

Technology and Play¹: The International Style in Yunnan, China

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"'Playing' must be understood here in all its polysemy: the text itself plays (like a door with 'play') and the reader plays twice over, playing the Text as one plays a game, looking for a practice which re-produces it, but, in order that that practice not be reduced to a passive, inner mimesis (the Text is precisely that which resists such a reduction), also playing the Text in the musical sense of the term."²

TECHNOLOGY

Techne is the art or skill, especially the principles or methods, employed in making something or attaining an objective. Logos, from the Greek, means word, reason, speech, account. Reason, or the manifestation of reason conceived in ancient Greek philosophy, constitutes the controlling principle of the universe. Technology, from the Greek technologia, is a systematic treatment. Or, more precisely, technology is the controlling principle of reason applied to the art or skill of making. Technology is not a neutral field, a compendium of construction methods and materials. It proposes, etymologically, to control making through reason.

In this paper, I will contrast an architectural resultant of technology (defined as controlling logic), with an architectural possibility of technology (based in a logic of making). As a case study, I will focus on the International Style as promoted by the 1932 Museum of Modern Art Show and its international application in Yunnan, China.

THE TECHNOLOGICAL IMPERATIVE OF THE INTERNATIONAL STYLE

In *The International Style*, first published in 1932, Henry Russell Hitchcock and Phillip Johnson suggested that the Style was founded in technical innovation. They aligned their position with the Gothic period. "The style of the twelfth and thirteenth century was the last before our own day to be created on the basis of a new type of construction...(Functionalism) derives its sanctions from both Greek and Gothic architecture, for in the temple as well as in the cathedral the aesthetic expression is based on structure and function. In all the original styles of the past the aesthetic is related to, even dependent on, the technical."³ Their phraseology ascribes authority to, parentage (origination) in, the technological. Hitchcock and Johnson's strategy, apparent in their word choices, is fully implicated in the problematics of modernism.



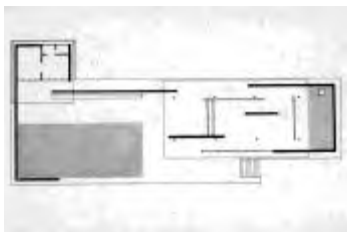
international style, a style "which exists throughout the world, is unified and inclusive, not fragmentary and contradictory like so much of the production of the first generation of modern architects"⁴ they ignored the difficult making of these buildings, their techne. I suggest that emphasizing the image of technology apparent in form, at the expense of the technology of making (which includes local craftspeople, available materials, economic considerations, cultural expectations) is responsible for the play (slippage) between the technologically authorized International Style as it was prescribed and the International Style as it has been built in the Yunnan province of China.



A word about my methodology: The observations I will make about Yunnan could, to some extent, be applied to the other "Third World" countries I have visited (Bolivia, Mexico, Peru). China seemed to me especially fertile as a case study because it is, as Michel Serres points out, a cultural system profoundly reliant on logic. My analysis proceeds from information gathered intuitively. That is, I traveled to Yunnan on vacation and photographed and noted things that fascinated me. From my notations came my thesis, not the reverse.⁵ As I formed a thesis I came upon Michel Serres' essay "China Loam" which I see as corroboration, and from which I have quoted extensively.

THE INTERNATIONAL STYLE

Most architects are well acquainted with the International Style. But it is necessary to look specifically at the text put forth by Hitchcock and Johnson to understand the nature and potential of the slippages which occurred between the proposed techne-logos (the making of a controlling logic) and the inevitable techne-logos (a logic of making). I hope to show that some of the difficulties of the International Style lie within the formulation of the MOMA catalogue and its prescriptive application.⁶



The International Style, as set forth by Hitchcock and Johnson, lays out three simple rules: The first rule, architecture as volume defined by surface, is an acknowledgment of the free plan, in which a "skeleton" of beams and columns provide support and walls, rarely supporting, are used for enclosure. Thus in plan, points equal support, lines equal separation and enclosure. In China, Serres found a similar minimalism: "Without exception the entire flow of numerals uses two markers: a point and a line, the simple difference of zero and one. On the level of signals, it is good Chinese agriculture, everything closes in suddenly with very little gesture, in strict economy."⁷ Mass is de-emphasized as the exterior skin becomes the definer of volume, and the surface itself "shall be unbroken in effect, like a skin tightly stretched over the supporting skeleton."⁸ Windows, to support this taut-skinned look, are to be at the outer edge of the wall, with thin mullions

