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Newsletter of the European presed Network for the Design and Realisation of Tensile Structures

# RESEARCH SHELTAIR PAVILION METROPOLITAN LABORATORY

PROJECT

# CLIMATE-PAVILION DESERT CITY PROJECT AVIATION PIONIER

The climate-pavilion referring to the domes of Buckminster Fuller © reich.architekten BBD Desert City Project, view of the exhibition courtyard © Desert City ►



23RD TEXTILE ROOFS 2018 RUSSIA

24 THE 6TH INTERNATIONAL TENSINET SYMPOSIUM

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#### **E** dito Dear Reader,

In not much more than a year our next TensiNet Symposium "Softening the Habitats" will take place in Milan. The organizing committee is working on the program. You find herein the call for abstracts, and more details on the variety of topics.

This issue of TensiNews is full of inspiring projects for permanent and for temporary use, and a large variety of cladding materials. We are glad to announce that the LCA working group has been reactivated. You are invited to participate.

Many new ETFE projects are shown. One pneumatic roof structure using the thin ETFE foil is covering an exhibition space for thorny cactuses. Under the name of the aviation pioneer Lilienthal a triangular ETFE cushion is covering an atrium. The new stadium in Chicago is covered with an ETFE roof, the first one hosting the super bowl. In England one of the oldest railway stations has been extended by a bus station with ETFE canopies.

Covered with translucent material, the roof for the new Volgograd stadium is presented. In the south of France large inverted cones are covering a High-Tech campus. A geodesic dome resembling to Buckminster Fuller has been built for an exhibition. An inflatable pavilion combining the principle of an air hall with an air beam is installed every year near Stuttgart. Also for temporary application a pavilion has been built in Italy, covered with PVC foil.

The University of Arts in Berlin presents the research project of a bending active grid shells in combination with air-inflated cushions, to be used as temporary shelters for events and for humanitarian missions.

I hope you enjoy this issue of TensiNews, and will be glad to meet you soon.

Yours sincerely, Bernd Stimpfle



### Forthcoming Events

7<sup>th</sup> IMS international textile architecture seminar 1<sup>st</sup> edition in Miami, USA | 17-19/05/2018 http://www.membrane-symposium.org/symposiummiami-2018.html

**23<sup>rd</sup> International workshop Textile Roofs 2018** 1<sup>st</sup> edition in Moscow, Russia 24-26/05/2018 www.textile-roofs.de

IASS 2018 - Creativity in Structural Design 16-20/07/2018 MIT Campus Cambridge, Massachusetts www.iass2018.org

SLTE 2018 - VII Latin American symposium of textile structures | 12-14/09/2018 | Universidad Ricardo Palma, Lima, Peru | www.slte2018.com

13<sup>th</sup> International Conference on Advanced Building Skins | 1-2/10/2018 | Bern, Switzerland https://abs.green/callforpapers/

Aachen-Dresden-Denkendorf International Textile Conference 2018 | *Turning Fibers into Value* | 29-30/102018 | Aachen, Germany www.aachen-dresden-denkendorf.de/en/itc/

6<sup>th</sup> International TensiNet Symposium | "Softening the Habitats: Sustainable Innovations in Minimal Mass Structures and Lightweight Architectures" 3-5/06/2019 | Politecnico di Milano, in Milan, Italy www.tensinet2019.polimi.it



#### in memorandum Mike Barnes

With great sadness we announce the death of Mike Barnes. Mike died this February at the age of 75.

Mike was member of the EU-funded TensiNet thematic network from 2001 to 2004 and he was the first chairperson of the TensiNet Association from 2005 to 2006.

Mike was Professor Emeritus at Bath University and visiting professor at Bauhaus University in Dessau. He was teaching tensile structures. The videobased learning pack he developed in '90 is still a reference for contemporary architecture.

Mike was a passionate engineer with very valuable expertise in the domain of tensile surface structures. He was a leader in numerical modelling in dynamic relaxation for analysis and design of tensioned membrane structures and cable structures.

He was involved in many important projects worldwide, including the German Pavilion in Seville and the Shading Tents for the Expo 88 in Brisbane. He was in the team for the assessment of the Montreal Olympic Stadium Roof and performed checking analysis for the Millennium Dome. Mike we will miss you.

## Aix-en-Provence, France

# THE CAMP

# HIGH-TECHNOLOGY CAMPUS AND BUSINESS INCUBATOR SERGE FERRARI SUPPLIES ITS FLEXLIGHT XTREM TX30 FOR THE AMAZING TENSILE CANOPY ROOF

Serge Ferrari was chosen to supply some 8.500m<sup>2</sup> of innovative material, Flexlight Xtrem TX30, for the tensile canopy roof of The Camp, located in Aix-en-Provence. Serge Ferrari, a specialist of flexible composite materials since 1973, has lent its expertise to a project named The Camp: a brand new campus entirely dedicated to the development of digital technologies and research on new habits. A long-time purveyor of solutions for large-scale architectural projects around the world, the Group, based near Lyon, France, has once again been chosen for its flexibility and innovative technical materials, all 100% recyclable.

Figure 2a/b. Views underneath the canopy © Fred Bruneau Figure 3a/b/c/d. Detailing: Connecting membrane to the metal structure © Fred Bruneau



#### An architectural prowess

Designed as an open-air environment, The Camp is a celebration of modernism and new technologies, with its decidedly futuristic look.



Corinne Vezzoni et Associés, the architecture firm in charge of the project, chose a canopy roof provided by ACS Production, which used Serge Ferrari's high-technology composite membranes. As Corinne Vezzoni commented, "this solution was the best option available to create the giant 'parasol' structure we had envisioned, designed to shelter the whole complex from the sun's glare."

ACS Production, in charge of designing and installing the canopy roof, spent eight months working hand-in-hand with Serge Ferrari on the feasibility studies to guarantee the solution would be resistant to harsh weather (wind, snow, rain) and would meet requirements in terms of comfort and design. CEO of ACS Production Yannick Faurant explained: "As a leader in metal-textile structures, we have been working with Serge Ferrari for over 27 years. Over time, the Group has become one of our