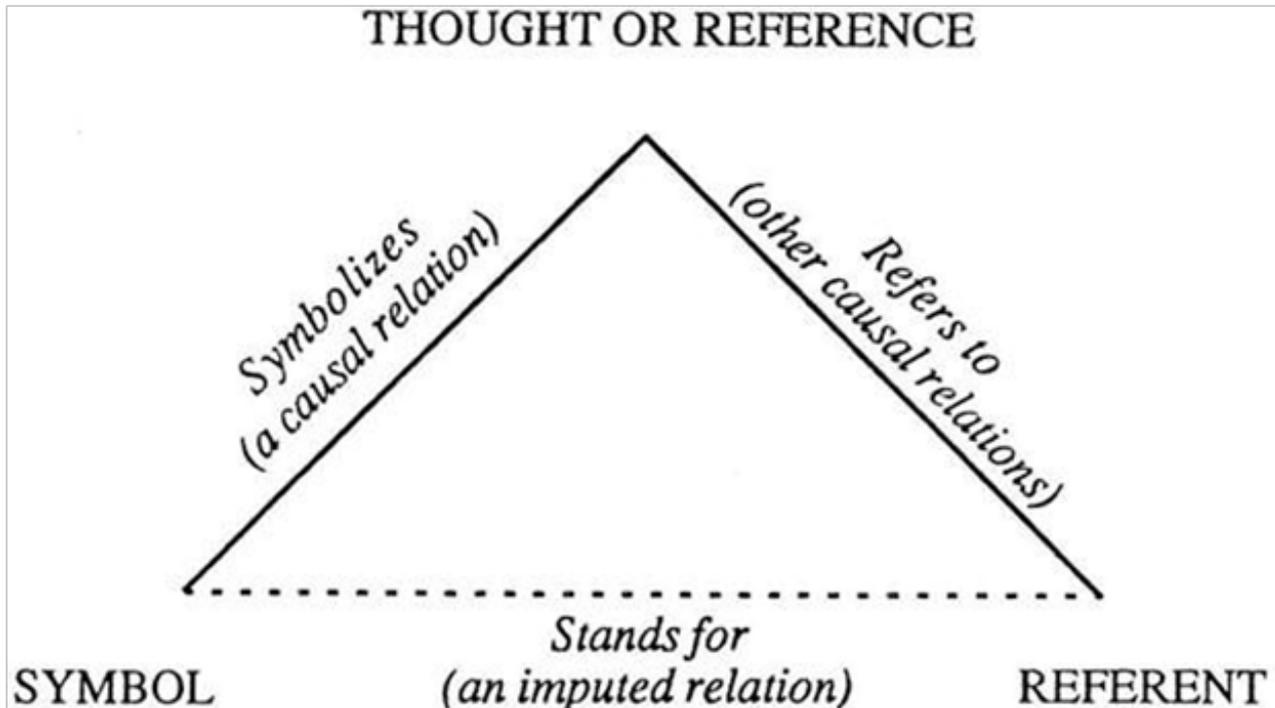




PART TWO

SEMIOLOGY



Linguistics deals with the structure and meaning of languages.

Semiotics is a branch of social psychology that deals with non linguistic sign systems.

Semiotics consist of three main parts namely:

Semantics: The relation of the sign and things which they are referring to. - their meaning or denotata.

Syntactics: The relation of the sign among other signs of a formal relationship.

Pragmatics: The relation between the signs and users thereof

Semantics therefore refers to signs or sign systems

Syntactics therefore refers to the rules that govern how words are combined to create a sentence

Pragmatics therefore refers to the biotic aspects of the phenomena. The psychological, biological, and sociological aspect of the sign system.

Semiotics is often studied within an anthropological context and pertains to human signs and signification.

Umberto Eco stated that “every cultural phenomenon can be studied as a communication.” While John Locke understands semiotics as a doctrine of signs, from the Greek - Semiotikos - it was a branch of medicine that delay with symptom interpretation.

Formulations of the sign:

Signs and sign systems are classified according to their relation to the way that they are transmitted. Within the anthropocentric context they can have three forms that govern the way they are dealt with. Carrying of the meaning depends on the use of code. It could be sonorous, gestural body movements or a general bodily appearance such as clothing etc. All of these factors connote a certain residual image of a person and become their semiotic beacon of interpretation within the context of society.

A word that refers to a thing is known as a lexical word. They, by nature, have to have a communally understood simple meaning. This denotative meaning transmits meaning within grammatical and structural codes. This is the syntax and semantics of the code. These codes then represent the values of culture and add connotation to life's aspects.

Cognitive semiotics deals with signification and its manifestation to humans in a cultural practise. This concerns the study of meaning making - by method of conceptual and textual analysis and experimental investigation. Spatial cognition refers to knowledge or knowing in sentient beings and acquiring of that knowledge. Components of the mental structures include : thinking, imagining, perception, learning, memory, linguistic and nonlinguistic communication, reasoning or problem-solving.

Spatial beliefs on the other hand are acquired, developed, mentally organised, used deductively as reason, and then used as a navigational device.

Language and graphic symbols are used as a spatial communication device, but they are also measured against reasoning and spatial belief which are similar according to certain individuals. They affect human emotion and behaviour. They occur in contexts which are either real or imagined. They focus on space, place and environment.

Architecture in this sense has an influence on cognition and behaviour, by allowing, facilitating, requiring, impeding various thoughts, perceptions, emotions or acts. It becomes the vehicle for the interpretation of signs. Physically it achieves this by : A wall literally blocking sound for example, but mentally, visual patterns are used to stimulate aesthetic responses and invite exploration into the understanding of the sign. Architecture also has a means to sensory access referring to the seen and heard. It draws attention to what is looked at and listened to. The memorability of a building becomes important to the meaning it conveys.

The architecture proposed will deal with the idea of providing a platform to observe and report on the semiotic nature of the city around it. The study of human communication becomes integral to the programme of the building as the idea of a semiological interpretation for the understanding of the urban site as a built context.

Semiotic Premise of Understanding

The question remains is why architectural semiotics are still not quantifiable to the point of useable interest? This is because most architectural objects communicate nothing but function. - a roof serves to cover a building, and that is why it looks as it does. Semiotics provides keys to the understanding of this cultural phenomena by fully understanding the semiotic function. A phenomenological consideration of architecture as a system of communication, while still recognising it's functionality, is ultimately sought.

Three major identified communicators within human society are addressed, then analogously compared with each other in terms of overriding principles in order to define a stance for understanding an architectural communication system. They include: Language, Art, Architecture.

These are the spheres of human society that will be compared by analogy within this chapter, to find a common denominating factor to the other, in order to find overriding formal logic or as a means to an abstracted architecture which in a semiotic manner, draws directly from its urban context to ratify it's existence in a formalistic sense.

	Level 1	Level 2
Signifiers An expressive code refers to the conotata (Second function)	Form Space Surface Volume Suprasegmental properties: Rhythm Colour Texture	Noise Smell Tactility Kinaesthesia
Signified The content of code refers to the denotata (First function)	Iconography Intended Meaning Aesthetic Architectural Idea Spatial concepts Society or Religion Function Acitivity Way of life Commercial Goals Technical systems	Iconology Betrayed meaning Latent symbols Implicit functions Anthropology Proxemics (personal space) Land Value

Semiotics Within a Historical Context

“In essence the nature of architecture is diverse enough to defy all attempts at definition, but is elastic enough to make them all partly correct. It obediently follows the definers wish evolving like the bionic woman in whatever direction the scriptwriter has mapped out. Architecture like the woman of virtue is highly suggestible.” (Jencks, 1969)

For Jencks in the past it was all about identity, place making and personalisation. In Jencks’s time - the 1970s, it was all about energy, environment, ecology with syntax, semantics and sculpture as separate but equal spheres of interest.

The beginnings of semiotic thought started with Vitruvius around the first century BC had his architectural ideologies centred around order, symmetry, eurythmy, arrangement, propriety, and economy. His structural ideologies referred to firmness, commodity and delight.

Firmitas - firmness - durability of the structure
Commoditas - comfort - convenience of the structure
Venustas - delight - the beauty of the structure

As for Walther Gropius in 1919, when asked the meaning of architecture -
“It is the crystalline expression of man’s noblest thoughts, ardour, humanity,
faith and religion.

Christian Norberg Schultz a popular phenomenologist of the 1970s stated
that “ Architecture is a concretisation of man’s existential space” but also
states that architecture is conversely as polymorphous and malleable as
life itself. Architecture according to Schultz evolves around sociology,
planning, politics and psychology.

Charles Jencks wrote a contemporaneous commentary on these views
and coined the idea of “signifiers and signified” were based on Pierce’s
semiotics theory.

The signified refers to an idea or a set of ideas about a certain signifier. This
signifier could pertain to either forms, spaces, surfaces and volumes in the
architectural sense - which refers to rhythm, colour, texture and density.
Other systems of expression include : noise, smell, tactility, kinaesthetic
quality or heat/cold etc.
These determine the architectural code of the city and form the sign
vehicles that create an architecture.

The Saussurean model of linguistic theory ratified a structuralist
manifestation of language. It is not completely accurate because
architecture as a language can only be achieved when compared as an
analogy or metaphor of another architecture.

The smallest unit of speech sound which is called a phoneme, can be
compared to the smallest unit of building - a brick. Similarly the smallest
unit of meaning - a morpheme can be compared to the smallest unit of
construction - a window. This therefore proves that buildings are not merely
constructed from the elements of language nor are these a generalised
consensus as to which elements correspond with each other.

The idea of a signifier or signified when compared in an historical semiotic
context gives light onto understanding the difference between the two.

Semiotic theorist	Saussure	Scalvini	De fusco	Eco
Signifier	A sound image by which a word is dictated	The building's exterior	The building's exterior	An architectural element like a staircase.
Signified	The concept to which the sound image refers to.	The building's interior.	The building's interior	The act of traversing such a staircase.

Signification and Meaning

Signification and meaning in architecture. - From signs symbols and architecture JENCKS BROADBENT

With reference to Charles Sanders Peirce, an American philosopher and semiotician in 19th century America. Peirce provides a good base for the understanding of semiology - based his theories on influences from both Saussurean and Peircian semiology.

He refers to his trichotomies of semiology:

The icon- which reminds one by resemblance.

The index - which is understood without precognitive cultural knowledge

The symbol - a word/building which needs social understanding

Signs according to Peirce have an indexical vs iconic relation. Indexical refers to the signifier and referent being directly and proportionately connected. Iconic signs are when the signifier is not part of the referent but it depicts it transparently. A symbolic sign is when the signifier is considered arbitrary and only exists in reference to other signs.

Signs: they can be either of a symbolic indexical or iconic in their nature

Symbol. The base level of a symbolic sign. It's conventional usage sets the arbitrary relation between the signifier in the signified - it refers to the appropriate use of revival styles.

Index: is in existential relation between the signifier and the signified- this is usually learned by the perceiver over time and disguised as symbolic signs. - example a stop sign meaning stop.

Iconic signs: these have a different set of relations between the signifier and signified but are both indexical and existential in relation. For example a hot dog shaped hotdog stand, pie/wedge shaped auditoria, tubular circulation, structurally shaped bridges (the bridge never appearingly matches the forces going through it)

Forms and materials are used according to the general and emotional overtones for example red can be seen as aggression of passion etc which leads to colour theory in semiotics.

