Theory Based Design Practice Today

Ar. Kabir Fatema[1], Ar. Rakhi Begampure[2]

[1]Curator Art vault Intl, Visiting Faculty
2 Associate Professor, Yashoda College of Architecture, Satara, India
Email: kabir.fatema@gmail.com, rakhiab@gmail.com

Abstract: This review examines three main theories that establish the design processes of renowned architects in the discipline today. They are: Critical Regionalism, Phenomenology and Contemporary Indian Treatise. They are discussed in the hierarchy of their introduction in the society and accordingly are the amount of explorations done on them. Names of the architects who are using these as design processes are mentioned at the end. After the study of the three theories; the review observes their overlaps and bridges that if connected may provide a consensus model of design process from three prominent design theories.

Key Words: Critical Regionalism, Phenomenology and Contemporary Indian Treatise, Steven Holl, Charles Correa, Ashish Ganju, Narendra Dengle.

Introduction

A discussion of theory always brings to mind an opposition to practice; that is exactly why the two have been adopted simultaneously in one review paper. These theories are like a background study, an explanation, an ideology of the design to come. These theories are not a tool for direct implementation in design.
"As theory without practice is lame and futile, and conversely practice without theoretical foundation is blind and at random" (Dengle, 2013)

Design methodology is the step wise tool for design process. This process or method can be evolved from the theory when researched and interpreted in detail. The gap between a theory and practice of design can then be bridged by the use of this process tool. The process can be any sort of brainstorming plan: matrix, mind map, flow chart etc. The process also needs to be carefully carved such that it integrates multiple theories that have close overlaps. One should have the process directive enough yet not restrictive such that it would be able to encompass varied design functions in its realm.

This review paper is examining three main theories that establish the design processes of renowned architects in the discipline today. The three theories are: Critical Regionalism, Phenomenology and Contemporary Indian Treatise. All the three do have a close connect, there are also architects already using them as background to their designs. Yet there is not a design process or method that has yet been evolved for either of them to address architecture design. Hence the review is meant to study the theories and elaborate on its understandings that can eventually be adopted into developing a design process.

II Critical Regionalism

IIA Alexander Tzonis

Alexander Tzonis began the discussions on Regionalism since 1980s. He is Professor Emeritus and one of the renowned Theorists in the discipline today. He is also Director of 'Design Knowledge Systems Research Centre' at University of Technology of Delft. His many texts elaborate on the ideas of Regionalism. Namely the 'Lewis Mumford's Regionalism' and latest one is 'Architecture of Regionalism in the Age of Globalization: Peaks and Valleys in the Flat World'. First one gives a beginning of Regionalism and an Insight into Mumford's argument of being region specific. The second book is Tzonis' take on Regionalism and its dire need in the contemporary globalization of 21st century.

Book 1: 'Lewis Mumford's Regionalism' (Tzonis, 1991)
The book named 'Lewis Mumford's Regionalism' (Tzonis, 1991)the idea of Region from its beginning. Lewis Mumford (A historian, philosopher and a literary critic); mentions the idea of regional context back in 1924 in his text called 'Sticks and Stones'. His inclination towards Urban and City Architecture brings him to recognize the negative impacts of the 'Imperial Beaux Arts' concept, 'The City Beautiful Movement' and other similar capitalist ideas. He claimed that these concepts were global masks on the face of the city that was inflicted with disease inside. The sprawling slums in the back would continue to grow, while the capital city would flourish at its cost. The solution proposed by Mumford was of 'regional Planning'. Only a planning that would be based on an understanding of the economics, populace, commerce, industry and the appropriate need of up gradation for each region individually; would lead to a flourishing urban settlement. This is where the region as an idea was first recognized. It is still far from the Critical Regionalism of individual Architecture; yet it did lead to one in 100 years.

At the time when Bauhaus and International style were being celebrated; Mumford shunned their globalization and the elitist facade. According to him none of the Modernist movements had the sensitivity of the complete society; they were always the austere and sophisticated types that were indifferent of the surrounding. A possible diversion point was Frank Lloyd Wright's Prairie style that recognized the topography of the site and climate of the place. The horizontal cantilevers, low pitched roofs and central hearth all led to an intentional attempt to merge with its surrounding. Mumford claims that Prairie style was first of its type in the Global Modernization that cared about the 'Sense of Place'.

