

The Etymology of Design: Pre-Socratic Perspective¹

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Design is a term that differs from, but often is confused with, planning. While planning is the act of devising a scheme, program, or method worked out beforehand for the accomplishment of an objective, design is a conceptual activity involving formulating an idea intended to be expressed in a visible form or carried into action. Design is about conceptualization, imagination, and interpretation. In contrast, planning is about realization, organization, and execution. Rather than indicating a course of action that is specific for the accomplishment of a task, design is a vague, ambiguous, and indefinite process of genesis, emergence, or formation of something to be executed, but whose starting point, origin, or process often are uncertain. Design provides the spark of an idea and the formation of a mental image. It is about the primordial stage of capturing, conceiving, and outlining the main features of a plan and, as such, it always precedes the planning stage.

Etymologically, the verb “design” is derived from the prefix *de* and the Latin verb *signare*, which means to mark, mark out, or sign. The prefix *de* is used not in the derogatory sense of opposition or reversal, but in the constructive sense of derivation, deduction, or inference. In that context, the word “design” is about the derivation of something that suggests the presence or existence of a fact, condition, or quality. In Greek, the word “design” is *σχέδιο* (pronounced *schedio*), which is derived from the root *σχεδόν* (pronounced *schedon*), which means “nearly, almost, about, or approximately.” Thus, from its Greek definition, design is about incompleteness, indefiniteness, or imperfection, yet it also is about likelihood, expectation, or anticipation. In its largest sense, design signifies not only the vague, intangible, or ambiguous, but also the strive to capture the elusive.¹

Traveling further back into the origin of the Greek word *σχεδόν* (pronounced *schedon*), one may find that it is derived from the word *έσχειν* (pronounced *eschein*),² which is the past tense of the word *έχω* (pronounced *eho*), which in English means to have, hold, or possess. Translating the etymological context into English, it can be said that design is about something we once had, but have no longer. The past tense in the Greek language is referred to as indefinite (*αόριστος*) and, as such, it is about an event that did occur at an unspecified time in the past, hence it could have happened anytime between a fraction of a second and years ago. So, according

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- 1 Precisely, the root of *σχεδόν* (pronounced *schedon*) is derived from *έσχειν* (pronounced *eschein*), which is the past tense of the verb *έχω* (pronounced *eho*), that is “to have.” Therefore, design literally is about the reminiscence of a past possession, at an indefinite state, and at an uncertain time. Similarly, the word “scheme” from the Greek *σχήμα* means “shape” and also is derived from the root *σχεδόν*.
- 2 *έσχειν* (pronounced *eschein*) is also the root of the English word “scheme.”

to the Greeks, design is linked indirectly to a loss of possession and a search into an oblivious state of memory. This linguistic connection reveals an antithetical attitude towards design, one that, in the Western culture at least, is about stepping into the future, as a search for new entities, processes, and forms, frequently expressed by the terms “novelty” or “innovation.” Before venturing any further into this Greek paradox, it may be useful to examine the notion of innovation and novelty within the context of design and, specifically, architectural design.

Innovation is a term amply used in association with the process or products of design. It is defined as “the act of beginning or introducing something for, or as if for, the first time.” Surprisingly, there is something strange about this definition. It appears to be a semantic twist within the definition of innovation itself. It involves the conjugation “as if,” which means literally “in the same way that it would be if,” asserting the possibility of an equivalence between existence and the perception of existence. While the adjective “for” is a definite indicator that connects an object, aim, or purpose to an action or activity, the conjugation “as if” involves a hypothetical conjecture posed over the truthfulness of the statement. Such a definition is, to say the least, paradoxical, contradictory, and problematic in the sense that, while the definition itself is supposed to lead towards a definite assertion, it also involves the possibility of negating the same assertion. If the assertion is that innovation indeed is about the first time, then it is contradictory to also assume that such uniqueness also can be perceived as such, because it then implies that something that may not be “first” also may be assumed, presented, or perceived as “first,” which is an apparent contradiction. In other words, the definition of innovation involves the possibility of a deliberate, unintentional, or accidental flaw: *if something is perceived as such, then it must be such*. This syllogism brings up an important hypothesis about perception: that it is possible that something can be constructed to appear as such, or that an audience may be conditioned to perceive something as such. In either case, the definition of innovation seems to suffer from the lack of two of the most fundamental principles of every definition: clarity and truthfulness.

