Digital Craftwork: AA Summer Pavilion 2008

Inter 2 build again. With our annual summer pavilion we test to the full an architectural idea; we will experience its genesis, development and realization. Through building we will see the material implications of each design decision, and we get the phenomenological experience of an actual building - its physicality, space and effects.

Each year the students under the direction of the tutors develop a number of architectural concepts and ultimately test at full scale a single architectural proposition. It is an exercise that passes from ideas and theory, through design and analysis, into documentation and finally, fabrication. It is about the technology that forms architecture; its essential material organization; it concerns the making of buildings and their resultant architectural effects.

We have been drawn to design and build not for the normal reasons (direct action in the community) but through the desire to craft, both digitally and manually. Our craftsmanship begins with rigorous computer modeling that leads to a robust framework for managing complexity. It finishes with a fabricated object hand made using contemporary digital cutting tools, we become digital craftsmen.

This year, we plan to refine the design programme to ensure that that which we create is the product of all involved both physically and intellectually. To this end, we will introduce a collective Design Development phase, where the unit will perform more like an atelier debating the details and authoring collectively. The aim is that at the end of the year, all students can relate their experience intelligently through the conceptual development of the pavilion and the resulting architectural experience.

Through a set of design exercises and juries we will select concepts and develop schemes more collectively working together in groups. In previous years we have developed 12 full schemes as technical drawings but this year we intend to work more collectively so that there is an opportunity for a greater number of students and ideally the whole unit to contribute in a more intellectually engaged way in the final pavilion. In the first term end of term Jury we will select 2-4 concepts. In second term we will regroup as four teams and develop these concepts into four scheme proposals. At mid term one scheme will be selected to then be developed by two teams. A final Jury at the end of second term will select the winning design.
Charles Walker was born in Toronto, Canada. He studied architecture at the University of Waterloo in Ontario. In 1988 he relocated to the UK and worked for Richard Horden Associates and Ron Arad Associates before undertaking post graduate structural engineering studies at the Imperial College of Science Technology and Medicine in 1992. Charles has worked in design based engineering offices Atelier One Ltd. where he helped to build the practices reputation for innovative design engineering. In 1998 Charles joined Ove Arup and Partners where he has worked with several leading architects including: OMA, Toyo Ito, and Alvaro Siza. Since 2000 Charles led the Advanced Geometry Unit which he co-founded with Arup Vice Chairman Cecil Balmond. In early 2007 Charles left Arup to found from-work projects and to join Zaha Hadid Architects where he is currently employed.

Martin Self

Martin Self holds a degree in aerospace engineering and is currently completing the Histories and Theories MA at the AA. He was a founding member of the Advanced Geometry Unit at Arup, where he has worked as a structural engineer with many internationally prominent architects.
TERM 1 SCHEDULE

Week 1 1-5th October
• Student interviews and registration
• 06.10 First unit meeting and introduction intensive 3 week software tutorials and Project No.1

Project 1 - Algorithmic Wallpaper Pattern Studies
Task:
• Develop simple and inventive 2 dimensional patterns using generative algorithmic techniques
Purpose:
• To understand generative design methods
• To develop learn the basics of using computer scripts
• To invent explore original inventive uses of repetitive (or non repetitive) pattern

Week 2 8th-12th October
• 09.10 Rhino Tutorial
• 12.10 Rhino Tutorial, Pin-up Wallpaper and review.