In his last lecture in the context of war; Mumford says
"Thinking about an international style when we don't have an international society is absurd." (Tzonis, 1991)

Book 2: 'Architecture of Regionalism in the Age of Globalization: Peaks and Valleys in the Flat World' (Lefaivre, 2012)

Peaks, Valleys and Flat lands in this book are not the Landscape of Earth; but are rather the topography of the Socio-Cultural structure of the society. Authors in this book argue on how globalization is leading to the flattening of the diverse socio-cultural landscape that the world has. Regionalism on the other hand if adopted will address the individuality, autonomy, and regional identity of various places; hence nurturing the peaks and valleys of social structure. Regionalism supports decentralization as opposed to the centralized approach of globalization. Identity is more historical and nostalgic under Tzonis; as opposed to the other regional theorists of this time.

Coming from the Kantian philosophy of self-assessment and personal questioning and critiquing; the word Critical was connected to the Regionalist approach by Tzonis. The authors realize and address the need for self-evaluation before providing a solution. Here the self is the region and evaluation is of its historical context. Solution is an architectural out-put that will stand as identity of the given region.

Tzonis is propagating Critical Regionalism not just as a style today, but a revolution and an architecture movement for the years to come. *"Critical Regionalism is a bridge over which any humanistic architecture of the future must pass."* (Lefaivre, 2012)

IIB Kenneth Frampton

First discussion on Critical Regionalism by Frampton is in his text 'Towards a Critical Regionalism: Six Points for an Architecture of Resistance' 1983. It was later revised and republished as 'Ten Points on Architecture of Regionalism: A Provisional Polemic' 1987. Every point that Frampton discussed in the first draft was not relevant eventually hence was revised; yet the second set with ten points is sort of a guideline as opposed to a rule.

The six points from 'Towards a Critical Regionalism: Six Points for an Architecture of Resistance' are:
1) Culture and Civilization:
2) The Rise and Fall of the Avant-Garde:
3) Critical Regionalism and World Culture:
4) The Resistance of the Place-Form:
5) Culture versus Nature: Topography, Context, Climate, Light and Tectonic Form:
6) The Visual versus the Tactile:

The 10 revised points from 'Ten Points on Architecture of Regionalism: A Provisional Polemic' are:
1. Critical Regionalism and Vernacular Form
For Frampton Vernacular holds a close and dear association when in discussion of Critical Regionalism. The inherent cultural, social, technological and architectural approach that vernacular reflects is the beginning for Critical Regionalism.
2. The Modern Movement
Even though Modernism's universality is not something that Frampton relates to; yet he agrees that there may be some aspects in the theory of Modernism that could be moulded to suit the needs of Critical Regionalism. Modernism could beget a new architecture and Critical Regionalism does need a step ahead from vernacular.
3. The Myth and Reality of the Region

Frampton looks at Region as an institution; one that has a thought, typology architecture and culture. Myth here is the base of the thought process. Myth is not the unreal; it rather coming from the region's past and begetting the school of cultural continuum. Reality is the surrounding architecture that exists and the people who are the future users. All these elements have to undertaken as study.
4. Information and Experience
The negative impacts that are created by Mass-Media about a place and space also affect the pre and post condition of architecture. One's experience of the given architecture may be altered due to this effect; hence one should be aware and careful of it.
5. Space/Place
It is important that the spaces of the building are in relation with the context of the place they are situated in. Architecture should not act as object in isolation; it has to be able to relate to the context of the place. By place here, Frampton does not mean the site on which it is located; it is the cultural place that the building stands in. Site response is a given. The building has to connect metaphorically to the larger realm of its existence.
6. Typology and Topography
Typology and Topography are next two attributes of building design under this category. Typology comes from the vernacular style and contextual approach towards form; while topography is a typical site response.
7. Architectural Scenography
By this terminology, Frampton means to treat Architecture as a whole rather than multiple parts. One should derive its final outcome keeping in mind its holistic impact. The building should act as a spatial composition of value and substance that sits in tandem with its natural environment.
8. Artificial Vs Natural
Designer and user mind set is of the type where thermal comfort means controlled internal temperatures and visual appeal means flattened polished floors and man-made aesthetic effects. Frampton once again takes a mid-path and supports natural ventilation and view; while if needed, there may be artificial treatment.
9. Visual / Tactile
The building should be tactile in nature; one that evokes all five senses of human. Based on user psychology the building should be carved for a particular experience giving. Under this category there is a tilt in Frampton's thought process towards a multi-sensory, bodily experience giving architectural space. This will eventually lead into the movement of Phenomenology. Authors namely Juhanni Pallasma will shed more light on it.

