

THINKING PERCEPTIONS & APPROACHES

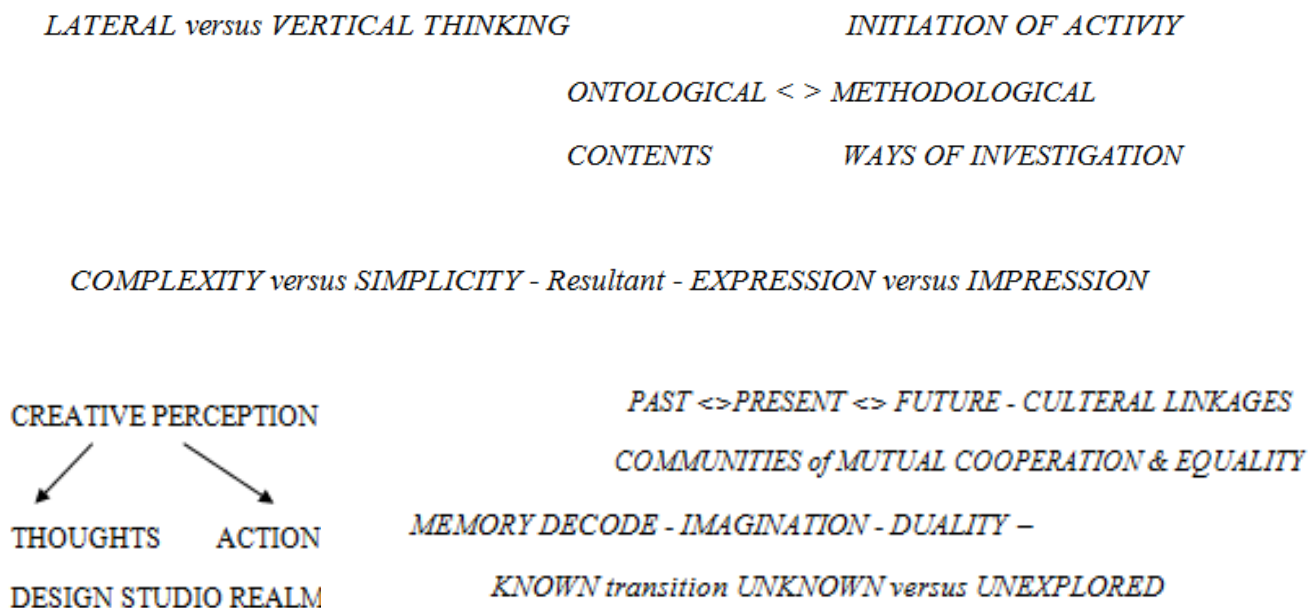
Ar. Asif R Khan¹

www.asifrkhan.in

¹Head of Department, Al Salama Institute of Architecture
Perinthalmanna, Malappuram, Kerala, India.

www.alsalamaschools.in/architecture/

Fig. 1 Ideation Illustration 1



Source: Author

1 CREATIVE THINKING

Creativity is linked to the ability of being innovative, to reorganise existing patterns, to produce through imaginative skill and dexterity, to bring into being something new. Creative ideations generally are the output of unconventional thought process. To be creative, person must perceive and analyse existing aspects in a divergent manner. “Creative people are creative largely not by any particular inborn trait, but rather, because of an attitude toward life: They habitually respond to problems in fresh and novel ways, rather than allowing themselves to respond mindlessly and automatically” (1 p. 3). Creative interventions that are able to resolve a given issue become conventional with time and use, and this later on with time becomes confronted by new utilitarian propositions.

The role of creativity in the act of designing ought to be reviewed clearly. This could be analysed by exploring more about the human mind and thinking process. Better

understanding of the events during the initial stages of conception and later during the design process would definitely be eventful. All these aspects focus our attention to the fact that thinking and reasoning is a crucial link in creativity. From the perspective of a designer, thinking can be described as an intellectual activity focused on arriving at a solution with respect to a certain issue. Thinking is an intrinsic activity, externalised through varied means to communicate an idea, to resolve an issue and so on. In architectural context, the issue and the context could be well or ill defined. To perceive about built environments first in thought and secondly to communicate the same into a tangible format to be accessed by all, requires aptitude. The scale of built environments stretches from micro level interventions to macro level spaces relating to habitat design.

