Teaching the Theory of Architecture

By
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(26 September 2008)

Recently I have been involved in a number of discussions with teachers from architecture schools in Pakistan regarding the teaching of theory. I would like to share a few experiences and ideas.

1.   I taught design regularly at the Department of Architecture and Planning (DAP) at the Dawood College from 1979 to 1992. During that period I realised that the designs produced by the students suffered because they did not know theory and that was because they did not want to read or could not read English. Even when they did read material on theory, it made no difference to their designs. So I decided to make them experience architecture and its various elements. I would divide the class into groups of three or four and give them elements to study and to experience. In the process they looked at commercial kitchens, hotel lobbies, cinema ambiance, courtyards, sun-breakers, colour, texture, scale and a whole range of other elements. Each group made a presentation of its findings to the whole class. These exercises resulted in a marked improvement in the design quality and awareness levels of the students and a matrix of sorts emerged as a result. In addition, some excellent and critical documentation on those elements was developed. The matrix is attached as **Appendix – 1** and can be added to. However, one needs a teacher who has the knowledge to make this happen.

2.   In September 1999, Professor Nabil Hamdi of Oxford Brooks University and myself taught briefly at the Department of Architecture at Trondhiem University in Norway and advised masters and PhD students on their dissertations and thesis. In one of his lectures Nabil presented a matrix on "Planning Paradigms in Over and Under-developed Countries". He identified three paradigms (Modernism, Post-modernism and Sustainability). Although theory was not Nabil's purpose in developing this matrix, I have always felt that this matrix, if developed further, is ideal teaching material for theory. As such, I expanded the matrix into four paradigms and added a number of elements to it. The expanded matrix is attached as **Appendix 2**. Architects working in my office (some of them teachers) have helped in identifying events, architects and buildings (no books as yet) that form part of the matrix. Two more paradigms can still be added: these are Community Based Architecture and Conservation.

3.   In Appendix 1, the column on architectural designs is borrowed from Architecture 2002 and Beyond by Charles Jenks. In his book he has given an interesting diagram. I am reproducing that as **Appendix 3**.