10. Post Modernism and Regionalism: A summation
Frampton recognizes the growth of Post-Modern Greys and Whites that would lead divergent ways into architecture tomorrow. At this junction he sees the need for Critical Regionalism as a mid-path.

IIC Conclusion
The theory of critical regionalism based on three authors as discussed above may be carved into a diagram or a step wise process with the help of which an architect can evolve his/her designs. To achieve a critical regionalist design one would follow the mind map developed below that integrates multiple definitions of the same phrase. A diagrammatic format if

derived based on this theory may provide the architect with an immediate tool to use as design process. Architects namely; Charles Correa in his life and B.V Doshi in his later phase now have been two examples of Critical Regionalists. The diagram below shows overlay of varied critical regionalist thinking and their apparent connection into Phenomenology *(next theory in discussion)*.
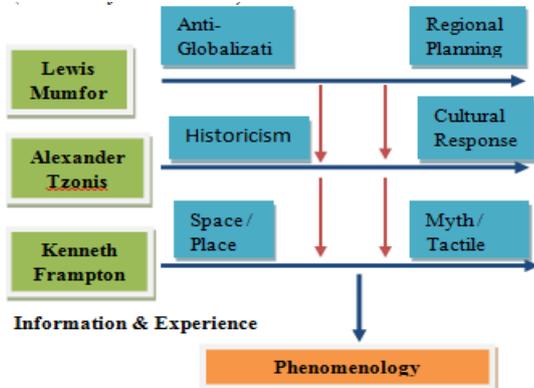

Figure 1: Overlay of varied critical regionalist thinking and their apparent connection into Phenomenology *(next theory in discussion).*

IIIA Phenomenology
The main paper under study is David Seamon, ***"A Way of Seeing People and Place: Phenomenology in Environment-Behavior Research,"***

Author has established a method of evaluating the value of Phenomenology in Architecture. He goes from defining it to refining it in Architectural terms. It's a review paper hence his references are wide and has covered maximum definitions and approach existing for phenomenology. In this summary here; I will only study the few beginnings of the term and his further assumptions that will lead the term to Architecture.

In the early 20th century, German philosopher; Edmund Husserl's book: *Ideas: A General Introduction to Pure Phenomenology* of 1931 first mentions the term phenomenology.

Phenomenology as defined by him is the study of the environment that enables the human to refer to objects outside it-self. Another German philosopher; Martin Heidegger, Husserl's colleague, claimed that phenomenology should reveal what is hidden in ordinary, everyday experience that is to know the Synthetic a priori knowledge of Kant but Heidegger described this knowledge as the knowing of the "being-in-the-world" (Heidegger, 1971).

French philosopher; Maurice Merleau-Ponty rejected the view that phenomenology reveals only human beings' pure existence. He stressed the role of the involvement of body in perception of the environment of existence as it is intended to be, thus generalizing Heidegger's insights, and including the analysis of sense perception in phenomenology.

Hence according to Maurice Merleau-Ponty, Phenomenology is the study of essence of the existential environment as perceived by humans. The method to find the core essence involves the knowledge of Phenomena. Now to define

Phenomena In philosophy, it is the scientific study of things as they are perceived by humans. The knowledge of Phenomena though literal, lays the first pedestal of the study of essence. Next layer of knowledge is to know the nature of the things as they are intended to be. Hence the two steps of gathering knowledge of the existing environment logically build on to the definition of Phenomenology as according to Ponty. Ponty also added that knowing the essence is not the ultimate goal. Idea is to incorporate that knowledge into the perceivable environment as it exists in relation to human being and in the space-time context. We witness the incorporation of this knowledge of phenomenology in space-time and human context in various fields of representation – painting, Sculpture and Architecture (Ponty, 2002).