Because of its pioneering nature, innovation frequently is associated with originality. Originality is defined as the quality or state of preceding all others in time. Innovation also is defined as the act of introducing something new (i.e., something that comes into existence for the first time). However, unlike innovation, originality is about a point of departure, a source of knowledge, and an archetype. It is a primordial mark at which something comes into existence, an ancestral origin whose genetic material transcends throughout the following generations. Unlike innovation, the

importance of originality is to be “first in order,” and this quality is not a matter of perception but rather a matter of necessity. While the intention of both processes may be similar, their logical directions are antithetical. If innovation leads towards one direction, then the search for originality leads towards the opposite. Innovation may be seen as a process of adding one more leaf to the tree, while originality can be seen as the process of adding one more root.

In tracing back to the origin, one is forced to travel from the leaves backwards towards the roots. This process involves at least two modes of thought: reduction and reversion. While the notion of reduction can be associated with decrement, lessening, or diminishment, it also can be associated with abstraction, simplification, and idealization. Similarly, reversion is about regress, setback, or recall, yet it can also be about return, reassessment, and reconsideration. The reason for this is that the prefix “re-” is used here not in the negative sense of backward or regress, but rather in the positive sense of again or anew. Interestingly, the term “innovation” is commonly associated with progress, advancement, growth, and expansion: terms that ironically also are considered to be the opposites of reduction and reversion.

In architectural design, the notion of innovation has been a founding, axiomatic, and guiding principle. Within the modernist tradition of novelty, the search for innovation may have become a misguiding rather than a guiding factor in design. While, in the early twentieth-century, *the shock of the new* may have provided an escape from the traditions of the past, its constant use in the world of fashion today and the everlasting struggle to introduce something new for, or as if for, the first time defies its original purpose. Novelty is a primordial fascination of the human mind, yet its perception seems to be highly illusory, conditioned, and influenced. As Wes Jones points out, “We believe that newer is better. Not because it is a fact in each individual case, but because it is an inevitability in general.” While many theorists are concerned with the value of newness, it also may be useful to explore the question: “What is new?” Just because something appears to be new, or is labeled as new, does not mean that it is *essentially* new. Like a magician’s show, the appearance or disappearance of objects in a scene generates a primordial fascination from the viewpoint of the audience; yet not from the magician’s viewpoint.³ Novelty requires more than just appearance. As in the case of innovation versus originality, novelty usually is about the striking, different, or unusual; but it also can be about the first, seminal, or original. A difference in appearance does not necessarily justify novelty. If something is seen from a different angle, is rotated upside down, or a piece is added that does not mean that the result is new, yet it may appear to be new. In contrast, an original concept involves newness in a productive, seminal, and influential way.

3 Similarly, in the game of peek-a-boo, a baby is mysteriously fascinated by an appearing/disappearing face.

As mentioned earlier, the notion of design, according to the Greeks, is associated with the past instead of the future. Such an assumption appears almost antithetical to the predominant notion of design as a process that leads towards the derivation of novelty. How can the past be of such significant importance, especially as a recollection of past, lost thoughts? If, according to the Greeks, design is about something that we had but do not have any more, then it is lost somewhere in the past. But then what is its connection to something that is about to become in the future (i.e., a novelty)? Why would they offer such an unexpected and obscure relationship? Is it possible that, according to the Greeks, novelty, in the sense that we understand it today, does not exist per se and anything new is just *an illusion*?

If we look deeper into pre-Socratic philosophers such as Xenophanes, Parmenides, or Zeno, one of the common agreements between them was the assumption that nothing comes out of nothing and nothing disappears into nothing (i.e., nothing can just pop up or vanish without a trace). Such an assumption is very important to understand their reluctance to conceive, accept, or understand the concept of novelty in its modern sense. If everything is indestructible, then change is nothing but a transformation from one state to another; the appearance or disappearance of parts is only phenomenal; nothing is added or subtracted. Therefore, if something emerges, appears, or claims to be new, then it must be nothing but an illusion because, if it is not, it would contradict the initial premise of preservation. Such logic, while it may appear to be simplistic or absolute, it also is very powerful because it does not allow thoughts to be affected by sensory phenomena. What is most significant about this logic is that it sets a paradigm in which knowledge about reality is based upon reason, and therefore strives to be truthful, while human opinion of appearance is based upon our senses, which are not only unreliable but also misleading.⁴ According to this logic, design as a mental process of creation can be seen as bounded by the limits of preservation: any newly conceived thought, process, or form is nothing but a reordering of previous ones. However, if we consider this possibility, then we are confronted with the problem of origin. Since every “new” idea is depended on a previous one, then there must be an origin, a starting point, a root of roots out of which everything spurs, tangles, and multiplies, offering glimpses of what occasionally appears to be “new.” Thus, we are led to the conclusion that the origin, like its material counterpart, must be fixed, eternal, and indestructible. And since novelty involves the negation of existence (i.e., something that did not exist before), novelty is impossible. It is only a sensory illusion.⁵

