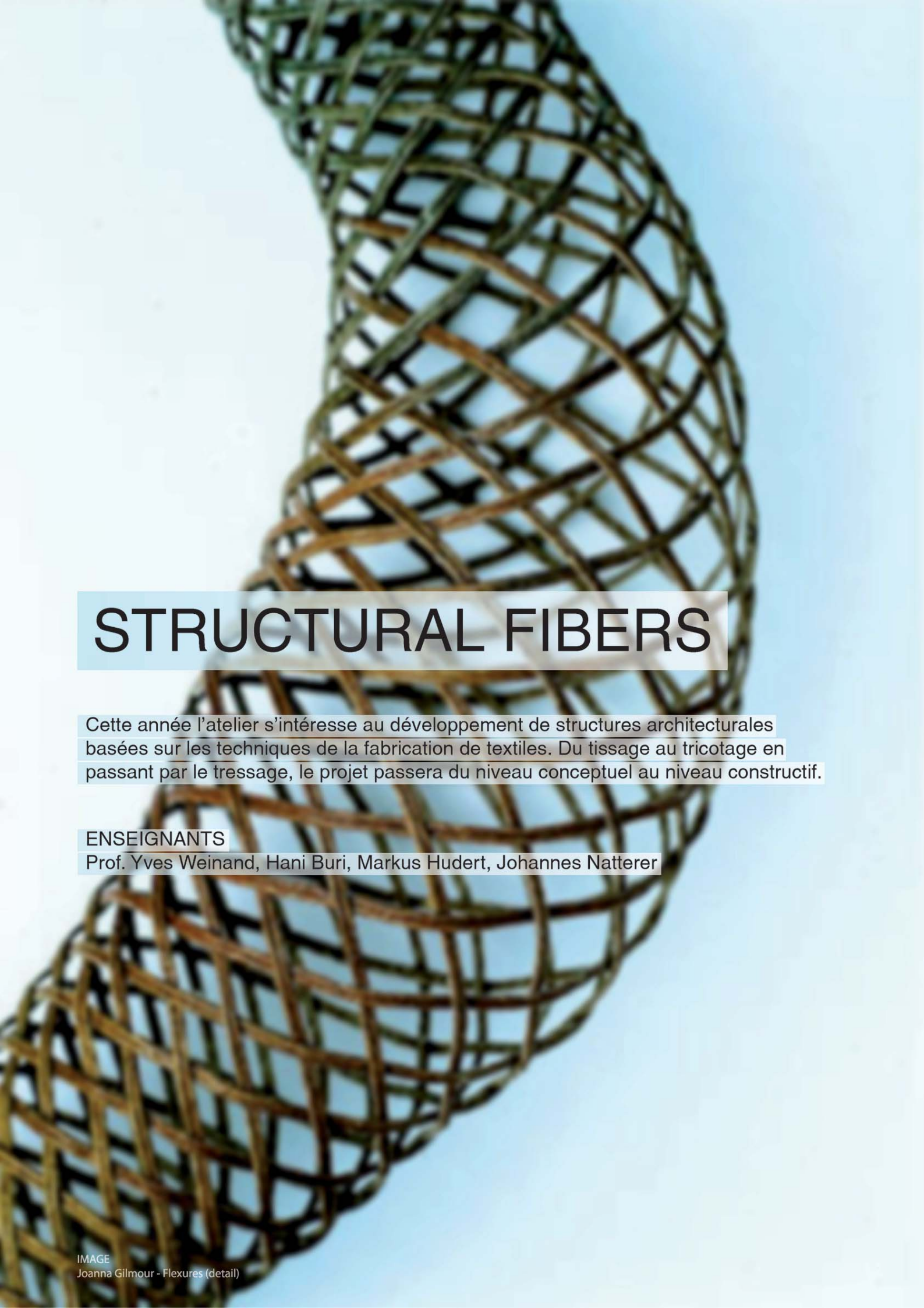


STRUCTURAL FIBERS

Cette année l'atelier s'intéresse au développement de structures architecturales basées sur les techniques de la fabrication de textiles. Du tissage au tricotage en passant par le tressage, le projet passera du niveau conceptuel au niveau constructif.

ENSEIGNANTS
Prof. Yves Weinand, Hani Buri, Markus Hudert, Johannes Natterer

IMAGE
Joanna Gilmour - Flexures (detail)

Structural Fibers / Atelier Weinand 2007 / 2008

Written Program / Programme écrit

Introduction

The topic of this year's atelier will be the development of architectural structures based on the logics and principles of textile fabrication techniques, such as weaving, knitting and braiding, both on conceptual and constructive levels.

As basketry employs many techniques of textile production, the semester will commence with a two day 'learning by doing' workshop. The participants will obtain practical exercise as well as theoretical insight in the basic techniques and their respective possibilities and restrictions.

However, the aim of the program is not to create large scale baskets, but to study the conceptual and structural potential of the principles of basketry as well as fabric structures and to incorporate them into the design process. It is important not to stay with the basic structure but to develop variations and mutations of the original fabrication technique.