When Hitchcock and Johnson proposed an



STEVEN BRONSTEIN: HOUSES FOR THE MODERN MAN, CHICAGO, 1945
The long bands of windows are made possible by steel construction. The most interesting part of the total program of the apartment block is regularity, consistency, orderliness. The repetition of the window line, or the other hand, gives an interesting variety to the general scheme of regularity.



STEVEN BRONSTEIN: HOUSES FOR THE MODERN MAN, CHICAGO, 1945, 1946
The horizontal line is the dominant motif in the total design of the large blocks in the apartment house. The proportions are rather heavy but the general effect is that of the clean and the restrained, with an implied sense of order.



which cannot be visually mistaken for supports. The surface itself should not look massive. Stone, metal or plywood panels, with no visible joints, are preferred to stucco or brick, which tend to look massive.

The second principle concerns regularity. Visible regularity, consistency, orderliness of structure and similarity of parts are to be a symbol of underlying technics. Symmetry is unnecessary, for aesthetic order is to be achieved through standardization. Economy favors such standardization. "Fortunately, economic considerations offer the advantage of regularity over irregularity in the arrangement of the parts and in detail quite as much as in the general structure."⁹ Massing is to be handled either by preserving the unity of a single volume or, in assemblages, by emphasizing an organic relation of parts. Always, however, the emphasis is horizontal, "its logic is inescapable. Storeyed construction naturally produces horizontality....The verticality of the skyscraper is meaningless and anarchical."¹⁰

The third rule counsels the avoidance of applied decoration. Ornament, stripped of historic semantics, becomes detail. "Absence of ornament serves....to differentiate superficially the current style from the styles of the past and from the various manners of the last century and a half."¹¹ Specific details are suggested--metal sash windows with thin profiles held flush at the exterior, parapets to continue the wall surface without the break of cornice line. Lettering acts as detail only if it is distinct (preferably clear, unserrifed) and set away from the smooth, continuous wall. Trees and vines may become decorative so long as they are used architecturally, that is, not irregularly as in imitation of nature. Color should be limited to restrained, natural tones. "Bright color ceased to startle and began to bore; its mechanical sharpness and freshness became rapidly tawdry."¹²

UNDECIDABILITY

"....the text itself plays (like a door with 'play')...."

The word pharmakon, says theorist Jacques Derrida, is undecidable: it means both "poison" and "heal". Likewise, the word supplement means both "complete" and "replace, the word cleave means both "cling" and "sever". In these cases, forces outside the word compose and decompose it: meaning depends on context. Despite our attempt to control logic through language, Derrida shows us meaning escapes its boundaries, even within single words. Though sometimes adjustments between words cause imprecision, in these cases the inversion is inherent: the same word means both itself and its opposite. By letting logos, controlling reason, stand in for logoi, the word, I scan for inversions.

The controlling reason of technology prescribed by Hitchcock and Johnson might operate like the word pharmakon, becoming undecidable as forces outside the architectural object (its context) compose and decompose it. Here, then are two readings of two sets of dialectics, the first a critique of production, the second, a comparison of master narratives. These inversions in the meaning of technology will allow me to find the door's play.

THE TECHNOLOGICAL OBJECT IS POORLY MADE. THE POORLY MADE OBJECT IS NOT TECHNO-LOGICAL: THE CONTEXT OF PRODUCTION.



