

Architecture:
The Making of Metaphors

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By

Barie Fez-Barrington

Edited by Edward Hart

**CAMBRIDGE
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P U B L I S H I N G

Architecture: The Making of Metaphors,
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PREFACE

The title: “*Architecture: The Making of Metaphors*” originates from a series of lectures held at Yale University in 1967. The intended purpose of this book is to give readers the wherewithal to better understand, manage and enjoy the design process and the built environment.

PHENOMENOLOGY

For any one individual “*Architecture: The Making of Metaphors*” is predicated on a personal encounter of both sense and mind. Kant’s phenomenon philosophy and [34] Berleant’s approach to aesthetics view an object as it is perceived by the senses. After having derived and developed the ideas of architecture as the making of metaphors it still incumbent on readers to realize the phenomenon and epiphany by relating them to the process of design and its environment.

Architecture: The Making of Metaphors is more than an idea but about phenomena and as such is the immediate objectification of awareness in experience. In earlier monographs I quoted [6] Husserl and others noting the *dasein* of the metaphor and the epiphany of the revelation coalesce in the understanding that architecture *is* the making of metaphors.

Implicit in this is the knowledge that experience, perception and design transform and that time, space and substance do not matter, except as part of the sanctified and separate experience of creation. It is that special awareness during the design and habitation of buildings where the phenomena of the architecture and metaphor live. When you get it, you know that you know, because the process and product achieve this end.

ACKNOWLEDGEMENTS AND SCOPE

To understand metaphor as a key to the built environment we explore what forms and shapes the built environment and why one building seems better than the next. As a key to the built environment (technology and context) metaphor is the answer which not only shapes the built environment but is the means by which we read what is formed. With metaphor as the *gestalt*, design embraces the whole.

Current design practices are enhanced by considering metaphors in both the programming and design process. To some this monograph will be a confirmation of current practice and to others a check-list. Many will discover how other scientific disciplines can be brought into the design conversation.

For me it was my wife, Christina Fez-Barrington (philosopher, theologian, writer, and artist), who introduced me to metaphors, their meanings and applications which in turn led me to the understanding of [1] Irving Kriesberg's announcement that [2] "*art was the making of metaphors*" from which I inferred from years of being initiated, that architecture, too, was an art. It was a metaphor, I saw a relationship and knew I had to connect them so I visited my mentor [3] Dr. Paul Weiss to find the commonality. Coincidentally, at the time in 1967, I was one of the editors of Yale's Architectural Journal, "*Perspecta*". I then needed to know exactly what a metaphor was.

Dr. Weiss suggested that I first visit the world's leading linguistic scholars all of whom just happened to be at Yale University. He made the arrangements, but after so many interviews I came up empty. He and I were both astounded. Still, needing the information we decided to bring together scholars and design professionals to form a symposium which could then be transcribed and published by "*Perspecta*".

"*Architecture as the Making of Metaphors*" was organized near the Art and Architecture building at the Museum of Fine Arts Yale University from 11 February 1967 to 12 April 1967. The guest speakers included: Paul Weiss, [4] William J.J. Gordon, Christopher Tunnard, Vincent Scully, Turan Onat, Kent Bloomer, Peter Millard, Robert Venturi, Charles Moore, Forrest Wilson, and John Cage.

I would also like to acknowledge the contribution of E. R. Hart of Glasgow, Scotland (UK), in editing this book.

BACKGROUND TO THE RESEARCH

The Yale lectures were transcribed, but instead of being published by “*Perspecta*” part of the proceedings was published in 1971 by [5] “*Main Currents in Modern Thought*”. In 1991, after twenty years of professional practice designing and applying this approach to design, I wrote [6] many monographs, nine of which were then published by various learned journals (see references); six remain unpublished.

In Manhattan, from 1969 to 1973, we formed and operated [7] LME, “*Laboratories for Metaphoric Environments*” to bring together scholars and practitioners to further study metaphors. Out of this came a plethora of drawings now published in a book called [6] “*Gibe*”. Many of my studies were also complemented by visits to Europe where I made hundreds of pen and ink drawings which were put into a book and now hang in art galleries throughout Florida.

In 2009, and as part of the conversations with scholars on the internet site called *Academia.com*, I again researched [8] Andrew Ortony’s book entitled “*Metaphor and Thought*” (Northwestern University) which thankfully and finally had a compendium of linguistic, psychological, philosophical, educational, communication and scientific contributions on metaphors. From this and my notes from [3] Paul Weiss and [9] William J.J. Gordon, I wrote 21 monographs two of which have been published while the other 19 are submitted and awaiting peer review.

“*Architecture: The Making of Metaphors*” and several of my recent monographs were informed by my daily study of [10] David Zarefsky’s (Northwestern University) lectures and book titled [10] “*Argumentation: The Study of Effective Reasoning*” published by The Teaching Company (see footnotes). There are many others which are documented in my references and footnotes as I am their grateful and passionate student.

