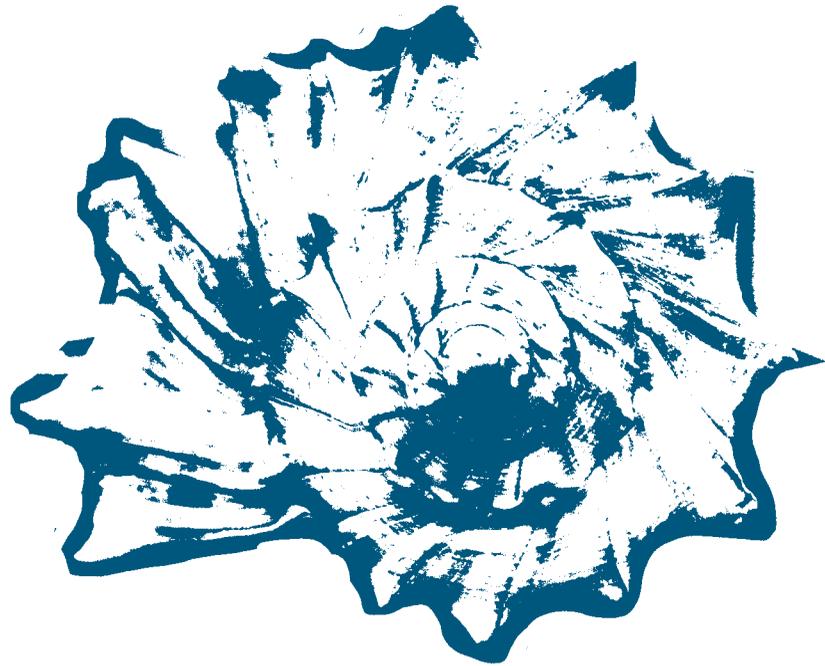
of individuals, and their success does not depend on any one man's artistry, but on the artist's place in the process."¹¹ An intriguing concept to wrap around given how society, design discipline included, is so focused on individual recognition. According to Alexander, a culture (and by extension design) is unselfconscious if its form-making is learned informally, through imitation and correction through learning patterns that organically are tied to the cultural system. As Alexander points out, many cultures have lost this unselfconscious process. This is one of the obstacles, or demands detracting from humans and culture being in ecological and environmental equilibrium with our surroundings. The selfconscious process exists if a culture's form-making is taught academically, according to its explicit rules.¹² This maxim poses a challenge for modern design education and practice.

Nonetheless, it draws a another path for rethinking graphic design to be learned—not through the great academic ideologies of modernism or post-modernism, but through examining our relationship to place, through an organic process of unselfconscious immersion into our own existence in place, and our sense of identity tied to culture and ecology of place around us. In other words, to be organically adapted and informed, not by the selfconscious side, but by the unconscious side. Alexander shares that a culture's adaptation, homeostasis (self-organization), pattern, and connection to history are at the heart and the nature of this kind of form-making, and by extension design overall. Rethinking design includes manifesting our inner instincts available to us through our collective unconscious, but also asking reasonable, logical, systematic process-based questions; and adopting an unselfconscious process, with the individual as an agent of the process, not the focus.

In his book *FireSigns*, Steven Skaggs on semiotic theory, he discusses the vicinity of the designer's duality of instincts and reasoning of this topic in his description of graphic design as still being a discipline based on "magic" and "folk practice." It is an exact and equal comparison to Alexander's label of unselfconscious culture or design. Yet the point is that as Alexander does, Skaggs is calling for a new chart with different paths of theory. This sense of place base design ecology seeks to be one of those different paths. It offers one framework to not just walk the same path in a different way, but chart a new path altogether and provide an entirely new navigation of a whole new territory. This methodology and framework is accompanied by a theory that seeks basis in an "understanding of how and why emotions are engaged, how and why information is transferred," that adds to "understanding of these things on the basis of something deeper than taste or stylistic imitation" that adds to the magic and does not displace it, that Skaggs discusses.¹³ Innocence may be lost, as Alexander says. Perhaps not. Perhaps it is just one of those covered paths of that needs clearing. There does not have to be a binary choice between rationality and magic, or reasoning and folk practice.

Even Alexander embraces the ingredients of an unselfconscious way of doing things,





“The places in which we have experienced day dreaming reconstitute themselves in a new daydream, and it is because our memories of former dwelling-places are relived as day-dreams these dwelling-places of the past remain in us for all the time.”

— Gaston Bachelard



which is close to Jung’s philosophy of being aware and listening to that which is unconscious in our psyche and allowing it to enter our consciousness. In order to embrace all the elements and influences identified in the Chart section, design must harness both our intellectual reasoning and our instincts and intuition.

Getting back to where we started, with Papenek’s exhibition, the panelists resolved at the end of their discussion that no, in and of itself, design cannot save us. (This is a very unselfconscious answer to the question, so that is a good thing!) Designers are not global policymakers. We aren’t heads of state or industry, capable of making national or global policies. Even the design of a stop sign cannot ‘save’ a person from running through an intersection. The assertions, and certainly any conclusions, that come from any visual communication including semiotic communication are in the evidence of the interpretation, which comes from the person who received the message, not the sender. As the panelists discuss, the question is not ‘can design save us?’, but *how and in what ways can it best act as a catalyst for a more reciprocal relationship between human needs, culture and nature?* Understanding the contextual influences to each of those is a start, which the chart seeks to provide. Understanding current conditions of our socio-ecological-cultural-economical systems is helpful, which the Quest and Scout sections seek to do. As Alexander explains, however, uncovering data is not enough. An hypothesis needs principles.

Nature of Design—Design of Nature

Before we get to principles, there are two more foundations to cover. Design and nature are reflective of each other. The act of designing is one way to manifest our universal connection to nature. Almost every standard principle and element we use as designers comes from nature including pattern, movement, shape, continuance, proximity, rhythm, closure, ratio and proportion. It was through studying my own connection to nature that I became interested in phenomenology, specifically regarding nature, and culture, and then how design semiotically translates that connection. What has emerged as part of this exploration is a self-referential examination of both self and design. This includes developing a deeper understanding and appreciation for design’s relationship to nature and the laws of natural world, something that was largely influenced by immersion into real-world nature study of my place and study of physics and universal divine math of the natural world. The result is more awareness of the semiotic relationship between design, nature, identity, sense of self, and sense of place. Some of these have been adapted as the principles of this framework, such as Gestalt, Ratio and Proportion, and Pattern and Structure. Nature and design share the same geometric patterns and language, which is reflected in the framework. Likewise there is ontological similarity in their nature of being of both design and nature—intuition, perception, sensation, relationship, instinct, unconsciousness, and symbolic meaning.





Systems Thinking

A sense of place design ecology is rooted in the foundation of systems thinking. The concept of systems is evoked in various contexts within design discourse, so it is worth being specific about the ways in which this concept is being referred. For this approach, we talking about systems thinking beyond visual systems. We are using it also as a contextual and organizational foundation to create a better ensemble between form and context, between problem and solution, as Alexander puts it. It is intended as a foundation for a way of seeing and rethinking, and then as a method for understanding pattern, structure, organization and process fitting solutions and form with contextual (misfits) and demands of problems. This approach of rethinking through systems includes context (subject matter) as a key component, and in that respect is inspired by biologists who during the first half of the 20th century began to approach their work with a ‘new way of thinking about connectedness, relationship, and context. This new way of thinking that biologists adopted was systems thinking, as Frank Capra explains in his book *The Web of Life*.¹⁴ Systems thinking is something Aristotle, other Greek philosophers, and Eastern philosophers (and probably many other cultures around the planet) explored long before this. However, as Capra points out, it was revolutionary for Western schools of thought and the science community at the time to think parts cannot be fully understood only by dissecting and analyzing them independently, but instead can only be approached with the understanding that the nature of their existence is as parts to a whole.

“The great shock of 20th century science has been that systems cannot be understood by analysis. The properties of the parts are not intrinsic properties but can be understood only within the context of the larger whole. Thus the relationship between the parts and the whole has been reversed. In the systems approach, the properties of the parts can only be understood from the organizations of the whole. Accordingly, systems thinking concentrates not on the basic building blocks, but on basic principles of organization.”¹⁵ Additionally, systems thinking dictates a contextual relationship—asking what are these parts’ context to the whole? Donella Meadows’ defines systems in her book, *Thinking in Systems* as “a set of elements of parts that is coherently organized and interconnected in a pattern or structure that produces a characteristic set of behaviors, often classified as its function or purpose.”¹⁶ Meadows goes on to explain another crucial aspect of systems to understand—they are self-perpetuating. They are adaptive, goal-seeking, and sometimes evolve in self-preservation.

Capra explains, “systems thinking comes from viewing the properties of an organism, or living system, as properties of the whole which none of the parts have. They arise from the interactions and relationships among the part. These properties are destroyed when the system is dissected, either physically or theoretically, into isolated elements.” In the context of a sense of place design ecology, local communities as systems made of living





and nonliving parts. The elements we've identified are all of the systems requirements. We can rethink sense of place as the system revolving a healthy community system, like a concentric circle of systems. Capra explains, "Systems thinking is contextual, which is the opposite of analytical thinking. Analysis means taking something apart in order to understand it; systems thinking means putting it into the context of a larger whole."¹⁷

I began thinking about sense of place as a conceptual, socio-ecological system as I synthesized and contemplated Carl Jung, Christopher Alexander, Donella Meadows, Maggie Macnab, Edward O. Wilson, Aristotle, and Wendell Berry, Arturo Escobar and Fritjof Capra. Their last system-related thinking, theories, models, methods and philosophies have been integral to this exploration of rethinking design and building the framework for the sense of place design ecology. As I've mentioned elsewhere, they guideposts for the different paths that lead to rethinking. Along with the core beliefs and foundations, there are five sets of principles (or eight if you count them separately) for the framework, influenced by universal laws of nature. Gestalt, Synthesis and Synergy, Pattern and Structures, Ratio and Proportion, and Principle of Locality.



Principles

Gestalt

The Gestalt principle represents a contextual commitment to the concept of a holistic worldview, and a reminder of unselfconscious and conscious process. The universe has been communicating through Gestalt before humans even gave it a name. Humans innately speak the language. It reveals itself when the mind sees shapes in the figure and ground of negative spaces between tree branches. It is in the closure and continuance we create from one end of the horizon line to the other even when broken by a mountain or trees. It is in the characters and scenes we create using invisible lines between stars. Gestalt is the forerunner to the development of systems thinking, with the two concepts orbiting around each other.

As designers we know Gestalt to mean the whole is more (or greater) than the sum of its parts. We invoke principles of Gestalt like continuance, proximity, and figure/ground in form in order to achieve the state of having parts come together and create something more. In *The Web of Life*, Capra discusses the actual etymology of Gestalt, which a German word that refers to form as in figure—of an organic and physical form—versus the word form, which comes from Latin *forma* or *formis*,—meaning inanimate form or shape.¹

As designers when we are seeking Gestalt, we are tapping into a human need to connect with laws of nature. Writer, scientist, critical thinker, philosopher Johann Wolfgang von Goethe, who Britannica says is "considered the greatest German literary figure of the modern era," studied the concept of Gestalt, including in connection with humans being part of the wholeness of nature.² In 1817, Goethe described the curious distinction between the various forms of the idea of Gestalt.

"The Germans have a word for the complex of existence presented by a physical organism: *Gestalt*. With this expression they exclude what is changeable and assume that an interrelated whole is identified, defined, and fixed in character. But if we look at all these *Gestalten*, especially the organic ones, we will discover that nothing in them is permanent, nothing is at rest or defined—everything is in a flux of continual motion. This is why Germans frequently and fittingly make use of the word *Bildung* to describe the end product and what is in process of production as well. Thus in setting forth a morphology we should not speak of Gestalt, or if we use the term we should at least do so only in reference to the idea, the concept, or to an empirical element held fast for a mere moment of time."³

From this perspective, with flux and continual motion, Gestalt is a transitory process. No wonder systems and Gestalt was ground-breaking for Western civilization to embrace. Historically, western civilization doesn't like transitory. It was too impermanent and uncertain for them. Meanwhile, Indigenous Peoples of the Americas were incorporating



this philosophy into their ways of being for thousands of years. Goethe's views were revolutionary for European man though. He believed humans were part of all process, rather than outside of it. He argued we are connection to the wholeness is because the human body and psyche are a participant, not an observer, of the phenomenon of nature. "Goethe believed that we should study our world and nature as people at home in it, rather than removed from it, as if we were aliens from another planet. He adopted a qualitative approach to science at odds with Newton's quantitative methods that were popular in his day. His is a sensitive science which does not ignore our relationship to nature."⁴

Goethe's scientific ideas and philosophies include his seminal work on color theory, and as theory of observation of nature from direct experience and through a view of wholeness. Goethe's work and approach are a foundation to rethinking design as part of the sense of place design ecology as a way of seeing and experiencing place in a sensory, holistic way. "Goethe gives attention to the phenomena so that it he begins to experience their *belonging* together and thereby to see how they mutually explain each other and thereby to see how they mutually explain each other. Such a holistic explanation is an *intrinsic* explanation, in contrast to the extrinsic whereby phenomena are explained in terms of something other than themselves—which is conceived to be "beyond" i.e. separate in some way. "Goethe "attempted to develop a physics...based on everyday experience. He worked to archive an authentic wholeness by dwelling in the phenomenon."⁵

Biologists began studying and researching organic form through Gestalt theory in the late 1800s. Physicists, psychologists, philosophers, and phenomenologists began to contribute to theories, and eventually Gestalt psychology was created from there. The study of which, as Capra explains, was rooted in learning the nature of associations. Goethe also contemplated the archetypal manifestations of signs and symbols as a way to translate known and unknown connection to the collective unconscious with nature. In Germany of the 1920s, the Weimar Republic, a group of organismic biologists and Gestalt psychologists, were part of a larger intellectual trend that saw itself as a protest movement against this increasing fragmentation and alienation of human nature. The entire Weimar culture was characterized by an anti-mechanistic outlook, a "hunger for wholeness."⁶ Carl Jung approached man's hunger for wholeness by delving into archetypal symbolism's representation of the self-identity as it relates to nature. Jung wrote in a letter to a colleague that "Man is connected by an unconscious humanity, the collective unconscious is 'identical with Nature to the extent Nature herself, including matter, is unknown to us.' Nature therefore, would encompass all the archetypes."⁷

In the 1960s there was another upwelling in the interest of addressing the "hunger for wholeness" in the collective human psyche. As Capra describes, it gave rise to an evolving Gestalt psychotherapy, which began to focus on a patient's personal experiences interacting with the world. Rather than treating a person as an isolated being, they treated the 'whole' person as part of a whole system. Jung wrote about modern man's



existential angst of being "extroverted as hell" but shows a "remarkable lack of introspection" along with man's propensity for a "separatist ethos" as one of the ironic causes of modern man having lost his connection with the collective unconsciousness of humanity which Jung asserts is very much a reality rather than an abstract concept. "It is the immense treasury, the great reservoir from which we draw." How do we draw from this great reservoir? Capra explains it is ultimately "when the concept of the human spirit is understood as the mode of consciousness in which the individual feels a sense of belonging, or connectedness, to the cosmos as a whole, it becomes clear that ecological awareness is spiritual in its deepest essence."⁸