Psychological nativism refer to the concept of “hardwiring” of thoughts. Immanuel Kant in his critique of pure reason” was used to indicate that humankind knows objects in an innate ‘a priori’ way. In contrast to empiricism - the blank slate or tabula rasa type worldview, which states that the brain has innate and inborn capabilities for learning from the environment, But does not contain content such as innate beliefs. It will rectify is the idea of cognitive potential but denies that all humans are preprogrammed to act.

While Foucault’s emphasis is on the disciplinary technologies of modernity, Deleuze and Guattari seek to theorise and appropriate all of modernity’s positive aspects as the decoding of libidinal flows initiated by dynamics of capitalism (Deleuze for architects 1980:3)

“it’s nice to talk like everyone else, to say the sunrises, when everybody knows it’s only a matter of speaking”-the earth revolves around the sun which also has an orbit, therefore to say the sun rises is actually misnomer. “sunrise is a very limited and earthbound condition”

According to Tim Adams who did a comparative study in semiology which started at the genesis of Peirce’s ideologies of ‘pragmatics” which Deleuze and Guattari term “schizoanalysis” (Deleuze & Guattari 1993:146) Peirce’s pragmatism is a method of establishing meaning. Based on the practical effects produced - based on not what the thing is but what you can do with it.

Icon: which signifies an object by resembling it: a painting of a fire\

Index: which signifies by really being affected by its object: smoke indicating fire

Symbol: which signifies by depending on a learned convention” shouting FIRE in a theatre.

To Peirce, and image is an icon. A diagram can have an icon index awesome all in very degrees a predominantly iconic diagram which represents the creativity of a conventional sign and connectedness to the real of the indexical sign. A diagram is important and can represent essentialist relations of parts of one thing with analogous relations to its parts. Diagrams are not resemblances although sensuous resemblance is not ruled out they are veridically analogous to the thing being represented.

- this gives diagrams a sense of truth about their objects, diagrams become the link of art with science. They become abstract machines to deleuze “ on the cutting edge of creation and territorialisation.

“Deterritorialisation to the partitioning and coding of any continuum whatsoever whether it exists in time or space.

Refrain : a clock tower which marks the hours of a day for organised labour. A national anthem that includes some and alienates others. Or tribal body territorialisation by inscribing it in rites of passage. Capitalism in this sense deterritorialises someone as not being the owner of his or her body and purely a lost being in the sea of commercialism.

Deleuze +Guattari when referring to the trans-semiotic regimes of signs, refer to pre-signification signification, counter signification and post signification of any one particular denotation.

“All semiotics are mixed and not only combine the various levels of content but also combine the different regimes of designs.” (1993.119) The diagram of Deleuze and Guattari is one that is a transformation that blows apart all semiotic systems hence “a signifying diagramme” this diagram is an abstract machine that is in itself not physical or corporeal, any more than it is semiotic’ It is diagrammatic and knows not the difference between the real and artificial. matter over substance and function over form.

Systems of signification are built up over time following the adoption or reuse of certain forms and their position with respect to other forms.. The signifier which pertains either to a word/symbol or form connotes a signified thought or content which may or may not denote something (a referent; object ; or natural function)

Contrary to Jencks theory, Umberto Eco and Maria Luisa Scalvini place use and denotation prior to aesthetics and the connotation. They are interchangeable to some degree because neither can claim priority or historical genesis of use > symbol or function > idea.

What must be made clear at this point is the clear difference between a depiction and a description.

The sun	Depiction of the sun
propositional	imageistic
discrete symbology	gradient marking
basically arbitrary	basically ironic
decode to interpret	imagine to interpret.

The Relationship Between Architecture and Linguistics

Words such as functionalism are misused by architects and critics. The concepts that are used in discussing them and the words by which they are defined belong to the realm of linguistics, not that of architecture. The question is which mode of linguistic analysis can be used to apply to the language of architecture'. The language is defined as a system of signs as seen in Saussurean semiology - and that which it seems as an aspect of communication. Contrarily Pierce's and Morris' semiology, which focuses on language existing in a particular movement in time and aims to find rules by which language is generated.

As in Noam Chomsky's generative and transformational grammar rules, learning can be done rationally, epistemologically or empirically. Rational learning refers to learning on the basis of innate ideas as a conception point for locally developed and self consistent theories. Learning epistemologically and empirically on the other hand, is to understand everything humankind knows as based on past experience.

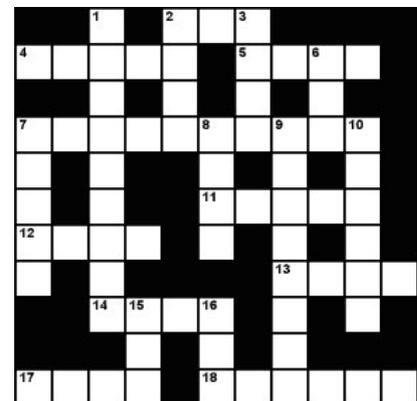
The difference between internal indoctrination which refers to precognitive thought versus a humanist collective consciousness is thusly explored.

This idea of operational conditioning can be attributed to the Pavlovian dog experiments, where a classical conditioning reflex was theorised. Pavlov's dog experiment was to prove a conditional reflex in dogs that start salivating before receiving a biscuit treat. The experiment implied the possibility of precognitive ideas.

The phenomenon of collective consciousness on the other hand, is illustrated with one major example- The Crossword Puzzle phenomenon as conducted by Monica England, a graduate student in Britain.

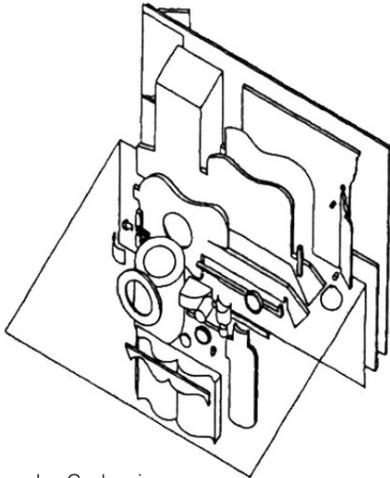
England's research essentially found that crossword puzzles were more easily solved by others once they had been published in a newspaper and completed by a large group of people.

This research points to the existence of a collective consciousness. As the crossword puzzles are viewed and completed by a critical mass of people, the information becomes part of the collective consciousness and can be transmitted from one mind to another. When such phenomena occur, there is no other explanation than a collective consciousness, or the idea that we are all linked by an underlying universal consciousness.



<http://amedram.com/wildflowers-a-z-alphabet/>

Empathic Imagination



Le Corbusier

Aulis Blomstedt (1906–79), Taught Juhani Pallasma ‘The talent of imagining human situations is more important for an architect than the gift of fantasising spaces’ This statement was made in accordance to architecture not merely being involved with the formal, visually aesthetic, and compositional qualities of the design, It also guides, choreographs and stimulates the actions interests and moods in people. It gives are experiences of being specific content and meaning. Place and situation are tuned in a specific way which project a specific atmosphere.

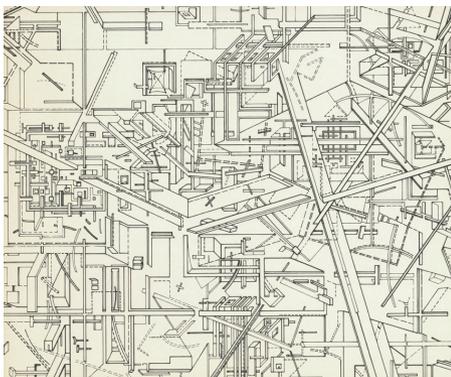
There are two kinds of imagination, according to Pallasma, in 2011 formal and empathetic

The formal imagination pertains to topological or geometric facts. One that projects formal and geometric images - while the object remains out of the experiencing self (an object in isolation). Empathetic imagination refers human centric emotive judgements moods and experiences.



Le Corbusier photo - author

The sculptor Henry Moore refers to solid shape as form, volume and space as inseparable entities and worked on them as multi-sensory entities. Art becomes a product of the experience of human beings interacting with their environment. Human beings in formal structures and qualities have significance in perceptual process, but they are merely the intellectual scaffolding for experiential and sensory reality. Art can be divided into physical matter and mental imagery. A test of the validity of these ideas is to project imaginative personal influence into the work. The architectural design process starts with architectural ideas or aspirations, particularly emotive quality, emerging as initially immaterial mental feelings in design process, but then translated and transferred into the building and finally to the person experiencing it. Liebeskind’s Micromegas and Le Corbusier’s cubist layering of planes are a great example of both existing simultaneously in mental imagery as well as physical manifestations. This marks the dual nature of art - it’s ability to have a three dimensional connotation.



Daniel Liebeskind's Micromegas

According to Pallasma, design is a vague and alternating process of internalisation, projection, thinking and feeling which eventually becomes more precise and concrete. Zumthor’s immediate feeling granted by an context - gives rise to the mood of the materiality of an existing room. It also has the ability to sense the atmosphere and tune of the space, projecting the image of itself onto the perceived object.

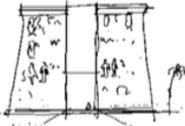
Human empathic imagination refers to the capacity that someone can imagine something no- one else has imagined and also bring that vague vision into the context of a physical or lived reality.

Semiotics Within an Architectural Context

Semiotics reentered into the architecture in Italy in the 1950s, with theoreticians such as Maria Luisa Scalvini and Umberto Eco. It started as a reaction and questioning the international style, looking for local and regional responses to the flaccid esperanto of the international style. Semiotics then became a fashionable topic of the architectural discourse in the US with Robert Venturi, Denise Scott Brown and Charles Izenour with their seminal work - learning from las vegas.

Venturi states on page 37 “the rate of obsolescence of the sign seems nearer to that of an automobile than that of a building” This is based on the sign competitors which change at fast rates. The most unique and monumental parts of the las Vegas strip - signs, casino facades- are the most changeable and malleable to changing interests. It is the neutral systems such as the motel structures that are situated behind these ever changing signs that survive a “series of facelifts”

SCALE SPEED SYMBOL

AMIENS		persuader to enclosed space			
EGYPTIAN PYLON		space divider with civic messages			
TRIUMPHAL ARCH		complex-space connector			
ROMAN THEATRE		ambiguous back drop			
HIWAY BILLBOARD		vast-space persuader			
LAS VEGAS		vast-space connector			

16. A comparative analysis of “billboards” in space

The symbol before form in space: las Vegas as a communication system “ Wellcome to fabulous Las Vegas, free aspirin, ask us anything, vacancy, gas.” is what is lambasted on the entrance sign to Las Vegas. Jencks states : Venturi, like the typical modernist which he means to supplant, is adopting the tactic of exclusive inversion” this refers to cutting an entire area of architectural communication away. The duck buildings, which exemplify the form they are trying to identify or the decorated shed with symbolic signs which become more potent than the building itself.

The analysis of Las Vegas as a phenomenon of architectural communication:

“an analysis of a Gothic cathedral structure will not debate the moral implications of the medieval Christian religion” therefore in the same sense, no moral values of gambling and competitive instances of commercial interest are questioned in Las Vegas. Only principles of semiotics are compared analogously to a study of method not content. Methods of commercial persuasion in the skyline of signs becomes the modern trend of the exclusion of the vernacular modern - it becomes improved and universal.

Modern architecture focuses explicitly on the sacredness of space, the essential ingredient that separates architecture from painting, sculpture and literature. Even though painting and sculpture can have spatial characteristics the opposite in principle is not allowed. Sculptural or pictorial architecture is unacceptable because space is sacred. When considering architecture as space purism was seen as a reaction to the Baroque 19th-century eclecticism which draws parallel to Mircea Elliade’s myth of eternal return. In this book he notes on the cyclicism versus historicist time. its main theme is that the idea of time and belief will always cycle between a sense of Humanism or a scientific exploration and acquiesce. - the peaking and troughing of human belief paradigms.