IIIB The two assumptions that the author basis the understanding of Phenomenology on; are:
1. Person and world as intimately part and parcel
2. A radical empiricism

Person And World As Intimately Part And Parcel
Various philosophers look at the world and person relationship in different ways; to bridge the gap of the varied opinions; Phenomenology suggests that the two variables be made homogeneous. There should be an intimacy developed or created between the world and the person such that they cannot be read separately. They reciprocate to each other and get woven together. To understand this concept further, the author has taken up three realms of 'world-person' relations: life-world, place and home.

Life-world
Life world is a scenario that naturally exists and automatically happens to people. The events of day to day naturally unfold themselves to the people living through them. People don't think about the experience of these events or could it be different; they just let them pass. This natural attitude is what philosophers identify as the phenomenological fact between the inner and outer world dimensions.

Place
"place, by virtue of its unencompass-ability by anything other than itself, is at once the limit and the condition of all that ex-ists...[P]lace serves as the condition of all existing things...To be is to be in place" (Casey, 1993).
Learning from Merleau-Ponty (1962), Casey; relates place to the body and says that one is *"bound by body to be in place"* (Casey, 1993). Hence the human-body controls and defines the place with the person. This body when in action re-defines its boundaries and expresses new place for itself, Merleau-Ponty called it "Body Subject" (Ponty, 2002).

Home
With Gaston Bachelard's writings on 'Poetics of Space', encompassing time (memory) within a space and one's relation to this space, led into a more detailed inquiry on intimacy between architectural space and person. Shaw in 1990 conducted an experiment to elaborate on Bachelard's explanation. It was a study on his return to a home place and family after 20 years. Its findings further backed up Bachelard's claims.

With the growing global architecture and the crisis of non-regional ideology; home may not do what it is meant to for a user. (Day, 1996)discusses the loss of the idea of home in the generalizations. He ran a test where he questioned persons about their perspective of home. Five themes were identified by him: 1) evokes timelessness 2) home reminds of safety and belongingness; while also being indifferent and new 3) it relates to ones mental and physical health 4) it invokes a positive feeling in a given moment 5) ones' home relates to them as opposed to the other.

IIIC A Radical Empiricism
Radical Empiricism is the way in which one would study the World-Person connectedness criteria. The empirical study develops through firsthand experience of the researcher with the phenomena (world). The process has to be radically looked into and resolved. Hence the phenomenological research has to be radical empiricism.

Required attitude and approach for phenomenological research in general:
1) Phenomenological Reduction, Intuiting, and Disclosure
There are three main stages in this category: Reduction – the researcher attempts to reduce the bias approach that would be pre-conceived in studying a given phenomena. Intuiting – once the bias is relieved; then approach the event with as open mind as possible. Disclosure – in the method of intuiting one will surely be led to a new light that is not seen before; this will be the disclosure of the phenomena that was treated with a pre-conceived notion until then.

2) Key Characteristics of Phenomenological Method
a) Researcher should be in direct contact with the phenomena
b) Researcher should approach the phenomena believing that they don't know it; but wish to know.
c) Since it's a firsthand experience method; there should be un-controlled, non-bias, multi-perspective approach.

Once the basic characteristics are set; the author details out specific Phenomenological Methods:
1) First-Person Phenomenological Approach
In this the researcher uses him/her self as the resource for the study.
2) Existential Phenomenological Research
A group of population is involved in this study and a generalization for all of them is established at the end. This is based on the fact that they are all from same background, place, and situation. An assumption is made in this study "people in a shared cultural and linguistic community name and identify their experience in a consistence and shared manner" (von Eckartsberg, 1998a, p. 15).
3) Hermeneutic-phenomenological research
This method is applied in the interpretation of any text or art form (sculpture, panting, poem, song etc). Important point is that the creator of that art form is unavailable to explain the art work; hence the hermeneutic research is undertaken.
4) Commingling Method
This method is a combination of the above three.

