DEPARTMENT OF ARCHITECTURAL TECHNOLOGY

Principles of Architectural Design Project 1

Feb 01 - March 01, 2010

A COMMUNITY HUB – knowledge is power

Introduction

The first project for the year involves "out of the box" thinking with regards to providing shelter. You are required to design a small, low tech low cost sustainable multi-functional and easily assembled structure that will act as prototype for a public landmark facility that may be repeated in a variety of community locations.

These structures will provide sheltered places and landmarks that will offer the relevant communities with access to information, opportunities for learning, communication and social interaction.

Please refer to the PAD blog for relevant precedent, and tips. In addition, refer to the following sources (some of which are available in the library on short loan:

Ching, Francis D.K. Form, Space and Order, Van Nostrand Reinhold (1996)
Righini, Paul. Thinking Architecturally, UCT Press (2000): chapter 5 and p143-147
Alexander, Christopher. A Pattern Language, Oxford University Press (1977)
Unwin, Simon. Analysing Architecture, Routledge London (2009) case study pp 231-234

Look on the internet at the "Hole in the Wall" project in India and what it achieved.





"We require of any building that it acts well, and do the things it was intended to do in the best way, that it speaks well and says the things it was intended to say in the best words; that it looks well, and pleasures by its presence, whatever it has to do or say"

John Ruskin

"Architecture, painting, and sculpture are called the fine arts. They appeal to the eye as music does to the ear. But architecture is not judged by visual appeal alone. Buildings affect all of the human senses – sound, smell, touch, taste and vision"

Forrest Wilson

"The only way you can build, the only way you can get the building into being, is through the measurable. You must follow the laws of nature and use... the methods of construction, and engineering. But in the end, the building becomes part of living. It evokes immeasurable qualities, and the spirit of its existence takes over"

Louis Kahn

Site information

o Assume that the site is flat. However, you need to design for a generic and not a specific site, since the structure will be repeated in a variety of community locations.

Functional requirements

- A masonry service core of 1000mm square and 5000mm high must be lockable after hours
- It will provide a wi-fi spot.
- o In addition to this function, you may select any three of the following functions consider the relevant anthropometrics:
 - 1. homework
 - 2. creative performance
 - 3. play
 - 4. meeting
 - 5. shelter

Technological requirements

- The basic structure must be a lockable masonry core of 1000mm square and 3000mm high (with a door)
- o The remainder of the structure must contain gum poles and marine ply as the main materials provided for free
- o The technology must allow for a flexible structure to suit various locations and climatic conditions
- It must allow simple assembly with unsophisticated equipment
- Pay attention to the junctions between various elements

Format

Refer to the attached programme

Project outcomes

- o To foster an understanding of TECHNOLOGY and FUNCTION and the influence that technology and function can have on the form of the final design and detail resolution
- o To develop an understanding of design generators
- o To develop awareness of architectural language
- o To develop research and information gathering techniques
- To develop graphic communication techniques