CHORA: Forms of Life

Elizabeth Burns Gamard[1]

Abstract

The following essay on >*chora*< results from questions regarding an array of >dialectical< concerns pertaining to genesis and creation, substance and energy, inspiration and application, space and form, and—last but certainly not least—reason and intuition. Though one may perhaps argue the relevance of these concerns for the profession of architecture, individuals involved with architectural education (>practices< unto themselves perhaps) would no doubt countenance the significance—and necessity—of an inquiry into the nature of the creative impulse. In the formulation and institutionalization of architectural education from the Enlightenment forward, the reigning pedagogical paradigm has been and continues to be the pursuit of a »Virgilean dream«.[i2] Indeed, dreams of reason haunt the entirety of architecture's edifice, providing not only the foundation and structure for all inquiry, but prepossessing its image as well. But as Dante Alighieri counters, the simple-minded pursuit of reason, replete with self-reflexive, transparent logics and truth-claims, generates little substance and energy, casting no shadow on the threshold of life. While clearly indispensable in the formation of ideologies and clarity — and hence fundamental to academic pedagogy — reason's requisites and results only get us so far. In the Modern and Post-modern age, there have repeated attempts to find recourse to reason's dictates. This has been the case not only in architectural education, but in intellectual endeavor as a whole. Spurred on by the increasing recognition of rationalism's excesses. Romanticism — in the guise of organicism, naturalism, intuitionism, surrealism and dada among other movements — has sought to remedy the problem, if only by introducing critical >antidotes< to what is perceived by many to be the tendency for reason to countervene >life.<[ii] This exegesis revisits many of these questions in kaleidoscopic fashion. It has been written as a series of loosely orchestrated 'movements' which, when gathered together, profess an intellectual journey not unlike Dante's, though lacking — unfortunately — the wondrous bounty of his poetic vision. I must leave that to the manifold and rich voices I have the pleasure to invoke.

1. Preamble

In a study of art and architectural education, the intellectual history of the dichotomy >reason and intuition< may at first glance be a rather obscure or even bizarre subject to undertake for study. Yet from philosophy to literature to art, there are numerous potential sources for a scholarly path of inquiry. Arguments concerning the relationship between reason and intuition are included in the writings of individuals as diverse as Thomas Aquinas, Benedict Spinoza, the >Gnostic dreamers< Jacob Boehme and Friedrich Schelling,[iii] Rene Descartes, Friedrich Jacobi, Immanuel Kant, Henri Bergson and Julia Kristeva, among others. In literature, the arguments are less explicit; however, the construction of such a dichotomy can be established by interpretative readings of Dante, Cervantes, William Blake and Virginia Woolf. Even recent discussions involving the cognitive machinations of theoretical physicists have broached the matter.

---

[1] Tulane University (Emerita Professor of Architecture), New Orleans, (currently on Sabbatical in New Lebanon, NY

In architecture, the dialectical difference associated with reason and intuition concern not only the thinking processes as such, but implicate questions of method, material (matter), memory, time, space, form and language.

The following paper is an attempt to ferret out the underlying tenets of architectural education, in particular those concerning the dichotomous relationship between reason and intuition. Whereas there have been numerous attempts to apprehend the nature of form, material, space and time as objects (the histories of architecture have been written with a view to these phenomena)[iv], as well as studies regarding the processes and significance of architecture, little attention has been given to the underlying epistemological and ontological constructs — the *tabula* or site[v] — which inform the premises that architecture constitutes matters of knowledge (epistemology) and forms of life (ontology, Lebensformen).[vi] The focus of this paper will be not only to those documents which are most obvious (Vitruvius, the Enlightenment theorists), but other, generative texts which have come to represent the philosophical ground upon which the edifice of architectural education is constructed. These include numerous excerpts from both Plato's dialogues (*Phaedo, Republic, Timaeus*) and Aristotle's writings (*Nichomachean Ethics, Physics, Parts of Animals*), as well as the works and writings of Gottfried Semper, Theodor Vischer, August Schmarsow, Paul Klee, Joseph Beuys, Michel Serres, and James Joyce among others. As might be expected in a discursive text on >reason and intuition,< particular attention is paid to the relevant writings of Immanuel Kant and Henri Bergson on matters concerning reason, intuition, form, space and matter.

It should be noted at the outset, however, that, with the obvious exception of Paul Klee, none of the above treat the problem of architectural education explicitly. In Plato, for instance, very little mention is made of architecture specifically; architecture's position in his philosophy of aesthetics is essentially—and particularly—not mentioned. On the other hand Aristotle — a philosopher who has had perhaps the most significant impact on architectural ideas and education in general —mentions architecture as a principled means of reasoning, often using the process of making architecture as an analogy for both ideas and methods of thought and making.[vii] Kant dealt with art and architecture as an aesthetic problem, but not in terms of education specifically. Yet his ideas clearly resonate throughout the development of modern pedagogical programs. It has been said, however, that the process could just as easily be reversed: architecture — considered according to both abstract and material manifestations — could be the driving force behind philosophical production. But this is the subject of another paper.

2. Situs

Perhaps the high point of any discussion involving one mode of intelligence (reason) versus the other (intuition) occurred in the late-eighteenth and early-nineteenth century with the rise of German romanticism.[viii] Itself a reaction to the perceived restrictiveness of French Enlightenment thinking, romanticism's >antidote< was an appeal to alternative forms of consciousness. Whereas eighteenth-century French philosophy stressed reason, political engagement and the primacy of the >cogito,< German Idealism and its somewhat troubled heir German romanticism embraced alternative forms of intellectual >inquiry,< including the intuitive, mystical-noumenal, metaphysical, sentimental, gothic and >feminine.<[ix]

Though obviously such a wide array of categories bespeaks the ultimate diffusion of romanticism, there is a tendency which may be ascertained. In his seminal book entitled *Classic, Romantic, and Modern,* Jacques Barzun draws a broad, yet clear distinction between the two world-views, that of the >classical< and the >romantic.<[x] According to Barzun, the classicist embraces >stability,< order, universal values, discipline and the unselfish renunciation of private desires'; alternately, the romanticist 'insists on the reality of double-mindedness and self-contradiction'.

Denying the »[...]beauty and fullness of the conventions that bind men together[...]« those who consign themselves to a romantic outlook embrace a pluralist ethic, renouncing convention and normative behavior by preferring a >loose human diversity'<— the realm of the >other.< Furthermore, the romanticist is "[...]sharply aware of his own desires (arguing) that the social rule is oppressive and unjust[...]placing a high value on effort, strife, and energy."[xi]

In the arts, the discussion surrounding reason and intuition might be interpreted as an ongoing argument between the classical and romantic points of view, though in modern (contemporary) terms, a strict distinction between the two world-views might be regarded as both simplistic and false. And in fact, the framing of this particular relationship as a binary opposition, that is >reason versus intuition,< is hardly workable in practice and clearly inconsistent with the subtleties and complexity inherent in the particular terms. A prominent source of dissent and confusion from the late-eighteenth century forward, the intellectual (not to mention emotional) consignment to either >paradigm< as a *modus operandi* appears to grip the imagination periodically. Our current discussions concerning the education of the architect evidence a similar debate.

Perhaps due to the somewhat artificial nature of the academic setting, pedagogical practices in the visual arts and architecture — subject to a wide-ranging array of historical and philosophical influences — have been the site of many of these discussions. Whereas the French Beaux-Arts tradition holds that reason, promulgated through history, theory and criticism, is the fundamental basis of all architectural inquiry, the early-twentieth century pedagogical methods of individuals such as Johannes Itten and Rudolf Steiner represent a trajectory based on subjective, quasi-mystical and highly individualized modes of expression.[xii] Yet there are also those who have attempted to bridge the gap between objective, knowledge-based curricula and subjective expression such as Paul Klee and Theo van Doesburg. Klee's pedagogical methodology is modeled according to the writings and teachings of a similar individual who saw himself as neither a >classicist< nor a >romanticist,< Johann Wolfgang von Goethe.[xiii] In his somewhat more radical quest for absolute 'spirit' in art and architecture, Van Doesburg on the other hand pursues a combination of Schoenmaeker's *beeldende wiskunde* or >creative mathematics< and Kandinsky's quasi-mystical ruminations concerning the spiritual in art.[xiv]

It should be noted at the outset, however, that the range of educational methods employed by those who have left significant legacies is almost as broad as the number of pedagogues. As Barzun is able to show, the modern épistéme contains threads of both the classical and romantic traditions, the result being a complex array of hybrid conditions which ultimately defy any attempt to classify them as uniquely one or the other. Likewise, efforts to formulate a broad and sincere diagnosis of >this< (reason) versus >that< (intuition) are doomed to fail. Any analysis of educational practices in the arts and architecture would only serve to frustrate such a project. It would also be less than useful to delve into the various permutations developed by practitioners of philosophy. While the context of history — an inquiry into the particulars of the various programs and their members — is revealing, this too represents an approach that would be far too broad and diffuse. For instance, Beaux-Arts pedagogy, mirroring broader sentiment, centered on the pursuit of critical discourse formulated through a carefully constructed view of historical precedent and theoretical knowledge.[xv] The writings and drawings of Claude-Nicholas Ledoux, Etienne-Louis Boullée, and Antoine-Chrysotome Quatremére de Quincy among others are highly indicative of the fundamental approach. While the apparent focus was that of composition, the underlying foundational precepts included a rigorous resort to clearly codified principles and models. Yet over time the Beaux-Arts method was far from a rigid program, being stamped with the imprint of its various state-appointed directors, some of whom were clearly influenced by the gothic-romantic versus classic arguments of the mid- and late-nineteenth century.[xvi]

Even the most fertile source of evolving art and architectural pedagogy in the twentieth-century, the Bauhaus, represents a vast and complicated project. Held under the sway of its troublesome historical context and ever-changing cast of characters, it is difficult if not impossible to adequately define the Bauhaus program as a single, coherent entity. It has been shown, in fact, that the Bauhaus was not a program which disseminated a particular point of view — much less promulgating a >Bauhaus style< — but rather that it represented a laboratory in which future arts educators could endeavor to learn how to teach. In other words, it was an educational program for future educators. In the end, most of the Bauhäusler, having received their education at the any one of the three Bauhaus locations and under the purview of a wide-ranging set of educational ideologies, did not go on to become practitioners, but educators themselves.[xvii] In so doing, they took with them a critical view of pedagogical methods in the arts and architecture.

Dialectical strategies surrounding the problems presented by reason and intution, space and form, the physical and the spiritual, and style versus image were only some of the many sources of inquiry, all of which have proven to be fertile ground for exploration in the many programs spawned from the Bauhaus model.[xviii] For embedded within the Bauhaus program(s), whatever its shape and form, was an underlying critique of the traditional methods of art and architectural education. Yet despite the overtly critical nature, the program was regarded by some as merely a reaction to other educational curricula, a retreat into a nostalgic, highly romanticized past. To others, the Bauhaus represented Germany's search for its identity, a nation perceived to have been largely outgunned by both the British and French during the period of rapid modernization and economic expansion in the nineteenth and early-twentieth century. Indeed, any approach or formula deemed to represent the status quo became the subject of intense scrutiny and deliberation, with the result being a selective rejection of any ideas and methods affiliated with the past. At bottom, the focus of this critique was, as might be expected in Weimar, home of Goethe and within range of the entire development of German romanticism, the French Beaux-Arts tradition.[xix]

3. On Balance: The Case of Paul Klee

A number of recent formal and informal exegeses have attempted to grapple with the problem from any number of directions. Many of the positions expressed appear to be motivated by ideological points of view and have been critiqued as such. Paul Klee — an individual known for his lack of critical ideology — spent most of his career as a teacher seeking a balance between polarities, perhaps as much in response to the highly pressurized political context as a response to the problems inherent in the production of art and architecture.[xx] In his collected notebooks entitled *The Thinking Eye* and *Nature Studies,* Klee visually and verbally asserts the promise inherent in the conflation of modern art and science.[xxi] His well known plea for modern art and architecture — that it requires »exactitude[...].winged by intuition« — pays homage to his life-long attempts to adjoin what were perceived as divergent realms of inquiry. Though he regarded himself as a romanticist with the mission of transcending >vulgar romanticism,< a review of Klee's copious notebooks reveals a high regard for empirical science, in particular its methodologies; even the title of *Volume One, The Thinking Eye,* is an attempt to conflate subjective perception and sensibility with the habits of mind.

Though Klee was far from a mystic, his notion of the eye went beyond merely invoking a particular sense perception; the eye was a mirror to the soul, essentially an intuitive faculty providing the ability to approach the object-world in a contemplative, introspective manner. Consistent with key aspects of romanticist ideology, Klee's belief that the eye and the mind could join together synchronically does possess a quasi-religious component, one which is clearly in keeping with his early work as an Expressionist artist, not to mention his uncommon sensitivity.[xxii] Artists such as Klee attempted to repeal the fragmentary and violent universe which informed their historical context by seeking evidence of a unified and balanced world-view.

His persistent faith in the possibility of exactitude >winged by intuition<— of scientific, cognitive rigor informed by a higher, more esoteric >order of things< — suggests a belief in an underlying unified consciousness born of the dynamic tension between contrasting world-views he felt informed all humanity. To Klee, it was »[...]thus the statics and dynamics of the mechanism of creative art coincide beautifully with the contrast between Classicism and Romanticism.«[xxiii]

Much has been made of Klee's pedagogical methods; he is recognized as one of the greatest arts educators of the twentieth-century, if not the entire modern age.   Arts education programs deriving from the Bauhaus program consistently stressed aspects of Klee's pedagogy. Numerous of his students have assumed and developed his educational methods, including the modern-postmodern iconoclast Joseph Beuys, an artist whose career spanned the middle and much of the latter half of the twentieth century. Beuys' work continues Klee's interpretation of the Goethean trajectory, seeking balance and harmony according to the possibilities inherent in the relationships between art, science, and life.[xxiv]

Underlying Klee's teaching, however, is not only the prospect of balance and unification through the reconciliation of opposites, but a concern for rigor — exactitude — in the production of the art object. In his book entitled *The Modern Project to Rigor,* Patrick Madrigan demonstrates that, with the rise of science as not only the central indicator, but the principle arbitrator of the modern world view, the pursuit of rigor »[...]is not merely the ambitious project of philosophy (as command science) which comes up for question in the modern; it is the project of knowledge as such or at all.«[xxv] In architecture, the use of the term rigor is used to indicate a thought process manifest of a logical exactitude which will lead a strict precision in (of) outcome.

Hence, the pursuit of rigor requires a clear and ordered thinking process capable of being reproduced explicitly, either verbally or visually — or, as we may acknowledge in the case of the jury process, our chief pedagogical tool — both.   In order for rigor to be present, verbal claims must be aligned with visual production and vice versa: the artifacts must support the initial concept or idea. Embedded in the tendency to invoke rigor in architecture is the belief in the presence of an epistemological foundation: an order of things. In other words, the concern for logical exactitude — reason — bespeaks an ultimate faith in architecture as (the pursuit of) knowledge.

Yet as might be ascertained in supposing an efficacious and necessary connection between words and things, or between language and objects, reason as the primary goal can only be used to describe >phenomenally objective< experience. The noumenal or intuitive — regarded by Kant as the >other of our (experience)< — is deemed illogical, unobjective or even irrational, unable to be rigorously explored, much less codified in a logical manner. Kant's resort to the elusive >noumena< in his attempts to explain the unexplainable is clearly untenable in a scientific universe where all phenomena, if indeed it does exists, is recognizable and describable. In her book *Cognition and Eros: A Critique of the Kantian Paradigm,* Robin Schott explicates Kant's attempts to ground a system of pure knowledge. According to Schott, Kant, in his most well-known philosophical work the *Critique of Pure Reason,* posits the thesis that knowledge is only knowledge if it is »[...]pure, free of all sensible or empirical content; (this is)[...]the necessary condition for the possibility of knowledge at all.«[xxvi] Accordingly, »…Kant's emphasis on the purity of knowledge and of reason occurs with alarming frequency and raises the question of what is implied by his insistence on purity. From what must reason be purified?   What pollution in the sensible, empirical world threatens the project of establishing a foundation for philosophical truth?«[xxvii]

This is not to say that Kant invokes the primacy of the subject or subjectivism — as many, including numerous individuals associated with romanticism have believed. However, according to Schott, Kant's 'necessary' association of purity and truth leads one to an acknowledgement that these conditions — and their affiliation — are endemic, indeed paramount to modern discussions of knowledge.

Kant's insistence on the purity of knowledge is echoed by Madrigan's characterization of the modern épistéme as the pursuit of rigor. In the arena of architectural education, we seek the conflation of words and things, narrowing what may be regarded as the >critical window of opportunity< with what appears to be an increasing militancy.

The diminishing distance between the subject of our endeavors and the object produced is that which produces the measure for critical inquiry and perceived validation.[xxviii]

4. Michel Serres: Arguing Complexity

A more radical proposition regarding the hegemony of reason and science in modern thought is Michel Serres' *Hermes: Literature, Science, Philosophy*.[xxix] Published in 1982 and with a contributing post-face by complexity theorists Ilya Prigogine and Isabelle Stengers, Hermes disputes the favored status of reason as the first principle of structure in Western thought. According to Serres, »[...]this assumption (of reason as the first principle) implies a homogenous space of knowledge ruled entirely by a single scientific or universal truth that guaranteed the validity of the operation of passage.«[xxx] In his book entitled *Altarity*, Mark Taylor approaches the problem from a slightly different point of view:

»In an early essay bearing the suggestive title *Differenzschrift,* Hegel maintains that "the sole interest of reason is to sublate[...]rigid opposites (*Gegensätze*). But this does not mean that reason is altogether opposed to opposition and limitation. For the necessary dichotomy (*Entzuweiung*) is one factor in life. Life eternally forms itself by setting up oppositions, and totality at the highest pitch of living energy is only possible through its (i.e. totality's) own restoration out of the deepest separation[...]" To emerge from the darkness into the full light of reason, it is necessary to establish the mean between extremes. This mean both joins and distinguishes opposites like identity/difference and same/other. In his search for a reconciling middle ground, Hegel, in keeping with the tendency of Western thought, privileges the identity of identity and non-identity and the union of union and non-union.«[xxxi]

Yet in Serres′ view, it is not only the subject of reason as a unified and unifying spatial construct, but the object of reason that falls under the singular, self-reflexive — and therefore self-affirming — operative methodology. To undo the structural tenets of reason, one must rely on a re-designation or revision of the operative clause, the methodology.

A denial of thought patterns and formulaic processes dependent on linear or strategic thinking; of singularity, self-reflexivity and >scientific method< resides in the recognition of another (or more characteristic of Serres' argument, an »other«) approach, though even the use of the word >approach< is itself problematic given the potential association with the term >method.< To Serres, this approach — no less disciplined in its construction and appropriation — is founded on discrete multiplicities and non-hierarchical spatial maneuvers in which and through which clusters of information form intermediate, discontinuous bits of knowledge. Problems are approached tactically, responses limited to the immediate moment and frame in which questions arise. This fabrication of multiple readings or interpretations is localized, tactical, borne out of heterotopic spaces in-between and without; readings are made up of oblique, rather than direct (discursive) relationships. Associations occur episodically according to proximate information. Such a >methodology,< if indeed it can be referred to properly as a methodology, is understood by cognitive theorists such as Edward de Bono as associative or lateral thinking, a thought process in which constructed thoughts are elicited from the spaces in-between and interactive without.