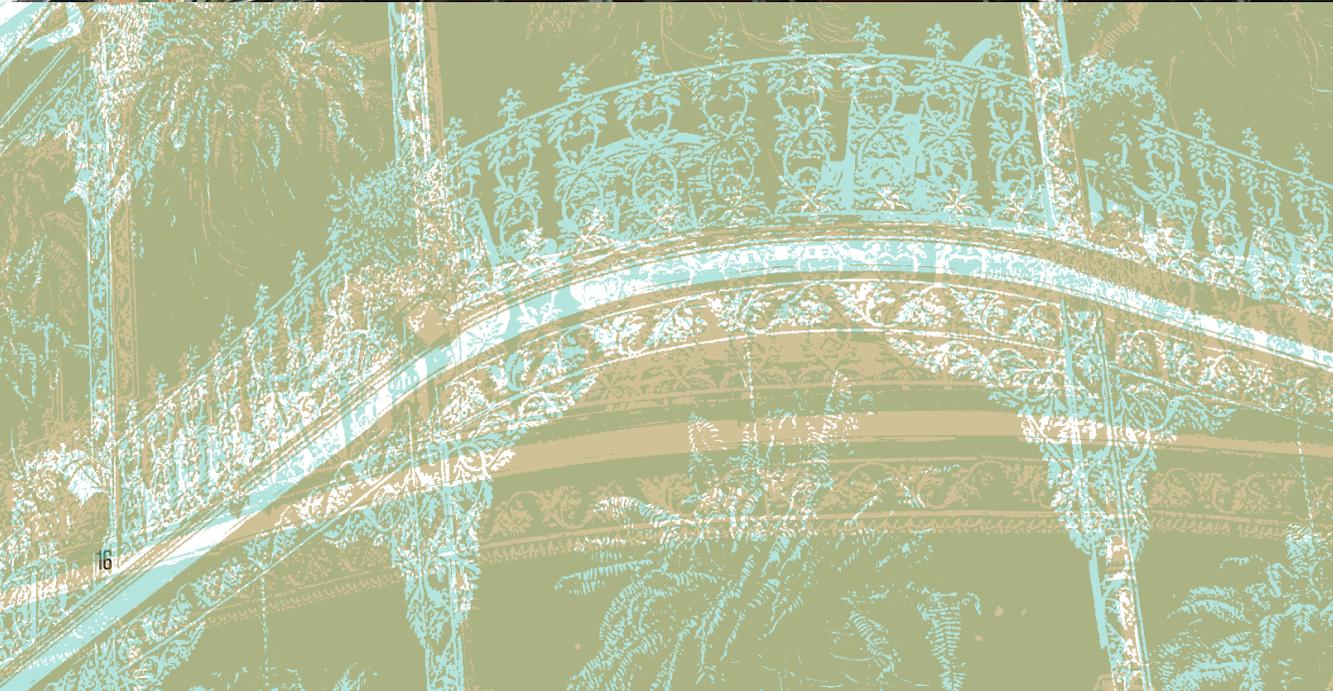
Editor Meredith Sabini shares in *Nature Has a Soul* that Jung's remedies for this disconnect was to live in smaller communities, work shorter hours, get by with less stuff, cultivate and interact with land regularly, and limit media and technology usage.⁹

A recipe with merit urged by the experts, observers and thinkers on the subject from Aldo Leopold to Victor Papanek. Gestalt thinking within a sense of place design ecology means rethinking with attention and a new way of seeing all the ways the parts that already exist—humans, culture, and nature—come together as a whole and uncovering the paths in which they naturally connect along with discovering new ones.

Synthesis and Synergy

The principle of synthesis and synergy represent the fitness and self-organizational processes that create the connectedness and context of holistic systems. I include them as one because the way things fit together and the way things self-organize are inherently connected and reliant on one another. Christopher Alexander outlines in both *Pattern Language* and *Notes on Synthesis of Form* the great value for a designer to first understand the context, next the context's origins, and last its fit and synthesis with a solution. This decomposing of the misfits and meeting requirements he outlines is a process of solving glitches in the patterns of problems and relationships, until they no longer create new additional problems and the components fit together in harmony.¹⁰ The solution manifests itself from this process of meeting requirements and decomposing misfits, Alexander explains. It is this kind of deductive thinking or reasoning towards reaching synthesis of the elements that is discussed in the Chart section. The synthesis is achieved by self-organization all of those parts becoming a greater whole. The synthesis begins to happen when demands that don't serve or contribute to those elements of sense of place are reduced while the conditions that do contribute, and serve those elements, are supported. Synergy happens when these self-organizing elements "produce a coherent behavior of the whole"¹¹ This process can be acausal or based on causality. When a condition has a cause, the focus is to decompose of that cause as best as possible, keeping in mind Alexander's consideration for mutual acceptability and what cannot be controlled.



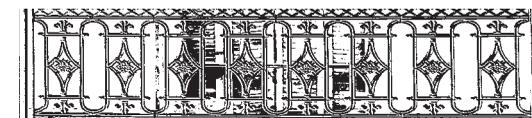


Most of the causes that create conditions that dilute or detract from sense of place or place stewardship are massive social and geopolitical systematic causes, which is why it takes a system to approach them. Sometimes conditions or demands reveal themselves with no seemingly reasonable or logical cause. This is where incorporating Carl Jung's interconnectedness theories of the collective unconscious and synchronicity fits into the framework as the core foundational influence to the principle of synthesis and synergy. Synchronicity is the way by which internal and external realities are meaningfully, though not causally, linked to one another. There are influences to our sense of place, especially with how humans connect to nature, that we just can't explain with reason and logic. As I have mentioned previously, a core belief of the framework is that allowing and encouraging this phenomena that often accompanies synchronicity—which often is manifested by collective unconsciousness. I don't know if it is because I was big Carl Sagan fan or what, but when I think of synchronicity, I also think of the quantum mechanic theory of the universe, which I will go into more detail about later.

Most times, however, the demands and contexts of conditions we want to change or improve are often caused by something. Synthesis requires the coming together of these two realities—the world has causality but also synchronistic, unconscious synergy. As Alexander points out, “when we speak of design, the real object of discussion is not the form alone, but the *ensemble* comprising the form and its context. Good fit is a desired property of this ensemble which relates to some particular division of the ensemble into form and context.”¹² Alexander explains that every form can be described in two ways: from the point of view of what it is (formal), and from the point of view of what it does (functional). Its formal and functional descriptions, if there is no ‘riff’ between the two, have a unified description. There is no longer a disconnect between functional specification (what it does) and the shape it takes (the form). Finding a solution to a design problem is an effort to find a unified description that is a realization of the two. When it is working, it contributes to our understanding of the functional specification which calls it into being. It penetrates the ‘problem’ so deeply, that it not only solves the problem, but illuminates it.¹³ A sense of place design ecology's theory and methodology uses principle of synthesis and synergy so that not one but multiple unified descriptions and ensembles of context and form/solution can be manifested with the same core beliefs and foundations of a system.

Pattern and Structures

The principle of patterns and structures represents “how all particles in the universe are entangled with each other. The behavior of one particle influences all other particles in the universe instantaneously, regardless of distance.”¹⁴ As part of this sense of place design ecology, patterns and structures are critical because that is how we bring the context of these various elements, and some form to address them together.





“It is only possible to live the fullest life when we are in harmony with these symbols; wisdom is a return to them.”

— Carl Jung



Capra writes, “pattern of organization of any system, living or nonliving, is the configuration of relationships among the system’s components that determines the system’s essential characteristics.”¹⁵ One of the most groundbreaking realizations in systems thinking was that integrated wholes cannot be understood with analysis, meaning by taking something apart, and dissecting its parts individually as a method for better understanding the whole. Pattern “concentrates on basic principles of organization.”¹⁶ In other words, certain pattern of relationships must be present for something to be recognized as what it is and how it works as a whole, not as parts. Sense of place exists because the elements come together in patterns, and certain structures of those patterns take shape to support them. As a holistic system, sense of place connects humans and culture with nature through its patterns and structures.

Aristotle provides some of the very first foundational understanding of patterns in the natural world, and his work on physics and metaphysics is foundational. In the 20th century, around the same time scientists were discovering systems thinking, physicists discovered an entirely new quantum level of physics. As Capra explains, “solid material objects of classic physics dissolve at the subatomic level into wavelike patterns of probabilities, and the patterns were really not probabilities of things but of interconnections, or correlations. Things are not really things at the subatomic level. They are just probabilities of interconnection. This is how quantum physics shows us that we cannot decompose the world into independently existing elementary units.”¹⁷

As Capra explains, we can learn about pattern and structure from nature and the natural world. “Nature does not show us any isolated building blocks, but rather appears as a complex web of relationships among the various parts of a unified whole. Patterns are abstract mapping of the configuration of a systems functional relationships. The configuration of the relationships among the system’s components determines the system’s essential characteristics. The description of the structure involves describing the system’s actual physical components—their shapes, materials, compositions, and physical embodiment.”¹⁸

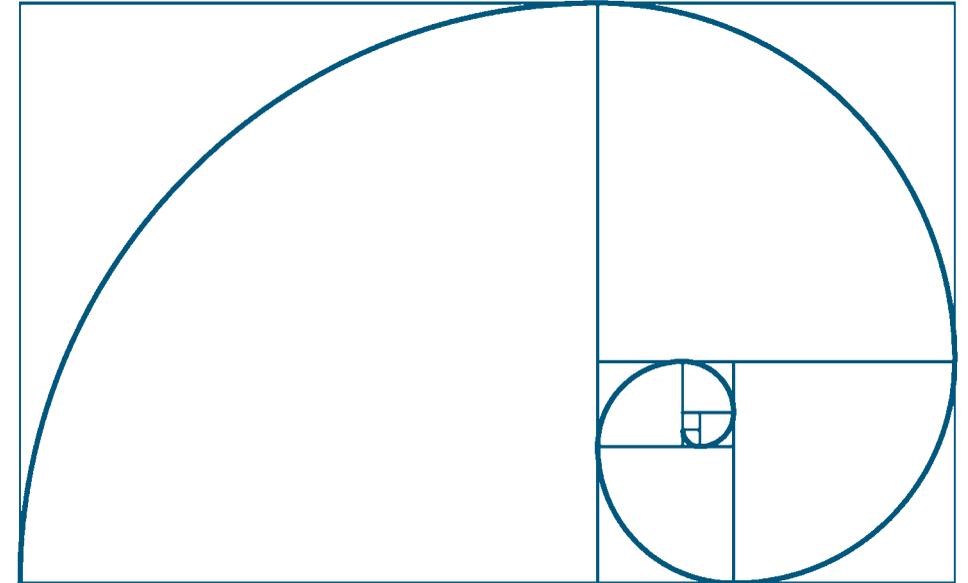
Christopher Alexander’s writing and life’s work is rooted in pattern relationships and interconnectedness. There is a physics-related aspect—even a connection to quantum physics. In fact, Alexander studied physics at Cambridge before earning his Ph.D. in architecture at Harvard. His method of decomposing misfits to create an ensemble between problem and solution, which he discusses in *Synthesis of Form*, feels to me, as a quantum physics fan, as theories rooted in quantum physics—using patterns to increase probabilities of interconnection, synthesis (fit) and synergy (self-organization) within the system.¹⁹ You can find underpinnings of quantum physics in his approach to problem solving through his pattern language of architectural design which was presented in three volumes: *The Timeless Way of Building*, which explored the theory of patterns in architectural design; *A Pattern Language* which defined common patterns found in



A Seashell

Shells are created through a secretion that constantly adds new matter to create the form, causing the shell to grow proportionally, allowing the mollusk to grow and the shell to reach the 'self-realization' of its purpose. A seashell is full with examples of the phenomena of the natural world as well. The Fibonacci Sequence, or golden spiral, is derived from the golden section. It is also called the logarithmic spiral because the angle of the curves increase in geometric progression. Hawks approach their prey, hurricanes spin in the ocean, and galaxies form in the universe in exactly this same mathematical spiral as this seashell. There is a gestalt in process happening with the mollusk that Aristotle calls the 'substance and essence of every being,' that includes what Gaston Bachelard calls 'transcendental geometry, mysterious, and highly intelligible formation.' This particular shell belonged to my mother. She had it going as far back as I can remember as a child. Somehow this shell managed to not get lost or too damaged. It made it through all the many moves, both as a family and mine alone; through hurricanes, tornadoes, and cross-country U-haul truck rides. It fits in my palm and for the most part, is perfectly and fully intact. This shell always found a prominent place in every home. I know she had it even before I came along, but I never knew or I forgot exactly from where or how she came to have it. I just knew it had meaning to her. Overtime, it has come to have meaning to me—a symbol representing home but in the way Bachelard writes about, It is an intimate, symbol of inhabiting, belonging, mother, and possibilities.³

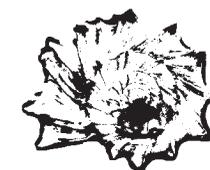
"Here is nature that imagines, and is very clever."—Gaston Bachelard



Designers use the divine ratio and proportion of the golden section in various ways as part of creating form. The dimensions of this book are one example. The Fibonacci Sequence, illustrated here, is part of that formula. Scott Olson shares in his book *Golden Section: Nature's Greatest Secret*, "The Golden Section is interwoven into the fabric of our existence, providing us with the means to resonate and attune with successively broader stages of self-identity and unfoldment upon the path of the return of the One. You are a whole made up of lesser parts, and you are a part of a greater whole."

traditional architecture; and *The Oregon Experiment* which explored specifically how his patterns were used in a specific project, in this case to develop the design of the University of Oregon's campus. His pattern language and structure provide configurations for creating form, however Alexander's focus is always very much on context as well, and the solution is really about realizing the context through form. Without that synthesis, form is meaningless. "A pattern language can also be an attempt to express the deeper wisdom of what brings aliveness within a particular field of human endeavor, through a set of interconnected patterns. Aliveness is one placeholder term for "the quality that has no name": a sense of wholeness, spirit, or grace, that while of varying form, is precise and empirically verifiable."²⁰

In a webzine published and edited by Alexander and others, Michael Mehaffy writes in his review of Alexander's *Nature of Order*. "Alexander and his colleagues were disturbed to find that many of the designers inspired by *A Pattern Language* produced work that was crude and artless. What was missing from the methodology he and his colleagues were



offering? Alexander came to believe what was needed was an essential grasp of good geometry. Coming to terms with the implications of this, and documenting the ideas for his readers, was the task that would occupy him for the next 25 years, and require nothing short of an overhaul of the Cartesian worldview that he believed underlies the conception of the design problem.”²¹

Alexander’s view is that “the universe is not made of “things,” but of patterns—of complex, interactive geometries.” While his approach is formulaic and mathematical, his way of understanding the world can also unlock secrets of nature, that in an strange connection, leads us to bringing unconscious connections to the universe into our consciousness. Mehaffy writes that Alexander’s theories “perhaps even make possible a renaissance of human-scale design and technology.” This directly aligns the three concerns of this exploration—rethinking design, disconnect between humans, culture and nature, and the loss of sense of place.²²

It is to read from Alexander’s own thoughts from *Nature of Order*: “I believe that there is, at the root of our trouble in the sphere of art and architecture, a fundamental mistake caused by a certain conception of the nature of matter, the nature of the universe. More precisely, I believe that the mistake and confusion in our picture of the art of building has come from our conception of what matter is. The present conception of matter, and the opposing one which I shall try to put in its place, may both be summarized by the nature of order. Our idea of matter is essentially governed by our idea of order. What matter is, is governed by our idea of how space can be arranged; and that in turn is governed by our idea of how orderly arrangement in space creates matter. So it is the nature of order which lies at the root of the problem in architecture. Hence the title of this book

