

Ephemeral architecture Time and Textiles

16-17-18 April 2007
Politecnico di Milano

Conference guide

Symposium Secretariat

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W. <http://www.tensinet.com/>
W. <http://www.tensinet2007.promoest.com>

Proceedings

The book of proceedings consists of 1 volume containing all presented papers, it is included in the early and full conference fee. Registered students can buy the book of proceedings on the website <http://www.tensinet2007.promoest.com>. Reduced price for the volume is 20 €.

Exhibition

The exhibition will be held in the "Guido Nardi Exhibition room" from 10th to 20th April.

Organized by:

Tensinet
The Communication Network
for tensile structures in Europe

Politecnico di Milano
BEST Department
Faculty of Architecture and Society



Theme

The main theme of the TensiNet Symposium 2007 will be Ephemeral Architecture and in particular, the relationship between membrane architecture and the concept of time. Ephemeral Architecture describes tensile structures built with lightweight membranes, which respond to the principles of firmness, commodity and delight, distancing themselves from the classical interpretation embodied by everlasting, monumental architecture.

The objective of the Symposium is to emphasise how the relationship between membrane architecture and the concept of time is constantly evolving, giving new life to all ephemeral architectural expressions.

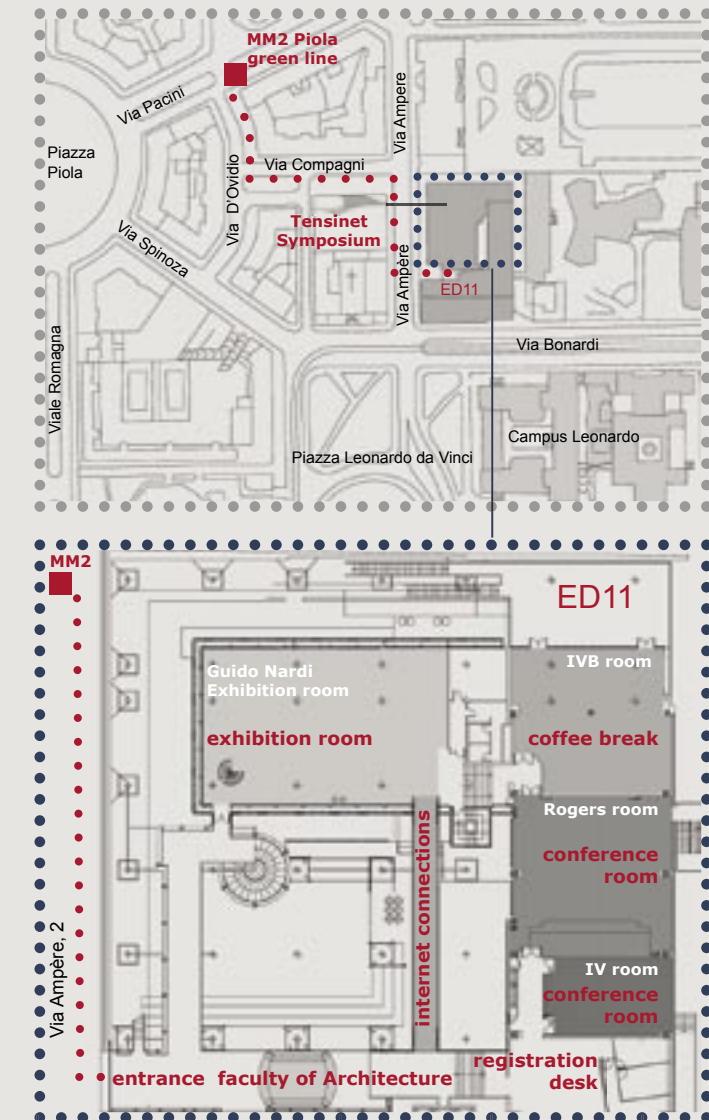
Ephemeral Textile Architecture not only responds to the needs of contemporary society for flexible and lightweight building, but is also the result of an ecological design strategy, where temporary constructions can be disassembled after use, leaving future generations free to decide how to use those spaces again.

Organising Committee:

- | | |
|---------------------|--------------------------------------|
| Mike Barnes | University of Bath |
| Heidrun Bögner-Balz | Labor Blum |
| Andrea Campioli | Politecnico di Milano |
| John Chilton | University of Lincoln |
| Françoise Fournier | Ferrari |
| Josep Llorens | Universitat Politecnica de Catalunya |
| Stefania Lombardi | Canobbio |
| Marijke Mollaert | Vrije Universiteit Brussel |
| Anna Mangiarotti | Politecnico di Milano |
| Alessandra Zanelli | Politecnico di Milano |

Registration desk

In the hall of Faculty of Architecture, building ED11, 2 Ampère Street. Congress rooms, Exhibition room, Internet connections and Coffee break are situated in the ED11, Campus Leonardo, Politecnico di Milano.