As described, this thought process is similar to that which occurs in dreams, or more precisely in the suspended moments between sleeping and waking; perhaps the best analogy is found in some of the hallucinatory, dream sequences in modern literature. The most well-known of these is »Molly's Monologue«, the final chapter in James Joyce's *Ulysses* and surrealist literature such as that chronicled by Anna Balakian in *The Road to the Absolute.* Like Joyce, Serres regards the marginalized philosopher-poets of antiquity as the key to dispensing with the homogenous space of Western discourse.

It is also here that the possibility of supporting a rethinking of the limitations of reason in light of its shared concern, intuition, might occur. For Serres' program does not and essentially cannot completely do away with reason as the operative clause of consciousness (the use of language as communicative discourse surely insures otherwise); rather the discussion must instead revolve around the possibility of opening up the contract of reason, its having been co-opted by the limitations of scientific method and the ongoing refinements of modernity's attempt to create a >homogenous space of knowledge.< Clearly the space of knowledge is not limited to science, nor confined to a universal pursuit of methodological rigor, but manifests itself in multiple realms, formulated according to parallel developments in science, philosophy, and literature.

To Serres, we must pass from the exact sciences on the one hand to the sciences of man, though his passage itself represents a difficult — and complicated — transition.   »The passage is rare and narrow[...]From the sciences of man to the exact sciences, or inversely, the path does not cross a homogeneous and empty space. Usually the passage is closed, either by land masses or by ice floes, or perhaps by the fact that one becomes lost. And if the passage is open, it allows a path that is difficult to gauge.«[xxxii]

Scientists themselves, at least those who are more advanced in their thinking processes, have always doubted not only the simple stead of scientific method, but the nature of the classification and segregation of knowledge. Consequently, there are two distinct groups of individuals within the universities, the humanists and the scientists, each possessed of differing linguistic and conceptual skills. Though to some this argument is naive to the reality in which science or the humanities actually operate (one need only think of the ongoing criticism which greets C.P. Snow's well-known proposition of >two cultures<), the increasing specialization has led to a seeming inability to conceive of truly heterogenous intellectual activity.[xxxiii] Various fields of inquiry, mimicking scientific exactitude and specialization in their search for legitimization, engage in the increasingly exaggerated tendency to develop isolated constituencies, devoid of flexibility and totalitarian within its own realm. Rather than see things philosophically, e.g. »[...]on a large scale[...]in full possession of a multiple, and sometimes connected intellection«, the general pursuit of legitimization encourages a naive embrace of untrammeled objectivity — this despite the acknowledged advance of subjectivity in the exact sciences.

As Serres shows us, the modern embrace of science has elicited an unbreachable faith in the potential of a globalized totality — a unified and unifying theory of knowledge. The construction of such an edifice has clearly animated the project of architecture (which in turn lends its own disciplinary function to the general undertaking). Even in topographical terms, the discipline and practice of architecture has itself become subject to the promotion of homogenous space during the modern period; in other words, the >site< of architecture and architectural discourse is laced with totalizing projects, whether they be stylistic or ideological (or both).[xxxiv] Such a revisionary enterprise is crucial to the entire project of architecture, having thus far found itself bound by successive limitations in the form of stylistic prescriptions and operational manifestoes guaranteeing a certain unifying >gestalt.

< Yet as Serres counters, to dispute the project of homogenous space and the universal truth which such a space implies necessitates a revision of the space of knowledge as bounded and delimited by science's suppression of difference. Instead, space must become disorganized, heterogenous, possessed of alterity, left »in tatters«."[xxxv]

»No, the real is not cut up into regular patterns, it is sporadic, spaces and times with straits and passes[...]Therefore I assume there are fluctuating tatters: I am looking for the passage among these complicated cuttings.

I believe, I see that the state of things consists of islands sown in archipelagos on the noisy, poorly-understood disorder of the sea[...]the emergence of sporadic rationalities that are not evidently nor easily linked. Passages exist, I know, I have drawn some of them in certain works using certain operators[...]But I cannot generalize, obstructions are manifest and counter-examples abound.«[xxxvi]

Whereas scientific knowledge pursues a space which is continuous, homogenous, regular and predictable, >real< space is not continuous, but discontinuous and disarticulated. Similar to the chaos rendered by Hesiod's *Theogony,* space is a manner of impressions (punctuated by »ice flows and land masses«), the scene of numerous and seemingly discombobulated events which are pronounced in their disorder. Whereas our *logos* posit the real as rational, perhaps the matter and memorabilia of the real is contrary or even other than this seeming certitude. Could space be that which is apprehended in the course of assuming multiplicities, paradoxes, and contradictions? Or is space that which allows for — opens up the possibility of — paradox and mystery, an intimation of the Pascalian divide which can only be apprehended in all its immediacy, rather than as a matter of fact (which by necessity must come after)?[xxxvii] It may be that architecture, manifest of not only figures, forms and facts (conditions intimately bound up with and disciplined by the reins of Cartesian skepticism), but space and time, may provide an opportunity to open up the questions surrounding the relationship between reason and intuition.

What is at issue here is, again in architectural terms, the site or context of the problem — the topology as well as the structure, even the topology as structure and vice versa. Research into the site as structure is most ably affected by concentrating on the underlying assumptions—in effect rereading the generative texts.[xxxviii] By rereading these texts, there is the possibility of exposing pre-emptive interpretations in order to locate the heretofore marginalized potential that lay within them.

What is at stake are aspects which have been set-off from or remain oblique to predominant interpretations, specifically aspects which might possess differential and hence differentiating characteristics revealing subtler, perhaps rarer interpretations.

5. Reason and Intuition as Foundational Épistémes in Western Thought

Initially, I would like to distinguish the term >reason< from its slighter, more constrained affiliate >rationalism.< In the study of architecture, reason follows the Hegelian model, comprising the epistemological ground or guiding principle(s) by which all discourse is formulated; discussions surrounding the language, history, theory and practices of architecture presume reason to be not only a ground of inquiry, but the means with which to carry out a communicative dialogue according to the ends one wishes to achieve. The modern jury process — based as it is on the Socratic method — is evidence of the hegemony of reason in the educational process. Intuition, on the other hand, is by definition not discursive, but rather connotes the ability to know something immediately, without benefit of a reasoning process. Not surprisingly, Thomistic philosophy, given its tendency to equate reason and faith, also treats >intuition< as a mystical aberration. Vision (*visio*) and knowledge are identical, promulgated through an act of judgment. In his book *Art and Beauty in the Middle Ages,* Umberto Eco makes this point explicit:

»It is also wrong to think of *visio* as intuition in the modern sense of the term — not even[...]an >intellectual intuition.< Neither intuition nor intellectual intuition is part of the Thomistic epistemology. Maritain (*Art and Scholasticism*) looks upon intuition as a kind of apprehension in and through the sensible which is prior to abstraction. But this has no place in an epistemology for which the first cognitive act is abstraction, a simplex apprehension: an act which stamps an intelligible species on the possible intellect as the basis for concept-formation. For Aquinas, the intellect cannot know sensible particulars, and it is only after the abstract, in the >reflexio ad phantasmata,< that it comes to know sense objects. The human intellect is discursive. So also is the aesthetic »visio[...]the complex of concomitant conditions which determine the object, its position in space and time, its very existence, are not intuited[...]«[xxxix]

This is particularly the case with aesthetic >perception<; for Aquinas, »...aesthetic knowledge has the same kind of complexity as intellectual knowledge.«[xl]   However, Aquinas was not the only medieval philosopher to tender thoughts on reason, intuition and sensibility in the pursuit of art and beauty, a point we shall take up momentarily.

In Western thought, one of the origins of the discussion concerning reason and intuition is found in Plato's *Phaedo.*   In the *Phaedo,* Plato discusses intuition in terms of absolute beauty and goodness — conditions which he conjectures cannot and should not be apprehended through the bodily senses, but through the unadulterated >vision< afforded pure contemplation and inspection. In short, intuition exists in the province of the (philosopher's) soul — a soul informed, in a manner not unlike Thomism, by the tenets of abstract (unadulterated) reason.

»Isn't it true that in any inquiry you are likely to attain more nearly to knowledge of your object in proportion to the care and accuracy with which you have prepared yourself to understand that object in itself [...].Don't you think that the person who is likely to succeed in this attempt most perfectly is the one who approaches each object, as far as possible, with the unaided intellect. without taking account of any sense of sight in his thinking, or dragging any other sense into his reckoning — the man who pursues the truth by applying his pure and unadulterated thought to the pure and unadulterated object, cutting himself off as much as possible from his eyes and ears and virtually all the rest of his body, as an impediment which by its presence prevents the soul from attaining to truth and clear thinking? Is not this the person[...]who will reach the goal of reality[...]?«[xli]

As such, intuition cannot be interpreted as a manifestation of a mystical sensibility apprehended through the intimation of divine initiative, but rather as an extension of intellectual cognition.[xlii] Furthermore, both reason and intuition — as faculties in pursuit of knowledge in ideal terms — must bypass the limitations of the body, in so far as the body is an intrusion, inherently corrupting and corruptible. For »[...]if no pure knowledge is possible in the company of the body, then either it is totally impossible to acquire knowledge, or it is only possible after death[...]«[xliii]

Robin Schott, in her book *Cognition and Eros: A Critique of the Kantian Paradigm,* elaborates on the *Phaedo's* proviso, suggesting that »[...] implicit in the Platonic ideal of truth[...] is a conception of the body as a contamination, which the soul must control and ultimately transcend in order to attain the purity of thought necessary for true knowledge.«[xliv] With Plato, Kant's necessary affiliation of purity and truth in the pursuit of pure knowledge is duly anticipated.

For Aristotle, however, the body — in particular the senses — intervenes; attempts to render truth through the unadulterated intelligence of mind (reason) and soul (intuition) are necessarily compromised by the body's relationship to the material dimension(s). In *Metaphysics,* Aristotle adjoins form, which to Plato had existed only in ideal (cognitive) terms, and matter in the creation of substance. With Aristotle's revisionism, reason's dictates are apparent on both fronts: >reality< is not only ideal, but material as well. Never the less, Aristotle does maintain Plato's dualistic world view, separating the formal from the material, the rational from the passionate, active from the passive. Furthermore, he does not undermine the essential hierarchy present in Plato's vision of the universe. All of the latter categories — the material, the passionate, the passive — are deemed secondary to the primary sources of knowledge: form, reason and activity.[xlv] Hence, truth remains affiliated with a »...higher order of things«, that is with logic, mind, reason and form. In Aristotle, however, the soul is displaced from its primary alliance with pure intellect, becoming affiliated with the body, >animating< it (»[...]the soul is the form of the body, just as the body is the matter of the soul»).[xlvi] The intellect, on the other hand, is regarded as sharing directly in matters of divine intelligence, distinguishing man from other animals.

Consequently, Aristotle opens the door not only for the intellectual >engagement< with the body and organic processes, but for scientific endeavor in general; the focus of intellectual endeavor shifts from transcendence to immanence. Further evidence of the critical shift from the uncompromised pre-eminence of mind to a necessary incorporation of material in the pursuit of substance is found in the rise of Christianity. In Jesus Christ, the logic of the *logos* (reason, Word) becomes flesh. Not just the soul, but the body and its activities became holy, that is >spiritualized.< »Christ's incarnation into and redemption of the world were here seen not just as exclusively spiritual events, but rather as an unparalleled development within temporal materiality and world history, and as representing the spiritual completion of nature — no nature's antithesis, but its fulfillment.

For the *Logos*, the divine wisdom, had been present in creation from its beginning. Now Christ had made the implicit divinity of the world explicit. Creation was the ground of redemption.«[xlvii]

None the less, there remained an abundance of contradictions. In an attempt to forestall the insurgence of the body and its infinitely corruptible influence on the soul, Augustine's City of God promoted the rule of will (itself an extension of both mind and soul) to control of the body, thereby continuing the tradition of ascetic philosophy initially formulated by the Greeks. Since women were deemed to be ruled primarily by desire, spiritual purity, in order to maintain its affiliation with the divine intellect, required that women be subordinated to men throughout the course of their earthly existence. The resultant tension between the body and the mind is an article of faith in Christianity, representing a fundamental ambivalence which has never been resolved.[xlviii]

In replacing the will with the faculty of reason as the critical condition of man's pursuit of knowledge, Aquinas' thirteenth century writings knit together reason and faith: as with Plato, the spiritual is allied yet again with the realm of the mind.[xlix] Yet Aquinas did not see the world and its phenomena as alien to God, but rather as a representation of the divine intellect manifesting itself; the recognition of nature enhanced human understanding of God's creativity. In keeping with Aristotle's principle of the anima, nature also shared in the realm of spirit. Man was the mediator between the corporeal and the spiritual. Hence, the mind, spirit and body (nature) were held in tension with one another; as a triumvirate, all three conditions shared equally in the pursuit of divine intelligence. Sense experience was no longer necessarily predisposed to sin, but could aid the mind in its movement towards the universal. Moreover, divine intelligence — God — reciprocated by revealing itself (Himself) through nature; for Aquinas, like Aristotle, His revelation was dynamic, historical and ongoing. By succeeding in his project of allowing for revelation within the context of the material universe, Aquinas effectively synthesized Plato's transcendent 'reality' with Aristotle's concrete reality. With Scholastic philosophy, Aquinas' alliance of Aristotelian scientific precepts — formulated as they are in accordance with the tenets of reason — and faith elicits the dawn of modern science.

Despite its perceived remoteness, the impact Scholastic philosophy had on architecture remains significant.

Erwin Panofsky's *Gothic Architecture in the Age of Scholasticism* is notable for its attempt to clearly elicit a direct relationship between philosophy and architecture. Panofsky himself does not seem to be able to arrive an absolute conclusion, preferring to suspend judgment. Yet the conjunction of reason and faith does appear to spur the development of architecture in one particularly significant way: from the thirteenth-century forward, architecture becomes vested with 'discourse'. In other words, while the goal of architecture was understood as spiritual revelation, its manifestation of divine intelligence is realized through decidedly material means, albeit a material means which appears to have sought to increase its own immateriality by renouncing form. Aquinas' embrace of nature and the body was indeed fortunate for the development of architecture in the West; it is difficult to imagine architecture without recourse to the body. The rise of Gothic architecture is a testament to the incorporation of mind, spirit and body.

Gothic architecture, however, did not remain paradigmatic. The recovery of antiquity's knowledge during the Renaissance supplanted the gothic with the classical. While the body maintained a significant place in the development of the arts and architecture, Renaissance humanism accorded the body a slightly different position. Cartesian skepticism, with its emphasis on *res cogitans,* conspired with the resurgence of Platonism, again elevating the mind to pre-eminence.

Since the Enlightenment, the senses have remained by and large secondary to the concerns for discourse in architectural theory and practice; this is in large part to the carry-over of Gothic architecture's belief in architecture as discourse coupled with the pre-eminence of Cartesian doubt. These two conditions, along with the recovery of Vitruvius' first-century texts on architecture, tend to assume architecture as first and foremost a discursive project. While acknowledging the body as a critical component in architecture, Vitruvius' first-century construction of the education of the architect extends little privilege to the senses in the acquisition of an architectural education; the mind and spirit clearly take precedence. This is clearly the case with the development of the Beaux-Arts tradition. For the most part, Vitruvius' pedagogical diagram remained in place throughout the nineteenth-century, with top billing given to reason — until recently that is, when intuition, albeit an intuition somewhat removed from its previous, 'normative' affiliation with reason, appears to vie for equal — if not greater — consideration.

6. The Paradigm of Discursive Reason in the Architecture of the Enlightenment

Since Vitruvius' incorporation of Aristotle's philosophy into his treatise(s) on architecture and architectural education, the foundational premise of architectural pedagogical discourse has been the incorporation of both the idea and methods of reason. Models for reason (often times formulated under the heading of rational architecture) constitute the major source of epistemological inquiry. Though this phenomena is by no means peculiar to the discipline and practice of architecture, its means and ends are characteristically specific. In the history of architecture, rationalist theories, though varied their more superficial representations, account for the vast majority of writings pertaining to the theory, history and criticism of architecture. Indeed, the notion of a language or languages of architecture revolves around the presumption of rational, discursive constructs.[l]

Discourse is formulated through language. Obeying the laws of discursive thought, discourse is entirely bound up with the logic of the *logos* (reason), naming (*onoma*) and form or figuration (*eikon*).[li] Accordingly, the discourse of architecture is governed by the same logic of the *logos*, persisting in the search for the >clearest form (figure) of expression,< such that it can be designated or named. To speak of a discourse of architecture is to suggest a corresponding >logic of the *logos*,< a language of architecture which adheres to those same conditions that hold true for language proper. But does architecture adhere to the same logic required of language? What are the limits of the logic of the *logos* (reason) for architecture?

In her seminal work *Philosophy in a New Key,* Susanne Langer outlines the necessary requirements for language.[lii] The first of these is that every language must have a vocabulary and syntax. Its elements are words with fixed meanings.[liii] Secondly, it must be possible to construct a lexicon or dictionary of words equivalent to whole combinations of other words. Thirdly, the language must possess a system which can be translated into the conventional system of another language. Moreover, according to Langer »[...]words (in accordance with the laws of discursive thought) have a linear, discrete, successive order; they are strung one after another like beads on a rosary."«[liv] Though attempts to produce a system of fixed meanings with respect to architecture, form and space have been made, these attempts have generally met with limited results. Though they are not necessarily wrong, they are clearly incomplete.

Theories of typology and symbolic space, while didactically useful, also tend to suggest a >discursive logic< with respect ot architectural form; they are borne of the same discourse that informed the architecture of the Enlightenment.[lv] Hence these theories — precisely because they are conceived of as theories — adhere to the same limitations imposed by the laws of discursive thought. Meaning in architecture is an infinitely more complex problem than a systemical approach to language and architecture will, or even could, allow.[lvi]

However, Langer's criticisms do not fully discount the impact of 'the logic of the *logos*' on and for architecture. Citing Wittgenstein at length, Langer stresses the point that we project our language onto the world around us; hence, the limits of our language describe the limits of our world. As a result of this projection of the language (the project of language), we draw logical analogies, ascertaining the most faithful representation between ideas, words and things. In so doing, we project >expectations,< predisposing particular readings. Hence, our logic limits our ability to see >other-wise,< e.g. other than what we already know — or assume — to be the case.[lvii]

Indeed, all knowledge is an extension of language. According to logicians of language, »[...]the knowable is a clearly defined field, governed by the requirement of discursive projectability.«[lviii] Anything that falls outside discursive projectability is technically unknowable, 'forever incognito and inexpressible' precisely because it is beyond the limits of our language — the limits of our logic. All that lies beyond the bounds of reason — intuition, *eros,* desire — is (forever) excluded. This is not, however, to capitulate to unreason and irrationalism, but to instead consider the opening up of the boundaries of expression, reaching beyond the limitations prescribed by the logic and habits of discursive thinking. This >beyond,< which Wittgenstein refers to in quasi-mystical fashion as »…that which we must pass over in silence' includes the inexpressible realm of feeling, of formless desires and satisfactions…« and most other >immediate experience.< The citation of a relationship between the inexpressible realm of feeling, formless desires and immediate experience recalls Plato's description of the nature of the soul (>intuition<), albeit a soul which is not necessarily affiliated with cognitive reason (the logic of the *logos*), but of an other kind more closely aligned with Judeo-Christian mysticism.[lix]

It should again be noted that in Christian mysticism the material mode — following the Trinitarian (medievalist) constructs of Albertus and Aquinas — is not limited to the physical, but incorporates the spiritual as well. »To suppose that the 'material mode' is a primitive, groping attempt at physical conception is a fatal error in epistemology, because it cuts off all interest in the developments of which sensuous conception is capable, and the intellectual uses to which it might be put.«[lx]

In architecture, subscription to the 'discourse' and subsequently >the logic of the *logos*< (reason) presupposes a discourse based almost entirely on 'discursive symbolism' — objects or figures — precisely because figures act as names and vice versa: words represent forms. Adhering to the laws of discursive thought, figures >stand in< for ideas (*eidos*), exacting an equanimity, the >clearest form of expression.< They function as metaphors and hence both describe and prescribe the particular disposition of a >language of architecture< based on the (regular) patternings of discursive symbolism. Yet the supposition of discursive symbolism as the purveyor of language and meaning in architecture projects a severe limitation onto the scope of meaning in architecture. To put it simply, objects do not function as the beginning and end of meaning in architecture; meaning is not only inherent in the object, but in the relations between things. According to Langer, »[...]language as such is by no means our only articulate project.« Counterposed to the limits of discursive symbolism, Langer proposes a 'non-discursive' or 'presentational symbolism', a form of expression 'embodied' in space that would go beyond >linguistic expression.< »The understanding of space which we owe to sight and touch could never be developed, in all its detail and definiteness, by a discursive knowledge of geometry (representation).