Our knowledge of order-creating processes in physics, chemistry, and biology has molded the modern view of the universe. The art of building has not, so far, had a comparable impact on our understanding of the world. Our modern picture of the universe, what kind of stuff space and matter is made of, has not been influenced by building or by architecture. Yet, I shall argue, the process of building is an order-creating process of no less importance than those of physics and biology. It is vast in its scale and scope. It is almost universal in our experience. It is therefore reasonable to think that the art of building might give us equally essential insights.”²³

Alexander argues that a designer cannot look at part of the whole without looking at their patterned relationship to each other and in relation to the whole. He believes that architecture has power to influence ways of being. Graphic design has that same impact in our lives, in similar ways and in different ones. In many respects, design has an even deeper, broader and more profound impact because it is a discipline influencing so much of the way we live, and is used for the express purpose of shaping perceptions, values, behaviors and actions. Alexander’s pattern language method addresses the context with which he hopes the form will make an affect to humankind and their relationship to space



and place. According to Alexander “every society which is alive and whole, will have its own unique and distinct pattern language; and further, that every individual in such a society will have a unique language, shared in part, but which as a totality is unique to the mind of the person who has it. In this sense, in a healthy society there will be as many pattern languages as there are people—even though these languages are shared and similar. The languages which people have today are so brutal, and so fragmented, that most people no longer have any language to speak of at all-and what they do have is not based on human, or natural considerations. In this sense, at least a part of the language we have presented here, is the archetypal core of all possible pattern languages, which can make people feel alive and human.”²⁴

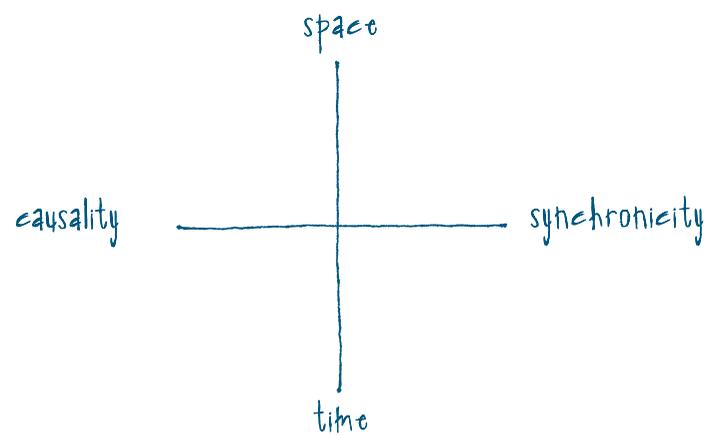
Alexander and his co-writers offered that they hoped a core pattern of languages would make readers in their words “so joyful in its use, that he will understand again, what it means to have a living language of this kind. In this sense, we have also tried to penetrate, as deep as we are able, into the nature of things in the environment.”

In his essay, *Solving For Pattern*, Wendell Berry also argues the need for approaching problems related to what he considers humans’ dysfunctional relationship with places and nature by working with the patterns of how the system of humans, culture and nature work best, not against them. Instead of solving against the nature of systems or in disregard of them, he asserts that ‘good solutions’ to solving problems would be required to adhere to the already existing patterns of the natural world’s ecological systems work.²⁵

If we think of sense of place in terms of it having its own pattern language, there are multiple paths for creating functional pattern relationships that connect its three requirements (humans, culture and nature). The patterns are guided by the principles and informed by the elements, characteristics, and influences. Patterns could be configured in multiple combinations and pattern relationships and sequences to create structures. Building and organizing a comprehensive listing of these patterns, sequences, and structures would be the next step in the process.

By solving for pattern, as Berry asserts, we are “likely to learn virtues of repairability, redundancy, locality and simplicity. Good solutions have wide margins, so that the failure of one solution does not imply the impossibility of another. A good solution always answers the question, how much is enough? This is the same ethic of solving for the carrying capacity of our places, but not over or against their capacity.”²⁶ The sense of place design ecology seeks to examine the patterns and relationships that could shape and uncover pathways for solving for pattern in this way.



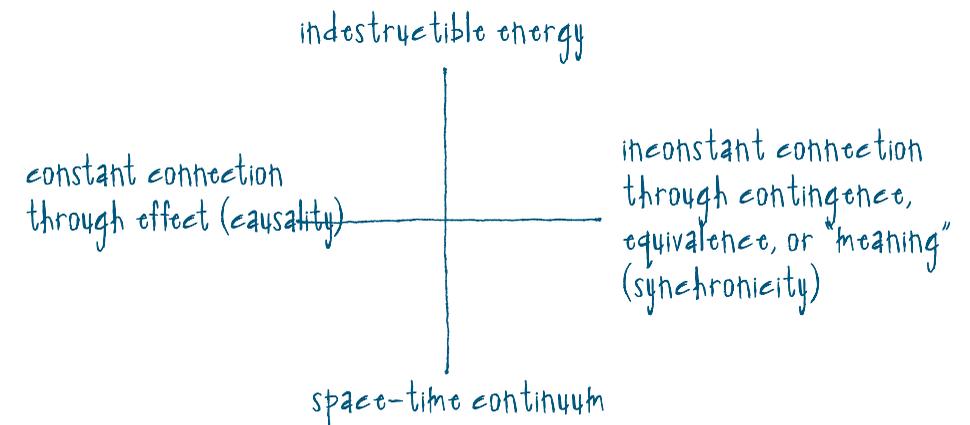
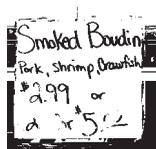


Jung's 'quaternio' of synchronicity as a principle of 'inherent qualities of meaning' in relation to the other three principles.

Ratio and Proportion

There is a math problem designed to enlighten students about ratio and proportion in which they are asked to obtain exactly four gallons of water using only one five-gallon and one three-gallon bucket. The problem is predicated on the availability of an endless supply of water—not necessarily a solution with water conservation in mind. Ratio and proportion represent the value of carrying capacity and redundancy. There is a ratio and proportion to all systems. If the ratio and proportion isn't working, systems break down. This principle provides contextual and visual conceptualization for how parts to a whole adjust or regulate so that they serve a particular or suitable relationship to other parts and the whole. The natural world exists in equilibrium that relies on these principles. Every animal and plant on the planet lives by carrying capacity of its surroundings, and regulates or adjusts accordingly. Formally and contextually, this principle provides the framework many ways to conceptualize this principle to communicate its functionality and context.

The etymology of word 'ratio' comes from the Latin "logic or reason", and can be traced back to Greek "logos" before that. Because ratio and proportion are exhibited through objects and relationships of the natural world, they have been recognized as the universe's cosmic divine geometry. Ratio and proportion are among the principles of nature that design emulates. The golden ratio, or phi, is also referred to as the divine ratio, the divine proportion or golden mean. Writer Scott Olsen calls it 'nature's greatest secret' in his book *The Golden Section*. "Plato holds continuous geometric proportion to

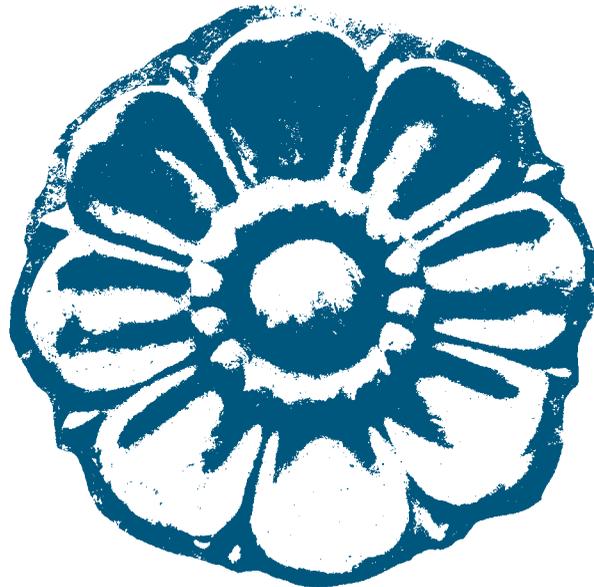


A revised version of Jung's 'quaternio' he created in collaboration with Professor Wolfgang Ernst Pauli who was an Austrian theoretical physicist and one of the pioneers of quantum physics.

be the most profound cosmic bond."²⁷ The golden ratio or 'divine proportion' begins by making a cut, a dividing line along a plane. But not just any division, but one that is based on a specific ratio, mean and proportion. The word 'phi' comes from the Greek alphabet. It refers to the cut which produces a special ratio where the 'whole to the longer equals the longer to the shorter' resulting in a continuous geometric proportion. The golden section is created by making that dividing cut resulting in a segment divided into two unequal parts, where the ratio of the shorter portion to the longer portion is the same as the longer portion to the whole. If the starting number is one, the proportion to the whole 1.618, which is the proportion this book. The longer series of numbers associated with this geometric addition is called the Fibonacci Sequence, "which is additive, as each number is the sum of the previous two, and multiplicative, as each number approximates the previous number multiplied by the golden section." It begins with 0,1,1,2,3,5,8,13 and so on.²⁸ These are numbers are also reflected in the conceptualization of the ecology through the framework.

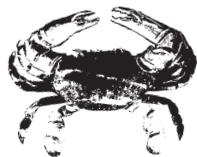
Ancient civilizations have been tapping into this cosmic geometry as far back as the Egyptians. Leonardo da Vinci and other artists used in paintings and sculptures. Greek mathematician and philosopher Plato studied it extensively. He believed the 'intelligible forms of the world (like math), and 'visible world of material objects' (like nature) form a 'world soul' where the two bind together. All living things bind in a 'harmonic resonance.'²⁹ Out of this one ratio and proportion comes golden rectangles, triangles, spirals, icosahedrons, phyllotaxis patterns, golden polyhedra, asymmetry and symmetry,





**Language, in its origin and essence,
is simply a system of signs or symbols
that denote real occurrences
or their echo in the human soul.**

— Carl Jung



and more. These varied shapes, with their divine ratios and proportions, represent reason, cognition, moderation and patterned structure. Yet also mysticism and magic of the natural world. We can see it in the way sunflowers, pineapples, and pine cones grow. It is represented in fish scales, insects, seashells, leaves, musical progressions, and sea anemones who live at the bottom of the ocean. It is even recognizable in the ratio of how Earth and Venus move around each other, which is based on the Fibonacci numbers 13:8:5. Venus draws a five-fold rosette around Earth every eight years. Eight years on Earth is thirteen years on Venus.³⁰ What is the explanation for this? Is it random coincidence, a cosmic synchronicity? Is it quantum physics? Or an intelligible evidence of the harmonic resonance of the ‘world soul’ the way Plato describes?

As Olsen mentions, the golden section is like getting a window into nature’s greatest secret because so much of the natural world is dictated by the same numbers and the same ratio and proportion of divisions, spaces and numbers. This provides a path to explore the ontological nature of being to all things in the universe, and to the concept of essence and substance that Aristotle theorized.

In *Wholeness and the Implicate Order*, David Bohm explains recognizing the universality of nature of being, with its wholeness, and how it is interwoven into the very fabric of existence, provides us with the means to resonate and attune successively with deeper stages of self-identity, and inviting what he calls “the unfoldment upon the return to the One.” Recognizing and rethinking through ratios, mean and proportion is meant to open up pathways to reach unconsciousness through consciousness, not as a way to break down everything with mechanized analysis, but as a way to harmonize with the world that recognizes life force that is “perceived through the senses and through the mind.”³¹

Principle of Locality (with a Dash of Quantum Physics)

Geographically, the word locality is defined by Webster’s Dictionary as “referring to the fact or condition of having a location in space and time; relating to a particular place, situation, or location.”³² The principle of locality as defined by physics means causing an effect on an object or energy requiring “touching” or “interacting” in physics with the thing being affected.³³ It is included as a principle in this methodological framework under both definitions—geographical locality and the locality of cause and interaction. For example, right now, you are interacting with this book in a certain point in space and time. The principle of locality dictates that the effect the book is causing is only happening because of the energy produced by your direct interaction. Someone else could read the book and describe it to you, but then you are being affected by their energy of their description of the book, not by the energy created by your own interaction with it. We go about our lives in a reality based on the principle of locality. We live in our community locally, not globally. How can this principle factor into rethinking design and



sense of place? We have to dig a little deeper to truly get an appreciation for its influence.

In physics “the principle of locality means that a force (cause) must be transmitted somehow to the immediate vicinity of the object it acts upon. Without showing how it is done, you can claim almost anything (and the speed of light would not be a constraint).”³⁴ In other words, the implication for the principle of locality within physics is in keeping with Einstein’s Theory of Special Relativity, which says no cause can cross a distance faster than the speed of light and create an effect on something else, nor can any matter or energy travel faster than the speed of light. I am still waiting for physicists to be able to beam me up into space or deliver me across the universe at warp speed in mere minutes.

Physicists aren’t the only ones who apply this theory. The principle of locality is sometimes referred to as ‘laws of locality’ by computer scientists, web developers, artificial intelligence developers among other digital technologies. The laws of locality are used by these fields to develop heuristic methods for engaging humans to interact with actions in a web site, an app, or any other computer generated or AI or AR experience.

A heuristic method is a mental shortcut that allows a user of digital technology to make a decision, pass judgments, navigate, or solve problems quickly and with minimal mental effort. While heuristics can reduce the burden of decision-making and free up limited cognitive resources, they can also be costly when they lead individuals to miss critical information or act on unjust biases.³⁵

According to the blog, LearningUI.design, in regard to using an app or a website, “If you’re ever wondering where you should put a control (meaning: a button, a drop down menu, an icon, a search bar—whatever!), the answer is almost always: where it affects change. For instance, if you’re designing an email inbox, you’ll have certain actions a user will need to be able to take: delete, mark as read, flag as important. All of those actions affect an individual email thread. So you should put those actions on the thread they affect.”³⁶ How do you know where things affect action or change? Because that’s where your users expect it to because of the laws of locality and heuristics. According to the Interaction Design Foundation, “heuristic evaluation is a process where experts use rules of thumb to measure the usability of user interfaces in independent walk thru and report issues. Evaluators use established heuristics (e.g., Nielsen-Molich’s) and reveal insights that can help design teams enhance product usability from early in development.”³⁷

Psychology Today’s definition of heuristics includes a warning for using heuristics, saying “They can also be costly when they lead individuals to miss critical information or act on unjust biases.”³⁸ In fact, Daniel Kahneman, Nobel Prize-winning economist has also cautioned on their usage because of their nature in his article on the Interaction Design Foundation’s web site. “By their very nature, heuristic shortcuts will produce biases.”³⁹ Heuristics are useful method for user experience design. However, because of their inherent problematic nature, rethinking how design uses them could provide a pathway for reducing biases. The principle of locality is a useful pathway for rethinking,



and essential to a sense of place design ecology because both are concerned with direct interaction when it comes to causing an effect. As beings made of matter, we are drawn and affected most by the causes in our physical vicinity. Generally speaking within physics, the principle of causation dictates that a belief, action, or behavior occurs because something caused it. Aristotle provides background on causality in his four causes of being, which I outline in the Chart section.

While the principle of locality is essential to the framework that values localness with regard to place, there are challenges to reconciling locality and causation with the other underlying core beliefs and ethics of this framework. They can generally be described as existing on a spectrum or continuum. On one side is quantum physics, collective unconscious, instincts, biophilia, and acausal synchronistic phenomena. On the other side is reason, logic, cognition, formula, and cause and effect.