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- 4 The Socratic analogy of shadows in a cave illustrates the illusion-prone nature of the senses, and the inability to distinguish reality (light) from its representation (shadow). The feeling of sensory illusion is so comfortable that attempts to reveal their deceptive nature is met with fierce resistance (*The Republic*, book VII). While in Plato’s dialogue *Parmenides* there is a clear distinction between the Socratic theory of ideas and Parmenides’s existential philosophy, both are in agreement on the deceptive nature of the senses.
- 5 To paraphrase a paradox by Zeno, a student of Parmenides, it can be argued that novelty resembles an arrow moving forward in time and, as a moving arrow, either it is where it is or it is where it is not yet. If it is where it is, then it must be standing still, and if it is where it is not, then it can’t be there; thus, it cannot change position. Of course, the paradox is just a metaphor to show the inability to achieve something out of nothing (i.e., to create something new).
- 6 Alternative versions of the word ὑπαρξιη (i.e., “existence”) in Greek are υπόστασις, which is equivalent to *ex-sistere* and το ὄντι, which literally means “this which is.” ὄν (pronounced *on*), which is the root of the word “ontology,” is the present participle of the verb εἰμι (i.e., “I am”).

In English, the word “existence” is derived from the prefix *ex* (i.e., forth) and the verb *sistere*, which in Latin means to cause to stand up or come to a stop. Thus, etymologically, the meaning of the word “existence” can be associated with the action of appearance or arising. In Greek, the word “existence” is ὑπαρξιη, which is derived from the prefix ὑπο (*hypo*), meaning “under, below, or beneath,” and the noun αρχή (*arche*), meaning “beginning, start, or origin.”⁶ Thus, similar to design, existence is not only about the distant past, the beginning of things, but also even further because it involves a step beyond, below, or beneath the starting point. But how is this possible? How can something lay beyond the beginning? Wouldn’t that result in a new beginning which then should be displaced again *ad infinitum*? Such a train of thoughts may appear paradoxical because it is interpreted as a sequential linkage in the context of a beginning and an ending point. As established earlier, in the pre-Socratic spirit, the notion of a beginning (as well as that of an end) must be rejected. Things exist before their phenomenal starting point and, therefore, the use of the prefix *hypo* declares the framework, structure, or platform out of which starting points can be observed. Similar to a river, its origin is not the spring itself but rather lies far beyond, beneath, or below its phenomenal emergence.

The verb “to become” is used in English to denote the action of coming into existence, emerging, or appearing. In language, as opposed to formal logic, existence is a predicate rather than a quantifier, and the passage from copulative to existential can be misleading. The action of coming-to-be or becoming does not necessarily have to be associated with creation, beginning, or emergence, but rather may denote a process of derivation, transformation, or transition from one state to another. Indeed, transition is the act of becoming, except that its connotation is problematic because, as Evans points out, “...whatever is subject to the transformation must already be complete in all its parts.”⁷ This notion is antithetical to the traditional view of design as an accumulative process. For example, the subtraction of one point from a square may result in a triangle that, in turn, can be perceived as an action in which “a square became a triangle.” In this case, the action of becoming results from an operation of subtraction. Furthermore, the action of subtraction itself also is an action of becoming, where “a point became nothing.” Such an action involves the existential operation of instant becoming. The pre-Socratic philosophers rejected such a notion as absurd, because nothing can just come into being or suddenly cease to exist. As they rejected traditional explanations for the phenomena they saw around them in favor of more rational explanations, they also set the limits of human imagination. According to Parmenides, if something came into being, it is not (ἐλ γὰρ ἐγένετ, οὐκ ἔστιν); i.e., something that pops out of nothing cannot really exist.⁸ Not surprisingly, even today,

7 See R. Evans, “Not to Be Used for Wrapping Purposes,” *AA Files* 10 (1985): 70. In this article, Evans makes an elegant distinction between design, as an accumulative process, and transformation as a different type of design where only relations alter.