Nature speaks to us, first of all, through our senses; the forms and qualities we distinguish, remember, imagine or recognize are symbols of entities which exceed and outlive our momentary experience. Moreover, symbols — qualities, lines, rhythms — may occur in innumerable presentations[...]«[lxi]

Underlying current inquiries into the question of >architecture as knowledge< is the presupposition of rational, communicative discourse. A review of treatises set forth by the architectural theorists of the Enlightenment supports this thesis, thereby establishing a clear trajectory between the late-eighteenth century and contemporary architectural discourse. However diverse their views, Etienne-Louis Boullée, Antoine C. Quatremère de Quincy, Claude-Nicholas Ledoux, Marc-Antoine Laugier, and J.N.L. Durand all served the cause of reason in architecture.

As Boullée states in his *Essai sur l'art:* »[...]our forefathers did not build their huts before they had conceived a mental picture of them.« Boullée's conjecture of >a mental picture< clearly supposes a cognitive approach to architectural production. In his essay concerning the origins of architecture, Marc-Antoine Laugier is even more explicit in his invocation of the pre-eminence of reason in architecture: »An artist should be able to explain to himself everything he does, and for this he needs firm principles to determine his judgments and justify his choice so that he can tell a thing is good or bad, not simply by instinct, but by reasoning and as a man experienced in the way of beauty.«[lxii]

Yet Laugier's statement not only portends reason as the center of an architect's defense and judgment, but suggests, in a similar manner to the *Phaedo,* that a resort to instinct — something usually having to do with the ever-corruptible bodily senses — should be overridden not only by reason, but »experience in the way of beauty.« It could be construed that the experience of the way of beauty is potentially an allusion to Plato's rhythms of the soul, or intuition. Laugier's disparagement of >instinct,< however, marks a threshold of difference between what some latter-day philosophers regard as the ground for intuition, that is instinct. [lxiii] As was remarked earlier, Socrates' seguy into the problem of intuition and his critique of the bodily senses — the senses impede this elusive form of knowledge (>the real nature of any given thing — what it actually is<) — is a discussion of the soul's ability to recognize absolute beauty and goodness.[lxiv] Yet does Laugier's >experience of the way of beauty< fully equate with the idea of an absolute (ideal) beauty found in the writings of Quatremère de Quincy's *Commentaries*? Is beauty something which exists as an a-priori category, or is it learned through >experience,< establishing itself as a matter of taste? Unfortunately, a complete study of the question of beauty — whether ideal or empirically assumed — is the subject of another paper. Nonetheless, Laugier's caveat — that beauty is acquired through experience — suggests a critical shift from neo-Platonism's concern for aesthetic typologies towards a consideration of naturalism in the first half of the nineteenth century.[lxv] What is important here, however, is Laugier's concern for natural order, that is the vesting of nature with epistemological (onto-theological) constructs.

As Michel Foucault argues in *The Order of Things* the Enlightenment period displayed an overwhelming concern for order.

Elaborate catalogues and classification systems represented the order of the universe and all things contained within man's universe. Nothing was left unaccounted for — or rather, nothing accounted for was left unaccounted for. Disciplinary and interdisciplinary endeavors abounded, books containing advancements in historical, artifactual and scientific knowledge were developed according to what might today be regarded as a social and intellectual mania for classification and codification. Diderot's *Encyclopedia* and Rousseau's *Social Contract* are but two of the comprehensive architectures befitting the totalizing effects of hegemonic rationalism and its philosophical — and for Foucault, highly politicized — conviction of an understandable and apprehendable singularity that effectively harnessed the seemingly tempestuous multiplicities of the world's — and man's — disordered existence.

While reason's charge was mirrored in the discourse surrounding developments in history, science, and the arts, discourse was mirrored in the edifices of the period. Architecture self-consciously >re-presented< the nature and *loci* of power in the form of society's institutions. Despite Victor Hugo's mid-nineteenth century lament, it was not only the material edifices themselves, but the idea of architecture which seemed to fire the imagination of the Enlightenment mind. The vagaries of the world could not only be apprehended, but structured and understood according to pre-ordained, rational models. What had begun with Scholasticism's theological re-ordering of the universe in the various *Summae* was now transmuted to the material universe: >Architecture< lent order a concrete visage. The medieval world of correspondences dictated by divine *ordonnance* had breathed its last; faith in the eminent (and immanent) rationality of God's cosmological geometry had been replaced by an equally powerful faith in science's ordered universe.[lxvi] According to Isaac Newton, himself a man of faith;

»…Matters which vexed the ancient seers, and for our learned doctors often led to loud and vain contention, now are seen in reason's light, the clouds of ignorance dispelled at last by science. Those on whom delusion casts its gloomy pall of doubt, upborne now on the wings that genius lends, may penetrate the mansions of the gods and scale the heights of heaven[…]We contemplate the polities of heaven; and spelling out the secrets of the earth, discern the changeless order of the world and all the aeons of its history.«[lxvii]

As an extension of Enlightenment thinking, modern theorists of architecture, including such luminaries as Eugène-Emanuel Viollet-le-Duc, Walter Gropius, Le Corbusier and Ludwig Mies van der Rohe, asserted the primacy of reason in their many treatises and statements on architecture. As Manfredo Tafuri asserts, these architects were able to overcome what many regarded as a degrading onslaught of technological and scientific advance by »[…]identifying the laws of the equipment, (solving) by entering into it, its irrationalities and contradictions.«[lxviii] Yet none of them equated their activities entirely with mechanical reason, articulating instead a somewhat qualified reason bearing the traits of romanticism's insurgency. A close reading of their particular positions appears to elicit support for the recognition of a quasi-religious, even mystical process — something nineteenth-century subjective naturalism bore traces of. This was certainly the case with Mies van der Rohe, who found himself drawn from the beginning of his career to the symbolic, iconic and overtly metaphysical ideas embedded within certain strains of modern art and architecture. Viollet-le-Duc's affiliation with romanticism is well known. Walter Gropius appeared to countenance a similar mode of thinking immediately prior to and during the period of the Weimar Bauhaus. It can even be argued that Le Corbusier flirted with mystical categories from time to time. To identify the laws of the equipment by entering into its contract is reminiscent of the Kantian ideal of the *Ding-an-sich,* the >thing-in-itself,< whereby the subject immerses oneself, unimpeded by sensory perception and pre-cognition (or recognition), in the object one is contemplating. The >dance< (*chora*) between the subject and the subject's object supposes a dualistic universe replete with irrationalities and contradictions, while the search for reconciliation is akin to the tenets of German mysticism from the time of Hildegard von Bingen forward. The process of mystical revelation, however, is not primarily cognitive, but is formulated as a project of both mind and soul (or reason and intuition). While reason's totalizing affects clearly imply the conquest of the object or objects by the intervening subject, intuition supports an >entering into< the object's contract in a contemplative or introspective manner. Yet again, nature — and the body — are mediative.

None the less, the references to intuition in architectural discourse remain elusive given reason's purported hegemony. Could it be that the manifold references to reason's hegemonic hold on the architectural imagination hide an equally important appeal to a hidden spiritual realm — architecture as a matter of faith and intuition?

Developments in architectural education and practice during the late-nineteenth and early-twentieth century — in particular those deriving from German romanticism — tend to support such a conclusion, despite (or perhaps as a result of) ensuant credos regarding the death of God and the rise of scientific method as the primary indicator of 'truth' claims.

7. The Use and Abuse of Reason in Architectural Education

One of the more vocal proponents for a comprehensive critique of architectural discourse and education is theorist and architect Peter Eisenman. In his seminal article entitled »The End of the Classical: The End of the Beginning, the End of the End,« Eisenman states that there are three paramount épistémes — or, as he critically refers to them >fictions'<— in post-medieval architectural discourse: representation, reason and history.[lxix] Whereas »[...].representation was to embody the idea of meaning[...](and) [...]history an attempt to recover the idea of the timeless from the idea of change[...],« reason was invoked in architecture in order to »[...]codify the idea of truth.« All three conditions comprise what Eisenman refers to as the >classical,< a state of mind, he argues, which is not only burdensome, but represents a drag on the ability of architecture to engage his understanding of what constitutes the modern *ethos*.[lxx]

Eisenman's thesis depends largely on a judicious reading of classical texts as they are filtered through the architectural theory, history and criticism of the Enlightenment period. A more careful review of the texts associated with the problems of >representation< and >history< in Enlightenment architecture might argue that both fall under the aegis of the much grander circumstance of reason, though such an argument would necessarily disregard the very real distinctions found within romanticism's development of either representation and history in architecture. Be that as it may, Eisenman's >fiction< of reason elucidates the tenuousness of reason's project in architecture by arguing that it is ultimately a fictitious, slippery and somewhat willful construction. To Eisenman, reason is not even >real,< much less objective, being instead »[...]the simulation of the meaning of truth through the message of science.« While Renaissance >theorists< recovered, catalogued and reworked Vitruvius' writings on architecture (albeit with some interpretation), the Enlightenment theorists viewed Vitruvius' writings critically, going beyong the Renaissance theorists penchant for simulating the Ten Books of Architecture by broadly interpreting them as foundational premises for architectural discourse and education.[lxxi]

Implicit in Vitruvius' writings are aspects of classical philosophy, in particular the writings of Plato and Aristotle; while truth supposes an ideality dependent on Plato's transcendental metaphysics, Eisenman's >message of science< is clearly dependent on Aristotle's recognition and apprehension of the material universe.

8. Arche-ology: Reclaiming Classical Foundations in the Education of the Architect

Within the epistemological confines of the discipline of architecture are the previously cited and influential texts of the first-century Roman theorist and architect Pollio Vitruvius. The writings of Vitruvius have, from antiquity through the middle ages, Renaissance, Enlightenment and modern periods, constituted the ground or site on which architectural thought and education has positioned itself. The pertinent articles from Vitruvius' »The Education of the Architect« (*Book One* of his *Ten Books on Architecture*) are as follows: »The architect should be equipped with knowledge of many branches of study and varied kinds of learning, for it is by his judgment that all work done by the other arts is put to the test. This knowledge is the child of practice and theory. Practice is the continuous and regular exercise of employment where manual work is done with any necessary material according to the design of a drawing. Theory, on the other hand, is the ability to demonstrate and explain the productions of dexterity on the principles of proportion.

It follows, therefore, that architects who have aimed at acquiring manual skill without scholarship have never been able to reach a position of authority to correspond to their pains, while those who relied only upon theories and scholarship were obviously hunting the shadow, not the substance. But those who have a thorough knowledge of both, like men armed at all points, have the sooner attained their object and carried authority with them.

In all matters, but particularly in architecture, there are two points: — the thing signified, and that which gives it its significance. That which is signified is the subject of which we may be speaking; and that which gives significance is a demonstration of scientific principles. It appears, then, that one who professes himself an architect should be well versed in both directions. He ought, therefore, to be both naturally gifted and amenable to instruction. Neither natural ability without instruction nor instruction without natural ability can make the perfect artist.

Let him be educated, skilful with the pencil, instructed in geometry, know much history, have followed the philosophers with attention, understand music, have some knowledge of medicine, know the opinions of the jurists, and be acquainted with astronomy and the theory of the heavens.«[lxxii]

Vitruvius goes on to elaborate the various reasons for his support of such a broad educational program for architects. It is clear that, to Vitruvius, fledgling (and practicing) architects must not only be privy to the knowledge found within the fields of study commonly associated with the arts, sciences and humanities (»[...]they must climb from boyhood the steps of these studies…«), but also the professions of law and medicine.[lxxiii] *En toto,* a comprehensive approach to knowledge ensures that the architect will become acquainted with both cognitive and spiritual >excellence,< thereby allowing him access (in)to the space (or place) he himself regarded as the heights of all knowledge: the »…holy ground of architecture.«

Much has been written about these particular aspects of knowledge with regard to the education of the architect. Vitruvius' proposed outline has been the subjected of a great deal of curriculum planning and reassessment. Proponents of the history-theory-criticism trajectory in schools of architecture tend to invoke similar sentiments in outlining their programs for architectural education. For what is the study of architecture doing within the arena of the university to begin with? In rhetorical terms, surely architecture is subject to the pursuit of knowledge, if not the culmination of knowledge itself? Today, as universities seek to reassert the basic components of general education, e.g. the study of the arts and sciences, the pressure for architecture to conform to the general rule is even more apparent. Despite architecture's role as a professional degree program, more and more educators have begun to stress the non-professional aspects of the curriculum, thereby introducing what they see as an argument for architecture's prominence as a university-based program.[lxxiv]

More importantly, however, is the impact of Vitruvius' ideas on the development of architecture's educational practices over time. He is indisputably the principal moderator of architectural treatises from the Renaissance forward. His writings bear the primary attributes predisposing architectural education, its practice and theory, to the tenets of reason.

Yet as Laugier laments, Vitruvius' thought still falls somewhat short of the Enlightenment ideal, for »[...]although brilliant flashes herald a genius able to penetrate into the true mystery of his art, he does not make an attempt to tear away the veil which covers it.«[lxxv] According to the rigorous sentiments prevalant during the Enlightenment, Vitruvius lacks the specificity of reason, e.g. its terms for originality and genius, terms which Laugier — along with numerous other Enlightenment theorists of architecture — acknowledges and seeks to remedy in his doctrine *Essai sur l'architecture.*

9. To Tear Away the Veil

If one were to read between the lines in an attempt to excavate the pre-conditions of Vitruvius' thoughts on reason in architectural education, one would have to back up into the very texts that Vitruvius himself depends on.

Perhaps Laugier's prescription for >enlightenment< is in fact appropriate: the veil which covers the mystery of the art of architecture needed to be torn away. By invoking the Biblical tradition of the veil and its mystery (though one cannot be absolutely sure what Laugier has in mind), Laugier introduces the possibility of a far more complicated, enigmatic and estranged condition than that which supports the hegemony of reason. Traditionally, the wearing of the veil has been the province of women. In the biblical tale of Genesis, the wearing of the veil denotes a variety of ritual conditions, including marriage and the consummation of marriage; its use continues as a regular practice during sexual intercourse. While the veil has in some traditional societies been employed to signify the identification of a woman as a prostitute, in Roman times it was also used to identify married women, as opposed to unmarried women who did not wear the veil. Moses, when speaking for God, wore a veil, thereby symbolizing the fact that he was not speaking for himself, but as an instrument of God. In the Roman Catholic Church, it is traditional to cover the religious iconography with the veil during the latter stages of Lent, thereby further concealing the mystery that is the Passion of Christ.[lxxvi] To rend away the veil is to reveal the true mystery of things — a mystery which cannot be ascertained by reason alone, but must be apprehended by faith. Traditionally, this mystery has been the province of women as >Other,< representing *eros* (desire, carnality) faith, sin and passion — as well as the potential conflation thereof. The act of veiling insures the mystery by establishing a space between one and the other.

Yet it is not necessarily a figurative or formal condition, but can also be interpreted as an issuance of inherent and undecidable duplicity. Rather than the >this< or >that< of a highly formalized symbol, veiling is an activity which establishes both a separation and a union simultaneously. Hence, it is both spatial and temporal, oscillating dynamically between correspondences. In other words, the veil, neither this nor that, is, however paradoxically, a condition which acts in the manner of relation, signifying the space between this and that.

However much this latter passage may seem like a departure, it is not. Laugier's brief statement clearly suggests the limits of the Vitruvian paradigm. Yet he is unable to move beyond the prospect of reason in architecture; the mystery remains inarticulable, or at any rather unarticulated. If Laugier had in fact sought to uncover Vitruvius' sources, what texts might he have appealed to? The answer is, of course, the source material of Western metaphysics — Plato and Aristotle. Both philosophers had a profound impact on Vitruvius, albeit in different ways. Whereas Aristotle may be credited with Vitruvius' ability to adjoin theory and practice with the marriage of ideas and material substance, Vitruvius' culminating ideal of a holy ground of architecture evokes a vision more akin to Plato's teachings. And it is Plato's equation of form and reason in the *Timaeus* which predisposes architecture to knowledge and conversely, knowledge to architecture.

Perhaps the most elaborate and complete transcription of the formal constructions of knowledge as a kind of architecture and architecture as a kind of knowledge is outlined in Plato's dialogue *Timeaus*.[lxxvii] The *Timaeus,* Plato's account of the creation of the body and soul of the universe and of mankind, is regarded as a Greek *Genesis* though it differs from the biblical tale of *Genesis* in that its principal aim is not myth, but science.[lxxviii] According to Plato, the universe is intelligible to the searching intellect. In similar manner to Michel Serres' project of rejoining philosophy, the human sciences, and science, Plato contemplates the fields of physics, astronomy, and biology from a philosophic point of view, finding that scientific truths combined with the mythical produce spiritual truths.

After a preamble regarding the necessity of considering the problem at hand, Plato initiates his discussion of the intelligibility of the universe by reiterating the principle of *mimesis.* Simply stated, the doctrine of mimesis, critical to the entire project of Platonic metaphysics, posits the visible world (the world of appearances) as a mutable copy or 'mere' image of what is eternal and true and hence immutable.[lxxix]

Accordingly, the true, which is eternal, is manifest of intelligence and reason, while that which is without reason >never really is.<   Hence Plato's universe is correlated dualistically and hierarchically, arrayed between the perfected and intelligent being and the imperfect, sensate becoming.

