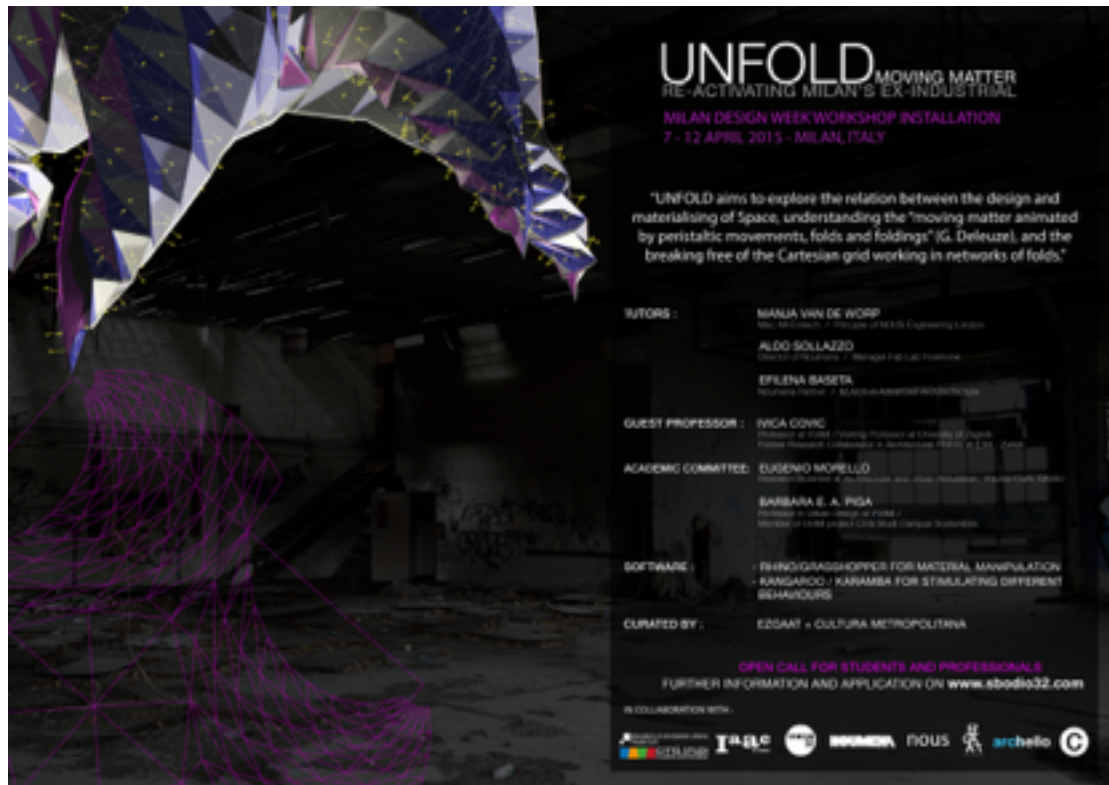


UNFOLD WORKSHOP MOVING MATTER

RE-ACTIVATING MILAN'S EX-INDUSTRIAL

7-12 APRIL 2015

The poster features a dark, industrial-looking interior with a large, colorful, geometric structure made of translucent, faceted panels in shades of purple, blue, and white. The structure is illuminated from within, creating a dramatic play of light and shadow. The text on the right side of the poster provides details about the workshop, including the title, dates, location, and a list of tutors, a guest professor, an academic committee, software used, and the curator. At the bottom, there are logos for various institutions and a website link for further information.

UNFOLD MOVING MATTER
RE-ACTIVATING MILAN'S EX-INDUSTRIAL
MILAN DESIGN WEEK WORKSHOP INSTALLATION
7 - 12 APRIL 2015 - MILAN, ITALY

"UNFOLD aims to explore the relation between the design and materialising of Space, understanding the "moving matter animated by peristaltic movements, folds and foldings" (G. Deleuze), and the breaking free of the Cartesian grid working in networks of folds."

TUTORS : MANJA VAN DE WORP
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GUEST PROFESSOR : IVICA GOVRC
Professor of Design / Teaching Professor at University of Zagreb
PhD Research Collaborator in Architecture PhD (UCL) / UCL

ACADEMIC COMMITTEE: EUGENIO SOPELLO
Professor / Director of Architecture and Urban Planning / University of Rome
BARBARA E. A. FIGA
Professor in Urban Design at Politec
Member of UCL project UCLB Work Campus Stockholm

SOFTWARE : BRINDIGRASSHOPPER FOR MATERIAL MANIPULATION
KANGAROO / KARAMBA FOR STIMULATING DIFFERENT BEHAVIOURS

CURATED BY : EDDAAT + CULTURA METROPOLITANA

OPEN CALL FOR STUDENTS AND PROFESSIONALS
FURTHER INFORMATION AND APPLICATION ON www.sbodio32.com

IN COLLABORATION WITH:

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Intro:

Milan's Design week is the most important event worldwide for design and innovation. In the past five years "Ventura-Lambrate" district has been the new platform where all the emerging designers, architects and visionaries took over the Ex-Industrial zone by the growing trend of Industrial refurbishments. This year, the city of Milan will be hosting the "World Expo", one of the most vital events in Milan's contemporary history, integrating an era of modern development; the issue of Milan's unused and Ex-Industrial buildings remains in question.

