

The Organic Imagination and Louis Kahn

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ABSTRACT

This thesis investigates the relationship between architecture, Romanticism, American Transcendentalism, myth, and religious mysticism in the ideas of the American architect, Louis Kahn.

Part One builds a chronology from Hermeticism and Jewish mysticisms into German Romanticism and how they played a role in the world of Kahn's parents shortly before his birth. The first chapter looks at mysticism and how it resonates with Kahn's descriptions of silence and light. The second chapter outlines the transition from rational aesthetics during the German Enlightenment into German Romanticism. This exposes the beginning of organicism as a way of seeing the world as a growth from a mythic image towards a physical manifestation made by artists and poets. In chapter three, the ideas from Romanticism inspire a philosophical and political movement for independence and cultural expression in the native region of Kahn's parents.

Part Two concentrates on the American approach to Romanticism via Transcendentalism and how Transcendentalism influenced Kahn's childhood education in Philadelphia. It shows how the ideas of German Romanticism influenced English literature and criticism, especially Coleridge's theories of organicism and literary criticism. Chapter four presents how the American Transcendentalists correlated the mind and imagination to an organism. In chapter five, we see how Transcendentalism's aesthetic theory influenced the Public Industrial Arts School of Philadelphia's approach to teaching art. Louis Kahn attended this school.

The final chapter deciphers Kahn's ideas, such as "form and design," "material as spent light," "measurable and unmeasurable," "law and rule," "order," and "nature." Within the framework of Romanticism and American Transcendentalism, these ideas become intelligible and an enriching approach to understand his architecture.

Acknowledgments

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I thank my other committee members Prof. Steven Thompson and Prof. Humberto Rodriguez for their comments and insight for this project. The genesis of this thesis was a research paper I did in Prof. Rodriguez's seminar on Kahn and his architecture. I am indebted to his slide presentation of images from J. Liberty Tadd's book, *New Methods in Education*, which suggested to me a possible connection between Kahn and American Transcendentalism. Prof. Thompson, the graduate chair for the architecture program, has helped me immensely from the application process to enter Virginia Tech's program to letters of recommendation for doctoral programs at top universities in North America. His talks with fellow students aided my ability to relate my professional experience as an architect back to the essential ideals and enrich my understanding of the term "professional" as one who takes a vow.

This completes my second degree from Virginia Tech's architecture program, where I have passed from a young to an old man. I entered the undergraduate program fresh out of high school and left the graduate program as a licensed architect. I will miss the faculty I had over the years; some left while I was an undergraduate student here, some left before I returned, and some remain in Blacksburg. I enjoyed my time at Virginia Tech and shall fondly remember it.

I am at a loss for words to express my gratitude for my parents, Fred and Mary. While they probably never expected to raise a mystic, they exposed me to art, history, religion, the sciences, and, consequently, to the world of knowledge. None could better encourage my pursuits than they. I thank them for everything.

In Memoriam

My grandparents, Ada and Cecil Esenwein

Even the death of Friends will inspire us as much as their lives. They will leave consolation to the mourners...and their memories will be incrustated over with sublime and pleasing thoughts, as their monuments are overgrown with moss.

- *Henry David Thoreau, A Week on the Concord and Merrimack Rivers*

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Introduction

Louis Kahn (1901-1974) described that a “beautiful building begins with the unmeasurable, goes through measurable means of construction, and, in the end, it is unmeasurable.” The form, the seed for the beginning of a design, is an idea, but it is not a physical object. The design process puts the form into drawings with dimensions and labels in order to build. The construction, materials, and dimensions give the building qualities that engage the imagination of those who visit it. Studies of the imagination in Romantic theory, therefore, can assist in understanding Kahn’s imagination and approach to design. His architecture is suprarational, meaning it has rationality to its construction but it also presents something higher than rational principles. Kahn’s imagination and architecture are timeless because they come from the perennial philosophy, a philosophy of mysticism, *religio*, and eternity.¹

The method of research is hermeneutic. The research is motivated by the desire to understand the theoretical and pedagogical statements of Kahn that appear vague, mystifying, and purposefully misleading. The more I read Kahn, the more his statements resonate with ideas presented by the Romantics and American Transcendentalists. We know that Kahn was exposed to Romantic and Transcendental ideas on aesthetics since his early childhood. One can decipher Kahn’s words into intelligible ideas within this framework. This began a study to explore Kahn’s thinking in an enriching way.

Kahn was famous for his mystical lectures. He spoke about “beginnings,” the “measurable and unmeasurable,” and “material as spent light.” These ideas are just as difficult to comprehend today as they were in Kahn’s time. Even his colleagues suggested that Kahn spoke in a deliberately obscure manner in order to confuse people.² However, Kahn repeated himself constantly, and his lectures and

¹ For brief discussion of perennial philosophy, see F.C. Happold, *Mysticism: A Study and an Anthology* (New York: Penguin Books, 1979) 18-21.

² David Brownlee and David De Long, *Louis I. Kahn: In the Realm of Architecture* (New York: Rizzoli, 2005) 213. Vincent Scully is quoted, “...to listen to him talking this terribly vague stuff-and even slightly sort of false stuff...was distressful because in his later years it had become more of a smoke screen around his actual methods than anything else.” Brownlee and De Long cite the quote from an interview with Alessandra Latour, September 15, 1982 in *Louis I. Kahn: L'uomo, il maestro*.

publications after 1959 contain the same stories, same project examples, and same ideas in the attempt to articulate a mystic tradition. A serious study of Hermeticism and Jewish Mysticism helps decipher the meaning of Kahn's words and begins the progress towards the Romantic Movement.

Romanticism began as a reaction to the Enlightenment's attempt to position a universal aesthetic over individual expression.³ In Germany, for instance, philosophers studying aesthetics, such as Christian Wolff, Johann Wincklemann, Alexander Baumgarten, and Moses Mendelssohn sought a universal principle of beauty in order to define the rules to make something beautiful.⁴ The counter-argument, led by Johann Hamann and Johann Herder, posited beauty as part of the divine mind, and gave the artist the ability to express it. The rules the artist used were in accordance to the local society's understanding of symbols and that those symbols lead the mind towards God.⁵

The German Romantic philosophers Goethe and Friedrich Schelling looked for the primeval origin of an object or idea, which grew and matured over time as an organism. Goethe searched for the primeval form of the plant from which all plant life derived.⁶ The purpose was to uncover the essence of "plant." Finding the essence of the plant allows one to express the essence of plant in a variety of ways. Thus, every oak is different in appearance and oaks are different from other types of trees, but the essence of the primeval plant unifies all. The primeval plant grows from a seed to a mature plant regulated by the entelechy of particular plants, so that the oak is always an oak.⁷ The growth from a beginning towards an end interested Schelling, who sought the origins through myth.⁸ Myth is an image of an idea at its pristine and essential origin. To find the essence of an object, one looks to its mythic

³ For sources on Romanticism, see Isaiah Berlin, *The Roots of Romanticism; Three Critics of the Enlightenment: Vico, Hamann, Herder*, Frederick C. Beiser, *The Romantic Imperative*.

⁴ Frederick C. Beiser, *Diotima's Children* (Oxford: Oxford University Press, 2009).

⁵ Isaiah Berlin, *Three Critics of the Enlightenment: Vico, Hamann, Herder* (Princeton, NJ: Princeton University Press, 2000).

⁶ Johann Wolfgang von Goethe, *Italian Journey, 1786-1788*, trans. W.H. Auden and Elizabeth Mayer (San Francisco: North Point Press, 1982).

⁷ "Entelechy" comes from Aristotle's *De Anima*. It is the internal drive of a living being achieving self-completion. In Greek, it is *entelekheia*, which roughly translates as "in completion."

⁸ Edward Allen Beach, *The Potencies of God(s): Schelling's Philosophy of Mythology* (Albany, NY: State University of New York Press, 1994).

origin and then expresses that image using the symbolism that is intelligible to the people for which the work belongs. Schelling believed a work of art progressed over time because it grows from its mythic beginning towards maturity as an organism grows and matures throughout the course of its life.

The heart of the nineteenth century definition of organicism is the relationship of God and the artist constantly creating the world.⁹ The Romantics related the creative process to the development of a plant. The plant begins as a seed, becomes a sapling, and then matures into a full plant. For the Romantics, there was an internal purpose, a spiritual flow, causing the plants to grow. The imagination of the architect taps into the same internal drive by designing a building through the organic process. Kahn's thoughts on architecture begin with the form of a building, growing from the seed of an idea, and through the process of design it manifests into a complete building.

The Romantic scholar and literary critic M. H. Abrams described the "Romantic spiral" in order to visualize how the Romantics saw beginning, growth and completion.¹⁰ The spiral derives from the Neoplatonic circle where the world develops then deprecates and returns to its origin. The Romantics did not see the world receding, but continuously developing towards its ultimate unity with God. When the Romantics returned to the beginning, they carried all the advances society made along the way. The beginning was thus elevated above the previous beginning. In the Biblical context the Romantics used, this action spiraled upwards towards a greater Paradise than the first beginning, before the Fall of Man, at the Garden of Eden. The role humans played was that they are the creatures capable of completing this task. For Romantics, such as Samuel Taylor Coleridge, human reason could achieve this task because the mind could connect the essence through the variety of things in the world.

Coleridge's definition of reason captivated the American Transcendentalists, which gave them a way to verify the divine presence in the world without empirical

⁹ For sources on organicism and Samuel Taylor Coleridge, see M.H. Abrams, *The Mirror and the Lamp; Natural Supernaturalism; The Correspondent Breeze: Essays on English Romanticism*.

¹⁰ M.H. Abrams, *Natural Supernaturalism* (New York: W.W. Norton & Co., 1973) 183-191.

evidence.¹¹ The empirical evidence falls under Coleridge's category of understanding, which claims we know and learn things through our senses. However, this does not use our mental abilities at the highest level, which is when we employ reason. Our ability to reason means we uncover latent truths appearing as revelation to God's Creation. Because God's Creation is alive and continuously growing, Coleridge saw the world as an organism. M. H. Abrams described how Coleridge's organic theory contributed to his idea of the "organic imagination."¹² According to Abrams, Coleridge's system formulated organic history, organic evaluation, and organic law. His system is organic because it posits that everything continues to grow and mature from the particular entelechies of objects and ideas working together for one common teleological end. Even though the particulars appear dissimilar to the senses, their essences share the common creative force from God, and thus the parts relate to the whole. We can reason the whole from the parts because our imagination is the faculty which composes dissimilar things into a unified whole under obedience to the divine mind. This leads into organicism as conceived by American Transcendentalism.

Transcendentalism was an American Romantic movement primarily formulated out of German and English Romanticism.¹³ Precursors to Transcendentalism elaborated Coleridge's organic theory as the growth of the mind. The Transcendentalists themselves wove the growth of the mind into the fabric of nature, which they saw as symbolic of God's active role in creating. The poet or artist participated in the act of creation with God. An artifact made by an artist, for instance, belonged to the world because it was an expression of the essences emanating and receding from God. Since these essences flowed through God's creatures, an object was fittingly a part to the whole of creation. God created things

¹¹ Paul F. Boller, *American Transcendentalism 1830-1860: An Intellectual inquiry* (New York: G. P. Putnam's Sons, 1974) 44-54 and Octavius Brooks Frothingham, *Transcendentalism in New England* (New York: G. P. Puntam's Sons, 1876) 76-104.

¹² M.H. Abrams, *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* (New York: Oxford University Press, 1953). Abrams uses the term "organic imagination."

¹³ For sources on Transcendentalism, see Paul F. Boller, *American Transcendentalism 1830-1860: An Intellectual Inquiry*; Leon Chai, *The Romantic Foundations of the American Renaissance*; Perry Miller, *The Transcendentalists: The Classic Anthology*; Charles R. Metzger, *Emerson and Greenough: Pioneers of an American Esthetic*; Octavius Brooks Frothingham, *Transcendentalism in New England*.

at the beginning, in Genesis, and, over time, He continues to expand creation and adds life to the world with the aide of the artist and poet. History, therefore, is continuous and maturing as a growth. Particular histories of places have their individuality, but all these histories can be traced to one universal beginning. The poet looks to the beginning to find the essence of history and looks to the present to express the essence within the context of time and place. There is resonance between Transcendentalism's ideas of history and art and Kahn's philosophy of architecture and beginnings.

Kahn's search for poetic expression, in his words and his architecture, originates in his youth. He was educated during his formative years as in a school designed based on principles of Transcendentalism, particularly from Ralph Waldo Emerson and Bronson Alcott. One of the schools practicing Transcendentalism as a pedagogy was the Public Industrial Art School of Philadelphia. Charles G. Leland, a folklorist and man of letters, was the first director of the school. He was well acquainted with Emerson, as well as a member of Rev. William Furness' congregation, and student of Bronson Alcott.¹⁴ Leland was also the mentor of his successor, J. Liberty Tadd.¹⁵ Tadd, one of Kahn's teachers, continued the school's tradition by teaching art from Transcendentalism's views on aesthetics.¹⁶ Although Kahn was a mere child at the time, the correspondence to his education and his mother's interest in Goethe, Schiller, and German Romanticism would serve as a solid foundation building towards an architecture expressing Transcendentalism's aesthetics.

The Romantic Movement from Germany and American Transcendentalism strongly influenced Kahn's approach towards architecture. The principles of these movements were taught to him in his youth and became a significant part of how he thought about architecture as an expression of the imagination and following a tradition rooted in mystic experience. Many of his famous discussions of ideas in

¹⁴ Charles Godfrey Leland, *Memoirs* (London: William Heinemann, 1894).

¹⁵ David W. Baker, "J. Liberty Tadd, Who Are You?," *Studies in Art Education* (National Art Education Association) 26, no. 2 (Winter 1985): 75-85.

¹⁶ Joseph A. Burton, "The Aesthetic Education of Louis I. Kahn, 1912-1924," *Perspecta* (The MIT Press on behalf of Perspecta) 28 (1997): 204-217.

architecture, such as the “measurable and unmeasurable,” “form and design,” “nature,” “expression,” “will to be,” and “beginnings” correlate to Romantic ideas. This study adds to the fullness of our knowledge of Kahn’s imagination from his beginnings.

Part One

Beginnings

[T]he beginning of any established activity of man is its most wonderful moment. For in it lies all its spirit and resourcefulness, from which we must constantly draw our inspirations of present needs.

“Form and Design”

Louis Kahn, 1960

I

The Mystic Way to “Silence and Light”

Mysticism transcends religious practice by having a revelation through either immanence or ecstasy that merges the body and spirit into a unity. There is typically a particular path, or way, one takes to leave the earthly world to see the divine realm. Often the mystic passes through three stages. First is purgation, which is a cleansing of the soul to allow it to transcend the everyday world and its distractions. Then comes the stage of contemplation, which is an intense mental exercise to deeply penetrate an object in order to find its latent essence. Contemplation leads to the stage of illumination, which is when the soul, body, and object unify.¹⁷ There is a parallel to this when Louis Kahn asks the brick what it wants to be and the brick responds that it wants to be “an arch.” It is a conversation through contemplation followed by a realization of elevating a material and expressing its latent essence. If mysticism influenced Kahn, two forms seem very likely candidates.

We know Kahn had an interest in Egyptology and, coupled with his awareness of Neoplatonism, a likely mystical path would be Hermeticism.¹⁸ This mysticism parallels Neoplatonism with its ideas of emanation and return of essence, or spirit, from a single ineffable source. Hermeticism also has a poet-prophet-sage serve as the medium whereby the unintelligible Word of God can be expressed in common language. One of these poet-prophet-sages was Hermes Trismegistus, a mythic figure who was supposedly an Egyptian and a guardian of the mysteries of their hieroglyphics. With Kahn’s interest in Egyptology and Neoplatonic inclinations, Hermeticism may help interpret Kahn’s thinking, if it does not disclose an influence.

A second possible mystic way is Jewish mysticism. Joseph Burton suggests in his dissertation that Kahn’s maternal grandfather likely studied Kabbala, the

¹⁷ F.C. Happold, *Mysticism: A Study and an Anthology* (New York: Penguin Books, 1979) 56.

¹⁸ Joseph Arnold Burton, *The Architectural Logos of Louis I. Kahn: Architecture as Logos* (Philadelphia: University of Pennsylvania, 1983). Burton discusses Kahn’s ideas correlating to Neoplatonism, but does not investigate Hermeticism.

dominant form of Jewish mysticism.¹⁹ There is little else known about his grandfather, so it is only speculative to assert his scholarship in Kabbala. Kabbala is a complex mysticism with variations developed over the course of time. It requires indoctrination into its secrets and studies to develop a comprehensive interpretation. Due to its complex nature requiring years of devotional study, it is doubtful Kahn's immediate family was deeply interested in Kabbala. Kahn's daughter, Alexandra Tyng, describes his family's practice of Judaism through conversations with family members. Some claim Kahn's parents were not devoted orthodox Jews and did not appear to talk with a deep mystic tone. However, they appeared to practice the values taught by the religion.²⁰ If it is the principles, rather than the mystery, that was important to the family, then this makes Hasidism more appealing if looking for a mystical connection. Hasidism derives from Kabbala, but it takes ideas and stories from the Kabbala to common people. It is more about the practice of Judaic principles in the community rather than an introverted mystical experience. We can trace certain ideas of the Kabbala and the practice of Hasidism and relate those to ideas Kahn presented in his lectures.

Hermeticism

Hermeticism was an Egyptian mystery that supposedly explained knowledge before the Biblical Flood and the path to wholeness with the divine. The answer to these mysteries was thought to be contained in the Egyptian hieroglyphics. The ability to read hieroglyphics remained a mystery itself until Champollion, a French scholar, deciphered the Rosetta Stone in the nineteenth-century. Before then, legend had it that the first Hermes recorded the ancient knowledge before the Biblical Flood. The second Hermes transcribed the mysteries and stored them in Egypt.²¹

Hermes Trismegistus, Hermes the Thrice-great, was a figure from Greek and Egyptian culture. The figure is a combination of Hermes, the Greek messenger god,

¹⁹ Joseph Arnold Burton, *The Architectural Logos of Louis I. Kahn: Architecture as Logos* (Philadelphia: University of Pennsylvania, 1983) 28.

²⁰ Alexandra Tyng, *Beginnings: Louis I. Kahn's Philosophy of Architecture* (New York: Wiley, 1984) 4-6.

²¹ Florian Ebeling, *The Secret History of Hermes Trismegistus: Hermeticism from Ancient to Modern Times*, trans. Davis Lorton (Ithaca, NY: Cornell University Press, 2007) 28.

and Toth, an Egyptian god equivalent to Hermes. Toth was able to vocalize the mind of the Egyptian sun-god Ra. Toth also brought knowledge to the Egyptians, including language and writing. In the Osirian cult he was the recorder of souls and author of *The Book of the Dead* and later *The Book of Breathings*.²²

Iamblichus, a Neoplatonic philosopher, folded ideas from Hermeticism into Neoplatonism. This is most evident in the Neoplatonic belief of a spiritual essence emanating and returning to a divine source, the One. The emanation is a flow of being that connects all matter and essences from the divine source to the least important objects. All being seeks to return to its divine source, returning all things back to their purest state. Iamblichus believed Hermes Trismegistus witnessed the creation of the hierarchy of beings and, therefore, knew the states of being emanating from the One.²³

Both Neoplatonism and Hermeticism are “good” mysticisms. The One is good and its emanations are also good. This prevents it from falling into Gnosticism, which posits all created things as evil from an evil demiurge. Hermeticism acknowledges that the spirit, the *pneuma* or spirit-breath, is trapped in the body and yearns to return to its origin. As long as the body and spirit find unity, there is a positive force taking care of God’s Creation.²⁴

The ability of the body and spirit to unite is an inner experience. During the Reformation, persecutors of “inner light” religions, such as the followers of Jakob Boehme and George Fox, associated these religions with Hermeticism.²⁵ The human mind looks deep inside the soul, via contemplation, to find the breath of the emanation from the One. This harkens back to Toth, who wrote the *Book of Breathings*. The act of speaking releases the Word of God from the inner spirit of the body as a metaphor embodied by Toth or Hermes Trismegistus. Breathing, when expressed as speech, makes the Word of God intelligible to the human mind.