»First then, in my judgment, we must make a distinction and ask, What is that which always is and has no becoming, and what is that which is always becoming and never is? That which is apprehended by intelligence and reason is always in the same state, but that which is conceived by opinion with the help of sensation and without reason is always in a process of becoming and perishing and never really is. Now everything that becomes or is created must of necessity be created by some cause, for without a cause nothing can be created. The work of the creator, whenever he looks to the unchangeable and fashions the form and nature of his work after an unchangeable pattern, must necessarily be made fair and perfect, but when he looks to the created only and uses a created pattern, it is not fair and perfect.«[lxxx]

As above, Plato's concern for that which is >real [...]true and eternal[...]manifest of intelligence and reason< is the focus of both Michel Serres' and Susanne Langer's critique of the foundational aims embedded within the project of Western metaphysics. We may recall that for Serres the debate revolves around the constitution of the >real.<   While Plato views the >real< as an absolute, unchangeable, static and regular, Serres' >reality< is decidedly contrary — not cut up into regular, statical patterns (which according to Plato are based on geometry and number), but rather »…sporadic, spaces and times with straits and passes[...](made up of) 'fluctuating tatters.«[lxxxi] These fluctuating tatters dispense with the homogeneity of epistemological and ontological space begotten by Western science. For Serres, the space of knowledge is not regulated, nor homogenous, but is constituted of highly differentiated, heterogeneous and discontinuous spaces and passages. Susanne Langer, in her attack on the conventions of discursive projectability — the regulating patterns of language and its underlying dependence and faith in the logic of the *logos* — supports Serres' contention by exposing the limitations of discursive symbolism. According to the *Timaeus,* the regulating patterns both underlying and governing the intelligibility of the universe necessitate the conflation of reason, naming and form. To Langer, Plato's >necessary'< conflation of reason, naming, and form (figuration), and the delimiting boundary such a strategy implies, succeeds by 'limiting that which is knowable to a clearly defined field'.

All that falls outside the >requirements of discursive projectability< remains >forever incognito and inexpressible,< beyond the limits of our language and hence beyond the realm of the logic of the *logos.*[lxxxii] For both Serres and Langer, >space,< allied with the >inexpressible realm of feeling, of formless desires and satisfactions< goes beyond the realm of discursive projectability, existing outside the preordained limits encompassing discursive symbolism (language, form). Yet as we shall see, considerations of space also exist outside — or rather foreshadow — the realm of Plato's intelligible universe.

»The question regarding >discursive projectability< and its relationship to language and form is further appended in sections 29a-c of the *Timaeus.* Words, as identifiable units describing an absolute relationship between an idea and the thing, are possessed of a »lasting, permanent and intelligible relation[...].irrefutable and invincible«, without recourse to the vagaries of mere opinion and belief. »And having been created in this way, the world has been framed in the likeness of that which is apprehended by reason and mind and is unchangeable, and must therefore of necessity, if this is admitted, be a copy of something. Now it is all-important that the beginning of everything should be according to nature. And in speaking of the copy and the original we may assume that words are akin to the matter which they describe; when they are related to the lasting and permanent and intelligible, they ought to be lasting and unalterable, and, as far as their nature allows, irrefutable and invincible — nothing less[...].As being is to becoming, so is truth to belief.«[lxxxiii]

Plato continues his discussion of the formation of the universe with a foray into the relationship between the soul and the body — a relationship first broached in his earlier dialogue, the *Phaedo.*

The soul, characterized as the ruler and mistress of the body, is also the seat of contemplation and inspection, or intuition.[lxxxiv] It too possesses not only the qualities and purpose afforded to reason, but the purpose, that is the pursuit, of >pure knowledge.< To Plato, the soul must govern the body, as the body, being subject to the senses, is, as we have seen, infinitely corruptible. »Now God did not make the soul after the body, although we are speaking of them in this order, for when he put them together he would never have allowed that the elder would be ruled by the younger, but this is a random manner of speaking which we have, because somehow we ourselves too are very much under the dominion of chance. Whereas he made the soul in origin and excellence prior to and older than the body, to be the ruler and mistress, of whom the body was to be the subject.«[lxxxv]

In alluding to the soul as a feminine enterprise, Plato interestingly proposes that the soul, while existing prior to the body, is none the less made up of being (the regular, static constellation of the real and true, e.g. form) and becoming (e.g. the mutable, fluctuating dynamic of that which is created). In the *Timeaus,* the soul is likened to a compound, a >third and intermediate kind of being,< bearing the hallmarks of that which marks a relation between, rather than a thing itself. »…And he made her out of the following elements and on this wise. From the being which is indivisible and unchangeable, and from that kind of being which is distributed among bodies, he compounded a third and intermediate kind of being. He did likewise with the same and the different, blending together the indivisible kind of each with that which is portioned out in bodies. Then, taking the three new elements, he mingled them all into one form, compressing by force the reluctant and unsociable nature of the different into the same. When he had mingled them with the intermediate kind of being and out of three made one, he again divided this whole into as many portions as was fitting, each portion being a compound of the same, the different, and being.«[lxxxvi]

This 'third kind' or genus must aspire to the domain of pure knowledge (reason), working to transcend the potential of its corruptibility within the province of the body. Hence, intuition, the property of >immediate knowledge< afforded through pure contemplation and inspection, is seated within the realm of the soul and as such is granted the possibility of reason, however tentatively and circumspectly; within the soul is vested the corporeal universe. Yet she is concomitantly >interfused,< invested everywhere with the interpenetrating light of the heavens; she is, as such invisible. Like the *mediatrix* of Christianity, she is ineffable, diaphanous, diffused and interfused with the light of generation and love.

»Now when the creator had framed the soul according to his will, he formed within her the corporeal universe, and brought the two together and united them center to center. The soul, interfused everywhere from the center to the circumference of heaven, of which also she is the external envelopment, herself turning in herself, began a divine beginning of never-ceasing and rational life enduring throughout all time. The body of heaven is visible, but the soul is invisible and partakes of reason and harmony, and, being made of the best of intellectual and everlasting natures, is the best of things created.

And because she is composed of the same and of the different and of being these three, and is divided and united in due proportion, and in her revolutions returns upon herself, the soul, when touching anything which has being, whether dispersed in parts or undivided, is stirred through all her powers to declare the sameness or difference of that thing and some other, and to what individuals are related and by what affected, and in what way and how and when, both in the world of generation and in the world of immutable being.«[lxxxvii]

At this point in his discussion, Plato appears to recollect his binary dualism — the immutable and unchangeable formula of pure knowledge and intelligence coupled with the changeable and differentiated world of imitation (the shadow of his >reality<) — provisionally adjudging it to be inadequate to the scheme of things.

Hence, he reiterates his statements regarding the realm of the soul. In so doing, Plato acknowledges the special category of this >third kind< in apprehending the construction of the universe. Realizing his initial lack of complexity and the ensuing inadequacy of his diagram, he pronounces the need to begin again. »This new beginning of our discussion of the universe requires a fuller division than the former, for then we made two classes; now a third must be revealed. The two sufficed for the former discussion. One, which we assumed, was a pattern intelligible and always the same, and the second was only the imitation of the pattern, generated and visible. There is also a third kind which we did not distinguish at the time, conceiving that the two would be enough.«

With this, Plato pronounces the need to construe a »new kind of being« which he provisionally designates as (the) *khora* or *chora*, a >third kind< or »genus« which departs from the original schematic dualism, heretofore unknown, or at the least, unacknowledged. Though it is never entirely clear why Plato chooses to establish the distinction of gender, *chora* — like the soul — is possessed of a feminine character. »But now the argument seems to require that we should set forth in words another kind, which is difficult of explanation and dimly seen. What nature are we to attribute to this new kind of being? We reply that it is the receptacle, and in manner the nurse, of all generation[...]«[lxxxviii]

There has been a great deal of discussion and speculation regarding the representation of this third kind or genus in the *Timaeus;* its designation is a record of the very slippages, retrogressions and transgressions a third kind might elicit in a constellation of thought dominated and regulated by the logic of the *logos.*

According to David Farrell Krell in his book *Of Memory, Reminiscence and Writing: On the Verge,* the *Timeaus* can be interpreted as a record of the drama which is the »familial scene«, whereby »[...]the lapse between son and father,[...]from pure being to corruptible becoming, the space from good demiurgic scripture to bad matricidal script unfolds.«[lxxxix] With not a small measure of irony, this receptacle or nurse of all generation precedes the logic of the *logos.* Yet >it< — the khora or *chora*, »unintelligible and nonsenuous[...]the baseless base of paradigms and beings« — is no-thing in and of itself.[xc] Its very lack of (self-) definition and the concomitant ability to remain elusive allows its work to be accomplished in such a manner and with such consistency that »[...]everything happens as if the coming history of interpretations of (the) *chora* had been written in advance, that is prescribed, reproduced and reflected in advance in a few pages of the *Timeaus* on the >subject< of *chora* >itself'.<[xci]   This >subject itself,< according to a >nature< which can neither be >this< nor 'that', can only be determined momentarily, in terms of the aspects with are impressed upon it. Like the soul-intuition of the *Phaedo,* it is »the site of all sites«(Derrida), the site even of Foucault's *tabula,* the place or non-place upon which all 'knowledge' not only rests, but from which it receives its sustenance.   It is, to again resort to the familial scene, a receptacle much like the vessel or the womb, the space in which all activity, in a manner of generation, not only takes place, receiving impressions (*typon*), having no character (and possessing no intrinsic characteristics) in and of itself. >It< or >she< is, none the less, in its way, highly provisional. Still, >she,< never »[...]depart(s)[...]from her own nature[...]nor assuming a form like that of any of the things which enter into her[...]and is stirred and informed by them[...]and (which) go out of her[...]in a wonderful and mysterious manner[...].we may liken the receiving principle to a mother[...]«

»Anything which we see to be continually changing, as, for example, fire, we must not call `this' of 'that', but rather say that is is 'of such a nature', nor let us speak of water as 'this', but always as 'such', nor must we imply that there is any stability in any of those things which we indicate by the use of the words 'this' and 'that', supposing ourselves to signify something thereby, for they are too volatile to be detained in any such expressions[...]or any other mode of speaking which represents them as permanent[...].and ought not to be denominated[...].

And the same argument applies to the universal nature which receives all bodies — that must be always called the same, for, inasmuch as she receives all things, she never departs at all from her own nature and never, in any way or at any time, assumes a form like that of any of the things which enter into her; she is a natural recipient of all impressions, and is stirred and informed by them, and appears different from time to time by reason of them. But the forms which enter into and go out of her are the likenesses of eternal realities modeled after their patterns in a wonderful and mysterious manner, which we will hereafter investigate. For the present we have only to conceive of three natures: first, that which is in process of generation; secondly, that in which the generation takes place; and thirdly, that of which the thing generated is a resemblance naturally produced.. And we may liken the receiving principle to a mother[...]Wherefore that which is to receive all forms should have no form[...]«[xcii]

In successive passages, Plato again attempts to recollect his findings, acknowledging that *chora* ([...]as mother, space, receptacle, nurse[...]) is absent any form and cannot therefore be designated or named. Yet it, caught between and unlike either *mythos* or *logos,* engages the intelligible all the while remaining (somehow) >incomprehensible.< Plato's seeming resort to mysticism could be interpreted as a foreshadowing of the figure of the Virgin Mary in the *Gospel of St. Luke.* It is she who receives the impressions of the logic of the *logos,* fulfilling, in a manner of generation that which has already been ordained.[xciii] In essence, she is the receptacle in which the Word (*logos*) is inscribed and through which time is irrevocably altered. Yet she, as the nurse of all generation, remains elusive. Her mystery, while partaking in the intelligible, is incomprehensible. She is >merely< the *mediatrix* between the Father (again the familial scene) and the Son — the source of all transgression and slippage. And it is she who, according to legend, spun the veil of the temple (the Holy of Holies) which was torn at the moment of Christ's Cruxifixion, thereby symbolizing the removal of the barrier between man and God.[xciv] In *Hermes: Literature, Science, and Philosophy,* Michel Serres reiterates Krell's observations of the *Timaeus,* alluding to the paradoxical nature of Christianity's >familial scene< in his recounting of the Oedipus myth where »[...]on the road to Thebes and the road to Delphi« everything is repeated, »[...]enigma and knowledge[...]catastrophe and passage, tear and connection.«[xcv] The *chi,* or crossroads, is a chimera, while the Sphinx (as knowledge) is a bifurcation. Oedipus, having slain his father and slept with his mother, is »[...]indeed the last descendant of the Spartoi, of disseminated spaces, of catastrophic separation, of the continuous that must be recovered.« Here Serres directly recollects Plato's *Timaeus*:

 »From the beginning of the world portrayed in Plato's Timeaus, after reference to the *chora,* matrix and mother, in which we recognize a topological space, the Same and the Other, separated, are rejoined by the *Demiurge* in the figure of a *chi.* This figure is formed by the inclination of the ecliptic on the equator; the world is a chimera. The space of the world is described as requiring artful connection.«[xcvi]

According to Michel Serres, the theme of the Oedipus myth is not space — homogenous, universal space, »[...]this discrete unit rediscovered indefinitely or by repetitions along its discursive sequence,« but rather »[...]the plurality of disjointed spaces, all different[...](a) primal *chaos,* the condition of the series that assembles them.« As such, they cannot be composed to form a >single, homogenous space.< Rather than a discourse of an itinerary (which by definition requires the logic of the *logos,* a discursive projectability and consequent assumption of a pre-ordained discursive symbolism borne out according to preordained determinations), it is the itinerary of a discourse, a wandering filled with catastrophe, chance and overlapping, recursive events.[xcvii] The *Old Testament* — fragmented, discontinuous, anticipatory, marked by pure faith — is replaced by the *New Testament,* replete with the ensuant (and necessary) reason begotten by the logic of the *logos*.

»In the same way that which is to receive perpetually and through its whole extent the resemblances of all eternal beings ought to be devoid of any particular form. Wherefore the mother and receptacle of all created and visible and in any way sensible things is not to be termed earth or air or fire or water, or any of their compounds, but is an invisible and formless being which receives all things and in some mysterious way partakes of the intelligible and is most incomprehensible. In saying this we shall not be far wrong: as far, however, as we can attain to a knowledge of her from previous considerations, we may truly say that fire is that part of her nature which from time to time is inflamed, and water that which is moistened, and that the mother substance becomes earth and air, in so far as she receives impressions of them.«[xcviii]

In his final corollary to the problem set forth, Plato re-establishes the nature of the >third kind.< pronouncing it, once and for all, as a *mediatrix* »[...]neither in heaven nor in earth« who can only be apprehended by a >kind of spurious (false, bastard) reason< in the manner of a dreamlike sense.

In other words, we have some intimation of this >third kind< which is *chora*, yet it remains elusive, inexact, veiled and remote from both the world of forms and the world of appearances. In effect, Plato, by calling into question the very foundations of his elaborately considered metaphysics destroys the entirety of his binary universe.

»Wherefore also we must acknowledge that one kind of being is the form which is always the same, uncreated and indestructible, never receiving anything into itself from without, nor itself going out to any other, but invisible and imperceptible by any sense, and of which the contemplation is granted to intelligence only. And there is another nature of the same name with it, and like to it, perceived by sense, created, always in motion, becoming in place and again vanishing out of place, which is apprehended by opinion jointly with sense. And there is a third nature, which is space and is eternal, and admits not of destruction and provides a home for all created things, and is apprehended when all sense is absent, by a kind of spurious reason, and is hardly real — which we, beholding as in a dream, say of all existence that it must of necessity be in some place and occupy a space, but that what is neither in heaven nor in earth has no existence. Of these and other things of the same kind, relating to the true and waking reality of nature, we have only this dreamlike sense, and we are unable to cast off sleep and determine the truth about them. For an image, since the reality after which it is modeled does not belong to it, and it exists ever as the fleeting shadow of some other, must be inferred to be in another (that is, the image and space) and are different; they cannot exist one of them in the other and so be one and also two at the same time.«[xcix]

Further analysis of this third nature, or *chora* (which is space and is eternal) suggests paradoxical and diverse, yet interrelated interpretations. According to the tenets of Western philosophy, *chora* (space) is apprehended only by way of *adulterina quadam ratione* — a reason that is to some degree adulterated (Ficino) — equivalent perhaps to Plato's pronouncement that it can only be apprehended by a >spurious< reason. Friedrich Schelling assumes that (the) *chora* can only be understood »durch falsche Imagination,« -- >by means of false imagination.<   In their joint project entitled *Choral Work*, Jacques Derrida and Peter Eisenman suggest that *chora* »[...]is the condition for everything to take place, for everything to be inscribed.«[c] The place, or more aptly non-place of *chora* is the »…margin the between that articulates the differences constitutive of identity.«[ci]

Julia Kristeva, in her Doctorat d'Etat *La Revolution, du language poetique (Revolution in Poetic Language)*, defines *chora* as an »[...]essentially mobile and extremely provisional articulation constituted by movements and their ephemeral states. We differentiate this uncertain and indeterminate articulation from a disposition that already depends on representation[...]the *chora*, as rupture and articulations (rhythm) precedes evidence, verisimilitude, spatiality and temporality (as conditions).«[cii] Yet it participates in the intelligible in the most cumbersome, aporetic way (*aporotata*).[ciii] Though *chora* may be situated, and if necessary given a topology, »[...]it can never be granted axiomatic form.«[civ] As the unopened bud of *kore* found in Greek mythology (alternately maiden, mother: Artemis), the *chora* awaits and precedes that which is understood as serving binary dualism (reason, the logic of the *logos*).

Though >it< has not existence and is not proper (it cannot be designated), it is, as 'the ancient of ancients', antecedent to all that exists. Consequently, *chora* falls out of time and space in(to) an absolute past (anachrony), whose »[...]perpetual withdrawing opens up the space for all presence to appear and generates the time for every present (*schemata*, inscription, imprint) to transpire.«[cv]

Suggestive of Levinas »*anarchie*,« and hence reminiscent of Hesiod's *theogonic* chaos, *chora* supposes all possibility and potential. Yet it is a stranger to the order of the paradigm, the intelligible and immutable model of metaphysics. Accordingly, it is manifest, or rather manifests a logic other than the logic of the *logos*. However, this place (receptacle, mother, vessel, nurse) that is actually a non-place continues to elude transcription. Announcing itself >as in a dream,< *chora* is and yet it is not.[cvi] Declining to admit its primary existence, 'it' cannot even be >itself.< How complicated the project when all language — any attempt to designate — remains not just provisional, but in error! If one were to critique the propriety of these attempts one would have to accept the fact that (the) *chora* can only be alluded to, such that it recedes into matters of faith, rather than reason. Yet according to Plato, *chora* is not a matter of sensation, nor is a matter of mere opinion either (as we have come to interpret matters of faith in contemporary terms), but is instead the pre-condition for both reason and faith.

It has been suggested in other accounts that *chora* be likened to a slab of wax or an oderless pomade, capable of receiving impressions, traces and marks (*semeia*).[cvii]

As (a) receptacle enabling the transformation from *logos* to *mimema* (copy), a hollow somewhere between being and becoming, it is the >mother.< the womb of genesis (»in a manner the nurse, of generation'»). Embracing all possible forms, but having none of her own, *chora* is neither high nor low, thinkable (intelligible) nor sensible (though it partakes of both), yet (it) is the source of all slippage and retrogression, an absolute past (anachrony) perpetually withdrawing. Consigned to the feminine, she articulates the activity of the differential, the other-than. In the end, the affiliation of being, generation and space represents a host of ambiguities for Plato. The necessary symmetry and balance of the universe — that which had formerly been confined to a careful correlation between 'this and that' — has now become imbalanced, possessed of a »strange variety of appearances[...]swaying unevenly hither and thither.« The exacting and exhaustive framework which informs Plato's earlier diagram of the universe appears to be dispersed; its rigorous totality effectively dispensed with, as if in a dream. »Thus have I concisely given the result of my thoughts, and my verdict is that being and space and generation, these three, existed in their three ways before the heaven, and that the nurse of generation, moistened by water and inflamed by fire, and receiving the forms of earth and air, and experiencing all the affections which accompany these, presented a strange variety of appearances, and being full of powers which are neither similar nor equally balanced, was never in any part in a state of equipoise, but swaying unevenly hither and thither[...]»[cviii]

10. Reprise

Innumerable —and complicated — questions arise from the material heretofore presented. For architecture and architectural education, these questions strike at the very heart of the creative enterprise. Since the beginnings of the discipline, the concomitant pursuits of form and reason have governed the development of architectural discourse. Many, if not most practitioners and educators assume that the search for 'order' requires an adherence to the dictates of discursive projectability. In short, architecture's underlying belief systems are replete with the metaphysical and physical (scientific) operatives governing classical thought. At its core, this is the subject and object of Peter Eisenman's treatise entitled "The End of the Classical."