This can be compared to Charles Jencks’ style chart which indicated the reoccurrence in schools of thought over time. Or to the Renaissance idea of an Ouroboros, and this refers to a snake eating its own tail, is an alchemical physical symbol of recurrence in history par excellence.

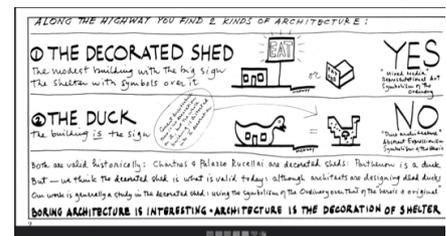
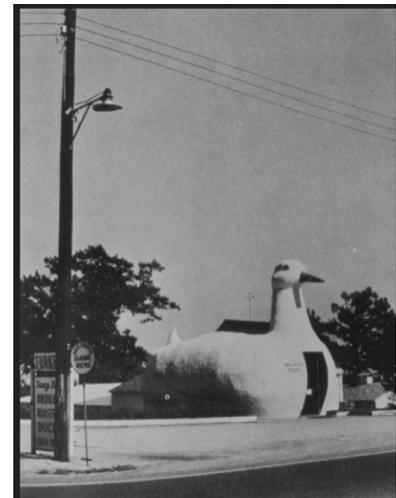
Architectural theory from Renaissance to the present Taschen

Le Corbusier 1887- 1965 was one of the main protagonists in the modern movement along side Alvar Aalto In Venturi's starts to identify the roots of contradiction architecture. His premise is varied in complexity and contradiction in architecture. He acknowledges that He wishes to offer a critique of architecture in order to justify his own work. With the premise not to objectify, but to give artistic license: he examined those aspects of architecture which interested him - mainly the complexity and contradiction thereof. Venturi postulated, in an anti-Miesian manner that " more is not less" as a rebuttal against Mies' Famous quote "less is more". The Miesian and Loos' lack of ornamentation was that which characterised the birth of the modernist style. The achievement and cultivation of this hermetic style, was done by ignoring many factors and societal needs for symbols. Demonstratively less, forms of a unification of ambiguity in modern architecture become quite boring to Venturi.

Villa Savoye with its simple exterior but complicated interior proved that Corbusier was the master of subtle but effective rule making and breaking. Venturi refers to literature and art in Las Vegas learning his second book. Using photography, maps and diagrams he demonstrates the seductive characteristic architecture of Las Vegas. With reference to how parking lots, advertisement boards, street lights and casino designs function with respect to each other.

It had less to do with a real architectural forms such as that of the Villa Savoye and more to do with architecture as a means of communication. Symbols dominate the space, not a architecture, with their sculptural form, neon lighting, and formal falseness that takes over the actual architectural form and it's validity within the context of architecture across time. In spite of this cacophony of chaotic messages, Which the writers do not deny, they find clues for the design of an animated, multifaceted and contradictory city would you do it exists in mockery of modern ideals.

Taken from Peter Blake's: "Gods Own Junkyard" which refers to the planned deterioration of America's landscape - Shows a duck - this duck, fast food restaurants specialising in poultry on a country road takes the form of a giant duck. The building becomes sculptural in its own right; symbolic form has taken over the architecture - contrast and then with the decorated shed which is no more than functional box dressed with symbolism. This decoration and the sign which is added on to the roof, or a second front wall for façadism indicates that its function is totally independent from the architecture.



While in the duck, the architecture is the symbol and fulfils the function.

Venturi fundamentally accepted the duck and shed. He drew attention to the fact that they both have their place in architectural history. He believed the Cathedral in Amiens was also a giant advert to christianity with a functional shed behind it - which because of its symbolic form is still a duck.

Modern architecture dictates that the role of the duck is not lost. It still has its gravitas today for the understanding of anything that countered the modern movement could ever be understood.

Language Games.

According to Ludwig Wittgenstein - links between words and meanings derive neither from any finite correspondence with objects (realism), nor do they form any shadowy 'inner meanings' (dualism/ambivalence) but always from their USE in any social situation. Human language is purposeful - there are as many languages in the world as there are customary forms of behaviour.

Furthermore it must be noted that the meaning varies according to the behavioural context in which words are used. For example the word 'fix' has a very different meaning to a handyman or an addict.

Wittgenstein's language rules are not grammatical rules for language but rather behavioural rules that govern the use of language also dictates that variations of meaning reflect distinctive subcultures with their own internal dynamics. The meaning is also shared therefore behavioural rules fall within a social context.



Original Staunton chess pieces, left to right: pawn, rook, knight, bishop, queen, and king
Photo used by permission of Frank A. Camaratta, Jr.; The House of Staunton, Inc.; houseofstaunton.com - <http://en.wikipedia.org/wiki/Image:JaquesCookStaunton.jpg>,

The meaning of a chess piece according to Wittgenstein's language games - *20

The meaning of a chess piece is not given in any one to one simple relation between the name and the chess piece, nor in its specific use. The meaning is given by its position within the entire range of possible moves of all the chess pieces on the board, as governed by the social rules of the game of chess. Such meaning only makes sense if the players agree to abide by the rules of the game. Therefore to enter into any language is a tacit form of social contract governing the use of words in a particular context of human action, unlike a sentence, a language game cannot be analysed in terms of rules of grammar alone, but must be analysed according to both behavioural and grammatical rules.

Wittgenstein's theory also stresses the relation of language use to the function codes of behaviour and modes of expression.

This tends to the idea of linguistic relativism again which pertains to the rightness or wrongness of any particular statement relative to the criteria set up by specific rules of the language game.

The unique aspects of this language game - Its own integrity, style, and set of logical principles . The understanding of an individuals use of that particular game is achieved by a process similar to that of empathy.

Empathy in understanding a buildings given intention, meaning and denoted function becomes tantamount to the understanding the contextual position and validity of the building within the greater urban context. By means of the observer adopting the criteria and outlook of the language user on his/her own and by looking out at the world through linguistic spectacles. When applied to architecture a strong thesis of relativism results in a conclusion much alike that of Watkin's theory. Architecture is conceived as a language game all of its own, with its own independent language traditions and aims.

From this point of view architecture as "something else" is to deny the integrity of the architecture and is doomed to fail. Architecture can only be understood from within, according to terms of its own internal criteria established by a historical and empirical basis of architecture.

According to the theory of relativism, it is impossible to be unique without the comparison to something else and different. Relative autonomy in architecture with regards to meaning interpretation, is considered very important and as something else entirely. The analogy of architecture within a context of language therefore provides an opportune platform for focusing on the qualities and attributes of such an architecture.

Language games rely on manifold ways in which we use language to give form and meaning to life.

The language and behaviour relation suggests that even within the same language speaking community, differences in language use reflect significant changes or differences in sub cultures. Therefore the architecture involved is properly interpreted as a semi-autonomous language game subjected to its own rules and criteria but also to influence from external sources. Stressing of the qualified creativity in architecture as in other realms of human activity which depends on open interaction with other culture forms. It does not necessarily follow therefore that architecture ought only to be assessed within its own terms as a form of artistic creativity and not an art form.

The three evaluation types of comparability are:

1. To evaluate it according to internally established rules (the knowledge base merely increases in terms of existing rules or criteria).
2. To question the rules and criteria which led to the behavioural theory or product.
3. By the complete substitution of one set of criteria completely by another.

The history of typological meanings:

The ‘cheese grater’ as an arrangement of precast units for a parking garage. Or a truncated wedge or pie shaped form denotes an auditorium, this can be understood as visual acoustics from the outside and signifies that something inside will be of a cinematographic, theatrical or musical nature.

First basing unfamiliar units, are metaphorically mapped onto systems that are already known, in analogous way means that this metaphorical activity by necessity is an aspect of all thought that it is creative. It becomes crucial with respect to modern architecture simply because it is unfamiliar. Unfamiliarity brings a sense of excitement and in that manner it is unique.

On the other hand buildings can be metaphorically condemned by their forms for example: “that shoebox, filing cabinets, clothes irons, home has machine. etc this refers to the nicknames people colloquially give buildings with recognisable forms. This metaphor usually detracts from the iconoclasm of the building but sometimes it is a means to publicity anyway. For example the “tissue box” or “toilet bowl” that is Cape Town’s soccer stadium. The modern movement actually applauded these unexpected associations. This tends to the idea that an architectural possibility of a sign which gains cumulative meaning over time, or the meaning that changes according to societal desire.

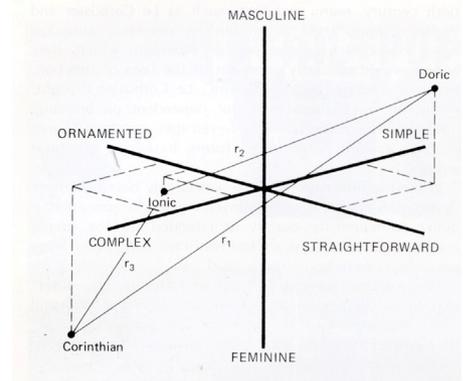
20th century architects such as Le Corbusier and Walter Gropius tried to establish a universal language or ‘esperanto’ of ideology which they hoped would naturally grow out of the laws of function, structure and perception. The purism of Corbusian thought, was meant to be transcultural and not based in learning history and symbolism. Pier Luigi Nervi believed architecture was evolving towards I’m changing forms based on structural universals. The international style is largely based on this type of iconography, but it didn’t communicate the exact intention because it is too symbolic .

In this picture it indicates the Doric Column which has overtones of rationality security and sobriety. These orders are invariably connected to functions by usage and are mostly functions of the symbolic sign.

This proves that the architectural sign is more indexical and iconic than the linguistic sign, which is relatively more symbolic. Therefore architecture can be more motivated than language. When language and the symbolic sign are arbitrary, the relation between the signifier in signified is irrational. But rather its initial interest is generally unmotivated ; subsequent use is motivated as the very slow changing nature of language indicates. Most architectural signs our compound, indexical, iconic and symbolic all at once - with one tendency that seems to dominate. Modern architecture is void of natural metaphors and therefore there is no self transcendence, it is therefore obsessively indexical and therefore but banal and literalist simplified into a sense of functionalism.

The specificity of codes from most to least architecturally relevant.

1. A way of life sign - this refers to in habitation and comfort (Clothing, effects and artefacts)
2. A sign of building activity - in reference to the historical process of change in a building.
3. A sign of tradition.- This refers to a sign of personal endeavour, identity and the fulfilment thereof. Ideas or beliefs represented in traditional architectural history is described as iconography. All sign systems fall into this category.
4. A sign of various functions including use. Any social activity, structural ability, environmental serviceability
5. A sign of anthropological meaning. This refers to proxemics refers to the study of the nature, degree, and effect of social spatial dimensions. (as in various social and interpersonal situations) and of how this separation relates to environmental and cultural factors. (merriam webster)



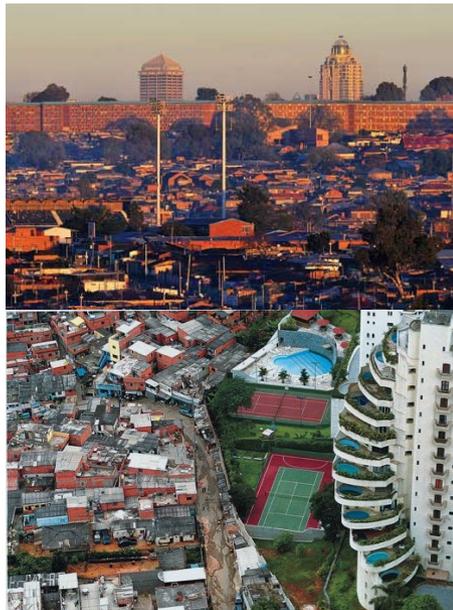


Google earth images 2015 , Al Jawf, Libya



6. Claude Levi Strauss referred to the architecture with regards to the village and the city and how the patterns that were apparent when seen from above dictate a social and economic life difference.