²² Lewis Spence, *Ancient Egyptian Myths and Legends* (New York: Dover, 1990, originally 1915) 106-108.

²³ Ebeling. 21.

²⁴ Ibid. 31-32.

²⁵ Ibid. 109.

The Romantic literary critic, M.H. Abrams, terms the breathe of inspiration a “correspondent breeze.” He explains how various etymologies for breathe, air, and spirit share common origins with *pneuma* and *anima*. Abrams points out that the English Romantic poets in particular used wind as a metaphor to change mood or highlight a moment of revelation.²⁶ For the poet, speech is the form of expression whereby words embody, and not simply allegorize, an idea. For the Romantics, as we shall see in the next chapter, and mystics, words are ways to express the knowledge of God.

Jewish Mysticism

Jewish mysticism, as opposed to Orthodox Judaism, investigates the direct connection between man and God. It recognizes a separation between the two and often looks to myth as a point of union between the soul and divine spirit. This search reveals the secret link.²⁷ The belief is that myth takes one back to the Creation, before the Fall of Man and his severance from God. There are various forms of Jewish mysticism; the most prominent is Kabbala and a more accessible form, Hasidism.

Kabbala seeks the unity of the body and spirit working together. Every organism has two parts, the essence, which is a spiritual emanation, and a vessel containing the emanation. Like Neoplatonism, the essence emanates from a divine source, the *Ein-Sof*. The various emanations, conceived as light, make up the *Siferot*. As the emanations flow through the *Siferot*, the light can reflect off other *Siferot* and return to the *Ein-Sof*.²⁸ Unlike in Neoplatonism, these emanations are not stages losing purity of being as they distance from the One.²⁹ The *Siferot* constitute various parts of the *Ein-Sof*. This is like an organism and its various parts constituting its

²⁶ M.H. Abrams, *The Correspondent Breeze: Essays on English Romanticism* (New York: W.W. Norton & Co., 1984).

²⁷ Gershom G. Scholem, *Major Trends in Jewish Mysticism* (New York: Schocken Books, 1961) 8-9.

²⁸ There are three inner lights known as the Crown, Intelligence, and Wisdom. While these three lights form a trinity, they are not necessarily nobler since the emanations remain part of the same source. The remaining emanations are Judgment, Love, Beauty, Majesty, Endurance, the Righteous One (known as the *Zaddik*, which also appears in Hasidism), and Kingdom.

²⁹ Gershom G. Scholem, *Kabbalah* (New York: Meridian, 1978) 87-115.

body.³⁰ The human body, for example, has eyes, hands, legs, and so forth, which have different functions but collectively form the body. The *Siferot* are emanations with particular purposes but collectively express the *Ein-Sof* [Fig.1]. The being and spirit work together as an organic whole.

Lurianic Kabbala is a later version of Kabbala. The primary difference between the old Kabbala and Lurianic Kabbala deals with the creation of the world and the emanations of *Ein-Sof*. Lurianic Kabbala has *Ein-Sof* contracting itself. When *Ein-Sof* contracts, it leaves behind the ten *Siferot* trapped in vessels. A visual simile would be the ebbing of the ocean tide leaving behind shells. One of these vessels is the first man, *Adam Kadmon le-khol ha-kedumin* (the primordial man that preceded all other primordials). From the head of *Adam Kadmon* light appeared in particular patterns. To the Kabbalists, these patterns became the written form of language. Thus, words and light are unified by the single divine emanation from *Ein-Sof* through *Adam Kadmon*.³¹ At the same time, the vessels containing the *Siferot* break. The purpose of man is to restore the *Siferot* to their vessels and bring the unity back to *Ein-Sof*.

Hasidism is a practical mysticism for us to complete the task set by Lurianic Kabbala. It adopts the story of creation where the *Siferot* vessels break. The sparks of light released from the broken vessels penetrate into all matter, mineral, vegetable, and animal, and become the latent essences.³² At this point, Hasidism expands beyond Kabbala. For Hasidists, the imagination is the faculty that can see the sparks of light hidden within objects.³³ This harkens back to primitive man who thought in symbolism. As we shall see with the Romantics, the Hasidists believed symbols were the embodiment of divine presence.³⁴ The ability of man to recognize the symbols enables the imagination to connect with a spiritual essence and aid in the return to the divine source. The purpose of mankind is to elevate matter towards the *Ein-Sof*

³⁰ Ibid. 171.

³¹ Ibid. 130-138.

³² Martin Buber, *The Origin and Meaning of Hasidism*, trans. Maurice Friedman (New York: Horizon Press, 1960) 84.

³³ Ibid. 62-63.

³⁴ Ibid. 165-167.

by bringing mineral to vegetable form, vegetable to animal form, and animal spirit to *Ein-Sof* so the emanations of light can return to their origin. It is mankind's actions which unify worldly objects with God.³⁵

Another emanation from Kabbala appears as the *zaddik* in Hasidism. The *zaddik* is the emanation known as the Righteous One, the spiritual leader of the community. While the Kabbala is mysticism for the initiated scholar, Hasidism emphasizes the role of the community and allows the *zaddik* to open the door between God and the common person. The *zaddik* is not only a voice for the wisdom of God, which is a role the Kabbalist plays, but also mediates between God and the community. Hasidism encourages a life in the community as well as a personal relationship with God.³⁶

Mysticism and Louis Kahn

One of Louis Kahn's most widely known essays is "Silence and Light," which first appeared in 1968 and a revised version appeared one year later. Kahn suggests that silence and light mean the same thing [Fig. 2]. If we look into Hermeticism, Kabbala, and even the "inner light religions" interpretations of the Bible, we again find these two different perceptions unified as a singular effect. Jakob Boehme, for instance, believed God conceived Creation by breaking the silence with his proclamation, "Let there be Light."³⁷ We also saw with Hermeticism how the word, or breath, of expression breaks the silence and produces a work.

When describing silence, Kahn uses the pyramids as an example in architecture, which is in keeping with his interest in Egyptology. Burton shows in his dissertation that Kahn bought a book in Cairo, *The Nile: Notes for Travellers in Egypt*, by the famous British Egyptologist, E. A. Wallis Budge.³⁸ *The Nile* is a guidebook with a comprehensive and easy-to-follow history of Egypt; it deciphers hieroglyphics; it includes drawings of the tombs and pyramids along with written

³⁵ Ibid. 133.

³⁶ Ibid. 25-27.

³⁷ M.H. Abrams, *The Correspondent Breeze: Essays on English Romanticism* (New York: W.W. Norton & Co., 1984) 177.

³⁸ Joseph Arnold Burton, *The Architectural Logos of Louis I. Kahn: Architecture as Logos* (Philadelphia: University of Pennsylvania, 1983) 36.

observational data; it identifies the major Egyptian deities; and notes the rituals of popular religious sites one can visit.³⁹ This book also identifies Toth as the god of judgment, the scribe, and measurer of space and time.⁴⁰ As a god of inspiration through words, Toth is the one who breaks the silence. Toth was also reincarnated as Hermes Trismegistus, the guardian of knowledge before the flood. This Hermes recorded the wisdom and Word of God in the Egyptian hieroglyphics. The hieroglyphics held the Word of God in silence. If looking to the most primitive form of architecture, like the most primitive form of writing, the pyramids make an excellent choice. For Hermetic mystics, the civilization that bore Hermes Trismegistus built the pyramids. They are also an expression of man's creative powers as a built form. One could claim, as Kahn did, that they symbolize the language of God.⁴¹ Kahn, echoing Budge, sees the pyramids as symbols for the human need to express rather than simply being a monument.

Let us go back in time to the building of the pyramids. Hear the din of industry in a cloud of dust marking their place. Now we see the pyramids in full presence. There prevails the feeling "Silence," from which is felt Man's desire to express. This before the first stone was laid.⁴²

Budge noted similarities between Egyptology and Judaism. The sun god Ra gave birth to the other deities from his own being. Hence, the emanations of Ra, the sun, embody other persona of the Egyptian pantheon. Budge also notes that the Egyptians saw Man constituting nine parts: body, soul, a double, intelligence, shadow, form, heart, name, and a spiritual body.⁴³ These parts of being have striking

³⁹ E. A. Wallis Budge, *The Nile: Notes for Travellers in Egypt* (London: Thomas Cook & Son, 1902). Kahn's version, according to Burton's notes, was published in 1912. The edition I reviewed was published in 1902.

⁴⁰ Ibid. 188. Budge does not directly associate Toth as the deity who brought words to humans the way Spence does (see note 5). Budge's book is also not the only book Kahn owned on Egyptology. For more information, see Burton's dissertation appendix.

⁴¹ Louis I. Kahn, "Talks With Students," in *Louis I. Kahn: Writings, Lectures, Interviews*, ed. Alessandra Latour, 154 - 190 (New York: Rizzoli, 1991)

⁴² Louis I. Kahn, "Silence and Light," in *Louis I. Kahn: Essential Texts*, 228-251 (New York: W.W. Norton & Co., 2003) 229.

⁴³ Budge, *The Nile: Notes for Travellers in Egypt*. 144-145.

resemblance to the ten emanations, the *Siferot*, in Jewish mysticism. There we saw how the individual emanations, as parts, made up and sought the whole, the *Ein-Sof*. Budge points out, and likely Kahn noted, that the Hebrew Scriptures and Egyptology are comparable. The various descriptions of how the parts making a whole, in a spiritual sense, would have a distinct appeal for Kahn.

Kahn famously stated that, “I sense Light as the giver of all presences, and material as spent light.”⁴⁴ Given the background of Lurianic Kabbala and Hasidism, these esoteric quotes begin to have significant meaning. Light, as the emanation of the *Ein-Sof*, or the equivalent Neoplatonic One, spilled into all matter and material once the vessels of the *Siferot* broke. It is the purpose of mankind, according to Hasidism, to express the light in the material so it can return to the *Ein-Sof*. The architect’s role is to express the materials of the building so the composition can be part of the original whole of Creation. As Kahn said, “material is spent light.”

Another attribute of Hasidism is the importance of the community and the *zaddik*, the righteous one, mediates between the community and God. For Kahn, the architect is a righteous community leader, the one who expresses the institutions of the community.

Architecture primarily deals with the making of spaces which serve the institutions of Man...The city is measured by its institutions.⁴⁵

When Kahn speaks of the architect and institutions, it has a mystical ring to it. From a Hasidic position, it is a symbol connecting the community to God.

Kahn never explicitly states what, if any, mysticism influenced his thinking. There have been attempts to project his Jewish faith onto his buildings and map symbols onto the designs, but often scholars have determined that there is little or no relationship.⁴⁶ However, the ideas embodied in these mysticisms have a long tradition Kahn himself appears to follow. For instance, Kahn plays the role of the

⁴⁴ Louis I. Kahn, "Silence and Light," in *Louis I. Kahn: Essential Texts*, 228-251 (New York: W.W. Norton & Co., 2003) 229.

⁴⁵ Louis I. Kahn, "Silence and Light," in *Louis I. Kahn: Essential Texts*, 228-251 (New York: W.W. Norton & Co., 2003) 1968 version. 230,233.

⁴⁶ Conversation with William Whitaker, director of the Architecture Archives at the University of Pennsylvania, April 2010.

zaddik, who not only saw himself as an architect designing the institutions of communities, but also as a teacher. The silence and light in his architecture share common traits in mysticism, like inner contemplation and seeking a unity with God. This becomes an essential foundation to Romantic philosophy of the late eighteenth and early nineteenth century.

II

German Romantic Aesthetics

Louis Kahn claimed Goethe was an important influence in his life.⁴⁷ While it is difficult, if not humorous, to picture a five-year-old Kahn reading *Faust*, there are commonalities between the aesthetic vision of the Romantics and Kahn's imagination. A significant contribution Goethe gave the Romantics was a metaphor using myth to understand biology, which helped formulate organicism. In turn, the organic philosophy of German Romantics influenced American Transcendentalists and Kahn's education in the United States. In order to understand the American influences on Kahn during his formative years, we can briefly investigate German Romanticism by outlining the position it reacted against. This helps us understand a few influences on Goethe and how he led others to further formulate organicism.

Romanticism was a challenge to the Enlightenment's definition of universal beauty, which perpetuated classical aesthetics. Beauty, for classical aesthetics, uses nature as a rational doctrine principally based in mathematics and imitation through observation.⁴⁸ The use of harmonic proportions, for instance, verifies the orders of architecture since the same ratios are observed in the parts of plants, are heard in music, and conceptually order the cosmos as the music of the spheres. The employment of mathematics for artistic composition presented a universal trait for beauty. Since the ancients canonized this rule in their treatises and architecture, classical temples became the templates for building designs. The design was only a copy, an imitation, of the temple form without the purpose for the temple's existence inherent in the design.⁴⁹

⁴⁷ Louis Kahn, "Lecture at Yale University (1963)," in *Louis Kahn: Essential Texts*, ed. Robert Twombly, 162-168 (New York: W.W. Norton & Co., 2003) 166.

⁴⁸ Charles R. Metzger, *Emerson and Greenough: Pioneers of an American Esthetic* (Westport, CT: Greenwood Press, 1970) 41. See also Isaiah Berlin, *The Roots of Romanticism* (Princeton, NJ: Princeton University Press, 1999) 22.

⁴⁹ Charles R. Metzger, *Emerson and Greenough*. 51.

The Romantics did not deny the role of mathematics in creating art as a rule, but, they argued, this only described beauty. It did not discover what is beautiful. The Romantics wanted to find the source of the beautiful. For the Romantics, universal beauty was not something explained through human reason or observation. It was universal because it brought us to the wholeness we once had with the world and God before the Fall of Man.⁵⁰ The purpose of creating was not for our own pleasure, but to transcend to the realm of the divine. The process to do this began with intuition over reason.⁵¹

Rational Aesthetics

Christian Wolff (1679-1754) formulated the principles of German rational aesthetics with Leibniz's philosophy that subsequent followers either confirmed or modified. Wolff believed he could find beauty by understanding perfection through knowing natural law. Often, Wolff's examples are in architecture since he felt architecture still preserved making (*techne*) that, in turn, manifested theoretical aesthetics. Beautiful architecture appears when the architect followed the rationality of natural law.

When an architect finds pleasure in seeing a building this is because he knows the rules of its construction and how well they have been observed; his pleasure in the building is much greater than the layman's because he knows the rules of its construction.⁵²

Wolff further defines this pleasure of beauty as finding the perfection of the object. Perfection occurs, according to Wolff, when all the parts work with the whole. Speaking as a classicist, this happens when mathematical proportion, being the universal order between the natural and the manmade, governs the design. Wolff used mathematics as an example of a regulation for designing something we perceive as beautiful. His ambition was to discover other commonalities of what we find to

⁵⁰ M. H. Abrams, *Natural Supernaturalism* (New York: W.W. Norton & Co., 1973).

⁵¹ The Romantics and Rationalists both employed reason. The distinction is that the Rationalists held that reason grounds itself on physical law (Beiser, *Diotima's Children*. 2). The Romantics employed reason to understand metaphysical truths. For Romantic use of reason, see page 40-41.

⁵² Frederick C. Beiser, *Diotima's Children* (Oxford: Oxford University Press, 2009) 62.

be beautiful in order to categorize and standardize aesthetics. Wolff was not successful, but his followers attempted to uncover the laws they believed to exist.⁵³

Alexander Baumgarten (1714-1762) follows Wolff's thesis defining beauty as perfection. Perfection means that all the parts relate to the whole. For Baumgarten, as well as Wolff, this perfection is superficial, meaning it is the outward appearance. This troubled even Enlightenment philosophers, such as Kant. Kant finds fault in Baumgarten's proposal because Kant determines perfection by understanding the object's ultimate purpose, its entelechy. However, Baumgarten is more interested in the visual relation of the part to the whole than to the object's purpose.⁵⁴ This becomes a real problem when trying to define something being poetic. To do so, Baumgarten tackles the question of poetics by following rational aesthetics.

Baumgarten, like Wolff, attempted to standardize poetry. He predominately limits poetry to a verbal depiction of a scene. In other words, the words of a poem are concrete and understood to present an image everyone can formulate. This thesis, however, appears to limit the poet's imagination. Baumgarten reconciles this criticism by stating the poet uses the imagination to formulate an original and plausible image. In short, the poet can imagine something that does not exist, but it reasonably could.⁵⁵ Thus, Baumgarten confines poetics and the imagination to the physical world and avoids questioning an object's purpose as a criterion for perfection.

Johann Winkelmann (1717-1768) also tried to systematize aesthetics. Unlike Wolff who began with mathematics as his foundation for disclosing universal beauty, Winkelmann turned to history. He determined Greek art to be beautiful when their civilization was at its peak. The high art of Athens presented the best techniques of making art when the Greek body and forms were also perfect. Winkelmann wanted to show that forms achieved perfection when artists could imitate the perfection of nature. If this could be demonstrated by mathematics, he was in favor of it. However, he believed qualitative judgment was not strict mathematical construction

⁵³ Ibid. 51, 60-64.

⁵⁴ Ibid. 143-149.

⁵⁵ Ibid. 123-133.

before making an object, but a visual sensibility of proportion that maintained balance.⁵⁶ What Winkelmann inadvertently did was to open the possibility for the Romantics to demonstrate how different societies could achieve beautiful works without universally rational principles.

Moses Mendelssohn (1729-1786), whom Kahn's family claimed as a relation,⁵⁷ was a defender of the Wolff and Baumgarten position of German Enlightenment aesthetics. While he agreed with Wolff that beauty was the result of perfection discovered through the intellect, Mendelssohn acknowledged it was not always a purely intellectual exercise. Mendelssohn was aware of the empiricists taking hold in English philosophy; he even reviewed Edmund Burke's *Enquiry* on the beautiful and sublime when it arrived in Germany. Although he was not impressed with Burke's conclusions, Mendelssohn recognized beauty affects us psychologically as well as intellectually. He agreed with Baumgarten that the poet could be inspired for originality, but reason must govern the imagination. Mendelssohn maintained that creative genius could describe and explain objects, but it could not have an ineffable or spiritual dimension. Only God has the ability to create objects symbolically transcending into something spiritual.⁵⁸

Suprarational Aesthetics

The counter-argument for rational aesthetics in Germany was led by Johann Georg Hamann (1730-1788), a contemporary critic of Mendelssohn. Hamann lived in Königsberg as a neighbor and friend of Immanuel Kant, although their philosophical constructions clashed.⁵⁹ He was a teacher of Herder, another early Romantic figure, and an influence on Goethe and Friedrich Schelling. Like Goethe and other early Romantics, Hamann began as a classicist and follower of rational aesthetics. His position changed after a religious awakening while living in England. His pietism took hold after intensely reading his Bible. His religious fervor enabled

⁵⁶ Ibid. 175-187.