IIID Conclusion: Architecture and Phenomenology

Considering that in architecture design also there is need for an intuitive understanding of space and user relation; a phenomenological approach would be appreciable. This approach is appreciated by because it connects the architects and sociologists with each other at a pure level, away from abstraction; "to the essence of human experience rather than to any abstraction of that experience and because of its ability to reconcile, or perhaps to bypass completely, the positivist split between `objective' and `subjective'" (ibid., pp. 65-66).

This perspective in today's world is difficult to be digested because there are two extremes that exist. One side sees the approach as subjective and unreliable while the other question its relation to pattern, order and structure. Between the two; phenomenology still tries to balance the extremes. It attempts to maintain relation between the person-world, emotion-intellect and practice-theory. We do have architects like Peter Zumthor and Steven Holl trying their ideas on it. Yet phenomenology is a new approach in the discipline of architecture hence its long term impacts are still to be known. Diagram below connects Phenomenology with the next theory in discussion.
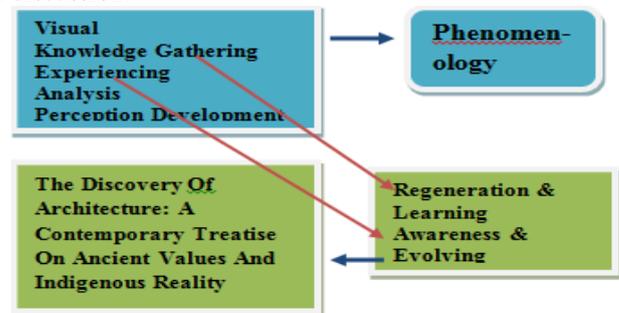

Figure 2: Phenomenology Connect with A Contemporary Treatise On Ancient Values And Indigenous Reality

IV The Discovery Of Architecture: A Contemporary Treatise On Ancient Values And Indigenous Reality – Ar. Narendra Dengle & Ar Ashish Ganju

This literature is the latest in the timeline of theory of architecture in the Indian Sub-Continent. The two authors; Ar. Narendra Dengle & Ar Ashish Ganju are renowned practicing architects of the discipline in the country today. Learning from their own experiences; they have chalked out a treatise that can be used as a theory or a guideline for establishing a design process. There are very specific heads of study that they address for a designer to keep in mind. This review here will elaborate on its overall understanding and give a brief of the sub-heads.

Introduction
Based on the ancient principles of Architecture; one can develop a diagram that depicts the intimate connection of design and its adjoining disciplines (as shown in the figure below). The inter-disciplinary connect depicted here is not new but is yes indeed forgotten and is to be reminded and implemented in society once again.

Classical Indian school has worked on the understanding of 'self' and 'life' in architectural space for a long time. Similar idea is the punch line of a western author's architectural treatise. Christopher Alexander in his set of four books "The

Nature of Order", identifies and mentions the notion of 'Self' and 'Life' in way of two main thoughts; *first: "that all space and matter, organic or inorganic, has some degree of life in it, and that matter/ space is more alive or less alive according to its structure and arrangement"* and second: *"that all matter/space has some degree of 'self' in it, and that this self, or anyway some aspect of the personal, is something which infuses all matter/space, and everything we know as matter but now think to be mechanical"* (Alexander, 2001-2005).
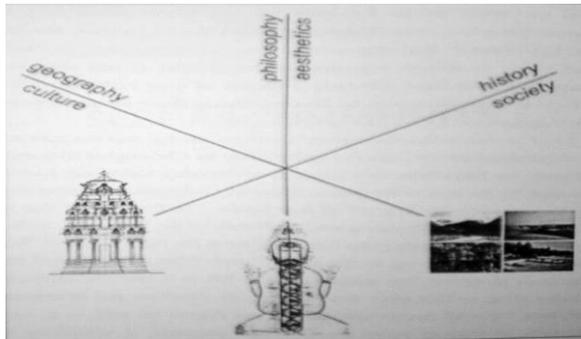