Physics scholars still debate reconciling theories of causation with quantum mechanics which relates to all matter having a cosmic knowledge of other matter in all the universe. Psychologists, philosophers and phenomenologists still debate the concept of meaning and representation beyond conscious reason. (Maybe they should read more Carl Jung.) For purposes as a principle to a sense of place design ecology, there are a few challenges to locality important enough to reconcile as part of the theory and methodology—instincts, synchronicity and holism.

Archetypes, Instincts and Synchronicity within Locality

The merit in aligning the principle of locality with the theories of archetypes, collective unconscious, instincts and synchronistic phenomena is evidenced by the fact that they exist together on a spectral continuum. It isn’t a matter of choosing one or the other, it is a matter of balance and fluid movement. Jung pointed out that the connection of certain events in certain circumstances are other than casual, and because of that, they require another principle of explanation, which he calls synchronicity. He refers to synchronicity as “acausal meaningful coincidences.” He presents the scientific explanation for these events would have to begin with a criticism of our concept of space and time on the one hand, and an exploration into our unconscious on the other. He described these events as psychically-conditioned relativity of space and time.⁴⁰

As Jung explains, the unconscious mind can almost bend the concept of space and time to a vanishing point “which in turn gives the unconscious a favorable opportunity to slip into the space vacated. Thus we regularly find that unexpected or otherwise inhibited unconscious contents break through, and find expression.” Synchronistic phenomena rest on the simultaneous states (or occurrences) which can’t be otherwise can’t be explained.

“One is normal, probable state (the occurrence that is causally explicable), and the other, the critical experience, is the one that cannot be derived causally from the first. The





synchronistic factor merely stipulates the existence of an intellectually necessary principle which could be added as a fourth to the recognized triad of space, time, and causality.”⁴¹

In the framework of rethinking design using the ontological, phenomenological semiotic approaches, symbolic visual communication is considered representation for the principle of locality, but also in recognition and in reconciliation with these other phenomena as a method for bending the two together.

With regard to synchronistic and instinctual phenomena, it is means drawing upon collective archetypes and instincts brought upon by innate connection to nature, and drawing upon the universe’s quantum connection to the unconscious psyche. Archetypes constitute just one way to conceptualize place identity. Conceptualizing objects and materiality of place experienced by everyone in a community is another way, offering path of connection to the collective unconsciousness of a culture or group of people through symbolic signs that they recognize and consensually agree upon because of place.

In terms of locality, it is in the way semiotic visual communication of place reinforces and reflects an individual’s place identity or culture’s collective sense of space-time within sense of place through direct interaction. Having sense of place based on locality causes the creation of local semiotics of place. Having semiotics of place that are based on locality causes sense of place.

Jung points out that synchronistic phenomena cannot be directly represented the way that perceptible phenomena can, on account of what Jung calls its irrepresentable nature. “Archetypes are formal factors (motifs) responsible for the organizations of unconscious psychic processes: they are patterns of behavior which specific charge, and develop numerous effects within a person’s psyche, which then express themselves as affects.”⁴²

Jung is careful to point out that synchronicity is not meant to be a philosophical view, nor can it be called materialism. In rethinking design, Jung provides a pathway for considering beyond the material world. Synchronicity and the collective unconsciousness are phenomena that exist apart from the material world. According to Jung, archetypal images didn’t necessarily relate to the physical reality of the individual, as much as a psychic connection to the collective unconscious. A very simplistic example of this is by saying that I see myself in the archetype of a bird, I am not saying I am physically like a bird. The nature of what is observed, and the nature of the connection with what observes it (the psyche), are not known and recognizable quantifiable entities.

Jung argues “These forms are in archetypal ideas, that is, in primordial images, which were never reflections of physical events, but are spontaneous products of the psychic factor. Despite the materialistic tendency to understand the psyche as a mere reflection or imprint of physical and chemical processes, there is not a single proof of this hypothesis. Quite the contrary, innumerable facts prove that the psyche translates physical processes into sequences of images which have hardly any recognizable connection with the objective process.”⁴³ In fact, Jung argued archetypal, primordial images are not only



reflections of our life experiences, but the manifestation of the collective unconsciousness with influence coming from our ancestors' experience included. According to Jung, they represent psychic probabilities, portraying ordinary instinctual events in the form of types made up of laws of chance within the realm of nature not governed by mechanistic law. They are "inward introspection—so far as an inward perception can grasp it at all—as an image, or rather a type (of image) which underlies not only the psychic equivalences but, remarkably enough, the psychophysical equivalences too."⁴⁴

Synchronicity, collective unconscious, and archetypal images are a phenomena which reveal possibilities of getting rid of the "incomprehensibility between the observed and observer," according to Jung, resulting in a unity or reconciliation of being.

Reconciling this phenomena with the direct interaction portion of the principle of locality, through a semiotic approach, allows for these otherwise irrepresentable introspections to attach themselves symbolically to place through direct interaction, resulting in place meaning. Does the fact that the cause of being in direct interaction with a place negate the synchronistic aspect of this process? Not necessarily, and this precisely one of the powers of place. Sometimes the symbolic signs and semiotics of place are not caused by the direction interaction of place at all, but because the semiotic moment occurred in a certain space or place, the location because part of the enduring symbolism.

Reconciling the Causes of Locality with Holism

Reconciling holistic thinking with the principle of locality through quantum mechanics could provide a pathway to reconcile them. The principle of gestalt, which in this framework represents thinking holistically. Quantum physics, or mechanics, is the theory that all particles of matter are part of a larger whole so they all know and interact are a part of each other on some level. Contrary to classic physics, quantum physics aligns with the principle of non-locality rather than locality. According to quantumphysicslady.org, "The principle of non-locality in quantum mechanics says that quantum particles can know the states of other quantum particles, even at great distances, and correlate their behaviors with each other instantaneously. It is instantaneous action-at-a-distance."⁴⁵

There is a rift in the world of physics even today about quantum mechanics. The more physicists discover, the deeper and wider in scope the debate grows. Are we particles of matter only consciously affected by causes we interact with directly? Or, are we particles of matter who unconsciously connect with and sense the state of all other matter even at the other end of the universe? After a century of debate, experiments, proposals and theorems, no consensus has been reached on which interpretation of quantum mechanics best represents reality, much less how it reconciles with Einstein's theory of relativity.⁴⁶



Part of the inability to have the two at least co-exist theoretically for purposes of rethinking design for this framework lies in how we reconcile a consciousness with unconsciousness. According to Jung, humans have disconnected completely from the collective unconsciousness. Through a process of reconnecting we are reunited with the psyche that is unbound by matter or materialism, physical self or events. This is another way of thinking or describing holistic view of reality or existence.

As for our consciousness, prominent physicist David Bohm thinks about it this way in his book *Wholeness and Implicate Order*: "There is a general problem of fragmentation in human consciousness. To meet the challenge before us our notions of cosmology and of the general nature of reality must have room in them to permit a consistent account of consciousness. Vice versa, our notions of consciousness must have room in them to understand what it means for its content to be 'reality as a whole'. The two notions together should be such to allow for an understanding of how reality and consciousness are related."⁴⁷ In embracing a holistic view with attention to consciousness we must also connect with the abilities of our own unconscious psyche which has knowledge that is not bound by physical reality but nonetheless has the power to influence and shape it.

Designers are fortunate to draw influence from physics without having to solve these complex dichotomies, like those between locality/causality and quantum mechanics. The principle of locality, the phenomena of the collective unconsciousness, quantum mechanics, and the consciousness of reason and cognition all serve as valuable guideposts for rethinking design. They also serve as guiding theories for the framework of a sense of place design ecology.

In science and math, physics included, there is question of the variable. Maybe the variable in a sense of place design ecology is what defines the term 'whole'? I could add gas to my car to get it running again, but if the fuel line has rusted out and fallen off the car, no amount of gas will solve the problem. There are many answers to the variable of what *whole* means—community, city, state, nation, world. How can humans participate as contributing parts or define the functional parameters of a whole system like a nation or the world if the functional parameters of being part of a community socio-ecological system still haven't been worked out? In a sense of place design ecology, the principle of locality asserts that the whole being addressed is a local one. Gestalt provides for a holistic view of that whole. Synthesis and synergy represent fitness and self-organizational processes that create the connectedness and context. Ratio and proportion provide for how parts to a whole adjust or regulate so that they have serve a useful and suitable relationship to other parts and the whole. Patterns and structure provides the patterns of configurations and relationships among the system's components that determines the system's essential characteristics and functioning.





Audiences

A sense of place design ecology has the potential for dual application of theory, methodology and framework. First, as a methodological framework and comprehensive theory providing a paradigm shift for rethinking design. Second, it serves as a framework of rethinking design specifically for purposes of being a catalyst for sense of place by focusing on bridging humans, culture and nature together through design. I address the first application briefly in the first audience group. However, in a subsequent book, I will address and outline the first application in greater detail—including speculative plans for a workbook, toolkit, curriculum, discussion, and discourse-related aspects. For now, I am addressing the sense of place design ecology where it could be used as methodological framework to educate, engage, create awareness, enhance discourse, and partner with others in several audience groups.

The primary audience group includes design and peripheral design-related disciplines in design education, including students and fellow educators. This group also includes those in professional practice. The secondary audience group includes other subsets of society. First subset are individuals or groups who are stewards of sense of place. The second subset are individuals or groups that directly benefit from and/or rely on a community having a collective sense of place and/or strong human-culture-nature connection. The third subset of this secondary group are the individuals who would specifically benefit personally from a program or method for developing a healthy place identity, place meaning and attachment as part of personal growth or healing.

Main Purpose and Primary Audience Group

Primarily the sense of place design ecology seeks to provide a methodological framework and design theory for designers and design educators, and as such, to enhance and contribute to general design discourse, design theory and design practices. It seeks to engage designers in rethinking design for purpose of developing new discourse, enhanced criticism, and speculative practices that align with the concept of localism, holistic worldview, and the connection of humans, culture, and nature in effort to enhance quality of life through the inherent benefit of that connection.

It would be additionally beneficial for engaging designers who are also interested in using the framework and method for facilitating stronger sense of place and acting as catalyst for the aspects which contribute and support sense of place in their own communities. I would like to personally engage with other educators and their students using this framework as a foundation and tool for that engagement, which could include pedagogy, curriculum, discussions, lectures, workshops, toolkit, projects, and activities. One of the foundational beliefs of this ecology is that as designers we must



engage outside of our discipline, and that must include educating other disciplines. The second area of this primary group includes those other types of design and design-related disciplines. The framework could be used as a tool to educate other disciplines on the breadth and depth of what designers bring to the table. The framework could also be used to educate and engage other disciplines in the specific mission of facilitating sense of place. The sense of place design ecology could also be used as an informative graphic design workshop to educate, enrich and enhance their areas of design especially those interested in transition and speculative design that would affect visual culture or the visuality, experientiality and materiality of place. This could also include professionals and those in academia in the following disciplines: interior designers, landscape designers, urban designers, urban planners, city planners and developers, local government officials, environmental designers, and architects. In all of these primary groups it could perhaps become a framework to address the impacts and affects on individuals and culture in local communities due to COVID-19 specifically.

Secondary Audience Group

There is also the opportunity to engage a secondary set of audiences outside of design or design-related disciplines. The first subset in this group are the sense of place stewards of the community. These are community sectors where design could be especially helpful as a catalyst of discourse and activity. Through community engagement, design could partner with these groups who but directly contribute to influencing aspects of community that support elements and influences of sense of place, and those who benefit themselves from having a community with strong sense of place. Sense of place stewards include: farmers and growers, farmers markets, fishermen, co-op markets, musicians, parks, visual artists, galleries, museums, photographers, signage companies, community organizations, historic preservation boards, scientists, biologists, environmentalists, ecologists, and tourism businesses, just to name a few .

Any profession that directly relates to human interaction or activity on a cultural level or where nature is involved would be relevant as an audience in this subset, especially in the areas I researched through design in my studies: aspects of visual culture (vernacular), nature and food. Similar to this subset are those that benefit from the community having a strong sense of place along with a strong local culture especially when connected to nature in some way, such as businesses related to tourism, government agencies, small business incubators, chambers of commerce, neighborhood associations, and nonprofit organizations.

Sense of place is beneficial to not only from a community standpoint but also in the formation of place identity, which contributes substantially to overall identity and sense of self. The second subset of this group are the individuals for whom a method like this



could be very useful towards personal psychological or spiritual growth, or as a method to reconcile negative effects or connotations they may have experienced with place due to personal life experiences. There is an especially notable opportunity to engage young people in this regard. Human perceptions, senses and sensations associated with physical space and place contribute greatly to how humans develop, associate with reality, and the physical, natural world. This also contributes to how we associate ourselves with our own consciousness as part of our own psyche. This subset could include children who are not afforded opportunities to fully engage with local nature and culture of their place growing up because of urban crowding, decline, disenfranchisement, disability, or other reasons.

The more young people spend formative development years engaged in non-reality places and augmented realities, and the more they live out their ways of being through a virtual reality, the more psychologists are finding a disconnect with physical place meaning as they develop and form their sense of self and identity.

According to psychologytoday.com, dissociation is the psychological term describing a disconnection between a person's thoughts, memories, feelings, actions or sense of who he or she is. This is a process that everyone has experienced on a certain level. Examples of mild, common dissociation include daydreaming, highway hypnosis, or getting lost and losing hours in a book or movie, all of which involve losing touch with awareness of the space-time of one's immediate physical surroundings.

Dissociative disorders can cause problems with memory, identity, emotion, perception, behavior and sense of self. Dissociative symptoms can potentially disrupt every area of mental functioning, causing distress or problems in personal, social, and occupational areas of daily life, even more issues such as asocial personality disorder, social anxiety disorder, or other personality disorders.¹ A version of a sense of place design ecology could act as a tool, method and framework for engaging this subset who are at risk for these dissociation disorders, or who already have them.

The last subset of this secondary group are individuals who have been physically removed, separated, or taken away from their place. This includes young people who may have had to migrate away from their place due to natural disaster or socio-political upheaval who having difficulty with place identity or suffering from place meaning. This includes members of the military, those incarcerated for long periods of time, and people who have had to flee their places due to climate or climate-change related conditions such as fires, drought, sea level rise; or due to socio-political conditions such as the case for refugee migrations. For instance, mass migration is a socio-political and ecological event that is going to be increasing all over the world due to authoritative regimes, widening gap between wealth and poverty, loss of natural resources, and climate change—all of which could produce large groups who are especially vulnerable to the psychological trauma brought about by being removed from place. These subsets could theoretically benefit from participatory co-design opportunities.



Motivations and Behaviors

In the description of culture discussed by Donald Munro in his book, *Motivation and Culture*. He explains it as “not the earthenware and metal artifacts, or buildings and towns, or books and universities, or the structure of families and organizations, or the structure of beliefs and values, but the collective human action that is determined by these things and the structures (and that produces new things and structures) that determine new actions in the next generation. This is what is meant by the perhaps expression that culture is alive. Furthermore, it is coherent human action, in the same sense as given above in defining motivation. Thus, to comprehend culture we have to understand the various forces that shape human motivation.”²

His explanation of culture illustrates not only how important human interaction is to culture, but how culture and sense of place overall are related to human motivation. Designers have to consider what motivations, needs and behaviors being exhibited by human interactions and actions of a culture. We can look to several historically significant art and design movements that have been motivated by human interactions with regard to making cultural shifts. In reviewing just the modern era, we can look to the Russian Revolution, World War I and II, the Industrial Revolution, Naturalism, Arts and Crafts, Suffrage and Women’s Rights, the Great Depression, the Civil Rights Movement, and the Counterculture Movement of the 1960s.