All of this has been driven by my childhood quest which has persisted in my studies, teaching and practice, where I have learned that ultimately it is the individual talent within each designer, artist, writer, and scholar that finally shapes the works that surround us. The answer was there all the time, I just had to be “educated”; a process which I look forward to continuing for a long time as led by the example of Paul Weiss, who died at the age 103 years just after completing his last book, “*Surrogates*”.

METHODOLOGY

Practicing what I preach, this book talks about one thing in terms of another in order to make the strange familiar. In this case the familiar is the phenomenon that architecture is the making of metaphors and the *strange* is both reasoning and science. To elevate a catharsis of underrating and aesthetic experience to intellectual pleasure, I have painstakingly followed [10] Zarefsky's outline, adapting it from "argumentation" to metaphor so as to bring structure to my own findings and those of Ortony, Weiss and Gordon. In so doing, I have found my type of writing analogous to my work on architecture, design, project and program development. [10] Zarefsky's work has given me a structure to further describe the results of my research. It is yet another in my efforts to explicate architecture as the making of metaphors.

This way of reasoning not only illuminates metaphor but articulates patterns by which metaphor is experienced. As "*Argumentation: The Study of Effective Reasoning*" defines how to build a case and support a resolution, so "*Architecture: The Making of Metaphors*" defines how to build design. In this way the vocabulary of argumentation tells us something about architecture and architecture tells us something about argumentation, they both use metaphors and are understood by a reasoned methodology.

ORGANIZATION OF CHAPTERS

Architecture: The Making of Metaphors is the key to the built environment and introduces metaphysical definitions and linguistic examples of metaphor. Metaphor is shown to be a tool used by designers, architects, and users as well as a medium which operates between creators and readers. It explains the tracks of the built metaphor as technical, conceptual, practical and artistic. Both the private and the public face the contrast between specific and plausible metaphoric pre-conditions. The role of design in the aesthetic of metaphors is viewed in light of art, common sense and practicality. Described also, is metaphor's usefulness in social, business, professional planning and in shaping society.

While I have drawn on my earlier research all of the material in "*Architecture: The Making of Metaphors*" is new and fresh. As much as the written word permits, I've tried to emulate what I would say were I invited to conduct a seminar.

Underlying Assumptions presents the role of design and the key assumptions we make when we make metaphors. It looks in particular at differences in macro and micro perceptions and conspicuous and obscure metaphors. It describes the combined use of metaphor as a rational tool for design and how design professionals and metaphors are surrogates for end-users. This is expanded upon by looking at the way in which design teams have a commonality not only in metaphor but in the way in which working relationships impact on their ability to form them. Finally, Chapter XII explores how metaphors are merely the surface manifestation of the conceptual (program, design and contract documents) metaphor.

Metaphoric Complementarities contrasts metaphors and sub-metaphors, process and product metaphors, implicit and obscure to conspicuous and overt metaphors as well as the metaphors of myth and fantasy. In this the role of art-verses-intellect is explored and six principles at work the way that the pairs inform one another, prioritize, sequence, interact and beget one another, triangulate and form a new cognition, and finally co-mingle and stratify.

History of Metaphor highlights the way metaphors have been used in architecture from prehistory to the modern day. Indeed, I highlight the architectural metaphoric vocabulary as defined by the social and political metaphor of each.

Stasis: The Heart of the Metaphor defines the focal point of a metaphor, the point at which contending factors meet where it is the commonplace in combination with a complex weave of dominant, sub-dominant and tertiary metaphors. In addition, I discuss when users and creators fail to agree upon the stasis as well as the consequences between representative knowledge and comparisons. It concludes with the making of habitable conceptual metaphors which, after assimilating the program, involves the initial steps needed to design and develop a “parte”.

Metaphoric Bundling: Metaphor from Parts to Sum explains how metaphors bridge the gap between the strange and the familiar. It will also look at common errors in this pattern of inference as the reader perceives it with its warrants and connects the evidence. Resolving the “seen” from the “claims” to achieve a resolution, occurs when separate and potentially compatible elements are brought together to produce a working metaphor. The whole of the metaphor is designed in such a way as to clarify, orient and provide reification of all the design parameters that go into the creation of a highly structured work.

Metaphor with Comparisons describes the types of analogies and tests for making metaphors. Through comparison, including abbreviated similes, one can come to appreciate similarities and analogies which contrast the various ways in which metaphors predicate warrants. For example, figurative metaphors used to make the strange familiar, often talk about one thing in terms of another. However, they possess a certain commonality which is not mutually exclusive and indeed often reflects an essence which is common to both.

Metaphor as an Inference from Sign involves identifying how sign inferences work. In any sign inference there is a relationship between two factors: the knowledge of the sign, the predicate if you like, and those novel images and image metaphors that it creates. This chapter also discusses two types of mappings (conceptual mappings and image mappings) as the matrix of conditions, operation, ideal and goals of the thesis; the thesis being the establishment of similarities and differences. It concludes that below the level of consciousness, our use of metaphor is central to our ability to understand and act on experience. Sign architectural metaphors infer the unknown from the known, where constructs are unknowable yet presumed abstractions such as intelligence, economic health and happiness.