⁵⁷ Joseph Arnold Burton, *The Architectural Logos of Louis I. Kahn: Architecture as Logos* 27.

⁵⁸ Frederick C. Beiser, *Diotima's Children*. 196-240.

⁵⁹ Isaiah Berlin, *Three Critics of the Enlightenment: Vico, Hamann, Herder*, ed. Henry Hardy (Princeton, NJ: Princeton University Press, 2000) Berlin provides a brief biography from pages 258-271.

him to think beyond the human intellect to the suprarational. Hamann argued that Mendelssohn and his supporters were able to describe beautiful things, but fell short of discovering why something is beautiful. Man's genius, Hamann explained, could transcend rational thinking because beauty is ultimately the human manifestation of the ineffable language of God.

Where Kant and Mendelssohn make their error, according to Hamann, is that they "confuse words with concepts and concepts with real things."⁶⁰ For Hamann the origin of language begins with the Word of God saying, "Let there be light." Words embody the actions of the Creator and are symbolic of God's Creation. The ambiguity of the Word of God led to the formulation of images in order to interpret its meaning. Over time, the symbolic words became pictures and objects. The artist, by seeing the world through symbols as a hieroglyphic of God's presence, made objects that connect the human mind with the divine realm. This was a far bolder proposition than that of the rational aesthetics who saw beauty as an ideal perfection on earth. Instead of reason limiting the imagination to what is possible, Hamann allows the imagination to make present the existence of God.

In Hamann's philosophy, God still plays an active role in the world. God is a poet continually creating the world. This action makes the world alive. The fact that the world is alive makes it organic. This gives Hamann a unique view of history. If the world is similar to life, then history is not a series of events isolated in time. Instead, history is continuous from the beginning of the world until its end. Specific events do not define history. History is part of a natural progression analogous to an organism's lifetime.⁶¹ This allows for perpetual myths and creativity, since the world has not yet reached its decline.

Another proposition of Hamann was that particular cultures had their own means of expressing a work of art. Instead of stamping out individual expression in favor of a universally accepted canon of rules, the uniqueness of the expression added to the variety of life found on earth. It was Hamann's student, Johann Herder (1744-1803), who took the cue and proposed preserving the variety of cultures.

⁶⁰ Ibid. 322.

⁶¹ Ibid. 324.

One example of Herder's interest in particular ethnic groups can be found in his *Spirit of Hebrew Poetry*. The story is a dialogue between two friends, Alciphron (a sophist) and Euthyphron (the religious interpreter), about the history of Hebrews with respect to the development of their language and poetry. It is Euthyphron who explains that man is more than a product of the earth as a body made out of clay because God gave his breath to man to express the will of God.⁶² Euthyphron later discredits the belief that Egypt was the origin of writing and mythology because it is humanity, rather than society, that establishes ideas. We glimpse Herder's interest in seeking the most primitive of societies to find a universal commonality rather than a single source that disperses into variety.

If we shall ever learn more thoroughly the mythologies and languages of the countries, we shall see in clearer light many things pertaining to the original history of our race, and the derivation of the earliest ideas. So much, however, we see with the greatest clearness, that Egypt could by no possibility be the source of these traditions.⁶³

Herder also suggests in this passage and in previous pages that primeval language would not have the intelligible meaning of words that they have today.⁶⁴ While the breathe of God places ideas into our heads and gives us verbal expression, it takes time and cultivation of ideas to communicate with others.

Herder believed every culture developed its own artistic expression from the same universal origin. The mythologies and symbols of society grew out of that society's particular way of seeing the world. The artist was able to express the world-view and beliefs of a society by interpreting its symbolism. This does not mean the artist develops an esoteric form of symbolism that no one else can decipher. The artist is an agent of society, an individual in the sense of being a seer, but still part of the collective of society.⁶⁵ The artist achieves this, in part, by exploring the origin of

⁶² Johann Herder, *The Spirit of Hebrew Poetry*, trans. James Marsh (Burlington, VT: Edward Smith, 1833) 163-164. Marsh, the translator, best known for publishing Coleridge's *Aids to Reflection* in the United States. It was Marsh's edition that inspired Emerson and the Transcendentalists.

⁶³ *Ibid.* 263.

⁶⁴ *Ibid.* 261.

⁶⁵ Isaiah Berlin, *Three Critics of the Enlightenment: Vico, Hamann, Herder*, ed. Henry Hardy (Princeton, NJ: Princeton University Press, 2000) 226-227.

human thought to find the common spiritual essence linking the particular cultures.⁶⁶ It was an expression of national character as well as communicating with the realm of God.

Hamann and Herder shared ideas with the young Johann Wolfgang von Goethe (1749-1832) who would cast aside rational aesthetics in favor of national and natural expression. Isaiah Berlin comments that Goethe was a follower of Hamann at the time he wrote his praise of Strasbourg Cathedral in 1772.⁶⁷

Goethe's essay, "German Architecture," announces his retraction from classical aesthetics purported by the Enlightenment in favor of an aesthetic developed out of his own culture. In Goethe's essay, he is quick to challenge the Enlightenment's views on architecture, particularly the remarks of the French architecture critic Marc-Antoine Laugier. Goethe attacks Laugier's version of the primitive hut with two significant ideas. One is Laugier's belief that man's creative power arises out of pure reason and the other is his assertion that his primitive hut was the first hut form for all indigenous people.⁶⁸ Goethe retorts,

This hut of yours was not the first in the world. Two poles crossed at the top in front, two in the back and a fifth as a ridgepole, as we can see every day from huts in fields and vineyards, that is clearly a far earlier invention, from which you could not even derive a principle for your pigsties.⁶⁹

While this sounds as definitive of a description for all primitive huts as much as Laugier's description, Goethe later claims that his specific observations are for German architecture, which is free from the architecture of the Mediterranean, i.e. Greece and Rome. Goethe is after the "rough-hewn German soul" that is free of the styles of antiquity. Following Herder, he wants to find a German architecture

⁶⁶ Ibid. 225.

⁶⁷ Isaiah Berlin, *The Roots of Romanticism* (Princeton, NJ: Princeton University Press, 1999) 43.

⁶⁸ Laugier described his hut as four tree trunks serendipitously arranged in a square and supporting branches and a gable roof made of sticks.

⁶⁹ Johann Wolfgang von Goethe, "German Architecture," in *Essays on Art and Literature*, Vol. 3, ed. John Geary, trans. Ellen von Nardoff and Ernest H. von Nardoff (New York: Suhrkamp Publishers, 1986) 4-5.

expressive of the German people. This is not for political nationalism, but as a symbol of the best that German culture can build.

Another part of Goethe's essay declares the purpose of the artist. He agrees with Hamann and Herder that the artists must be actively seeing the world.

Art is creative long before it is beautiful... For man there is creative force which becomes active as soon as his existence is secure. When he is free from worry and fear, this demigod...begins to cast about for matter to inspire with his spirit.⁷⁰

For Goethe, the world is not one observed under a microscope as if we are outside it. One of the constant Romantic stabs at the Enlightenment is that they viewed the world as "dead." The Romantics argued that Enlightenment thinkers made observations of the world as if they were somehow outside it. The Romantics were trying to bring people back into the world and break down the subject-object separation developed primarily from Descartes. Descartes also proposed the mechanistic operation of the world, the famous "clockwork metaphor." This alleged that everything was set in motion, like a machine. This meant it also prohibited autonomous action within the mechanism; that would break the machine. The Romantics believed it was the role of the artist to bring out the life in the world. The artist had the capability of imagination to see the world alive and find an ineffable quality that rational means cannot measure. The artist's imagination could bring out this quality because, as Goethe stated, "...this creativity produces the most arbitrary shapes and designs, they will harmonize despite the apparent lack of proportion. For a single feeling created them as a characteristic whole."⁷¹ Goethe presents an artist who thinks from the parts to the whole from a different approach compared to classical aesthetics.

Goethe's relationship of the parts to the whole differed from the classical tradition and was embraced by the Romantics who formulated organicism. In classical aesthetics, the parts relate to the whole by rules of proportion, symmetry, and other principles described by Vitruvius and his commentators. Goethe,

⁷⁰ Ibid. 8.

⁷¹ Ibid. 8.

however, is intrigued by the parts of the façade of the Strasbourg cathedral and how they build up to a unified composition. Rather than starting from the whole and looking at the parts, as the Enlightenment thinkers were approaching their standardizations and generalizations, Goethe was looking at the parts to lead him towards the whole. This parallels Hamann's thoughts on symbols whereby symbols lead the imagination to one universal source. Goethe further makes connections between the artist's imagination and a living organism.

Principles are even more damaging to genius than examples. Individual artists may have worked on individual parts before him, but he is first from whose soul the parts emerge grown together in an everlasting whole.⁷²

He alludes to Hamann and Herder by imaging the world as alive, and, therefore, an organism. The organism is holistic because it is composed of parts, which grow over time towards a form that never stops changing, like the growth cycle of an animal.

Goethe also observes that no two organisms, even in the same species, are identical. In variety, there is a singular, latent essence. To find the true form, one must find the most archaic version. During his travels through Italy from 1786-1788, Goethe was fascinated with the idea of finding the *Urpflanze*, the Primordial Plant. This plant is the most archaic plant containing all the common traits throughout all the variety of vegetable life on Earth. It is what makes a plant a plant.

The Primordial Plant is going to be the strangest creature in the world, which Nature herself shall envy me. With this model and the key to it, it will be possible to go on forever inventing plants...⁷³

By discovering this archaic plant, metaphorically speaking, it is possible to develop infinite variations, and thus create something through an organic process.

It is important to note that this is a pre-Darwinian idea. Goethe is not searching for the first plant the way a modern paleoanthropologist searches for the "missing link" in human evolution. Goethe's primordial plant is a mythic

⁷² Ibid. 4.

⁷³ Johann Wolfgang von Goethe, *Italian Journey, 1786-1788*, trans. W.H. Auden and Elizabeth Mayer (San Francisco: North Point Press, 1982) 205-206.

formulation where the most essential qualities of all plants, regardless of species, make an elemental plant.

Here where...plants are allowed to grow freely in the open air and fulfill their natural destiny, they become more intelligible. Seeing such variety of new and renewed forms, my old fancy suddenly came back to mind: Among this multitude might I discover the Primordial Plant? There certainly must be one. Otherwise, how could I recognize that this or that form *was* a plant if all were not built upon the same basic model?⁷⁴

There are external and internal forces affecting the growth of the plant. The primordial plant would have variations in its manifested form due to situational conditions such as climate and soil; these are external factors. The primordial plant also has intrinsic factors, specifically its entelechy, which also contributes to the physical form of the plant.

The entelechy comes from Aristotle and refers to an object's purpose. This is not necessarily a functional purpose, but its purpose of reaching its goal to its mature form.⁷⁵ Perhaps Goethe's most famous example of the growth of the plant related to its entelechy is his example of the growth of an oak tree in a conversation with Johann Eckermann:

Thus the oak is a tree which may be very beautiful; but how many favorable circumstances must concur before nature can succeed in producing one truly beautiful! If an oak grow in the midst of a forest, encompassed with large neighboring trunks, its tendency will always be upward, toward free air and light: only small weak branches will grow on its sides: and these will in the course of a century decay and fall off. But if it has at last succeeded in reaching the free air with its summit, it will then rest in its upward tendency, and begin to spread itself from its sides and form a crown. But it is by this time already past its middle

⁷⁴ Ibid. 251-252.

⁷⁵ Aristotle. *De Anima (On the Soul)*. Book II, Chapter 1. Trans. J. A. Smith. <http://classics.mit.edu/Aristotle/soul.2.ii.html>.

age: its many years of upward striving have consumed its freshest powers, and its present endeavor to put forth its strength by increasing in breadth will not now have its proper results. When full grown, it will be high, strong and slender stemmed, but still without such a proportion between its crown and its stem as would render it beautiful.⁷⁶

This addresses the question about the form of the oak. Is it the acorn, the sapling, the full tree, or the rotting stump? The point is that these are forms of the oak over various stages of the plant's life. There is no ideal form of the oak from the direction the Enlightenment thinkers were hoping to find. Not only is there no ideal oak, but oaks will change their form based on local conditions. No two oaks will look alike, yet one is not more oak than the other is. Goethe finds this to be metaphorical of all life on earth from the Creation to an end still to come.

Goethe's observations, in the *Metamorphosis of Plants*, looks to the development of plant growth from the seed to full bloom with the eye of a scientist and the mind of a poet. He revisits an observation he made in Italy

...it came to me in a flash that in the organ of the plant which we are accustomed to call the leaf lies the true Proteus who can hide or reveal himself in all vegetal forms. From first to last, the plant is nothing but leaf, which is inseparable from the future germ that one cannot think of one without the other.⁷⁷

The leaf sets his thesis for observing the life and development of various plants. For Goethe, even the seed of the plant is the form of a leaf. It comes from the leaf and its shell feels like the leaf.⁷⁸ What he observes is that the leaf is the particular of the plant defining the whole. Throughout the stages of growth, the leaf presents the internal potential of the plant. Although he does not presume to speculate what makes the plant grow, he does believe there is some force internally that causes it to

⁷⁶ Johann Wolfgang von Goethe and Johann Peter Eckermann, *Coversations with Eckermann* (New York: M. Walter Dunne, 1901) 197.

⁷⁷ Johann Wolfgang von Goethe, *Italian Journey, 1786-1788*, trans. W.H. Auden and Elizabeth Mayer (San Francisco: North Point Press, 1982) 363.

⁷⁸ Johann Wolfgang von Goethe, *Metamorphosis of Plants*, trans. Gordon L. Miller (Cambridge, MA: MIT Press, 2009) 75.

change. For instance, what cause the leaf to grow longer over time? There is not an external force, such as something stretching it. The plant has some latent drive for it to complete itself.

In his poem *Metamorphosis of Plants*, Goethe describes what his observations of nature led him to discover.⁷⁹ He notes that the entelechy of the plant is not towards a functional purpose on earth but it is symbolic of the creation of life by God.

Closely observe how the plant, by little and little progressing,
Step by step guided on, changeth to blossom and fruit!
First from the seed it unravels itself, as soon as the silent
Fruit-bearing womb of the earth kindly allows its escape,
And to the charms of the light, the holy, the ever-in-motion,
Trusteth the delicate leaves, feebly beginning to shoot.

Metaphorically, this narration relates to the Creation as described in Genesis. The seed is the potential of the universe and the voice of God breaks the silence by saying, “Let there be light.” In the plant’s process of growth to reach maturity, the plant not only requires light to grow, but its purpose is to reach the realm of God.

Soon a shoot, succeeding it, riseth on high, and reneweth,
Piling up node upon node, ever the primitive form;
Yet not ever alike: for the following leaf, as thou seest,
Ever produceth itself, fashion’d in manifold ways.

Goethe returns to the variety deriving from a primordial source, the *Urpflanze*. Just as he describes from his travels, Goethe recognizes the infinite variety of forms originating from the plant’s mythical essence. The variety of forms presents the symbolic purpose of Nature.

Every plant unto thee proclaimeth the laws everlasting,
Every floweret speaks louder and louder to thee;
But if thou here canst decipher the mystic words of the goddess,

⁷⁹ Goethe wrote the poem for his wife and her friends to help explain what his observations were about so they could understand it. *Metamorphosis of Plants*. Miller’s Introduction. xxiv.

Everywhere will they be seen, even though the features are chang'd...⁸⁰
He describes how discovering the symbol is a mystical experience. Once it is deciphered, like a hieroglyphic, one can read the teleology of Nature. Goethe demonstrated a tangible relationship between physical objects and a transcendental quality other German philosophers carried further to formulate organicism.

Friedrich von Schelling (1775-1854), a follower of Goethe, developed a philosophical system that became the foundation of Samuel Taylor Coleridge's organic thinking and, consequently, American Transcendentalism. One significant idea Coleridge took from Schelling was the nature of the imagination. What the artist sees is a variety of objects in the world without any observable relationship. The artist brings these various parts into a whole through the imagination. The imagination finds the essential relationship and creates something new in the world. In Schelling's system, and Coleridge's, the latent essence of objects of art and nature constitutes life. For Schelling, the imagination is part of our unconscious, which has a mythic relationship to our mind. The imagination can arrange the contradictory forms and ideas in the world by going back to mythic origins.⁸¹

One reason Schelling had an interest in mythology was due to its ability to grow from an origin. Myths work as symbols, which embody a transcendental idea into a physical entity.⁸² Out of these early myths, later poets employed their imaginations to work out the contradictions and variety found in myths into an intelligible form of thought.

After the eternal act of divine self-revelation, everything in the world as we now see it is according to rule, order, and form. But still there always lies in the ground (*im Grunde*) that which is unruly, as if it could someday break through again; and nowhere does it appear as if order and form were the original condition of things, but rather it seems as if

⁸⁰ Johann Wolfgang von Goethe, *The Metamorphosis of Plants*, Vol. 1, in *Goethe's Works*, ed. Hjalmar Hjorth Boyesen (Philadelphia: G. Barrie, 1885). Accessed from <http://oll.libertyfund.org/title/2110/163083> on 2011-02-19

⁸¹ M. H. Abrams, *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* (New York: Oxford University Press, 1953) 209 - 210.

⁸² Edward Allen Beach, *The Potencies of God(s): Schelling's Philosophy of Mythology* (Albany, NY: State University of New York Press, 1994) 31.

a state of unruliness had been brought to order.⁸³

In Schelling's system, the ground is the unconscious, which is a remnant before the Creation.⁸⁴ The unconscious is a relic that continues through history to which we attempt to order. This ordering is the purpose of the artist.

It is not given to everyone to know the end and it is given to few to see the primordial beginnings of life and it is given to even fewer to think through the whole of things from beginning to end.⁸⁵

We see again a similar search Goethe undertook to find the *Urpflanze*. Nature has an active life and those select few who realize this understand the process of growth. Myths and symbols establish a beginning where the imagination can start with the seed of the unconscious and develop them towards their end.

The use of the artist's imagination distinguishes the Romantic aesthetic from the rational aesthetic. Schelling agrees with Winckelmann and rational aesthetics to a point in an essay he delivered on art.⁸⁶ Winckelmann realizes seeking the original forms of art from the Greeks uncovers the original beauty of ornament before artists began to embellish ancient ornament over time. However, Winckelmann is only interested in the physical appearance of the form. Art still imitates nature. Schelling argues that simply copying the form does not include the essence of the form. The spirit, or purpose, of the form eludes contemporary artists. Schelling explains a work of art is a work of nature. As the tree grows over the course of life, so does art. For Schelling, art reaches full maturity with Michelangelo and Raphael before it withers away into its present state. The only way out of the descent is for the artist to sense the universal from the imagination just as the great Renaissance artists did. This is not out of imitation, but out of the progression of growth.⁸⁷

Art that imitates is stagnate and not living art. Rational aesthetics held that

⁸³ Schelling quoted in Beach, *The Potencies of God(s): Schelling's Philosophy of Mythology*, 53.

⁸⁴ Schelling was influenced by Boehme's writings by this point. See Beach, *The Potencies of God(s): Schelling's Philosophy of Mythology*, 33, 69-75.