7. A sign of social iconography or economic class: Land value and social systems can be ascertained as a semiotic system.



(Visible and highly juxtaposed division between rich and poor in Sao Paulo – Photo by Tuca Vieira) Or similarly in that of a South African context, the juxtaposition between Alexandria informal settlement in the foreground and the financial CBD of Sandton city in the background.

8. A sign of psychological motivation- whether something is hidden, betrayed or overt in phallic or sexual codes for example to “sell” its ideology.

9. A sign of spatial manipulation: The renaissance ideology that space is represented as positively at an interval between the walls and structure, where now the ideology is that space is the void created by enclosing solid positive elements.

10. A sign of surface covering- This refers to the last layer of constructional meaning. It is an expressive code that is most noticeable because it contains the ability to change the entire rhythm, colour, texture, proportion size, smell and tactility of the overall architecture.

11. A sign of formal articulation. The categories of material articulation should be separated from three dimensional articulation. These three dimensional material articulations are based on form, mass and density of the object in question.

Functional architecture refers to when the designer starts with a preconception of a physical structure, E.g a Building framed in steel or concrete with prefabricated panels or masonry infill. These structural preconceptions are stronger in system’s building.

Architectural necessities of function.

1. The provision of a comfortable environment with regards to : temperature humidity and light and the control thereof.
2. The protection of particular activities - from the hostile external environment. (safety security.etc.)
3. The provision of symbology for the necessary emotional, imaginative, fantastic and religious stimulation in people. These symbols do not necessarily denote a building, - a cave with paintings could suffice to these rules of necessity.

The archaeologist Professor Leakey in 1954 claimed that a pile of stones found in the Olduvai gorge was used as a wind break over two million years ago. Also, the recent findings in Johannesburg by the University of the Witwatersrand, of Homo Naledi prove that the concept of organised burial was conceived over 2 million years ago. These accounts prove that Australopithecus Africanus modified his natural habitat with respect to the given environment. They also could however been used for symbolic or religious purposes or merely marking an assembly point. Regardless of their intended uses these modifications to the landscape indicate an architecture of intervention and may be the origins of an architectural language that organised that intervention.

Battle of the enduring form - Can Classical be Compared to Organic?

The classical ideal form, comes at the expense of function. Universal standards are kept at the expense of site and client characters. Organic ideal form comes from a direct response to the function itself. The identity of the the client place and region are maintained and kept at paramount importance.

Partisan and prejudiced criticism to both the classical and organic forms form a perfectly normal discourse of opposing theories. Misrepresentation of theories that occurs are essential to both tenets. They present complimentary systems of values that are equally valid and important aspects of the human condition.

Architecture is seen as needing support from all ecological, regionalist and populist spheres. In the same sense it must always revere the ideal. It must be used as a measure of present conditions but also as something to aspire to. It must be self referential, reference all the architecture that has led up to this point in theory and be sensitive to what can and should happen in the future. It can therefore be concluded that the classical architectural is no less a legitimate source of inspiration that is particular to a specific people or place.

Mies van der Rohe's New National Gallery in Berlin. is a good example of this criteria application - but not pertaining to the architectural work itself.

Temporary exhibition at this museum is located atop the glass prism that signifies the open public level while the permanent exhibition is located below the natural public ground level and seems to sit within the base plinth. No evident functional expression of the gallery's programmatic contents represented in the outer public realm.(and therefore not organic) Also the building provides little in terms of flexibility that would allow for adaption into another or multiple uses. It is in that sense iconic in its rigidity and that's what architects have come to revere about the esteemed Miesian building style.

A Miesian square steel modernist pavilion can be compared to an interior of a Sharoun building. Where mies places his emphasis of the building as an object, where the massive spaces have no relation to their function - while Sharoun is concerned with interior spatiality - the interiors directly relate to their programatic function and the forms that surround the interior spaces speak and indicate the nature of the enclosed function.

When comparing classical or neoclassical architectural building tenets to that of an organic style is bound to failure, where one style may portray that ornamentation is necessary for a sense of expression, the other style may be in full opposition to frivolous adornment which to modernism threatened to abolish. A classical or even modernist style represents the purity of form as its priority and the level of expression comes secondarily to this.

The idea of a classical building when understood within the zeitgeist of the advent of artificial light and using that to one's design advantage is a strong exertion of the expressive function of a classical building. Organic tenets on the other hand tend to favour natural light. This criticism fails without the understanding of mies' tenet of purist finality. Finite in the sense that each of his seminal buildings are pristine examples of the classical ideal of the architectural tradition and that the structure is no more complete (or incomplete) than a square steel structure, this makes it a wonderful success as an expression of pure form.

From this it can be understood that the language of the classical versus the language of the organic is vastly different, even though they fall under the same umbrella term of architecture. They have a differing worldview and have different concepts of reality.

A literal interpretation of architecture as a language is unattainable, Architecture has its place in spoken language or as a communicative symbol system. Even though conversely a spoken language can have an architecture or structure.

This comparison of organic to classical may seem arbitrary at first as they are vastly differing schools of thought, but it becomes a paradigmatic lesson into understanding of language games and architectural traditions. Being masterpieces of each tradition, they can become analogously compared as differing systems of belief. When each of the buildings are compared, they represent distinctly different language which is being compared and each of them have their own internal rules and logic. Each offers a different interpretation of the reality that surrounds it.

One may deductively then say that language becomes the bridging translation between built form and the observer that views it, by means of a linguistic and analogous process of explanation.

IDEA	=	IDEA
TENET	=	TENET
VALUE	=	VALUE
PARADIGM	=	PARADIGM
BUILDING	=	BUILDING

Ideas can be compared with ideas , Tenets can be compared to tenets, values with values and paradigms can be compared to paradigms. But buildings cannot simply be compared to other buildings.

This analogy has three main spheres of comparison.

Positively- clearly shared aspects of comparability are being compared between the two

Negatively- Not clearly shared aspects and therefore it describes the difference between the two.

Neutrally- Yet unspecified attributes of comparison will be used but they will reveal their use later - either way.

This analogy is seen as a heuristic and self-empowering analogical tool to assist in the building of a theoretical stance or base for a stance and must be taken solemnly but not in the literal sense.

This draws a parallel to the programmatic considerations of the building itself. There will be a choice upon entering whether the user or observer is allowed to interact by forced learning of information, by voluntarily learning or heuristically empowering oneself to be educated, the highest possible form of education.



Analogy

“There is a correct and proper place for interpreting architecture in other terms most especially in terms of a language analogy” (Abel, 2000:10).

The concept of “architecture” and the “other” is explored in this book concerned with the architecturally analogous function of language. The epistemological function of an analogy in the generation of new ideas and helping of others to understand the un-understandable.

A Language analogy - thinking analogically.

Using language in an architectural discourse it is not that architecture is being made, not that architecture is a language but is much alike to one. “the language of architecture is no more than a metaphor or the given name to a specific relation by analogy between otherwise different ideas.

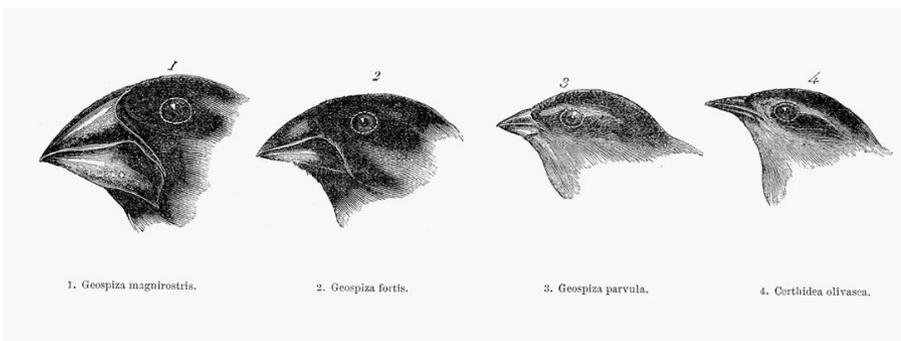
This brings attention to the fact that firstly architecture and language are assumed to have common attributes. but obviously not all of them. Secondly that not all forms of analogy are assumed to have the same potency or effectiveness at meaning conveyance. T.S Eliot -in 1922 for example was more concerned with the emotive power of metaphors than the literal meaning itself as evident in this stanza of the poem- The Wasteland.

“ Which are mountains of rock without water
If there were water we should stop and drink
Amongst the rock one cannot stop or think
Sweat is dry and feet are in the sand
If there were only water amongst the rock
Dead mountain mouth of carious teeth that cannot spit. ”

Marcus Hester’s commentary on this stanza of the poem draws attention to the line the dead mountain mouth of carious teeth that cannot spit. The metaphor is that of a dry mouth of a skeleton, but a mouth so thirsty he is unable to spit. The mere reading of these metaphors is to have an illusion that one is experiencing life. The personification of the mountain, makes the reader existentially aware of his immediate surround and not that he/she is reading about a personified mountain.

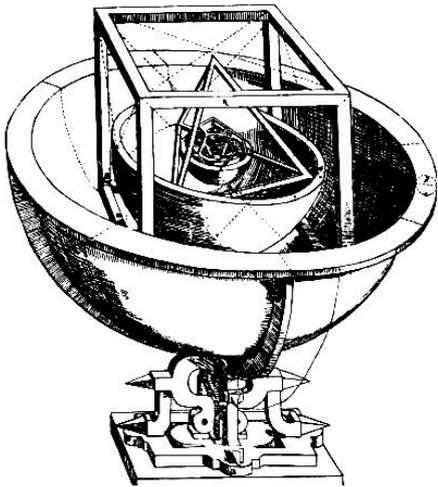
Contrastingly to the poetic interpretation of metaphor, the scientific and epistemological method of the scientific individual is to take a stance of analogy to understanding the world in its innovative and exploratory powers. - only by comparison to previous knowledge bases and in comparison to other similar ones, can a scientific theory be based. In his wide ranged studies of creativity- Arthur Koestler offers the discoveries of Kelper and Darwin as examples of the innovative function of analogy.

On his visit to the Galapagos Islands, Charles Darwin discovered several species of finches that varied from island to island, which helped him to develop his theory of natural selection. The comparison of these various species formed the basis of data comparison and then the ability for a theory to arrive as an informed deduction.



“Multiply, vary, let the strongest live and the weakest die.”

—Charles Darwin, *On the Origin of Species*
<http://all-that-is-interesting.com/charles-darwin-facts/darwin-finches>



Charles Darwin is noted when explaining the apparent diversity of living species and their peculiar fitness to a specific habitat. The understanding Darwin at the time (c. 1859) was the obvious agent of selection. Natural selection is an agent of microevolutionary change in which a population of an organism becomes better adapted to its natural habitat by genetic inheritance of advantageous traits which result in enhanced survival of individuals with superior fitness and reproductive success. This results in the production of amazing amount of phenotypic diversity that appears among organisms. (McGinley, M. 2012)

What was this natural agent that sparked the understanding of the diversity of species and natural selection?
The breakthrough came with his second bold theory that was partly inspired by Thomas Malthus' theory of population control.

