“Architecture is an art because, as art, it too, makes metaphors”

11,171 words on 22 pages

Actual Sections and Issues (7,462 words)

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(Abstract, key words, bio and institutional affiliations 411 words)

Abstract:

Eighty two issues and claims, where each claim has been derived from a corresponding issue, built the case for the resolution of the argument about the controversy that architecture is an art resolved that architecture was the making of metaphors because it (architecture) made metaphors, personified by metaphor *stasis'* two *technical and conceptual* dimensions. Both are valid separately and even more usual in combination. But how do these two work, and, how does this knowledge benefit design, use and evaluation of built works? The claims and issues were derived by examining Andrew Ortony's *Metaphor and Thought* and works by Paul Weiss, William J. Gordon and the Yale lecture series on the same subject. While many arguments can be tailored to a specific audience others can be generic and shared. When they are shared the issues and claims supporting the resolution would be broad in range, maximized and amplified. Amplified by number and range to hedge against the heterogeneity of the audience. However what was valid for Ortony will be valid for this effort, and a complete, comprehensive and coordinated approach will further understanding.

Keywords:

metaphor, architecture, thought, commonality, commonplace, dubbing, cognitive, knowing, stasis, art, linguistic analogy, equilibrium, equipoise, topoi, top-down, frame conflict, appreciate, conduit, parte, design system, modified culture, mapping, structure, domain, signs, apparatus, spaces, volumes, shapes, forms, metaphorical mappings, invariance principle, alive, dead, onomatopeics, surrogates, appetite, desire, mind, indirect use, direct use, vision, gestalt, formulae, grand design, psychological, processes, metaphor comprehension, memory, mnemonics, encoding, mapping, categorizing,

inference, assimilation, accommodation, attribution, inferential import, structured programming, stability, referential specificity, general acceptance of terms, vividness thesis, difference, identity, comparison sensible, communications.

Biographical note: (88 words)

Columbia University coursework in behavioral psychology under Ralph Hefferline and others in voice Linguistics, Bachelor's of Fine Arts from Pratt Institute and Master of Architecture from Yale University where I was mentored in metaphors and metaphysics by Dr. Paul Weiss. For research I founded the New York City not-for–profit corporation called Laboratories for Metaphoric Environments.

In addition to authoring over fifteen published monographs by learned journals I have spent 20 years in Saudi Arabia and have written a book containing pen and ink drawings on perceptions of 72 European cities.

Institutional affiliation: Global University ;American Institute of Architects; Florida Licensed Architect; Programming Chairperson for the Gulf Coast Writers Association; National Council of Architectural Registration Boards; Al-Umran association, American Society of Interior Designers; and founding president of Architects International Group/ Mid East.

Introduction

Method:

There are two parts to this proposal; one: what is the problem? And the second is what the solution? I am generally against *claiming* anything in terms of *problems* since the term *problem* implies choice whereas most of my own work is derivations and reasoned creations resulting, not from *problem solving*, but making metaphors by aggregating systems, materials and information.

To reason this monograph, picture a square with the resolution in the upper right hand corner and controversy in the upper left. Now picture all the issues below the *controversy* and the claims under the *resolution.* Now picture the *inferences* as the connector between the *issues* and the *claims* with certain of the inferences having *warrants* attached.

Where there is one declarative statement as the main ultimate claim called the *Resolution*-Answer. The ideal interrogative question is the "starting-point" expressing the *controversy* out of which comes an *issue* out of which comes claims. *Issues* sustain the *resolution* and are implied questions inherent in the *controversy* and vital to the *resolution*.

The Problem:

The major question at the heart of the *controversy* is architecture an art? And, if so, why? And the *resolution stasis* answer is because it is the making of metaphors. This implies that both art and architecture have a commonality in that they both make metaphors. The problem can be stated in the wider context of all man-created services and products, and includes the aesthetic, social, cultural and psychological relations we have with our man-made environment. This is complex argument, where a major question which begets, has (issues) many minor questions. As I've said these *issues* are questions inherent in a *controversy* and vital to the success of the resolution.

These *issues* are also implicit in the resolution and were located in different ways:

- Located by examining the text of the *resolution*("architecture is the making of metaphors")
- Located by examining the underlying context ("art")
- Derived from a pattern of claims and responses ("architecture is an art because of its value, technique, icons, identity, and authenticity".

The *resolution* could have been either a stasis in conjecture is whether the act occurred or a stasis in quality concerned with whether the act concerns conjecture and definition. However architecture as the making of metaphor is stasis in definition concerned what the act should be called and implicitly concedes conjecture and is supported by the claims resulting from each of the issues.

This conjecture is each and inference from the issue to the claim. This is why the argument is complex and must be taken as whole as reasoned below. Since the resolution/Stasis: *Architecture is art because it too makes metaphors* states the answer to why is architecture an art? Without the reasoned issues/claims becoming the definition of why architecture is an art educators, practitioners, clients, and users cannot with a high degree of certainty equate, judge, and negotiate works of architecture. They are concerned about the fiduciary role between owners and contactors, educators, practitioners, clients, and users who could dilute the certainty and value of the architect's contract documents with the ambiguity and uncertainty of art. Indeed, this current line of reasoning is inductive and has a degree of uncertainty as opposed to the deductive and presumably certain, much of law, statutes, licensing, specifications, and contract documents presume certainty. Actually in the administration, arbitration and trial of the construction contract they too have their share of uncertainty.

This reasoning should solve the problem and on balance improve the standards of the field as promulgated by arts and architectural societies, licensing board and regulating authorities. As metaphors, topoi and conventions can affect practice at the very least by sharpening already existing practice of making metaphors where contemporary metaphors are things of value, technical, iconic, identifiable and antithetic.