16th April 2007 am

8.45	Registration	Faculty of Architecture
9.30	Welcome Giulio Ballio , Rector of Politecnico di Milano Pier Carlo Palermo , Dean of Faculty of Architecture and Society Fabrizio Schiaffonati , Head of BEST Department	
10.00	Keynote Robert Kronenburg , Chair of Architecture, University of Liverpool <i>Flexible architecture and tensile membranes</i>	
10.30	Coffee Break	

Plenary session: lightweight structures and architecture of light

<i>Chairman: Marijke Mollaert</i>		
11.00	M. Majowiecki , University of IUAV, I <i>Stainless steel suspended roof at the Roma Fair</i>	Rogers Room
11.30	R. Canobbio, S. Lombardi , Canobbio, I <i>Translucency and artificial light</i>	
12.00	M. Balz, K. Göppert , Schlaich Bergermann und Partner, D <i>Combination of primary and secondary elements for efficient large span structures</i>	
12.30	M. Pedretti , Airlight, CH <i>The basic physical principles of Tensairity® and application to extremely large span structures</i>	
13.00	Lunch Break	

16th April 2007 pm

Building & Environment Session: designing for lightweight structures <i>Chairman: Bernd Stimpfle</i>		
14.20	M R.H. Luchsinger, R. Crettol , Empa, CH <i>Synergetic Structures and Tensairity®</i>	Rogers Room
14.40	G. Schmid , form TL, D <i>Membrane Cladded Air Traffic Control Tower Vienna: Job Report</i>	
15.00	A. Capasso , University of Naples Federico II, I <i>Light of lightness. Lightness to light.</i>	
15.20	Coffee Break	

New Materials & Applications Session: innovation in translucent and transparent materials

<i>Chairman: Roberto Canobbio, Stefania Lombardi</i>		
15.40	C.G. Brück, W. Dürbaum , Polymade-ITT, D <i>Transparent Material Technology</i>	Rogers Room
16.00	W. Rudolf-Wittrin , Ceno-tec, D <i>From pvc to etfe: evolution of daylighting performances of textile architecture</i>	
16.20	S. Lehnert , Foiltec, D <i>Latest approaches to ETFE-cladding systems</i>	
16.40	H. Reiter , Covertex, D <i>National Stadium, Beijing 2008</i>	
17.00	Exhibition Opening: "Guido Nardi Exhibition Room" <i>Introduction: Alessandra Zanelli</i>	
17.30	Coffee Break	

17th April 2007 am

Plenary session: new interests in textile architecture <i>Chairman: Alex Helsop</i>		
9.00	R. Blum , Lab. Blum Stuttgart, D, J. Chilton , University of Lincoln, UK, T. Devulder , 2hD Ltd Nottingham, UK <i>Tailoring the environmental properties of membrane constructions</i>	Rogers Room
9.25	P. D. Gosling , University of Newcastle, UK, B.N. Bridgens , Arup, UK <i>Material testing & computational mechanics: a new philosophy for architectural fabrics</i>	
9.50	T. Stegmaier, H. Planck , TV Institut für Textil, D <i>Textile Material Development for textile Construction</i>	
10.15	F. Fournier , Ferrari, F <i>Strategies for recycling of pes/pvc Membranes</i>	
10.45	Coffee Break	

Plenary session: membrane architecture and thermal behaviour

<i>Chairman: John Chilton</i>		
11.15	F. Decock, F. Descamps, M. Mollaert , Vrije Universiteit Brussel, B <i>Comfort assessment of spaces enclosed by translucent membranes: from material properties to whole building simulation</i>	Rogers Room
11.40	R. Blum, H. Bögner-Balz, J. Kohnlein , Lab. Blum Stuttgart, D <i>Building Physics of lightweight structures: theory, measurements and numerical analysis</i>	
12.05	A. Heslop , Architen Landrell Associates, UK <i>Membrane architecture: developments in thermal Insulation</i>	
12.30	G. Schmid , form TL, D <i>Multi-layer Insulated Membrane Roof /ETFE cushions and their thermal and climatic behaviour</i>	
13.00	Lunch Break	

17th April 2007 pm

Plenary session: time and textiles		
14.30	W. Sobek , ILEK Stuttgart, D <i>Ephemeral architecture</i>	Rogers Room

Conference dinner

The conference dinner will take place on Tuesday 17 April at 20.00 o'clock in the "Carlsberg ØL". Tickets should be bought upon registration on www.tensinet2007.promoest.com
Entrance: Bastioni di Porta Nuova 9/11, via Solferino 56 Milano.
t. 02-6555560. Public transports: Tram 11 - Monte Grappa Gioia Tram Stop; or MM2 Moscova; or MM3 Repubblica.