I feel that by teaching with the help of the above three appendices (and a history of civilisation **of which architecture is a part**) one can make the students experience the various elements and paradigms (through visiting, studying and documenting elements in existing buildings) that shape architecture. **A small workshop on the above methodology may be useful**.
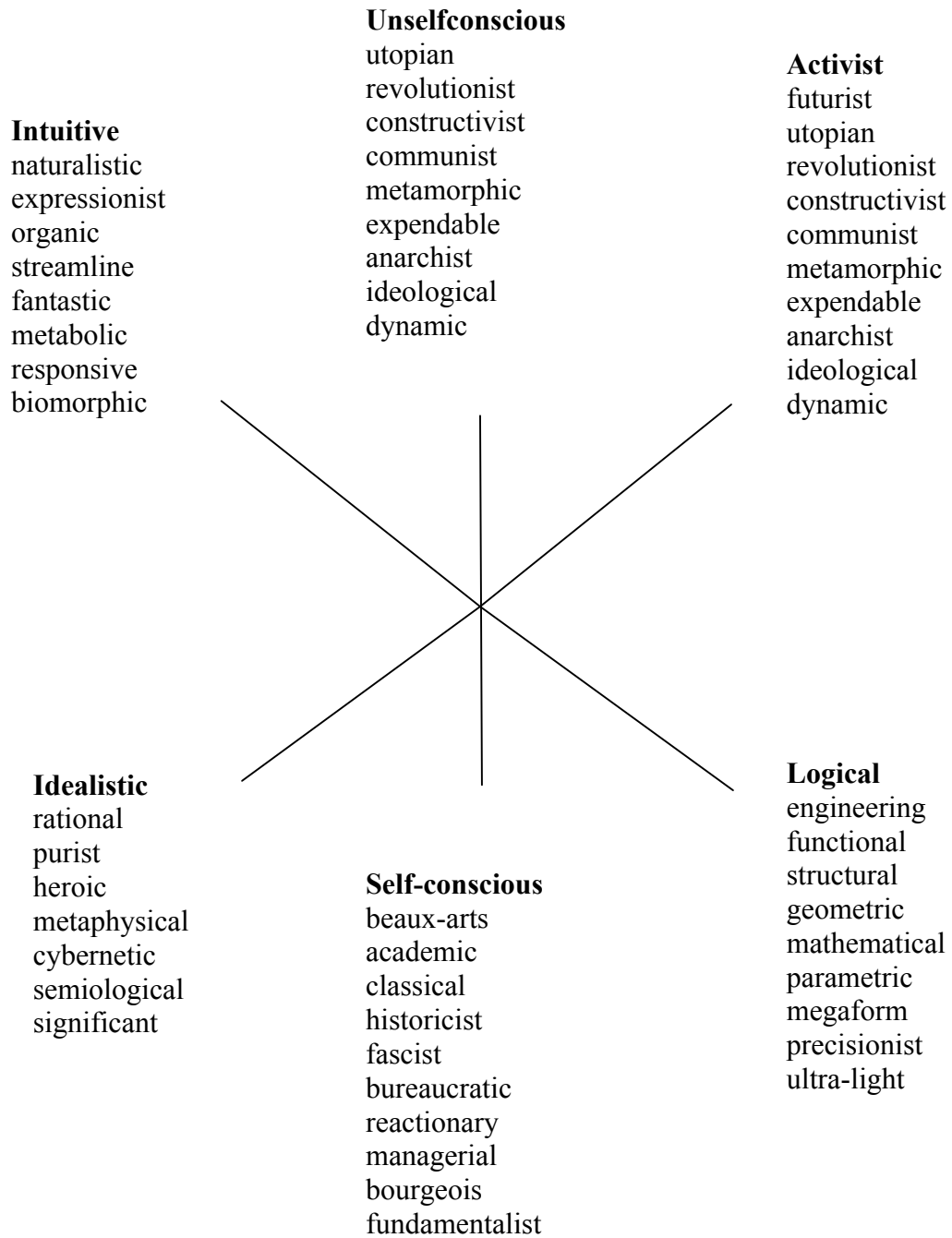
I am taking this opportunity of attaching some thoughts on "Urban Design Related Issues" as **Appendix 4**. Your feedback would he helpful.

Architectural Theory

The student can be made to experience the below

Design Elements	Relationship of Form to	Architectural Designs	Climate related Issues	Environment	Conservation Theory and Practice	Intervention Criteria	Clients and their Culture	Factors that Modify Design Rationale	Books
- Axis - Symmetry - A symmetry - Harmony - Contrast - Conflict - Discord - Focal point - Scale - Colour - Texture - Massing - Proportions	- Structure - Materials - Technology - Function - External space	- Un-self conscious - Self-conscious - Intuitive - Idealistic - Logical - Activist	- Orientation - Courtyards - Windows - Sun breakers - Colours - Texture - Energy	- Social - Physical - Economic - Governance - Ecology	- Concepts - Elements - Constraints - Theories - Practice	- Objective - Criteria - Vision - Acupuncture	- State - Corporate - Middle class - Developers - Elite - Poor - NGOs/CBOs	- Economy - Sociology - Governance - Ecology - Urban design - Ideas - Ethics - Political expediency	- List to be provided

Architecture and Planning Paradigms in Over and Under-Developed Countries

Modernism	Post-modernism	Sustainability Paradigm	Revivalism
Origins			
- In the technology revolution of the 18th and 19th centuries	- In challenging the "monotony" and "tyranny" of modernist "theology"	- In the environmental crisis	- In the ever present elite romanticism and nostalgia for the past and in indigenous movements
View on Society			
- Development optimism - Industrial growth logic (Mechanisation period) - State intervention	- Development pessimism - Industrial growth logic (Computerisation period) - Market orientation	- Survival strategy - Anti growth logic - Logic of nature	- Societal continuity - Anti-growth romanticism - Glorification of tradition
Perspective on Humankind			
- Man superior to nature - Universal needs - Consumerism for all	- Man superior to nature - No universal needs - Consumerism for the rich	- Nature superior to humankind - Certain universal needs - Anti-consumerism	- Man subservient to tradition - Certain universal needs - Selective consumerism
Architecture			
- Anti-tradition - Anti-style - Universal designs - Form goes with content - Instant building, eternal design	- Anti-tradition - Mixture of styles - Local variations - Form and content separated - Instant building, eternal design	- Revival of tradition - Eco-design - Local variations - Form goes with content - Rebuilding, eternal changes	- Revival of tradition - Eco-design - Local variations - Form and content conflicts - Instant building, eternal design
Town Planning			
- Activity separation - Anti-density, anti-street - Urban space dissolved	- Activity integration - Pro-density, pro-street - Concern for urban space	- Integration (short transport) - Compact or green city - Confusion about urban space	- Activity integration - Pro-density, pro-street - Confusion about urban space