More recently, Women’s Rights, Gay Rights, and the Racial Justice Movement where human interaction strongly influences culture, there is symbolic and visual communication happening in conjunction with these movements. The artists and designers of the historic periods made an impact in elevating consciousness in their time through the use of visual communication, often times by leveraging the power of symbolic language. They shaped ideas, counter arguments, and sparked discourse.

These historical precedents show the impact and role art and design can have on socio-cultural conditions and socio-ecological systems, providing context for transitional period in which we are living in today. Their responses to the socio-cultural or political changes and transitions of their time were effective in large part because they either unconsciously or consciously understood and were able to tap into addressing the social and cultural moment. They tapped into what Munro explains about how human interaction, action, and culture are shaped.

There are four helpful motivations and behaviors models to include as part of the sense of place design ecology. They work in conjunction with each other in succession starting with audience needs, receptivity, rhetorical appeals, and an approach model that works much in the way that sense of place does, as a system beginning with the individual and moves outward to community before reaching larger society.

Chart adapted from Simple Psychology, www.simplypsychology.org/maslow.

Maslow's Hierarchy of Needs

by Abraham Maslow

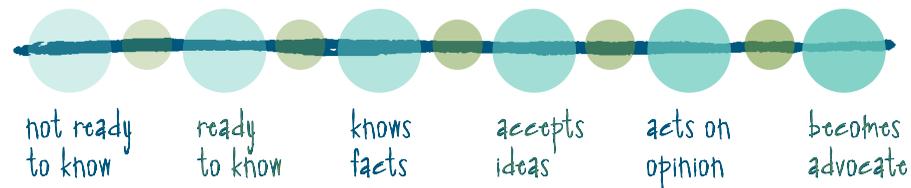


Maslow's Human Needs

Maslow’s hierarchy is based on human evolution, physiology, and psychology—three fundamental foundations for addressing motivation and behavior. Evolutionary psychologists believe certain motivations and behaviors today can be traced back thousands of years. They have become imprinted into our DNA through evolution. In total, all levels of human needs provide powerful ways to appeal and connect with audiences, as they all directly relate to humans’ relationship with place. Environmental factors such as water, air, and land are vital to physiological needs, and therefore directly relate to our dependence on the environment. Although, the brain is a quirky thing. Unless basic needs are in direct jeopardy, we don’t worry about them too much. Appealing to physiological needs is effective for communities who are either literally threatened by lack of water, food, and safety—or just feel that way. For most Western culture modern humans the more relevant needs with which to appeal are higher up on pyramid. In recent years, self-transcendence has replaced self-actualization at the top after psychologists discovered that Maslow revised his research. Self-transcendence includes sense of meaning, purpose, and spiritual needs. Connecting with one’s own place identity and place meaning is part of the theory and methodology of the sense of place design ecology. Being motivated to find a personal sense of meaning and purpose is a pathway for designers to increase self-awareness, and inject personal meaning in their work in pedagogy and practice. It is also a pathway to address the general disconnection some audiences feel from their own physical surroundings and community. It can also be used to engage others in the same way. Sense of meaning and purpose is part of forming sense of self and identity, and it fulfills the need to contribute and matter to a social group. Because direct physical interaction with place on physiological level is fundamental to sense of place, it is included as an element. Phenomenologically, place provides a core need for belonging, intimate connection with place, and a feeling of inhabiting that is still a powerful motivator in the human psyche. A sense of belonging is inherent in our relationship with place, represented through the personal element of sense of place design ecology.

Idea Receptivity Gradient

by David Rose



Audience Receptivity Gradient

The Audience Receptivity Gradient model was developed by David Rose as a framework to evaluate behavior change on a scale over time. He identifies six positions on this sliding scale beginning with 'not ready to know' and ending with 'becoming an advocate for the cause.' This simple but highly effective framework is a useful tool for first classifying groups so that the influencing factors of each group's behaviors and attitudes can be targeted and addressed from where they are on the scale. Not all audiences are going to start at the same position, and not all audiences are going to end up at the last position of advocacy. The goal is first to determine where certain audiences are on the scale, and then move them to the right on the scale as much as possible. The following are assumptions identify where the identified audience groups are on the scale:

Primary Audience Group:

Designers	Ready to Know
Design educators	Ready to Know
Design students	Ready to Know
Design-related disciplines professionals	Not Ready and Ready to Know
Design-related discipline academia	Not Ready and Ready to Know

Secondary Audience Group:

Stewards of sense of place	Not Ready to Know
Beneficiaries of sense of place	Not Ready to Know
Groups of individuals that benefit from SOP	Not Ready to Know



Loss Aversion, Psychological Distance and Construals

After establishing where audience groups fall on the receptivity scale and assessing human needs, I researched how humans are affected by spatial and temporal distance, whether physical or psychologically through mental representation. It's important to understand how this works in relation to the mind-body connection with physical surroundings, perceptions, and semiotic communication. **Construals** in psychology are how individuals perceive, comprehend, and interpret the world around them, particularly the behavior or action of others towards themselves. These construals directly relate to the same aspects that influence place identity, place meaning and attachment that inform a sense of place. They informed decisions on which elements are included in the framework, which makes them instrumental in their contribution to rethinking design as a bridge between humans, culture and nature.

The Law of Loss Aversion explains how human beings are hardwired to more concerned with avoiding loss than receiving gain. We focus more on what we might lose rather than on what we might get. According to his article on psychologytoday.com "What is Loss Aversion?" by Shahram Heshmat Ph.D., "we don't like to lose things that we own. We tend to become extremely attracted to objects in our possession, and feel anxious to give them up." According to Dr. Heshmat, our aversion to loss is an expression of anxiety and fear. This explains why we tend to focus on setbacks than progress, criticism rather than praise, price increases rather than decrease, and why feels emotionally painful to scale back, whether it is objects, home size, or money. "Ownership is not limited to material objects—it also applies to ideas. Once we take ownership of an ideology, like sports or politics, humans tend to value it more than it is really worth. Loss aversion is a reflection of a general bias in human psychology (status quo bias) that make people resistant to change."⁴

This puts a big demand on trying to bring about changes in perceptions, values, behaviors and actions that support elements that build sense of place such as core values such as localism, holistic worldview, community autonomy, resilience, sustainability. Taking Dr. Heshmat's recommendations into consideration, some of the ways loss aversion can be minimized is through first being aware of where it comes into play with each of the requirements of sense place, and their influences and elements. Then by providing opportunities for people to come up with their own ideas and solutions. Allow people to attach their personal identity and need for self-transcendence, so it becomes a reflection of their sense of self. Another method is to change the perspective, so it doesn't feel like losing something, but choosing something. Because emotions often takes precedence over reason works in favor of using some of these methods to reduce, or decompose, the demands that loss aversion makes. These other human sociological needs and traits can also be useful as motivations: need to communicate with their tribe within social structures; the trait of empathy and intuition (even mind-reading); need for socialization; need for contest and display; a need for hierarchy and leadership.

The Theory of Psychological Distance relates to how objects or events which are not present in our direct experience can be thought about and reconstructed through mental representation. It relates to the construals. Professors of psychology, Yaacov Trope and Nira Liberman explain how psychological distance and construals work in their paper, “Construal-level theory of Psychological Distance.”

“Psychological distance is egocentric: Its reference point is the self in the here and now, and the different ways in which an object might be removed from that point—in time, in space, in social distance, and in hypothetical different distance dimensions. Transcending the self in the here and now entails a mental construal, and the farther removed an object is from direct experience, the higher (more abstract) the level of construal of that object.”⁵

Even though people within a construct of space-time are here now, they have the capability of mentally projecting outward in both time directions, and spatially. Professor Rebecca Hamilton’s article published in the Harvard Review, “Bridging Psychological Distance,” outlines each of the types of distance in easy to understand terms, with explanations to their affects and guidance on thinking about them in terms of human relations. There are four interrelated dimensions of psychological distance: temporal, spatial, social, and hypothetical (or experiential). In this theory, spatial distance is the perceived space between an object or event (target) and the self. Temporal distance is the perceived time between a target and the self. Social distance is the perceived degree of social isolation. Hypothetical (or experiential) distance is the perceived degree between imagining something and experiencing it.⁶

Understanding how the theory of construals and psychological distance works, and then structuring it into design solutions could be a powerful way to engage audiences across the receptivity scale for affecting perceptions, awareness, and behavior. It is also crucial to bridging the psychological distance audience may feel for their place, whether they are physically in their place or far away from it.

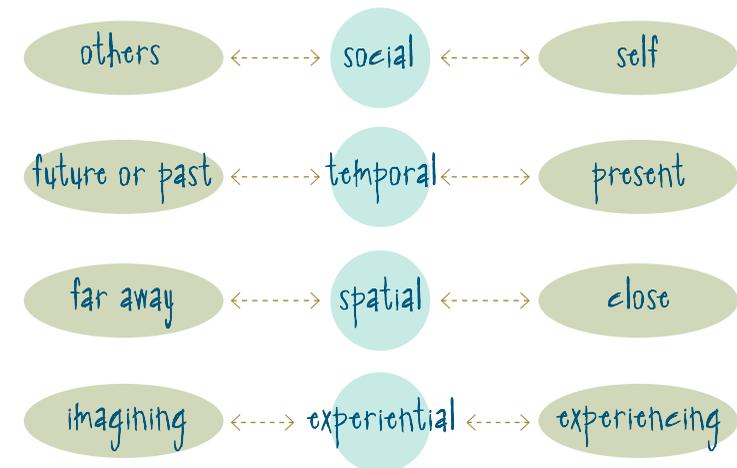
Using Construals in Sense of Place Design Ecology

How do we plan for the distant future, understand others’ point of view, and take into account hypothetical alternatives to reality? Construal level theory (CLT) proposes that we do so by forming abstract mental construals of distant objects. Although we cannot experience what is not present, we can make predictions about the future, remember the past, imagine others’ reactions, and speculate about what might have been. Predictions, memories, and speculations are all mental constructions, distinct from direct experience.”⁷ Construal level theory divides mental construals into two levels: high-level and low-level. High-level are further away from direct experience, and rely more on navigating psychological distance. They are more abstract, coherent, less contextualized, simplified mental representations. Low-level are more proximal and more based on direct experience so they are more concrete, specific, complex and contextual.

Liberman and Trope also discuss in their article “beyond mere association, the reciprocal effects of distance on construals, and of construals on distance, have important implications for perception, categorization, action identification, and person perception. These theories could be useful approaching projects involving experiences and participation, visual categorization, and transition or speculation design.

Types of Psychological Distance

By Yaacov Trope and Nira Liberman*



* Information from Yaacov Trope and Nira Liberman’s “Construal-level Theory of Psychological Distance,” and Rebecca Hamilton’s article, “Bridging Psychological Distance,” Harvard Business Review, March 2015, <https://hbr.org/2015/03/bridging-psychological-distance>

The construals could be useful as prompts for creating design patterns using audiences’ mental predictions, memories, and speculations in solutions and projects connecting humans through culture with nature. From Trope and Liberman:

Visual Perception: The distinction between the (high-level) gestalt and (low-level) constituent details, such as the proverbial distinction between the trees and the forest, readily applies to visual perception.

Pictures and Words: Pictures are concrete representations that bear physical resemblance to the referent objects, whereas words are abstract representations of an object. Even though words are considered to contain a higher level of construal than pictures, that doesn’t take into account symbolic imagery and signs which is what this framework asserts also contain a higher level construal. This provides an opportunity to explore semiotic language.

Categorization: refers to how people categorize objects according to psychological distance. Distant future is represented more abstractly. Near future is more concrete and specific. People use fewer, and more broad categories for objects when they imagine them in a distant future, rather than near future.

Action Identification: Actions, like objects, may be construed in high-level terms, which link them to a superordinate purpose (why one performs them), or in low-level terms, which link them to subordinate means (how one performs them). Here, too, greater psychological distance promotes higher levels of construal (Liberman & Trope, 1998).



If high-level construals serve to represent psychologically distant events, then activating high-level construals should lead people to think of events in psychologically more distant situations. Indeed, research shows that thinking about an activity in high-level, “why” terms rather than low-level, “how” terms leads people to think of the activity as taking place in more distant points in time (Liberman, Trope, Macrae, & Sherman, 2007; McCrae, Liberman, Trope, & Sherman, 2008) and of the actor as more socially distant (Stephan et al., 2010).

Person Perception: According to an article by Kendra Cherry, MS, in social psychology, the term “person perception refers to the different mental processes that we use to form impressions of other people. This includes not just how we form these impressions, but the different conclusions we make about other people based on our impressions.”⁸

Trope and Liberman point out that psychological distance and construal levels are related, they are not the same. “Psychological distance refers to the perception of when an event occurs, where it occurs, to whom it occurs, and whether it occurs. Construal levels refer to the perception of what will occur: the processes that give rise to the representation of the event itself. Thus, psychological distance from an event should be more closely related to the spatial-temporal distance of the event from the self than to its inherent properties, whereas the construal of the event should be more closely related to its inherent properties than to its spatial-temporal distance from the self.”⁹

Construal Level Theory and Theory of Psychological Distance are used often in understanding, evaluating, and manipulating social and consumer behavior. While this vast and complex territory, it provides solid footing to approach motivations as they relate to our understanding for how humans are affected by spatial and temporal distances—two crucial aspects of our human connection with place—and for speculative design. How we traverse that psychological distance is crucial when it comes to navigating global versus local perceptions.

There is a possibility for people to feel psychological distance from their place even when they are physically in there place. Using the theory of construals and psychological distance can provide methods for bridging those gaps. It is also a powerful tool for shaping perceptions, interpretations visually and experientially. Loss aversion is helpful for addressing how people are motivated by loss more than gain. These theories provide pathways of understanding how people conceptualize and form perceptions, which among uses, is helpful in thinking about how to approach design patterns in the design ecology for projects and solutions, and how to move audiences further to the right in the receptivity scale to becoming participants and advocates.

* Adapted from From Yaacov Trope and Nira Liberman’s own chart and information in their paper “Construal-level Theory of Psychological Distance.”