A cursory survey of International Style buildings in Yunnan demonstrates that they do not meet the standards set forth by Hitchcock and Johnson. As they wrote, the purpose of this construction is explicitly elitist: "The current style sets a high but not impossible standard for decoration: better none at all unless it be good. The principle is aristocratic rather than puritanical. It aims as much at making monstrosities impossible....as at assuring masterpieces."¹³

In Yunnan we see buildings which superficially match the International Style, but with important discrepancies. The concrete skeleton is the norm for new construction, infilled with brick. The concrete allows slightly taller buildings to be built (up to ten stories or so), though the structural design is, by western standards, inadequate. For example, concrete is improperly placed--sometimes poured into the formwork bucket by bucket-- and aggregate often hits bottom long before the mix. Rebar typically lacks the ribs by which it bonds with the concrete. Its placement is haphazard. Because the brick infill occurs between, and in the same plane as the columns, there is no visible distinction between structure and enclosure.



Building in the International Style challenges the limits of available methods of transportation and construction. Trucks are rare--only select people are issued driving licenses--and gasoline is expensive, so bringing factory built items to the construction site is difficult. Much hauling of materials, including precast concrete beams, is done by horse and wagon. Having even one piece of machinery on a construction site is unusual. The network of subcontracting specialties, particularly plumbing and electric, is underdeveloped by western standards.



These buildings require a degree of coordination unusual in a system mired in sluggish bureaucracies. Further their cast-in-place concrete structural systems, generally computer designed in the west, are built by a culture whose primary mode of computing is the abacus.

But think again. To meet the expectations of the International Style, the architects and builders of Yunnan are faced with the



task of producing buildings which must look as if they are made with complex machinery when they are, in fact, made by hand. Steel, glass, and metal are the prescribed skin and bones of the creature, but they are unavailable. Processed metals are far too valuable for use in common construction. Cast-in-place concrete and brick serve as substitutes and the inevitable product is mass, not volume. Surfaces are irregular and imperfect, due both to lack of smooth substrate and a general lack of specialized training. (Workers get reassigned periodically and do not necessarily develop expertise.)



In spite of the proclamation that "The development of simple forms of standardized detail suitable to mechanical production is thus an aesthetic as well as an economic desideratum,"¹⁴ a local factory to make custom metal sash is out of the question. Factories struggle to produce even minimal goods for export and for the local population. Thus window profiles are not customized, further degrading the image of the taut skin. And in Yunnan, highway systems are so primitive and overused that transportation of factory produced sash or other customized buildings parts from one region to another would be impossible.



In short, the image dictated by the International Style demands perfection local craftspeople are unable to attain, and denies them the pleasures of construction skills they have known historically. Once built, these buildings are difficult to care for, difficult to clean. The elevators, once broken, stay broken for years. Carpets are mopped daily with water because vacuum cleaners are scarce, which leads to endemic wrinkles in many floor surfaces. The result of this misfit is buildings which seem thirty years old three years after they are finished.



WUYIYU COMPANY'S WUYIYU THREE, WUYIYU, YUNNAN, 1988. CONTEMPORARY CHINESE APARTMENTS
 Many historical Chinese houses contained courtyards of all sizes and/or courtyards of
 (2) left hand from building, usually smaller and flatter on the other side. (For the history
 of architecture) 1988

And so, the undecidable architectural object: Clearly, the buildings of Yunnan do not meet Hitchcock and Johnson's standards. Is this lack of perfection due to unrealistically high expectations, the idealization of western representation? Yes. Is its lack of perfection due to a lack of technological expertise? Yes. But what of naming a style "international"

if it cannot be made internationally? Do the authors confuse "European" with "international"? What meaning do we find when we study the architectural objects in question? Depending on context, both arguments are valid; neither argument is conclusive.



COMMUNISM AND CAPITALISM: COMPETING MASTER NARRATIVES.

Serres: "Everything originates there. You will not escape this legal confinement. No evasion from this wholeness, no disorderly movements are possible in this exact economy. We too are condemned to be ruled by economics, the law of the world,



greediness, productivity, exhaustion. Economists will make us become exact beasts."¹⁵

An interesting paradox occurs within these architectural objects. They serve as emblems for both a communist and a capitalist economic system. How is this possible? As I was leaving Kunming, the capital of the Yunnan province, I met an American mining executive. We discussed the difference between the two countries and he made this observation: The United States has a capital driven economy; China has a people driven economy. In his mining company, he prefers to use expensive tools, rather than people, because he is not concerned with keeping people employed. In China, however, employment is more important than expeditious production. The Chinese don't care if work goes slower, or is less thorough. They care that all people have jobs. Their economy is based on keeping people working.