The strength of good design lies in ourselves and in our ability to perceive the world with both emotion and reason. A good architectural design is sensuous. A good architectural design is intelligent (2 p. 65).

The basis of conceiving a creative act is firmly grounded in the thought process. It is very imperative to understand the manner of thought progression in an individual while approaching a given issue. The underlying aspect of thinking was embodied in the famous work of French Sculptor Auguste Rodin – The Thinker, “its colossal version proved even more popular: this image of a man lost in thought, but whose powerful body suggests a great capacity for action, has become one of the most celebrated sculptures ever known” (3). This sculpture exemplifies the relevance of the thinking process since time eternity. In recent times there has been significant interest in understanding how designers think and work.

Fig. 2 The Thinker



Source: The Musée Rodin

2 LATERAL THINKING VERSUS VERTICAL THINKING

Is an approach to generate logical solutions to a particular issue or problem by being committed to look at things from a diverse perspective. “The term ‘lateral thinking’, now widely associated with the process of innovation, was coined by Edward de Bono” (4 p. 11). This approach varies from a conventional model; it is made up of interactive mode of altering patterns and perceptions for a unique outcome. The focus is to overcome the limiting factors or linear progression as advocated by conservative methods. The basic underlying ideology is based on unconventional thinking, relevance of new ideas, generation of concepts and significance of alternative solutions.

However the very essence of vertical thinking is that one must be right at each step. This is absolutely fundamental to the nature of vertical thinking. Logical thinking and mathematics would not function at all without this necessity. The approach is made up of a certain conventional model, consisting of specific, methodical, analytic and serial in depth analysis and investigation. Paving way for rational resolution of the issue at hand.

In lateral thinking however one does not have to be right at each step provided the conclusion is right. It is like building a bridge. The parts do not have to be self-supporting at every stage but when the last part is fitted into place the bridge suddenly becomes self-supporting (5 p. 42).

The capabilities of the human thought process in relation to resolving a given design issue is of critical relevance in design studio realm. This becomes the decisive factor while design strategies are formulated by a designer at various stages of design development. Lateral thinking provokes the designers to adopt a more procreative versus selective attitude to resolving an issue at hand and in generating new ideas.

The new ideas may well seem impractical in the first place but if explored further a viable solution can often be found. Three major activities go into making up lateral thinking:

1. Awareness.
2. Alternatives.
3. Provocative Methods. (6 p. 134)

These stages are relevant in lateral thinking in order to successfully approach and solve challenging, multi-dimensional and demanding design issues. These approaches provide the designer with opportunities to realise innovative and useful solutions to complex design issues.

Vertical thinking is mostly an individual process, introverted. Lateral thinking involves multi-dimensional thinking as exemplified in Six Thinking Hats Theory conceived by Edward de Bono. In general the focus of lateral thinking is directionality of thought and action in new path. It means moving from established norms and approaches, theoretically no ideas are discarded and one works diligently to create new possibilities from what exists.

3 COMPLEXITY VERSUS SIMPLICITY

The activities involved during designing are often not superficially communicated through the habitable space conceived. The designer main focus at the end-point of designing would be to establish a good connect between the user and the observer alike while using the commissioned project. The effectiveness of this interaction often determines the success of the design. In case of a successful scenario, the spatial realm under review is a disposition of simple harmonious interplay of function and form. However various stages of progression of activities – design process are embedded behind the built environment being reviewed.

The focus on process in architectural design is a relatively recent phenomenon. For many years and centuries, designing was learned tacitly by watching and working with a master, atelier system which later on gave way for institutional format of education. It is only recently that researchers slowly have become interested in how design development is conceived, rationalised and implemented.

The architect's greatest challenge is to come up during the early stages of the design process with one or a few ideas powerful enough to embrace the different aspects. “The ideas underlying architectural designs are known to architects by many names, ranging from ranging from 'image' (Alexander, 1979) over 'primary generator' (Darke, 1978) to 'organising principle' (Rowe, 1987), but most often are called the 'parti' (Leupen, Grafe, Körnig, Lampe & De Zeeuw, 1997) or 'concept' (Lawson, 1994)” (7 p. 58).

However the designer has to comprehend several dimensions and approach diverse factors with an integrative outlook. These factors are all interrelated and definably influence the profile of the habitat design under conception. This crucial factor points out at the complex nature of designing. Knowledge comprehension is a vital factor, either explicit or implicit in nature. It can be argued that knowledge is not a substitute for architectural imagination but inadequate knowledge would handicap the general level of design. The relevance of morphology, functionality and sustainability are crucial factors in determining as well as reviewing the levels of complexity or simplicity associated with a design development.