Cause and Effect illustrates how literary metaphors establish mental connections while architectural metaphors manifest themselves as material shelter. Whether large or small, loud or soft, simple or complex, intended or unintended, metaphors have an effect. Designers count on the

behavioral sciences to induce specific effects with such devices as compressed space, color to shrink or heighten scale, furniture of differing size, length of hemlines, textures, material qualities (luster, shade, light, dark, patterns etc.), lighting volumes, etc. Yet, while the intention and the cause are designed there may be unintended consequences or effects which demonstrate the influence of metaphor.

Aesthetics as Commonplace of Metaphor considers inferences that are based on social knowledge (commonplaces) of aesthetics. Knowledge usually derived from direct and personal contact in a limited context such as a school, campus, work place, neighborhood, platoon, squad etc. This chapter explores aesthetics of scale and buildings to discover those which represent architecture, art or metaphor and those that do not. It will also look at contemporary aesthetics, cognition in creation and conceptual metaphor and how they can work together in the creation and perception of a particular aesthetic experience, subject or individual. Finally, this chapter will discuss aesthetic decorum, memory and historical points of view.

What Makes a Good Metaphor Validity and Fallacy examines errors specific to each particular pattern of inference, and deficiencies in clarity, which results from the use of unclear language. It will then consider general errors of vacuity ("empty" metaphors). We will consider how each of these misuses of metaphor can cause a design process to go astray in the summary descriptions of 15 different common and un-common forms (patterns) of metaphor. In conclusion, we will consider that a metaphor that is invalid is fallacious where fallacy is a deficiency in the form of a metaphor.

Metaphor between Surrogates looks at the practice of making metaphor in society. The organizing principle is the concept of spheres of metaphor, distinctive sets of expectations that provide contexts for making metaphors. After introducing the ideas of spheres and distinctions among the personal, technical and public domain, this chapter will concern itself with the personal sphere. It also discusses the non-literal use of language found in the habitable metaphor and investigates signs, symbols, shapes and forms.

Framing the Art vs. Architecture Argument attempts to resolve the argument surrounding the status of architects and urban designers in the making of metaphors. This is done by presenting the thinking on making both natural and synthetic cities as well the design of buildings and neighborhoods. Cited throughout are linguistic, cognitive, psychological and philosophical mechanisms of the metaphor and their applicability. The parties to the argument are indicated as well as their context and vested

interests. In the case of buildings, the argument of the art of the building may involve its price, quality, origins, uses, location and history of ownership. In any case the opponents would not delve to find the metaphors, concepts and ideas but instead would appraise and value the building in terms of its commercial “footprint” or its monetary value compared with similar properties.

Evidence of crisis comes in the form of a public who are apathetic or indifferent about the built environment because they construe it as irrelevant. People are lonely in big cities in part because the buildings have no individuality, identity and/or personality. The business community is faced with the dilemma of wanting quality, imagination and beauty or choosing utility, cost-effectiveness and prestige. Often they are ambivalent or disdainful of the people and processes which bring about these results.

The Six Ways: How Architecture Works as a Metaphor with Warrants to the Inference explains what happens when the evidence is presented to support the claim but may not justify the claim and therefore warrants are provided in support for or inference from the claim. The warrant, where a metaphor talks about one thing in terms of another, supports the claim that cities, estates, buildings, rooms, building systems, materials, forms, and styles are examples of architecture as the making of metaphors.

The supposition that architecture is the making of metaphors is supported by deduction. Since art is the making of metaphors and architecture is an art, ergo, it too makes metaphors. The 10 warrants to the inference are described (including metaphors) which allow us to express two truths at the same time; the past and the future. Metaphors make the strange familiar. They talk about one thing in terms of another by expressing a truth that is common to both. Architecture blends certain programmatic specifics with concerns that are implicit to its own medium etc. This is presented in six ways which prove how architecture is a metaphor in itself (as a whole) and through its parts (components) etc.

Design Construction Making a Metaphor explores the complex structure of a “program” (itself a metaphor) of metaphoric architecture as the program of design is used to compose a metaphor; the design and the program have a metaphoric relationship. *Topoi* (“stock issues”) offer a shortcut to location issues in a given project; *topois* (which literally means “places”) are issues that are always raised when addressing programs of a given type. The works of architects are not in themselves the metaphors but the shadow of the metaphor which exists elsewhere in the minds of both the creator and the user. It follows, therefore, that the creator and the user may have commonality (not a commonplace).

Reification includes metaphor's cause and effect; metaphor analysis; diagramming and complex structures. In the vocabulary of the program and *proforma* projects metaphor provides illustration of the process of making metaphor.