Again, the undecidable object: For capitalists, economy is important. Hitchcock and Johnson: "Structure today is usually highly regular for economic reasons which either did not apply to masonry structure or were given less emphasis in the architecture of the past....Fortunately, economic considerations offer the advantage of regularity over irregularity in the arrangement of the parts and in detail quite as much as the general structure."¹⁶ One of the principles of capitalism is economy of scale, which means that the more one makes of a single part, the cheaper each part becomes, because the costs of tooling up a factory go down per unit after a certain point. So, standardized parts make the architectural object cheaper, therefore more consumable. The fact that a factory which gears up to make precast concrete beams might make more beams cheaper than less beams, laying off some workers in the process, is of marginal concern to capitalists. Inherent in this argument is the institution of a factory system; site building has different economic (and architectural) imperatives. The International Style, because it theorizes repetition, is ready made for ever cheaper construction. It is thus an excellent capitalist emblem.



Now, a communist reading. Communism was intended (very broadly, and among other things) to erase class distinctions. The International Style as manifest in Yunnan¹⁷ provides an image of buildings which does not carry the traditional meanings of the bourgeois society, either in Europe or China. In China, during the revolution, traditional murals were defaced, and family compounds were both vandalized and confiscated for workers housing. The International Style is another way to erase four thousand years of Chinese history. Thus, by fixing the image of new buildings, the Chinese are able to repress their own traditional building types, thus their pre-revolutionary history. In recent times, these buildings have come to be seen as progressive, which the Chinese, now tentatively competing in the world market, find appealing.



Looking through the same architectural objects at two competing political systems, communism and capitalism, we can collapse their difference and see them as two sides of the same coin. This coin might be termed modernity, characterized by an over-arching rationality. As Craig Owens suggests, "(W)e glimpse the terms of another analysis of modernity's demise, one that speaks not of the incompatibility of the various modern narratives, but instead of their fundamental solidarity. For what made the grand recits of modernity master narratives if not the fact that they were all narratives of mastery, of man seeking his telos in the conquest of nature? What function did these narratives play other than to legitimize Western man's self-appointed mission of transforming the entire planet in his own image? And what form did this mission take if not that of man's placing his stamp on everything that exists--that is, the transformation of the world into a representation, with man as its subject?"¹⁸

TECHNOLOGY REVISITED

"...playing the Text as one plays a game, looking for a practice which re-produces it..."

Having played the International Style once as a door with "play", finding the slippage in the logos, now again as one "plays a game, looking for a practice which reproduces", the technology of the International Style begins to reveal its motivations. Within the 1932 MOMA catalogue lie mechanisms of control which account for the international failure of the International Style. I will describe two of these motivating mechanisms. The first is the will to mastery through image and representation. The second is the will to ownership, through authorship, authorization, and lineage.

THE WILL TO MASTERY THROUGH REPRESENTATION AND IMAGE.

"Heidegger's definition of the modern age--as the age of representation for the purpose of mastery--coincides with Theodor Adorno and Max Horkheimer's treatment of modernity in their Dialectic of Enlightenment (written in exile in 1944, but without real impact until its republication in 1969). 'What men want to learn from nature,' Adorno and Horkheimer write, 'is how to use it in order wholly to dominate it and other men.' And the primary means of realizing this desire is (what Heidegger, at least, would recognize as) representation--the suppression of the 'multitudinous affinities between existents' in favor of 'the single relation between the subject who bestows meaning and the meaningless object.'"¹⁹ The catalogue of the exhibition is conceived as a collection of images. Alfred H. Barr, director of the Museum of Modern Art at the time of the seminal show noted in his preface, "in this book the text itself is intended as an introduction to the illustrations."²⁰ And Hitchcock and Johnson

concur: "Architecture is always a set of actual monuments, not a vague corpus of theory."²¹ Hitchcock and Johnson rely on the images they present to prescribe future buildings. The images they choose illustrate certain points, and the text emphasizes aspects of the images. Both intend to demonstrate what these buildings should look like, not how they are made, who makes them, or who inhabits them. They present the look of a machine-made building, not the logic of its making.²²