Manufacturers of such basics as steel, bricks and windows as well as master builders are less concerned with generic labels for themselves and their work, class or academic identifications. It is the referees of culture that face the commonalities and differences of our society to reckon our social *mores* and *folklores.* This reckoning is what produces the curriculums for schools, colleges, and universities as well as research, development and government licensing and regulating agencies.

As architects are schooled, apprenticed, tested and licensed the field is faced each year with continuing education, new technologies and contemporary social ideals. The best of our culture produces authentic and original prototypes, leaving cloning and emulation to others. It is why art is a significant contributor to society. Because art and architecture is such a huge subject encompassing many different facets of our culture, science and technologies it is worthwhile to have an objective resolution and supporting issues to value works. Richard Meier says that architecture is the greatest of all the arts. A wider definition often includes the design of the total built environment, from the macro level of how a building integrates with its surrounding context like town planning, urban design, and landscape architecture to the micro level of architectural or construction details and, sometimes, furniture and hardware. Wider still, architecture is the activity of designing any kind of system. Even though our culture considers architecture to be a visual experience, the other senses play a role in how we experience both natural and built environments. Attitudes towards the senses depend on culture. The design process and the sensory experience of a space are distinctly separate views, each with its own language and assumptions.

Architectural works are often perceived as cultural and political symbols and, sometimes, as Work of art. Historical civilizations are often known primarily through their architectural achievements. There is no lack of questions, investigations and reasoning about architecture likening it to building supervision to the master minding of the great pyramids and contemporary iconic supersaturates.

Likening architecture to one of the other sciences, arts, philosophies, etc is trying to see it through one or the other prisms, perspectives to reconcile it into our cultural vocabulary. Depending on the architecture being viewed architecture many sometimes seem very scientific as science fiction, or artistic when viewing the architecture of Rome or the renaissance. The proposition that architecture is the making of metaphors is quest for a generic one size-fits-all theorem to stasis the question with the topoi of architecture for all times, building types and systems. It should even work when the term is not applied to making buildings or landscape but also computers, programs, communications systems and military strategy.

The Answer:

Architecture is an art, because like art, it too, makes metaphors which are a stasis because “architecture as the making of metaphors” enables the center of the dispute to be argued with common purpose. So this is a stasis in definition which concedes conjecture. While there may be other concepts justifying the relationship between art and architecture the *metaphor* is the stasis, common ground and apparent commonality. It not only is apparent but with wide and broad applications to a variety of arts and architectural definitions, practices and contexts. There may have been a time when the architect was the “master builder” and the lead craftsman but for most that is only true by his skill in drawing, design and specifying and not his skill as a master carpenter.

The metaphor *stasis* is metaphor’s two *technical and conceptual* dimensions. Both are valid separately and even more acceptable in combination. But how do they two operate and how does knowing this benefit design, use and evaluation of built works? The *technical* is that all art, including architecture, expresses one thing in terms of another by its inherent and distinct craft. On the one hand there is the architect who acts as the *master builder* (head carpenter); and on the other the fountain of conceptual *metaphors* which expresses ideas as built conceptual metaphors other wise known as works of architecture. *Techne* is actually a system of practical knowledge as *a* craft or art informed by knowledge of forms. For example, the craft of managing a firm of architects where even virtue is a kind of *technê* of *management* and *design practice*, one that is based on an *understanding of the profession*, *business* and *market. In this case the* technai *are* such activities as *drafting, specifying, managing, negotiating, programming, planning, supervising, and inspection*. By association with these *technai*, we can include *house-building, mathematics, plumbing, making money, writing, and painting.* So much so that the study and practice of design is devoid from the humanities and downplays theories of architecture; developing rather the *crafts, skill and understandings needed to engineer, plan, sketch, draw, delineate, specify, write, and design.* Contemporary architecture is replete with axioms, principles and theorems guiding the geometry, applications of science, use of engineering, and formal logic to produce technical metaphors and justly excluding a whole conversation about the conceptual part of the built metaphor.

Therefore out of both the resolution and the controversy consider the below issues: We derive issues for the controversy between art and architecture and the resolution that they both make metaphors which is both their commonality, stasis, topoi and resolution to all claims. Depending on the medium, application and utility art manifests itself through the metaphor in varying degrees and levels. The referents, commonality not connectivity may not always be apparent as in so-called “abstract art” and ‘brutalism architecture”. These issues are the questions *inherent* in the controversy and *vital* to the resolution that architecture is the making of metaphors. Inherent because the declarative nether defines how art makes neither metaphors nor the apparently unrelated manifestations of architecture. On face value art and its casual referents do not compare to architecture and architecture does not always link to art. So the declaration is inherently controversial thus yielding the overflow of its internal commonalities and

differences. These issues are vital to the inductive reasoning of the resolution. Most of these issues are parallel but there are some that are convergent. The issues are coupled with their corresponding parallel claim supporting the resolution, parallel because they are neither a series nor convergent claims as they are each independent and not progressive nor interrelated to each other. Presumably, most of these issues grew out of controversy but not all issues were contested, therefore some are uncontested leaving a few controversial issues, they will be apparent in the below process.

Issues:

There are 82 *issues* which have been combined together with their resulting *claims* and are each numbered consecutively with [numbered] or small *italicized* font references to footnotes and [lettered] references below. In my other works I have called these axioms and sub-axioms as they were reasoned differently. I also use *italicized script* where I quote the author.

The Issues are subdivided into five *sections* numbered with roman numerals distinguishing the dominant disciplines of each as:

I. Philosophy, Linguistics, Psychology, and English.

II. Urban Studies and Planning, Linguistics, Cognitive Science, Experimental Psychology, Psychology and Opinion Research.