⁸⁵ Friedrich von Schelling, *The Ages of the World*, trans. Jason M. Wirth (Albany, NY: State University of New York Press, 2000) 3.

⁸⁶ Friedrich von Schelling, *The Philosophy of Art: An Oration on the Relation Between Plastic Arts and Nature*, trans. A. Johnson (London: John Chapman, 1845).

⁸⁷ Friedrich von Schelling, *The Philosophy of Art: An Oration on the Relation Between Plastic Arts and Nature*, trans. A. Johnson (London: John Chapman, 1845).

art achieved a perfection of beauty in a past that we could resurrect. By studying the rules of art and carefully measuring and observing artifacts from antiquity, it would be possible to codify the beautiful into a universal law. Even the rationalists recognized this failed to account for the imagination. The Romantics promoted creative imagination and intuition over reason. For the precursors of the Romantics, such as Hamann and Herder, the artist not only produced works following rules of aesthetics, but also expressed something beyond the descriptions of the rationalists; the artist uncovered the latent expression of God. The ability to find this expression searches into myth. By seeking the origins of human thought in action, particularly at the Creation when man was closest to God, the artist expresses in symbols the nature of particular societies. A singular mythic source for an object manifests the variety of designs in both art and nature. The infinite variations produced from this single source make art alive. Art and artifacts are constantly changing and growing to their ultimate *telos*, which is the unification with God. Living art is a process of growth from its roots in myth to a manifestation taking on the symbols recognized by a particular society towards an end that leads one to the divine realm at the moment of its perfection. A work of art is an organism.

Kahn and German Aesthetics

There is a high probability Kahn knew, at least through secondhand sources, the ideas of German philosophers during this period. For instance, Kahn made a statements on how an individual “can reconstruct the universe from a single blade of grass,” which is an illustration Immanuel Kant uses in his *Critique of Judgment*.⁸⁸ The statement resonates well with Goethe and the other Romantics who used Kant’s example and his critique to negate the mechanical model of the world in favor of an entelechy for natural life. Out of all the philosophers presented, Kahn only mentions Goethe as an influence. However, when we consider Goethe’s influences and the

⁸⁸ Louis Kahn. “Talks with Students.” 186. Immanuel Kant. *Critique of Judgment* §75. “It is indeed quite certain that we cannot adequately cognise, much less explain, organised beings and their internal possibility, according to mere mechanical principles of nature; and we can say boldly it is alike certain that it is absurd for men to make such attempt or to hope that another Newton will arise in the future, who shall make comprehensible by us the production of a blade of grass according to natural laws which no design has ordered.”

two distinct aesthetic movements in Germany, coupled with Kahn clearly having an interest in myth, it is reasonable to assert the Romantic movement is more influential than rational aesthetics towards Kahn's development. Since Goethe sided with the rationalists and the Romantics during the course of his life, it is important to look at his Romantic side since the organic theories he suggested were developed by later philosophers who eventually influence the Transcendentalists in America. In Part Two, we will see how Transcendentalism plays a significant role in Kahn's aesthetic education.

III

Estonia, circa 1900

Louis Kahn is recognized as an American architect, however, he and his family were not naturally born Americans.⁸⁹ His parents were married in Latvia and moved to Estonia, where Kahn was born in 1901. The family remembers Kahn's mother, Bertha Mendelssohn, as a community healer and a "wise woman." Her father, Abraham Mendelssohn, was a Jewish community leader described as a mystic. These stories, however, are reminiscent of Kahn, his wife Esther Kahn, and a few colleagues of Kahn that handed down through a third source.⁹⁰ How truthful they are, even coming from Louis Kahn himself, is certainly a topic for debate. What we can confirm is that the stories are part of Kahn's family legend, which in itself sheds light as to how Kahn's family viewed themselves in the community and allow for the interpretation of possible ideas and events taking place around them that would influence Kahn as he matured in life.

A little more than one hundred years before Kahn was born, Johann Hamann changed the philosophical wind from rationalist France to romantic Germany. Hamann and his followers, such as the young Goethe and Herder, helped fuel a nationalist movement in Europe. The Romantics developed myths and legends for their nations, such as James Macpherson and the Ossian poems or Richard Wagner's *Der Ring des Nibelungen*. The works of Friedrich Schiller emphasized political freedom for people under foreign authority. In his history of Moses, for instance, Schiller describes Moses as a heroic figure who learned from the Egyptian scholars and used that knowledge to free the Israelites and lead them to the Promise Land.⁹¹ The wave of national pride was caught by the ethnic groups of the Baltic states under the authority of two foreign races, the Germans and Russians.

⁸⁹ Kahn's birth name was Leiser-Itze Schmuilowsky.

⁹⁰ Joseph Burton is the third source. His dissertation names Kahn's grandfather on page 28. Alex Tyng also notes the same stories in her book (see note 3).

⁹¹ Friedrich Schiller, *Die Sendung Moses*, Vol. 4, in *Sämtliche Werke*, trans. My translation, 783-804 (München: Carl Hanser Verlag, 1966).

In the mid-nineteenth century, the Baltic states were officially part of the Russian Empire and under the rule of the tsar. The Germans, however, held the power of local authority. Prior to Russian control, the Germans held political appointments and were the dominant landowners. The local peasantry worked the land belonging to the German landed gentry. The universities were taught in German and the Baltic intelligentsia associated themselves with German culture.

In 1849, the Russians made their first serious attempt to weaken the German authority in the Baltic. Tsar Nicholas I allowed the peasantry to own property. The ethnic population seized the opportunity, which essentially released them from serving their German lords. Consequently, many peasants moved to the cities, which allowed them the opportunity to become educated, middle-class citizens, which posed a threat to German authority.⁹² From the 1860s to 1880s, the primary schools and universities taught in Latvian and Estonian languages.⁹³ Writers, such as J. W. Jannsen and Friedrich Kreutzwald developed stories and songs derived from local legends and folklore.⁹⁴ Many of these writers went to the local universities, which were switching from German to local languages, and could take knowledge from German culture and work it to their advantage. This grassroots movement in many ways paralleled Schiller's "Moses." There was a surge of nationalist pride, known as the "National Awakening," based on trends set by German Romanticism. The Russian plan to establish greater presence backfired; removing the German authority opened a gap that the ethnic population began to fill.

In order to stop the wave of nationalism, Tsar Alexander II began a process of "Russification."⁹⁵ The Russians made the universities teach in Russian, political appointments were Russian, and the culture was Russian. Even Jews were removed from community leadership.⁹⁶ In 1904, the same year Kahn's father left for the United States to find work, the Estonian nationals issued demands to the Russian government to stop Russification and allow ethnic Estonians to be taught in their

⁹² J. Hampden Jackson, *Estonia* (London: George Allen & Unwin Ltd., 1948) 96-101.

⁹³ Emanuel Nodel, *Estonia: Nation on the Anvil* (New York: Bookman Associates, 1963) 106-110.

⁹⁴ J. Hampden Jackson, *Estonia* (London: George Allen & Unwin Ltd., 1948) 103-106.

⁹⁵ Emanuel Nodel, *Estonia: Nation on the Anvil* (New York: Bookman Associates, 1963) 93.

⁹⁶ Alfred Bilmanis, *A History of Latvia* (Westport, CT: Greenwood Press, 1970) 250.

native language, in addition to Russian, and remove the privileges of the German authority. By 1905, a year before Kahn, his mother, and siblings moved to the United States, tensions were elevating to worker strikes and protests. These protests, organized by the ethnic Estonians, petitioned the Russian government for local self-government by Estonians and attempted to overthrow to the ruling German middle-class and landlords.⁹⁷ Russification placed the German citizenry in the middle of the nationalist movement. The Estonians attacked the Germans, at times physically, while the Russian government was trying to remove German control of the localities.

When Kahn's parents, Leopold and Bertha, were married in Riga, Latvia, the Baltic region was on the brink of civil disruption, partially fuelled by Romantic ideas. It is possible that Kahn's family had an interest in these activities since Kahn's mother was an educated Baltic German, though not necessarily a wealthy one at the time of her marriage. It seems Kahn's mother came from a reasonably affluent family. It appears she had a respectable education since she was fluent in German and was very knowledgeable of Schiller and Goethe. At that time, the Estonian and Latvian peasantry would not have much exposure to this form of education. The family claims relations to the distinguished Mendelssohn family of Germany, including Moses and Felix Mendelssohn.⁹⁸ Louis Kahn claimed to speak German as his first language and likely read it before he learned English.⁹⁹ Any German Jewish family in the Baltic region, like Kahn's, faced oppression from the Russians for being both Jewish and educated in German as well as from the native Estonians since they descended from a German background.

Kahn's father moved to the United States to search for work and a better life for his family in 1904 and the rest of the family joined him in 1906. Although the family was financially poor, Kahn was part of a line of scholarship noted for Romantic and mystic thought. The Romantic Movement he was born into would have affinity, although for a very different purpose, with the primary education he received as a child in the United States.

⁹⁷ Emanuel Nodel, *Estonia: Nation on the Anvil* (New York: Bookman Associates, 1963) 136-145.

⁹⁸ Alexandra Tyng, *Beginnings: Louis I. Kahn's Philosophy of Architecture* (New York: Wiley, 1984) 4.

⁹⁹ Joseph Arnold Burton, *The Architectural Logos of Louis I. Kahn: Architecture as Logos* (Philadelphia: University of Pennsylvania, 1983) 26-27.

Part Two

The Nature of Nature

Nature is the instrument maker. Nothing can be made without nature.

In fact, you might say that nature is the workshop of God.

“Lecture delivered at the International Design Conference, Aspen, Colorado”

Louis Kahn, 1962

IV

Organicism and Transcendentalism

German Romanticism was a significant foundation for American Transcendentalism. The movement's most notable sage, Ralph Waldo Emerson (1803-1882), acknowledged the name derived from Kant's Transcendental Idealism.¹⁰⁰ The second-generation Transcendentalist, Octavius Brooks Frothingham, noted a variety of German philosophers, such as Kant, Fichte, and Schelling, influenced Emerson and his followers. Frothingham's history concurs with Emerson in placing the term Transcendentalism with Kant's philosophy. He also acknowledges the German Romantics in recognizing that experience contributes towards knowledge, but there is also something that goes beyond experience to fully understand something in order to arrive at truth.¹⁰¹ Kant's transcendentalism does not go so far as to place truth emanating from the creative mind as Schelling proposes. This contribution, Frothingham claims, comes from Johann Fichte's philosophy. According to the American interpretation of Fichte, "The mind is first, foremost, creative and supreme."¹⁰² The Transcendentalists also developed Herder's premise that language expresses the ideas of the divine mind. Frothingham explicitly cites Herder's *Spirit of Hebrew Poetry* because the work presents the poetic mind of the Hebrews.¹⁰³ Most of these German writings were translations into English, since few of the Transcendentalists knew the German language. A good number of other German sources came secondarily through England with translations and commentaries by the English Romantics, such as Samuel Taylor Coleridge (1772-1834) and Thomas Carlyle.¹⁰⁴ Coleridge's philosophical system, which he attempted

¹⁰⁰ Ralph Waldo Emerson, "The Transcendentalist," in *Nature and Selected Essays*, ed. Larzer Ziff, 239-258 (New York: Penguin Classics, 2003) 239.

¹⁰¹ Octavius Brooks Frothingham, *Transcendentalism in New England* (New York: G. P. Putnam's Sons, 1876) 12-13. "The term "transcendental" designated the fundamental conceptions, the universal and necessary judgments, which transcend the sphere of experience, and at the same time impose the conditions that make experience tributary to knowledge."

¹⁰² *Ibid.* 31.

¹⁰³ *Ibid.* 47-48.

¹⁰⁴ *Ibid.* 76-104 and Paul F. Boller, *American Transcendentalism 1830-1860: An Intellectual inquiry* (New York: G. P. Putnam's Sons, 1974) 44-60.

to develop in his *Biographia Literara* and *Aids to Reflection*, helped organicism take hold in the United States.

While the German Romantics were primarily fending off the rationalist school in Germany, Coleridge's appropriation of German Romanticism was to fend off Lockean empiricism.¹⁰⁵ Locke's psychology, elaborated in his *Essay Concerning Human Understanding*, posited that the mind is a *tabula rasa*, a clean slate. Our ability to learn is through experience. Our minds, according to Locke, received impressions via our senses, which our minds connected with similar previous impressions by association. The aesthetic application of Locke's psychology appears in Edmund Burke's *Philosophical Enquiry into the Origins of Our Ideas into the Sublime and Beautiful*. Burke's essay runs into the same inherent problem the German rationalists had by pointing out observable impressions from external objects but it never concludes by answering why something is beautiful. Coleridge, however, posited the mind as expressing the nature of an object and not receiving an impression from it. Instead of the senses taking information and formulating understanding via association, the imagination could see the entelechy and reason why something is beautiful by expressing its potential as a part of Creation. While empiricism concerned itself with the definition of nature, Coleridge searched for nature's essence, which he believed linked all objects in nature to their creator, God.

For the Transcendentalists, this is exactly what Nature symbolized.

Coleridge and the "Organic Imagination"

Organicism was illustrated by presenting Goethe's *Urpflanze* and Schelling's argument that the artist creates an object by looking at the archaic form and expressing its purpose. It is a metaphor to explain the development of Goethe's *Urpflanze* and its entelechy. The artist uncovers an object's entelechy, the spiritual essence striving to complete its purpose, by employing the imagination. For Schelling, the imagination is the mind's faculty to take unfamiliar ideas or objects and assemble them into something that is intelligible. Coleridge's philosophical

¹⁰⁵ Frothingham, *Transcendentalism in New England*. 76-104.

system for organicism folds into Schelling's explanation for the role of the imagination.

Romantic literary critic M. H. Abrams presents in his book, *The Mirror and the Lamp*, three descriptions of organicism that Coleridge comments on and develops beyond his German sources. The first is "organic history," which applies the life cycle metaphor of an organism to a work and points out the particulars of expression for a society as presented by Herder. Second is "organic evaluation," which is the ability for the imagination to assemble a variety of things into a singular, coherent whole. Third is "organic law," which is an interpretation of Schelling's ideas on an object's entelechy. It is the regulation of how a work develops is by obeying the "laws of its own origination."¹⁰⁶ Abrams' three points address the "organic imagination" as a faculty uncovering the latent life of objects by seeing their spirit working through an active process of completion.¹⁰⁷

When Herder spoke about the role of the artist, he placed emphasis on the artist's ability to present recognizable symbols to a particular society that ultimately led to a universally held idea. This variety of symbolic expression was also found in Goethe's *Urpflanze*, the universal plant from which all varieties of vegetable life derived. Coleridge thus combined these two ideas into "organic history." Just as Goethe was able to imagine the *Urpflanze* by studying plants in their native soil, Coleridge, following Herder, argued that one could study the development of poets by looking to their native time and place as well as how these societies and their poetry progressed over time.¹⁰⁸ For example, one could study the plays of Shakespeare which share plots and characters from ancient Greek myths and plays. The Greek plays are the seeds, the origins, of the stories. Over time these stories are modified and adapted to match the context of particular historical eras up to the time of Shakespeare. This is when the ancient Greek stories reach maturity; the core of the story is still present but the structure no longer follows the classical rules of performance and writing. Organic history makes evident how society is constantly

¹⁰⁶ M.H. Abrams, *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* (New York: Oxford University Press, 1953) 218-225.

¹⁰⁷ *Ibid.* 167-177. [I repeat Abrams' term "organic imagination" throughout this text]

¹⁰⁸ *Ibid.* 223-224.

progressing towards greater maturity just as an infant organism progresses towards a mature age in life.

Schelling refers to the imagination as the faculty assembling various ideas into a coherent whole; Coleridge builds upon this by bringing the imagination to the forefront of the artist's creative powers. In the *Biographia Literara*, Coleridge echoes Schelling by saying, "[The imagination]...reveals itself in the balance or reconciliation of opposites or discordant qualities..."¹⁰⁹ Abrams comments that Coleridge saw the imagination paralleling the life of a plant that combines natural effects, such as climate, food, and soil conditions, to form its being. Not only does the imagination consume and digest information as a source of creative energy, but it also penetrates into a spirit unifying all matter, which in the end unifies the object's essence with God.¹¹⁰ In the *Biographia Literara*, Coleridge writes,

We begin the I KNOW MYSELF in order to end with the absolute I AM.

We proceed from the SELF in order to lose and find all self in GOD.¹¹¹

The IMAGINATION then I consider either as primary or secondary.

The primary IMAGINATION I hold to be the living Power and prime Agent of all human Perception, and as a representation in the finite mind of the eternal act of creation in the infinite I AM.¹¹²

The faculty of the imagination expresses a spiritual essence that ties all the particulars and peculiarities of an object into a whole. This is a unity where all the parts are not simply related to the whole, but are *vital* to it. The parts contribute to the growth and development of the whole. The parts require the spirit animating the whole to animate the particulars. If the roots of the tree are cut, the tree dies. Correspondingly, if a leaf falls off the tree, the leaf dies. Coleridge applies these principles to his "organic evaluation." If the words of a poem embody its spirit so that the particular words and meaning of the whole poem correspond, it achieves an organic unity. Leaving out a vital word kills the poem just as using powerful words

¹⁰⁹ Samuel Taylor Coleridge, *Biographia Literara* (Scolar Press, 1971, originally 1817) XIV.

¹¹⁰ M.H. Abrams, *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* 174.

¹¹¹ Samuel Taylor Coleridge, *Biographia Literara* XII.

¹¹² *Ibid.* XIII.

without leading to an ultimate purpose or realization leaves the words meaningless. A poem, as well as any work of art, is complete when the maker, trusting the imagination, correctly uncovers the essence and internal spirit of the work towards its ultimate purpose.

The imagination's assemblage does not give the artist *carte blanche* to practice antinomianism; this, according to Coleridge, would be fancy.¹¹³ Something fanciful is made from variety, but there is no use of judgment to determine what is reasonable to use. It is an assemblage of opinions rather than educated decisions. The imagination is a higher faculty than fancy, which Coleridge relegates in "organic law." While external factors affect a plant's outward appearance, Coleridge, echoing Goethe, recognized the spiritual essence not only unifies the parts and whole, but also serves as the internal drive to grow and mature. Earlier we saw how Goethe described the growth of the oak from acorn to mature tree. The metamorphosis of the oak throughout its life obeyed the natural law of becoming a mature oak; the acorn did not produce an oak sapling that became a larch. For Coleridge, the work of the poet expresses and develops a poem by following its internal nature by working from its germ and developing into an organic whole as previously described. This can be taken into the discipline of architecture where the architect expresses and develops a design following the nature of its purpose. It follows the law, as Kahn would say, of "what the building wants to be."

Coleridge's compilation of his German sources enabled him to present an organic philosophy that was not only an ideal, but was demonstrated as a practice in his criticism of literature and in his own poetry.¹¹⁴ The combination of philosophical inquiry and desire to make it a practical way to live and think appealed to the American Transcendentalists.

Seeds of an American Romanticism

The Romantic use of the imagination to serve as the mediator between man and God was suited perfectly for the New England mind. The Puritans who settled

¹¹³ Ibid. XIII.