“That the increase of population is necessarily limited by the means of subsistence,
That population does invariably increase when the means of subsistence increase, and,
That the superior power of population is repressed, and the actual population kept equal to the means of subsistence, by misery and vice.”
(Malthus T.R. 1798:61)

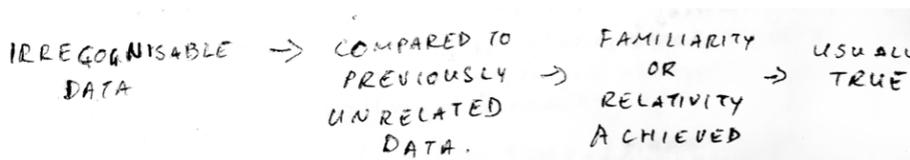
Based on Malthus' theories darwin concluded that 'survival of the fittest' pertains to both the human and animal population equally. - nature at large.

The other example of Johannes Kepler (1571-1630), is used to describe that planetary motion and astronomy was only understandable through their geometries relative to each other. As can be seen in the 'Mysterium Cosmographicum' (Hart, 1999), A model of circumscribed platonic solids was used to relate orbital planetary paths to a possible geometric ordering of the universe. He found this model to be too inaccurate, realising that other concepts were necessary to account for these irregularities in accuracy of his models. This formed the scientific basis of astronomy for the time - A knowledge base to be built on.

In both of these cases, Darwin and Kepler, the understanding of nature. In both of these cases, some unexplained phenomena was compared, analogously, to data in terms of the already familiar, but previously unrelated ideas or processes.

Explanations are founded on supported empirical evidence. This tends to the idea that great scientific theories are -as farfetched as they may seem at the time- analogously based on empirical evidence that is believed to be correct by a mass population already. If there is no means for this comparison, the idea seems dumbfounded and “in the clouds” per se. This contextualisation of scientific information by comparing it to information of the past is what is used to ratify it.

Irrecognisable data-> compared to previously unrelated data -> Familiarity or relativity can be achieved-> original statement usually holds true. This methodology of argument by analogy can be seen as the sinequanone of scientific discovery - all scientific theories are based on previous theories of the past and previous ideologies on the same subject.



Applying Language as an Analogy to Architecture

A language analogy in architecture is used to extend out knowledge of architecture as a form of culture. Not just a fleeting fad or fashion, The language analogy constitutes a perfectly legitimate and even rigorous inquiry into the nature of architecture itself.

Given the exploratory function of analogy, what kind of new knowledge can be expected from the idea of a language analogy in architectural discourse? The choice of analogy itself gives us a large part of this answer. We select a particular analogy because we already have an idea of a particular something which needs explaining. The analogy is almost always related to information that is known which will assist in finding the unknown counterpart successively. Darwin for instance, needed to explain what his realisation of selective breeding techniques was, therefore there was no arbitrary force of cognition, but the discourse is prompted by those aspects that nature sought to explain. - this makes for a wonderful basis of interaction between humans and their environment.

Darwin had to explain why some species changed and why some disappeared. His dramatic realisation that the relevance of selective breeding techniques was therefore no arbitrary act of cognition, but was prompted by those aspects of nature in which he sought to explain. Similarly in architecture, something in need of explanation, namely its function as a system of social communication.

Having recently discovered this semantic realm/dimension that architecture is able to convey, we come to realise how little we understand of it. (Abel 2000) The realm of signification and meaning in architecture constitutes the unknown to which the language analogy is sought to address. In referring to architecture as a language, we embark upon a voyage of discovery into the unknown and unfamiliar territory of architectural meaning.

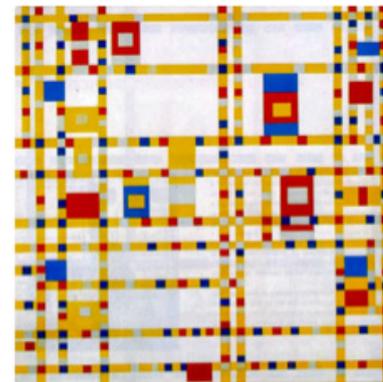
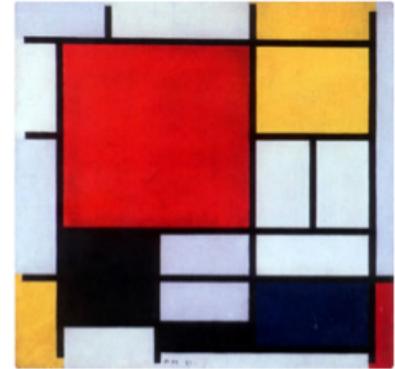
The familiarity humans have with the known features of their languages forms a departure point, or a chart to plot a course. These language familiarities form a rapidly growing body of knowledge that deals with language as a communication system, by the way we attach certain meanings to certain signs, with ruling systems that govern those sign systems, we look to language as a model for those communicative processes that we do not yet understand.

On the other hand of the argument, analogies can take over our perceptions to the point when we begin to forget the halves which the analogy is comparing. This is the demise of the analogy. It must not be taken too literally to the point of forgetting the importance of the separate entities being compared.

‘Architecture is a Language’ - this is too absolute of a statement, albeit metaphorical, because it gives no autonomy to either entities in their own rights. Not that we should use analogies all the time to describe the difference between two entities, but they should be used to base analogical reasoning with an overriding sense of criticism and how it relates to other forms and reasonings - a basis for the beginning of an understanding. Esperanto, a constructed international auxiliary language developed from 1870 - 1890 by Lohzar Zamenhof. It was taken mostly from Romance and Germanic languages became popular at that point because of its judicious use of affixes and the reduction in the number of root words. Zamenhof strived for a world language. Although this was unfortunately never a statutorily accepted as an international language in any country it gained quite a bit of acclaim in the 1920s and 30s. This example of over-standardisation or over-prescription becomes a denial of the basic human desire for variability. The synthesis of all languages into one would dull an otherwise rich cultural scenography.

Linguistic Theories

Linguistic Relativism. The primary issue is the choice of which architectural attributes are used in the comparison. The selection of a suitable theory is governed by matters relating both to the explanatory power of the theory and also a special interest in the language of architecture. It is less concerned with the minute semantic analysis popularised by semioticians, than with what a linguistic theory can contribute to our understanding of the role of architecture in the creation of social and cultural identities. With regards to linguistic relativism, The Sapir-Whorf (1954) hypothesis has long been established at understanding the link between thought and language, as well as the unique way in which each distinct language affects the language user's perception of the events. Human beings subjectively experience "their world" alone in the world of social activity as ordinarily understood, but are at the mercy of the particular language which has become the medium of expression of that society.



Quite an illusion to imagine that one adjusts his or her reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication and reflection. The fact is that the real world is to a large extent unconsciously built upon language habits of the specific group. We see, hear and otherwise experience largely as we do because language habits of our community predispose certain choices of 'on the spot' interpretation. This represents one of the main proponents to a relativistic theory regarding linguistics.

The extraction of meaning can be closely linked to that of abstracting meaning to find an underlying code that translates the meaning by analogously comparing its essentialist parts.

Piet Mondrian's abstract expressionism is evidence of this, and when compared to the abstractions of the bull by Pablo Picasso, it becomes evident that both were used as a means to derive a connotative way into the extraction of the essence of a symbol unit of meaning. This unit can then be used to understand the rest of the forms or shapes that surround it.

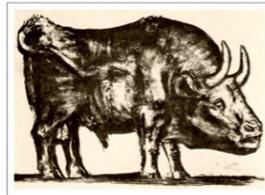
Symbology, whilst still denoting its signified function as a priority, allows the image of something with a great and implicit meaning to be broken down and abstracted into its purest form of iconography.

In Piet Mondrian's Rot-Blau-Gelb abstractions, the original idea of purely documenting the landscape has been lost and now the connotative idea of the abstraction has gained more gravitas than the original landscape itself. The geometric abstraction of nature is more important than the representation.

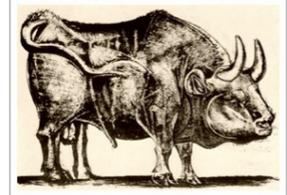
http://www.artyfactory.com/art_appreciation/animals_in_art/pablo_picasso.htm



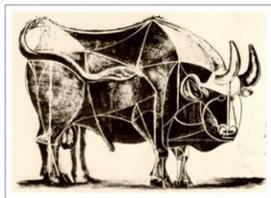
PABLO PICASSO (1881-1973)
'Bull - plate 1', December 5, 1945 (lithograph)



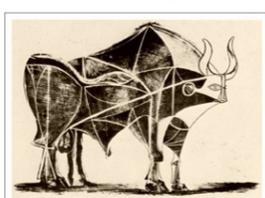
PABLO PICASSO (1881-1973)
'Bull - plate 2', December 12, 1945 (lithograph)



PABLO PICASSO (1881-1973)
'Bull - plate 3', December 18, 1945 (lithograph)



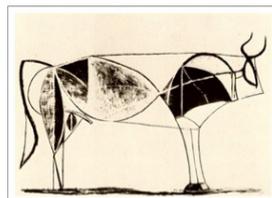
PABLO PICASSO (1881-1973)
'Bull - plate 4', December 22, 1945 (lithograph)



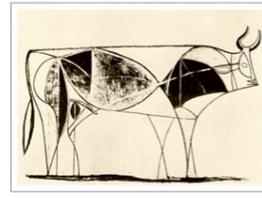
PABLO PICASSO (1881-1973)
'Bull - plate 5', December 24, 1945 (lithograph)



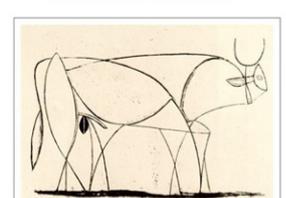
PABLO PICASSO (1881-1973)
'Bull - plate 6', December 26, 1945 (lithograph)



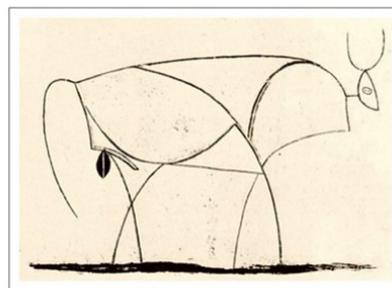
PABLO PICASSO (1881-1973)
'Bull - plate 7', December 28, 1945 (lithograph)



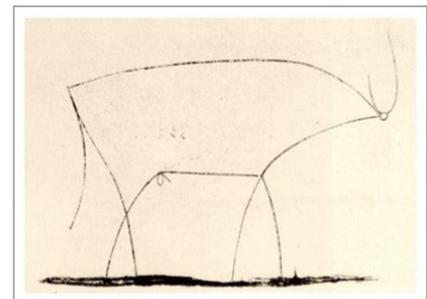
PABLO PICASSO (1881-1973)
'Bull - plate 8', January 2, 1946 (lithograph)



PABLO PICASSO (1881-1973)
'Bull - plate 9', January 5, 1946 (lithograph)



PABLO PICASSO (1881-1973)
'Bull - plate 10', January 10, 1946 (lithograph)



PABLO PICASSO (1881-1973)
'Bull - plate 11', January 17, 1946 (lithograph)

When compared to Picasso's bull abstractions, however, each of the levels of the abstraction still continue to portray the denotative main anatomical features of the bull as well as all its major functional features. The horns, tail, and reproductive organs remain evident throughout.