The technology presented is univocal in this respect: It all looks relatively similar. The exemplary buildings are photographed in their entirety (the few interiors excluded) as bounded objects. They lack significant context. They are unpopulated. Hitchcock and Johnson assign meaning to an almost scientific collection of images. This, I propose, is the "single relation between the subject who bestows meaning and the meaningless object." This singular relation is uni-directional, a visual image. Irigary says, "More than the other senses, the eye objectifies and masters. It sets at a distance, maintains the distance."²³ Owen, continuing the argument asks, "What can be said about the visual arts in a patriarchal order that privileges vision over the other senses? Can we not expect them to be a domain of masculine privilege--as their histories indeed prove them to be--a means, perhaps, of mastering through representation the "threat" posed by the female?"²⁴

In the visual, the difficulties of building slip away beneath the gaze of the master. Through formal, visual analysis, these images are owned. The authors of the catalogue and the curators of the exhibit are masters, their dominion well established.

THE WILL TO OWNERSHIP: AUTHORSHIP, AUTHORITY, LINEAGE.

Serres: "Here in China, the swerve does not exist. There are no boundaries, no shallow boggy patches, no stunted shrubs left neglected. There are no losses, no surplus. There is no exception to uncultivated areas. Everywhere culture is under the control of reason, exploitation and law."²⁵²⁶

Hitchcock and Johnson propose that the International Style derives sanctions from Greek and Gothic architecture, and that "original styles (are) dependent on the technical." The International Style is thus authorized in two ways, through history (lineage) and through the technological as originary.

It is interesting to note, as does Frederick Engels, that until the classical period in Greece, lineage was carried through the mother. Monogamy was uncommon and the father therefore unknown. Engels writes, "The first class antagonisms which appear in history coincide with the development of the

antagonisms between man and woman in monogamous marriage, and the first class oppression with that of the female sex by the male. Monogamy was a great historical advance, but at the same time it inaugurated, along with slavery and private wealth, that epoch, lasting until today, in which every advance is likewise a relative regression, in which the well-being and development of the one group is attained by the misery and repression of the other."²⁷

According to Hitchcock and Johnson, a lineage of technological mastery, carried through the historic Greek and Gothic periods, authorizes the existence of the International Style. But to do so the buildings of these periods are the subject of a monogamous exchange in which multitudinous affinities are suppressed in favor of a single relation. The attempt to ascribe one fixed meaning to an architectural object, to thus own the object in monogamous exchange is impossible.

The unauthorized is, in a sense, that written without author. Hitchcock and Johnson, as Western art historians, both identify the authors of specific architectural works, and, through their own writing, become, to a much larger audience, authors of the International Style in their own right. As Roland Barthes points out, "The author is reputed the father and owner of his work: literary science therefore teaches respect for the manuscript and the author's declared intentions, while society asserts the legality of the relation of author to work (the 'droit d'auteur' or 'copyright,' in fact of recent date since it was only really legalized at the time of the French Revolution.) As for the Text, it reads without the inscription of the Father."²⁸

Heidegger, in "Logos (Heraclitus, Fragment B50)"²⁹ moves toward a translation of Logos as "the name for the Being of beings" and "One Unifying All" which seems to share the hegemonous rationality of Hitchcock and Johnson's International Style which "exists throughout the world, is unified and inclusive, not fragmentary and contradictory..."³⁰. However, at the end of the essay, Heidegger says, "To think is surely a peculiar affair. The word of thinkers has no authority. The word of thinkers knows no authors, in the sense of writers. The word of thinking is not picturesque; it is without charm. The word of thinking rests in the sobering quality of what it says."³¹ There is a fluidity to spoken, as opposed to written, thought which resists capture, ownership, mastery. This un-author-ized thought is transmitted orally, or culturally, or "through the air". Its physical variability is explicated through the intersection of thought with changing conditions including possibilities of making, confounding site conditions, economic limitations and vagaries--all components at play within technology.