8 Along the line of pre-Socratic thought, the prefixes a-, un-, and in-, when used in the sense of negation, opposition, or contrast to reality, are absurd, confusing, and pointless. Either something exists or not. The preposterousness that is inherent into the negation of existence is very apparent in two linguistic constructions namely the words “unknown” and “unreal.” Both are terms that, while they exist as words, are both preposterous.

there is no word in the English language or, for that matter, the Greek language that can denote the instant becoming of an object out of nothing. While the verb “become” is the closest word, it implies a moment of time in order for something to originate. The same is true for the terms “emergence,” “genesis,” “birth,” “rise,” “derivation,” “start,” and “beginning,” for which time is always involved.⁹ Similarly, the word “appearance” cannot be equivalent to the word “become,” because it involves the subjective interpretation of the existence of an object. Appearance is about the visual interpretation of the existence of something that is coming into sight. Surprisingly, the most common word used by people to denote sudden appearance or disappearance is the word “magic,” but this also carries an illusionary, unreal, and perhaps deceptive connotation—a connotation associated with the belief that it is the result of a supernatural event.

It can be argued that “coolness,” fashion, style, the unapologetically fashionable, desirable, and ephemeral are not about the new, but instead are deceptive, obfuscating methods of establishing an authority on art, architecture, and design without offering the means to truly lead towards novelty. In contrast, theories, experiments, or technologies that point out the potential limits of the human mind seek to identify novelty as a quality that exists beyond the limits of the human mind. If there is novelty, in the existential sense, it must be sought beyond, below, or beneath its phenomenal appearances as an already existing entity that is outside human knowledge.

True novelty, therefore, must be the result of discovery. While knowledge about the lack of existence is impossible, the lack of knowledge about existence is possible. In other words, the discovery of the existence of something indeed is new, as it pertains to the body of knowledge that it adds to. It is about the existence of something that was, until it was discovered, outside human knowledge. Unlike the mere compositional rearrangement of existing elements into seemingly new entities, a discovery is a revelation of something that existed before, but was not known.

Discovery is the act of encountering, for the first time, something that already existed. In contrast, invention is defined as the act of causing something to exist by the use of ingenuity or imagination: it is an artificial human creation. Both discovery and invention are about the origin of ideas and their existence in the context of human understanding. These two intellectual mechanisms result from a logic which tends to argue whether the existence of certain ideas, notions, or processes is one of the following: either a human creation or simply a glimpse of an already existing universe, regardless of the presence of humans. The most paradigmatic example of this polemic is that of geometry itself. The existence of geometry can be regarded as either a descriptive revelation of properties, measurements, and

9 Beginnings and endings represents change and transitions such as the progression of past to future, of one condition to another, of one vision to another, or of one universe to another. New or old do not have existence of their own, but rather are seen as transitions from one state to another.

10 Perault, the architect of the peristyle of the Louvre, argued that architecture is a fantastic art of pure invention. He asserted that architecture really exists in the mind of the designer and has no connection to the natural world. In addition, architecture as an imaginative art, obeys its own rules which are internal and personal to each designer, and that is why most creators are vaguely aware of the rules of nature and yet produce excellent pieces of art. A similar point also is argued by Giovanni Battista Vico. In his work *The New Science* (1744), Vico argues that one can know only by imagining. The twisting of language and meaning can lead one to discover new worlds of fantasy. He argued that one can know only what one makes. Only God can understand nature, because it is his creation. Humans, on the other hand, can understand civilization, because they made it. The world of civil society certainly has been made by humans, and its principles therefore are to be found within the modification of our own human mind.

relationships of existing forms or as an arbitrary, postulate-based mental structure that exists only in the human mind. For instance, Euclidean geometry originally was developed to measure distances on the surface of earth and yet, in Euclidean geometry, platonic primitive shapes such as squares, circles, and triangles do not exist per se in nature, yet they represent idealized approximations of natural objects. Likewise, architecture can be regarded as either a simulation of the laws and structure of nature or as a world of fantasy and imagination.¹⁰