CHAPTER ONE

INTRODUCTION

Summary

In the preceding preface and introduction I presented the context of metaphors, relevance, acknowledgements, scope, background, methodology and organization of the chapters. The goal was to assure readers that this monograph would be worth their investment and outline what benefits they could expect from it.

It is my hope that not only will readers be able to make better metaphors but appreciate them as well; thus enriching one of life's great opportunities: the enjoyment of the built environment. In this first chapter I introduce imagination and provide an elaborate definition of the metaphor and its overall effects. I introduce the different kinds of metaphors and introduce those people who are involved in the creation, perception and use of them.

Scope

Metaphors and imagination are vital to understanding the built environment and go hand in hand in our ordinary life where, with very little information, we instinctively find a *commonplace*. In this way the most obscure, trivial or overwhelming is brought to light whether it be natural, man-made, social, etc. In this way imagination is the backbone of metaphors.

Metaphors are everywhere as in song, conversation, media, school, work, etc. It is in such things as a building's silhouette, volume, height, detail, windows and floors. It is by metaphors that the mystery of whom we are in the universe as well as what lurks in books, people, society, politics and government is found; from the little we can see we make the unknown familiar. Our built environment is no exception as we discern its essence, identity and impact on our daily lives. So the metaphor is a very useful tool. Metaphor is an eye-opener and mental guide to understanding and use of the built environment. Where did it come from and does it have

other uses? [3] Everyday usage of metaphor is borrowed from linguistics and applied to other contexts. However, I have come to discover that metaphor is also a disciplined system of thinking. Some would even say it is synonymous with thinking.

How is this way of thinking applied to building construction? While architects are the master builders (being the arbiter between the owner and contractor), the final building is a result of a metaphoric thought process called *design*, which creates the metaphor. Design is part of the professional process by which architects compose the metaphor. So, how does the literary metaphor work?

[3] “Metaphor is a literary term which means “carrying over”. It associates meanings and emotions which otherwise would not have been related. Words (essences) which have a preferential or primary use in one context are explicitly employed in another.”

From linguistics we derive the form of the metaphor which talks about one thing in terms of another; makes the strange familiar; contains two peripheral elements which are both unlike and from different contexts, are apparently unrelated but have a commonality which is not apparent. Historically, [16] metaphor is present in the oldest written language (Sumerian/Akkadian) narrative: the *Epic of Gilgamesh*; and the idea of metaphor can be traced back to Aristotle. Modern European languages have a large number of metaphors which represent the whole of nature. Many of these, such as “*mother nature*”, the “*celestial harmony*”, the “*great chain of being*”, and the “*book of nature*” are used in natural sciences and in literature.

Most of these words can be traced back into prehistory where they arose from the same small set of mythological images. Even hieroglyphics on cave walls are entirely metaphoric as language itself is essentially metaphoric expressing one thing in terms of another in order to find an essence common to both.

[3] When we use linguistic metaphor metaphorically we can say that a linguistic metaphor is the same as an architectural metaphor. This explains how we can understand the reasons metaphor is a key to the built environment especially when [11] “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”.

With metaphors, owner-occupied specialized works of architectural metaphors may begin to be composed after long periods of research, observations and analysis. With the metaphoric structure the Project Management Team (PMT) and/or designer arrive at conclusions from all

aspects of the process from start to finish. Metaphor is generalized when it is accessible, usable and compatible.

Such terms as “screaming headlines”, “brut architecture”, “foxy grandpa”, and “Richard the Lion-Hearted” take terms normally used in one context and bring them over into another with the object of illuminating or making more evident something in the second domain which would otherwise be obscure. What are building types with metaphoric identities? Architecturally, metaphor is seen in city hospitals, public libraries, public schools, dwellings, shopping malls as well as in their building details and processes.

Do metaphors have other benefits? [3] Metaphor is not a one-way process it allows us to express two truths at the same time. In “Richard the Lion-Hearted”, the kingly quality of Richard affects the meaning of lion and the strength of the lion affects the meaning of Richard. “Lion-hearted” tells us what Richard would be were he an animal, equally it tells us what the lion would be like were it human.

Both meanings converge in the idea of a being that not only rules but deserves to rule, which is not only brave, but brave in a particular way; brave as a leader, brave as one who serves to be leader, the metaphor, in other words, points beyond each of its members to the reality they diversely express, articulating a power common to both, telling us that they both have an intrinsic nature.

The whole of the architectural metaphor is structured in such a way as to clarify, orient and provide reification of all the design parameters into a highly structured work. It is a work which homogenizes all these diverse disjointed systems and operations into a well working machine. Very often the metaphor is not necessarily homogeneous but it is perceived as coherent, coordinated and complete; the aesthetics of which is the commonplace of the metaphor and subject of a later chapter.

[3] “Architecture (design) is a common but imperiled activity. It is sometime thought that, because everyone does it, design does not require careful study. Design, indeed, is pervasive in daily life. It occurs everywhere from informal encounters between owners and contractors to the formally structured design agreement between an owner and design professional. Design is almost instinctive as we try to take control and rectify a situation. The very act of noticing a need is the first step and looking for remedies follows.”