Yet Eisenman's attempt to deconstruct the foundational premises of architectural discourse fails to surmount the problem; he leaves the reader with a proposal which remains primarily within the realm of abstract theory, however consistent his open-ended statement — or rather query — may be with respect to the argument he so carefully constructs. Rather than provide a solution, he is content to 'set up' the question, albeit with the stated caveat that the question will provide him with at least a decade of material in which to endeavor. Perhaps Eisenman, like so many architects and pedagogues, is seduced by the possibility and potential that lay in wait between the lines of deconstruction's claims. At bottom, there can be no forward motion, a condition he acknowledges, albeit hesitantly — despite the compressed and self-legitimating tone of his argument — in the closing lines of his treatise. »Therefore to propose the end of the beginning and the end of the end is to propose the end of beginnings and ends of value — to propose an other timeless space of invention. It is a timeless space in the present without a determining relation to an ideal future or to an idealized past. Architecture in the present is seen as a process of inventing an artificial past and a futureless present. It remembers a no-longer future.«[cix]

I am reminded of the context of this monumental rejoinder. To date, Eisenman's project has been to situate architecture within the modernist paradigm, that is, within the same arena of such great modernist writers and artists as Wasily Kandinsky, James Joyce, and Kasimir Malevich, among others. According to Eisenman, architecture >lags,< caught up in a nostalgia for the concerns of the past — primary of these being reason, representation and history. In architecture all three of these belief systems (which he designates as >fictions<) are directly associated with the classical (or classicist) paradigm. The essential rupture of the late-nineteenth and early-twentieth century — the 'modern' — never takes hold in architecture, at least not entirely. This is Eisenman's reading of the matter. His turn to deconstruction is only the latest attempt to adjoin the project of modern literature and art once and for all.

Yet his attempts to undermine the purported inertia of architectural discourse remain caught up within the arena of discursive projectability. There is still an underlying faith in form — however often Eisenman seeks to invoke space and time.

Is it that his schooling in Enlightenment theory and French literature has become so embedded in his thinking that the cognitive mode remains the only legitimate — and legitimating — enterprise? Clearly his work is manifest of Langer's >discursive symbolism,< vested as it is with the logic of the *logos*. Moreover, his attempt to prescribe 'invention' as a means of getting to this 'other timeless space' is further evidence of a disconcerting inability to move beyond the realm of decidability and positivist determination: a consistent subscription to the classicist enterprise of >stability, order, and universal values< are deeply embedded within the pages of Eisenman's discourse, whether that discourse appear in either verbal or visual form.[cx] The promise of a true radicalism — such as that which is hidden within the folds of German romanticism (Novalis, Schlegel, Jean-Paul Richter, Schelling, Steiner) and German aesthetical philosophy (Vischer, Semper, Schmarsow) — continues to elude Eisenman, despite his recent interest in the highly romanticized scientization of psychology in the works of Sigmund Freud and Carl Jung. Of late, his writings appear to be our only attempts to countenance an >other< for architecture, though Bernard Tschumi, Alberto Perez-Gomez, and Manfredo Tafuri appear on the horizon. Rather than debate the necessity or legitimacy of such an enterprise for architecture (there is clearly reason to do so), perhaps it is better to look again to the strange alignments presented above; that is space, intuition, the feminine, body and soul. All of these provisional designates (or delegates) do appear to have at least one thing in common: they are seemingly without recourse to classical (and Enlightenment) tenets of reason, but must be apprehended in some other way — that is, by means of (a) >spurious reason.<[cxi] If we recall the earlier forays into Plato's dialogues, they are also threatened by, if not manifest of, inherent corruptibility. However suppressed, the concern for space, intuition, the feminine, body and soul are also present in the development of modern architecture from the late-eighteenth century forward. It should be noted that German romanticism is not the >answer< to this attempt to assert an >other< method or >third way<— for it too subscribed to many of the aforementioned tenets of the classical.

Rather, despite its vicissitudes — and they are numerous — romanticism's reaction to the inertia and nostalgia of classicism was and is well taken. There is something to be said for the obvious and deep affinity between Novalis and Maurice Blanchot.

To what might architecture appeal if not to the domain of reason? To what might its practitioners and educators subscribe if not to the tenets and vicissitudes of form, number and relation?

In the nineteenth- and twentieth-centuries developments in science have wetted the appetites of those pursuant of alternatives to form:

numerous artists, architects, philosophers and writers have attempted to co-opt science: despite certain of its rhetoric otherwise, the avant-garde stands on, rather than against, the new-found frontiers generated by scientific thought. One of the more influential texts for architects, Sigfried Giedion's *Space, Time and Architecture* is a case in point. None the less, the general subscription to science is often times compromised by a naive understanding of both the ideas and methods present therein, something Peter Collins pointed out very early on in his career.

11. Constructs of Space, Time and Intuition: Kant and Bergson

Up to now, I have attempted to present what might be characterized as a field of inquiry. Thus far, our text has delved into questions surrounding reason and intuition, architectural pedagogy, space, time and the enigmatic designation of something which appears to be primarily associated with the female gender. My approach to the material has been loose, though not fast; it is perhaps that the matters for inquiry are undeniably complicated and the arguments so clearly protracted that the manner in which I have outlined them is itself charged with inherent dilemma. In some ways, if our 'deconstruction' is anything remotely akin to the method required, we are prohibited from assuming a line of inquiry, such as that which is inherent in Langer's characterization of a logic beholden to the self-legitimating processes of >discursive projectability.<Rather, we are required to assume another methodological approach. This method is decidedly more complicated, though no less rigorous. It is associative and full of >gaps< and may be most justly classified as representative of a >field< or >space< of inquiry. By this I mean that there is a constellation of ideas presented; the relationships between them are multiple and are not meant to assume an absolute end. Instead, they designate a frame in which the ideas find and formulate degrees of kinship. In this sense, our model is familial — rather than abstact — in kind.

At this point, I would like to endeavor to approach the problem from yet another point of view of by engaging two philosophers who have dealt specifically with space, time, reason, and intuition; Immanuel Kant and Henri Bergson.

Though they may have constructed very different philosophical >systems< (if one may refer to Bergson's philosophy as a system), they were both involved with problems arising from the developments of modern science. Both men have also been regarded as >romantics.< Where Kant is viewed as >appealing to the heart against the cold dictates of reason,< Bergson's philosophy was even more extreme; according to Bertrand Russell it was anti-epistemological and therefore manifest of the portents of >irrationalism.<[cxii] I will follow this course by an inquiry into German aesthetics, specifically nineteenth and early-twentieth century theories of space and intuition. Finally, I will return to my earlier study of Paul Klee's attempts to activate his revisionary approach to art and architectural education in light of space, time, reason and intuition.

It should be noted at the outset that Kant's first great work, the *Critique of Pure Reason,* was predated by a curious work on the estranged and ponderous mystic Emanuel Swedenborg entitled *Dreams of a Ghost-seer, Illustrated by the Dreams of Metaphysics,* a philosopher whom Kant appeared to admire.

Kant's work is regarded as an extraordinary event in the history of philosophy; to many, he is the greatest of all modern philosophers. According to Richard Tarnas, the essential problem for Kant was the reconciliation of what were clearly contradictory propositions: »on the one hand (Kant had to) reconcile the claims of science to certain and genuine knowledge of the world with the claim of philosophy that experience could never give rise to such knowledge; on the other hand, to reconcile the claim of religion that man was morally free with the claim of science that nature was entirely determined by necessary laws.«[cxiii]

Kant's solution was extraordinary: depending largely on a (re-)separation of reason and faith — an onto-theological compound which had been developed and systemized to the highest degree with Scholasticism — Kant recognized that man could 'know only the phenomenal'. Metaphysical conclusions were unfounded; one could argue successfully a full range of propositions without a fundamental basis in sensory experience. Hence, »metaphysics[...]was beyond the powers of human reason.«[cxiv] In one fell swoop, Kant was able to assert the primacy of subjective cognition, albeit enforced by a pietistic ascetic rigidity, in apprehending the world around us.[cxv] Kant's initial confrontation with the limits of reason was premiated on developments in science. According to Kant, the world science was not entirely objective (benefitting from the tenets of abstract reason); rather, the world science explained was »[...]a world already ordered by the mind's own cognition.«[cxvi]

The subject >causes< the object to be >ordered in certain relations,< thereby giving form to phenomena.[cxvii] Interestingly enough, Kant arrives at his conclusion by looking at the problem of space and time, whereby space and time were adjudged, according to Kant's system, to be »…a-priori forms of human sensibility.« In other words, they inform whatever is perceived by the senses and as such are grounded epistemologically in the subject (the residence of the >nature of the mind<) rather than ontologically in the »…nature of things.« As such, Kant reorganizes and in some ways reiterates Plato's conception of space and time in the *Timaeus,* whereby space and time are more than intrinsic to human cognition, preceding the subject's apprehension of the object-world.[cxviii] (re: *Phaedo;* intuition and immediate relation to objects, CPR) In this sense, space and time, when classified as a-priori conditions required of all human intelligence, not only >partake in this intelligence,< but precede »…in the manner (of a) nurse, all generation.«[cxix]

They are manifest of a pure form of sensibility which Kant tellingly refers to as *Anschauung,* or >pure intuition.<[cxx] This condition of *Anschauung* may be regarded as preceding even the first cause (the logic of the *logos*), space and time being granted its >place< or >non-place< in Kant's system accordingly; external experience is only possible through the presentation of space and time. As in the *Timeaus,* space and time are the site of all sites upon which all knowledge is situated (*zum Grunde liegen*). Neither space nor time itself is empirical, nor is either >condition< a concept (it does not operate according to our normative epistemological framework). Hence it cannot be regarded as >discursive.<[cxxi] Ironically, Kant does maintain the Platonic predisposition towards geometric form, thereby retreating from an embrace of >pure space<; in Kant's system, empirical space is apprehended as a matter of quasi-formal relations which make up the bits and pieces of the whole. In fact, space and form are both characterized as >forms of intuition< (as opposed to >forms of thought< which make up the conceptual categories by which and through which the mind orders the universe). External reality — the world which we apprehend — is the mode »…under which we arrange the objects of perception, a transcendental reality[...]>form< is that which allows the manifold appearance ot be ordered in certain relations.«[cxxii]

While motivated by many of Kant's concerns, in particular the problems confronting philosophy and modern science, Henri Bergson's approach to intuition, space and time differs substantially from Kant.

While Kant conflated space and time — what was true for space was equally true for time in Kant's system — Bergson essentially separates space and time. Where time is allied with intuition or >instinct,< space is associated with matter and intellect. Time, possessed of the characteristics of memory and duration and hence vital (living) and ascendant, stands opposed to space.

In Bergson, the concept of space is based in >discursive projectability,< dragged down by matter and deadened, or at the very least weighted down, by the mechanics of mind. In accordance with a kind of >principle of transitivity< (though Bergson's quasi-mathematical approach to philosophy leaves something to be desired), intuition — allied in quasi-romantic terms with nature — is a nobler faculty than mind. Reason, manifest of the workings of intelligence and intellect in the form of geometry and logic, is, according to Bergson, possessed of a natural inability to understand life.[cxxiii] »By intuition, I mean instinct that has become disinterested, self-conscious, capable of reflecting upon its object and of enlarging it indefinitely. (On the other hand)[...] intelligence or intellect, as it leaves the hands of nature, has for its chief object the inorganic solid.«

In his assessment of the difference between space and time, Bergson appears to accept Plato's diagram of the creation and development of the universe and mankind as proceeding, according to the dictates of reason, along the lines of geometry and number. Like Kant, space is chiefly regarded as another word for form; his understanding of space is guided by a vision in which space is understood as a succession of discreet instants, one following the other. By connecting these instants, one is able to achieve a mental picture of the space being created. This is somewhat akin to Langer's thesis on discursive projectability and discursive symbolism, whereby the linear succession of words (»[...]words — in accordance with the laws of discursive thought — have a linear, discrete, successive order; they are strung one after another like beads on a rosary…«) as instants, are arrayed in similar fashion to a geometrical, logical diagram. However, Bergson departs from Langer in that she perceives a critical difference between form (geometry, symbolism, language and reason) and space.

Yet Bergson's argument is akin to Eisenman's search for pre-diachronic anachrony (also present in the *Timeaus*) in which he proposes the end of discursivity in architecture by »…ending the beginning, ending the end, ending values,« introducing instead »…an other timeless space of invention.«

Such a >timeless space of pure invention,< remaining ironically tethered to temporality while at the same time rejecting it, would necessarily do away with the epistemological ground of architecture (reason, representation and history) which has proceeded from antiquity. Without a »…determining relation to an ideal future or to an idealized past,« cause and effect would also be done away with; architecture would exist in a state of eternal flux, such as that which resembles life as it is being lived. One can here recall the happy naiveté (not to mention complacency) of the herd in Nietzsche's use and abuse of history, whereby instinct is enough to grant vitality to adherents who remain disposed only to the present — having, as they do (in a paradox perhaps unbeknownst to humans, though full of the contradiction and paradox evidenced in Plato's >spurious reason< and Schelling's >durch falsche imagination<), a »…no-longer future.« For Nietzsche, like Bergson, epistemological constructs such as history (or reason and science for that matter) have no place in life being lived.[cxxiv]

12. Reason, Intuition and the Feminine Enigma in the Work of Joseph Beuys

»Indifferent to language, enigmatic and feminine, this space underlying the written is rhythmic, unfettered, irreducible to its intelligible verbal translation; it is musical, anterior to judgment, but restrained[...]«Julia Kristeva, *Revolution in Poetic Language*[cxxv]

A discussion of the work of Joseph Beuys may appear somewhat out of place in a paper on classical philosophy and the education of the architect. Yet Beuys does provide a degree of insight into the possible relationship between reason and intuition. In a fashion reminiscent of both Kant and Bergson, Beuys studied science and eventually came to regard the problems of modern science and the human condition as central to his aesthetic and political philosophy.

Like Henri Bergson, Beuys world-view is structured around an essentially dualistic universe: cold and warm, static and dynamic, masculine and feminine, above and below.[cxxvi]   And in a similar manner to Robin Schott, he describes the primary rift in modern consciousness as a rupture between cognition and eros. While cognition (mind, intellect) is bound by an abstract asceticism, *eros* — which in Beuys' work is most often embodied by the female figure — is representative of both the spiritual and earthly realms.

»Beuys' images present an essentialist view of woman as a sign for the natural world and, at the same time, the realm of the spirit. Whether seer or mother, priestess or acrobat, she occupies the axis opposite from intellect and cultural [...]Haunting images such as *Woman Warding Off* (1952) perpetuate the ancient concept of woman's connection to the irrational and immaterial.«[cxxvii]

In this sense, Beuys establishes a fundamental relationship between the soul/spirit and intuition found in the *Phaedo* and the enigmatic *chora* of the *Timeaus.* Woman, as vessel, matrix, mother—embodying both the earthly and the spiritual realms—is neither the >this nor that< (consistent with a binary opposition) but rather a >third genre< or third kind. In effect, she is a >sender< or transmitter, an intermediary between the spiritual and earthly realms. As such, her province is not reason or the logic of the *logos* — possessed of a 'truth' begotten through discursive efforts — but a >knowing< begotten (generated) through a Kierkegaardian >leap of faith,< an >intuition.< Signaling a possible relation to (the) *chora*, Beuys' female figures are portrayed as basket-weavers or carriers, thereby recognizing their biological capacities as vessels.[cxxviii]   Like the ancient Sibyls, they are possessed of an *anima,* an overdeveloped 'ear' which both receives and transmits while remaining elusive and without determined or determining form.[cxxix]

Beuys' work seeks a corrective, a remedy to the entire course of Western philosophy, which, according to Beuys, adheres to a belief that >truth< can only be formulated, if not found, within the confines of pure mind. According to Beuys, this pursuit has led not only to an increasing fragmentation of mind, body and spirit, but a perceived disunity between the spiritual (immaterial) and physical (material) world. The overall outcome is one of humanity's deep alienation, an alienation that permeates both human relations as well as mankind's relationship to the world.[cxxx]   In his drawings, the lack of solidity, of identity, and of setting describes the universal condition of mankind is remedied and >filled by femaleness.<

Over the course of his career, Beuys subscribed to numerous sources for inspiration. One of these, James Joyce's *Ulysses,* is particular relevant to the context of Beuys' view of the female archetype.[cxxxi]   In the last chapter of Joyce's book, the figure of Molly Bloom echoes Homer's Penelope >after the death of language.<[cxxxii] Instead of weaving and re-weaving in a manner of deceit or a veil, Molly echoes Penelope's ceaseless activity by weaving dreams and associations of a highly charged sexual nature.

Her spiritual and physical mobility may also be characterized as a form of feminine >deceit,< played out in the space of a half-dream, half-waking state; her text — or veil — is the space of the page and, consequently, the field which is not only predisposed to and receives language, but is antecedent to the possibility of meaning and form. In this context, the figure of Molly Bloom, a character symbolic of archetypal female consciousness, is disposed to a state of eternal flux, highly mobile and exceedingly turbulent, receiving impressions without having them corrupt what might be regarded as her essential >nature.<[cxxxiii] From these impressions and associations she enacts scenes of the imagination, generating play without partaking in the consequences of the imaginary acts. Her associative language takes place in a space and time that are antecedent to discursive language, dispossessed of the syntactical controls of discursive projectability.

»(In *Ulysses*)[...]Joyce anthropomorphized language; Stephen Dedalus[...]voyages forth on the wings of language in an exploration beyond its conventional frontiers, as does the book itself. There is a parallel between Joyce's Dedalus who becomes a poet and Beuys himself[...]Beuys, too, challenged the gods as an aviator and fell to Earth; and refashioned himself as the >…uncreated conscience< of his race; still later he is transformed yet again[...]Beuys, too, anthropomorphized his medium; he voyaged froth in terms of his own language, drawing.

Beuys and Joyce operated on the level of an art of emotional recognition. Language and drawing are both mental processes; art is not a process of illustration but a faithful means for recording the reality of the mind, and in the hands of both Joyce and Beuys the process is, in some sense, pre-logical, revelatory[...]Joyce's writing produced constant verbal analogies through sound[...]Words split, go back upon one another, front to back, and fuse to "capture the sense of simultaneity in space and time.« Joyce's prose speaks episodically in different stylistic voices from one chapter to the next, but with a coordinating intelligence. In the profoundly sexual language of *Ulysses,* language produces language; the fecudity of language itself grows language, overflowing the normal semantic boundaries, reshaping the linguistic field.[cxxxiv]

To her husband Leopold Bloom, Molly remains remote, distant, neither here nor there, suspended in a space and time somewhere between the earthly and transcendent realms. Like Joyce, Beuys is enamored by the possibility of woman's many roles and states, none of which remain absolute or fixed in space and time. Beuys' female figures occupy a space of fecundity, of sexuality. >

Woman< is (at once) girl, virgin, pregnant, mother, possessed of both spiritual (transcendental) and physical (earthly) dimensions simultaneously. Her mobility is essential as she travels between states of being and becoming, partaking in, yet never resting in either realm. In ironic fashion Beuys translates Joyce's vision in a series of drawings which depict the female figures wearing skates and snowshoes. Though quite serious, Beuys never loses his sense of humor.

