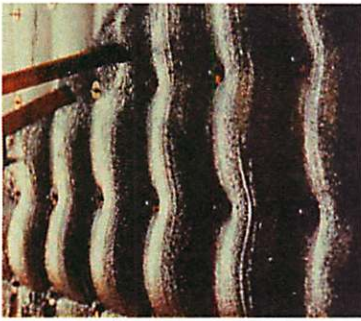


**FABRIC FORMWORK CONFERENCE
FOR ARCHITECTURAL STRUCTURES
May 16 - 18, 2008
Conference Schedule**

**C.A.S.T.
Faculty of Architecture
University of Manitoba
Winnipeg, Canada**

all lectures on Saturday and Sunday are located in the
JRI Auditorium, 172 Agriculture Building (see map for location)

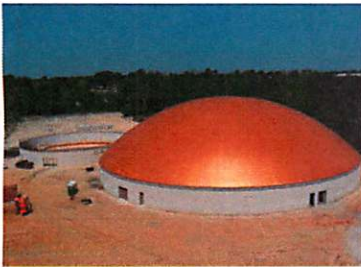
	FRI MAY 16	SAT MAY 17	SUN MAY 18
7.30			
7.45			
8.00		coffee & breakfast UNIVERSITY CLUB	coffee & breakfast UNIVERSITY CLUB
8.15			
8.30			
8.45			
9.00		KENZO UNNO	REMO PEDRESCHI
9.15			
9.30			
9.45			
10.00		DAVID SOUTH	SANDY LAWTON
10.15			
10.30			
10.45			
11.00		ARNO PRONK	ALAN CHANDLER
11.15			
11.30			
11.45			
12.00		lunch UNIVERSITY CLUB	lunch UNIVERSITY CLUB
12.15			
12.30			
12.45			
1.00		RICHARD FEARN	DAVID JOLLY MONGE
1.15			
1.30			
1.45			
2.00		MARK WEST	FARIBORZ HASHEMIAN
2.15			
2.30			
2.45			
3.00		International Society of Fabric Forming (ISOFF) Meeting JRI Auditorium	DANIEL LEE
3.15			
3.30			
3.45		tour & demonstration 1 C.A.S.T. BUILDING	FARHOOD DELIJANI
4.00			
4.15			
4.30			tour & demonstration 3 C.A.S.T. BUILDING
4.45			
5.00		tour & demonstration 2 C.A.S.T. BUILDING	
5.15	opening reception & registration FOYER J.A. RUSSELL BLDG		
5.30			
5.45			
6.00			
6.15	opening lecture MARK WEST CENTRE SPACE J.A. RUSSELL BLDG		
6.30			
6.45			
7.00			



Kenzo Unno

Architect, Tokyo, Japan

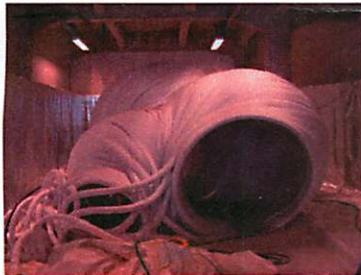
The Umi Architectural Atelier in Tokyo, Japan, has developed methods of forming cast-in-place concrete walls formed in fabric molds. This presentation will describe how these techniques, named URC (Unno Reinforced Concrete) were invented and developed. The basic configuration of URC formworks will be described in detail, and built works using URC will be shown. Finally, the future of URC will be discussed through drawings and a sample model.



David South

Founder, Monolithic Dome Institute, Italy, Texas, USA

Over one thousand Monolithic domes have been constructed over the past 30 years using inflatable fabric forms. Many of these constructions are large insulated buildings with diameters reaching 90 m. (300 ft.) or more. Others are smaller structures built as low-cost housing. David South will review the work of his company and describe his construction methods.



Arno Pronk

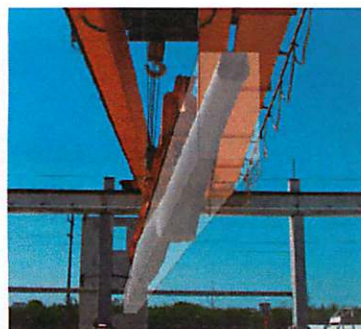
Architect, Eindhoven University of Technology, Netherlands

Innovative technologies developed at the Technical University of Eindhoven use inflatable forms to shape thin-shell spray concrete and FRP (fibre reinforced Polymer) structures. These innovative construction methods can be used to build new, complex architectural forms and lightweight efficient structures. This work includes engineering analysis, modeling and calculations for these designs.