- Strict regulations	- Lax regulations	- Strict regulations	- Unclear regulations
Housing			
- Against housing segregation - Mass housing - Standardisation - No resident participation	- Segregation acceptable - Housing for profiled groups - Variations - No resident participation	- Against housing segregation - Experimental housing - Variation with minimum standards - Resident participation	- Segregation acceptable - Housing for profiled groups - Variation - With or without participation
Important Events			
- Invention of steam engine - Invention of camera/movies - Definition of impressionism 1872 - London underground 1884	- Unclear: an uncharted questioning of modernism, some criteria based research needed	- UN conference 1972 - Oil crisis 1973 - Hollings article 1973 - "Our common future" 1987	- Uncharted. Some criteria based Research needed
Architects			
- Dhoshi - Kenzo Tange - Walter Grpius - Luis Sullivan	- Mario Batta - Robert Venturi - Aldo Rossi - Charles Jenks	- Calatrava - Rengo Piano - Herzog de Meuron - Buckmanister Fuller	- Raj Rewal - Antonio Gaudi - Victor Horta - Hasan Fathy
Buildings			
- Villa Savoye - Fuji Broadcasting Centre - Harward Graduate Centre - Lovelle House	- Riva San Vitala Residence - Vana Venturi House - Museo di Castlevecchio - Gugenhiem Museum Bilbao	- The Gerkin Building - Editt Tower - Moulein Residential Tower - Straw Bale Houses, China	- Sagrada Familia - Hotel Tassel - Gourna Village - Mogual Sheraton Hotel, Aqra
Books			
- - - -	- - - -	- - - -	- - - -

The Nature of Architectural Designs

Unselfconscious
utopian
revolutionist
constructivist
communist
metamorphic
expendable
anarchist
ideological
dynamic

Activist
futurist
utopian
revolutionist
constructivist
communist
metamorphic
expendable
anarchist
ideological
dynamic

Intuitive
naturalistic
expressionist
organic
streamline
fantastic
metabolic
responsive
biomorphic

Idealistic
rational
purist
heroic
metaphysical
cybernetic
semiological
significant

Self-conscious
beaux-arts
academic
classical
historicist
fascist
bureaucratic
reactionary
managerial
bourgeois
fundamentalist

Logical
engineering
functional
structural
geometric
mathematical
parametric
megaform
precisionist
ultra-light

URBAN DESIGN RELATED ISSUES

Some Initial Thoughts for DAP-NED University, Karachi

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20 September 2007

1.   A Critique of Definitions

2.   Actors

- People (users, commuters, informal sector players, social issues)
- State
- Interest groups and local organisations
- Local and global capital
- Civil society
- Professional and academic institutions

3.   Ingredients

- Circulation, transport, traffic
- FAR, density and volumetric considerations
- Ecology, climate and energy
- Heritage
- Byelaws and zoning regulations: origins and evolution and a critique of their biases
- Governance impingement and its repercussions
- The local and larger social and physical environment

4.   Processes

- Political and commercial interests
- Governance (potentials and constraints)
- Negotiations and consultations
- Transparency and accountability
- Media involvement
- Design concepts and presentation
- The process of modification on the basis of the above

5.   Theory

The history of its evolution and the larger global and local context that has determined it

6.   Criticism

- The view of modernist, post-modern, revival, green movement, conservation and community architecture perspectives along with their view on society, governance, environment and theory of history
- Theory and the perspectives from the South

7.   The Local Context

8.   Case studies