»Beuys' time, like all messianic time, is an eternal present; like Joyce[...]he insisted upon the present as the only real location of experience[...]Beuys is like Joyce, whose "action takes place in a plurality of spaces, in a consciousness that leaps about the universe and mixes here and there in defiance of the ordered diagramming of cartographers.«[cxxxv] But Beuys' space is not merely one of multiple perspectives; he moved from a pictorial space into a virtual space. On the formal level, he compressed the fragmentary space of modernism since Cubism into once cosmic space by means of his line, which no operated both as an image of pure change and as an extended present, while the sense of ideas refracting across that space remained.[cxxxvi]

In a sense, Eisenman appears to countenance Beuys' predilection for messianic time. This is perhaps not surprising given Eisenman's attempts to formulate a distinctly modern architecture based on a >timeless space of invention.< Like both Joyce and Beuys, Eisenman's dispensation of representation, reason and history is also a dispensation of discursive projectability. Yet the leap to a pre-Socratic theogenic >cosmic space< reminiscent of Levinas' *anarchie* (Taylor) is perhaps too radical a move — as would be the equation of architecture with *eros,* space, intuition and the feminine. After all, form and discursive reason have governed and continue to govern the conceptual foundation of architectural discourse — a discourse to which Eisenman's work clearly subscribes. This despite Eisenman's clearly half-hearted attempt to apprehend the song of the sirens; the echoing void beckons with a promise which must certainly be avoided by formalists at all costs.[cxxxvii]

13. Nineteenth-century German Aesthetics and the Opening up of Nature's Space

As was mentioned early on, there was a burgeoning, if obscure, counterthrust to the principled use of form and reason in art and architecture.

Influenced in large part by the development of German romanticism, the voices of dissent attempting to formulate an >other< theory, one largely dependent on the psychological conceptualization of space and time. Formulated by and large by academics, the essential >break< with French aesthetic theory originates, as might be expected, with Kant's transcendental idealism, though Kant himself was the subject of numerous critiques with respect to his philosophy of aesthetics.

An extensive overview of nineteenth-century German aesthetics has recently been published by Harry Francis Mallgrave and Eleftherios Ikonomou. Entitled *Empathy, Form, and Space: Problems in German Aesthetics 1873-1893,* the book traces the specifics of the shift away from Kant's theory, elaborating on the works of Robert Vischer, Conrad Fiedler, Heinrich Wölfflin, Adolf Göller, Adolf Hildebrand, and August Schmarsow.[cxxxviii] However instructive a comprehensive tracing of all six theorists might be, space does not permit this. For purposes of the present argument, two of the theorists presented by Margrave and Ikonomou are particularly significant — Robert Vischer and August Schmarsow. While the former establishes a clear relationship between the development of German romanticism (e.g. Novalis, Schlegel, Richter), the latter attempts to fully articulate the essential *differance* between form and space, reason and intuition — a position deeply embedded within the pages of Sigfried Giedion's highly influential text *Space, Time, and Architecture.*

Mirrroring one of the primary figures of early-nineteenth century German philosophy, Gottfried Herder, Robert Vischer's theory of aesthetics is essentially a theory of empathy, replete with enigmatic references to the psychological literature of the late nineteenth-century.[cxxxix] Like Herder's *Kalligone* of 1800 — itself a reaction to the arid abstractions perceived to be present in Kant's theory of beauty—Vischer develops an elaborate theory expression in which natural forms are vested with vitality, and sensuous appearances with human feelings and emotions.[cxl] Robert Vischer's theory in effect the ideas set forth by his father, Friedrich Theodor Vischer (regarded as the more important of the two aestheticians), whose treatise entitled *Aesthetik; oder Wissenschaft des Schönen* (Aesthetics, or the Science of Beauty) emphasized emotional transference, such as the subjective projection of emotions into the landscape so prevelant in German romantic painting during the early and mid-nineteenth century.

Citing the romantic philosophers Schelling and Schlegel — both of whom used organic metaphors in the descriptions of architecture, the elder Vischer conceived of architecture as a symbolic art in which the »…artistic spirit sets for itself the task of rhythmically animating form[...]« inserting >buoyant life< into the mute masses. In a remarkable, if recondite, allusion to the relationship between architecture and music, the architect is vested with the ability to make what was inert matter move, »[...]as if the ear hears the echoing sounds that reverberate from these movements.«

Following in his father's footsteps, Robert Vischer's dissertation also stressed the psychological aspect of the perceiving subject, albeit informed by an emphasis on the body's physiology. Entitled *Ueber das optische Formgefühl* (On the Optical Sense of Form), the work was only the beginning of a career devoted to an increasing interest in the more radical developments in psychology. In articulating his radical theory of *Einfühlung* (literally 'in-feeling'), one of Vischer's strongest influences was Karl Albert Scherner's *Das Leben des Traums* (The Life of Dreams), a book which preceded Freud's theory of the unconscious by three decades. In promoting the position that the higher order of things is vested in the unconscious, Scherner's thesis sought to surmount not only the resort to the spirit (*Geist*) of Hegelian philosophical idealism, but the will of Schopenhauer's pessimistic philosophy — the two philosophical >systems< (besides Kant) which figured most prominently in the aesthetical philosophies of the mid and late-nineteenth century. Yet Vischer's attempt to apprehend a higher order didn't stop with psychologism, but led to the ever more complex and obscure realms of mysticism — in particular the mysticism peculiar to the German mind. It is perhaps a logical trajectory, however, given Vischer's interest in the empathic; German mysticism's peculiarity centers around its tendency to vest objects with an emotional response so that the whole personality of the subject essentially merges with its object. filling out images »[...]with the contents of our soul.« Extending from Jacob Böhme to the German romantics (the early-Goethe, Jean Paul, Novalis), and finally culminating in the early-twentieth century with Rudolf Steiner and German Expressionism (though it can be argued that Beuys' work represents an extension of mysticism's influence on the artistic imagination), German mysticism embodied a pantheistic urge for union with the natural world, in essence bridging the essential >otherness of nature.

<According to Mallgrave and Ikonomou, Vischer's form of mysticism, similar to Schopenhauer's will-less self, approaches the "irrational[...]taking as its theme Jean Paul's »world soul of the soul.«"[cxli]

»With >mystical spurts of concentration,< the artist strives to intensify the expression of form[...]What the artist imitates, even in art's most primitive condition, is not nature but the universal >vital process< concealed therein — that is, one's own emotional life or the presentation of a free, purified ego within the material boundaries of sensuous form[...]«

The pursuit of a universal >higher order of things< is reminiscent of Plato's metaphysics (though again, it speaks more to the neo-Platonism of German mysticism), while the overt promotion of subjectivity and unbridled ego is an obvious extension of romanticism's psychological thrust and its promotion of >effort, strife and energy.< As was mentioned very early on in this paper, the pursuit of an alternative to classical reason led to a pre-occupation with numerous theses in search of >otherness.< In much of art and architecture's nineteenth-century theory, Vischer's philosophy of *Einfühlung* influenced those in search of an alternative to the classicist's traditional preoccupation with form, order and logic. Gottfried Semper — a Dresdner who has received an extensive amount of interest recently — and August Schmarsow both wrote extensively on the need to revise the classical outlook, the former from a quasi-scientific mode, the latter from a point of view affiliated with Robert Vischer's unique brand of psychological physiology.

While Semper is important to our current discussion, I am only able to make brief mention of him here. In the recent past, much attention has been granted the various positivist and materialist interpretations of his most important writing, *Der Stil.* However, these readings obscure his affiliation with the development of gothic revival — perhaps due to his use of examples from antiquity. In the introduction to their book, Mallgrave and Ikonomou mention this fact, pointing out that Semper's theory of *Bekleidung* — dressing — tends to support a turn towards the >dematerialization of form.< In other words, Semper, in attempting to >spiritualize form,< sought a means of ridding form of its morphological purpose — in effect revising the nineteenth preoccupation with organicism specifically while calling into question the promotion of figural typology in general.[cxlii] Gothic revival was not only a vision replete with what some regarded as sentimental excess, but the beginning of modern architecture's affiliation with its intertwining functional, spiritual, and discursive (literary) aspects — a reading of modern architecture which has been by and large suppressed.[cxliii]

In the late-nineteenth century, the writings of the art historian Heinrich Wölfflin furthered the cause of *Einfühlung,* while retaining an emphasis on traditional art historical modes. August Schmarsow, a theorist whose work has been shunted aside in favor of Wölfflin's writings, directly challenged Wölfflin's reading of the history of art and architectural production, producing a now obscure treatise entitled *Das Wesen der architecktonishen Schöpfung* (The Essence of Architectural Creation). The subject of Schmarsow's work — characterized by Mallgrave and Ikonomou as a belief in »architecture as the creatress of space« — was the promotion of an aesthetics from within.[cxliv] According to Schmarsow, »…the essence of architectural creation since the beginning of time is not its form, but the fact that it is a spatial construct.« Influenced by Carl Stumpf's work on psychological acoustics and spatial perception, Schmarsow's work embraced Stumpf's shift from the psycho-physiological orientation towards space to a more phenomenological approach, with its emphasis on the role of the body in apprehending and understanding space. Yet Schmarsow's theory of space is not entirely poetic, incorporating aspects of Kant's belief that space exists as an a-priori concept.

To him, spatial imagination is not only the result of sensory experience, but is »…rooted in a part of the psyche similar to that where mathematical thinking originates.«[cxlv]

Hence in Schmarsow »…the mathematical science of space (*Raumwissenschaft*) operates in abstraction with a concrete product, whereas the art of space (*Raumkunst*) directly transforms the inner intuition into external appearance or tangible forms, that is forms that mediate the circumstances of the setting and physical laws. Jointly, mathematical space and the intuitive art of space provide the order by which we view the world.«[cxlvi] To Schmarsow, »…architecture[...]is the creatress of space, in accordance with the ideal forms of the human intuition of space.« Coupled with his affiliation of architecture with the feminine gender is a belief in architecture as a living, vital organism; the apprehension of space is accomplished by movement through space — the aesthetics of space are realized not from without, as is the case with classical theories of form, but from within. Predilecting Giedion's argument, Schmarsow saw the history of architecture as a history of humankind's sense of space.

In his elaborate >history< of architecture entitled *Grundbegriffe der Kunstwissenschaft am Uebergang vom Altertum zum Mittelalter* (The Basic Principles of the science of art at the transition from antiquity to the Middle Ages) he further delineates his understanding of architecture as a special condition reliant on the apprehension of space as a condition of the body's movements and rhythms; according to Schmarsow, our consciousness of space is determined by the ground on which we walk, not just on the faculty of sight — a psycho-philosophical approach reminiscent, as Mallgrave and Ikonomou point out, of Husserlian phenomenology.[cxlvii]

14. Tales of Love

Where does this spiraling array of sources and ideas lead? Is there a steady, if somewhat tenuous connection to the very real problem of architectural education? In order to consider possible avenues of approach it is necessary to return to the writings of Paul Klee. In so doing, we must dispense with many of our previous assumptions regarding the formulation and fate of modern art and architecture, in particular those which seek to stress the dialectical oppositions — a frame of mind which casts a pall on the relative complexity of certain of modernism's ideas for art and architectural education.

Modern educational practices in art and architecture have tended to split into two opposing camps: those who stress the necessity of >instrumental reason< and those who see architecture and art as primarily an >intuitive,< somewhat obscure enterprise centered in the subject and reliant on inspiration. While those concerned with reason promote clarity and rigor in the formulation of the art or architectural project, individuals subscribing to the >faculty< of intuition, understand the creative act as requiring a quasi-mystical approach which can only be compromised by any attempt to instill rigor. On the one hand we have the pursuit of cognitive rigor, on the other a reflexive muteness. Both approaches legitimately find their forebears in modern art and architecture.

In point of fact, most >modernists< tended to conflate the two thought processes in attempting to achieve dialectical synthesis. Jacques Barzun's seminal treatise *Classical, Romantic, Modern* explores the inherent ambiguities and contradictions of modern thought in general thereby exposing the difficulty of achieving a true synthesis. In essence, the constitution of the modern remains largely undecidable.

Unfortunately, however, most revisionist schemes have preferred to counter the blurring of categories by subjecting modernism to a reading largely dependent on its alignment with an overly simplified version of scientific reason. Driven by ideological aims, theorists such as C.P. Snow and Manfredo Tafuri among others are both guilty of this approach: an approach dependent on a search for opposing categories — a >this versus a that.< Those icons of modern art and architecture usually associated with the objective divide were themselves quite capable of appropriating romantic points of view — of relying on both reason and intuition in their work. In fact, while the rhetoric stressed objectivity and reason, the reality of their *modus operandi* said otherwise. The surrealism of Le Corbusier's middle years (not to mention the extraordinary mysticism of his last projects), the romantic religiosity of Mies, and the organicism of Wright are cases in point.

And there are numerous others — the Catalan architect Antonio Gaudi, the Slovene architect Jose Plečnik — who, while clearly pursuant of a modern architecture, were vested with an obvious concern for the noumenal and mystical. Perhaps it is our ongoing tendency to fashion arguments in terms of dialectical oppositions. If we are to undo our own severe limitations in this regard, it may be that we reconsider the terms of modern art and architecture: that it was largely a >movement< (if we can call it that) which sought to situate itself as a >form of life,< an activity based largely on a critical view of program. This activity or function does not concern itself with the regressive artifice of machine-like formalism (which is more akin to Beaux-Arts composition), nor does it seek to merely mimic industrial processes. Functionalism in this regard is reminiscent of Beuys' and Joyce's enigmatic other: that which is living, changing, complex. It is a definition of function which Paul Klee struggles with in the following passage from *The Thinking Eye:* »We shall try to be exact but not one-sided. This is quite a task but we shall try just the same. Knowledge tries to be as precise as possible. The imaginary is indispensable. What we are after is not form, but function. Here again we shall try to be precise: the machine's way of functioning is not bad; but life's way is something more. Life engenders and bears. When will a run-down machine have babies?«[cxlviii]

As a critical view of the program for art and architecture in the twentieth-century, Klee's attempt to define his approach defies the normative categories of space versus form, energy versus substance. His thought proceeds to surpass the barrier of either/or, delving into a frame of reference that has had little real impact on the seemingly inert material of architecture, that is energy and motion.

Sibyl Moholy-Nagy, in attempting to situate Klee's pedagogy within a larger framework, characterized his thinking accordingly: »Energy and substance, that which moves and that which is moved, were of equal importance as symbols of creation. He loved the natural event[...]with the instinct of a true lover he had to comprehend what he loved[...]it is in Paul Klee that science and art fuse. Exactitude winged by intuition was the goal he held out for his students.«[cxlix]

To Klee, the final frontier — that which would supplant the simple-minded and dead-end attempts to eradicate the complex and the ambiguous — was that of time. For him, creativity is an event that not only takes place (and is hence manifest in space) but proceeds through time. As the ultimate creative act, life — undefinable, plural, heterogonous, circumstantial — is manifest through a series of unfolding and enfolding 'events' which connecting all past and future. Like Wittgenstein's >language-game,< our primary investigation should not rely on the efficacy of the product; nor should our concern be that of form— by nature inert and static. Rather, our work should embrace the vagaries of motion and style — the conditions of life itself. As Klee so eloquently stated:

»The deeper he looks, the more readily he can extend his view from the present to the past, the more deeply he is impressed by the one essential image of creation itself, as Genesis, rather than by the image of nature, the finished product [...].Then he permits himself the thought that the process of creation can today hardly be complete and he sees the act of world creation stretching from the past to the future. Genesis eternal![cl]

And, so, as 'life itself' in art constitutes forms of life (*Lebensformen*), the *Gestaltung* (form) of our occurrence is not predisposed to reason, but to intuition, to a knowledge that knows no boundaries; it is not revolutionary, but evolutionary, finding its power in the process of the work itself.

Presumptuous is the artist who does not follow his road to the end. But chosen are those artists who penetrate to the region of that secret place where primeval power nurtures all evolution.«[cli]

Chaosmos—the symbols of Joyce, Klee, Beuys and others who have been cited—itself represents a kind of order, though not the distilled order of reason.

Like Hesiod's theogony, the end is perpetual, always on the horizon. »In the womb of nature, at the source of creation, where the secret key to all lies guarded[...]our pounding heart drives us down, deep down to the source of all.«[clii]

A number of recent formal and informal exegeses have attempted to grapple with the problem from any number of directions. Many of the positions expressed appear to be motivated by ideological points of view and have been critiqued as such. Paul Klee—an individual known for his lack of critical ideology—spent most of his career as a teacher seeking a balance between polarities, perhaps as much in response to the highly pressurized political context as in response to the problems inherent in the production of art and architecture.[cliii] In his collected notebooks entitled The Thinking *Eye* and *Nature Studies,* Klee visually and verbally asserts the promise inherent in the conflation of modern art and science.[cliv] His well-known plea for modern art and architecture—that it requires 'exactitude....winged by intuition'—pays homage to his life-long attempts to adjoin (acknowledge simultaneously) what were perceived as divergent realms of inquiry. Though he regarded himself as a romanticist with the mission of transcending 'vulgar romanticism', a review of Klee's copious notebooks reveals a high regard for empirical science, in particular its methodologies; even the title of Volume One, The Thinking Eye, is an attempt to conflate subjective perception and sensibility with the habits of mind. Though Klee was far from a mystic, his notion of the eye went beyond merely invoking a particular sense perception; the eye was a mirror to the soul, essentially an intuitive faculty providing the ability to approach the object-world in a contemplative, introspective manner. Consistent with key aspects of romanticist ideology, Klee's belief that the eye and the mind could join together synchronically does possess a quasi-religious component, one which is clearly in keeping with his early work as an Expressionist artist, not to mention his uncommon sensitivity.[clv] Artists such as Klee attempted to repeal the fragmentary and violent universe which informed their historical context by seeking evidence of a unified and balanced world-view. His persistent faith in the possibility of exactitude winged by intuition—of scientific, cognitive rigor informed by a higher, more esoteric 'order of things'—suggests a belief in an underlying unified consciousness born of the dynamic tension between contrasting world-views he felt informed all humanity. To Klee, it was"...thus the statics and dynamics of the mechanism of creative art coincide beautifully with the contrast between Classicism and Romanticism."[clvi]

Much has been made of Klee's pedagogical methods; he is recognized as one of the greatest arts educators of the twentieth-century, if not the entire modern age. Arts education programs deriving from the Bauhaus program, including architecture, the program's apex consistently stressed aspects of Klee's pedagogy. Numerous of his students have assumed and developed his educational methods, including the modern-postmodern iconoclast Joseph Beuys, an artist whose career spanned the middle and much of the latter half of the twentieth century. Beuys' work continues Klee's interpretation of the 'Goethean' trajectory, seeking balance and harmony according to the possibilities inherent in the relationships between art, science, and life.[clvii]

Underlying Klee's teaching, however, is not only the prospect of balance and unification through the reconciliation of opposites, but a concern for rigor—exactitude—in the production of the art object as well. In his book entitled *The Modern Project to Rigor,* Patrick Madrigan demonstrates that, with the rise of science as not only the central indicator, but the principle arbitrator of the modern world view, the pursuit of rigor "...is not merely the ambitious project of philosophy (as command science) which comes up for question in the modern; it is the project of knowledge as such or at all."[clviii] In architecture, the use of the term rigor is used to indicate a thought process manifest of a logical exactitude which will lead a strict precision in (of) outcome. Hence, the pursuit of rigor requires a clear and ordered thinking process capable of being reproduced explicitly, either verbally or visually—or, as we may acknowledge in the case of the jury process, our chief pedagogical tool—both. In order for rigor to be present, verbal claims must be aligned with visual production and vice versa: the artifacts must support the initial concept or idea.

