

Ref P/13/0907
Year 3 BA (Arch Studies) • First Semester
Issued PC/BL/04.09.2007
Circulation LLL/KPC/CSYF/RCG/HYL/WSW/uK/NM/JS

BA(AS) Year 3 Semester I - 1st Assignment
Interdisciplinary Design Project - The Theme of “Technology”

“...the aesthetic composition of buildings has been explored in various ways in history. In the twentieth century, Modernism used transparency to achieve a ‘direct’ representation of architectural elements of space, structure and programme. But recent history contributed to making the use of literal transparency obsolete, prompting a discussion on the expression of buildings. Postmodernism used décor, and Deconstructivism used the geometry of collage, as styles in place of transparency. But styles cannot easily adjust to change in culture....” - *Farshid Moussavi, The Function of Ornament*

In contemporary situation the relationship between inside and outside is blurred, or in the extreme case, absent with the growing number of building types that are ‘blank’ (e.g. museums, libraries, department stores, shopping malls, cinemas, etc). The exercise provides an opportunity for you to re-evaluate the mentioned conditions for constructing building expressions. Using ‘technology’ as a common point of departure, you are going to design a facade that explores the notion of aesthetic expression and interface.

“**L'existence précède l'essence**” literally means “Existence precedes essence”. As defined by Existentialist Jean-Paul Satre, it might well explain the exercise of contemporary approach in Tectonic Architecture. In another horizon, “Function follows Form / Structure / Technology”, is playing a dialectic role in contrast to the traditionally ideology of “Form follows Function”.

The breakthrough in such methodology in attaining high level of creativity, is well echoing with those famous thought of “The Way that can be told is not the Eternal Way” by the Ancient Chinese philosopher Lao-Tzu.

Technology is the “Enabler” to achieve the true essence of “the people”. There is eternal paradoxical debate of Who or Which is the Master and Slave. The final resolution has to be checked against human activities and people’s lives anyway in order to avoid existential anxiety, isolation, alienation and absurdity in a highly modernized and technology orientated world, as depicted, say in literature, by Albert Camus or Frank Kafka, in cinema by Michelangelo Antonioni, Jacques Tati or Stanley Kubrick, in theatre by Samuel Beckett or Harold Pinter etc.

Those who put forward technology without people are merely builders. On the contrary, technology with humanity is certainly an art, for the dialogue will be everlasting as art survives as time goes by.

Programme 1 - Medium High Rise Design and Façade Studies - Redevelopment of infill sites in Wanchai

1. Objectives

There are 2 main objectives in this assignment:

- 1.1 To achieve an integrated architectural solution through coordination and collaboration with other professional disciplines of the building industry.
- 1.2 To investigate and explore the latest technology in façade construction through research and studies of contemporary designs, the use of materials and modes of fabrication and assembly, and approaches to sustainable and energy efficient design in sub-tropical climate like Hong Kong.

2. The Site

Each of the six groups in the class will be assigned one or two rectangular street blocks abutting Hennessy Road and Lockhart Road at both sides. (Please refer to the attached diagrams) A building site will be allocated to each student for redevelopment. You will then find that you are encountering a typical scenario of Single Elevation medium rise building as an urban infill in the city fabrics.

3. The Tasks

3.1 Forming and collaborating with a design team

Each student will be joined by one or more civil/structural engineer, building services engineer and/or surveying students to form a professional team for the assignment. Each team will be assigned a site for redevelopment.

3.2 Research

3.2.1 Urban Context (Site Analysis)

This part of study is group work focusing on your assigned individual street block site. Emphasis should be put on the evolution of the urban fabric, including the history of harbour reclamation and unique tenement house culture in Hong Kong. Information and research findings of the six groups will be shared and considered as one booklet.

3.2.2 Material and Construction for Facades

This part of study will be carried out by groups of 2 or 3. Students have to investigate the different building shells (cases to be agreed with individual group supervisors) from a technical viewpoint. The sectional relationship between outside and inside, materials employed, design reasoning behind, etc are to be studied and documented so as to set up a library of references. Particular attention should be paid to how different disciplines were integrated and coordinated.