The workshop aims to approach the re-generation of a forsaken warehouse, named "SBODIO32", at the edge of Milan's new design district.

Workshop "UNFOLD"

Folding constitutes a spatial composition that generates differentiation by maintaining a continuity. Along this succession, every part interacts and communicates with its subsequent part simultaneously. The multiplicity of the fold in spatial expression and its intricate material behavior have been part of the

architectural discourse since Deleuze and have been adopted by Greg Lynn, Robofold and Chuck Hoberman. By exploring spatial qualities and material organizations they investigate the type of fold, its structural stiffness and its ability to enable deployment. Through **unfolding the spatial, structural and organizational behavior of folding**, we achieve a differentiation of pattern and type in order to derive to a multiplicity of forms.

Its unique yet controlled behavior is a result of the folds' inherent relationship between the component and the whole. The position of one specific fold in the larger network is driven by the global morphology, the flexibility of the joint, the act of folding and the gravity acting onto it, increasing or decreasing the fold.

A **unique behavior** and therefore **form**, can be reached by understanding all the local impacts of the fold to the global outcome. A recursive folding of complexities where the 'edge' is no longer definable and instead, the nebulous 'line' overtakes its place.

In terms of architecture, this can be interpreted as a series of potential expressions of pure movements, as the result of alterations within the folded structure.

Unfold aims to explore the relation between the design and materializing of Space; understanding the *"moving matter animated by peristaltic movements, folds and foldings"* (G. Deleuze), and the breaking free of the Cartesian grid, working in networks of folds.

Unfold investigates how this active space exists beyond theory or a computer/ animated space, decoding folds into tangible reality.

The exploration of the interactive relationship of folding and material, form and structural behavior will be translated, in this workshop, into **the fabrication of a 1:1 scale pavilion installed in "SBODIO32" and showcased among Milan's Design Week exhibits.** (Fouri Salone 14-19 April 2015)

DESIGN GUIDELINES

The workshop will determine strategies for different typologies through material manipulation, understanding and designing material behavior through **controlling the fold**.

The **material manipulation** as the process of folding will be **coded** in digital tools, based on Rhino/ Grasshopper with plugins Kangaroo and Karamba that will help **simulating physical behaviors**.

During this process codes will be translated into **physical prototypes** digitally fabricated, optimizing design criteria with fabrication strategies and structural consideration.

Our investigations in these **interactive relationships** will be projected onto the surfaces. Linking the outcome of the static space that the viewer sees, to the interactive digital and physical process that sits behind it, and how the fold transformed from the digital to the physical world.

SCHEDULE

Tuesday 7th of April – Sunday 12th of April

Day 1_ (7/4).

A Lecture by Professors from Politecnico di Milano.

Extracting folded behavior. Research folding in digital and physical prototypes, linking behavior offold to form and structure.

Day 2_ (8/4)

Combining logics and production of design and “unfolding” fabrication strategies.

Day 3_ (9/4)

Combining logics and production of design and “unfolding” fabrication strategies.

Day 4_ (10/4)

Fabrication process: Laser cutting + Assembly 1

Day 5_ (11/4)

Fabrication process: Laser cutting + Assembly 2

Day 6_ (12/4)

Final day of installation.

*The workshop will run from 7th – 12th April at "Politecnico di Milano" University and the assembly and installation process at the warehouse in "Ventura Lambrate".

*The Design Week. (FouriSalone) will run from 14th – 19th April 2015.

REQUIREMENTS

Basic modeling skills in Rhino are required. No specific Grasshopper, Karamba, Kangaroo design skills are required (although an introductory knowledge is welcome). Participants should bring their own laptop with a pre-installed software. The software package needed has no additional cost for the participant. A Karamba license is included in the fee, Rhino can be downloaded as evaluation version, Grasshopper and plugins are free. These softwares are subject to frequent updates, so a download link to the version used in the workshop will be sent to the participants a few days before the workshop. The total amount of the participant fee serves to cover the expenses for the whole workshop organisation. As organisers we are aiming at a successful workshop that is not targeting a profit. The minimum number of participants is 10 students and a maximum of 18. Concerning the fee, this is the required price according to the date of subscription:

- Early bid (till 1st March):

Students 350€ professionals 450€

- 1st March - 31st March

Students 400€ professionals 500€

- from 1st April

Students 450€ professionals 550€

Accommodation and plane tickets are not included in the fee.