Construal Level Theory

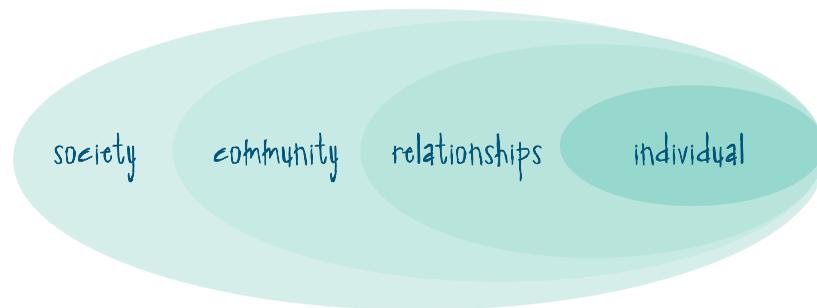
By Yaacov Trope and Nira Liberman

The farther removed an object is from our direct experience, the higher (more abstract) the level of construal of that ‘object.’ The closer it is, the more concrete and specific our mental representation is of that ‘object.’

	high-level construals	low-level construals
Definition Description	Abstract, schematic, decontextualized representations that extract the gist from the available information. Construals are abstract, simple, structured, coherent, primary, core, superordinate, goal relevant.	concrete, relatively unstructured, contextualized representations that include subordinate and incidental features. Construals are concrete, complex, unstructured, incoherent, contextualized, secondary, surface, subordinate, goal irrelevant
Mental Representations		
Observation	Big picture; gestalt; ‘the forest’.	Component parts; details; ‘the trees;
Categorization	Create fewer, broad groups of objects	Create more, narrow groups of objects
Interpretation of Actions	Focus on <i>why</i> the action is performed (superordinate purpose)	Focus on <i>how</i> the action is performed (subordinate purpose)
Inference (explanation of behavior)	Viewed in terms of abstract dispositions of the actor (traits, values, and attitudes)	Viewed in terms of specific situational factors)
Prediction Evaluation		
Prediction	Focus on global trend	Focus on local deviation
Evaluation	Based on central, goal-related issues. Based on desirability (value of the end-state)	Based on peripheral, goal-irrelevant issues. Based feasibility (means used to reach end-state)

Construals in psychology are how individuals perceive, comprehend, and interpret the world around them, particularly the behavior or action of others towards themselves. Transcending the self in the here and now entails a mental construal, and the *farther removed an object is from direct experience, the higher (more abstract) the level of construal of that object.* This could have fundamental implications to forming place identity through a place’s visual culture, and to the semiotic visual communication and language of a place and how it is interpreted. I believe a strong connection between construal level theory and sense of place theory and visual culture/semiotics of place. **The Theory of Psychological Distance** relates to how objects or events which are not present in our direct experience can be thought about and reconstructed through mental representation. Its reference point is the self in the here and now, and the different ways in which an object might be removed from that point—in time, in space, in social distance, and in hypothetical different distance dimensions.

Social-Ecological Model (SEM)



Social-Ecological Model (SEM)

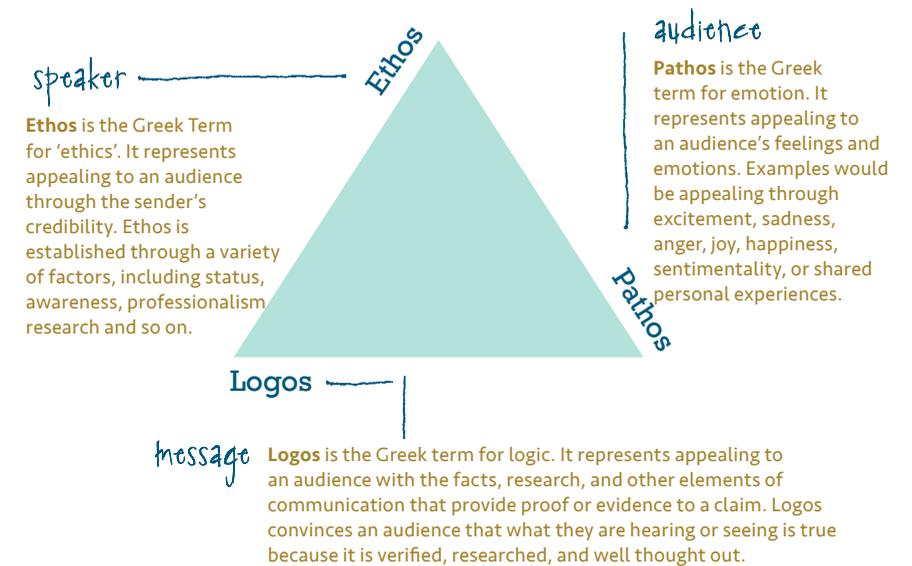
The Social-Ecological Model (SEM) is a theory-based framework for understanding the multifaceted and interactive effects of personal and environmental factors that determine behaviors, and for identifying behavioral and organizational leverage points and intermediaries for health promotion within organizations. The model is used primarily in healthcare and safety disciplines, when it comes to modeling humans interacting with the environment or with other humans. The SEM framework is a useful model and tool for the sense of place design ecology in two ways: informing ways for rethinking design in a general sense; as a model and tool for identifying and categorizing the different ways humans interact with place, directing motivational, behavioral at those leverage points, and focusing on the best fit between the two.

The conceptualization of this model is similar in form to that of sense of place—from individual at the core radiating outward through personal relationships, then through culture and community, widening out to larger societal groups. The five areas that SEM models use to translate behaviors, motivations, and experiences are also serendipitous to influences and elements of human, nature, culture that were identified in the Chart section and included in the framework.¹⁰

1. Memories: personal; relationship; identity; history/heritage
2. Self-identity: personal; gradients of intimacy; personal meaning and purpose; connecting with past, present, and future
3. Community: identity; community, societal; culture; nature; connecting with past, present, and future
4. Social action: community, societal; culture; nature; reinforcing shared values, preservation present, future
5. Future possibilities/projections: community, societal; culture; nature; future

Adapted from DEM theory model, *Ecology and Society*,
<https://www.ecologyandsociety.org/vol19/iss1/art36/>

The Rhetorical Triangle: Three Appeals



Crafting a Rhetorical Appeal: Pathos, Ethos, Logos

The quote by Donald Munro in the beginning of this section served as starting point for understanding human motivation and behaviors. The methodologies I've explored for doing that include analyzing human needs, determining audience receptivity, examining construals of conceptualizations and psychological distance, applying socio-ecological model (SEM) as a method for thinking about how humans interact with place on a scale from personal to societal. The last method in motivations and behaviors for rethinking design is determining approach for rhetorical appeals. Because the foundations of a sense of place design ecology include inclusion of both unconsciousness and consciousness sides of our human psyche—intuition and instincts but also reasoning and logic—it balances both of those sides into a rhetorical appeal that uses ethos, logos and pathos. Ethos include credibility, trust and awareness through reasoning. Logos is logic, evidence to a claim, research, and facts. Pathos deals in appealing to the audience's human emotions and feelings, and deals in the more primitive intuition and instincts and unseen connections we have with the universe.

Pathos is behind what sparks place identity, place meaning and place attachment, and so therefore would deserve as much or more focus, but all would be used. However, as discussed in other areas of the book, reasoning, authority, research, logic—the stuff of ethos and logos (ethics and logic)—there can be no actions, innovations or change.¹¹

Adapted from [TheVisualCommunicationGuy.com](https://www.visualcommunicationguy.com). Additional Information from: <https://www.mindtools.com/pages/article/RhetoricalTriangle.htm>

Research Methods & Processes

Empirical: (*Participation, Observation, Community Engagement, Interviews*)

Presentation: National Ephemera Society Conference in Connecticut 2018 based on genealogical research into my family heritage to the Côte des Allemands farming settlement which then led design visual research into 19th century chromolithographic food label design.

Archival Research: Washington D.C. Smithsonian Archives, University of Louisiana Lafayette Archives, New Orleans Historical Collection Archives.

Interviews: Kevin McCaffey, Food & Culture Documentary Filmmaker; Crescent City Market workers and vendors; Bob Thomas, Loyola University Environmental Communication Institute Director and Professor; (among other interviews).

Participation: Participant in the Loyola Environmental Communication Institute, semester-long course, earned designation of Fellow for course completion.

Autoethnographic: (*Genealogy, Archives, Interviews, Personal Experiences, Narratives, Observations, Photos, Observation/Participation/Community Engagement*)

Personal Experiences, interactions, memories, general observation of place, groups in place such as neighborhood businesses, environmental science community, food system community including co-ops, farmers and farmer's markets, shrimping and farming communities.

Visual Research: (*Observation, Documentation, Collection and Gathering, Categorization and Taxonomy, Experimentation into Deconstructing, Conceptual Mapping and Diagrams, Reconstructing, Reinterpreting, Translating, Semiotics*)

Monoprinting, Illustration, Photography, 2D Design, Video, Symbols, icons and signs, Collage, Symbolic imagery, stamping and printing with food and objects from nature.

Design Theory, Design History and Interdisciplinary Studies: (*Reading/Researching Scholarly Papers, Books, Essays, Videos and other Materials*) Interdisciplinary studies were integral to argument of this thesis. If we are to look outward anywhere as part of this new design ecology, it will be outside of the bubble of our own discipline into psychology, phenomenology, biology, philosophy, physics, metaphysics, anthropology, sociology, architecture, ecology, and environmental science. These provide vital context that is at the heart of rethinking design, understanding sense of place, and finding the essential intersections between the two for the framework to exist. While this design ecology is grounded in rethinking design away from the standard historical design schools of thought and ideologies, researching these was important to providing clarity on the counter of what the design ecology's rethinking is about as well as historical insight into visual art/design relating and responding to culture, nature, and place, especially with regard to times of great transition or upheaval.

Precedent Research: Relevant Models, Theories, Methodologies and Projects

Environmental scientist, writer and professor David Orr is a well-known researcher in the areas of environmental studies and environmental architecture design. In 2009, Orr gave a commencement address to the School of Design, University of Pennsylvania, in which he laid down his challenge to the next generation of ecological designers. Orr is talking to environmental architects and students. Orr's 'approaches' as he calls them serve a foundation for how our field, design and visual communication can also promote, educate and influence our sense of place, ecology of place, local culture, and sustainable environment. They are similar to the sense of place principles proposed in this thesis.

David Orr's Approaches:

1. The largeness of the human spirit and our capacity to connect to life.
2. Justice, fairness, and decency in a more crowded world.
3. Our wisdom and creativity in the face of limits to the biosphere.
4. Human survival on a hotter and less stable and predictable planet.

"The first has to do with the scope of your work. You must see design as a large and unifying concept. As a corollary, you must see yourselves as the designers, not just of buildings, landscapes, and objects, but of the systems in which these are components. Second, you will need a standard for your work, rather like the Hippocratic Oath or a compass by which you chart a journey. For that I propose that designers should aim to cause no ugliness, human or ecological, somewhere else or at some later time. As a corollary, you, as designers, ought to think of yourselves first as place makers, not merely form makers.

Third, as designers, you will need to place your work in a larger historical context—what philosopher Thomas Berry calls your Great Work. No generation ever asks for its Great Work. Your Great Work is a sacred trust given only to your generation. If you do not rise to do your Great Work, it will not be done. Design should artfully and carefully help reconnect people to nature and to their places. Design to promote justice in a more crowded world. Design is a large and unifying concept. Good design joins the five senses. When designers get it right, they create ways that reinforce our common humanity on the deepest level."¹²

Researcher Alex Russ, instructor for EECapacity, an EPA-funded environment educator-

training project led by Cornell University and NAAEE.org, also poses similar approaches to embed deeper meanings of place and identity within urban environments. In his article for the website titled *Sense of Place*, Russ describes goals and interests established early on when beginning graduate school study and research.¹³

1. Design and facilitate experiences to access and influence people's sense of place/location.
2. Engage in reflective activities to learn about your personal space, including what you value about the natural, human, and built environment.
3. Deepen awareness and sensitivity to our environment and to each other, which cannot only influence action on creating sustainable urban environments, but also the community and the natural world.

Yale social ecology professor and author Steven Kellert, who helped forward the concept of using biophilia in environmental architecture design, shares six biophilic design elements in his book, *Biophilic Design: The Theory, Science and Practice of Bringing Buildings to Life*.¹⁴

- Environmental Features
- Natural Shapes and Forms
- Natural Patterns and Processes
- Light and Space
- Place-based Relationships
- Evolved human-nature relationship

Kellert goes on to expound on these elements in more detail with a list of different but interconnected 70 design attributes. Although these are directed toward the built environmental design field, they are similar to the interconnected design patterns I am developing for a sense of place-based design ecology, and are therefore useful as precedent. Environmental design is known today as an offshoot of architecture, with the outdoor environment being the physical three-dimensional space that is 'designed'. Space is just as much a graphic design consideration for turning spaces into places. This is an area of opportunity for graphic designers to engage as partners not just in traditional way-finding, signage, or with the addition of sculpture, but within the principles, elements and framework of the sense of place design ecology.

Orr, Kellert, and Russ provide three helpful precedents to build upon as I continue assemble the sense of place design ecology's framework, and the subsequent materials that will follow as part of it.

Working Directive for A Sense of Place Design Ecology

To provide a foundation for design theory, methodology, discourse, pedagogy, and practice centered around being a catalyst for supporting and facilitating sense of place, and building a bridge between humans, culture and nature through deepening awareness, cultivating education, influencing values, engaging action and behaviors, and encouraging participation and advocacy.

Sampling of Collected Precedent Project Research

Snapshots of What Matters Most: Using Resident-Employed Photography to Articulate Attachment to Place, by Thomas M. Beckley, Richard C. Stedman, Sara M. Wallace, Marke Ambard, *Society & Natural Resources: An International Journal*. Published: 2007.¹⁵

Catalyst: Reimagining Sustainability with and through Fine Art, by Angela Connelly, Simon C. Guy, Dr. Edward Wainwright, Wolfgang Weileder, and Marianne Wilde, *Ecology and Society* under license by the Resilience Alliance. Published: 2016.¹⁶

Conceptualizing 'Sense of Place' in Cultural Ecosystem Services: A Framework for Interdisciplinary Research, by Frances Ryfielda, David Cabana, John Brannigan, Tasman Crowe, UCD Humanities Institute, University College Dublin, Dublin 4, Ireland. Published: Sept 2018, revised in Feb 2019.¹⁷

Blueprint for Counter Education, by Maurice Stein and Larry Miller (Inventory Press, 1970, Something Else Press, facsimile reprint, 2016.)¹⁸

Learning from Las Vegas: The Forgotten Symbolism in Architectural Form by Robert Venturi, Denise Scott Brown, Teven Izenour (MIT Press; Revised Edition, 1977.)¹⁹

14 Patterns of Biophilic Design, by Terrapin Bright Green, a sustainability consulting firm in architecture, urban planning and environmental design, <https://www.terrapinbrightgreen.com/reports/14-patterns>.²⁰

Characters: Cultural Stories Revealed Through Typography, by Stephen Banham, forward by Rick Poynor, Thames and Hudson, 2011. 21

Social Justice and Global Pandemic: What is Design's Response?

From Naturalism and Arts and Crafts, from Dada to Modernism, Structuralism, to Post-Modernism—art and design movements have more often than not been in response to significant social, cultural, technological, political transitions. Socio-cultural events and conditions of the times were meant by theories and philosophies about culture and human experience that were then translated by art and design disciplines. They met their moment in a particular space and time in history with a perspective of theory, critical thought, ways of seeing, and thinking. They meant the moment, but their frameworks endured past the moment, affecting social and cultural contexts into the future.

Today, humans find themselves in similar socio-cultural transitional territory as a hundred years ago—a time marked by the first World War, the global Spanish Flu pandemic, and dramatic socio-cultural, technological, and political transitions. While we are thankfully not in a global war, we are in a global pandemic, there are ongoing geopolitical conflicts, there is frustration and uncertainty politically and socio-culturally that mirrors the early 20th Century.

As the first 20 years of this century comes to a close, is there a prevailing cultural theory or philosophy? Is there a prevailing art and design movement to meet it? Is there not one but several? Or do we live in a post-art movement era? These are questions for designers living in a world of significant events and transition to critically think about as we explore opportunities to contribute, shape, and respond to our own time. What are our guiding perceptions, frameworks and principles? Not just for the immediate demands, but as part of the larger context of the socio-cultural system in which we live.