These variations and mutations will be applied in the second exercise in order to design an object or a micro scale architecture. This could be either a piece of furniture or a single space cabin. This exercise is meant to practice the usage of the previously mentioned techniques and to deliver the base for the main project.

The program of the main project will be derived from the individual results of the second exercise in order to allow for each approach to unfold its full potential. The programmatic orientation will be evaluated together with the students during the collective study trip which will take place after the presentations of the second exercise.

Detailed Program

1 Workshop 'Fabrication Techniques'

Task: Acquiring knowledge of the different fabrication techniques, workshop in basketry for manual experience and better understanding of restrictions and liberties inherent to the different systems. Developing a 'vocabulary' of techniques that can be applied in the later phases.

Schedule: 20.09.2007 - 21.09.2007 Exploring and practising techniques

22.09.2007 - 26.09.2007 Individual development of variations

27.09.2007 - 28.09.2007 Presentations / Professional advise by Claude Cultot

Deliverables: Hand in of individually created models, diagrammatic drawings and photographs

2 Micro-architecture (design of a cocoon / object / furniture)

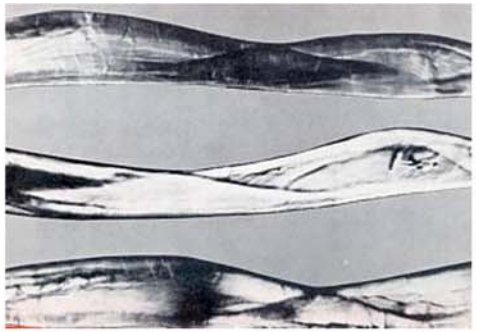
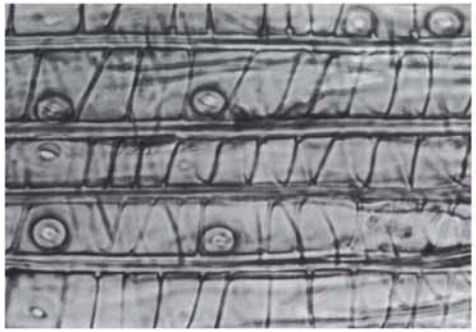
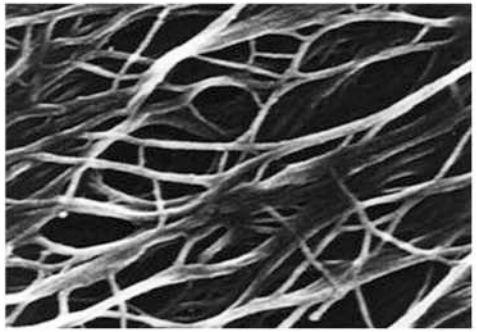
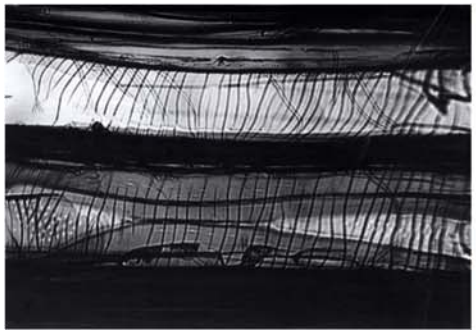
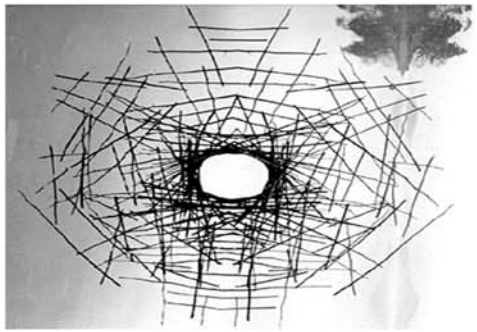
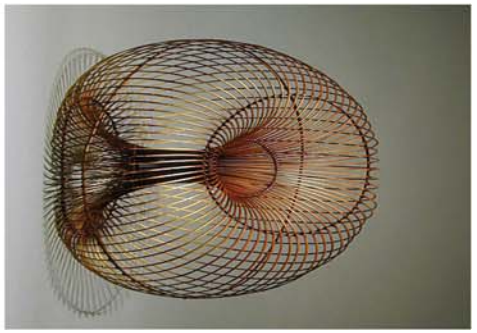
Task: Application and further exploration of the potentials of the studied techniques on a small scale project, for example a single space cabin or a piece of furniture.

Schedule: 28.09.2007 - 11.10.2007 Development of project

12.10.2007 Presentations

Deliverables: Large scale model (min. 0,75m x 0,75m x 0,75m / max. 2,0m x 2,0m x 2,0m)
Schematic drawings 1:20 / 1:50

3 Main project

Task:	Design of a large scale building employing the before learned techniques.
Schedule:	13.10.2007 - 15.10.2007 Study trip / Evaluation of program
	15.10.2007 - 08.11.2007 Design phase
	09.11.2007 Intermediate presentations
	09.11.2007 - 19.12.2007 Constructive detailing phase
	20.12.2007 - 21.12.2007 Final presentations
Deliverables:	Model and drawings 1:200 / 1:100 Detail drawings 1/10 and 1/5 Detail models 1/10 and 1/5

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