3.3 Formulating the brief

Each student, with their professional team, shall formulate the brief for the redevelopment of the site assigned. The following rules shall be followed:

- a. It shall be a medium rise non-domestic building (about 60 m in height)
- b. Optimization of development potential is NOT mandatory, though students should recognize the constraints of development with regard to statutory and lease controls.

Suggested reading list

1. *The Function of Ornament*, by Farshid Moussavi and Michael Kubo, Harvard University, Harvard School of Design
2. *Building Construction Illustrated*, by Francis D.K. Ching and Cassandra Adams, Wiley
3. *Studies of Tectonic Culture-The Poetics of Construction in Nineteenth and Twentieth Century Architecture*, Kenneth Frampton, the MIT Press
4. *The Details of Modern Architecture*, by Edward R Ford, the MIT Press
5. *Surface Architecture*, by David Leatherbarrow, the MIT Press
6. *Textile/Tectonic: Architecture, Material, and Fabrication*, by Toshiko Mori
7. *Architecture in the Digital Age: Design and Manufacturing*, by Branko Kolarevic
8. *Details in Contemporary Architecture*, by Christine Killory and René Davids
9. *Architecture in Detail: Materials*, by Oscar Riera Ojeda and Mark Pasnik
10. *Architecture in Detail: Elements*, by Oscar Riera Ojeda and Mark Pasnik
11. *Building Machines*, by Robert McCarter, Princeton Architectural Press
12. *Atlas of Novel Tectonics*, by Reiser + Umemoto, Princeton Architectural Press
13. *Constructing Architecture: Materials, Processes, Structures A Handbook*, by Andrea Deplazes
14. *Flying Dutchman: Motion in Architecture*, by Kari Jormakka
15. *Structure and Architecture*, by Angus J MacDonald, Architectural Press
16. *Computer-Aided Manufacture in Architecture - The Pursuit of Novelty*, by Nick Callicott, Architectural Press
17. *Techniques and Technologies in Morphogenetic Design*, by Michael Hensel, Achim Menges, Michael Weinstock, Academy Press
18. *Algorithmic Architecture*, by Kostas Terzidis, Architectural Press
19. *Catalytic Formations*, by Ali Rahim, Taylor & Francis
20. *Tooling*, by Benjamin Aranda and Chris Lasch, Princeton Architectural Press
21. *Ten Books of Architecture*, by Vitruvius
22. *Towards a New Architecture*, by Le Corbusier
23. *Urbanism*, by Le Corbusier
24. *The Radiant City*, by Le Corbusier
25. *The Architecture of the City*, by Aldo Ross, the MIT Press
26. *The Urban Design of Impermanence, Streets, Places and Spaces in Hong Kong*, by Peter Cookson Smith
27. *The Transcendence of Ego*, by Jean-Paul Satre
28. *Existentialism is Humanism*, by Jean-Paul Satre
29. *Tao Te Ching*, by Lao Tzu
30. *Stranger, Novel* by Albert Camus
31. *The Myth of Sisyphus*, by Albert Camus
32. *The Trial, Novel* by Franz Kafka
33. *Metamorphosis, Novel* by Franz Kafka
34. *The Castle, Novel* by Franz Kafka
35. *L'Eclisse, Film* by Michelangelo Antonioni
36. *Red Desert, Film* by Michelangelo Antonioni
37. *Mon Once, Film* by Jacques Tati
38. *Playtime, Film* by Jacques Tati
39. *2001: A Space Odyssey, Film* by Stanley Kubrick
40. *The Shining, Film* by Stanley Kubrick
41. *Alphaville, Film* by Jean-Luc Godard
42. *Waiting for Godot, Play* by Samuel Beckett
43. *Endgame, Play* by Samuel Beckett
44. *The Birthday Party, Play* by Harold Pinter
45. *The Caretaker, Play* by Harold Pinter

Reference in the web :

www.advancedbuildings.org

web.mit.edu/bt/www/bt/Research.html

www.tech-enu.com