III. Psychology, Special Education, Social Policy, Learning Sciences, and Education

IV. Psychology, Philosophy, Linguistics, and Cognitive Science.

V. Psychology, Education, and Applied Behavioral and Cognitive Sciences.

All the below issues argue the case that architecture is art because it too makes metaphors. These issues are the relevant and strong reasons of why architecture is making of metaphors. There is only 1 reason why architecture is an art and that is because it makes metaphors. (Technical and conceptual).But, what are the underlying (common) metaphorical facts common to art and architecture why architecture could be in the same family as art.

Each of the below either argue or presume that:

- Since art and architecture share in the way they make metaphors then one must like the other; and
- There can be fields and sub-fields where the subfields share dominant characteristics.

- That certain of metaphor's characteristics exercised in art are also exercised in all other arts.
- That in the making of any art, including architecture, the making of metaphors sanctifies products and processes; and,
- That the metaphoric process exercised in the making of a work of architecture transforms the process and the work from non-art to art, and the maker from manufacturer to artist.

Sections, issues and claims (7,462 words)

I. Metaphor and Meaning (view metaphor as a form of language)

1. Art and architecture both begin with a "top-down" approach later followed by products which meet the *parte*. Alternatively, the *parte* may follow the design/creative process and be presented to defend the design. All arts including architecture have a *parte* which is a model and concept that may be developed after assimilating the program in the process of making a conceptual metaphor, the very first step in the creative process is to develop a "*parte*'. Parte and top-down are both relevant because they are authentic and easily understood values.

` 2. Both art and architecture share [1.1] *generative metaphor* which "carries – over" perspectives from one domain of experience to another where artist builds one thing in terms of another where the other is the model, and, what is built is the application, the model being the "ideal" of the proposed design. While architects may initially state an ideal, it most likely evolves and even radically changes by the time the design process yields an architectural configuration (building manifestation).

Once achieved the "*parte"* (concept/gestalt) manifests and can be articulated.

3. [1.2.1] Both art and architecture *Peculiarize, personalize and authenticate* for their metaphor to live. This the way the user metaphorize the using process, the user and the work empathize. In this is the art of making metaphors for the architect of public works. His metaphor must "read" the cultural, social and rightness of the metaphor's proposed context.

4. When is a work not a work of art and a building not a work of architecture? When it is a *dead metaphor* which really does not contain any fresh metaphor insofar as it does not really "*get thoughts across*"; designs without concerns for scale, hierarchies, scenarios, surprise, delight, vistas, etc will be "dead". They are "*techne"* driven, engineering a building without metaphoric *concerns*. Such a work is a techne driven design with *craft-like* knowledge. Art without a fresh metaphor can be decorative, colorful and interesting but will not be considered a work of art.

5. Both art and architecture involve techne (a system of practical knowledge). *As a* craft or art informed by knowledge of forms such as the craft of managing a firm of architects where even virtue is a kind of *technê* of management and design practice, one

that is based on an understanding of the profession, business and market and t*echnai are* such activities as drafting, specifying, managing, negotiating, programming, planning, supervising, and inspection; by association with these *technai*, we can include house-building, mathematics, plumbing, making money, writing, and painting. So much so that the study and practice of design is devoid from the humanities and downplays theories of architecture developing rather the crafts, skill and understandings needed to engineer, plan, sketch, draw, delineate, specify, write, and design.

6. As art, architecture is a *conduit of a minor framework which overlooks words as containers and allows ideas and feelings to flow, unfettered and completely disembodied, into a kind of ambient space between human heads. I*rregardless of the details the overall concept is "transferred "from one to the other, irrespective of sub-dominant and tertiary design elements.

7. In works of architecture there can be a [1.2.2/1.2.3] *Conduit City-wide metaphor* where the Geometry of urban blocks and the location of building masses reflect one anther into a scheme to sharply define the volume and mass of the city block and experience of city streets (Vincent Scully). In New York City the grid and this insistence on buildings reflecting the geometry of the grid is a metaphor of city-wide proportions. The streets are defined by the 90 degree corners, planes and tightness of the cubes and rectangles to the city plan. In this way the metaphor of the overall and each building design no mater where it's location on the block; no matter when or in what sequence the metaphoric constraint of appropriateness or zoning formulas, all lead the ideas to flow from one to another architect.

Furthermore, the reader is able to "appreciate" (to attach importance to a thing because of its worth) the street, its geometry, limits and linearity as an idea on the [1.2.2/1.2.3] conduit from the architect, through the metaphor and to the reader.

8. As art, architecture shapes the culture. As art building shapes and forms tend to reflect common geometry; building types tend to share common facilities; building code use designations influence the selection of applicable code requirements, architecture, forming clusters and community spaces create opportunities for neighborhood identity and nurturing cultural identity. 1.3"It's a strange thought, that culture is a product of man-made, unnatural things, that instead of culture shaping the architecture, architecture shapes the culture. Applied and fine art both affect the utility, consumption and business of normal life.

9. The metaphor between art and architecture is a mental image [1.4] where metaphor maps the structure of one domain onto the structure of another". [1.4.1] for example, the "superimposition of the image of an hour glass onto the image of a woman's waist by virtue of their common shape". As before the metaphor is conceptual; it is not the works themselves, but the mental images. In this case metaphor is a mental image. "Each metaphorical mapping preserves image-schema structure:" In acting it is called a" handle" where your whole character's peculiarity is remember by one acting device

(accent, slang, twang, wiggle, walk, snort, etc) ;in architecture the building's roof top, cladding, silhouette, interior finishes, lighting, gargoyles, entrance, rounded corners, etc.

If the facade of a building is designed in one order of architecture you can presume the other parts are in like arrangements where the whole may be of that same order including its' plan, section and details because of mapping and channeling one idea from one level to another. Frank Lloyd Wright designed his prairie architecture with dominant horizontal axis thrust to his structure as common to the horizontal axis of the land upon which the building sat. In geometrical formal parts of an architectural metaphor we note those common elements where fit, coupling and joints occur.