¹¹⁴ M.H. Abrams, *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* 170.

there already conceived the world in a similar fashion through Calvinism. Puritan aesthetics was “plainness.” This is not the same as crude or even ordinary. They were opposed to the elaborate ornament of the Baroque because it challenged the ornament of God. The Baroque was the aesthetic Tower of Babel. Rather than rival God for embellishment in designs, it was prudent to be humble and keep aesthetics to fine craft. For the Puritans, the embellishment of the world, its ornament, was the lush wilderness God created in New England.¹¹⁵ One has to imagine that the dense wilderness of America that appeared as a reasonable image for the Garden of Eden, especially for the people whose experience of the country were the farms in England. The journey from England was the exodus to rebuild Jerusalem, and their leader, John Winthrop, was their Nehemiah.¹¹⁶ They would build, as Winthrop preached, a “City upon a Hill.” His sermon proclaimed that the world is watching whether their plan will be a success or failure for salvation.¹¹⁷ This Exodus symbolized the Biblical Exodus. It was evidence of God’s involvement in the world with human affairs and the migration continued the plan laid out in the Old Testament. The Puritans used the Scripture, the Word of God, as the mediator between man and God. The Transcendentalists could make this translation from Biblical Word into a poetic meaning of words.¹¹⁸ The beginnings of Transcendentalism attempted to bring the Puritan vision back to the vision of America. From the original settling of New England, America symbolized a religious apocalyptic land that the inhabitants would ultimately find harmony with the Garden of Eden and the Biblical Revelation.

One of the most significant works from Europe influencing American Transcendentalism was a publication of Coleridge’s *Aids to Reflection* including an essay by James Marsh (1794-1842). The premise of Coleridge’s book was to use

¹¹⁵ Perry Miller, *Nature's Nation* (Cambridge, MA: Belknap Press of Harvard University Press, 1967) 208-216.

¹¹⁶ Sacvan Bercovitch, *The Puritan Origins of the American Self* (New Haven, CT: Yale University Press, 1975) 130-135.

¹¹⁷ John Winthrop, *A Model of Christian Charity*, ed. John Beardsley <http://religiousfreedom.lib.virginia.edu/sacred/charity.html> (accessed Mar 4, 2011) “For we must consider that we shall be as a city upon a hill. The eyes of all people are upon us. So that if we shall deal falsely with our God in this work we have undertaken, and so cause Him to withdraw His present help from us, we shall be made a story and a by-word through the world.”

¹¹⁸ Sacvan Bercovitch, *The Puritan Origins of the American Self* 165.

Christianity as the model to present how the mind not only learns through the senses and experience, but also how to perceive the world through a spiritually meaningful existence. Coleridge's clear distinction between Understanding and Reason drew Marsh's attention, which Coleridge presented as

UNDERSTANDING

1. Understanding is discursive.
2. The Understanding in all its judgments refers to some other faculty as its ultimate Authority.
3. Understanding is the faculty of *Reflection*.

REASON

1. Reason is fixed.
2. Reason in all its decisions appeals to itself, as the ground *substance* of their truth.
3. Reason of Contemplation. Reason indeed is far nearer to SENSE than to Understanding: for Reason...is a direct Aspect of Truth, an inward Beholding, having similar relation to the Intelligible or Spiritual, as SENSE has to Material or Phenomenal.¹¹⁹

Understanding is a lower faculty responding to the senses to describe an object in its physical presence. Marsh describes this distinction by linking Understanding with Lockean empiricism.¹²⁰ We understand an object because we can see it, feel it, and measure it to describe its physical being. Reason surpasses empirical observation because it attempts to know the object's purpose, its teleological being. The imagination makes the object's purpose intelligible to reason. This appeals to the Transcendentalists because reason finds the essence of material in a spiritual sense.

While Marsh presented Coleridge's thoughts on the imagination and reason, another precursor and influence on Emerson, Sampson Reed, developed a Swedenborgian approach to the mind and the artist. Reed's pamphlet, "Observations on the Growth of the Mind," became a cornerstone to Emerson's construction on the purpose of aesthetics and the artist.¹²¹ Reed, like Coleridge, takes a stance against Lockean empiricism. Rather than seeing the "mind vacant" and

¹¹⁹ Samuel Taylor Coleridge, *Aids to Reflection* (Port Washington, NY: Kennikat Press, 1971) 216-217.

¹²⁰ James Marsh, "Preliminary Essay," in *Aids to Reflection* (Port Washington, NY: Kennikat Press, 1971) 45.

¹²¹ *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 53-59 (New York: MJF Books, 1978) 53.

requiring external impressions to develop learning, the mind actually grows by nurturing its own will.

The mind must grow...from an internal principle... Its peculiar propensities may be discerned, and proper nutrient and culture supplied; but the infant plant, not less than the aged tree, must be permitted, with its own organs of absorption, to separate that which is peculiarly adapted to itself.¹²²

It is in the metaphor of plant growth where Reed places the imagination with the creation of God.

[T]he imagination (which is called the creative power of man) shall coincide with the actively creative will of God, reason will be clothed with eloquence, as nature is with verdure...¹²³

The artist taps into the spiritual flow in God's creations and makes works transcending the senses the empiricists so highly prize to give the inanimate works a breathe of life.

Reed also has the imagination return to the beginning in search for the origin. One point distinguishing him from his predecessors, such as Schelling, is that Reed looks at the origin to understand how to make end achieve perfection. He does not want the imagination to go "back to chaos, but raise the soul to nature's origin."¹²⁴ Reed claims that by going through a process of seeking origins, cultivating the best in the current mental climate, and expressing the latent spirit of God, the artist creates a work in the manner of God. When artists do this, they achieve a unity between man and object that fulfils the purpose of human existence.

There is language, not of words, but of things. When this language shall have been made apparent, that which is human will have answered its end; and being as it were resolved into its original elements, will lose itself in nature. The use of language is the

¹²² Sampson Reed, "Observations on the Growth of the Mind," in *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 53-59 (New York: MJF Books, 1978) 54.

¹²³ Ibid. 58.

¹²⁴ Ibid. 56.

expression of our feelings and desires – the manifestation of the mind.¹²⁵

This is an example of Abram's "Romantic Spiral" or the Lurianic Kabbala's explanation for the purpose for the creation of man. Reed calls the artist to not simply check-off the qualifications of beauty, like the way Burke categorizes beauty, but to create objects that connect with the spiritual essence of Nature. Emerson was captivated with this idea and commented that Reed's pamphlet was "in my poor judgment the best thing since Plato of Plato's kind, for novelty wealth and truth."¹²⁶ Emerson, though impressed with Reed, was wary of developing his practical way of life founded on mystical experience.

Emerson conceivably had mystical experiences; the most famous is in his essay "Nature" when he stands upon a hill and becomes a "transparent eyeball."¹²⁷ Though he sounds mystical, it was not his intention for his words to be mysterious or to form a cult. He fends off nineteenth-century spiritualism, such as mesmerism and animal magnetism, in a lecture on demonology.

I think the numberless forms in which this superstition has re-appeared in every time and every people indicates the inextinguishableness of wonder in man; betrays his conviction that behind all your explanations is a vast and potent living Nature, inexhaustible and sublime, which you cannot explain... The whole world is an omen and a sign... Man is the Image of God. Why run after a ghost or a dream?¹²⁸

He reminds us that omens we find are evidence not of dark supernatural powers. Instead, he embraces the wonder that leads us to explain the ineffable, but, but

¹²⁵ Ibid. 57.

¹²⁶ Emerson quoted in *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 53-59 (New York: MJF Books, 1978) 54.

¹²⁷ Ralph Waldo Emerson, "Nature," in *Nature and Selected Essays*, ed. Larzer Ziff, 35-82 (New York: Penguin Classics, 2003) 39. "Standing on the bare ground, my head bathed by the blithe air, and uplifted into infinite space, all mean egotism vanishes. I become a transparent eyeball - I am nothing; I see all; the currents of the Universal Being circulate through me - I am part or particle of God."

¹²⁸ Ralph Waldo Emerson, "Demonology," in *Lectures and Biographical Sketches*, 9-32 (London: George Rutledge and Sons, 1886) 31-32.

emanation from a benevolent God. He makes a similar remark on mysticism in “The Poet”

Here is the difference betwixt the poet and the mystic, that the last nails a symbol to one sense, which was a true sense of the moment, but soon becomes old and false... Mysticism consists in the mistake of an accidental and individual symbol for an universal one.¹²⁹

It seems perplexing to see Emerson being negative to mysticism. In “The Poet” and numerous other essays, he notes several mystics, such as Swedenborg and Iamblichus. The distinction Emerson makes between these figures and mystics, like Boehme for instance, relates to how a mystic experience is a revelation for humanity or a revelation for oneself. When Jakob Boehme’s eye catches sunlight reflecting off a mirror, he has a moment of ecstasy. Then, once the light moves, the vision is over and the world, although perhaps not Boehme’s mind, is as it should be. Emerson’s experience of becoming a “transparent eyeball” is not to be taken as a singular, isolated incident. All of nature, all the time, in whatever phase or season, is symbolic of God’s presence, which is visible for all to see.

Organic Imagination in America

The Transcendentalists sought a truly American spirit to express the new nation’s purpose in the world. As mentioned earlier, the Puritans saw nature in America as a symbol of God’s presence and their situation symbolized Biblical salvation. If, as the Transcendentalists and other many Americans believed, the country led the spiritual unification between man and God, then it was our duty as a society to develop our own aesthetics without relying on European or any other culture. This, of course, begs the definition of American symbolism. Being a country formed by Enlightenment thinkers and followers of Locke, the empiricists opted for Roman, and later Greek, symbols for the new nation since these civilizations were the origins of the republics and democracies the United States emulated. This relied on ancient models transplanted from the Old World to

¹²⁹ Ralph Waldo Emerson, “The Poet,” in *Nature and Selected Essays*, ed. Larzer Ziff, 259-284 (New York: Penguin Classics, 2003) 279.

America. The Romantic argument posited that while the institution of a republic had a familiar form in Rome and the United States, the symbols are not recognizable between the two. Roman symbols made sense to the Romans because they grew out of Roman myth and tradition. The United States, however, is not ancient Rome. The Americans had to penetrate deep into their origins and tradition to express their culture, which they believed ultimately led to the unification with God.

Emerson continues a long tradition of identifying the artist and poet as the one deciphering God's symbols and bringing His expression for the world to see. What Emerson saw in nature was that nature *is* the symbol. Emerson's predecessors used nature as a metaphor to explain that the world is alive. Emerson, like the Puritans, pointed out that the world is alive and nature is the evidence; nature is not a simile and not even a metaphor.

Beyond all this universality of the symbolic language, we are apprised of the divineness of this superior use of things, whereby the world is a temple whose walls are covered in emblems, pictures and commandments of the Deity, -- in this, that there is no fact in nature which does not carry the whole sense of nature; and the distinctions which make in events and in affairs, of low and high, honest and base, disappear when nature is used as a symbol.¹³⁰

The Transcendentalists also see the world alive, but their position is that God continues to create the world, which is more than having a mere presence in it. Henry David Thoreau explains this in the "Spring" chapter in *Walden* when he writes, "Walden was dead and is alive again."¹³¹ When Thoreau moved into his house, Walden Pond was alive with summer vegetation, and then, in winter, the woods appeared comparatively dead only to be rejuvenated in spring.¹³² The world perpetually rejuvenates itself because God is constantly refining it. The artist creates not parallel to God, but as a part of God. This means that everything the artist makes truly beautiful is a manifestation from God that is part of His continual

¹³⁰ Ibid. 268.

¹³¹ Henry David Thoreau, *Walden* (New York: Library of America, 1985) 570.

¹³² Leon Chai, *The Romantic Foundations of the American Renaissance* (Ithaca, NY: Cornell University Press, 1987) 71.

Creation and, therefore, all diverse art forms are part of one universal emanation from Creation.

Emerson's poet has the ability to seek the origins of forms in order to bring the beautiful into the present.¹³³ "We carve and paint, or we behold what is carved and painted, as students of the mystery of Form."¹³⁴ He reminds us that the world was created beautiful from the beginning and that God and Beauty are one in the same. The poet is a mediator who translates beauty and God's creation into an intelligible object.

The poet is the sayer, the namer, and represents beauty... For the world is not painted or adorned, but is from the beginning beautiful; and God has not made some beautiful things, but Beauty is the creator of the universe.¹³⁵

The products of the primordial creation still exist today. Over time, the interpretations become less pure.

For poetry was all written before time was, and whenever we are so finely organized that we can penetrate into that region where the air is music, we hear those primal warblings and attempt to write them down, but we lose ever and anon a word or verse and substitute something of our own, and thus miswrite the poem.¹³⁶

As seen with the other Romantics, poetry, words as metaphors, are the original expression from the human mind, which are also the expression of the divine mind. Because the meaning is ineffable, we have to imagine what the meaning is. The original meaning of the words is lost as we look further from the source because we base our understanding from secondary interpretations of the meanings rather than our intuition. We lose the divine expression because we base our knowledge more on our own formulations rather than seeing them through a divine eye.

¹³³ Ralph Waldo Emerson, "Art," in *Essays: First Series*, 349-370 (Boston and New York: Houghton, Mifflin and Co., 1903) 354. "We are immersed in beauty, but our eyes have no clear vision."

¹³⁴ *Ibid.* 354.

¹³⁵ Ralph Waldo Emerson, "The Poet" 262.

¹³⁶ *Ibid.* 262-263.

While the German Romantics used myth to find the primordial essence of objects and ideas, and Coleridge employed mythic thinking for metaphorical words in poetry, the Transcendentalists used the organic metaphor to grow a society. Fredric Hedge wrote an essay, "The Progress of Society," which explores how institutions are the embodiment of human society from the beginning of creation. While the use of institutions change as society progresses towards its ultimate unity with God, the form from Genesis remains the same.¹³⁷ What is critical is to ground institutions to their essential principles from the beginning, rather than basing them on newer uses. In Hedge's argument, it is better to grow another branch from the tree of the institution, rather than graft a new institution onto the highest limb. Emerson interprets institutions in a similar approach when he writes,

When the voice of the prophet out of the deeps of antiquity merely echoes to [a student] a sentiment of his infancy, a prayer of his youth, he then pierces to the truth through all the confusion of tradition and the caricature of institutions.¹³⁸

Emerson, like Hedge, looks to the past to see the future, not from antiquarian method but from a Romantic method. In "History," Emerson wrote, "Genius studies the cause of thought, and far back in the womb of things sees the rays parting from one orb, that diverge, ere they fall, by infinite diameters."¹³⁹ The method Emerson employs is to look at the origin when everything was a whole. Then came a time when knowledge emanated from the one source, which has split into particular fields of knowledge into its complicated state of specialties today. The Transcendentalists proposed that, as a society, we should seek the essence of ideas back to the origin in order to know what to use as the Good, which is beautiful. The faculty to find this is the imagination.

Unlike Coleridge, Emerson is presenting the idea in a more concrete way by talking about "things" and "forms" rather than words and ideas. The artist uses the

¹³⁷ Frederic Henry Hedge, "Progress of Society," in *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 72-74 (New York: MJF Books, 1978).

¹³⁸ Ralph Waldo Emerson, "History," in *Nature and Selected Essays*, ed. Larzer Ziff, 149-173 (New York: Penguin Classics, 2003) 155.

¹³⁹ *Ibid.* 164.

imagination to take the spirit hidden in the dark by bringing it to light and making it present for all to see. For Emerson, the

Imagination is a very high sort of seeing which does not come by study, but by the intellect being where and what it sees; by sharing the path or circuit of things through forms, and so making them translucent to others. The path of things is silent.¹⁴⁰

Emerson's phrasing has a resonance with the mystics and Louis Kahn. In Hermeticism, we saw how contemplation was able to penetrate the essence of an object. It was not a study of observation but the mind tapping into an emanation from the divine source. In the Jewish mysticisms, there was a silent immanent experience shared with the silence before the Creation. We also explored how Kahn may have used these ideas when he spoke of "silence and light." The inner light religions and quietism that discover an essential spirit through contemplation are present in Emerson's thinking.

Thoreau was another Transcendentalist interested in seeking the myth as the germ of an idea. In *Walden*, he suggests that one finds the seeds of a thought in myth and it is up to every generation to cultivate it to bring out its best qualities for the present time. This demonstrates how we approach knowledge. For example, there was a local legend claiming that Walden Pond was bottomless. Thoreau sees this as an opportunity to find out how deep the pond really is. He launches out in his boat and takes soundings across the pond to determine the pond's actual depth. He concludes his narrative of this study by writing, "I am thankful that this pond was made deep and pure for a symbol. While men believe in the infinite some ponds will be thought to be bottomless."¹⁴¹ After a process of quantitative analysis, Thoreau concludes that the pond is still a symbol of the infinite. While the pond has a physical bottom, it is symbolically unmeasurable. This is what Kahn means when he describes that "a beautiful building begins with the unmeasurable, goes through measurable means, and in the end is unmeasurable."

¹⁴⁰ Ralph Waldo Emerson, "The Poet" 274.

¹⁴¹ Henry David Thoreau, *Walden* (New York: Library of America, 1985) 551.

Transcendental Aesthetics

The artist plays a vital role in society because making an object beautiful is not simply for pleasure, but part of the creation by God. Emerson warns us that by not seeing nature as the true symbol of the manifestation of God, we no longer create things that are an expression.

Nature offers all her creatures to [the poet] as a picture language...

Things admit of being used as symbols because nature is symbol, in the whole and in every part. Every line we draw in the sand has expression; and there is no body without its spirit or genius.¹⁴²

Every particular body, like a vessel, contains the spirit of the divine having an internal drive to express itself. For Emerson, it was pictures, rather than words, that were the first formulation of expression.

But the artist must employ the symbols in use in his day and nation to convey his enlarged sense to his fellow-men. Thus the new art is always formed out of the old.¹⁴³

Here we see Emerson echo Herder from two of Herder's ideas. One is that history is a continuum; the same idea changes shape but never form. The other is the artist expressing in symbols what are recognizable to a particular society.

Emerson's most direct essay on aesthetics is "Art." The theme corresponds to "The Poet," which is essentially the same figure for Emerson. Like the poet, the artist employs the imagination to find the living spirit that constantly creates something beautiful. In order to design something truly beautiful, it must come from a mind in communion with God since the artist and poet express out of the force of Creation.

Because the soul is progressive, it never quite repeats itself, but in every act attempts the production of a new and fairer whole. This appears in works both of the useful and fine arts, if we employ the popular

¹⁴² Ralph Waldo Emerson, "The Poet" 266.

¹⁴³ Ralph Waldo Emerson, "Art" 352.

distinction of works according to their aim either at use or beauty.

Thus in our fine arts, not imitation but creation is the aim.¹⁴⁴

The artist creates from the imagination to present the essence of the object. If the artist fails to see the originating spirit, the essence of the form, or fails to present the essence in the work, then it degenerates art. This is a development from Plato's critique of the artist. For Plato, the artist only imitates nature and any imitation is inherently a less pure form of the original. Imitation is a caricature of the natural object without including its purpose. It does not give anything to the good of society or life. Emerson agrees that our work is less pure, not because the work is an imitation, but because the act of the artist's creation conceals the essence. The act of creation also provides a purpose for the object, for it is a part of a greater work. Just as God created the world where everything has a purpose, the artist creates objects as part of the use for all creation.