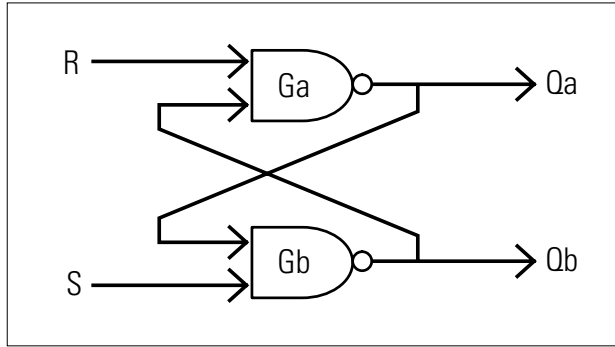
The notion of an origin is important when discussing the process of design. Because of its investigative nature, design always is associated with a starting point or a pivot out of which style, fashion, or mannerisms result. That starting point is important for at least two reasons. First, and most obvious, it serves as a pivotal point of reference that identifies, categorizes, and determines a wide range of similar products. Second, and less obvious, is the fact that an origin belongs to the distant past and, as such, it involves the reminiscence of something that was once lost but whose consequences are still present. While memory usually is about mundane, common, and ordinary past events, it also is about that which is lost in the distant past—the primordial, archaic, and primitive. The origin, as such, is elusive, evasive, and indefinite, yet it is always present in the form of a sign that points out at the increasingly distant past. While the struggle to seek for the latest new “new thing” may be fascinating, seductive, or thrilling, it is only because it builds upon a primordial human weakness, that of the vulnerable nature of the senses. In contrast, the search for original, universal, and ideal forms of existence which serve as prototypes, archetypes, or models is a glimpse into an already existing world whose rules are derived from entirely different principles than those that govern the world of senses.

Thus, in searching for the origin, one is challenged to seek the basic, archaic, and primitive qualities of the first encounter. The process of recollection is a search for the truth, while the act of concealing eventually will lead to false assumptions.¹¹ The search for truth leads to facts that will be remembered for a long time, while falsity leads to facts that, while impressive at the moment, will pass into oblivion. Memory is an associative mechanism for reproducing past experiences and, in its primitive neural level, is governed by logical operations. Yet, while the primitive connections that reproduce a past event may be logical, the higher-level entities that are to be remembered are not necessarily so.

Memory relies on a concept called feedback that is the output of something being fed back into itself as input. The minimal definition of feedback involves at least two consecutive moments of time as a measure of comparison is established so that an event can be

11 In Greek, the word “false” is *λάθος* (pronounced *lathos*), which is derived from the word *λήθη*, which means “oblivion.” In contrast, the word “truth” is *ἀλήθεια* (pronounced *aletheia*), which is derived from the negative prefix *a* and the word *λήθη*, therefore denoting the negation to forget. Thus, the connection is that truth is unforgettable and falsity is oblivious; or rather that truth leads to facts that will be remembered for a long time, while falsity leads to facts that, while impressive at the moment, will pass into oblivion. The word *λήθη* is translated by Heidegger as “concealment,” therefore reinterpreting the act of forgetting as one “sunk away into concealedness.” See M. Heidegger, *Parmenides* (Bloomington: Indiana University Press, 1992), 71.

Figure 1 and 2



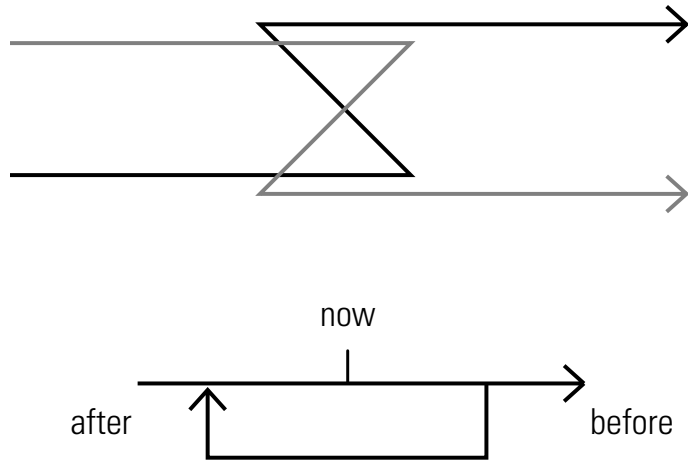
S	R	Qa	Qb
0	0	0/1	1/0
0	1	0	1
1	0	1	0
1	1	0	0

locked and therefore “remembered.” In electronics, the basic element for storing binary information is termed as a “flip-flop.” It consists of two cross-coupled NAND gates, as shown in figure 1.1. If R and S are opposites of one another, then Qa follows S, and Qb is the inverse of Qa. However, if both R and S are switched to 0 simultaneously, then the circuit will return what was previously presented on R and S. Thus, this simple logical circuit constitutes a memory element, or flip-flop, that locks or “remembers” which of the two inputs S and R was most recently equal to 1.¹²