Design is one way in which we attempt to shelter; it is possible, though, to design for oneself. [10] Design is not made in a vacuum and effective design is concerned with its audience as [11] though much of our

conceptual system is metaphorical, a significant part of it is non-metaphorical. Metaphorical understanding is grounded in non-metaphorical understanding.

The science of the strength of materials, mathematics, structures, indeterminate beams, truss design, mechanical systems, electricity, lighting, etc. are each understood metaphorically and their precepts applied metaphorically. But often selections, trials and feasibility are random and rather a search for metaphor without knowing what it is or how, indeed, or if it will fit. Is this the right context for a steel or reinforced concrete structure? What roofing, which siding, etc.? On the other hand we may select another based on non-metaphorical, empirical tests or descriptions of other properties. We then try to understand the metaphor in the selection, we do so through its commonality, how it contributes to the new application or by what attributes it contributes.

How does metaphor compare to art? [3] “On the other hand architecture ‘assaults’ us every day; it is the intrusive art from which there is no escape. It is always with us, either enclosing us, pressing us down within its four walls, or outside looming at us on every hand. We can close a book of poems, turn off a symphony, refuse to go to a play or watch a dance, and shut our eyes to a painting or piece of sculpture. But architecture cannot be avoided.”

Architecture as the making of Metaphors is the [10] study of effective design (see Chapter Nine). Popular conceptions of the use of metaphor in linguistics need to be set aside. It is not only the picturesque, allegorical or translation - but an operating cognitive, psychological, sociological and political mechanism. Metaphor is transferring, bridging and carrying-over where transfer can bridge anything to anything and has consequences. In this way metaphor is the key to the design and enjoyment of the built environment.

One of the conditions to enjoyment ultimately depends on the *assent* of users, audience, inhabitants, etc. Assent is based on users’ acceptance of the design and often involves making the work one’s own. [12] Peculiarization, personalization and authentication are required for a metaphor to live. This, too, is the way the user metaphorizes 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. Whereas a dead metaphor is one which really does not contain any fresh metaphor insofar as it does not really “get thoughts across”; “language seems rather to help one person to construct

out of his own stock of mental stuff something like a replica, or copy, of someone's else's thoughts". I say: "dead-in, dead-out" and "you are what you eat"; designs without concern for scale, hierarchies, scenarios, surprise, delight, vistas, etc. will be "dead", they are without an aesthetic.

In fact, they are *technê* engineered buildings without metaphoric (aesthetic) concerns. Such a work is a *technê*-driven design where "craft-like" knowledge is called a *technê*. It is most useful when the knowledge is practically applied, rather than theoretically or aesthetically applied. It is the rational method involved in producing an object or accomplishing a building design. It is actually a system of practical knowledge. As a craft or art *technê* is the practice of design which is informed by knowledge of forms and methodologies 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.

Sub-metaphors which alone are strange and unrelated, when coupled with the whole become part of the created metaphor connecting the given to a proposed, or a building system to a dimensional module which turns an architecturally amorphous scheme from a diagram into reality.

This introductory chapter provides metaphysical destinations and linguistic examples of metaphor. Metaphor is shown to be a tool used by designers, architects, and users as well as the medium between its creators and readers. The built metaphor is explained as the dual tracks which combine the technical and conceptual with the practical and artistic.

Technê are such activities as drafting, specifying, managing, negotiating, programming, planning, supervising, and inspection; by association with these, we can include house-building, mathematics, plumbing, making money, writing, and painting. There is a tendency to downplay study and practice of design in the humanities and to downplay theories of architecture in favor of developing the "crafts, skills and understanding" needed to engineer, plan, sketch, draw, delineate, specify, write, and design.

It is confirmed in common-sense experience with most buildings in most cultures that what it is we refer to as beauty is well made and what is well made is often something of beauty. Even the lowest budget and least expensive project can be exquisite when beautifully designed. In either case the user reads the metaphor.

[3] There is a public and private face to design and metaphor. There is the overt and obvious and then there is the obscure and implicit. Metaphors of the private, personal and intimate are where we imagine and

picture something from what is apparent. We translate and transfer the real into a future not yet manifest.

The more the internet bombards us with images and solutions the less we have the time to “picture”. Design may be a lost art. [11] Plausible accounts rather than scientific results are why we have conventional metaphors and why conceptual systems contain one set of metaphorical mappings rather than another.

An architectural work establishes its own vocabulary which once comprehended become the way in which we experience the work, finding its discrepancies and fits and seeking the first and all the other similar elements. We judge the work on the basis of consistency, integrity and aesthetics. Buildings which do not have these characteristics do not work as metaphors. It is similar to the experience of reading a proposed manuscript with blatant typing, spelling and grammatical errors; the content is there but difficult to decipher. The same applies to design documents which are poor poorly drafted, where lettering is not aligned and where titles and descriptions are inadequate and vague.