These images show that the abstraction was taken to the point of still retaining a portion of the original essence of features, a graphic genetic code. It still retains the original representation but as functionally simple as possible. Piet Mondrian on the other hand took it to a further level, to not just understand the original denoted function, but to abstract to a level where the original representation is no longer visible and the graphic now becomes a symbol of the original landscape with no discerning functional landscape features. This symbol of a landscape becomes more powerful than the representation of the landscape itself.

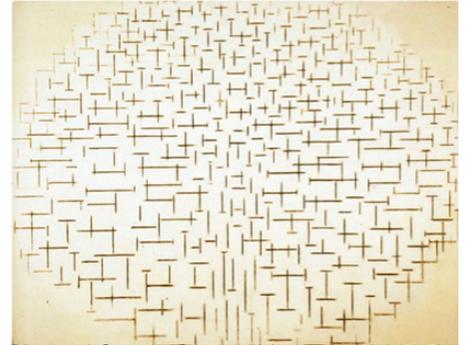
Artwork description & Analysis:

Pier and Ocean marks a definitive step in Mondrian's path toward pure abstraction. Here he has eliminated diagonal and curved lines as well as color; the only true reference to nature is found within the title and the horizontal lines that allude to the horizon and the verticals that evoke the pilings of the pier. The rhythms created by the alternating lines and their varying lengths presages Mondrian's mature dynamic, depicting an asymmetrical balance as well as the pulse of the ocean waves. Reviewing this work, Theo van Doesburg wrote: "Spiritually, this work is more important than the others. It conveys the impression of peace; the stillness of the soul." Mondrian had begun to translate what he saw as the underlying ordered patterns of nature into a pure abstract language.

What seems to be a good example of Piet Mondrian's De Stijl like still distillations of natural landscape into compositions that retained the austere limits of the straight-line, three primary colours (rot, blau, gelb - red, blue and yellow) and three non-primary colours (white, black and grey). The style that he created is both personal and universal, it is inimitable despite its seeming simplicity, and its seminal influence on 20th century painting architecture and sculpture. He is considered to be "the undaunted selfless champion of objectivity". According to Jaffe this is interesting to note when compared to "the subjective law of inner necessity." This seems to govern the work of his great contemporaries and fellow abstractionist Vassily Kandinsky in 1977:35.

According to Kandinsky, the driving force of the creative process must be what he calls inner necessity. Kandinsky says, "All means [in painting] are sacred when they are dictated by inner necessity." All means are reprehensible when they do not spring from the fountain of inner necessity.

“



Pier and Ocean (Composition No. 10) (1915)
Oil on canvas - State Museum Kroller-Muller,
http://www.theartstory.org/artist-mondrian-piet-artworks.htm#pnt_2

Next page:

Pen and ink, watercolor, collage 64.6 x 49.7cm, Museum of Art, Rhode Island School of Design, (Proun Inv. 91), 1924-5.

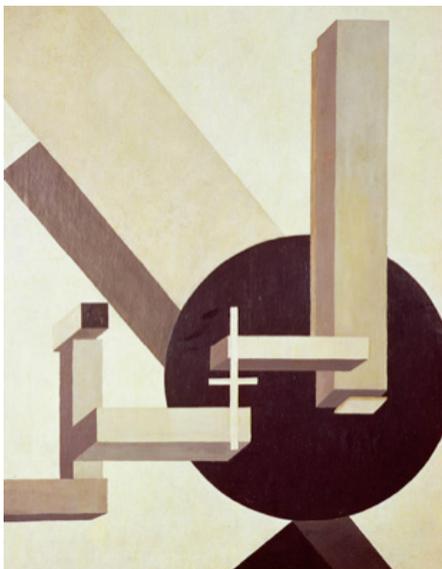
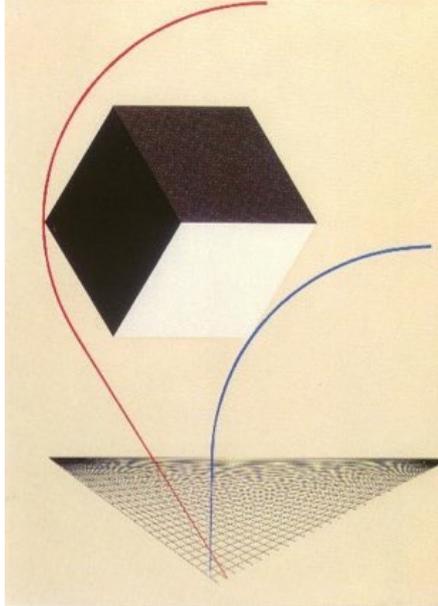
Proun 19 d el lissitzky 1922

Proun 10

<http://silverandexact.com/2010/07/23/proun-19d-el-lissitzky-1922/>

<http://fineartamerica.com/featured/proun-10-el-lissitzky.html>

<http://www.ibiblio.org/elritch/el/elc.html>



Mondrian termed his approach neo-plasticism or the ‘new plastic’ as a means to express a level of “pure reality” or a “unity that results from an equivalence of opposites” by the “abolition of all particular form” as well as making his art a beacon for future generations of art. Each of his later works seem as a constant refinement of previous iterations of composition. “A straightforward evolutionary character” and “always forward are visible in his evolution as an artist.

Mondrian also followed the trend of the cubists but he went much further in the direction of rigour and simplification than any one of the masters of the time, that of Pablo Picasso or Georges Braque.

The pictorial characteristic of the De Stijl was made famous by Mondrian’s hefty contribution to this movement.

“ It has its basis on the total abstraction that does not concede any connection to what ever is between the perception of fortuitous fragments of reality and artistic creation” (Jaffe, 1985:31). The elements of this painting style were used as the tenets of his abstraction. These include the straight line, the right angle, three primary and three non-primary colours. Albeit limited and stringent artistic arsenal was used to create the De Stijl ideology of a “true vision of reality” . An image that reality should be independent of the accidents of momentary perception which is similar to the “jumping to conclusions” that all humans inevitably do, as well as the arbitrariness of the individual temperament and personal subjectivity of the artist. And thus a means to an artistic objectivity was commenced.

The possibilities of Neo-plasticism were endless, They are like a prescription into openness as stringent as those rules were, the absolute possibilities of freedom within those rules were boundless. Much alike to the Corbusian five rules of successful modern architecture - “ and they are only pervaded or hindered or limited by stern noble harmony, solemn let lively as in old psalms or plainsong” (Jaffe, 1985:35)

The Corbusian five rule seemed prescriptive at the time but became a system of spatial and formal flexibility instead of formalist rigour. It became a form of protest at the artificial forms of the time.

1. le pilotis - or columns that free the ground floor
2. the roof terrace - a free plan atop the building
3. le fenetre en longueur - ribbon windows
4. le facade libre - a free facade
5. le plan libre - a free plan.

This analogy (which is a linguistic trait) of abstraction (an artistic trait) will be used to derive an essence (architectural) of the state theatre's constructive methodology.

Similarly to Mondrian, the suprematist abstractions of Kazimir Malevich of 1878-1935 are characterised by simple geometric shapes which are associated with ideas of spiritual purity. In the work of El Lissitzky a contemporary of Malevich, it is evident that these geometric abstractions that were seemingly two-dimensional, actually had a predisposed ideology to re-represent three-dimensional forms. This can be seen in a series of paintings he coined "Prouns". A Proun was essentially Lissitzky's exploration of the visual language of suprematism with spatial elements, utilizing shifting axes and multiple perspectives; both uncommon ideas in suprematism. Suprematism at the time was conducted almost exclusively in flat, 2D forms and shapes, and Lissitzky, with a taste for architecture and their 3D concepts, tried to expand suprematism beyond this.



J.H. Pierneef

Other personal favourite South African examples of notable artists that practised levels of artistic abstraction include J.H. Pierneef and Cecil Skotnes. They both retain levels of representing reality according to their particular understandings of what is to be retained in an abstraction to still effectively and beautifully convey a message with the intended information.

Kazimir Malevich on reference to objective and non-objective painting. There are many figurative stages of perception of a painting :

Stage 1: Artistic objects are seen as they are.

Stage 2 : The subject/model is only a means of communicating the artist's experience in works of art. In this stage objects and nature become artistically unified by the tones running through them.

Stage 3: An artistic Weltempfang, or "perception of the deformation of phenomena" represents the disintegration of objects into separate pictorial elements.

Stage 4: Non-objectivity. This stage refers to not just a revelation of artistic Weltempfang, but also to dynamic, magnetic and other elements which exist in nature, at this stage form is not important.



C. Skotnes

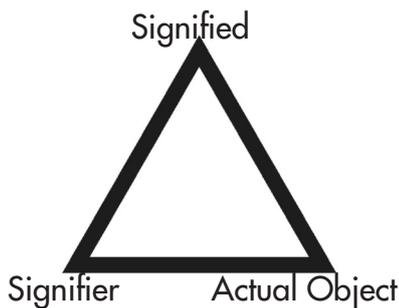


J.H. Pierneef

A table, is an object of technical purpose and utilitarian functionality, but the artistic expression may not align with the functional order. The artistic content of a utilitarian functional object forms the basis of an abstract art which begins to part from pragmatic life, in this sense suprematist art is seen as non objective as all other types of art because practicality is still evident in its parts or symbolised by an essence, whether it is spatial or an easel where the symbol may appear.

This methodology of comparison by analogy has a new ability to compare architecture to art and to language equally only by means of the extraction of a specific aspect of reference and then comparing the three. In other words, paradigms have existed across these spheres because of their interrelation and intra-relation within their governing tenets of society, culture and environment.

These tests of artistic abstraction represent the proponents to studying built form in the graphic sense as two dimensional abstractions which can be also analogously compared to one another, with regards to their method, degree and effect of abstraction. This level of abstraction can be used as a formal ‘language’ sign and be compared to that of abstraction in architecture. Picasso’s bull abstracted to the level of functionalism. Mondrian took it further to the level of the abstraction becoming more important than the original function. Where the denotation of the painting becomes more important than the connoted message. Then El Lissitsky’s abstractions were given a sense of spatiality and three- dimensionality again, giving the connotative meaning of a visual abstraction a new meaning altogether, although completely void of the original functional denotation, the shapes have a connotation that form can be re-understood from the new sum of the original “parts”



ARCHITECTURE AS CONNOTATIVE AND DENOTATIVE SEMIOTICS

OGDEN RICHARDS Δ

1. The Ogden Richards Semiotic Triangle
2. The Hjelmslev double partition
3. The Morris Triangle

According to the Ogden Richards semiotic triumvirate, which has a thought or reference at one pole, a symbol that symbolises that original thought and a referent at the third pole. This referent is the physical reality in which the symbol is herein referred (Jencks 1969:80).

With this triangle it is evident that A signifier (symbol, word or form) connotes a signified (thought, concept or content) and may or may not denote a thing, referent or actual object. The relations of each of these fields become important to the development of an architectural sign. The sign itself may then either be Indexical, iconic or symbolic.

INDEXICAL

ICONIC

ICONIC = ARCHITECTURE

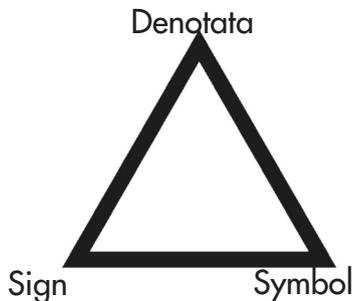
INDEXICAL = ART

The ogden Richards triangle also incorporates extra semiotics into architectural meaning.