Beauty must come back to the useful arts, and the distinction between the fine and the useful arts be forgotten... In nature, all is useful, all is beautiful. It is therefore beautiful because it is alive, moving, reproductive; it is therefore useful because it is symmetrical and fair.¹⁴⁵

For Emerson, one cannot separate the industrial, or applied, arts from the fine, or decorative, arts because they have the same purpose in society and arise out of the same creative mind.

Emerson also alludes to Goethe's aesthetics. When Goethe describes Strasbourg Cathedral, he praises the architect, Erwin of Steinbach.¹⁴⁶ The cathedral was a creative expression from the imagination of the architect to correspond the expression of German architecture and its relationship with God. Emerson uses this example to express the same creative powers of the poet when he states,

¹⁴⁴ Ibid. 351.

¹⁴⁵ Ibid. 367.

¹⁴⁶ Johann Wolfgang von Goethe, *German Architecture*.

Strasburg Cathedral is a material counterpart of the soul of Erwin of Steinbach. The true poem is the poet's mind; the true ship is the ship-builder.¹⁴⁷

Emerson again links the fine arts with the applied arts. One who builds a ship practices a craft for something useful and beautiful, which is essentially a manifestation wrought by God. For Emerson there is no distinction between creative imagination for a poet or a craftsman. The artist, poet, and craftsman all can seek the primitive form, like Goethe seeking the *Urpflanze*. In doing so, they find that "Nature is an endless combination and repetition of very few laws. She hums the old well-known air through innumerable variations."¹⁴⁸ The metaphor refers back to the "correspondent breeze" where the spirit inspires the imagination as the breath of life. There is something of the divine in every truly creative act of the artist giving the germ of the primordial form of life and allows it to grow into its present, mature state. "Until one thing comes out from the connection of things, there can be enjoyment, contemplation, but no thought."¹⁴⁹

Emerson makes a few comments on the subject of architecture. In a lecture on Michelangelo, Emerson states, "Architecture is the bond that unites the eloquent and economical arts..."¹⁵⁰ Michelangelo, as an individual, represents the ideal man who can express the imagination while producing an object that is good and beautiful. Emerson also makes several references to architecture in the essay "History." Built structures are one of the means to access the past and bring it into the present. He narrates this with the development of worship to the Gothic cathedral.

A Gothic cathedral affirms that it was done by us and not done by us. Surely it was by man, but we find it not in our man. But we apply ourselves to the history of its production. We put ourselves in the state of the builder. We remember the forest-dwellers, the first temples, the

¹⁴⁷ Ralph Waldo Emerson, "History" 158.

¹⁴⁸ Ibid. 157.

¹⁴⁹ Ralph Waldo Emerson, "Art" 354.

¹⁵⁰ Ralph Waldo Emerson, "Michel Angelo Buonaroti," in *Early Lectures of Ralph Waldo Emerson* (Cambridge, MA: Harvard University Press, 1959).

adherence to the first type, the decoration of its wealth of the nation increased; the which is given to wood by carving led to the carving over the whole mountain of stone of a cathedral. When we have gone through this process, and added thereto the Catholic Church, its cross, its music, its processions, its Saints' days and image-worship, we have as it were been the man that made the minister; we have seen how it could and must be done.¹⁵¹

Architecture, for Emerson, demonstrates the growth of institutions as presented earlier. The form remains the same but there is a variety of structures one can build, such as a primitive wooden temple or a stone Gothic cathedral.

One of Emerson's colleagues, Horatio Greenough (1805-1852), was a sculptor and architecture theorist who takes Transcendental aesthetics directly into architecture. Attacking the associationists' aesthetics using John Locke's empiricism, Greenough writes,

Instead of forcing the functions of every sort of building into one general form, adopting an outward shape for the sake of the eye of association, without reference to the inner distribution, let us begin from the heart as the nucleus, and work outward.¹⁵²

Like other Romantics, Greenough is interested in the locality to develop a work of art and architecture. He is interested in the variety found at a place to give it individual identity even though it is part of a universal expression.

The fundamental laws of building found at the basis of every style of architecture must be the basis of ours. The adaption of the forms and magnitude of structures to the climate they are exposed to, and the offices which they are intended, teaches us to study our own varied wants in these respects. The harmony of ornaments with the nature they are embellished, and the institutions from which they sprang, calls

¹⁵¹ Ralph Waldo Emerson, "History" 154-155.

¹⁵² Horatio Greenough, "American Architecture," in *Form and Function: Remarks on Art by Horatio Greenough*, ed. Harold A. Small, 52-71 (Berkeley and Los Angeles: University of California Press, 1947) 61-62.

on us to do like justice to our own country, our government, and our faith.¹⁵³

The institution is the heart, or seed, of the building's nature and from that seed it grows and develops along with the progress of society. Greenough understands the function of the building by drawing out the nature of the institution's purpose. Like Goethe's *Urpflanze*, the institution is the form from which the variety of designs can grow. It is finding the spiritual essence in institutions that leads Emerson to suggest that, "By surrounding ourselves with original circumstances we invent anew the orders and the ornament of architecture..."¹⁵⁴

Ornament for the Transcendentalists was not "criminal" to the extent that the architect Adolf Loos exclaimed. Even when Thoreau refers to the use of ornament in architecture *Walden* by stating, "When you have got my ornaments ready I will wear them."¹⁵⁵ Thoreau's comment is founded on economy, which is derived from Greek meaning the order of the household. This is another search into the origins of ideas and to cultivate the best into the present. "Before we can adorn our houses with beautiful objects the walls must be stripped, and our lives must be stripped, and beautiful housekeeping and beautiful living be laid a new foundation..."¹⁵⁶ Thoreau wants to uncover the essentials to discover the order governing our lives. He relates this to ornament by explaining how our clothes and houses represent the way we live. The ornament of our houses, like our clothing, properly identifies and embellishes our character. Ornament is a form of expression growing out of our imaginations and gives identity to architecture when appropriately employed. It should not be simply applied to a building under the guise of classical ornament, but an embellishment that is part of the very nature of the building and the institution it houses.

The use of ornament was to embellish the nature of the building just as God embellished the world with physical nature. Often, this interpretation is lost from the modern world since we typically embellish architecture by expressing its utilitarian

¹⁵³ Ibid. 66-67.

¹⁵⁴ Ralph Waldo Emerson, "History" 159.

¹⁵⁵ Henry David Thoreau, *Walden*. 360.

¹⁵⁶ Ibid. 353.

function. Greenough is one of the architecture theorists from the nineteenth century we use to justify functionalism in architecture. However, Greenough speaks of function as purpose; it has a spiritual *telos*, an argument rooted deep in Romantic aesthetics. He also saw the arts united as one,

When I define Beauty as the promise of Function; Action as the presence of Function; Character as the record of Function, I arbitrarily divide that which is one. I consider the phases through which organized intention passes through completeness, as if they were distinct entities.¹⁵⁷

Greenough sees function as evidence of organic growth. "There is no conceivable function which does not obey an absolute law. The approximation to that law in material, in parts, in their form, order, and relations, is the measure of freedom or obedience to God, in life."¹⁵⁸ Function is present in the world because the object is active and alive. The individual identity of the object is its character. All of these attributes come from one essential source that grows towards maturity. Greenough summed this up best by saying, "In a word, completeness is the absolute utterance of the Godhead..."¹⁵⁹ Beauty is God in the act of creating.

While many of the Transcendentalists found ways to use the movement to explore ideas in literature and social reform, Greenough comes the closest to formulating Transcendentalism's ideas on aesthetics.¹⁶⁰ Emerson made observations on the topic, but never really demonstrated how to use it. By the late nineteenth century, theories on education in the United States began to experiment with ideas from Transcendentalism. One of these schools was the Public Industrial Arts School of Philadelphia, where Louis Kahn was a student.

¹⁵⁷ Horatio Greenough, "Relative and Independent Beauty," in *Form and Function: Remarks on Art by Horatio Greenough*, ed. Harold A. Small, 71-120 (Berkeley and Los Angeles: University of California Press, 1947) 71.

¹⁵⁸ *Ibid.* 85.

¹⁵⁹ *Ibid.* 81.

¹⁶⁰ For a study on the similarities and differences between Emerson and Greenough and their search for American aesthetics, see Charles R. Metzger, *Emerson and Greenough: Pioneers of an American Esthetic* (Westport, CT: Greenwood Press, 1970).

V

Transcendentalism in Philadelphia

Transcendentalism is traditionally associated with New England and scholars correspond the movement occurring there because of the Puritan heritage. To a lesser degree, Transcendentalism also took shape in Philadelphia, a city originally settled by an inner light religious sect, the Quakers. Transcendentalism has affinity with Quaker beliefs and Emerson himself gave a biographical lecture on Quakerism's founder, George Fox.¹⁶¹ Emerson's Transcendentalist circle included a few residents in Philadelphia. Amos Bronson Alcott (1799-1888), father of Louisa May Alcott, was a temporary resident who taught a school there before moving on to Boston. William Furness (1802-1896), father of the architect Frank Furness, was a Unitarian minister and Emerson's close friend. These men were a part of the distinguished Philadelphia native son, Charles Godfrey Leland (1824-1903), and Leland himself knew Emerson in later life. Leland's mentors influenced and encouraged him to study mysticism and folklore throughout his life. Transcendentalism and its thoughts on education, along with the Arts and Crafts Movement, helped Leland formulate the curriculum for the Public Industrial Arts School of Philadelphia. Leland's close associate at the school, a Quaker named J. Liberty Tadd (1863-1917), later directed it. Tadd was an artist and continued Leland's pedagogy using Transcendentalism's principles.¹⁶² This formed a part of Louis Kahn's education.

Bronson Alcott and William Furness

A. Bronson Alcott was an educator whose ideas on education eventually developed a strong affinity with Transcendentalism. While traveling in his younger

¹⁶¹ Emerson's thoughts on relating the Quakers to Transcendentalism appear in "Transcendentalism," *The Dial*, No. 3, Vol. II (Boston: E. P. Peabody, 1842): 382-384.

¹⁶² Tadd was a graduate from the Philadelphia Academy of Fine Arts and a student of Thomas Eakins. For more on the Tadd/Eakins comparison, see Joseph A. Burton, "The Aesthetic Education of Louis I. Kahn, 1912-1924," *Perspecta* 28 (1997): 205-210. Burton does not mention Leland at all and only suggests that Tadd's book *New Methods in Education* reflects Emerson's ideas. In Carter Wiseman, *Louis I. Kahn: Beyond Time and Style* (New York: W.W. Norton & Co., 2007) 17, Wiseman notes that Tadd was a Quaker.

days as a peddler, he stayed in a Quaker community. During his stay, he read various texts on the religion, including George Fox's *Journal*. The Quakers opened his eyes to an "inner light" and spiritual awakening. Alcott turned to teaching as the means to share his revelation.¹⁶³ Eventually, he moved to Pennsylvania. His first school there was outside Philadelphia, but when his financial backer died, enrollment dropped and the school closed. Before Alcott moved again, William Furness found financial support for Alcott to open a school in Philadelphia. Alcott accepted, but his heart was not in the project.¹⁶⁴ During the years of his Philadelphia school, Alcott read Coleridge's *Aids to Reflection* with James Marsh's essay and the *Biographia Literara*, Goethe, and other works that were concurrently inspiring the New England Transcendentalists. His reading distracted him from teaching. Reports from students during this period, such as Leland's, claimed he avoided pushing his students to rigorously pursue their academic studies. Philadelphians were also not willing to risk their children with Alcott's experiments in education. He then moved to Boston and became friends with Emerson, Thoreau, and the Transcendentalist movement.¹⁶⁵

One distinctive approach Alcott took to education was nurturing a child's imagination. Alcott's discipline for developing the imagination included: "Writing and Sketching from Nature, Picturesque Geography, Illustrating Words, Listening to Readings, and Conversation."¹⁶⁶ His colleague in Boston, Elizabeth Peabody, described Alcott's teaching methods in her *Record of a School*. "...[B]ooks, and passages of books are read, calculated to exercise various intellectual faculties, such as Perception, Imagination, Judgment, [and] Reason..."¹⁶⁷ Coleridge's definition of reason, found in *Aids to Reflection*, influenced Alcott. Coleridge's reason is the mind's

¹⁶³ Frederick C. Dahlstrand, *Amos Bronson Alcott: An Intellectual Biography* (East Brunswick, NJ: Associated University Presses, 1982) 31-32.

¹⁶⁴ Alcott's family was growing at this time. His second daughter, Louisa May, was born a few months after the Philadelphia school opened in 1832. His attention turned to the education of his own children as part of his experiments in education.

¹⁶⁵ Frederick C. Dahlstrand, *Amos Bronson Alcott: An Intellectual Biography* (East Brunswick, NJ: Associated University Presses, 1982) 73-105.

¹⁶⁶ George E. Haefner, *A Critical Estimate of the Educational Theories of A. Bronson Alcott* (Westport, CT: Greenwood Press, 1970) 76.

¹⁶⁷ Elizabeth Palmer Peabody, "Record of a School," in *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 140-150 (New York: MJF Books, 1978) 143.

ability to penetrate into the essence of an object; it is relative to mystical contemplation. According to Alcott, “The organism, investing the innate spirit, is projected into time and space to develop the Infinite on the forms of the Finite as a means of Revealing itself to itself.”¹⁶⁸ Alcott, in agreement with Coleridge’s philosophy, saw education as a way to aid children in seeing the essence of things, which was beholding the presence of God.

Although Alcott taught a room full of children, his discussion with students encouraged each one to seek inner contemplation.¹⁶⁹ Peabody describes the room Alcott decorated, which included

[O]n the table, before the large gothic window by which the room is lighted, the Image of Silence, “with his finger up, as though he said, beware.”¹⁷⁰

In the room of Alcott’s school, we have the symbolic combination of silence and light. Alcott wanted to awaken the spirit contained within every child’s mind. In his own way, Alcott brings the mind, being silent, to front the light of God. By creating the world, God broke the silence. Here we see the mystical theme repeat, from the breaking of the vessels in Jewish mysticism to the inner light experience of the pietists in Germany and now in the freeing of the mind in Transcendentalist education.

Alcott’s ideas of developing a child’s mind also paralleled Sampson Reed’s “organic mind.” Reed posited that the mind had its own internal drive to develop the way a plant had an internal drive to teleologically mature. Alcott wanted children to attain, according to Elizabeth Peabody,

...knowledge in the right way; not by accumulation, but by growth; for there is something at the foundation of the human soul, analogous to the organization of a plant, which does indeed feed on the earth from which it springs, the air which it flourishes, the light of heaven which

¹⁶⁸ Alcott quoted in George E. Haefner, *A Critical Estimate of the Educational Theories of A. Bronson Alcott* (Westport, CT: Greenwood Press, 1970). 99.

¹⁶⁹ Elizabeth Palmer Peabody, “Record of a School,” in *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 140-150 (New York: MJF Books, 1978) 148-149.

¹⁷⁰ Elizabeth Palmer Peabody, “Record of a School,” in *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 140-150 (New York: MJF Books, 1978) 144.

comes upon from afar; but which admits nothing that it cannot assimilate to itself.¹⁷¹

The theme in Alcott's ideas on education is that the child has the growth potential analogous to the growth of the plant. This is the same analogy Goethe made about the metamorphosis of plants and Coleridge's poetry striving to achieve an organic whole. Knowledge is not about facts being impressed onto the mind but rather the mind uncovering the ideas in their essential form. The learning process follows an internal drive in an individual's mind to mature towards its full potential. This is because ideas, objects, and the mind are all part of God's Creation, which unifies everything. In context with his research into Quakerism, Alcott's aim for education was to disclose the internal drive as the inner light of the world.

A significant sponsor for Alcott's school in Philadelphia was the prominent citizen and Unitarian minister, William Henry Furness. Furness was a childhood schoolmate with Emerson, one of his closest friends, and gave the eulogy at Emerson's funeral.¹⁷² He graduated from the Harvard Divinity School and settled in Philadelphia to become the first settled minister at the First Unitarian Universalist Church.¹⁷³

Furness was interested in presenting how miracles could occur in the world without empirical evidence. This was a break with the dominant Unitarian position, which followed Locke's empiricism. Furness' argument was that humans do not know all the laws in the universe and what is possible; presently, this is beyond our comprehension. A miracle, therefore, is part of natural law. We call it a miracle because we do not understand why it is possible.¹⁷⁴ For example, Jesus could raise someone from the dead because he knew something in Creation allowing it to happen, but the law allowing us to do so eludes our understanding.

¹⁷¹ Elizabeth Palmer Peabody, "Record of a School," in *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 140-150 (New York: MJF Books, 1978) 149-150.

¹⁷² Perry Miller, *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, (New York: MJF Books, 1978) 124.

¹⁷³ One of the church's founders was Dr. Joseph Priestly, the famous English scientist and discoverer of oxygen.

¹⁷⁴ Perry Miller, *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, (New York: MJF Books, 1978) 124.

In the name of Heaven, what would we have more to stir up the deepest springs of curiosity, wonder and awe, and make us feel that a new world of thought is opened before us! It must put all things in new lights. The familiar must become novel, the novel, familiar. Natural facts become supernatural, and miracles become natural, when all are regarded as manifestations of an Invisible Mind, an Infinite Will...¹⁷⁵

In this particular passage, Furness comments that those things most familiar to us are still part of God's Creation. The theme of awakening one's self to the world through the sight of everyday objects recurs as the theme to Emerson's "transparent eyeball." Natural objects, for instance, become supernatural because our mind can penetrate into their essence, their inner light, which is part of God's being. Miracles happen when one is in touch with this power that others cannot harness and brings it out before all to see.

A Transcendentalist movement occurred in Philadelphia and had some effect in the education system of the city during the nineteenth century. While Furness preached about our inner light from a theological position, Alcott taught it in the form of elementary education. It took a student of both to incorporate the two directions into the practical education of a person.

Practical Education

Charles G. Leland was a native of Philadelphia, a noted folklorist, and a promoter of the Arts and Crafts Movement. He was nine years old when he attended Bronson Alcott's school in Philadelphia. While in Alcott's school, he took his own interest in some of the writers Alcott presented, such as Spencer, Shakespeare, and Coleridge. He claimed Alcott did not really teach because he only spoke about ideals.¹⁷⁶ Alcott predicted Leland would become a Transcendentalist, and Leland did establish correspondence with New Englanders, such as Emerson.

¹⁷⁵ William Henry Furness, "Remarks on the Four Gospels," in *The Transcendentalists: The Classic Anthology*, ed. Perry Miller, 124-129 (New York: MJF Books, 1978) 127.

¹⁷⁶ Charles Godfrey Leland, *Memoirs* (London: William Heinemann, 1894). Added to Project Gutenberg July 9, 2007, eBook #22030. Location 762-769.

Throughout his childhood, he attended the First Unitarian Church in Philadelphia, then under the direction of William Furness.¹⁷⁷ During his teenage years and into his first year at Princeton University, he read Hermes Trismegistus, Iamblichus, Cudworth's *True Intellectual System of the Universe*, and Schelling's *Transcendental Idealism*.¹⁷⁸ After completing his first year at Princeton, Leland took a walk in the woods and recorded his thoughts.