Time therefore is “captured” by reversing its order so that an event can be revisited. The configuration of a memory unit reveals a geometrical relationship, where two parallel lines representing time are connected by establishing a cross-coupled, zigzag path. This simple geometrical relationship reveals a strange paradox: while “before” always knows what comes after, “after” never knows what lies before it. In other words, in order to know what will happen, one needs to be where nobody can go (i.e., in the future). However, future is relative to where the past starts. If the future of one observer is observed from the past of another observer, then the past of the first observer becomes the future of the second. Time, therefore, can be momentarily reversed to collect fragments of time that are called “memories.”

12 See C. Hamacher, Z. Vranesic, and S. Zaky, *Computer Organization* (New York: McGraw-Hill, 1984), 520–1.

Figure 3



Symbolically, according to the Greeks, it was Chronos (time) who ruled first, and what was produced, the children of Time, were devoured by time. It was only when Time was conquered that an origin was set to its passing. That origin, the origin of human thinking, was established out of the emergence of two, newly acquired fundamental abilities: that of memory (attributed to Epimetheus) and that of prediction (attributed to Prometheus). As a consequence, it was the realization of the inevitability of death that initiated history (i.e., the preservation of memory and the explanation of time as a passing phenomenon). The ability to make logical syllogisms (i.e., to see the connection between the notions of before and after) is one of the main characteristics that distinguish intellectually humans from animals. Without logic, there is no ability to foresee events and therefore make sense out of time. One moment has meaning only in its relation to other moments: otherwise they are just fragments deprived of meaning if they are not related to other fragments. Historically, as the distinction between the emotional and logical side of the human mind started to become clearer, humans started to differentiate their nature from that of animals. Hybrid creatures that exist in various mythologies such as the Minotaur, Sphinx, Centaur, and Medusa represent a symbolic struggle to identify, differentiate, and demarcate human nature from that of an animal's establishing its superiority through slaughter. George Bataille, in his work *Le Labyrinthe*, offers a deeply existential interpretation of the diacritical couple man/ animal and the desire to set free man's animality. According to Hollier's interpretation, Bataille sees as the origin of painting in Lascaux's caves the desire of man to represent his triumph over the animal, and not as a narcissistic pictorial urge.¹³ Similarly, in *Aesthetics*, Hegel interprets Oedipus's answer to the Sphinx's riddle as man's answer that eliminates any trace of animality—an answer that makes "know thyself" the unique and differ-

13 See G. Bataille, *Visions of Excess: Selected Writings, 1927–1939*, A. Stoekl, ed. (Minneapolis: University of Minnesota Press, 1985), 171–7. See also D. Hollier *Against Architecture: The Writings of Georges Bataille* (Cambridge, MA: MIT Press, 1989), 57–73.

entiating principle that identifies the human species. Parmenides's distinction between truth and opinion is both an evangelism and a warning as it sets a departing point away from the animal logic and identifies a new path of truth but, at the same time, warns that this newly discovered world will be hunted by the other logic it leaves behind.

The primitive, eternal, and universal nature of archetypes serves not only as a point of departure, but also as a point of reference. Aldo Rossi refers to this nature as archaic, unexpressed, and analogical.¹⁴ Yet he also made a distinction between history and collective memory. As the relationship between form and function erodes over time, there is a disjunction in meaning that results in a twist in the flow of history: where history ends, memory begins.¹⁵ The form, empty of meaning, engulfs its own individuality and stands alone, away, orphaned, and rootless. Yet it is then that remembrance becomes the only way back. Ironically, souvenir is about the act of remembering, and yet it is only by forgetting that one can see again things as they really are. The act of forgetting is not a submersion into oblivion, but rather the erasure of false connections and the return back to the umbilical origin.

14 See A. Rossi "An Analogical Architecture" in *Architecture and Urbanism 56* (May 1976). Also in *Theorizing a New Agenda for Architecture*, Kate Nesbitt, ed. (New York: Princeton Architectural Press, 1996), 348–52.

15 See A. Rossi, *The Architecture of the City* (Cambridge, MA: MIT Press, 1984), 7.