10. Since metaphor is the main mechanism through which we comprehend abstract concepts and perform abstract reasoning: 1.4.3 what is built is first thought and conceived separately from building, as thinking and conceiving is separate from the outward expression, so metaphor is a process and architectural metaphor is a process and what we see is what the process issues; not the manifest metaphor. When we hear a symphony, poem; watch a dance or see a painting what we perceive is the residue of the artist composing and dealing with the similarities and apparent differences of medium, context, aesthetics and story.

11. For both art and architecture metaphor-building clarifies our place, status and value. As Metaphor is the main mechanism through which we comprehend abstract concepts and perform abstract reasoning so works of architecture inform our social, psychological and political condition.

12. 1.4.4 *Much subject matter, from the most mundane to the most abstruse scientific theories, can only be comprehended via metaphor*. The metaphor is engrafted with knowledge about the state of contemporary technology, scientific advancement, social taste and community importance, even an anonymous Florentine back ally's brick wall, carved door, wall fountain, shuttered windows, building height, coloration of the fresco.

13. *1.4.5* Metaphor is fundamentally conceptual, not linguistic in nature. It is the difference between the thing and what we perceive. Our perception of the building is the metaphor while the building is the evidence of the design process and the keys to unlock our mind.

14. 1.4.6 Metaphorical language (building) is a surface manifestation of conceptual (program, design and contact documents) metaphor. The built metaphor is the residue, excrement, product and periphery of the deep and complex reality of the building's creative process and extant reality. As we don't know the inner workings of our car and yet are able to drive so we can use our building. What we design and what we read not the metaphor but a surface manifestation of the concept metaphor. A concept which we can only know as well as we is able to discern metaphorical language. The construction and the metaphor beneath are mapped by the building being the manifestation of the

hidden conceptual metaphor. To know the conceptual metaphor we must read the building.

15. *1.4.7 Through much of our conceptual system is metaphorical; a significant part of it is non-metaphorical. Metaphorical understanding is grounded in non-metaphorical understanding.* Our primary experiences grounded in the laws of physics of gravity , plasticity, liquids, winds, sunlight, etc all contribute to our metaphorical understanding often the conceptual commonality accepting the strange.

16. *1.4.8 Metaphor allows us to understand a relatively abstract or inherently unstructured subject matter in terms of a more concrete, or at least, more highly structured subject matter.* A structured building is a structured subject offering access to relatively abstract and unstructured subject matter.

The whole of the conceptual metaphor is designed in such a way as to clarify, orient and provide "concrete" reification of all the design parameters into a "highly structured' work; a work which homogenizes all these diverse and disjointed systems and operations into a well working machine. Hence architects translate their architectural conception from philosophy, psychology, sociology, etc into two dimensional scaled drawings and then to real-life full-scale multi dimensions conventions consisting of conventional materials, building elements (doors, windows, stairs, etc).

17. *Commonalities are the keys to mapping across conceptual domains.* As the artist either at random or intentionally experiences or perceives the times, place s and events of the times so the architect sifts through the program to discover "commonality" between the reality and experience to make the metaphor. *Mapping* is only possible when artist knows the "commonplace", the commonality, the characteristic common to both, the terms that both the source and the target have in common in which the mapping takes place. The architect's design agenda and the user's requirements find both their commonalities and differences.

As the architect structures his program, design and specifications he simultaneously structures the metaphor of his work of architecture. Architecture consists of program specifics where the conditions, operations, goals and ideals are from heretofore unrelated and distant contexts but are themselves metaphors "*mapped across conceptual domains*". Architects translate their architectural conception from philosophy, psychology, sociology, etc into two dimensional scaled drawings and then to real life full scale multi dimensions conventions consisting of conventional materials, building elements (doors, windows, stairs, etc). 1.4.9 As maps are the result of cartographers rendering existing into a graphics for reading so is mapping to the reading of metaphors where the reader renders understanding from one source to another. As the cartographer seeks lines, symbols and shadings to articulate the world reality so the reader's choices of heretofore unrelated and seemingly unrelated are found to have an essence common to both, the reality and the rendition, so that the metaphor can be repeated, becoming the readers new vocabulary. As the reader can describe the route he can identify the building.

18. *[18. 1.4. 10] Each mapping (*where mapping is the systematic set of correspondences that exist between constituent elements of the source and the target domain) where m*any elements of target concepts come from source domains and are not preexisting*. To know a conceptual metaphor is to know the set of mappings that applies to a given source-target pairing. The same idea of mapping between source and target is used to describe analogical reasoning and inferences, for example, reception area to receive people, doors and door frames, columns as vertical supports, parking spaces for cars, Iron and stained glass design patterns, and typical design details appropriated for a given building system. Audiences, for example perceiving Mozart, contemporary music, and abstract art seek the systems of mappings which lead to finding their source and targets. In this way both art and architecture share a common experience in both creating and use, the system of relationships is the precedent which enables understanding of the specific.

19. [1.4.11] Aside from articulating a program architects carry-over their experiences with materials, physics, art, culture, building codes, structures, plasticity, etc. to form a metaphor. Identifying conditions, operations, ideals and goals are combined to form plans, sections and elevations which are then translated in to contract documents.

Later the contractors map this metaphor based on their schemes of cost, schedule and quality control into schedules and control documents. It is not until equipment, laborers and materials are brought to the side that the metaphor starts to form. Once formed, the only evidence for the user (reader) is the thousands of cues from every angle, outside and inside, to enable use and understanding. An informed user can read the building's history from its inception to opening day.