Those who explain everything by "imagination" do not in the least understand how *actual* the life in Nature may become to us. Reflect for a minute, thou whose whole soul is in gossip and petty chronicles of fashion, and "sassiety," that in that life thou *wert* a million years ago, and in it thou wilt be a million years hence, ever going on in all forms, often enough in rivers, rock, and trees, and yet canst not realise [sic] with a sense of awe that there are in these forms, passing to others...only this, that the Will or creative force of the Creator or Creating is in it all.¹⁷⁹

Leland repeats the thoughts of Nature as conceived by the mystics, Romantics, and Transcendentalists. Nature is alive with the emanation, the creative spirit, of God. Few are able to see this but it has been a part of created things for all time.

While at Princeton, Leland attended lectures presented by Albert Dodd, who had a particular interest in Egyptian architecture. Leland reflects on his professor, "It was not with him the mere description of styles and dates; it was a deep and truly aesthetic feeling that every phase of architecture mirrors and reciprocally forms its age, and breathes its life and poetry and religion which characterized all that he said."¹⁸⁰ While listening to Dodd's lectures, Leland recalled his own readings of German Idealism, Hermes Trismegistus, and poems from the classical bards.¹⁸¹ The Egyptian temples demonstrated how one could make objects within the framework of Idealism, Mysticism, and Transcendentalism. The Egyptians, for instance, built

¹⁷⁷ Ibid. Location 809-818.

¹⁷⁸ Ibid Locations 1186-1203, 1214.

¹⁷⁹ Ibid. Location 1391 - 1392. [Leland's italics]

¹⁸⁰ Ibid. Location 1524.

¹⁸¹ Ibid. Location 1526.

the pyramids because the purpose of the structure expressed the world as they understood it. The pyramid required a level of craft expressing the material and ultimate destination for the soul. Dodd's lectures began Leland's thoughts on aesthetics. Towards the end of his life, Leland accepted the directorship for the new Public Industrial Arts School of Philadelphia where he used to put his ideas on aesthetic education into action. He later wrote a book, *Practical Education*, presenting his observations as an aesthetic educator.

In his book, Leland outlines the purpose of art by combining the role of fine and industrial arts together in a manner parallel to Emerson's essay "Art." For Emerson, what is practical is also beautiful. The use of "practical" for Emerson and Leland means it could be put into action, not simply function, but that it performed with a teleological purpose. According to Leland, the ability of the student to understand the practical use of objects begins with the ability to design.¹⁸² He begins first by encouraging students to think creatively in order to design, rather than imitate or record objects before them. "We begin in my schools by teaching design."¹⁸³ The ability to create objects is a process of making, particularly drawing.

Design-drawing should precede everything; but when it is understood, carpenter's work, or joinery in its rudiments, or any branch of easy industry, suited to circumstances, may be taken up as soon as the pupil is fitted or deserves it.¹⁸⁴

Leland posits that our desire to create precedes our ability to make functional objects.

Even in the beginning of the struggle of life, or in the rudest pre-historic times, people made ornaments, though they were only beads, of shells and dried clay... During the infancy of almost every race, the ornamental is developed before the useful, and the same principle is reflected in the individual.¹⁸⁵

¹⁸² Charles G. Leland, *Practical Education* (London: Whittaker and Co., 1888) 22. "Design is here the invention of original patterns."

¹⁸³ Charles G. Leland, *Practical Education* (London: Whittaker and Co., 1888) 9.

¹⁸⁴ *Ibid.* 20.

¹⁸⁵ *Ibid.* 13.

The Romantic mythic theme of returning to the origins to find the essence repeats. At our primitive origin there was a will to express before there was a necessity for useful objects. Leland notes that this will is in children; they draw and make things without a specific use. It is important to keep this primitive instinct when producing work in the “industrial” arts.

For Leland, craft and art are the same. In the same tone of Emerson and the Romantics, Leland finds the particular of the object to be a relation of an organic whole. He fought off the dualist position separating the idea of the object from the making of the object. His parts-to-whole relationship is organic. In his book, he writes, “...as GOETHE reduced the plant to the leaf ... I saw that there is a single principle in art-work which would render all its branches comparatively easy to those who grasped it.”¹⁸⁶ Without sounding too mystical, Leland emphasizes that all arts are fundamentally related. He climaxes his theory by proclaiming:

*Therefore I state here plainly, that the system as I understand it, embraces every conceivable branch of practical industry suited to a child’s brain and hands; and that it begins with design and teaching pupils that arts are only applied or developed design, and that in a like manner all other industries not artistic are each a “many-in-one,” or an unfolding of a single principle.*¹⁸⁷

His “many-in-one” continues Goethe’s plant analogy where the germ of an idea grows out in variety from one common origin. Art has the same principles as all other disciplines. One cannot separate art from other disciplines any more than an artist can separate fine and industrial art. It is the act of creating art that is most important because it unifies the mind and body with a common origin. The role of the teacher, therefore, harnesses the students’ ability to make objects from their imagination. This realization for the role of art in education continued at the Public Industrial Arts School beyond Leland’s retirement.

¹⁸⁶ Ibid. 14.

¹⁸⁷ Ibid. 20. [Leland’s italics]

Practical Organicism

Charles Leland's close associate, J. Liberty Tadd, succeeded Leland as the director to the Industrial Arts School. Tadd continued Leland's pedagogy by combining the fine and industrial arts.¹⁸⁸ The aim of Leland's *Practical Education* was to form an approach towards industrial art education as something more than simply learning a trade. A carpenter, for instance, not only made framing for construction, but also did so in an artistic way. Tadd's book, *New Methods in Education*, echoes Leland by stating:

We must see that art comes into every step of the elementary or fundamental work, using the word in its fullest meaning – *ars, artis* – “skill in joining and fitting,” “the employment of means to accomplish some desired end,” “human labor regulated by design.”¹⁸⁹

Here Tadd demonstrates the importance of looking to the origin of a word to fully express an idea. Art has a meaning of making objects that are skillfully made for a purpose. However, the use of words for Tadd is less important than the ability to draw the expression of an idea because words do not carry an idea's full expression from the imagination.

Early in his book, Tadd makes the distinction between the old method of education and his new method by clarifying the use of words against the purpose of expression.

Under the old method of education, the time being chiefly given to the study of words...the printed and written words (symbols for ideas) are studied at the expense of the ideas themselves. This leads to false or partial ideas and weak imagination.¹⁹⁰

Under the new methods of education, all the channels for impressing the mind of the child should be used as much as possible. Through the vision, the touch, muscular sense, hearing and speaking, impressions

¹⁸⁸ David W. Baker, "J. Liberty Tadd, Who Are You?," *Studies in Art Education* (National Art Education Association) 26, no. 2 (Winter 1985): 75-85.

¹⁸⁹ *Ibid.* 44.

¹⁹⁰ *Ibid.* 21.

should be assimilate, and through the same channels expression should be given to the ideas formed by creating and designing in diverse mediums.¹⁹¹

In Tadd's view, we use words and ideas without their inherent meaning. This follows Emerson's position that scholars select ideas from the midstream of history, such as citing Locke, without looking to the original ideas from the Greeks.¹⁹² In a similar way, Tadd seeks the origin of words because they embody an idea.¹⁹³ As seen with other Romantics, words embodying ideas engage the imagination because they convey a poetic image of the idea that can be expressed in an infinite variety of ways.

Tadd's methods for creating art come directly out of the Romantic definition of the imagination. Coleridge saw the imagination as the faculty assembling various unfamiliar ideas into something intelligible that was part of Creation.¹⁹⁴ Tadd repeats the theme by claiming that

We must take in things, assimilate them and form ideas, and then we will have an outcome... It is always possible to revive ideas in the mind and make mental movements and co-ordinations. The more we do this, the more vital force we will have, the more deeply we will realize and appreciate things. We begin to understand what inspiration means.¹⁹⁵

The "vital force" is a divine energy emanating from all objects that artists discover and express in their work. Tadd uses the word "vital" deliberately for its Latin root *vita*, meaning "life." A work of art is alive. This brings in the organic metaphor of seeing all objects created, either by the hands of God or humans, as having a purpose.

We must make our children realize the divinity that is planted in things... Make them realize the force in every common thing, that

¹⁹¹ Ibid. 22.

¹⁹² See Emerson's "American Scholar."

¹⁹³ Ibid. 15. "We consider too much the symbols of knowledge instead of the sources of knowledge – the objects, facts, and processes of nature in time and space. How can we expect to grasp the ideas represented by these objects, facts, processes unless we embody them?"

¹⁹⁴ See Chapter IV.

¹⁹⁵ J. Liberty Tadd, *New Methods in Education* (New York: Orange Judd Company, 1899) 57.

holds together each flower and leaf and stone; make them realize that
“matter and spirit are two sides of the same fact.”¹⁹⁶

At this point, the Transcendentalist aesthetic becomes most apparent. Not only is Tadd proclaiming there is a vital essence emanating from all objects, but Nature is the symbol and evidence of God.

We are compelled to be with matter in this world. We cannot lift children above the commonplace. Instead we should thrust their heads well into it until they recognize their Mother Nature. There is an irresistible impulse, which is like the tug of gravity, that forces us sometimes against our will, to be close to facts and things. Let us be obedient and bend to the divine energy.¹⁹⁷

Tadd sees the artist as one who can unify the mind, body, and spirit through the act of drawing.

Drawing is an [sic] universal tongue. It compels observation, reflection, perception, and conception. It opens the mental eye, the eye of the understanding, that looks all around, up and down. It enables one to understand the message that is printed in every natural, normal thing, that is stamped with everlasting lines on each side of every leaf and blade of grass, that is twisted into the architecture of every shell, and that shines in the hues of every crystal – a message of beauty, of proportion, of grace and fitness. Drawing makes mind.¹⁹⁸

He was an advocate for teaching ambidextrous drawing.¹⁹⁹ The purpose of learning ambidextrous drawing was for both halves of the brain to control both hands [Figs 3 & 4]. This was not an act of efficiency to draw faster, but the discipline of the mind to control the body in the act of expressing art.

I am firmly convinced that the better and firmer the union of each hand with its proper hemisphere of the brain, and the facility we have

¹⁹⁶ Ibid. 62-67.

¹⁹⁷ Ibid. 63.

¹⁹⁸ Ibid. 33.

¹⁹⁹ This was an ability Kahn famously performed in his lectures.

of working each together, and also independently, the better the brain and mind and the better the thought, the reason and the imagination will be.²⁰⁰

Ambidextrous drawing is a practical use for Coleridge's definitions of reason and imagination. These terms root themselves in the mind's ability to express an image beyond the body's senses. The imagination represents an idea from unfamiliar sources because the mind's ability to reason discovers the underlying essence of the objects in order to unify them as a whole. When both sides of the mind can control the senses and the body's movements, it is a mystical union of the physical object and its spirit arising out of the act of drawing.

Tadd uses nature as the subject for drawing and art in the same manner the Transcendentalists approach nature as the expression of a creative power and not merely imitating natural shapes [Fig. 5]. "Every natural object bristles with facts, teems with ideas. ... The object should inspire me to become eloquent, to give expression through my various channels of facts and ideas."²⁰¹ Tadd attacks traditional art schools that first use geometric shapes and then relate the shape to natural objects. He criticizes art educators who first have the students draw an abstract form and then explain the form is the model shape to draw natural objects. To use Tadd's example, they draw a cone in order to draw a carrot.²⁰² He quips, "Children should have nothing to do with abstractions in the beginning. Before they are given any idea of the type forms [geometric forms], they should be stored with a series of the natural forms, which we receive the idea of the type."²⁰³ Rather than imitating a natural object, Tadd makes this distinction about designing from nature:

I like my pupils and teachers to understand the distinction between sketching from nature and designing. In one case we put down *facts*, and the other, *ideas*. There is a tendency for many students to sketch only from nature. We get our ideas from thinking as well. More time should be given, then, to dwelling on our impressions and to

²⁰⁰ Ibid. 48.

²⁰¹ Ibid. 17.

²⁰² Ibid. 42.

²⁰³ Ibid. 42.

systematic mental reproduction, and to give expression to these ideas constantly by designing and creative work.²⁰⁴

He mocks other schools claiming to use nature as their model for making art. For Tadd, these schools follow the tradition of rational aesthetics; they imitate nature as closely as possible to accurately represent objects as they are perceived.

All the rambles, walks and talks of ten teachers, all the looking and handling, are useless for the purpose of nature teaching, unless the impressions and information are made organic by the performance of work that compels systematic reaction of the motor centers to yield a product, this being the outward, concrete sign of the internal structure or thought fabric.²⁰⁵

The alternative Tadd proposes always seeks the essence of nature rather than imitating particular shapes.

Teachers should primarily develop the students' imagination and secondarily assist in refining their drawing techniques. For Tadd, "It is a mission to teach children having souls. The teacher must especially realize that each mind or soul is an immortal part of the future of heaven he or she is trying to build."²⁰⁶ The imagination of the student, guided by the teacher, resonates with Emerson's famous statement in "Nature," "Every spirit builds itself a house, and beyond its house a world, and beyond its world a heaven."²⁰⁷ It also harkens back to the Romantic spiral of bringing the world up to its ultimate unity with God. Tadd believes an aesthetic education is the method for the progress of society, which is in agreement with the German Romantics and Transcendentalists.

In his book, Tadd uses Emerson's approach to education by explicitly citing him:

The great object of Education should be commensurate with the object of life. It should be a moral one; to teach self-trust; to inspire the

²⁰⁴ Ibid. 57. [Tadd's italics]

²⁰⁵ Ibid. 60.

²⁰⁶ Ibid. 15.

²⁰⁷ Ralph Waldo Emerson, "Nature," in *Nature and Selected Essays*, ed. Larzer Ziff, 35-82 (New York: Penguin Classics, 2003) 80.

useful man with an interest in himself; with a curiosity touching his own nature, to acquaint him with the resources of his mind, and to teach him all there is in his strength, and to inflame him with a piety toward the Grand Mind in which he lives.²⁰⁸

There are several instances where Tadd demonstrates organicism as conceived by Emerson. In this case, organicism is the process of creating an object by drawing out the object's essence, which is the object's umbilical cord connecting to God, and designing it towards its teleological and practical purpose. This is because students and teachers are part of God's creation and contain the same essence. We have the ability to penetrate inside ourselves in contemplation to connect with our essence from God in order to create things in His world. In contrast to his method, Tadd notes how other schools are interested in teaching a process to making art that turns the students into machines.²⁰⁹ A machine does not have the ability to think creatively the way an organism can because it does not have a mind, and hence no imagination. It can make an object, but only because it is a tool and not as the creator. These students only go through the motions of making objects as if they are themselves tools for mass production and not by controlling their hands with their minds. He often refers to students who are able to master control of their hands and mind as "organisms." Most importantly to the organic approach to art, he sees the world alive, and art is the means to engage the world and God's creative force.

The art part of a great deal of work is the part that cannot be measured, weighed or marked, - it is the vital part. Science compels observation and reflection, but does not always result in action. Art compels observation, reflection, and action, and makes them mutually dependent on each other.²¹⁰

Tadd recognizes that art and science overlapping, but science limits itself to only what is measurable. Art, however, has a vital force and the artist draws out the life of a made object. The mind sees this force through the imagination, but it cannot be

²⁰⁸ Emerson quoted in Tadd, *New Methods in Education*. 4.

²⁰⁹ J. Liberty Tadd, *New Methods in Education*. 4.

²¹⁰ *Ibid.* 44-45.

directly observed or measured. This force is vital for objects, which makes them alive and thus organic. Tadd's practical use of Emerson's organicism is a possible beginning to Kahn's formulation of the "measurable and unmeasurable."

In his preface, Tadd described the success of his students who achieve an organic unity with the mind, body, and spirit by using his new methods.

Our American youth will come out of the early education process sound in brain and body, strong of purpose, positive in application, trained in the use of the hand and eye, with originality developed and judgment matured, possessing an ability and a capacity to use it that will so manifest themselves in every art and industry as to maintain throughout the world the supremacy of American genius, effort and products.²¹¹

One of these students was Louis Kahn [Fig. 6].

²¹¹ Ibid. xiv.

VI

The Organic Imagination and Louis Kahn

The first section investigated the beginnings of Romanticism and Romanticism's influence in Kahn's homeland immediately preceding his birth. This framed the world his family, particularly his mother, embraced and would transfer to Kahn. The second section bridged European Romanticism and American Transcendentalism. The aesthetic attitude of Transcendentalism influenced education in Kahn's art school in Philadelphia. These two sources of inspiration help decipher his seemingly mystifying speech. They also present a design method expressing the imagination consistent with organicism. This chapter presents Kahn's thinking and process of creating architecture within the context of the Romantic organic imagination.

In 1959, at the last CIAM meeting, Kahn gave the concluding remarks about how several of the projects presented were "circumstantial."

I find...that you occupy so much time in explaining the circumstantial aspects of your problem; you spend so much time in talking about contours, and about designs, and about these things, all of which are terrifically important but are not really the essence of it...Your getting to the essence of what you are trying to do in creating what it wants to be, should be the first concern – should be the first act...²¹²

Kahn describes the circumstantial as a product of the building's design. The circumstantial addresses the program, how the building responds to its particular site, and construction details that are well executed. However, these do not address the essence, the idea, of the building as expressing an eternal institution. Kahn's interest in architecture is to express the form of the institution, which often has a mythic beginning.

Kahn elaborates the distinction between circumstantial and essential when he talks about form and design. Form has no defined shape and no measure. It cannot

²¹² Louis Kahn, "Talk at the Conclusion of the Otterlo Congress (1959)," in *Louis Kahn: Essential Texts*, ed. Robert Twombly, 37-61 (New York: W.W. Norton & Co., 2003) 54-55.

be quantified but it can be expressed. Form is the essential character of the institution for which the building expresses. This parallels Schelling's use of myth to seek the original image of an idea and express it in a contemporary context. For instance, when Kahn describes the origin of a school as a man sitting under a tree with a group gathered around him, there is an image of school in its pristine essence. Any building an architect designs has this mythic image as an essence, but the physical building has a different appearance determined by context and situation. Design, then, is the circumstantial. It addresses the particulars of the site and program, but it remains the expression of the form. Design is measurable and form is unmeasurable.

The measurable and unmeasurable are famous Kahn terms that are shared with the Romantics. Percy Shelley writes in his "Defense of Poetry" about the "measured and unmeasured in language." Shelley notes the difference through prose and poetry. Prose is language presenting an idea at its surface, there is little more to the thought or story beyond what is literally meant by the words in the narrative. A poem uses language as metaphor, where the word expresses an idea beyond its literal meaning towards a universal knowledge.

A poem is the very image of life expressed in its eternal truth. There is this difference between a story and a poem, that a story is a catalogue of detached facts, which have no other connection than time, place, circumstance, cause and effect; the other is the creation of actions according to the unchangeable forms of human nature, as existing in the mind of the Creator, which is itself the image of all other minds. The one is partial, and applies only to a definite period of time, and a certain combination of events which can never again recur; the other is universal, and contains within itself the germ of a relation to whatever motives or actions have place in the possible varieties of human nature.²¹³

Shelley posits the mind of the poet within the mind of God, thus, what the poet

²¹³ Percy Bysshe Shelley, *A Defence of Poetry*, Vol. XXVII, in *English Essays: Sidney to Macaulay. The Harvard Classics. 1909–14* (New York: P.F. Collier & Son, 1909–14).

creates is the very manifestation of God. The poet also expresses the seeds of action in human nature, which includes human institutions. The unmeasurable, therefore, is the idea of human institutions as part of God's creation. The poetry created by the poet is an expression of institutions.