Dada, which rose in response to the first couple of decades of the 20th Century is commensurate with our time. Society was frustrated, disillusioned, and weary. They were navigating the trauma of a horrific war, and its multitude of effects on life afterwards. It was called the art of the absurd, a way of saying 'this is non-art' art. It was defiant, in the best way. Artists and writers of Dada weren't monolithic. They were individuals who had a core guidance, but encouraged multiple branches of form and thought in which to explore it. They were self-deprecating, unselfconscious, their expressions took many forms. Many of them were participatory and performance-based, with allowances for the nonsensical and spontaneous to arise, yet rooted in larger context of existential, philosophical thought and questions about the individual, society and culture. Today, there is evidence there be a 'neo-dadaism' happening. Art and design have embraced broad definitions of themselves with regard to form, and embraced that expressiveness towards political, social and cultural issues of our time. There is a similar energy, which is encouraging to see.

Regardless of what art movement or school of thought we assign to our time, there are a few guiding philosophies we can look to as we develop what our perceptions, theories, and ways of seeing our time will be, and how our responses and reactions will be influenced by those. Art and design do not live in a vacuum, nor does it have a ruling class. Art and design have been democratized and are a part of visual culture. As Aniela Jaffé, colleague of Carl Jung, wrote in *Man and His Symbols* which was published in 1964, "an artist gives form to the nature and values of his time, which in turn forms him."¹⁰ In our time, design also gives form to the nature and values of his/her time, which in turn forms us.

As designers, we shape visual culture which in turn shapes society and culture on a larger scale. In *Graphic Design Theory*, Meredith Davis explains why and how design can approach its larger role in society, culture and history, and why it is important. "Many judgments about design fail to consider broad or long-term consequences, responding only to immediate demands, rather than to the complex systems of which design artifacts are only one part. I believe it is with respect to these issues of context and complexity that the study of theory is especially relevant. Critical theory plays a greater role in the consummative evaluation of design as a discipline and practice. It involves worldviews and frameworks for making judgment about the impact of design and its position within larger social, cultural, and historical contexts."²¹

Our long-term consequences and context will be defined not globally, but by the human relationship with one's own place. Both the culture and nature of place will play huge roles in how humans' navigate and manage the demands of the future. The world is getting smaller, yet people are more disconnected with the concerns of their own places than ever, a condition that has consequences. A sense of place is both a grounding and lifting force to the human experience. How will design interact, respond and most importantly give form to the nature and values surrounding place?

Culture is a shared experience, but created from individuals—each with their own personal life experiences. Active inclusion of diversity in all its forms in all endeavors strengthens the fabric of society, culture, and our collective human experience. Sometimes this inclusion means simply allowing room for discourse, criticism, and theoretical wandering that will help us understand how fit as part of a larger system, with the ability to shape not only the moment, but what that means for long term social, cultural and historical contexts. What shape will that take? Engage in rethinking, and in new ways of seeing. Resist the modernist, industrialist disposition that wants to put us back in line. Get out of line. Get rid of the line completely. Make a circle. Make a spiral.

Spring 2020, City Park, New Orleans. I participated in a Black Lives Matter rally and march which began inside City Park near my house. The park is a mecca of nature, a natural environment oasis for residents, including myself. It was a poignant moment where people, culture, and nature came together. I felt hyper-aware of this poignant moment—feeling the gravity of what was happening at this time in our larger society, a profound connection to my fellow residents of my city, a deep sense of place—at the same time feeling aware that history was being made.

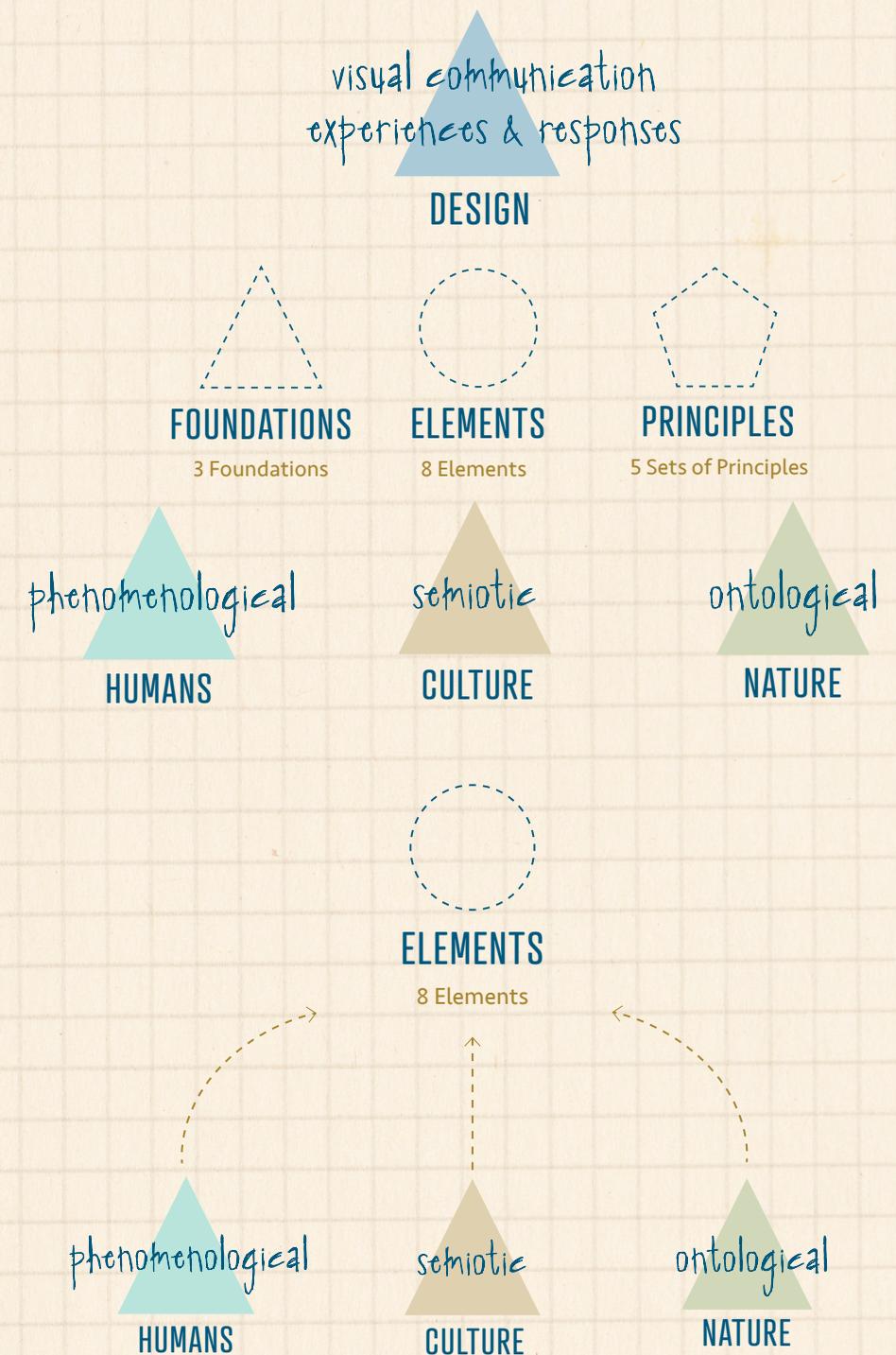
spatial, experiential, material, environmental, physiological, and environmental. These elements represent the characteristics, patterns, relationships, and interactions of the self-perpetuating functionality and configurations of sense of place, socio-ecological ecosystem. When relationships and interactions don't function properly, those ripples span out also, adversely affecting the entire system. Scholars of socio-ecological systems are beginning to realize that sense of place could play a key role in place stewardship, environmental awareness, relationship to nature, quality of life, community resilience and sustainability, and other factors within social-ecological systems. As the Chart section details, sense of place is created through place meaning, identity, dependence, and attachment. This exploration asks questions and seeks insight surrounding concerns of how sense of place relates to socio-ecological systems from one vital perspective—examining from a design mind. bThe primary question of this thesis—how can we rethink design by exploring sense of place. I approach this question as an anthropologist or ecologist would, focusing not just on one isolated part, but on an entire social-ecological system.

As a starting point to charting this conceptual landscape, this thesis examines a paper by researchers at the Resilience Alliance for purpose of gathering knowledge and getting a feel for the territory. The researchers pose a question that provides an important clue. “How do changing patterns of interactions with nature in places (e.g., through urbanization) alter meanings and attachment that may underpin stewardship? How does ecosystem change, incremental and rapid, affect sense of place?”⁴ It is with a design mind that this exploration is founded to explore questions such as that of the Resilience Alliance. Only in this exploration, nature, both seen and unseen, is front and center.

The modern human experience, and patterns of interaction are influenced by urbanization, mobility, globalism, homogenization, gentrification, and the centralization of forces and systems that influence daily life and ways of being. How do these alter humans relationship with place? What are the underpinnings that create place stewardship? What would a methodology have to consider and include to serve as a catalyst for sense of place? Novelist, poet, essayist, environmental activist, cultural critic, and farmer Wendell Berry has been addressing these questions throughout his writing career. He declares ecology of a place as one of the most crucial subjects of our time in his 2012 JFK Center speech, *It All Turns on Affection*. Berry talks about the concept of “sticker” people. These are the curators, the stewards, and caretakers of a place. He cautioned about the opposite of sticker people, whom he calls ‘boomers.’⁵

The word ‘boomers’ refers to people who campaigned or tried to enter the land we now call Oklahoma, and the surrounding area, before the land was legally and officially opened for reoccupation by the passage of the Indian Appropriations Act of 1889—a horrific action in and of itself. There is a view of history that looks at these people as clever, enterprising opportunists who saw an opening to get the jump on good land, a prized and valuable asset. In reality, they were essentially land thieves with a particularly high-level sense of their own entitlement, and disregard for whatever laws or humanity

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got in their way. Contrary to this kind of relationship with land, Berry discusses human “affection” for land and place, and respect for human beings’ relationship with their place and land, and how that affects humans’ ways of being and how they live daily life.

These are two different perspectives to humans’ relationship to land, and for that matter, to each other. To reduce ‘boomer’ mentality and increase ‘affection’ mentality, Berry urges for the teaching of ways of being that revolve around personal household conservation, economy, simplicity, and self-reliance, but with an ethic for interconnectedness to one’s neighbor and community. “I am nominating economy for an equal standing among the arts and humanities. I mean, not economics, but economy, the making of the human household upon the earth: the art of adapting kindly the many human households to the earth’s many ecosystems and human neighborhoods.”⁶

Berry’s nomination for teaching economy is call to action for ways of being that bridges humans, culture, and nature in a holistic ecology with one another. It relies on a commitment of personal, household, and community autonomy, but also reciprocity and sense of responsibility towards others. It requires rethinking the underpinnings of our socio-ecological systems entirely, so it requires the same systematic-wide theory and methodology as foundation for ethic, values, approaches, perceptions, and patterns of interactions and relationships. The sense of place design ecology seeks to provide a theory, methodology and framework in this regard to use as a foundation for engaging in discourse, criticism, theory, pedagogy, and practice.

From Holism to Deep Ecology

The philosophy of holism, is the theory that parts of a whole are in intimate interconnection, such that they cannot exist independently of the whole, or cannot be understood without reference to the whole, which is thus regarded as greater than the sum of its parts. Holism is often applied to mental states, language, and ecology. In the 1920s, the term was coined by J. C. Smuts to designate the tendency in nature to produce organized ‘wholes’ (bodies or organisms) from the ordered grouping of units.⁷

Among other philosophies discussed in the Chart and Legend sections, a sense of place design ecology is founded on the philosophy of holism—a system that includes living and non-living systems. It includes everything that falls under humans, culture, and nature. In this vein, a sense of place design ecology also subscribes to the philosophy of *deep ecology*. Fritjof Capra explains in his book *Web of Life* in which he describes deep ecology as “Seeing the world as an integrated whole rather than a disassociated collection” is a holistic worldview. “Deep ecology does not separate humans—or anything else—from the natural environment. It sees the world not as a collection of isolated objects, but as a network of phenomena that are fundamentally interconnected and interdependent.

Deep ecological awareness recognizes the fundamental interdependence of all phenomena and the fact that, as individuals and societies, we are all embedded in (and ultimately dependent on) the cyclical processes of nature.”⁸ Capra mentions that this deep ecological worldview originates from Norwegian philosopher Arne Naess who developed the philosophical school of thought in the 1970s. Naess himself points out in describing this worldview that “The essence of deep ecology is to ask deeper questions.”⁹

Asking deeper questions and traveling down deeper paths of inquiry is central to this book’s quest and exploration. With these holistic and deep ecology philosophic viewpoints, a sense of place design ecology rethinks design by looking at the ecosystem of where identity (represented by humans in the framework), place (represented by culture in the framework), and design come together. The framework is a form reflecting a quest for deep ecological awareness, and the recognition that as individuals and societies we are all embedded in (and ultimately dependent on) the cyclical processes of nature in conjunction with ecosystem of our own places. A holistic and deep ecology viewpoint are two main core beliefs of the sense of place design ecology, but not the only ones. All of the core beliefs and foundations are explored in more detail in the Chart and Legend sections.

Inner Workings

Other core beliefs of the sense of place design ecology include the role and relationship nature, both seen and unseen. Nature, in its broadest definition, is also critical to the practical functioning and ontology of socio-ecological systems, and a key component to sense of place. To manifest and realize the theory and methodology of the ecology, design added to humans, culture, and nature to form a quadratic relationship, representing foundation, stability, and wholeness.

The influences and characteristics of sense of place are represented as elements in the sense of place ecology and its framework. They function as portals of entry for forming areas of focused criticism, discourse, research, responses and solutions. They each have their own design patterns of interaction and relationship with which to engage with sense of place under the guidance of the phenomenological, ontological and semiotic approaches, theoretical foundations, and principles. An ontological approach allows for exploring the characteristics of place and sense of place physically, but also metaphysically examining identity, design and place, and all of its ways of being. It a way of rethinking the nature of our own being, and how we interact with place through these different elements. A more detailed explanation of this is covered in the Chart section. Along with the autethnographic method, the phenomenological approach is the cornerstone of this thesis’ examination, provided the essential component of rethinking design and place from personal experience, interaction, perception, and perspective.