20. [1.4.11] *The scale of habitable metaphors is the intrinsic relation between the human figure and its surroundings* as measured, proportioned and sensed. It is dramatically represented by Da Vinci's Vitruvian Man is based on the correlations of ideal human proportions with geometry described by the ancient Roman architect Vitruvius. From realism to destructive visual arts, harmony to cacophony, etc. all the arts scale works to an audience which form, in and around the place which the work exists.

21. [1.4.11] *It seems that onomatopeics are metaphors and can be onomatopoeic* (grouping of words that imitates the sound it is describing, suggesting its source object, such as "click", "bunk", "clang", "buzz", "bang", or animal noises such as "oink", "moo", or "meow"). In this case an assemblage instead of a sound. As a non-linguistic it has impact beyond words and is still a metaphor. Then a metaphor is much more than the sum of its parts and is beyond any of its constituent constructions, parts and systems.

The family of arts and particularly buildings' very existence is a metaphor and may not be valued much more than an *onomatopoeic.*

22. [1.4.12] a. *Mappings are not arbitrary, but grounded in the body and in every day experience and knowledge.*

b. Mapping and making metaphors are synonymous.

c. The person and not the work make the metaphor. Without the body and the experience of either the author or the reader nothing is being made. The thing does not have but the persons have the experiences.

As language, craft, and skills are learned by exercise, repetition and every day application so are mappings. Mappings are not subject to individual judgment or preference: but as a result of making seeking and finding the commonality by practice.

d. In this way making metaphors is the process of empathizing.

23. 1.4.13 In art, a conceptual system contains thousands of conventional metaphorical mappings which form a highly structured subsystem of the conceptual system. Over the year's society, cultures, families and individuals experience and store a plethora of mapping routines which are part of society's mapping vocabulary. As a potential user, when encountering a new building-type, such as a hi-tech manufacturing center, we call upon our highly structured subsystem to find conceptual systems which will work to navigate this particular event.

24. Architecture as a surrogate **[G]** *is accepted at face value.* As a surrogate (a work of architecture) is "a replacement that is used as a means for transmitting benefits from a context in which its' user may not be a part", architecture's metaphor bridge from the program, designs and contactors to a shelter and trusted habitat. The user enters and occupies the habitat with him having formulated but not articulated any of its characteristics. Yet it works. Works of art are likewise the transmitter of values, identity and social orientation. ("*Music metaphor"* by Barie Fez-Barringten)

[G] "It makes sense, therefore, to speak of

a. Two sides to a surrogate, the user side and the context side (from which the user is absent or unable to function). "Each of us uses others to achieve a benefit for ourselves. "We have that ability".

b. "None of us is just a person, a lived body, or just an organism; we are all three and more. We are singulars who own and express ourselves in and through them. As Weiss proclaims

c. *that we cannot separate these three from each other so that it follows that we may find it impossible to separate us from the external metaphors.* Inferences that are not yet warranted can be real even before we have the evidence.

d. *Metaphors are accepted at face value and architecture is accepted at face value.* Accustomed to surrogates architecture is made by assuming these connections are real and have benefit. Until they are built and used we trust that they will benefit the end user. Assembling the ambulatory we assume the occupancy, frequency and destinations.

We each are surrogates to one another yet fitted into one message. When this passage had been used as read as had been other passages, corridors and links.

e. *Like a linguistic, the building stands, like a great, stone dagger*, [H] *emphatic against the sky*. The stair, the exit, the space calls, gives emphasis and is strongly expressive.

25. Elegant architectural metaphors are those in which the big idea and the smallest of details echo and reinforce one another. Contemporary architects wrapping their *parte* in "green", "myths" and eclectic images" are no less guilty than was their predecessors of the Bauhaus exuding asymmetry, tension and dissonance as were the classics and renaissance insisting on unity, symmetry and balance. The architect's *parte* and the user's *grasp of cliché parte* were expected and easy "fill-in" proving the learned mappings, learned inference trail and familiarity with bridging.

26. 1.5.1 P*eople ascertains the deep metaphor that underlies one or more surface metaphors by filling in terms of an implicit analogy*". A unique building metaphor may be reckoned by its apparent similarity to another from a previous experience. As a grain silo is to a methane gas plant and to oil tank storage; what may be implicit are the shapes, appurtenances, and locations.

27. 1.5.2 As with all arts, we see the architectural metaphor, we read its extent, we synapse, analogies and metaphorize absorbing its information, contextualizing and as much as possible resurrecting its reasons for creation. The architectural metaphor only speaks through its apparent shape, form, volume, space, material, etc that the concepts which underlie each are known to the user as they would to a painting, poem, or concerto.

28. 1.5.3 Architecture is often more suggestive and trusting rather than being pedantic; it leads and directs circulation, use recognition while abstracting shapes and forms heretofore unknown, but ergonometric. Furthermore as observation, analysis and use *fill in the gaps* users inference the locations of concealed rooms, passages and supports; the user infers from a typology of the type a warehouse of expectations and similes to this metaphor from others. In this way there are the perceived and the representations they perceive which represents when explored and inert what we call beatiful, pleasurable and wonderful. Upon entering a traditional church in any culture we anticipate finding a common vocabulary of vestibule, baptistery, pews, chancel, and choir area including transepts, chapels, statuary, altar, apse, sacristy, ambulatory and side altars. Whereas the user is passive in most other arts in architecture the user is active, likening it most closely to dance and viewing sculpture. Common to all art is the users' distinct inions between active and passive appreciation and metaphorically linking one type of work to the other.