Figure 3: Interdisciplinary connect of Architecture
Credit: (Dengle, 2013)

Based on this theoretical structure the authors created a **four stage matrix** that will help elaborate on their final theoretical goal:

IVA Self as Community
With the help of various notions of 'Self' as defined by varied philosophers; author means to emphasize on the importance of knowing one's self. One's self is of course not just about an individual physical being. Descartes philosophy is based on the idea of I, myself, exist. S.R Bhatt, another philosopher discusses moksha as at the centre of knowing the nature an destiny of self. Sage Nisaragdatta Maharaj states that self is defined in three categories: Vyakti (physical being), Vyakta (reflection of the conscious) and Avyakta (universal pure I). Through all these discussions of existentialism the author is only trying to bring the Self to the fore front as layering of inner self, outer self and peripheral self. Only through understanding of these three layers can one build a better community. Where self is not detached from it's within nor from without or around. They all culminate to formulate the 'Self'.

In building of the environment there are many who play a role and each one is a physical self. The connection of all these Vyakti will make a reflection of the physical which will be the Vyakta and together they will all create Avyakta, which is the universal community. Today the community lives in the danger of environmental changes and man-made catastrophes. Until and unless the three stages of the Self are achieved the social structure of the society will not improve. There is a dire need for this Self-Community Understanding.

IVB Act of building coupled with Awareness of an evolving universe
The act of building has two extreme conditions; one is where the builder is the local mason who is born and bred in the soil where the building is being erected. Their devotion, uniqueness and connection to the environment will surely bring about a product that will smoothen the relation of building and environment. The construction techniques used here are also known and skills of the local craftsmen. The techniques may be old in timeline; but one needs to realize that up-gradation of these techniques rather than replacement; will lead to a healthier future.

While the other extreme is where there are computer generated designs that are usually pre-fabricated and placed on site. They are aloof from the surrounding and are alien to the soil and the region. An alien product of this nature cannot develop a relation with its environment. The digital tools are propagating mechanization and non-human world in the humanity. This is leading to a distancing of the act of building from the process of design. We should be careful that one day the act of designing will be limited to the few elite who have the privilege of using the digital tools. Its a trap and a dead-end that one can stop when there is time.

IVC Maintenance as renewal
The author believes in a notion that is witnessed in the contemporary Indian society *"Counter Modernism-Resurfacing of the Ancient" (Mehrotra, 2011).* One needs to build architecture that is not turning its back to the past. *"There is one timeless way of building. It is thousands of years old and the same today as it has always been"* (Alexander, 2001-2005)

An ancient diagram called the Sri Chakra represents a perfect balance between matter and energy. This symbol is referred to and an interpretation is explained by the author. If one believes that the material and energy around are related then they also have their own ways of mixing with each other. The reuse of waste material for building may be found in the environment of the building itself rather than running to the industrially driven innovative products generated from waste. An ecological balance is one that is developed from the ecology itself.

As this technology increases it provides more and more innovative material and techniques that outdate the other leading to a condition of replacement rather than renovation. An idea of renovation then becomes obsolete. The main concern is that the degradation and the required up gradation of the environment built or natural is only possible through a detailed understanding and evaluation of the phenomena. Unless one is aware of the causes, symptoms and concerns of degradation; he or she cannot design for its change. Using a standardized tool (which is what industry is doing today) will not help progress.

The cycle of life is so critical to be witnessed that if there is no change and no advent of death one may not be able to appreciate life at all. Similarly in case of buildings; if there is no decay that can be addressed at local level and finite changes be made adding subtle newer colors the building will stop living. Stagnancy of architecture is becoming the new agenda today; they call it 'maintenance free'. When the building is super long lasting; then when it is dead, it can't be revived, it is only replaced. This brings us back to the problem of obsolescence.

IVD Regeneration with Learning

The matrix is coming a full circle here; it started with learning from the past and here once again we discuss about what our future generations will learn from. Author also discusses the education systems today in comparison to the old school gurukul system. Especially in the case of architecture schools the education system is becoming ever more difficult and stringent at places in the country. While in some places people have realized and adopted more holistic, site associated, practice backed by theory types of approach; the others are still limited at journal making. The authors call for a reinvestigation of the education system and its shortcomings when discussing the idea of learning from the past.