Approaching design phenomenologically offers a personal way to connect with the larger world through our senses and sensations, as David Abram writes in *Spell of the Sensuous*. “Phenomenology would seek not to explain the world, but to describe as closely as possible the way the world makes itself evident to our awareness, the way things first rise in our direct, sensory experience...thus returning to the taken-for-granted subjective experience, not to explain, but simply to pay attention to rhythms and textures, not to control, but to become familiar with diverse modes of appearance, and to give voice to its enigmatic and ever-shifting patterns.”¹⁰

Phenomenology, as Abram explains, was inaugurated as a philosophical discipline by Edmund Husserl in the early 1900s, was a counter argument to 20th century science which began analyzing the mind as a mechanized object. Phenomenology seeks the world as it is felt in direct, spontaneous experience. According to Abram, Husserl’s hope

was this “science of experience” would be a basis for a knowledge that other sciences cannot provide, and can only emerge from our lived experience of the things around us. It is an essential approach in the quest to rethink design and humans’ relationship with place.¹¹ The design ecology’s semiotic approach provides for rethinking the meaning and representations of our relationship to place through signs in all of their forms, but especially how the visual and material come together with experience to shape identity and place meaning. French phenomenologist Maurice Merleau-Ponty wrote: “All my knowledge of the world, even my scientific knowledge is gained from my own particular point of view, or from some experience of the world without which the symbols of science would be meaningless.”¹² When a place’s semiotic language, meaning how it communicates with signs of significance, are not referencing its own inherent cultural and natural environment, the ways of life and being of its own inhabitants in relation to place, or its own temporality—that place’s communication has no meaning, there is no language. There is no symbolism so there is no significance.¹³

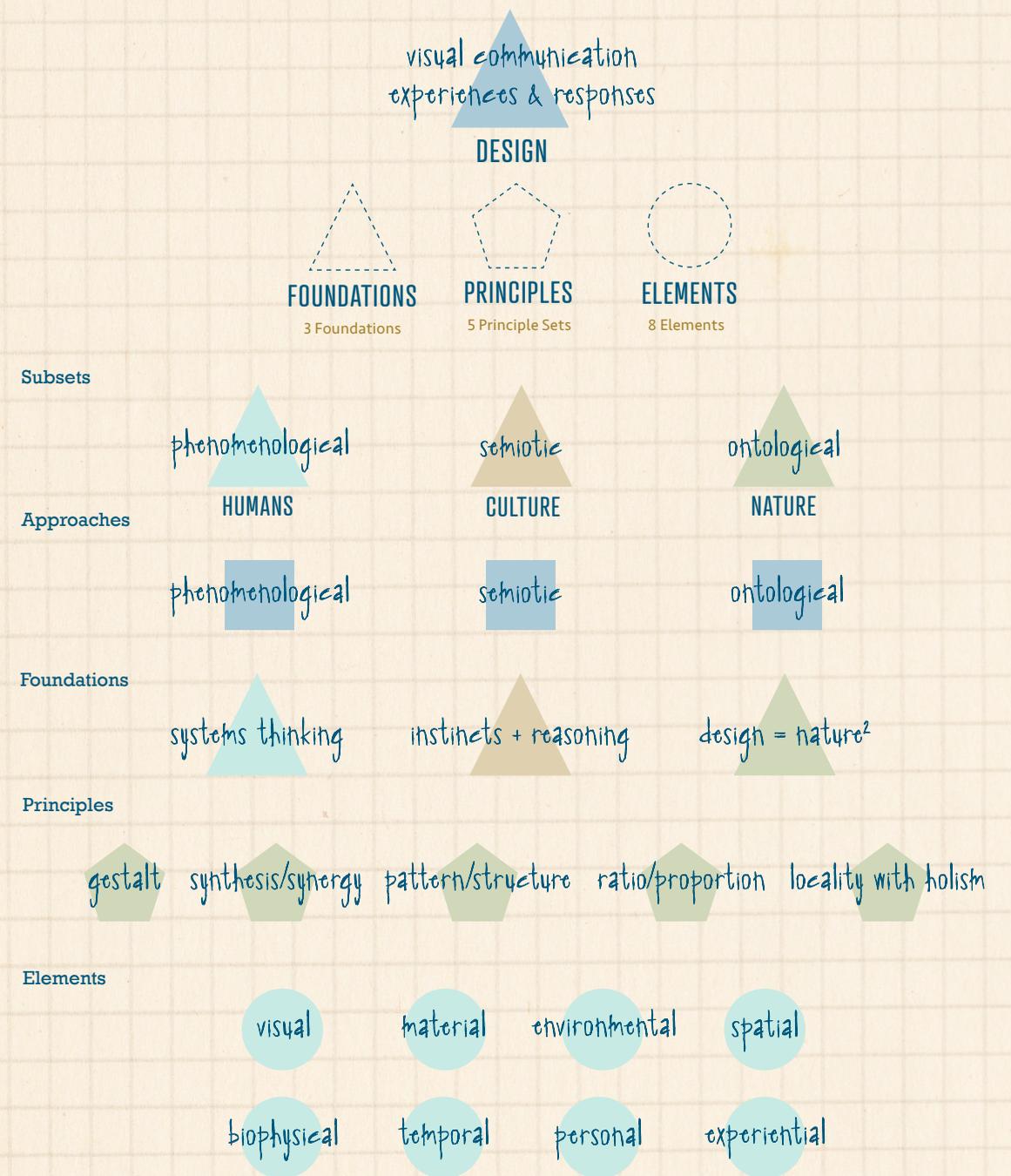
This throws the interpretation—which is the effect a sign has on the receiver and how they understand it—totally out of alignment with regard to creating place meaning, place identity, and sense of place overall. Guidance from semiotic theory provides a way to rethink design and sense of place as language forming rooted in cultural and environmental context of place, providing methods of symbolically representing interactions and relationships between people and place within a context that creates not communicates with place meaning, but influences sense of self through sense of place.

Conceptualization

The sense of place design ecology framework embraces sacred geometry as a method and guide for the design ecology’s conceptualization and form. Sacred geometry is a language of the universe, one in which humans and nature are also interconnected. Its usage represents how humans, nature, and design are interconnected through universal truths and language. Design and sense of place are both concerned with interactions, relationships, patterns of thought, feelings, awareness, and behavior. The contextual inner workings of sense of place and design align formally through the framework’s structure as three revolving concentric circles, inside of which are overlapping triangles that converge to create a square. While it is not a literal semi-lattice structure, thinking about the framework of how the sense of place ecology is structured and how its patterns of interaction work came from studying architect Christopher Alexander’s essay, *A City is Not a Tree*, in which he references semi-lattice structures as a way to conceptualize the preferred way of organization and structure for cities.¹⁴

In their concentric organization, the circles represent the cyclic rhythm, movement, alignment, and processes of all life. The way the framework is configured represents a conceptual place, providing multiple possibilities for dynamic processes to align, organize, interact, connect and unite with one another at various points. The overall shape is inspired by ancient cities, which were centered around a center point and circular in form. The inner circle has three revolving approaches— Design is nature (and vice versa), instincts plus reasoning, and systems thinking. The middle circle has five sets

Rethinking Design and Sense of Place as a Design Ecology and Framework for Building a Bridge Between Humans, Culture and Nature



In the Chart section, three essential subsets of sense of place are identified: humans, culture, and nature. They are examined from phenomenological, ontological, and semiotic approaches. Pathways of rethinking through philosophical, psychological, sociological and scientific theories lead to identifying and synthesizing the many characteristics and influences of sense of place into eight elements. The foundations and principles explored in the Legend section are added to the framework to complete the design ecology.

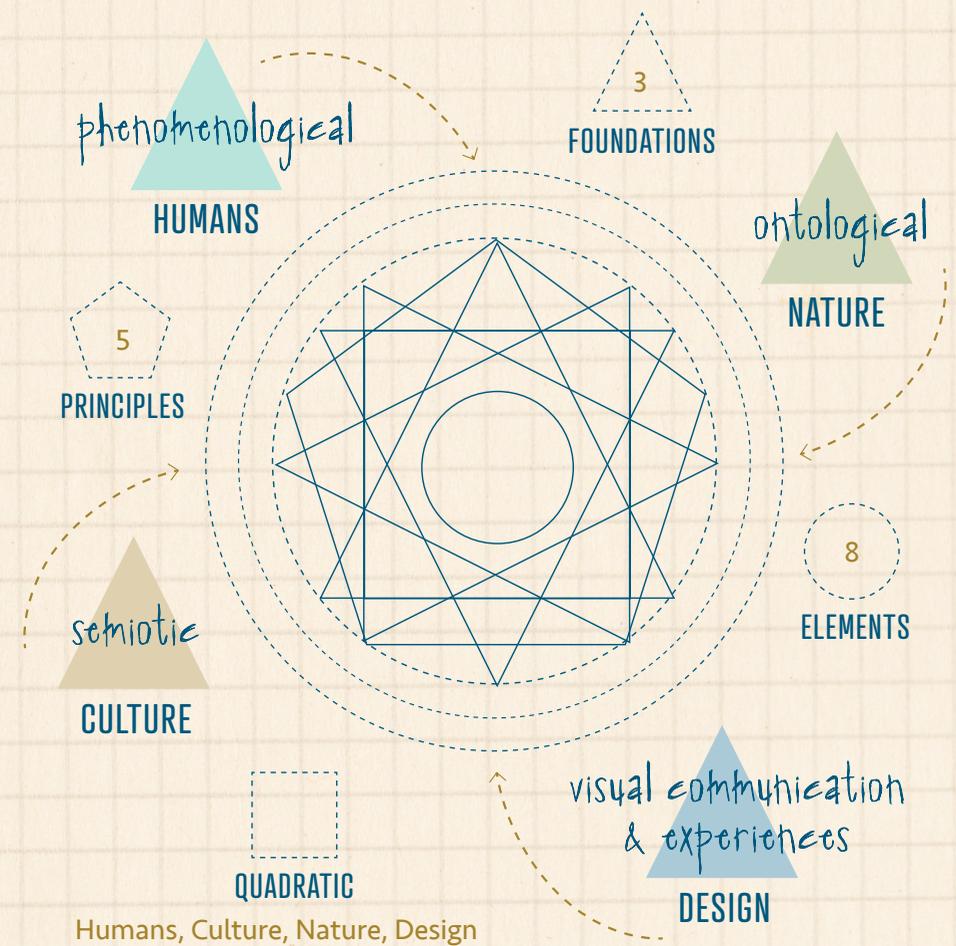
of revolving principles, which are also represented by the five-sided golden pentagram. The outer circle represents eight revolving elements. The use of three-sided triangles represents the connection of humans, culture, and nature at multiple points.

They are also contextually representative of humans being in harmonic proportion with surroundings (the golden triangle.) The primary triangle connects humans (the phenomenological component to sense of place), nature (the ontological component to sense of place), and culture (the semiotic component to sense of place). The three triangles also represent revolving multiple points of connection, interaction, and relationship among elements and principles in the ecology.

Design is placed at the bottom of the framework as representation of the foundational method of rethinking the ecology of humans, nature, and culture. However, during this process, it was realized that in the idea of this being a cyclical framework, and that these circles revolve around each other, so too does the foundation and/or the framework. If conceptualization was animated, it would theoretically revolve around in motion. This turns the ecology around, bringing to light that in rethinking sense of place through design, what also has happened is rethinking design through sense of place. In fact there isn't one possible foundational component, there are four—formally exhibiting the reciprocal connection between humans, culture, nature and design. The square at the center represents numerous aspects of the ecology—humans, culture, and nature, with the addition of design to form a quadratic entity. Together, this quadratic represents stability and foundation. The quadratic form also represents nature through the four elements (earth, water, fire, air) and the four seasons (winter, spring, summer, fall). It represents space and direction through the four corners of a compass (north, south, east, west). Its shape symbolically represents place, a house, and city blocks that create the grid structure of a city.

At the center circle of the framework is sense of place representing the one wholeness and the cyclical process in which it exists, as does all life. As Maggie Macnab shares in her book, *Decoding Design*, this circle represent sense of place in the form of the ancient *Ouroboros*, the archetypal snake eating its own tail, which is a “spiritual manifestation across time and culture, and a metaphor for the eternal cycles of the self-sustaining nature of organic existence on earth.”¹⁵ The individual fractal shapes created by the multiple rotating triangles represent portals of entry into the ecology that reveal components, characteristics, foundational theories, and pathways for rethinking design which lead to patterns of design developed through the prism created by the framework. These are the portals, or pathways, I would like to travel down in research, discourse, pedagogy, and practice. The conceptualization as a whole provides a visual framework for focusing theory and methodology towards that end. As whole, the theory and methodology of the sense of place design ecology is a model for approaching the concerns of sense of place through design, but also a paradigm shift for rethinking design itself.

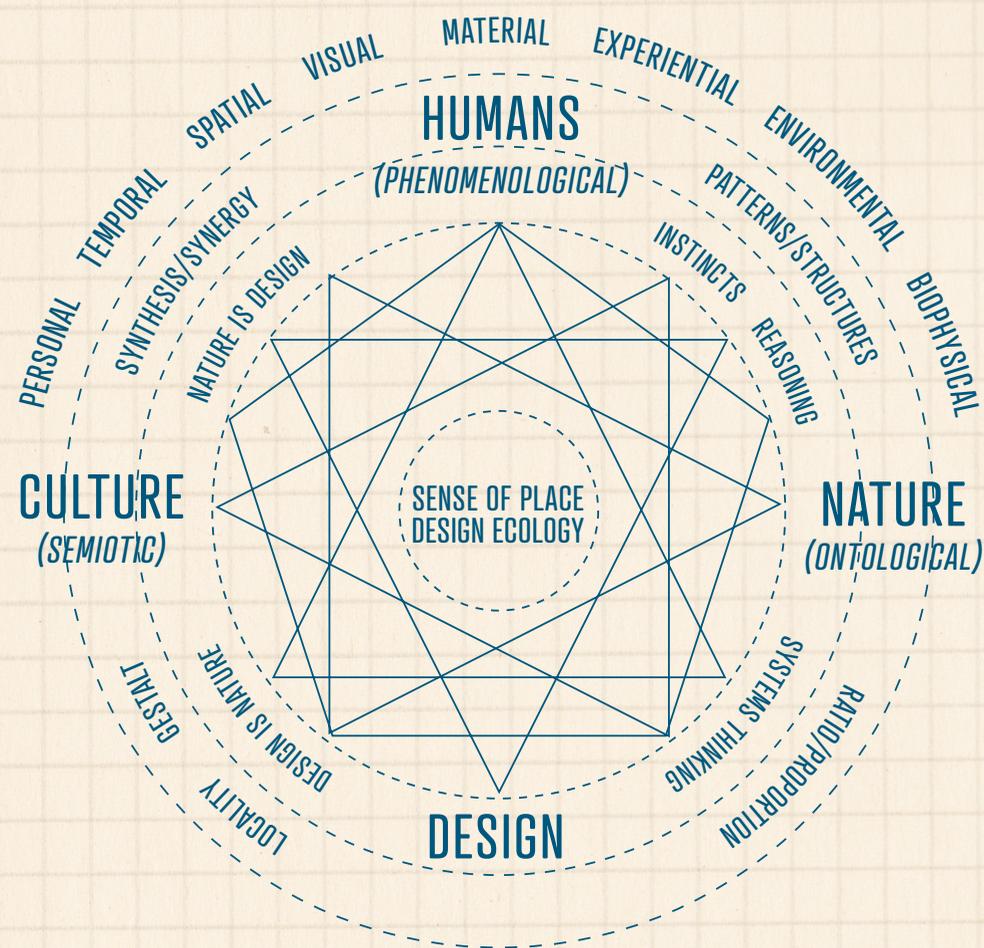
Building the Framework



Humans, culture, nature, and design fill the four directions of the framework to create axes for the framework to center upon. Foundations, principles and elements revolve around in concentric circles. The fractals created by the sacred geometric shapes of triangle, polygon, and square represent portals leading to patterns of design pathways to applying this design theory and methodology to design practice and pedagogical projects. Identifying specific patterns of design would be part of the next phase of completing the design ecology theory, methodology, and framework.

Sense of Place Design Ecology

A theory, methodology, and framework for rethinking graphic design through the construct of sense of place.

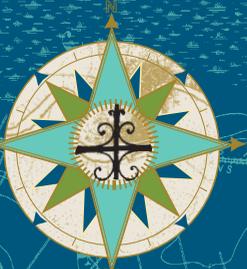


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CRESCENT CITY SENSE OF PLACE AND A NEW DESIGN ECOLOGY

An autoethnographic exploration of identity, place and graphic design

Susan E. Matherne

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