29. 1.5.4 Metaphor is in the mind: So while art and *architecture is the making of metaphors* and artists and *architects are making metaphors*, their works, though metaphoric, are not themselves the metaphors but the shadow of the metaphor which exists elsewhere in the minds of both the creator and the user, and, it is there that the

creator and the user may have a commonality (not commonplace). Ideally, if I design my own house, decorate my own room there will likely be that commonality. If an architect is selected from a particular neighborhood his metaphor will likely be sympathetic (common) to the culture of the area. Or, a concerted effort on the part of the design team to assemble the relevant and commonplace information.

30. 1.5.5 Architects make a *spatial representation in which local subspaces can be mapped into points of higher-order hyper-spaces and vice versa is possible because they have a common set of dimensions*. Architects organize broad categories of operations and their subsets seeing that they are different from each others so as to warrant a separate group and that their subsets fit because they have common operational, functional conditions, operations, models and object is. Hotel front and back-of-the-house operations; Hospital surgical from outpatient and both from administration and offices are obvious sets and subsets.

31. a. Shelter and its controlled creation contains sensual ,graphic and strategic information fulfilling shelter needs by real deed rather than words of hope and future expectations.

b. The building and not its metaphor is direct while its metaphor is indirect and being the sticks and stones of its manifestation. Yet the metaphor may be explained with language it would not accomplish the buildings shelter metaphor. The shelter prototype and its incarnation is itself indirect since its referent is obscured by contextual realities.

II. Metaphor and Representation *(view them as forms of representations [1.0])*

32. 1.6.1 There is a difference *between the indirect uses of metaphor verses the direct use of language to explain the world.*

33. 1.6.2 *The distinctions and relationships between*

a. micro and macro metaphors and the way they can inform one another is as the form of design may refer to its program, or a connector reflects the concept of articulation as a design concept.

b. Where articulation is being jointed together as a joint between two separable parts in the sense of "divide (vocal sounds) into distinct and significant parts" or

c. Where an architect parses the program and reifies words to graphic representations bringing together desperate and seeming unrelated parts to join into parts and sub-parts to make a whole.

34. a. The two domains of the building and its context may have analogies that relate to both, the site and the building will absorb a high amount of pedestrian traffic:

both are ambulatories and both guide and protect the pedestrian. Like a building metaphor's common elements with an uncommon application the common connects to the unfamiliar and the architect is able to find a way to bring them together and the user discovers their relevance. The neighborhoods walkways and the access to and through the building are analogous. As a child a Kressge 5 and 10 was built as a huge and wide corridor diagonally connecting Westchester Avenue with Southern Boulevard thus saving lots of steps, time and distance but providing a wonderful weather-free comfort- zone cutting through this block. The joining corners of the two avenues were filled with shops facing their streets which we could alternately frequent as an alternate. Alleys in big cities and Munich subway shopping malls are also examples of these design analogies, called galleries, alleys, mews, etc.

35. 1.7.1 *Metaphors work by "reference to analogies that are known to relate to the two domains".*

36. a. A work of architecture has integrity if the whole and the parts share the same architectural vocabulary with respect to its building systems, materials and design philosophy. In a building with dominant 90 degree, cube and squares we do not expect to find plastic, curved and circular elements.

b. A built metaphor with all of its metaphorical baggage call to mind another *meaning and corresponding set of truths.*

c. The metaphor is not part of the building but is made from those meanings. The meanings of one and the meanings of another may be similar so that the other comes to mind.

37. 1.8.1 A *"problem of the metaphor concerns the relations between the means of expression and design meaning, on the one hand, and architect's meaning or sketch meaning, on the other" "Whenever we talk about the metaphorical meaning of a word, expression, or sentence, we are talking about what a speaker might utter it to mean, in a way it that departs from what the word, expression or sentence actually means".*

38. 1.8.2 a. What are th*e principles which relate built design meaning to metaphorical design meaning" where one is comprehensive, complete and coordinated while the other is merely an incomplete scanty indication of a non specific.*

39. 1.8.3 How does on thing remind us of another? *The basic principle of an expression with its literal meaning and corresponding truth-conditions can, in various ways that are specific to the metaphor, call to mind another meaning and corresponding set of truths".* Unlike a legal brief, specification and engineering document a work of architecture with all its metaphors tolerates variety of interpretations, innuendo and diverse translations. Building owners are asked to translate a two dimensional set of drawings ass fulfilling their design requirements to what might eventually be built.

40. Building style and decoration are often adaptations of a former and existing building emphasizing economic and financial status, quest for status, adaptations to local common ground of knowledge, beliefs, and attitudes. Choice of structural, building systems, building height and color are often in the vernacular of the building use (office, residential, commercial, industrial, etc.) and the zoned and neighboring fashion.

1.9.1

a. Design is constrained by context with few absolutes save the "sate of the art", culture, precedence and social opinion.

b. *Human cognition is fundamentally shaped by various processes of figuration (designs) (*shaping into a particular figure (design). *The ease with which many designs are comprehended are as often been attributed to the constraining influence of the context"* …..…...Including *"the common ground of knowledge, beliefs, and attitudes recognized as being shared by* architects and users (clients, public). One can say one's design is affected; affected by peer pressure (design profession) and the urge to communicate and adapt (win awards, professional recognition). Medieval German, French and Italian cities are replete with merchant building's roofs configured, elongated and attenuated to be higher than others. Near the Rhine, Germany's Trier is a fine example. Tropes are turn, twist, conceptual guises, and figurations

41. A habitable metaphor is not meant for the user to fully, continuously and forever recall all that went into its' production. The fact that the roof silhouette was to emulate a Belvedere in Florence, windows from a palace in Sienna, and stucco from Tyrol is lost over time. Even, the design principles so astutely applied by the likes of Paul Rudolf, Richard Meier, or Marcel Breuer may be unnoticed in favor of other internal focuses. These many design considerations may be the metaphor that gave the project its gestalt that enabled the preparation of the documents that in turn were faithful interpreted by skilled contactors and craftsman. Yet at each turn it is the affect of metaphor and not necessarily its specifics that make a good design not a great work of architecture or a working metaphor.