Embedded in the tendency to invoke rigor in architecture is the belief in the presence of an epistemological foundation: an order of things. In other words, the concern for logical exactitude –-the always-present project of 'reason' in the West—bespeaks an ultimate faith in architecture as (the pursuit of) knowledge.

Yet as might be ascertained in supposing an efficacious and necessary connection between words and things, or between language and objects, reason as the primary goal can only be used to describe phenomenal ('objective') experience. The *noumenal*or intuitive--regarded by Kant as the 'other' of our (experience)—is deemed illogical, 'unobjective,' or even irrational, unable to be rigorosly explored, much less codified in a logical manner. Kant's resort to the elusive *noumena*in his attempts to explain the unexplainable is clearly untenable in a scientific universe where all phenomena, if indeed it does exists, is recognizable and describable. In her book *Cognition and Eros: A Critique of the Kantian Paradigm,* Robin Schott explicates Kant's attempts to ground a system of pure knowledge. According to Schott, Kant, in his most well-known philosophical work the Critique of Pure Reason, posits the thesis that knowledge is only knowledge if it is "...pure, free of all sensible or empirical content; (this is)...the necessary condition for the possibility of knowledge at all."[clix]

Kant's emphasis on the purity of knowledge and of reason occurs with alarming frequency and raises the question of what is implied by his insistence on purity. From what must reason be purified? What pollution in the sensible, empirical world threatens the project of establishing a foundation for philosophical truth?[clx]

This is not to say that Kant invokes the primacy of the subject or subjectivism—as many, includingnumerous individuals associated with romanticism have believed, which in a somewhat estranged way is Wittgenstein's final (seventh) proposition (one might call it an 'admonition') in the *TractatusLogico-Philosophicus:*, e.g. "1." And "7.": *Die Welt istalles, was der Fall ist.* ("The world is everything, that happens to be the case.")   *and (in conclusion):7. Wovon man nichtsprechenkann, darüber muss man schweigen.* ("Whereof one cannot speak, thereof one must be silent.")

However, according to Schott, Kant's 'necessary' association of purity and truth leads one to an acknowledgement that these conditions—and their affiliation—are endemic, indeed paramount to modern discussions of knowledge. Kant's insistence on the purity of knowledge is echoed by Madrigan's characterization of the modern *épistéme* as the pursuit of rigor. In the arena of architectural education, we seek the conflation of words and things, narrowing what may be regarded as the 'critical window of opportunity' with what appears to be an increasing militancy. The diminishing distance between the subject of our endeavors and the object produced is that which produces the measure for critical inquiry and perceived validation.[clxi]

---

[2]. Colin Rowe, *Mathematics of the Ideal Villa,* MIT Press (Cambridge, Massachusetts).

[3]. Perhaps the most significant, if not 'systematic' attempt to undo the pre-eminence of doctrinaire reason in the arts and architectural education is found in the early Bauhaus. As a watershed event, the Bauhaus was the site of numerous attempts to revise the course of deep-seated pedagogical directives in the arts.

[iii]. Karl Jaspers suggests the characterization of Jacob Boehme and Friedrich Schelling as `gnostic dreamers'. See Karl Jaspers, *The Great Philosophers, Volume III,* ed. Michael Ermarth and Leonard H. Ehrlich, trans. Edith Ehrlich and Leonard Ehrlich, Harcourt Brace and Company (New York: 1993), p. 113-168

[iv]. The most prominent of these texts is Sigfried Giedion's *Space, Time and Architecture* — a history of architecture which has had a deep and lasting impact on the architectural imagination in the middle and late-twentieth century. Current explorations regarding the relationship between the sciences, history and architecture (chaos theory, etc.) stem in large part from Giedion's formula. See Sigfried Giedion, *Space, Time and Architecture* (Cambridge, Massachusetts: MIT Press, 1967).

ᵛ. Michel Foucault, *The Order of Things* (New York: Vintage Books, 1973), p. xv-xxiv, particularly p. xxii-xxiii.

ᵛⁱ. Ludwig Wittgenstein, *Philosophical Investigations,* Third edition, trans. G.E.M. Anscombe (New York: MacMillan, 1953), pp. 8e (19). 11e (23), 88e (241). The discussion of 'forms of life' represents a difficult and much-debated aspect of Wittgenstein's late philosophy. Two passages, 19 and 24, are significant here. In these passages, Wittgenstein describes language — and meaning in language or 'language games' — as dependent on the activity to (in) which it is engaged. The first of these passages, 19, is — somewhat ironically in this context — a discourse on the process of building. The second passage, 24, describes a more fundamental definition, linking developments in language to developments in mathematics. »[...]But how many kinds of sentences are there? Say assertion, question, and command? — There are countless kinds: doubtless different kinds of use of what we call >symbols,< >words,< >sentences.< And this multiplicity is not something fixed, given once for all; but new types of language, new language-games, as we may say, come into existence, and others become obsolete and get forgotten. (We can get a rough picture of this from the changes in mathematics.)[...]Here the term "language-game" is meant to bring into prominence the fact that the speaking of language is part of an activity, or a form of life[...]«

ᵛⁱⁱ. Aristotle, "Parts of Animals", *Nicomachean Ethics* (excerpts), *Physics* (excerpts) in Philosophies of Art and Beauty, eds. Albert Hofstadter and Richard Kuhns (Chicago: University of Chicago Press, 1976) (in the following NE; P) p. 83-87

ᵛⁱⁱⁱ. There are actually three phases of German romanticism, all of which show to greater and lesser degrees certain defining characteristics.

ⁱˣ. Hans Kohn, *The Mind of Germany: The Education of a Nation* (New York: Charles Scribner's Sons 1960). (in the following MGEN) p. 49-68. It should be noted however that romanticism was not only a German phenomena. In France, Victor Hugo and Stendhal are considered romantics, in England the works of Byron, Carlyle Wordsworth and Shelley all fall under the heading of romanticism. In literature, romanticism is characterized as representing a diverse set of concerns, including imagination, individual genius and romantic irony. Recent scholarship has stressed the nationalist qualities of various forms of romanticism (Russian, English, Czech, German, French), while also dividing romanticism into two (and in some cases three) distinct periods: early, middle and late.

ˣ. Jacques Barzun, *Classic, Romantic, and Modern* (Chicago: University of Chicago Press, 1961) (in the following CRM)

ˣⁱ. Barzun, CRM, pp. 36-37.

ˣⁱⁱ. Both Itten and Steiner were versed in esoteric traditions. In accordance with the tenets of German mysticism, both conceived of intuition as a (or the) >higher< form of reason.

ˣⁱⁱⁱ. Throughout his life, Goethe struggled with his early identification with German romanticism, *The Sorrows of Young Werther* was largely credited with having initiated a rise in >emotional< and >sentimental< excess characteristic of what might be regarded as the more decadent affects of the romantic tradition. Goethe eventually went so far as to ally himself intellectually and politically with what he perceived to be the balance exhibited by French arts and letters. It should also be noted that both Johannes Itten and Rudolf Steiner considered themselves to be followers and representatives of Goethe legacy, that is the embrace of empirical science and aesthetic subjectivism.

ˣⁱᵛ. Reyner Banham, *Theory and Design in the First Machine Age,* Second edition. (Cambridge, Massachusetts: MIT Press 1986) (in the following TDFMA) p.151. See also Wasily Kandinsky, *Concerning the Spiritual in Art,* trans. M.T.H. Sadler (New York: Dover Publications 1977) (in the following CSA)

ˣᵛ. The idea that architecture constitutes a 'body of knowledge' extends primarily from development of the Beaux-Arts tradition. See Anthony Vidler, *The Writing of the Walls* (Princeton, New Jersey: Princeton Architectural Press, 1985). Also see Reyner Banham, TDFMA, p. 14-43

ˣᵛⁱ. Two other pedagogical programs initiated in the nineteenth-century deserve mention. They are the École Polytechnique and the Schools of Arts and Crafts. While the École Polytechnique was entrusted with the education of architects and engineers skilled in large-scale engineering and urban development projects, the Schools of Arts and Crafts, with their emphasis on industrial and product design, were founded to aid in the development of consumer-based economies. All three programs — art and design, technical, and arts and crafts — exist in various forms today.

ˣᵛⁱⁱ. In terms of educational ideologies, one need only review the diverse strategies of the *Vorkurs,* or first-year (preliminary) course. Numerous >masters< oversaw the development of the *Vorkurs;* students were expected to go through the filter of the first-year master before proceeding on to the upper-level teachers and course specializations. The first-year masters (later >professors,< a capitulation to normative educational traditions) included Johannes Itten, Moholy-Nagy and Josef Albers among others. One could say, however, that the first-year course consistently subscribed to the 'Goethean' arts educational tradition, with its emphasis on the conflation of science and art. In terms of 'locations', the Bauhaus program was initially founded in Weimar prior to moving to Dessau in 1924-25. Its final location was in Berlin (1922-23) under the direction of Mies van der Rohe.

ˣᵛⁱⁱⁱ. The Bauhaus method stressed an approach that consistently used dialectical methods of thinking. The setting up of binary oppositions was the norm. In every case, however, the goal was to achieve, in Hegelian fashion, a synthesis. See Hans Wingler, *The Bauhaus* (Cambridge, Massachusetts: MIT Press, 1984) (in the following TB).

ˣⁱˣ. During the late-eighteenth and early-nineteenth centuries, the impulse of German romanticism was most strongly felt in the area surrounding Weimar, Leipzig, and Jena. While Goethe was considered to be the father of German romanticism, numerous

other individuals usurped his position in the ideological zeal. See Hans Kohn, TMGEN. Also see Erich Kahler, *The Germans* (Princeton, New Jersey: Princeton University Press,)

xx. Prior to and during the Bauhaus period, the political climate in Germany was extraordinarily confused. The Bauhaus effectively mirrored many of the tensions present in the political climate — contributing greatly to the difficulty of ferreting out the various political programs to which it subscribed. Walter Gropius, the Bauhaus first director, as well as his successor Hannes Meyer tried to steer the program and its students through exceedingly turbulent straits; yet neither was able to satisfied the political requisites for an extended period. The program finally succumbed to defeat in 1933 — largely for political reasons — under the Berlin directorship of Mies van der Rohe (who also tended towards conciliation). See Hans Wingler, TB, in particular Klee's and Oskar Schlemmer's notes and correspondence.

xxi. According to Herbert Read in his introduction to Paul Klee's small book entitled *On Modern Art* (London: Faber and Faber Limited, 1984) (in the following OMA) "[...]To explain art — that, for Klee, meant an exercise in self-analysis. He therefore tells us what happens inside the mind of the artist in the act of composition — for what purposes he uses his materials, for what particular effects gives to them particular definitions or orders of reality. He distinguishes clearly between the different degrees or orders of reality and defends the right of the artist to create his own order of reality. But this transcendental world, he is careful to point out can only be created if the artist obeys certain rules, implicit in the natural order. The artist must penetrate to the sources of the life-force — 'the power house of all time and space[...]."

xxii. The idea that the mind could be informed by the 'in-sight' of inner eye is reminiscent of German mysticism. In the late-nineteenth and early-twentieth century, Rosicrucianism, an 'occult mysticism' dealt specifically with the relationship between the inner eye, the soul and the mind. Many of the German Expressionist artists were influenced by the teachings of Rosicrucianism. More recently, Joseph Beuys, following the teachings of Rudolf Steiner, revived interest in the various teachings of occult mysticism. See Temkin and Rose, *Drawing is Form.*, p.( ); (in the following DF). For an outline of the teachings of German mysticism and occult (esoteric) mysticism, see Evelyn Underhill, *Mysticism* (New York: E.P. Dutton, 1961). Also see A.P. Shepherd, *Rudolf Steiner: Scientist of the Invisible* (Rochester, Vermont: Inner Traditions International, 1954)

xxiii. Klee, OMA, p. 43

xxiv. As was remarked above, Beuys subscribed to the teachings of Rudolf Steiner. Steiner's development of anthroposophy was based in large part on Goethe's writings. Yet Beuys also pays specific homage to Paul Klee, particularly in his early drawing works. For an outline of Beuys' early development in his "Life Course/Life Work," in particular his affiliation with the German romanticism of Schiller and Novalis, see Temkin and Rose, TD., p. 11-26. See also Theodora Vischer, *Joseph Beuys: Die Einheit des Werkes* (Köln: Verlag der Buchhandlung Walther König, 1991), in particular pp148-151

xxv. Patrick Madrigan, *The Modern Project to Rigour*

xxvi. Robin May Schott, *Cognition and Eros: A Critique of the Kantian Paradigm* (Beacon Press: 1988) (in the following CE: CKP)

xxvii. Schott, CE: CKP., p. 3

xxviii. With Descartes' skeptical philosophy, meaning is no longer deemed inherent in the 'object-world' of autonomous entities motivated by unseen, divine forces, but is formulated according to a complex interaction between the perceiving subject and the object the subject beholds. The measure between them (the subject and object) is the critical difference. This interplay between the cogito (the perceiving subject) and the subject's object does not require the mediating text of received knowledge prevalent in medieval hegemonic discourse, but is vested in the activity of skeptical doubt (critical inquiry). The individual's capacity to reason — and to demonstrate the fundamental tenets of a clear, rigorous thinking process takes center stage. I have written about this extensively in a previous paper entitled "Pedagogy: Science and the Introduction of Ordained and Critical Means in Architectural Education and Practice," Association of Collegiate Schools of Architecture East Central Regional Conference, University of Kentucky-Lexington, Fall 1988 (published in proceedings of ACSA National Conference, Chicago, Illinois, Spring 1989).

xxix.Michel Serres, *Hermes: Literature, Science, Philosophy,* ed. Josue V. Harari and David F. Bell, (Baltimore: Johns Hopkins Press 1982) (in the following HERMES).

xxx. Serres, HERMES., p. xiii

xxxi. Mark Taylor, *Altarity* (Chicago: University of Chicago Press, 1987), p. xxiii

xxxii. Serres, HERMES, p. xi

xxxiii. C.P. Snow, *Two Cultures and A Second Look* (Cambridge University Press: Cambridge, England 1964)

xxxiv. The most popular example of this tendency is Hitchcock and Johnson's 1936 exhibit and catalogue entitled "The International Style." Though Hitchcock and Johnson's promotion of an 'international style' achieved a great deal of resonance, the project of assuming a single style and method for architecture was not unique during the period. The various fascist governments had also experimented and executed similar plans; indeed architecture was seen as the principle means for the dissemination of a universal culture, whether that culture be economic, in the case of the United States, or political, as was the case in Germany, Italy and Russia during the 1920's and 30's. The tendency towards totalization (*Ganzheitlichkeit*) has also been the point of critique regarding architectural education, whereby both the Beaux-Arts and Bauhaus 'traditions' have sought to become universal credos of sorts.

xxxv. According to Mark Taylor in his book entitled *Altarity,* the word 'alterity' means "the state of being other or different; diversity, otherness." In French 'altérité' is the contrary of identité and specifies otherness or that which is the other. For a full explanation of the term, including its affiliation with Derrida's différance, see Mark Taylor, ALT, p. xxvii-xxix..

xxxvi. Serres, HERMES, p. xiii

xxxvii. As rendered in the *Pensées,* Pascal's struggle with the nature of the human condition began — as might be expected of a scientist — from a fundamental regard for reason, in that "[...]it is thought and thought alone that constitutes man's greatness, and it is thus the right and duty of reason to examine the facts of man's condition.' Lacking the capacity to 'communicate truths outside its province', however, reason needed to be supplemented and perhaps overcome. For Pascal, "[...]only when the drill has penetrated to a sufficient depth does the crust of reason and habit become thin enough for the flow of divine grace to at last break through." See Blaise Pascal, *Penseés,* trans. A.J. Krailsheimer (London: Penguin Books, 1973), p.23.

xxxviii. This is essentially Foucault's project in his seminal work *The Order of Things* (though his undertaking is decidedly more vast, e.g. the entire history of Western intellectual thought since the dawn of the Renaissance). See Foucault, OT, p. i-xxiv (introduction).

xxxix. Umberto Eco, *Art and Beauty in the Middle Ages,* trans. Hugh Bredin (New Haven, Connecticut: Yale University Press, 1986), p. The medieval view of *visio* is also consistent with the development of Christian mysticism (in the following ABMA). The privileging of 'sight' as the faculty most closely allied with the logic of the *logos* (reason) in Western thought is treated at length by Stephen Tyler in his book *The Unspeakable,* specifically the chapter entitled "The Vision Quest in the West, or What the Mind's Eye Sees" (Madison, Wisconsin: University of Wisconsin Press, 1987), pp. 149-170.

xl. Eco, ABMA, p. 73

xli. Plato, *Phaedo* in *Plato: The Collected Dialogues,* trans. Hugh Tredennick, eds. Edith Hamilton and Huntington Cairns, Princeton University Press - Bollingen Series (Princeton, New Jersey: 1982), 65d-67a. Also see 79, 83b (in the following PHD)

xlii. In Kant, the appeal to the *Ding-an-Sich* or thing-in-itself, in similar fashion to Plato's attempt to approach each object with the unaided intellect, is an appeal to the noumenon. See Geddes MacGregor, *Dictionary of Religion and Philosophy,* Paragon House (New York: 1989), p. 442

xliii. Plato, PHD, 67a

xliv. Schott, CE: CKP, p. 4

xlv. Schott, CE: CKP, p. 15

xlvi. Richard Tarnas, *The Passion of the Western Mind* (New York: Ballantine Books, 1991) (in the following PWM) p. 61

xlvii. Tarnas, PWM, p. 139

xlviii. Tarnas, PWM, p.138

xlix. Schott, CE: CKP, p. 59

l. Suzanne Langer, Philosophy in a New Key (Harvard University Press: Cambridge, Massachusetts 1957) (in the following PNK).

li. Stephen A. Tyler, "Mněme — Critique of Cognitive Studies (specifically PDP or Parallel Distributing Processes)," Rice University, unpublished manuscript, p. 2. Binary dualism is characterized by a thought process based on the logic of reason or 'the logic of the *logos*'. The phrase 'logic of the *logos*', along with `binary dualism' is also used to describe the dialectical structure of Western philosophy, a structure that tends towards `a common universal space' dominated by a tendency to prescribe the necessity of formulating polarizations ('this' versus 'that', here versus there[...]). See also Bertrand Russell, *History of Western Philosophy.*

lii. Susanne Langer, PNK, p.

liii. This is a probable reference to Ludwig Wittgenstein's *Tractatus-Logico Philosophicus.* The proposition that words have fixed meanings (with words being the smallest unit of meaning) is modified in Wittgenstein's later philosophy (elucidated in Philosophical Investigations), where the sentence (as a context begetting use) is the smallest unit of meaning (in the following T-LP).