17th April 2007 pm - parallel session I

Building & Environment Session: learning from failures <i>Chairman: Lothar Gründig</i>		
15.10	R. Blum, H. Bögner-Balz , Lab. Blum Stuttgart, D <i>Crack propagation and the dimensioning for pte-coated glass-fiber fabrics</i>	Rogers Room
15.30	J. Monjo Carrió , Universidad Politécnica de Madrid, E <i>Common Tensile Roof Pathology and Basic Prevention</i>	
15.50	B. Stimpfle , form TL, D <i>Redesign of the Velodrome in Abuja: job report</i>	
16.10	Coffee Break	
Building & Environment Session: textiles for flexible structures <i>Chairman: Marijke Mollaert</i>		
16.30	C. Rodriguez , University of Liverpool, UK <i>The Swivel Diaphragm: potential applications in transformable architecture</i>	Rogers Room
16.50	T. Van Mele, M. Mollaert , Vrije Universiteit Brussel, B <i>Retractable Constructions. "Scissor-Hinged Membrane Structures"</i>	
17.10	H. Krah , W.L. Gore & Associates, D <i>Performance demands on architectural fabrics in flexible structures</i>	
17.30	N. Kugel, Alfred Rein , Kugel + Rein Architects and Engineers, D <i>Retractable Roof Fortress Kufstein</i>	
17.50	S. Tillner , Tillner and Partner ZT, Wien, A <i>Retractable membrane roof in the court yard of Wien</i>	
18.10	Discussion	

17th April 2007 pm - parallel session II

New Materials & Applications Session: textiles and new applications <i>Chairman: Heidrun Bögner-Balz</i>		
15.10	H. Toyoda , Taiyo Kogyo, JP <i>New TiO2 materials for membranes</i>	IV Room
15.30	I. Bergmann, C. Schatzke , Faculty of Architecture RWTH Aachen, D <i>Lightweight structural systems made of textile reinforced concrete</i>	
15.50	A. Lamacchia , University of Florence, I <i>Façades tresses: building façade redevelopment as the mean of textile-screens</i>	
16.10	F. Broggini , Blue Office, CH <i>Air as material for temporary architecture</i>	
16.30	Coffee Break	
New Materials & Applications Session: textiles and LCA approach <i>Chairman: Françoise Fournier</i>		
17.10	M. Lavagna , Politecnico di Milano, I <i>Lightness and temporariness in life cycle assessment</i>	IV Room
17.30	R. Wehdorn-Roithmayr, P. Jurewicz , TU Wien, A <i>Towards life cycle knowledge of form-active structures</i>	
17.50	J. Tejera Parra , Buró Arquitectura Textil Madrid, E <i>Air trees in Eco-boulevard, new suburban extension of Vallecas, Madrid</i>	
18.10	C. Langella , 2nd University of Naples, I <i>Bio-inspired textile materials and flexible films</i>	
18.30	Discussion	
20.00	Conference dinner	

18th April 2007 am

Plenary session: analysis and formfinding studies for lightweight structures <i>Chairman: Peter D. Gosling</i>		
9.00	R. Wagner , Munich University of Applied Science, D <i>Daily membrane structures versus high end membrane products</i>	Rogers Room
9.30	E. Moncrieff , Kurvenbau, D <i>Mesh independent specification of field intensity distribution for industrially appropriate loading vector and surface prestress generation</i>	
10.00	L. Gruendig, P. Singer, D. Stroebel , Technical University of Berlin, D <i>Formfinding and patterning of pneumatic structures: "Winter Bathing Ship", Berlin</i>	
10.30	S. Adriaenssens , Vrije Universiteit Brussel, B <i>Feasibility study of medium span spliced spline stressed membranes</i>	
11.00	Coffee Break	
Plenary session: textiles and time: towards a new temporary architecture? <i>Chairman: Marijke Mollaert, Heidrun Bögner-Balz</i>		
11.30	J. Hennicke , ILEK Stuttgart, D <i>Lightweight natural design approach</i>	Rogers Room
12.00	H. Duerr , IMS, Anhalt University of Applied Sciences, Dessau, D <i>Ephemeral structures, in nature, art and architecture</i>	
12.30	A. Campioli, A. Mangiarotti, A. Zanelli , Politecnico di Milano, I <i>Renewing membrane application in Italian context</i>	
13.00	Conclusions	
13.20	Lunch Break	

Design Furniture Fair

The "Salone Internazionale del Mobile" will be held at the New Milan Fairgrounds in Rho from 18th to 23rd April. More information about related events at the registration desk.
<http://www.cosmit.it/tool/home.php>

Wind tunnel

The "Galleria del Vento" is the building of the GVPM for aerodynamics tests, it is situated in the Bovisa Sud Campus of Politecnico di Milano. This laboratorio will be open during the conference for visiting tours. More information about registering at the registration desk. <http://www.windtunnel.polimi.it/english/index.htm>

Tourist tips

A leaflet with tourist information for the Milan metropolitan area can be found at the registration desk. <http://www.turismo.comune.milano.it/> More information about getting around Milan on <http://www.atm-mi.it/ATM/eng/>