The relevance of studying the metaphorical basis of architecture is to provide practitioners, owners, and mainly architects who shape the built environment that they have a somber and serious responsibility to fill our world with meaning and significance. As in city planning where the [11] geometry of urban blocks and the location of building masses that reflect one another is a scheme to sharply define the volume and mass of the block and experience of city streets (Vincent Scully).

In New York City the grid and the insistence that buildings reflect its geometry is a metaphor of city-wide proportions. The streets are defined by the 90 degree angles, planes and the tightness of the cubes and rectangles to the city plan. In this way the metaphor of the overall and each building design, no matter where its location on the block, no matter when or in what sequence the metaphoric constraint of appropriateness or zoning formulas, all lead ideas to flow from architect to another.

One of the keys to accessing the built environment is the reader’s ability to “appreciate” (to value is to attach importance to a thing because of its worth) the street, its geometry, limits and linearity. These are ideas in the [12] conduit from the architect, through the metaphor and to the reader where a conduit is 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. Regardless of the details, the overall concept is “transferred “from one to the other, irrespective of sub-dominant and tertiary design elements, they flow without regard to their content, meaning or relevance.

[11] Architect and client may have different design ideas but the actual design is the antidote. The difference between productive design and irrelevant design is in the understanding of principles. Metaphor is both objective and subjective, what is seen and what is not seen; for the public and for the designer. Even the distinction between the client and the designer is between practice making metaphors with skill, knowledge and resources.

One of many warrants is “recognizing”, exemplified by operating the front door of a castle as we would the front door of our apartment; another warrant is the “adaptive uses” of obsolete buildings to new uses as adapting a factory to multi-family residential use. We see the common space and structure and reason that the building codes written to protect the health, safety and welfare of the general public can be adapted and the property re-zoned to fit the new uses in the fabric of the mixed-use zoned area. We can [12] “comprehend abstract concepts (building codes and design layouts) and perform abstract reasoning”.

There is a design vocabulary for the public and one for the contractors, building officials, trade, etc. The metaphor for the public is social, political, corporate, contextual and familiar; the metaphor for the contractors is technical, legal, and constrained by the laws of physics, engineering and government.

Design is both a product and process and occasionally people focus on metaphor, the product of design. Metaphor is both explicit and implicit; [13] the difference between the indirect uses of metaphor and the direct use of language to explain the world is referred to as tangential thinking, that approaching a subject from its edges without getting to the point. For example, when users accept works which are vague, inane, and nondescript, evasive and disorienting, they are accepting inane metaphors.

The result is provided by drab public housing, “ticky-tacky” subdivisions, anonymous canyons of “plain vanilla towers” (with countless nameless windows, offices with a sea of desks, nameless workstations and the daunting boredom of straight highways on a desert plain), they are given indirect metaphors. This, too, applies to works of architecture which assemble and construct the minimum in a stoic fashion considering the least needed to produce a work that fills the minimum economy of its commission.

As such many architectural works escape the many and various realities settling for a minimum of expression. Elements or the whole metaphor can be referents when the design metaphor is cast into language and in architecture that language is ultimately the building. [14] The building incarnates the basic principle of an expression with its literal

meaning and corresponding truth conditions and can, in various ways that are specific to the metaphor, call to mind another meaning and corresponding set of truths. In other words “one thing reminds us of another”. We can see a graphic, natural form, or sculpture and explain in words what we see with our eyes.

The words we use are symbols for what (metaphors) we already know, but the combination of these particular words about the specific visual is unique. Elements of the metaphor and the metaphor are *referents* because they refer to something outside of themselves. Without apparent rhyme or reason metaphors of all arts have a way of recalling other metaphors of other times and places.

In my mind I recall Brooklyn brick warehouses on Atlantic Avenue with turn-of-the-century Ford trucks and men dressed in vests, white shirts and bow ties loading packages from those loading docks under large green metal canopies. The streets are cobbled. I can cross to this image when seeing most old brick buildings in Leipzig, San Francisco or Boston. In these cases the metaphor is the referent.

Designs are capable of analysis and appraisal [11] as various subject matter from the most mundane to the most abstruse scientific theories, can only be comprehended via metaphor, as each perceives a different part of the metaphor and with one's own unique metaphors where some notice the conditions, others the operations, others the ideals and yet others the goals of the designs. As one reifies the form with words, new truths about perception, context and identity become apparent. Even an anonymous Florentine back alley's brick wall, carved door, wall fountain, shuttered windows, building height, coloration of the fresco communicates with us.

Design is an interaction in which designer and client, designer and user maintain what they think are mutually exclusive positions, and they seek to resolve their disagreements or differences. They are in a surrogate relationship where the relationship between designer and user is one of trust. [3] Architecturally, a surrogate is "a replacement that is used as a means for transmitting benefits from a context in which its user may not be a part". Here, too, the user trusts the metaphor and its referents. In this way architecture's metaphors bridge the gap between the program, designs and contactors to a shelter and trusted habitat.