III. Metaphor and Understanding (*deals with psychological process [1.0])*

42. 1.10.1 "A metaphor involves a nonliteral use of language". The building design and the program cannot be a perfect mapping. A non-literal use of language means that what is said is to have an affect and but may not be specific. *At each moment in its use the metaphor may mean different things, least of which may be any intended by its authors.*

43. a. Matching, copying and emulating the design of other buildings or adapting the design of one to the current project is adapted to the more familiar. In the Tyrol offices are often housed in larger chalets with all the roof, hardware, doors and flower boxes of the more typical residence. The new building is made to appear like the others. Often the signature of the original dominates the new. There is no attempt to hide the

emulation. Users will easily transfer their experience from the familiar old to the emulated new.

b. Appreciation is when a built *metaphor as an abbreviated simile (*a figure of speech in which two unlike things are explicitly compared, as in “she is like a rose.”) *designed to appreciate similarities and analogies. My office is like my home.*

44. 1.11.1 The general public users prefer the familiar, customary and traditional; forms and uses which are prevalent rather than a new dissimilar design. In psychology “appreciation” (Herbert (1898)) was a general term for those mental process whereby an attached experience is brought into relation with an already acquired and familiar conceptual system (Encoding, mapping, categorizing, inference, assimilation and accommodation, attribution, etc).

45. 1.11.2 For both art and architecture: “In principle, three steps, recognition, reconstruction, and interpretation, must be taken in understating metaphors, although the simplest instance the processing may occur so rapidly that all three blend into a single mental act.” When we face a new metaphor (building) a new context with its own vocabulary is presented, one which the creator must find and connect and the other which the reader must read and transfer from previous experience.

46. Buildings in one group often have more known versions than others. In one city exposed wide flanged steel structures may be preferred to the reinforced concrete in another, in Dubai and Qatar, the terms “high-rise”, “multi-story” and “iconic” are synonymous and known to represent commercial buildings. “Iconic” is the trigger for all the rest. High and rise used together recalls how the elevator and quest for grated real estate earnings encouraged the higher number of floors per single zoned building lot.

47. *1.12.1 Prototype theory is a mode of graded categorization in cognitive science, where some members of a category are more central than others*. For example, when asked to give an example of the concept *furniture*, *chair* is more frequently cited than, say, *stool.” I asked a New Yorker to give an example of an office building and they answered the Empire State Building it would be because of its height, and reputation, In fact the office building and not the “church “building shape has come to be a metaphor of the city. New York and Chicago are office building cities. I can see only a flash glimpse and I will know it is Manhattan.*

48. 1.12.3 Most designers of shelters are predisposed to the geometry of the rectangle and its variations (with exceptions of amorphic and ergonometric) and present the completed design as its offspring and/or compounded variations. The built variation certainly refers to its base and vice versa. It is not just nice but necessary; otherwise it could not be built. Most building types and classical orders from Egypt, Greece and Rome to the skewed iconic towers of the emirates hearken back to their essence as a kind of rectangle.

49. 1.12.3 *"Metaphors are generally used to describe something new by reference to something familiar (Black, 1962b), not just in conversation, but in such diverse areas as science and psychotherapy. Metaphors are not just nice, they are necessary. They are necessary for casting abstract concepts in terms of the apprehendable, as we do, for example, when we metaphorically extend spatial concepts and spatial terms to the realms of temporal concepts and temporal terms".*

50. Without having an apriori *parte* a design may evolve until a final design is achieved which is no more representative as whole from any other building of its type. *Escarlata Partablela* of Toledo brought me, a picnic lunch and her guitar to a small mountain across from her city. She urged me to sketch while she serenaded. After a while I noticed her wry smile as she scanned my sketches and when I noticed how familiar they looked she confessed that she had sat me down on the very spot El Greco sat to sketch "View Of Toledo".

IV. Metaphor and Science *(role of metaphors and analogies in science [1.0])*

51. 1.13.1 Much of architectural making of metaphors is a matter of mapping, diagramming and combining to conclude the validity of combining and matching unlike materials, shapes, & systems. In this way any one of the metaphors and the whole system of bridging and carrying over is metaphoric.

52. 1.13.2 *Metaphor is reasoning using abstract characters whereas reason by analogy is a straight forward extension of its use in commonplace reasoning.*

53. 1.13.3 *"In processing analogy, people implicitly focus on certain kinds of commonalities and ignore others".*

54. 1.13.4 An analogy is a kind of *highly selective similarity where we focus on certain commonalities and ignore others. The commonality is no that they are both built out of bricks but that they both take in resources to operate and to generate their products.*

55. 1.13.5 On the creative architect's side: "The central idea is that an analogy is a mapping of knowledge from one domain (the base) into another (the target) such that a system of relations that holds among the base objects also holds among the target objects".

On the user's side in interpreting an analogy, people seek to put objects of the base in one-to-one correspondence with the objects of the targets as to obtain the maximum structural match.

56. 1.13.6 "The corresponding objects in the base and target need not resemble each other; rather object correspondences are determined by the like roles in the matching relational structures." 1.13.7 "Thus, an analogy is a way of aligning and focusing on

rational commonalities independently of the objects in which those relationships are embedded."

57. 1.13.8 "Central to the mapping process is the principle of "systematicity: people prefer to map systems of predicates favored by higher-order relations with inferential import (the Arab tent), rather that to map isolated predicates. The systematicity principle reflects a tacit preference for coherence and inferential power in interpreting analogy".

58. 1.13.9 "No extraneous associations: only commonalities strengthen an analogy. Further relations and associations between the base and target- for example, thematic consecutions- do not contribute to the analogy."