Richard Fearn President & CEO, Fab-Form Industries, Surrey, B.C. Canada

The Fab-Form company is the first manufacturer of fabric forming products for building construction. This presentation will discuss the challenges of introducing paradigm-shifting technologies into a construction market that is traditionally very slow to adopt new technologies. Other paradigm-shifting technologies, such as gypsum wall board and engineered lumber, and the forces that eventually lead to their mass adoption, will be analyzed.



Mark West

Professor, Director of C.A.S.T., Winnipeg, Canada

The central focus of research at the Centre for Architectural Structures and Technology (C.A.S.T.) is the search for a new architectural 'language' of sensual fluid forms that can simultaneously provide efficient and sustainable structures. This work has developed techniques for constructing fabric-formed columns, walls, beams, trusses, panels, and thin-shell vaults using plain flat sheets of fabric and standard construction tools.



Remo Pedreschi Engineer, Professor, University of Edinburgh, Scotland

A series of projects undertaken by architecture students at the University of Edinburgh explore the creative and pragmatic opportunities of fabric formwork. Constructions include, stacked columns, perforated and hollow columns, wall panels, shaped beams and arch structures. This work has led to the first practical application of fabric formwork in the UK - screens for a housing development near Edinburgh.



Sandy Lawton Builder, Teacher, ArroDesign, Waitsfield, Vermont, USA

ArroDesign Fabric Forming Techniques have been developed for the design and construction of rectilinear and curvilinear concrete walls. The practical, commercial application of fabric forming has allowed economical constructions of complex shapes and wall form configurations. This work demonstrates the simplicity and variety of fabric forming, including the use of the fabric membrane as a "skin" over the form skeleton to produce efficient details derived using simple techniques. Practical techniques of fabric forming, bracing and placement will be discussed, as well as methods of integrating fabric forming with composite wall technology to produce unique, efficiently constructed and durable structures.



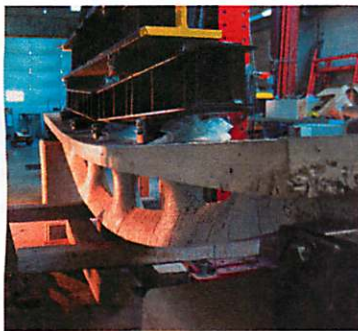
Alan Chandler Architect, Professor, University of East London, England

In parallel to fabric-casting conventional and 'super' concretes, full scale carbon neutral casting with rammed earth and lime/hemp has been underway with Rowland Keable at the University of East London since 2004. We are developing in-situ fabric earth walling, a traveling fabric formwork system, and fabric formwork earth columns. Carbon neutral casting will be the substance of the presentation.



David Jolly Monge Architect, Professor, Univ. Católica de Valparaíso, Chile

Professor Jolly Monge with Professor Miguel Eyquem and other colleagues at UCV and the Open City Group of Architects, has been constructing fabric-formed architectural experiments in South America since 2003. These include sculptural installations, stiff composite columns, bending moment-shaped beams, and a sculptural cast-in-place wall.



Fariborz Hashemian PhD Eng. Candidate, University of Manitoba, Canada

Curved, variable-section, moment-shaped beams distribute materials and most efficiently channel the compression and tension stresses to the supports. Allowing stresses to follow their naturally desired paths reduces regions where the beams forces cross paths, called "disturbed regions". Reducing or eliminating disturbed regions will result in considerable simplification in design and steel fabrication.



Daniel Lee PhD Architecture Candidate, University of Edinburgh, Scotland

Fabric formwork technology has made it possible to cast concrete beams into more complex and materially efficient forms. Yet the construction methodology and behaviour of such beams are rather new and thus require extensive studies. In total, thirteen fabric-formed beams have been built, physically tested, and studied at the structural lab of Edinburgh University. The design and structural behaviour of these beams will be discussed based on our test results. Specifically, failure modes, ultimate limit state (bending and shear), and serviceability limit state (deflection and crack) of the beams will be discussed.



Farhood Delijani MSc-Eng. Candidate, University of Manitoba, Canada

Current, ongoing research demonstrates how permeable fabric formwork can improve concrete strength and surface hardness. Previous research on this subject was limited to relatively high water-cement ratio mix designs. Our current research is examining a lower water-cement ratio mix as well as a flyash concrete. Formwork fabrics used in these tests are two standard geotextiles with different levels of permeability.



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