The user enters and occupies the habitat without his having formulated or articulated any of its characteristics. Yet it works. It makes sense, therefore, to speak of 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. 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. In my early twenties, I diagramed “being” as “appetite”, “desire” and “mind”. I defined each and described their inter-relationships and support of one another. Metaphor is one and all of these. It contains both our experience of sharing our inner life with the world outside. [3] In our mother language and other primary things we, too, ascribe like relations with objects and even buildings, assigning them a value from which we may benefit and which we may support.

We cannot separate these three from each other so that it follows that we may find it impossible to separate ourselves from the external metaphors. Inferences that are not yet warranted can be real even before we have the evidence. Metaphors are accepted at face value (*prima facie*) and architecture is accepted at face value. [3] It is surely desirable to make a good use of linguistic surrogates. A common language contains many usable surrogates with different ranges, all kept within the limited confines that an established convention prescribes. It is amazing how different people can understand one another and how we can read meaning and conduct transactions with non-human extents, hence architecture.

Architecture is such a “third party” to our experience, yet understandable, and in any context. In his search for what is real Weiss says he has explored the large and the small and the relationships that realities have to one another.

“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. They seek to convince each other, but at the same time they are open to influence themselves. Science studies how designer and client go about resolving their difference into a single metaphor that might be acceptable to both the client and the public.”

This brings us to design which is the field of study in which rhetoric, logic, linguistics, engineering, art, architecture, building, behavioral psychology, philosophy, and sociology meet and like rhetoric where we derive our concern for the audience. Collectively architectural interiors, product, fashion and industrial design are much more because they involve the manipulation by sketches, plans and diagram spaces, boundaries, materials, volumes, shapes and forms.

Design is not only cerebral and conceptual but tactile and artistic. In stark contrast to contemporary abstract architecture, today’s rhetoric often has negative connotations, including insincerity, vacuity, bombast and ornamentation. Yet it has a passionate yearning for the expression of the materials and their properties. Historically, classical understanding of

rhetoric was the study of how messages influence people and focus on the development of communication and knowledge between speakers and listeners, or in the case of building design, between designer and user.

One example is [15] instructive metaphors which create an analogy between a-to-be-learned system (target domain) and a familiar system (metaphoric domain). It was in recognition of the responsibility of the relationship between design and users as between the properties of materials, that Frank Lloyd Wright separated from the architecture of Louis Sullivan and what spurred the collective work of the Bauhaus in Germany, that is to express the truth about the building systems, materials, open life styles, use of light and air and bringing nature into the buildings environment, not to mention ridding design of the clichés of building design decoration, and traditional principles of classical architecture as professed by the Beaux-Arts [2] movement. Many critiques ascribe their behavior and works with integrity, elegance and consequence.

All of this ushered in a primary change to the aesthetic of equipoise when “unity, symmetry and balance” were replaced by “asymmetrical tensional relationships”, between “dominant, subdominant and tertiary” forms and the results of science and engineering influence on architectural design a new design metaphor was born.

The Bauhaus found the metaphor in all the arts, the commonalities in making jewelry, furniture, architecture, interior design, decoration, lighting, industrial design, etc. [10] In this sense, “thinking rhetorically” means reasoning with audience predispositions in mind, a definite prerequisite in architectural design and the function of the metaphor to make the strange familiar. From logic we derived our concern with the form and structure of reasoning. Today, logic is often mistakenly seen as encompassing only formal, symbolic and mathematical reasoning. Informal logic, from which design borrows, is grounded in ordinary language, art, sculpture, geometry, and describes reasoning patterns that lack the certainty of mathematics.

[10] Ethical considerations figure prominently in design because metaphors affect people. Any attempt to affect other people raises ethical issues; it is a limitation on freedom of choice; it is the application of superior to inferior force. Design seeks to achieve ethical influence and it does not influence people against their will but seeks their free assent. Yet buildings are externally intrusive and public, giving people no choice but to see them. This fact alone contributes to designers and public officials making sure they are politically, socially, and culturally correct. In a pluralistic and diverse society this also means welcoming bland, abstract and the non-descript works.

Without influence, the conditions of society and community are not possible. We are virtually all about metaphors between each other and our surroundings. Design respects different ways of thinking and reasoning knowing that metaphors are a way of reasoning. Life drawing of a metaphorical work dramatizes the way in which we approach the technical metaphor as it involves rendering on paper what is seen without concern for its function, history or identity. Drawing and seeing in this way is about the only time we can confront a metaphorical work and construct its image, however accurately, by eye to hand motor activity absent of the conceptual metaphor or the metaphor it may conjure up.