59. Common to all arts including architecture is [Axiom *XXIII] more often than not designers are influenced by the existence of similar types than to re-invent themselves from scratch.* Architects design by translating concepts into two dimensional graphics that which ultimately imply a multidimensional future reality. She tests the horizontal and vertical space finding accommodation and commonality of adjacency, connectivity and inclusiveness.

It is the commonplace and not the abstract necessity that communicates more readily. The architect is challenged to imbue in the design the more subtle analogy then the obvious.

60. 1.14.1 *Interaction view*" of metaphor where metaphors work by applying to the principle (literal) subject of the metaphor a system of "*associated implications"* characteristic of the metaphorical secondary subject.

61. 1.14.2 Metaphors simply impart their <u>commonplace</u> not <u>necessity</u> to their similarity or analogous.

62. a. Architectural metaphors are all about names, titles, and the access so that the work provides the reader to learn and develop. At its best the vocabulary of the parts and whole of the work is an encyclopedia and cultural building block. The work <u>*incorporates*</u> (is imbued with) the current state of man's culture and society which is an open book for the reader. The freedom of both the creator and reader to dub and show is all part of the learning experience of the metaphor.

b. However objective, thorough and scientific the designer and the design tools, the work gets dubbed with information we may call style, personality, and identity above and beyond the program and its basic design. It is additional information engrafted into the form not necessarily overtly and expressly required.

63. c. Dubbing (imbuing) may occur in the making of metaphors as a way in which the design itself is conceived and brought together. Dubbing may in fact be the process which created the work as an intuitive act.

d. Imbuing is often what distinguishes the famous from the ordinary architect and the way the architect dubs is what critics calls the art of architecture.

64. 1.15.1*When dubbing is abandoned the link between language and the world disappears", a*dding a sound track to a film is the best use of the word where the picture remains but the experience of the whole is changed. Now we have both picture and sound. Today's works of architecture are minimal and only by dubbing the program can functionally superficial non-minimal features be added.

However, the architect's artistry (way of design, proportioning, arranging spaces, selections of materials, buildings systems, etc. can be dubbed to enhance an otherwise "plain vanilla" solution.

65. 1.16.1 a. *consider new concepts as being characterized in terms of old ones* (plus logical conjunctives)" Climbing the stairs of a pyramid in Mexico City or a fire stair in a high rise is essentially the same except for the impact of its context and what the stair connects (create and base) and the object on which the stair ascends and descends.

Structural engineers design from the top down so as to accumulate the additive loads to the consecutive lower members and ultimately the foundation which bears it all. Conceptual design and first impressions both begin with the general and go to the specific. Architecture combines and confirms the secular (of this time), "how things really are" with the gestalt of personal, social, community and private importance.

66. b. [F] As William J.J. Gordon makes the strange familiar by *talking about one thing in terms of another.*

67. 1.16.2 We would not know that we know. Therefore, when we observe that architecture makes metaphors we mean that we know that we know that works exists and we can read author's messages. We learn the work.

"Knowledge" would not itself be conceptual or be expressed in the medium of thought, and therefore it would not be cognitively structured, integrated with other knowledge, or even comprehended. Hence, it would be intellectually inaccessible".

68. 1.16.3 Pulling from three dimensional and two dimensional means and methods, from asymmetrical and symmetrical, and from spatial and volumetric design principles the architect assembles metaphor metaphorically by associating and carrying-over these principles applying to the program at hand to lift and stretch the ideas into space and across the range of disassociated ideas and concepts making a new and very strange metaphor unlike anything ever created yet filled with thousands of familiar signs and elements that make it work .

69. 1.16.4 Except for writers, authors, playwrights, poets, actors, artists and architects can express in design what cannot be expressed in words. About the difference between words (which are limited and specific to concepts Pylyshyn notes: "…in the

case of words there is a component of reason and choice which mediates between cognitive content and outward expression. I can choose what words I use, whereas I cannot in the same sense choose in terms of which I represent the world." So architects and readers deal with materials, structures, systems and leave the concepts to a variety of possible outcomes.

70. 1.16.5 A work of architecture may begin with a design with our parte or program and the find ideas which fit. *About a "top-down strategy" called "structured programming" in computer science allows for a point of entry into a the development of a new idea where you begin with an idea and after testing and developing that idea bringing everyday knowledge to bear on the development of theoretical ideas with some confidences that they are new either incoherent nor contradictory, and furthermore with some way of exploring what they entail.* 1.16.6 Explaining this approach as a "skyhook-skyscraper" construction of science from the roof down to the yet un-constructed foundations" describes going from the general to the specific in and decreasing general to an increasing amount of detail and pragmatic evidence, referents, claims and resolutions.

71. 1.16.7 Vocabulary and reality about a building metaphor not coincide as the perceptions and descriptions may only be to communicate and what communicates may not be the reality of the experiences of a work of architecture. *"The difference between literal and metaphorical description lies primarily in such pragmatic consideration as (1) the stability, referential specificity, and general acceptance of terms: and (2) the perception, shared by those who use the terms, that the resulting description characterizes the world as it really is, rather than being a convenient way of talking about it, or a way of capturing superficial resemblances".*

72. 1.16.8 Pylyshyn asserts that*: "metaphor induces a (partial) equivalence between two known phenomenons; a literal account describes the phenomenon in authentic terms in which it is <u>seen.</u>*

73. Expressionist, Realist and other art movements as well as modern architecture wants to express the truth about what they dream as reality. In the case of architecture that includes building's systems, materials, open life styles, use of light and air and bringing nature into the buildings environment, not to mention ridding building of the irrelevant and time worn cliches of building design decoration, and traditional principles of classical architecture as professed by the Beaux-*<u>Arts</u>* movement.