The design activity in a particular design context adopted by a particular designer is often characterized by an extremely complex activity that involves inputs from various domains of discipline and therefore in most cases is associated with action research. The quest for resolution of a given design assignment would further opens up several new realms of enquiry, that were not initially superficial before the initiation of activity. These revelations not only produce new design considerations and define new objectives to be achieved, but may also significantly alter the initial perception of the habitable space to be perceived. The active development of knowledge base essential for perceiving a habitable space.

Pragmatically, the most essential thing that any designer does is to provide, for those who will make a new artifact, a description of what that artifact should be like.

Usually, little or nothing is left to the discretion of the makers – the designer specifies the artefact's dimension, materials, finishes and colours. When a client asks a designer for 'a design', that is what they want – the description. The focus of all design activity is that end-point. (8 p. 33).

4 PRECEDENT BASED LEARNING

The application of thought process in design development and its implementation is crucial for realisation of a habitable space. This indispensable input is often imparted to the young creative minds through design studio discourses. Generally studio pedagogy involves small classes that are focused on a design issue, project based learning. Individual solutions are evolved by the students and their work is judged and reviewed collectively by a design jury. The desired yield from transmission and transaction of learning is successive intellectual development of the learner. The class room environment typically resembles that of a professional studio, on graduation the students generally work in architecture studios under guidance of professional architects.

There are, however, problems, with such a system, for the student is not only learning through the studio project, but is also usually performing and being assessed through it. What might have made a good learning experience may not necessarily have generated a high mark. Unfortunately, too, the emphasis in such studios tends to be on the end product rather than the process. Thus students are expected to strive towards solutions which will be assessed, rather than showing a development in their methodology (9 p. 156).

This might obstruct relevance of understanding of the approach as well as the thought process involved in design development which is a crucial factor for cognition for young minds. Architecture design development, per say, is not to be seen as a product oriented entity by itself but an opportunity of applying into a comprehensive whole, the subject matter and knowledge acquired from divergent streams of domains . “They must discover the various patterns of problem solving and apply theoretical and technical knowledge to creative, practical, unique, and humane design solutions” (10 p. 143).

The relevance or need to review the precedent approaches adopted by various typology of design thinking practices is significant towards providing a broader and all-inclusive design studio education. The studio is like a crucible where all applied knowledge and essentials of design melts into one another to obtain a unified whole.

Precedents are such a vital, central and crucial feature of the design process that it plays a central role in all design education. One of the Key objectives of design education is to expose young students to a veritable barrage of images and experiences upon which they can draw later for precedent. A further objective is to inculcate and attitude of respect for gathering precedent and to develop the skills to do so (11 p. 96).

In general perspective, precedent awareness and information available to a designer from past attempts significantly increase a designers understanding of a particular situation. The ability to retrieve information from previous attempts with respect to a particular typology of habitat design or similar design intervention in built realm provides significant knowledge base for future successful endeavours in the right direction.

Various factors like geographical, climatic, socio-economic, governance and so forth factors have contributed to the diverse architectural language embedded in the built environment found across the country. Townships, forts, imperial palaces, religious buildings and memorial structures have adorned the skyline reflecting the aspirations and achievements of one of the oldest civilization.

The evolution of settlement patterns footprint in India dates back to the ancient civilization that existed centuries back along the River Indus. The historical evolution of cities can be later traced to Buddhism, Jainism and Hindu consciousness, resultant treatise of Vastu Shastra and the manifestation of Vastu-purusha-mandala concept sculpted to greatest glories by various guilds patronized by rulers spearheading the legacy of monarchy. These developments were followed by Mugal Empire emperors consolidating their rule over Hindustan and there patronage for erecting marvellous cities. Epic sagas of built environment