Morrist developed a triangle similar to that of the ogden Richards one but with differences in

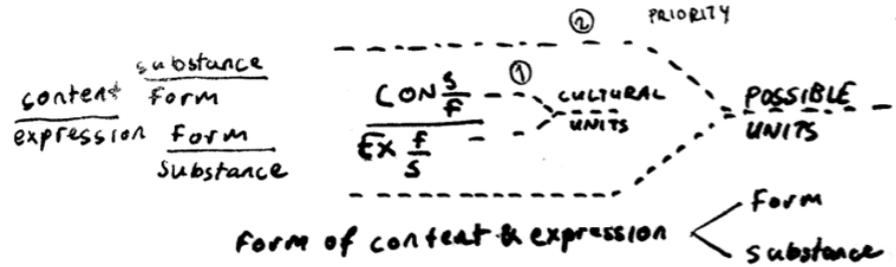
Koenig: "architecture is a system of sign symbol vehicles that promote certain kinds of behaviour. Koenig's example is that of someone stopping a travelling car and warning them about an upcoming landslide in the road. The words addressed become the sign. The detonated becomes the landslide at the place of its occurrence and the significatum refers to the condition of the landslide at that place.

The morris triangle looks as follows:



Relation within reference to conotata or denotata.

HJELMSLEV'S DOUBLE PARTITION



Hjelmslev's partition, on the other hand, divides the sign into two planes similar to signifier vs signified, or content vs expression, primary vs secondary and of course denotative vs connotative. The architecture of any era according to Hjeltmslev is only concerned with the form of content and expression as its highest priority. This refers to the way culture articulates and conventionalises content and expression. The secondary priority is that of all possible units - everything on the plane of content and expression. This refers to the ultimate reality of the situation.

A sign which is $Cf/Ef = \text{Content form over expression form}$ is used as the basis for sign equations.

The semiotic coupling of two planes can form a more expressive semiotic.

For example: A man approaches an elevator or it's plane of expression. He comes to an enclosed box, with sliding doors. It has a floor indicator above it and buttons in a polished aluminium surround plate.

Code EF1 - A denotation of a possible vertical circulation

CF 1 - Its actual utilitarian function of traversing vertically

EF2 - The utilitarian signifiers which pertain to the: speed, uplift, technological considerations etc.

CF2,3,4,5, refer to the connotations that the utilitarian signifiers provide, i.e how fast, how far, what material, what the building typology is that contains this elevator.

According to Scalvini in 1975, Connotative semiotics have a presence with the basic functional aims (tectonic) and only secondarily an aesthetic significance. This plane of expression becomes the semiotic system in itself. Scalvini built on Hjeltmslev's double articulation by making a new formula to explain her semiotic theories.

There are two basic planes or functions of architecture.

1. The plane of tectonics - What is used to perform the basic function.
2. The plane of the connotators - which is like architecture starting from poetry.

Like studying english from shakespeare's sonnets and nothing more.

It would be a biased and rudimentary sign with limited connotation.

The dramatisation of an Aesthetic Code

Architectural aesthetic codes are dramatised in various ways. The first function to actual use cannot be dramatised. Although the second and third functions can be dramatised in five different ways.

One.

Fetishism and self reflection of that aesthetic code - this refers to architecture which is about itself. The erogenous points of the building are highlighted and pleasure centres are usual fetish points. This could be seen in Las Vegas sign boards of neon lights etc.

Two.

The distortion or disruption of that code: the distortion takes time to perceive. By lengthening of that perceptual act it could be essential to the aesthetic code (Eco,1976) . Robert Venturi also uses this distortion to call attention to the scale of architecture by placing an ornament where it shouldn't be, for example. Robert Stern used this distortion by distorting the same motif and James Stirling used the roof-window-wall element which unites all three conventionally distinct elements into one indistinguishable element. By merging these elements into one it draws attention to each of the individual parts. This is a method of repetition-distortion which at first seems incomprehensible - becomes clear by questioning it.

Three.

Redundancy and miniaturisation in the aesthetic text. This according to Scalvini refers to reading an architecture taking more time than reading a building. This is because of the redundancy of messages that refer to themselves and small internal messages within a greater whole.

There is unity in variety within the smallest perceivable detail. - "Le bon Dieu est dans la detail" according to Gustav Flaubert in 1860 which translates to the more famous Mies van der Rohe's incarnation of "God is in the details". This pertains to a semiotic cross-reference of details which makes a text or architecture endlessly decodable.

Every single element has to have a specific meaning and reason for its size, placement, fixture and finish.

Giuseppe Alberti and Frank Lloyd Wright are known for stressing this aspect of the architectural sign. and perhaps over unified their buildings as a result of this. They had specific formal language sign vehicles. Repetition and transformation (like the Op art movements based on optical illusion, such as scintillations and tessellation .etc) are use to achieve a magical endlessness of signification. Individual parts of architecture be can be fused by finding semiotic link between them that had before gone unnoticed.

Four.

Hermeneutic esoteric and even private methods: this has its beginning within the Romantic era which refers to personal dialects to ‘make it strange’. All architecture sends new and unexpected messages in a new code which at certain points become personal and variable . There is difficulty in decoding this code because of the fabricated nature of the building’s meaning. This indecipherability attempts at understanding by making a plausible meanings for unfamiliar architecture by using analogous forms.

Five.

To continuously create new interpretation. This refers to multivalence and plural meanings in their nature. All architecture is considered anew by each generation of history and that architecture is reinterpreted by a generation with its organic unity of traditions. This is where the introduction of new buildings, movements, styles, set of ideas change the relation of all the previous buildings in that tradition. Referring to the New York five or “whites” which was a name coined for Corbusian or Terragni style architecture prevalent in the International style around the 1950s.

Architectural Connotation:

Besides the ability to denote function, the architectural object could connote a certain ideology of the function.

The cave denotes elemental shelter or ‘utilitas’ while it connotes a family, living, security and familiarity

The connotation therefore becomes a secondary function to the denotation.

A seat is denotative that sitting can take place. While a throne shares this denotation but it has a symbology that is more important than the mere denotation. The connotation is to sit in dignity which becomes more important than the act of sitting itself. The connotation of regality occurs by means of its size, placement within a grand hall, and its level of adornment. This proves that function extends to all uses of objects of use although symbolic capacities become no less 'useful' than their 'functional' capacities.

An evening dress is another example of this. Instead of covering the body like that of utilitarian everyday clothing, it uncovers to show more skin, while men are covered poorly in a method of standardisation. It becomes functional only because of the complex connotation of convention and permits certain social relations.

THROUGH HISTORY	PARTHENON 1	ANTIQUE LAMPS 2	PYRAMIDS OF GIZA 3	LICHTENSTEIN COMIC CLIPPING 4	NEW USE FOR OBJECT 5
PRIMARY FUNCTION DENOTATA	⊗ NO LONGER WORSHIP PLACE	⊙ STILL FOR ILLUMINATION	⊗ NO BURIAL ANYMORE OF MONARCHS	⊗ PRIMARY BECOMES SECONDARY	PRIMARY LOST ANOTHER COMES INTO PLAY X ✓
SECONDARY FUNCTION CONNOTATA	⊙ SYMBOLIC CONNOTATION GRASPED	⊗ CONNOTATION LOST	⊗ REPLACED BY OTHERS TOURISM	⊙ NO LONGER COMIC, NOW ART WOMEN INTEREST 'CONOTES HOW WOMAN IS SEEN IN COMIC CULTURE'	SECONDARY DEFORMED THROUGH CODES TO ENRICH. folksy naive ✓ ⇒ ✓

The consumption and recovery of forms - consuming forms and obsolescence of values.

Architectural signs as denotative and connotative according to codes. Verbal communication is a code that has a language with certain sub codes. elements of articulation under a given code are the syntagms of another more analytic code or synthetic code.

A visual sub-code can be divided into both iconic and monographic types.

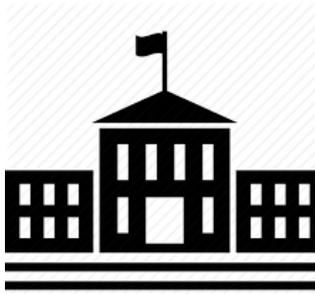
Syntactics and semantics of architecture attempt to search for what a word is of a verbal language in architectural sign terms. Units endowed with definite meaning and symbols pointing to reference and conventions governing the semantic reading of architectural signs, purely syntactic conditions of architecture are also important to understand architectural artefacts which the denoted functions cannot be ascertained as easily as in the menhir/dolmen/stonehenge type constructions.

Within the field of architecture, codes of reading and of construction of the object are distinguished from codes of reading and the construction of the design semiotics of architectural objects.

Typological codes for the understanding on architecture are mainly semantic codes for a semiotic investigation of an architectural design which is based on social and functional types - Testing the semiotic triangle.

Significative forms understood as codes worked out on the strength of inference from usage and proposed structural models of given communicative relationships - Denotative and connotative meanings attached to the sign vehicles as the basis for codes. - these are what forms the semiotic universe, in which reading architecture as a form of a communication becomes viable. With verification through observable physical behaviour and actual objects (whether the denotata or referents become irrelevant) the only relevance comes with architectural objects as significative forms and this makes communicability possible.

Examples of these significative forms may include:



School

The signifier is the children that actually go to the school
A building that denotes a sign complex of children who study there



House

It connotes the people who divide into families - forces the implication that living with others under the same roof.
The building denotes the family that lives there

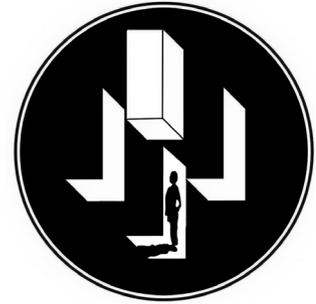


An Ancient Temple

The significatum is that people prayed or worship here
The denotation is that of an ancient function which is no longer relevant to
The same people therefore there is no existent denotation

Door

A door is a symbol for the possibility of access into another space, If there is no apparent referent the door is either self referential (by denoting its own reality - only a thought and a reference) or it is the fulfilment of the function that constitutes the referent. Or if the fulfilment of the action is not necessary to communicate the function then it is brought into architectural characterisation as a sign to insist that semiotics deal with some things extra to semiotics itself.



Arch

A triumphal arch has its semiotic value based on its inherent symbolism. Also, the physical act of passing through it on processional occasions proves that the reference itself branches out before and replaces the referred or referent which becomes the symbol itself.



Window

A real window as a means to its original function of letting light into a space but also shielding from the elements and a possible opportunity of ventilation is signified . On the other hand a window has the poetic ability to create rhythm in a facade.

“It is the formal play of a sign vehicles ability to form a contextual juxtaposition.



Fake window

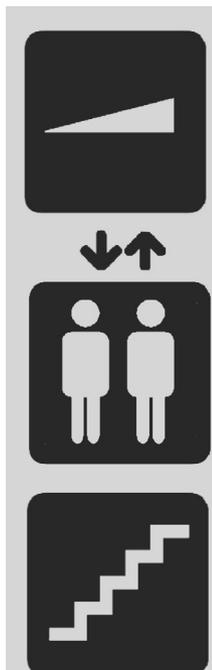
This is still enjoyed as an architectural message even vif devoid of its function.The aesthetic architectural function is still fulfilled.



Stor-Age Building Photo:Author's own

The image opposite shows the “Stor-Age” building on the corner of Jan Shoba and Justice Mahomed street in Tshwane. It shows a black glass window as seen today, At the time of the building’s erection it is evident that the glass is purely a facade of black glass with a plastered brick wall directly behind. This becomes proof that the window is only present for psychological reasons. Because it is on such a visually central corner for traffic within Tshwane, it was deemed necessary by the designer to mask the enclosed facade with a glazed panel, which signifies that the window has something going on behind it, a café for the staff or a repose area although this is not the case. Since it is a storage facility, space had to be maximised, so this “glazed facade” exists purely for psychological reasons of symbology - To imply that the corner is not blocked off to the street but that “something” is happening inside.