VARIABLE TECHNOLOGIES

“...also playing the Text in the musical sense of the term....”

After finding the play in these motivating mechanisms of logic, interpretive emphases and counter logics appear. Serres: “See the doors: oval, round, complicated like locks, skew-arched or jigsawed, geometry is eliminated to make room for topology. The bricklayer dismissed hardness and stiffness to enter softness, mellowness, viscosity, variability; doors, forms, and boundaries vary like clouds. The architect left out perspective, projective geometry, viewpoints, theatrical apparatus, to get inside the variable objects, directly and uninterruptedly.”³²



Signs and color provide variability. Whereas Hitchcock and Johnson prescribed lettering set off surfaces so as not to mar the purity of the plane, and suggested colors be limited so as not to appear tawdry, in Yunnan both are riotously divergent. Posters are plastered on walls and doors--big, little, multisheet, chalk pasted, painted, printed. Often they contain only Chinese characters (i.e. writing) but these half abstract, half pictographic marks serve equally as content and as form. Placed individually, they are changed often.

Likewise, coloration is a creative act. Wall panels, windows signage, and merchandise are painted a strangely cohesive mix of saturated colors. Especially in Kunming, perpetually dusted with coal soot, color provides cheap, necessary relief to a bleak visual uniformity.

Serres: “Proceed through the entrance wall, enter the garden and walk into a man-made paradise. What do you discover behind that wall, enclosed in midtown, in the circle of closed walls beyond the arched bridge over tranquil waters? A garden as everywhere else, laid out among rocks....what is behind the walls will not leave any imprint on earth, a gap in the universe, a cleft through which a soft helix flies away?....The garden not tilled, planted or sown does not belong to husbandry, it is its reverse, its complement, it bursts from the land straight up to the sky, it belongs to culture.”³³

In Kunming, window gardens take on new meaning. Often suspended above the first story on strange fanciful ledges, they are dense floating landscapes. Each is a unique architectural structure, made with more or less care, time materials. Each employs the tectonics of the cantilever--a horizontal extension hovering in mid-air. Truly a complement to husbandry they are packed with exotic ornamental plants, fundamentally unnecessary yet pervasive. They do, indeed, escape straight up to the sky.





Serres: "The valley of the kings- tombs hovers in mid-air, outside the universe like a simulated plateau clinging to an immense circus of indented mountains, you gain access to it only through an avenue of colossal statues, an elevated funnel. Any space not assigned to vegetation marks the trail of the sky."³⁴

Outside of Kunming lies an 8th century Taoist temple carved, in a series of twenty or so tunnels and caves, out of solid rock. The temple, including integrally carved statuary, is dug into the face of a cliff rising vertically straight up from the vast Lake Dianchi below. Though many temples were damaged or destroyed during the revolution, this one was not, perhaps because it was made by the act of removal.

Serres: "See the roofs. If their incline was straight the right angle retained, your eyes would look down to the ground, that must be avoided: the line would be pointing a finger at the loam. However, at home, safety brings us back to the ground, to reality, as they say. Not here. The edge of the roof is turned upwards in a rounded curve, a runway; taking off from it, you would go in the sky in ecstasy, flying, hovering in the air."³⁵

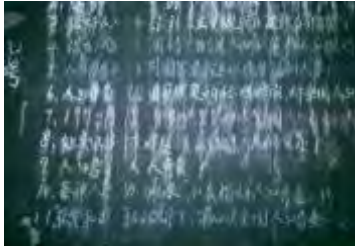


Traditional construction is evident by this characteristic: Roofs turn upward, pointing toward what Hitchcock and Johnson call "the anarchy of the vertical." Rafters, brackets, eaves are articulated far beyond functional necessity (an articulation which requires repetitive technologies of manufacture, standardization tempered by program and site). Once caught, one's eyes wander through a web of carved, painted, cantilevered trusses, brackets, and rafter tails, till an edge emerges, pointing skyward.