IVC Conclusion
The authors propose a treatise which they agree has many bold thoughts; these could be guidelines or debated against. The importance of this theory is that it poses a question and provokes a thought. This can build a constructive debate for the development of the future.

V CONCLUSION
Phenomenology states that until the researches has a detailed understanding of the phenomena as a firsthand experience; providing a solution to the issue is not possible. Hence it is safe to assume that unless the designer is not completely aware of the building issue, inhabitant character and environment condition; he/she cannot provide a design solution.

The building is the Vykati, The inhabitant character, inside the building is the Vyakta and that environment condition in the surrounding is the Avyakta; as stated in the third theory under 'Self and Community'. Only when all the three are understood and culminated together; the architecture developed will be of substance.

In order to connect the Vyakti, Vyakta and the Avyakta; the designer will have to know the regional context, Cultural idea, functional attributes and user requirements. An understanding of these elements with an appreciation of the contemporary technology will lead the design into being Critical Regionalism.

There is an obvious and an expected overlap between the three theories floating in the architectural society today. They all intend to develop a holistic design with a very intricate detailing and a visionary perspective of the future. To add on all the theories are already being adopted and applied by practicing architects in the world. Yet one does not find a design process or tool for any of these theories that can be used by the younger generation of architects when they take up the task. One may have a weaker understanding of the theory and due to the lack of the tool; one may miss some critical aspect of it in the design; hence not achieving the similar intensity in the final product as the master.

There is a need for a detailed study of these theories, Observation of their design application by the existing architects, making note of the varied processes that each one adopts while using the same theory; and finally concluding a flexible yet guiding tool or design process that will help the new designers use these theories to their advantage. Considering that we have also developed an argument that there is an overlap between the theories there may be a design process/tool that could connect the theories and at the same time branch them into multiple facets of understanding if needed.

VI References
i. Alexander, C. (2001-2005). Nature Of Order. United Kingdom : Oxford Univeristy Press.

ii. Brawne, M. (2003). Architectural Thought: The Design Process And The Expectant's Eye. New York: Architectural Press.

iii. Britton, P. K. (2013). A Regionalist Panorama for Architecture and Beyond:A review of 'Architecture of Regionalism in the Age of Globalization: Peaks and Valleys in the Flat World. Metropolitiques.eu , online.

iv. Casey, E. S. (1993). Getting back into place. Bloomington: Indiana University Press.

v. Day, M. D. (1996). Home in the postmodern world: An existential phenomenological study. International Human Science Research Conference (pp. -). Halifax, Nova Scotia.: IHSRC.

vi. Dengle, N. a. (2013). The Discovery Of Architecture – A Contemporary Treatise On Ancient Values And Indigenous Reality. Delhi: GREHA.

vii. Heidegger, M. (1971). Poetry, Language,and Thought. New York: Harper & Row.

viii. Kenneth, F. (1983). Towards a Critical Regionalism: Six points for an architecture of resistance. Anti-Aesthetic: Essays on Postmodern Culture , -.

ix. Lefaivre, L. a. (2012). Architecture of Regionalism in the Age of Globalization: Peaks and Valleys in the Flat World. New York : Routledge.

x. Orozco, J. C. (2011). A Comparative Analysis Of Kenneth Frampton's Critical Regionalism And William J. R. Curtis's Authentic Regionalism As A Means For Evaluating Two Houses By Mexican Architect Luis Barragan. Kansas State University, Architecture, Thesis . Kansas: Kansas State University.

xi. Ponty, M. M. (2002). Phenomenology of Perception. London: Routledge.

xii. Seamon, D. (2000). A Way of Seeing People and Place: Phenomenology in Environment-Behavior Research. Theoretical Perspectives in Environment-Behavior Research , 157-78.

xiii. Tzonis, A. &. (1991). Lewis Mumford's regionalism. Design Book Review (19), 1 -7.