liv. Langer, PNK, p. 80

lv. Subscription to theories of typology and symbolic space in architecture harkens back to Plato's theory of archetypal forms as the primary elements in the construction of the universe. These archetypal forms are apprehended cognitively: they exist in only in the rarified, unadulterated space of pure mind. The most elaborate transcription of the archetypal forms in found in Plato's *Timaeus.*

lvi. Though from a different vantage point, a similar critique of the pre-eminence of discursivity (criticism) and architecture is found in Manfredo Tafuri's introduction to the recently published *The Sphere and the Labyrinth: Avant-Gardes and Architecture from Piranes*i to the 1970s, trans. Pellgrino d'Acierno and Robert Connolly (MIT Press: Cambridge, Massachusetts 1987): "It is no accident that we have reduced to words the density of historically stratified disciplines. Every time, in fact, that the critic's zeal causes his guilty conscience to erupt, constructing linear routes that force architecture to mitigate into language, language into institutions, and institutions into the all-encompassing universality of history, one feels the need to ask how such a totally illegitimate simplification could gain currency." (p,2)

lvii. Langer, PNK, p. 79

lviii. Langer, PNK, p. 86

lix. Langer, PNK, p. 86. Also see Ludwig Wittgenstein, T-LP, p.151. It should be noted that Langer depends quite heavily on her readings of both the early and late Wittgenstein in formulating her theses. In his recent book on the subject, Andrew Weeks entertains the complex genesis and genealogy of German/Judeo-Christian mysticism, concluding with a chapter on Wittgenstein's *Tractatus Logico-Philosophicus*. See Andrew Weeks, *German Mysticism from Hildegard von Bingen to Ludwig Wittgenstein* (Albany, New York: State University of New York Press, 1993).

lx. Langer, PNK, p. 92

lxi. Langer, PNK, p. 88

lxii. Marc-Antoine Laugier, *Essai sur l'architecture,* trans. Wolfgang and Anni Herrmann (Hennessey and Ingalls: Los Angeles 1977) p. 1. It should also be noted that Laugier saw the primitive hut as an extension of constructional geometries — despite its being disposed of in nature. For nature too could be rationalized in accordance with typological sources (in the following EA).

lxiii. According to Bertrand Russell, Henri Bergson conflates instinct and intuition — a departure from the traditional (classical) reading of intuition as either an extension of or embedded within the confines of reason. See Bertrand Russell, *A History of Western Philosophy* (New York: Simon and Schuster, 1965), p. 791-810

lxiv. Plato, *Phaedo,* (in the following PH) 66d-e

lxv. Elizabeth Gilmore Holt, *From the Classicists to the Impressionists* (Volume III of A Documentary History of Art) (New Haven, Connecticut: Yale University Press, 1986) (in the following CI), p.14-21.

lxvi. Alexander Koyré, *From the Closed World to the Infinite Universe*

lxvii. Florian Cajori, *Sir Isaac Newton's Mathematical Principles of Natural Philosophy and His System of the World,* trans. Leon J. Richardson, University of California Press (Berkeley: 1946), pp. xiii-xv. (from the version given in the first edition of Sir Isaac Newton's *Principia*)

lxviii. Manfredo Tafuri, *Theories and History of Architecture,* trans. Giorgio Verrecchia (New York, Harper and Rowe, 1980), p.31.

lxix. Peter Eisenman, "The End of the Classical: The End of the Beginning, the End of the End," in *Perspecta 21* (Yale School of Architecture Journal), eds. Carol Burns and Robert Taylor, MIT Press (Cambridge, Massachusetts: 1985) (in the following PERS).

lxx. For Peter Eisenman, the modern ethos is liberally represented by advances in contemporary science, literature and the arts. He is particularly enamored with the authors James Joyce and Samuel Beckett, as well as modern painting. Architecture, on the other hand, is slow to develop, being caught in the web of traditional — rather classical — modes of thought and representation.

lxxi. See Elizabeth Gilmore Holt, CI , p.

lxxii. Vitruvius, *Ten Books on Architecture,* trans. Morris Hicky Morgan, (New York: Dover Publications 1960) in the following TBA), p. 5-7

lxxiii. Vitruvius, TBA, p. 10

lxxiv. Counter arguments to this position abound, however. Andres Duany argues that schools of architecture, in order to save architecture as a legitimate and unique field of inquiry, must in fact secede from the universities. According to Duany, ateliers recalling the Bauhaus model for architectural `education'(which itself recalled the late-medieval/early-Renaissance model) should be instituted and removed from the `corrupting' atmosphere of the modern university. The university's requirements, with its emphasis on liberal education, are thought to be at odds with the discipline and practices of architecture. Others prefer programs which emphasize the art and craft of architectural education, to the exclusion of verbal skills. Still others prefer to support the requirements of the profession, with its emphasis on practical skills and business practices.

lxxv. Laugier, EA., p. 1

lxxvi. Geddes MacGregor, *Dictionary of Religion and Philosophy* (Paragon House: New York 1989)

lxxvii. Plato, *Timeaus,* trans. Benjamin Jowett, in *Plato: The Collected Dialogues,* eds. Edith Hamilton and Huntington Cairns (Princeton University Press - Bollingen Series LXXI: Princeton, New Jersey: 1961) (in the following TI) p. 1152-1211

lxxviii. David Farrell Krell, "Foreign Bodies: A Note on Maurice Merleau-Ponty and Georges Bataille," University of Essex, unpublished manuscript, p. 2

lxxix. The question of mimesis (imitation, representation), ideality and reality, particularly as it concerns the philosophy of aesthetics, is initially considered in Plato's Republic. For an explanation of this principle as well as the related passages from the Republic, see Richard Hofstadter and Albert Kuhns, *Philosophy of Art and Beauty,*

lxxx. Plato, TI, 28a-b

lxxxi. Serres, HERMES, xiii

lxxxii. Langer, PHK, pp. 79-92

lxxxiii. Plato, TI, 29a-c

lxxxiv. Plato, PH, 67a

lxxxv. Plato, TI, 34c, 35a-b

lxxxvi. Plato, TI, 34c, 35a-b

lxxxvii. Plato, TI, 36e, 37a-b

lxxxviii. Plato, TI, 48e, 49a-b

lxxxix. David Farrell Krell, Of *Memory, Reminiscence and Writing: On the Verge* (Bloomington, Indiana: Indiana University Press 1990) in the following RWOV) p. 195 (original notes from manuscript, 1988)

xc. Krell, RWOV, p. 190

xci. Jacques Derrida, *Disseminations* (University of Chicago Press: Chicago 1981); cited in Krell, RWOV., p. 196

xcii. Plato, TI, 49d-e, 50c-d

xciii. According to Christian theology, the Virgin Mary is the mediatrix who fulfills the intentions of the Old Testament by activating (motivating) — providing a receptacle — for the New Testament. She, as the mother of Christ, receives the Word and >in a manner of generation< completes the logic of the *logos*, enabling reason (and history) to 'take place'. See Marina Warner, *Alone of All Her Sex: The Myth and the Cult of the Virgin Mary* (New York: Vintage Books, 1983), pp. 50-67.

xciv. Luke 23:45, "[...]and the veil of the temple was rent in the midst." See also JCJ Metford, Dictionary of Christian Lore and Legend (London: Thames and Hudson 1983), p. 90 and p. 252

xcv. Serres, HERMES, p. 46-47

xcvi. Serres, HERMES, p. 47

xcvii. Serres, HERMES, p.

xcviii. Plato, TI, 51b-c

xcix. Plato, TI, 52a-c

c. Jacques Derrida, "*Chora*: Introduction to a work in progress (fragment)," trans. from original French by Elizabeth Yates Burns (Gamard) and J. Benjamin Gianni, unpublished manuscript, 1985

ci. Mark Taylor, "Refusing," Williams College, Williamstown, Massachusetts (unpublished lecture transcript), p. 15

cii. Julia Kristeva, "Revolution in Poetic Language," (excerpts) in *The Kristeva Reader,* edit. Toril Moi (Columbia University Press: New York 1986) (in the following KR) p. 94.

ciii. Derrida, "*Chora*: Introduction to a work in progress (a fragment)," p. 1. Aporotata is akin to 'aporia' and is suggestive of the space of doubt.

civ. Kristeva, KR, p. 94

cv. Jeffrey Kipnis,   "Over *Chora*l Works. The law of the ana-. On *Chora*l Works," in Peter Eisenman: Recent Projects, ed. Arie Graafland (SUN: Nijmegen, Finland 1989). (The) *chora* acts like a mediatrix (separatrix), incsing and regulating (managing). While the mediatrix is not (the) *chora*, according to Kipnis "[...] she/it would look a lot like her if *chora* were some thing (or some one)." See also Taylor, ALT, p. 15.

cvi. Derrida, "*Chora*[...].", pp. 2-6

cvii. Derrida, "*Chora*[...].", p. 6

cviii. Plato, TI, 52d-e

cix. Eisenman, PERS, p.

cx. Barzun, CRM., pp. 36-37

cxi. Plato, TI, 52b-c

cxii. Bertrand Russell, *A History of Western Philosophy* (Simon and Schuster: New York, 1945), p. 705 (Kant); p. 791 (Bergson). Russell's commentary on the history of Western philosophy is notable for its highly personal and clearly biased point of view. None the less, it does provide a viable overview of philosophy's development in light of contemporary social and political contexts (in the following HWP).

cxiii. Tarnas, PWM, p. 341

cxiv. Tarnas, PWM, p. 341

cxv. Schott, CE: CKP, p. 95-100. Throughout the course of her book *Cognition and Eros: A Critique of the Kantian Paradigm,* Schott exposes the ascetic underpinnings of Western philosophy. Her particular take on the matter convincingly delineates the whys and how of the exclusion of women (and the 'baggage' women carry: body, emotion, sensibility, etc.) over the course of the development of Western philosophy. In some ways, Schott's argument is akin to Madrigan's in his book   See p.

cxvi. Tarnas, PWM, p. 343

cxvii. Russell, HWP, p. 713

cxviii. "In whatever manner and by whatever means a mode of knowledge may related to objects, intuition is that through which it is in immediate relation to them[...]But intuition takes place only in so far as the object is given to us." Critique of Pure Reason A19/B33, quoted in Schott, CE: CKP, p. 102

cxix. Plato, TI, 49 a-b

cxx. In its context, the use of the term Anschauung for 'pure intuition' is interesting; the root word, *schau* means sight or view. Hence Anschauung not only predisposing intuition to sight (perhaps by means of an 'inner eye'), but also sets up a hierarchy of the senses which essentially preserves the status of sight as pre-eminent in Western philosophy. See Stephen Tyler, *The Unspeakable,*

cxxi. Russell, HWP, p. 716+ See also W.H. Walsh, *Kant's Cricitism of Metaphysics* (Chicago: University of Chicago Press, 1976), pp. 17-54.

cxxii. Harry Francis Malgrave and Eleftherios Ikonomou, *Empathy, Form, and Space: Problems in German Aesthetics 1873-1893* (Santa Monica, California: The Getty Center Publication Programs, 1994) (in the following EFS) p. 5.

cxxiii. Russell, HWP, p. 795

cxxiv. Friedrich Nietzsche, "On the Advantages and Disadvantages of History for Life"

cxxv. Kristeva, RPL, p. 97

cxxvi, In his Manresa project, Beuys separates the universe into ascendant ('Element 1') and descendant ('Element 2') realms. Temkin and Rose, DF, p. 55. Also see Meinnekes, DF, inclusive. This is a rough corollary to Bergson's view of matter (intellect, mind) and intuition (life), whereby matter is descendant and intuition (the 'nobler faculty') is ascendant. Both states are in perpetual tension with one another. For an efficient explanation of Bergson's philosophical project, see Bertrand Russell, Ibid., pp. 793-795.

cxxvii. Temkin and Rose, DF., p. 31.

cxxviii. Temkin and Rose, DF., p. 32

cxxix. The suggestion of a relationship between *chora* and sound (song) is also found in Peter Eisenman's and Jacques Derrida's collaborative effort entitled *Chora*l Work. As has been shown, *chora* cannot be form (it cannot 'look like')[...].See fn.

cxxx. It is well known that Beuys subscribed to Rudolf Steiner's anthroposophy, in which "[...]the human being (is) a being that has a thoroughly earthly character and yet cannot be described without a transcendental dimension." See Temkin and Rose, DF, p. 30.

cxxxi. Temkin and Rose, Ibid., pp. 95-96

cxxxii. The final chapter of James Joyce's Ulysses is usually referred to as "Molly's Monologue." The diagram for the book is thought to mirror Vico's 'ages of man'. According to Vico, there are four stages in the ages of man: birth, adolescence, adulthood and decline, followed by *ricorso,* or rebirth. The ricorso occurs after death and is thought to be reminiscent of a return to chaotic flux, such as that which is recorded in Hesiod's pre-Socratic Theogony and the Biblical tales of Genesis. See Temkin and Rose, DF, p. 95

cxxxiii. Beuys use of honey and fat in his artistic productions signals a similar concern for flux. Fat in particular acts in similar fashion to wax, receiving impression while remaining in an uncertain and unstable state, yet having no structure or definable 'qualities' in-itself. "Both substances (honey and fat)[...]served as metaphors for creative energy that does not harden into intellectual habit, but remains in a state of openness and flux. Temkin and Rose, DF, p. 54

cxxxiv. Temkin and Rose, DF, p. 95-96

cxxxv . Stephen Kern, CTS, p. 149

cxxxvi. Temkin and Rose, DF, p. 108

cxxxvii. I am referring here to Eisenman's collaborative project with Jacques Derrida entitled *Chora*l Works.

cxxxviii. Harry Francis Mallgrave and Eleftherios Ikonomou, EFS, p..

cxxxix. Mallgrave and Ikonomou, EFS, p.17

cxl. Mallgrave and Ikonomou, EFS, p.18

cxli. Mallgrave and Ikonomou, EFS, p. 22-26. For an outline of German mysticism, see Andrew Weeks, Ibid.. For specific insight into Jacob Böhme's peculiar form of nature mysticism, see Karl Jaspers, *The Great Philosophers - Volume III* (New York: Harcourt Brace)

cxlii. Mallgrave and Ikonomou, EFS, pp. 32-33. Semper's thesis has served to bolster numerous current theoretical preoccupations, many of them an extension of neo-Marxist theory. Despite Mallgrave and Ikonomou's criticism's regarding the appropriation of Semper, his affiliation with the arts and crafts movement, as well as his interest in Cuvier support the positivist-materialist designation.

cxliii. The functional reading of Gothic architecture was the subject of a great deal of interest in the nineteenth century. Eugene-Emanuel Viollet-le-Duc's *Lectures on Architecture* are ample evidence of this. However, the emotive and mystical spiritualism embedded in the nineteenth-century fascination with Gothic architecture (architecture as a 'matter of faith') has been given short shrift due to the rise of science and the intellectual embrace of the >death< (or at the least withdrawal) of God. The discursive aspects of Gothic architecture, while manifest of the logic of the *logos*, also introduce a more literary, and hence creative — and private — aspect, to meaning in architecture — a meaning that is lost as theories of architecture are more thoroughly impacted by the rise of science as the chief arbiter of >truth.<

cxliv. Mallgrave and Ikonomou, EFS, p. 58-59.

cxlv. Mallgrave and Ikonomou, EFS, p. 61

cxlvi. Mallgrave and Ikonomou, EFS, p. 61

cxlvii. Mallgrave and Ikonomou, EFS, p. 65-66

cxlviii. Klee, *The Thinking Eye,* p. 59

cxlix. Sibyl Moholy-Nagy in her introduction to Paul Klee's *Pedagogical Sketchbook*, p. 8.

cl. Klee, On Modern Art (in the following OMA), p. 45

cli. Klee, OMA, p. 49

clii. Klee, OMA, p. 51

cliii. Prior to and during the Bauhaus period, the political climate in Germany was extraordinarily confused. The Bauhaus effectively mirrored many of the tensions present in the political climate—contributing greatly to the difficulty of ferreting out the various political programs to which it subscribed. Walter Gropius, the Bauhaus first director, as well as his successor Hannes Meyer tried to steer the program and its students through exceedingly turbulent straits; yet neither was able to satisfy the political requisites for an extended period. The program finally succumbed to defeat in 1933 -- largely for political reasons -- under the Berlin directorship of Mies van der Rohe (who also tended towards conciliation). See Hans Wingler, The Bauhaus (Cambridge, Massachusetts: MIT Press, , in particular Klee's and Oskar Schlemmer's notes and correspondence.

cliv. According to Herbert Read in his introduction to Paul Klee's small book entitled *On Modern Art* (London: Faber and Faber Limited, 1984), "...To explain art -- that, for Klee, meant an exercise in self-analysis. He therefore tells us what happens inside the mind of the artist in the act of composition -- for what purposes he uses his materials, for what particular effects gives to them particular definitions or orders of reality. He distinguishes clearly between the different degrees or orders of reality and defends the right of the artist to create his own order of reality. But this transcendental world, he is careful to point out, can only be created if the artist obeys certain rules, implicit in the natural order. The artist must penetrate to the sources of the life-force -- 'the power house of all time and space....''

clv. The idea that the mind could be informed by the 'in-sight' of inner eye is reminiscent of German mysticism. In the late-nineteenth and early-twentieth century, Rosicrucianism, an 'occult mysticism' dealt specifically with the relationship between the inner eye, the soul and the mind. Many of the German Expressionist artists were influenced by the teachings of Rosicrucianism. More recently, Joseph Beuys, following the teachings of Rudolf Steiner, revived interest in the various teachings of occult mysticism. See Temkin and Rose, Ibid. For an outline of the teachings of German mysticism and occult (esoteric) mysticism, see Evelyn Underhill, Mysticism (New York: E.P. Dutton, 1961). Also see A.P. Shepherd, Rudolf Steiner: Scientist of the Invisible (Rochester, Vermont: Inner Traditions International, 1954)

clvi. Klee, On Modern Art, p. 43

clvii. As was remarked above, Beuys subscribed to the teachings of Rudolf Steiner. Steiner's development of anthroposophy was based in large part on Goethe's writings. Yet Beuys also pays specific homage to Paul Klee, particularly in his early drawing works. For an outline of Beuys' early development in his "Life Course/Life Work," in particular his affiliation with the German romanticism of Schiller and Novalis, see Temkin and Rose, Ibid., pp. 11-26. See also Theodora Vischer, Joseph Beuys: *Die Einheit des Werkes* (Köln: Verlag der Buchhandlung Walther König, 1991), in particular pp.148-151

clviii. Patrick Madrigan, The Modern Project to Rigour

clix. Robin May Schott, *Cognition and Eros: A Critique of the Kantian Paradigm* (Beacon Press: 1988)

clx. Schott, Ibid., p. 3

clxi. With Descartes' skeptical philosophy, meaning is no longer deemed inherent in the 'object-world' of autonomous entities motivated by unseen, divine forces, but is formulated according to a complex interaction between the perceiving subject and the object the subject beholds. The measure between them (the subject and object) is the critical difference. This interplay between the cogito (the perceiving subject) and the subject's object does not require the mediating text of received knowledge prevalent in medieval hegemonic discourse, but is vested inthe activity of skeptical doubt (critical inquiry). The indiividual's capacity to reason -- and to demonstrate the fundamental tenets of a clear, rigorous thinking proess takes center stage. I have written about this extensively in a previous paper entitled "Pedagogy: Science and the Introduction of Ordained and Critical Means in Architectural Education and Practice," Association of Collegiate Schools of Architecture East Central Regional Conference, University of Kentucky-Lexington, Fall 1988 (published in proceedings of ACSA National Conference, Chicago, Illinois, Spring 1989).