Serres: "When clouds are rolling and metamorphosing, when they change shapes at any moment, do you think about viewpoints?...One does not fly twice in the midst of the same sky. One pays eternity with instability and reasoning with varying objects."³⁶





¹ The undervaluation of play and pleasure relative to work, and of product relative to production (labor) are important aspects of this study which must remain backgrounded for the present. Marxism and Protestantism are among the culpable narratives which would require interrogation. In the formulation of this paper I am indebted to the distinction between logos and eros drawn by Professor Alberto Perez-Gomez in a lecture given at the University of Florida in the fall of 1990 and to the ideas of play and of pleasure described in the writings of Roland Barthes.

² Roland Barthes, "From Work to Text," Image Music Text, trans. Stephen Heath, (New York: Noonday Press, 1977), p. 162.

³ *Ibid.*, pp. 22 and 35.

⁴ *Ibid.*, p. 19.

⁵ My study does not presume scientific objectivity. This lapse from the logic of science should certainly be questioned, but so should the notion of deductive reasoning itself. While that question underlies this study, pursuing it further is outside of the allotted time parameters.

⁶ It is, I believe, particularly useful to review this catalogue with reference to the more recent Museum of Modern Art Show, entitled "Deconstructivist Architecture" and its accompanying catalogue. This was the second show curated by Philip Johnson in more than fifty years, and the implied importance of this connection has been noted by Peter Eisenman among others.

⁷ Michel Serres, "China Loam," in Detachment, (Athens: Ohio University Press, 1989), p. 13.

⁸ Henry Russell Hitchcock and Philip Johnson, The International Style, (New York: W.W. Norton & Company, 1966), p.45.

⁹ Hitchcock and Johnson, p. 61.

¹⁰ Hitchcock and Johnson, p. 66-67.

¹¹ Hitchcock and Johnson, p. 69.

¹² Hitchcock and Johnson, p. 76.

¹³ Hitchcock and Johnson, p. 75.

¹⁴ Hitchcock and Johnson, p. 71.

¹⁵ Serres, p. 12.

¹⁶ Hitchcock and Johnson, p. 60-61.

¹⁷ International Style architecture is a relatively recent phenomenon in China, as are western automobiles. Before buildings were built to Russian aesthetic standards, an academic neo-classicism.

¹⁸ Craig Owens, "Feminists and Postmodernism," in The Anti-Aesthetic, Hal Foster, ed., (Port Townsend, Washington: Bay Press, 1983), p. 66.

¹⁹ Owens, p. 80. Owens goes on to say "What seems even more significant, in the context of this essay, is that Adorno and Horkheimer repeatedly identify this operation as 'patriarchal.'"

²⁰ Hitchcock and Johnson, p. 15.

²¹ Hitchcock and Johnson, p. 21.

²² The stylistic reference to a machine aesthetic in the work of Le Corbusier and others is well documented.

²³ Owens, p. 70.

²⁴ Owens, p. 71.

²⁵ Serres, p. 4-9.

²⁶ Law, as it pertains to responsibility (authorship) and architecture, particularly in reference to the beginnings of law in Greece (see Truth and Torture) and to property rights merits serious architectural investigation.

²⁷ Freiderich Engels, "The Origin of the Family, Private Property and the State," in Marxism and Art, Maynard Solomon, ed., (Detroit: Wayne State University Press, 1979), p. 240-242.

²⁸ Barthes, p. 160-61.

²⁹ An alternative to Heidegger's study of early Greek thinking might be an investigation of the pre-classic period. For example, Socrates' teacher Diotima, who was herself rumored to be an initiate into the oral tradition of the Elusian Mysteries, might bear on the current subject, appropriate transmission of knowledge.

³⁰ Hitchcock and Johnson, p. 19.

³¹ Heidegger, "Logos (Heraclitus Fragment B50)" in Early Greek Thinking, translated by David Krell and Frank A. Capuzzi (New York: Harper & Row, Publishers, 1975), p. 78.

³² Serres, p. 18.

³³ Serres, p. 17.

³⁴ Serres, p. 15.

³⁵ Serres, p. 14.

³⁶ Serres, p. 18.