TUTORS

MANJA VAN DE WORP

Msc. Architecture and Structural Engineering, Msc AA Emtech / Principle of NOUS Engineering London.

Manja van de Worp is a trained Architect and Structural Engineer at the "Technical University of Eindhoven", The Netherlands. She followed her dual master degree with a postgraduate at the "Architectural Association" in Emergent Technology and Design.

She has worked from 2007 until 2012 for Arup in London in the Advanced Geometry Unit and Advanced Technology and Research group designing moveable structures. In 2013 she launched 'NOUS' engineering London.

Manja also holds a permanent teaching position at the "Architectural Association" and at the "Bartlett" in London. In addition she teaches at the "IaaC" in Barcelona and runs international workshops dealing with structural geometry.

ALDO SOLLAZZO – computational expert

M.Arch in Advanced Architecture / Director of Noumena / Manager Fab Lab Frosinone

Aldo Sollazzo is an Italian architect, co-founder of "Noumena Architecture."

Winner of Concrete Design Competition in 2006.

Member of "OrdineDegliArchitetti di Roma" since 2009.

From 2007-2011, worked for several international firms such as EMBT-Miralles Tagliabue, Nabito and Studio Transit and BAD. In 2012-13 attended the Master in Advanced Architecture at the "IaaC" in Barcelona. Currently is leading several workshops and research activities around Europe.

EFILENA BASETA

M.Arch in Advanced Architecture / Partner of Noumena – Bcn

Efilena is an Architect Engineer, studied in the National Technical University of Athens (NTUA), with a Master degree in Advanced Architecture from the Institute for Advanced Architecture of Catalonia (IAAC). Having developed several interactive projects, her current interest lies in exploring material properties in order to create real time responsive architectural structures. Her last project, as part of the Digital Matter-Intelligent Constructions Studio, is "Translated Geometries" and has been awarded by IAAC as "The most innovative responsive structure". She is currently working at NOUMENA as coordinator of the educational program. At the same time she collaborates with IAAC as an assistant coordinator for cultural and research events.

GUEST PROFESSORS

EUGENIO MORELLO

Research Scientist at the Architectural and Urban Simulation -Fausto Curti , DASTU
Professor in Urban Design at PoliMi

An architect by education, Eugenio's research interest is urban environmental quality and urban morphology. He works in particular with digital simulations and prediction models for the integration of environmental aspects and energy systems within the design of sustainable neighborhoods. He was previously a Roberto Rocca postdoctoral fellow at the Human Space Lab, POLIMI (2009) and at the SENSEable City Lab, MIT (2008). He was also adjunct professor at POLIMI since 2006, where he taught urban design. He holds a Ph.D. in environmental design and building technology from POLIMI (2006).

IVICA COVIC

Professor in Architecture Theory and Practice at PoliMi

Ivica studied architecture in Zagreb and Milan where he has continued to practice his architectural profession till now. Professor in Architecture Theory and Practice at Politecnico di Milano, Faculty of Architecture and Society; Visiting professor at Faculty of Architecture of University of Zagreb(PhD program); Lecturer and long-term teaching and research collaboration with Domus Academy (Master in Urban Vision and Architectural Design); Research collaboration with Institute for History and theory of architecture at ETH - Zurich; Ivica has received his PhD on International European doctoral study in Architecture and Urbanism (Venice – Barcelona – Lisbon) His interest of research is mutual relation between architecture and Ideology in Eastern Europe with particular focus on Post-communist Urban condition and its sustainable rehabilitation / requalification.

BARBARA E. A. PIGA

Professor in Urban Design at PoliMi

An Architect by education, B. Piga is Adjunct Professor in Urban Design at PoliMi since 2011 (Architectural and Urban Simulation). Board member of the inter-university PoliMi-UniMi project CittàStudi Campus Sostenibile since its launch in 2011. Research fellow (since 2010) and scientific coordinator with E. Morello, of labsimurb since its foundation in 2007. Her research interest is urban design and perceptual simulation as design and evaluation tool. Ph.D. in Urban Planning (2010).

CURATORS:

EZGAAT

Young multicultural Architects and Designers group based in Milan; Collaborating with many European and overseas institutions in the fields of architecture, design and technology. "Ezgaat" hosts several cultural platforms, seminars and exhibitions dealing with the creative contemporary society and its digital generation.

CULTURA METROPOLITANA

A project based in Milan, about investigating and re-activating the city's culture and its traditions. The approach, the physical infill, which occurs by filling the unused available spaces by turning them to cultural platforms, gatherings and collective urban culture.

ORGANISERS:

EZGAAT + NOUMENA

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