A symbol may differ in form, number or disposition, and does not just denote a function, but it may also refer to a certain conception of inhabitation and use and also connote architectural ideologies One begins to assume a symbolic function by conceding the diverse manners of function based on analogous precedent.



A ramp denotes a possibility of ascension but it also gives the conventional conception of how one fulfils the function with that particular form. An elevator on the other hand denotes the possibility of function by means of entrance buttons, a floor indicator and opening doors. These are empathetic indicators as the forms are not evident as ‘key’ to the function of an elevator to ascend. This codification relies on the understanding of the viewer. In this sense form does indeed follow function. The form of the object, besides making the function of that object possible, must also denote that function in a practical and desirable manner. It then becomes clear enough to the user to dispose one to the actions which will be fulfilled, much like stairs in their semiotic nature, visually imply human ascension.

An architect or designer cannot make a new form functional and cannot make form to new function without the existing processes of codification. A work of art which is new and informative has articulation of elements that correspond to an idiolect of its own and not to present preexisting codes. An artistic object is intended to be contemplated upon by negating or evoking it on the basis of preexisting codes and it will be fashioned either way.

An architectural object which is new and informative can promote a new function which could be contained in its form - or in its relation to comparable and familiar forms. Indications for the decoding of its function also plays upon the pre existing codes but does not negate nor evoke them, it draws attention directly to itself by deforming the convention of forms and of function (that usually refers to that form). It is not merely an ambiguous form which is interpretable according to various codes.

This is what separates an architectural form from a work of art. The interpretability according to one strict, or many lax codes of the same ideology.

Elevator

Consider the case that a primordial man would be faced with an elevator. He denotes a wall but cannot connote the enclosure as a vessel for vertical circulation. Therefore the denotation is a matter of coding, or the method in which meanings are learned. If the Cro-Magnon understood the social coding behind pressing a specific button to go up, he would understand the sign vehicle as a system. Because he has no precognitive understanding of the elevator's function, he would not understand the denotation of the floor indicators or call buttons.

Functionalism or anti expressionism in designed objects that are made purely for functional reasons are understood dependant on how well the codes are known, and not the objects utilitarian appearance or technical qualities alone .

Another example is the functional shape of a toilet bowl which is roughly determined by its use. The bidet or urinal were seen as having exemplary modern aesthetics to Le Corbusier or Duchamp. Their form is a direct translation of their functional requirements and also constitute a word or phrase of a new unambiguous language. They are indexical and iconic words and nothing else. The primary function has clearly been replaced by the connotation.

Cross

The christian cross denotes and connotes Christ and Christianity

The triumphant arch denotes a celebration and connotes passing through in a celebratory procession.

Cave

In a primordial and simple metaphor, a stone age man took refuge in a cave. This represented the conception of inside spaces, while the functionality remains literal as a shelter against elemental authority. It also has its basis in the subconscious nostalgia for the protective womb. The “idea of the cave” also becomes a means to recognise someone else’s place of habitation- a communicable model of the cave to others. The architectural code creates the semiotic code and the cave principle becomes an object of communicative intercourse. drawing of the cave or seeing the cave in the distance becomes an object of possible function - even if unfulfilled. This is Umberto Eco’s understanding of the ‘Primitive hut of Laugier’ or the beginnings of architecture. He might have been admiring the patterns of leaves before conceiving the idea that these leaves could be conceived as a way to create an umbrella or shelter. Proving that it could have started with an admiration of the denotation which led to a different connotation.

Spoon

A spoon, the most basically designed object for eating, is foremost an artefact that promotes a function, shovelling to eat. It also has a communicative function which communicates that function - someone uses that spoon in a society that observes it. This represents the communication of conformity by the user to certain usages as opposed to others (eating with one’s hands/chopsticks). It signifies a way of eating and promotes a certain way of signifying eating. Just as the cave signifies the promotion of the act of shelter and signifies the existence of possible function; both objects signify without being used.

If semiotics is not just the recognition of signs and sign systems, it is the study of all cultural phenomena as a system of signs - therefore culture can be understood as a communication system. Undoubtedly then, the most challenging field concerning this system is architecture itself.

Church

A temple for example can have different articulations of the same semiotic which changes over time. Romanesque, Baroque Renaissance, Gothic and Modern all pertain to specific and different stylistic ideologies but all can be represented by the same symbol of a church.

This leads to a hypothesis that architecture has some form of double articulation as found in verbal linguistics. A Basis of euclidean geometry is studied as a basis for rudimentary form.

The units may also have a second articulation at hand which is endowed with meaning but are distinguishable and calculable. and are defined by geometric equations of some kind.

- 1 Elementary syntagmatic relation a window/wall relation
- 2 A more complex element is that which is space defining such as in a greek cross plan in a rectangular configuration.
- 3 Solid geometry has a third level of articulation by means of the recognition of a non euclidean geometry.

Although a geometric code sadly falls short and cannot govern the particularities of architecture. Geometric codes such as that of Piet Mondrian like abstractions and the analysis of abstract geometric art such as that of the Suprematists are studied. Configurations of representational art can be reduced to an articulation, if perhaps quite complex one, of primordial geometries become the formulations of geometric elements in etymological sense of the word by surveying or transcription of terrain topographically one may have a Gestaltic code which presides over our perception of forms.

Euclidean form is understandable to ubiquitously because of our predisposition to the understanding of Euclidean shapes, Maybe non-nuclear uniform is a means to the form of confusion and changing the levels of understanding of the build form around someone.

The language code serves as a meta language and synthetic codes are used to find credence for a proposed architectural solution for the site. Phenomena compared to other meta languages are capable of describing them in the same terms. A codification of the landscape is used to compare it to certain proposed architectural solutions, iteration by iteration, to determine what architectural intervention can be inserted into that landscape context. Elements of coded solid and geometric forms are abstracted and a form that is contextually based can be applied.

Trompe-l'œil

In this same line of interest, what permits the use of architecture (pausing, entering, going up, going down, passing sitting or reclining) is above and beyond the possible functions of the objects. The meaning of these objects dispose particular functional uses to them. Even with Trompe-l'œil type phenomena, one is predisposed to a particular use even when the possibility of that function is illusory - like trying to open a door handle reflected in a mirror.

The Trompe-l'œil, which refers to an optical illusion, pays attention to the code of expression and plays upon the fact that the user sees the double denotation. As in a real painting that depicts a fake street. This relates very well to Rene Magritte's treachery of images and the concept of visual scandal. The aesthetic of this visual scandal which focuses on pertinent aspects of language, makes their form part of the content. According to Eco, Trompe-l'œil refers to an architectural lie or a trick of the eye. It refers to both the real thing which has a denotation and an illusion which is a non physically existent connotation. With a Trompe-l'œil the connotation and denotation align because the unreal is being represented as real.



<http://blogs.artinfo.com/artint-hair/2013/03/19/john-baldessari-isnt-smoking-whatever-is-in-rene-magrittes-pipe/>
"Rene Magritte" by Rene Passeron and translated by Elizabeth Abbot. 1970 Fillipacchi Editions, Paris.

Magritte's Treachery of Images.

What is important to note in the infamous painting of Rene Magritte (1896-1967) "The Treachery of Images" is that the title "Ceci n'est pas une pipe" which literally translated means "this is not a pipe. He mentions this as a statement contrasting to the very pictorially realistic representation of a pipe. This statement of denial itself, that becomes the caption in this matter of fact style image of a pipe. Tension is created through the graphic representation of the pipe accompanied by the caption - a blatant denial of what was visually represented. The word "pipe" itself, becomes a signifier. It is not a pipe, nor is it even a representation thereof. It is a representation of an iconic image that the viewer understands by association. The font at the bottom also implies a very scholastic and didactic linguistic style which seems authoritarian and even condescending, as if the viewer is a mere student being educated by the master Magritte. Both the caption and image are however, not an actual pipe. This tends to the idea that the denial of authorities of language and representation are a possibility as a means to contextualise the un-contextual.

It may seem to be an irrational or perverse paradox in which the viewing mind tries to contextualise and find a stable and meaningful interpretation. There is no clear answer to this question that is posed to the viewer. It is the distortion of the viewer's perception that analogously allows for a contextualisation by comparison to the already familiar on a paradigmatic basis. Magritte seemingly overthrows of oppressive rationalism of bourgeois society which was so prevalent in his time. This is why it comes across as violent, disturbing and discontinuous.

Real and Simulated Forms

A form that strives to be both real and a simulation, according to Baudrillard, “a simulation is the blending of reality and a representation thereof”. In an attempt at escaping this “copy” world, we seek simulated stimuli and nothing more. The fabrication of a false reality for the 2055 vision is to be consumed as real, but is too farfetched and soap opera-like in its dramatic and semantically based characteristics.

This schematisation draws parallel to Baudrillard’s simulacra and simulation. The interpretation of many representations as a means of concealing the absence of reality or a simulacra - a copy without an original.

The successive phases of image according to Baudrillard are as follows

1. A reflection of basic reality.
2. Masking and perversion of the basic reality
3. Masking the absence of a basic reality
4. No relation to any reality because it is its own pure simulacrum

He also argues that when speech and writing were created, signs had to invariably succeed to point to a material or social reality, but the bond between the signifier and signified had eroded. (Baudrillard 1988, 170)

With the advent of advertising and propaganda the commodification of the sign started to hide the ‘basic reality’ In Post-modern hyperreality illusions of media communications seem very real. Signs hide the absence of reality and only pretend to have a defined meaning. A simulacra- or a sign which characterises late capitalism, can be characterised by three basic forms ;

1. A counterfeit form (imitation) - where the signifier is directly proportional to the signified
2. A productive form (illusionary) - with a signifier is inversely proportional to signified
3. A simulation (fake) - the signifiers only stand in relation to other signifiers and not in any relation to have fixed reality.

These conjectures beg to question the reality of life itself. The semiotic stance which problematises reality and emphasises mediation and convention is as criticised as “extreme cultural relativism” but those who veer towards realism, often object to an apparent sidelining of referential concerns such as accuracy. However philosophical realists would accept that much of a knowledge in this world is indirect. We experience many things primarily as they are represented to us, within our media or modern digital communication technologies. Such as the modern advent of virtual social media. Representations cannot be direct carbon copies of what they represent they cannot never be neutral or transparent but are constitutive of a reality. As Judith Butler states: “what does transparency keep obscure?” (Butler 1999XiX)

Semiotics can be used to not take representations for granted as ‘Direct representations of reality’. This then enables us to take them apart into their individual semiotic units and question which or whose reality do they represent

On page 34 of myths and history by Mircae Elliade : “ an object or act becomes real only insofar that it imitates or repeats an archetype. “this analogy to a previous state is considered reality - which is acquired solely through repetition of participation. Everything which lacks an exemplary model is “meaningless” and lacks a certain reality. (Elliade, 1959:34)

Facts show us that, for archaic man, reality is a function of the imitation of celestial archetype, and secondly how facts which show us how reality is conferred through participation in “the symbolism of the centre” cities, temples, houses become real by the fact that of being assimilated to the “centre of the world” or are the centre of one’s relative world and thirdly finally rituals and significant profane gestures acquire meaning attributed to them, and materialise that meaning, attributed to them only because they deliberately repeat such acts.