Kahn appears to suggest that the closest parallel we have to creation is the formation of our institutions. The Romantic description of an institution is the origin of how humans define rituals of life. Rituals are human acts, such as teaching and learning, marriage, and assembly, which we do as obedience to a higher law. This a law governed by the Creator. For Transcendentalists, higher law governs God's creation because they are eternal and constitute human character. In Coleridge's system of "organic law," for instance, an idea or an institution grows because it is following its entelechy. Within any object lies its potential from its most archetypal form and it grows in accordance to this potential. As discussed earlier, this is why an oak remains an oak and does not grow from an acorn into a larch. For humans living under the higher law of Nature, we follow ritual, which defines the organic society. Architects, such as Kahn, recognized the ritual of institutions in order to imagine the spirit of the architecture. It is expressed in accordance with the law of nature.

Kahn wrote two essays to distinguish law from rule in architecture. Law, like Coleridge's reason, is fixed. It is a regulation that is nonmalleable, such as natural law or higher law. On a basic level, this would include the laws of physics, but this example remains in the world of the measurable. Natural laws for Kahn also regulate the unmeasurable realm just as reason and judgment regulate Coleridge's use of the imagination. Rules, however, may be altered to meet the circumstance for the building; rules control the parameters of design. Every design is singular given the constraints of the project, such as program, budget, topography, material selection. Because another project will have different constraints imposing on the site, another set of rules need to be established to keep the order of the project together as a physical manifestation of its form. Law governs the building's form. Laws do not change because the institutions do not change. These are eternal.

“Man makes rules. Nature is of law.”²¹⁴ Whether the project is in the United States or Bangladesh, the law of human institution remains the same. The form of the building, in obedience to the institution, sets up the rules for the design, which express its nature.

The order of the design follows law. Kahn’s eventual definition for Order was simply, “Order is.” Order appears to equal the entelechy; order creates. When something follows its will to be, for instance, order governs the design. For instance, in Kahn’s poem, “Order Is,” a zebra and a stripe painted horse are not the same because the zebra follows nature’s order. He also notes that order does not automatically make something beautiful, but it gives potential. The architect’s ability to handle order parallels Coleridge’s critique of organic evaluation. For Coleridge, the imagination brings together unfamiliar ideas into a composition that grows towards its ultimate completion. For Kahn,

From what the space wants to be the unfamiliar may be revealed to the architect.

From order he will derive creative force and power of self criticism

To give form to this unfamiliar

Beauty will evolve.²¹⁵

By finding the entelechy, that is to say, order, the architect has certainty in self-criticism, which is Emerson’s self-trust.²¹⁶ Because the architect is operating under the law of order, the architect has certainty that the imagination forms something beautiful from unfamiliar ideas or objects. The act of constructing something from these ideas formed in the imagination is a growth.²¹⁷ Beauty is organic because it evolves; it matures, like an organism.

²¹⁴ Louis Kahn, "Law and Rule in Architecture (1961)," in *Louis Kahn: Essential Texts*, ed. Robert Twombly, 124-137 (New York: W.W. Norton & Co., 2003) 125.

²¹⁵ Louis Kahn, "Order Is," *Perspecta* (Yale University) 3 (1955): 59.

²¹⁶ Emerson is most direct about self-trust in his essay “Self-Reliance,” which is an interchangeable term for the same idea.

²¹⁷ “Growth is construction.” Louis Kahn, "Order Is,"

It is difficult to define Kahn's idea of nature; at times, he seems contradictory. In a lecture delivered in 1961, Kahn stated, "Nature is the maker of all things."²¹⁸ One year later, he gave a lecture that presented nature as having limitations.

Architecture is what nature cannot make. Nature cannot make anything that man makes. Man takes nature – the means of making a thing and isolates its laws. Nature does not do this because nature works in harmony of laws, which we call order. It [Nature] never works in isolation. But man works in isolation, so whatever he makes is really quite minor, you might say, compared to what is really wanting to be expressed by the desire and spirit of man. Man is always greater than his works. He could never, with his instrumentation, bring out that which is completely full.²¹⁹

Is Kahn really contradicting himself? Fundamentally, he is not. Nature makes everything from order because it can only operate within its own laws and from itself. Humans are made from nature and are part of the order, but what humans make is, at best, a manifestation of the order in a minor way. Humans, as beings, will always be better than what they make because they are made in accordance with the order of nature. The best we can do is to make things presenting the order of nature. Nature is light; we make windows and walls to present light. Nature is clay and humans; we make bricks and institutions.

Earlier there was a comparison of silence and light with mystic contemplation and creation. These ideas inspired the Romantic Movement. The English Romantic writer, and Emerson's friend, Thomas Carlyle, wrote, "Silence is the element in which great things fashion themselves together; that at length they may emerge, full formed and majestic, into the daylight of Life, which they are thenceforth to rule."²²⁰ Kahn and the Romantic tradition saw the world alive; it is an organism expressing itself through the organic imagination. For Kahn,

²¹⁸ Louis Kahn, "Law and Rule in Architecture (1961)" 125.

²¹⁹ Louis Kahn, "Lecture at Yale University (1963)," in *Louis Kahn: Essential Texts*, ed. Robert Twombly, 162-168 (New York: W.W. Norton & Co., 2003) 167-168.

²²⁰ Thomas Carlyle, *Sartor Resartus* (New York: Blue Ribbon Books, 1942) 112.

Inspiration is the feeling of beginning at the threshold where Silence and Light meet: Silence, with its desire to be, and Light, the giver of all presences. This, I believe, is in all living things; in the tree, in the rose, in the microbe. To live is to express. All inspirations serve it. The inspiration to learn comes from the story etched in us of how we were made; and urges us to discover its wonders which encompass unmeasurable desire and measurable law.²²¹

There is a sense of inner contemplation of silence and light for Kahn when he makes a comment on education in a manner similar to Bronson Alcott. While standing near his sculpture representing Silence, Alcott desired the individual student to seek the connection between the writers he presented in class with God. Kahn's thoughts on education are similar. He claimed, "One never learns anything that is not part of oneself, part of that '*One*.'"²²² For Kahn, the student's inner contemplation not only builds upon what is already known, but also ties into essences emanating from the One. The student is not only an individual but also a manifestation out of the One. Kahn sees the individual in the light of ancient mysticisms whereby a person is made from a divine source.

Wonder in us is...a record of the way we are made. It is a well, which is completely full of all the things you will ever learn; because nature, in its making of things, records every step of its making. It is, one may call it, a seed.²²³

To find the essence of an idea is to return to the beginning. Even at the last CIAM meeting, Kahn wanted to return to the beginnings in order to discover institutions rather than circumstances. This is an example of continuing the Romantic view of history, which looked to the origins of ideas and institutions and

²²¹ Louis Kahn, "Space and the Inspirations (1967)," in *Louis Kahn: Essential Texts*, ed. Robert Twombly, 220-227 (New York: W.W. Norton & Co., 2003) 220.

²²² Louis Kahn, "I Love Beginnings," in *Louis I. Kahn: Writings, Lectures, Interviews*, ed. Alessandra Latour, 285-293 (New York: Rizzoli, 1991) 289. [Kahn's italics]

²²³ Louis Kahn, "Lecture at International Design Conference, Aspen, Colorado (1962)," in *Louis Kahn: Essential Texts*, ed. Robert Twombly, 151-161 (New York: W.W. Norton & Co., 2003) 153.

to express their essential meaning into the contemporary world. Kahn agreed, “I think it is the beginning that confirms continuation. If it did not – nothing could be or would be.”²²⁴ The idea of looking to the beginning that continues to manifest itself was of interest to the Romantics, such as Goethe. The *Urpflanze* was the archetypal plant with the seed from which all other plants manifested. With a similar idea, Kahn stated:

The spirit of the start is the most marvelous moment at any time for anything. Because in the start lies the seed for all things that must follow. A thing is unable to start unless it can contain all that can ever come from it.²²⁵

Ideally, the archetypal form expresses the entelechy of the idea. As we saw with Goethe and Coleridge, the seed of an idea contains its entelechy. Schelling shared a similar idea when he sought the mythic origins of ideas in order to cultivate the best into the contemporary world. The beginning is a form perpetual throughout time and it is the expression of the design that varies to adapt to circumstances.

The Romantics illustrate a beginning comparable to Kahn’s thoughts of form. During his talk to CIAM, he stated,

Preform is archaic form. In the preform actually exists more life, more story that can come after, than anyone who walks from it and nibbles at it can ever attain. In the preform – in the beginning, in the first form – lies more power than in anything that follows. And I believe that there is much to be gained by this thought if it comes through your minds, not only through mine, in what it can mean to you...²²⁶

In Kahn’s ideas, we find a trace of Coleridge’s sense of the imagination, which is particular to every individual. Since the imagination is governed by higher law, the architect uses self-trust to judge how to express the original form into the contemporary world. It is an expression from an individual’s imagination, but it is universal because it is in harmony with human institutions. As Hedge described in

²²⁴ Louis Kahn, "I Love Beginnings" 285.

²²⁵ Louis Kahn, "Talk at the Conclusion of the Otterlo Congress (1959)" 42.

²²⁶ Ibid. 51.

his “Progress of Society,” the creation of institutions correspond to God’s Creation. They perpetuate through history because they grow and adapt through cultivation because they express the best of society. This parallels Kahn’s idea of finding the beginning of the institution.

Kahn’s sense of purpose also conforms to Abrams’ description of the Romantic spiral. Society always looks to the beginning to understand its purpose and end. Society makes numerous advances along the way, and those advances, which express the best of a culture, remain with society. Therefore, the return is not to the beginning as it was exactly in the past, but a more perfect union with God at the moment when He created the world. The Romantic spiral is continually moving upwards as it swings pass the beginning, using the momentum to keep progressing. Kahn acknowledges the idea of this spiral when he said,

I believe the architect somehow must hark back to the time of beginning. The beginning is a wonderful time because nothing could take hold unless that beginning, when it does take hold, is true, thoroughly and deeply, to the nature of man, and that, although it may have a primitive beginning and a very modest one, is bound to continue if it is something close to desire and subsequently to the needs of man. So the beginning is true to man; government is true to man; home is true to man. All these institutions are true to man, and the architect’s search for indications of how institution can be amplified or how a new institution can come out of an old one is probably one of the most delightful mental experiences that he can have.²²⁷

When delivering a talk in 1972, Kahn saw the purpose of the architect to read “Volume Zero.”²²⁸ The story of Volume Zero, the story not written, represents the tradition of the oral poet, such as Homer and Orpheus. What the ancient poets and bards represent for Romantics are poet-prophets.²²⁹ The Romantics, too, saw

²²⁷ Louis Kahn, “Law and Rule in Architecture (1962)” 141-142.

²²⁸ Louis Kahn, “I Love Beginnings” 286.

²²⁹ M.H. Abrams, *The Correspondent Breeze: Essays on English Romanticism*. 57.

themselves as the inheritors of this tradition. They were the voices expressing the word of God and his will, parallel to the role of the *zaddik* in Hasidism. Kahn appears to have adopted this role as well, since his words are also mysterious to the uninitiated for the same reason. It is part of the tradition of Romanticism to use unfamiliar images so the imagination can compose them together into a unified whole. Kahn's words, too, evoke images, such as "material as spent light" and the story of the first school. There is enough ambiguity in the words to guide the listener towards the realization and revelation that the image represents the human institution within the world of God's Creation. Each successive poet across time builds a better representation of the original idea that is always growing towards its full maturity. In this way, Louis Kahn was a poet-prophet, and his architecture is organic.

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Appendix A

List of Illustrations

Fig. 1 [Public domain]

Frontispiece of the *Portae Lucis*, trans. by Paulus Ricius of J. Gikatilla, Augsburg, 1516. [Published before 1923]

Fig. 2 [Fair use]

Kahn, Louis. "Silence to Light." Sketch from Kahn's personal sketchbook c. 1969. Louis I. Kahn Collection, University of Pennsylvania Architectural Archives. [Sketch was made before 1977 as an unpublished, non-copyrighted drawing by a deceased artist. Location of sketch cited.]

Figs. 3, 4, 5 [Public domain]

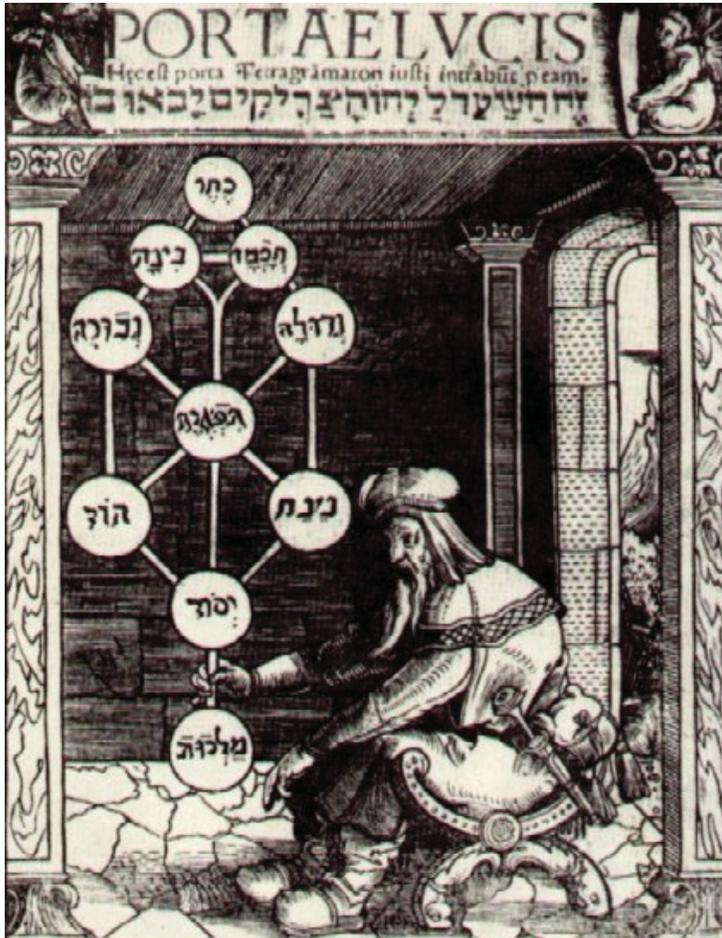
Tadd, J. Liberty. *New Methods in Education*. New York: Orange Judd Company, 1899. [Published before 1923]

Fig. 6 [Fair use]

Rich, Martin. "Louis I. Kahn." Louis I. Kahn Collection, University of Pennsylvania Architectural Archives.

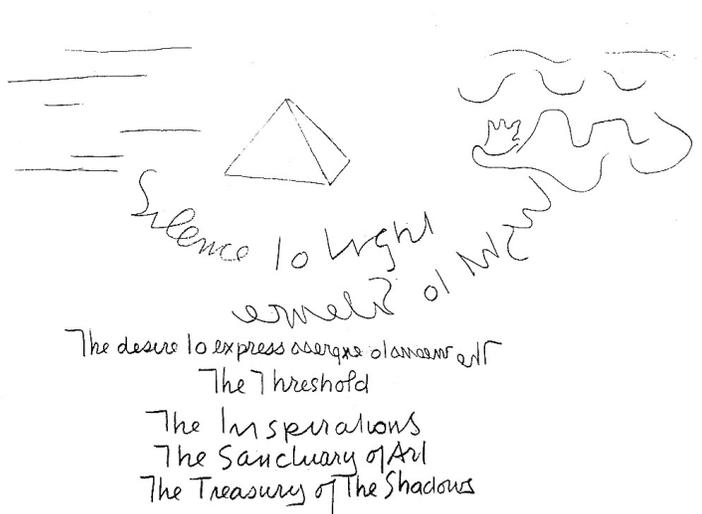
<http://www.design.upenn.edu/archives/majorcollections/kahn.html>

[Photograph part of the Louis Kahn Collection, photographer cited, used only to illustrate Kahn's ambidextrous drawing ability.]



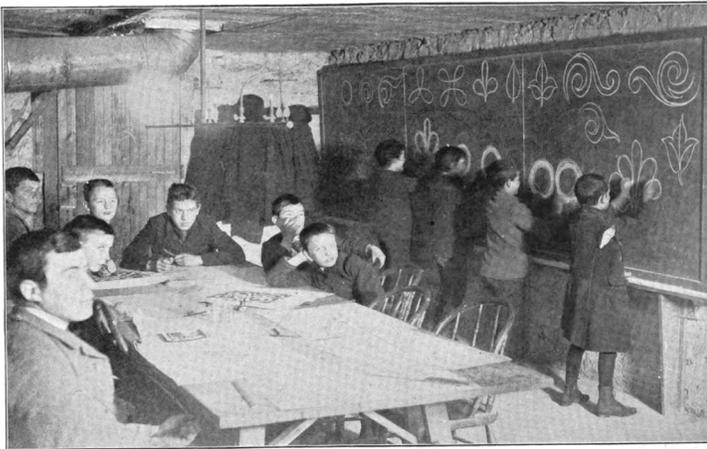
Frontispiece of *Portae Lucis*. Translated by Paulus Ricius of J. Gikatilla, Augsburg (1516). Public domain.

The man is holding the *Siferot*, the ten emanations from the *Ein-Sof* in Kabbala. Fig. 1



Kahn, Louis. "Silence to Light." Personal sketchbook (c.1969). Louis I. Kahn Collection, University of Pennsylvania Architectural Archives. Fair use determination. Fig. 2

PLATE FOUR

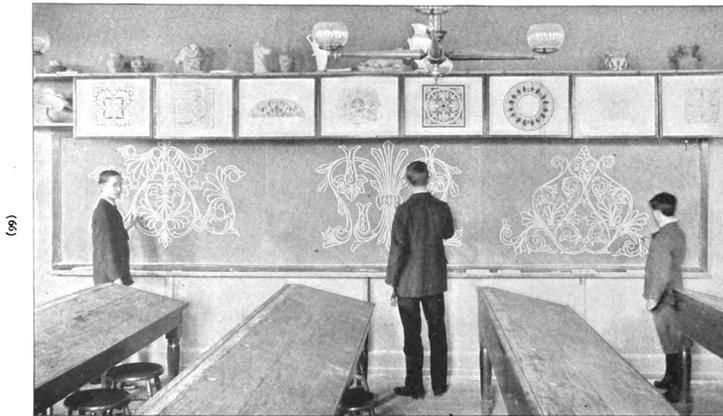


(37)

Blackboard Work in a Night School

All images on this page come from J. Liberty Tadd's book, *New Methods in Education*. New York: Orange Judd Company, (1899). Public domain.
Fig. 3

PLATE EIGHT



(56)

Ambidextrous Designing

These boys are grammar grade pupils. They have had two hours training per week for two years, in drawing, modeling and carving, in rotation. Each time they make a design it is different, and they draw various styles of ornament, besides drawing from objects. Such work as is shown herewith is executed in about six minutes.

Fig. 4

Illustration 236



Idealized Animal Forms

This picture shows more clearly than No. 233 the strength and freedom with which the lines are drawn. Advance from the simpler to the more complex.

Fig. 5



Fig. 6

Louis Kahn demonstrates his ambidextrous drawing abilities.

Rich, Martin. "Louis I. Kahn." Louis I. Kahn Collection, University of Pennsylvania Architectural Archives. Fair use determination.