

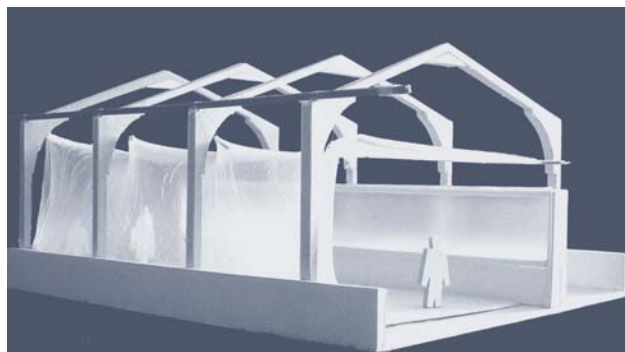
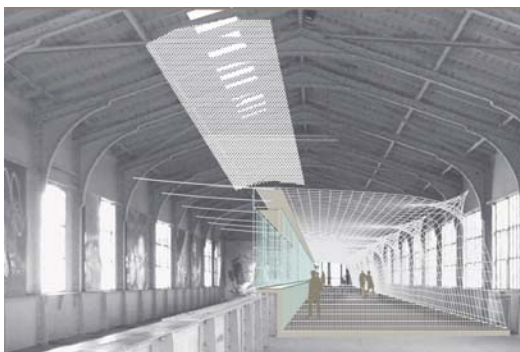
## International Students Seminar Textile Roofs 2009

### Upgrading with Textiles

The main emphasis of the International Students Seminar is put in developing and manufacturing building models for tensioned and inflated structures, including all experience during the process of development and manufacturing up to the final and real model. The design of membrane structures is deeply related by the behaviour of the fabric and their possibility to tension, to join and to fix the materials. Therefore one of the targets of the seminar is to point out the relation between form, material behaviour and structural behaviour which can be realized during manufacturing and construction.

A further aim is the get practical experience in designing and manufacturing tensioned and inflated membrane structures. The practical experience is hardly to teach using computer modelling neither for the 3D-shapes and animations nor for numerical simulation of the structural behaviour. The gap between virtual designed structures and real building is getting wider and one of the aims of the international seminar is to show the possibilities and differences between physical modelling and computational design.

The advantage of inflatables and tensioned membranes are the less weight and free shaped surfaces following internal laws of equilibrium. The applications using textile structures upgrading the interior, the acoustic, the thermal isolation, the light of space is increasing in the last years and shows impressively the capacity and feasibility of textiles.

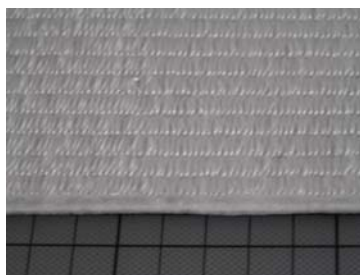


competition Railwaystation Solingen (Architekten Michel + Wolf + Partner)

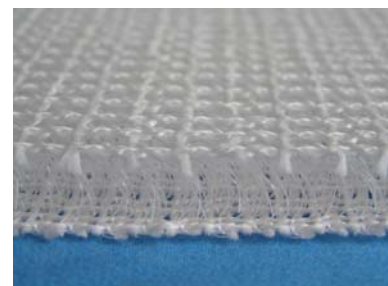
The design task of the seminar is inventing membrane structure upgrading an existing building. The structure has to developed in small scale models and has to be built in a larger scale during the seminar. The results will be presented at the end of the workshop.



Flexible solarcells  
Material developments



Acoustic textile



Textile thermal isolation

The project is accompanied by the lecturers of the seminar.

Lothar Gründig, TU Berlin  
Joachim Bahndorf, FH Minden  
Rosemarie Wagner, FH München

**Location**

*Introduction and modelling:*  
Geodätenstand, 6. Stock  
Technische Universität Berlin  
Strasse des 17. Juni 135  
10 623 Berlin

*Lectures*  
Main Building of Technical University Berlin  
Strasse des 17. Juni 135  
10623 Berlin

**Equipment**

Paper and pencils  
Notebook

**Fee**

150 Euro  
Including social events of the Texile Roofs '09 such as  
boat tour, conference dinner, beverages during the day and  
materials to build the models

**Accommodation**

on the homepage [www.textile-roofs.com](http://www.textile-roofs.com) will be a list of  
Guesthouses and hotels, the students have to organize their  
accommodation by themselves

**Registration**

on the homepage [www.textile-roofs.com](http://www.textile-roofs.com) you will find a  
registration form for the International Students Seminar in the  
section "Stud. Seminar". The registration should be send  
together with a copy of your student identity card by fax or mail  
to

Dr.-Ing. Bernd Stary  
[Technische Universität Berlin](http://www.technik.uni-berlin.de)  
[Institut für Geodäsie und Geoinformationstechnik](http://www.geodaeie.uni-berlin.de)  
Sekretariat H12  
Straße des 17. Juni 135  
10623 [Berlin](http://www.berlin.de)  
Telefon: +49 30 31424054  
Fax: +49 30 31421119  
Email: [bernd.stary\(at\)tu-berlin.de](mailto:bernd.stary(at)tu-berlin.de)

## Program

### Wednesday, June 10<sup>th</sup>

- |               |   |
|---------------|---|
| 9.30 - 9.45   | Welcome and Introduction, Prof. Lothar Gründig, TU Berlin   |
| 9.45 - 10.00  | Presentation of the lectures and of the task,<br>Prof. R. Wagner, München Prof. J. Bahndorf, Minden |
| 10.00 - 10.30 | Introduction in the topics, examples and ideas<br>Prof. R. Wagner, München                          |
| 10.30 - 11.00 | Introduction in the materials, working techniques and equipment,<br>Prof. J. Bahndorf, Bielefeld    |
| 11.00 - 12.30 | Conceptual design   |
| 14.30 - 18.30 | Detailing of the model  |

### Thursday, June 11<sup>th</sup>

- |               |   |
|---------------|---|
| 09.00 - 11.00 | Presentation of the models and discussion with the lectures |
| 11.00 - 13.00 | Revision of the models                                      |
| 19.30         | Special Guest Lecture<br>(Ernst Reuter Haus)                |

### Friday, June 12<sup>th</sup>

- |               |   |
|---------------|---|
| 09.00 - 12.30 | Lectures Textile Roofs 2009 (Ernst Reuter Haus) |
| 14.00 - 16.00 | Refinement of the models                        |
| 16.30 - 19.30 | Boots tour, river Spree                         |
| 19.45         | Conference dinner, Textile Roofs 2009           |

### Saturday, June 13<sup>th</sup>

- |               |  |
|---------------|--|
| 09.00 - 12.30 | Lectures Textile Roofs 2009 (Ernst Reuter Haus)<br>Finishing of the models |
| 14.00 - 15.30 | Presentation and evaluation of the models                                  |