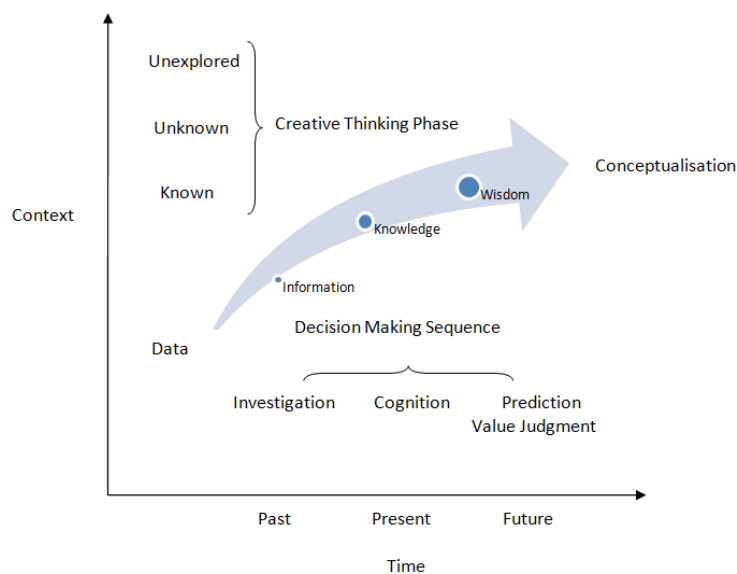
realizations thus realized were trailed by the English East Indian Company and the colonial influences. Post Independence, longing for a national character soon influenced the development approaches of the nation and its democratic leaders.

The prompt pace of transformation and the co related urban sprawl, offered challenging prospects to the architects and the profession. The need for a regional identity that would reflect the cultural, sociological, industrial, commercial, institutional and residential aspirations of the people belonging to one of the largest democracy was further catalysed with time.

A counterpoint to the corporate model of practice is posed by the regionalist approach, which has evolved beyond its modernist roots to respond to the locale... In fact, regionalist see the importance of modernism as a mechanism to view tradition anew. They recognise that modernism demands a respect for the inherent qualities of building materials, expressiveness of structure, the functional justification for form and the subtle integration of the icons and textures of the larger landscape in which they are set. Regionalist clearly focuses on the concerns of the region, which is their context, their endeavour being to create a distinct identity without resorting to clichés or literal references (12 p. 50).

5 INFERENCE

Fig. 3 Desired yield from transmission and transaction of Precedent Based Learning - Design Studio O/P



Source: Author

In architectural context the role of creative thinking along with decision making could be integrated to provide a certain desired yield in design studio based pedagogy. Knowledge comprehension is vital component at any stage in design development leading to proper conception, rationalisation, realisation and implementation. Two activities happen simultaneously: Creative Thinking and Decision Making in a time bound complex manner with contextual settings playing a significant catalyst. The desired yield from transmission and transaction of precedent based learning is illustrated.

Bibliography

1. **Sternberg, Robert.** *Creativity: A Handbook for Teachers*. [ed.] Ai-Girl Tan. Singapore : World Scientific Publishing Co. Pte. Ltd., 2007. p. 3.
2. **Zumthor, Peter.** *Thinking Architecture*. Basel : Birkhauser, 2006. p. 65.
3. The Musée Rodin. <http://www.musee-rodin.fr/>. [Online] [Cited: January 19, 2015.] <http://www.musee-rodin.fr/en/collections/sculptures/thinker>.
4. **Clegg, Brian.** *Creativity and Innovation for Managers*. s.l. : Routledge, 1999. p. 11.
5. **Bono, Edward de.** *Lateral Thinking: A Textbook of Creativity*. New York : Harper Perennial, 1990. p. 42.
6. **Proctor, Tony.** *Creative Problem Solving for Managers*. New York : Routledge, 2002. p. 134.
7. **Martin, Ann Heylighen and Genevieve.** That Elusive Concept of Conception Architecture. [ed.] John S Gero. *Design Computing and Cognition '04*. Netherlands : Kluwer Academic Publisher, 2004.
8. **Cross, Nigel.** *Designerly Ways of Knowing*. Basel : Birkhauser, 2006. p. 22.
9. **Lawson, Bryan.** *How Designers Think: The Design Process Demystified*. London : Architectural Press, 2005.
10. **Fernando, Nisha.** Decision Making in Design Studios: Old Dilemmas – New Strategies. [ed.] Ashraf M. A. Salama and Nicholas Wilkinson. *Design Studio Pedagogy: Horizons for the Future*. s.l. : The Urban International Press, 2007.
11. **Lawson, Bryan.** *What Designers Know*. London : Architectural Press, 2004.
12. **Mehrotra, Rahul.** *Architecture in India Since 1990*. Mumbai : Pictor Publishing Pvt Ltd, 2011. p. 30.