Week 3 15th-19th October
• 16.10 Excel Based Scripting Tutorials
• 19.10 Excel Based Scripting Tutorials, Pin-up Wallpaper and review

Week 4 22nd-26th October
• 23.10 Rhino Scripting Tutorial
• 26.10 Rhino Scripting Tutorials, Wallpaper Panel Review and introduction to Project No. 2

Project 2 - 25 Ideas in 25 Days
Task:
• Develop 25 Ideas for a Pavilion
Purpose:
• To initiate formal research programme
• To develop a conceptual parti for the pavilion
• To invent explore original inventive ideas for a pavilion

Week 5 29th-2nd November
• 30.10 Pin up and discuss ideas
• 02.11 Tutorials, Pin-up and discuss ideas

Week 6 5th-9th November (Open Week)
• 06.11 Pin up and discuss ideas
• 09.11 25 Ideas Mid Term Review

Week 7 12th-16th November
• 13.11 Pin up and discuss ideas.
• 16.11 Tutorials, Pin-up and discuss ideas

Week 8 19th-23rd November
• 20.11 Pin up and discuss ideas.
• 23.11 25 Ideas Final Review and introduction to pavilion Project

24th - 25th November Hooke Park Weekend
Task:
• Build collectively a piece of timber furniture.
Purpose:
• Induction weekend for Hooke Park tools and workshop
• To familiarize with timber construction
• To work as a coordinated team and bonding session

Week 9 26th-30th November
• 26.11 Tutorials
• 29.11 Tutorials

Week 10 3rd-7th December
• 03.12 Tutorials
• 07.11 Tutorials

Week 11 10th-14th December
• 10.12 Tutorials
• 14.11 Selection Jury for Pavilion Concept (2-4 Concepts chosen)

TERM 2 SCHEDULE

Week 1 7th-11th January
• 07.01 Restructure as 4 project teams and introduction to Pavilion Schematic Design Competition
• 11.01 Team Tutorials

Week 2 14th-18th January
• 15.01 Individual Tutorials
• 18.01 Team Tutorials

Week 3 21st-25th January
• 22.01 Individual Tutorials
• 25.01 Team Tutorials

Week 4 28th-1st February
• 29.01 Individual Tutorials
• 01.02 Team Tutorials

Week 5 4th-8th February
• 04.02 Selection Jury (2 Schemes Selected)
• 08th - 11th.02 Unit Trip to Finland

Purpose:
• Visit FinnForest factory
• To familiarize with sustainable timber farming
• To visit Alvar Alto buildings

Week 6 11th-15th February (Open Week)
• 12.02 Restructure as 2 project teams and introduction to Pavilion Design Development Competition.
• 15.02 Team Tutorials

Week 7 18th-22nd February
• 19.02 Individual Tutorials
• 22.02 Team Tutorials

Week 8 25th-29th February
• 26.02 Structural Engineering Workshop with Arup
• 29.02 Technical Drawing Tutorials

Week 9 3rd-7th March
• 04.03 Technical Drawing Tutorials
• 07.03 Technical Drawing Tutorials

Week 10 10th-14th March
• 10.03 Technical Drawing Tutorials
• 14.03 Selection Jury Final Pavilion Chosen

TERM 3 SCHEDULE

Week 1 14th-18th April
• 15.04 Review of Construction Drawing and Structural Analysis
• 16.04 Construction Planning Meeting

Week 2 21st-25th April
• 21.04 to Hooke Park
• Hooke Park Week 1

Week 3 28th April-02nd May
• Hooke Park Week 2

Week 4 5th -9th May
• Hooke Park Week 3

Week 5 12th -16th May
• Hooke Park Wee 4

Week 6 19th -23rd May
• Hooke Park Week 5

Week 7 26th -30th May
• Hooke Park Week 6

Week 8 2nd -6th June Intermediate Jury Week
• Hooke Park Week 7
• 06.06 Pavilion Transportation to Bedford Square

Week 9 9th -13th June
• Pavilion Construction Bedford Square
• 03.06 TS3 Technical Studies Jury

Week 10 16th -20th June
• 16.06 2nd year End of Year Table Reviews
• 20.06 3rd year Tutorials

Week 11 23rd -27th June
• 23.06 Intermediate (Part 1) Final Check JD/DB
• 24.06 Intermediate (Part 1) Final Check JD/DB

Week 12 30th June- 4th July
• 01.07 Intermediate (Part 1) External Examination JD
• 04.07 Opening of Exhibition