While the very act is metaphorical in that there are two referents, the object and artist, the technique results in a drawing which is indeed a picture as accurate as the eye and hand can render leaving the conceptual for another time. Perceiving and seeing, in general, require rigor and some training. Most of commonplace training comes with use and familiarity, but “seeing” is a learned behavior and metaphors very much depend on this ability. Much of the metaphor presumes this discipline to one or another degree. Of course, the more disciplined and trained, the more will be the metaphor experience.

To illustrate how the metaphor is a key to the built environment [10] this book will explore the nature of architectural design metaphors.

a. I will try to accomplish several goals.

1. Develop a vocabulary that helps us to recognize and describe design metaphors.
2. We will become aware of the significance of choice and will broaden our understanding of the choices available to designers, architects and users.
3. We will develop standards for appraising designs and explaining what will make them better.
4. We will examine a variety of historical and contemporary design examples.
5. We should improve our abilities both as analysts and as designers.

b. We will follow an organizational plan

1. We will begin by reviewing the assumptions underlying design and the historical development in the field.
2. We will then explore strategies and tactics of design construction, applications and use.
3. We will consider the components of design in more detail and consider how they work.

4. We will investigate the concept of validity (unintended consequences of metaphor) and consider the fallacies in design.
5. We will investigate how design functions in society, the personal, technical and public spheres.
6. Finally, we will review a project *proforma* to apply what we have learned about making and perceiving architectural design metaphors.

Remember, [12] notwithstanding “idolatry” the metaphors are the contexts of life’s dramas as our physical bodies are read by our neighbors finding evidence for inferences about social, political and philosophical claims about our culture and their place in the universe. Even if you are now weak in reading metaphors, know that they are all about and part of the illusive mystery and reason your environment brings you no joy.

CHAPTER TWO

UNDERLYING ASSUMPTIONS ABOUT METAPHOR

Summary

In the previous chapter I introduced the role of imagination and quoted Paul Weiss' elaborate definition of the metaphor and its overall affects. I introduced the different kinds of metaphors and who is involved in the creation, perception and use of them. I did so with the understanding that this chapter would delve deeper into the design process and its differences as well as the importance of understanding the variations of perception of metaphor. Most importantly, I discuss the bond between designer and universal client (user, public, inhabitants, visitors, pedestrians, etc.).

Scope

What are the underlying assumptions about metaphor and how do they affect the design and use of the built environment? The reader will find that when I refer to making metaphors, I either mean *design-making* or a *reading audience*. In addition to what I have described in Chapter One and elsewhere, design includes research, choices and decision-making. Because metaphor is a vehicle of communication there are several key assumptions that we make when we apply the metaphoric structure (the subject of this study).

In this regard we will focus on five key (and underlying) assumptions: first, design takes place with an audience in mind and the audience is the ultimate judge of success or failure; second, design occurs only under conditions of uncertainty, about matters that could be otherwise (there are as many design solutions as there are designers and users); third, design involves justification (rather than proof, hence design juries, *charrettes*, programs and contract documents); forth, despite its seemingly adversarial character, design is basically cooperative (amongst surrogates) and fifth, designers, architects, contractors, clients and users accept risks, and their nature and significance will be explained.

Since design takes place with an audience in mind that audience is the ultimate judge of success or failure. The essence of communication is to be heard; we are relationship creatures who utter sounds and hear others to learn, understand our place in the universe and interact. Design is merely a complex extension of this process. The design is seen and the audience reacts with words.

Historical examples establish the significance of the audience. Belmopan city was a project I designed using building systems I selected where local unskilled workers could merely assemble pre-manufactured parts; where I designed open “dog run” areas to reflect the traditional house plan and indigenous cladding from Belize.

Barwa City was designed to provide low-cost housing to immigrant workers and their families in an area which was once a toxic waste dump and only accessible by a highway which was overrun with traffic .I managed to get additional roads and access to the site and made it safe.

King Faisal University New Campus designed by a French architectural and engineering firm had many separated buildings and was located on the Arabian Gulf. The theme of the design included round columns and was only designed after numerous meetings, questionnaires and statistical analysis of needs.

These examples suggest that the claims being advanced were not universal truths but subject to the acceptance of actual listeners. The particulars of an audience’s situation will affect its values, priorities, and methods of judgment. The audience for design consists of people the designers want to influence; not necessarily those who are immediately present. Recognizing differences in audience beliefs does not entail accepting the idea that any belief is as good as any other. The consequence of this could be blasé, inane, or “plain vanilla” outcomes where apathetic design produces banal results.

However, design takes place under conditions of uncertainty and need. We do not design something that is already designed although even the notion of design is audience-dependent. Whether the architect goes through rigorous programming or simple intuition, the design is made as a metaphor meant to be shared, used and unfolded. The metaphor and sub-metaphors are all meant to be perceived, used and linked to human scale and particular users in particular places for particular reasons. While some designs are Pavlovian, looking for responses based on certain stimuli, others generally project pictorial references for enjoyment. Yet there are haphazard fabrications which defy peculiarization such as pre-engineered manufactured buildings.