

LABORATORIO DE FABRICACIÓN DIGITAL Y DISEÑO PARAMÉTRICO
FACULTAD DE ARQUITECTURA E INGENIERÍA

2° ENCUENTRO DE EXPERIENCIAS INSTRUMENTALES

Patrones de Piel como
Estructura

Arquitectura Digital, biología
y arquitectura genética.

Ponentes:

DR. PABLO BAQUERO

Arquitecto, artista y diseñador su mayor interés está enfocado en sistemas naturales y su simulación computacional que conducen el futuro de la arquitectura computacional.

Actualmente profesor del Máster Universitario de Arquitectura Biodigital, desde 2016 en UIC Barcelona, en workshops particulares en temas relacionados con biología computacional y campos de investigación sobre los sistemas de modelado de la biología y el aprendizaje de máquina.

Además, sus intereses están en el área de investigación sobre proyectos que avanza la brecha entre los últimos métodos de materialización, la emergencia de formas de la naturaleza por medios de simulación de fenómenos físicos, y con esto acercarse a construir el futuro de la arquitectura.



MODULO 04

5 DE OCTUBRE

2020

11:00 - 12:00



INSTITUCIÓN UNIVERSITARIA
COLEGIO MAYOR
DE ANTIOQUIA

Experto internacional
Invitado Especial




Patrones de piel como estructura

Phd. Pablo Baquero
paniba@faberarium.org
www.faberarium.org

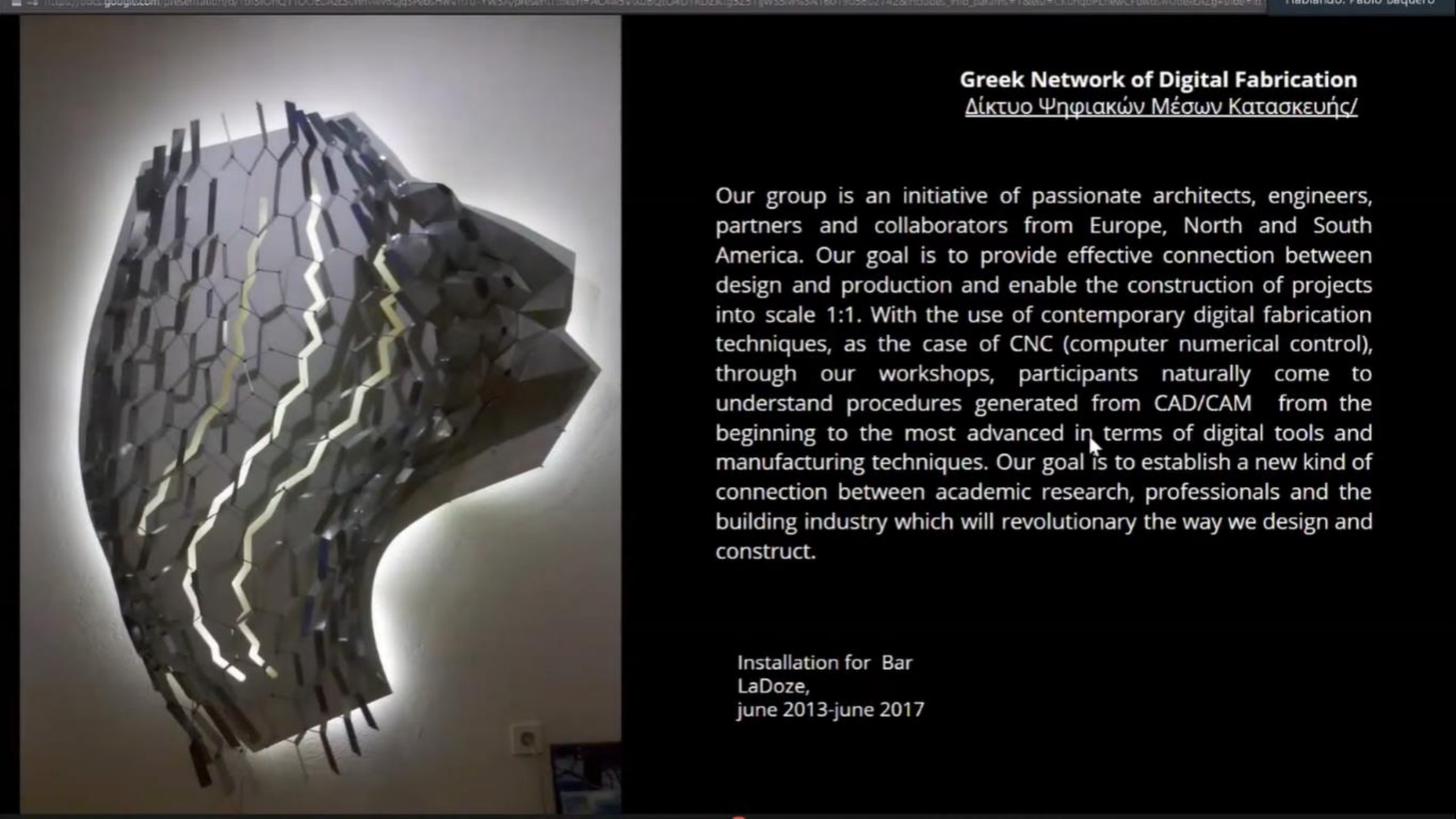
Keywords: fabrication, cnc, lasercut, 3d printing, stripes.





“Los cambios más convincentes en el diseño ocurren cuando las nuevas tecnologías y capacidades de fabricación están disponibles e interpretadas de nuevas maneras.”

Barkow Leibinger



Greek Network of Digital Fabrication
Δίκτυο Ψηφιακών Μέσων Κατασκευής/

Our group is an initiative of passionate architects, engineers, partners and collaborators from Europe, North and South America. Our goal is to provide effective connection between design and production and enable the construction of projects into scale 1:1. With the use of contemporary digital fabrication techniques, as the case of CNC (computer numerical control), through our workshops, participants naturally come to understand procedures generated from CAD/CAM from the beginning to the most advanced in terms of digital tools and manufacturing techniques. Our goal is to establish a new kind of connection between academic research, professionals and the building industry which will revolutionary the way we design and construct.

Installation for Bar
LaDoze,
june 2013-june 2017



Tipologías de diseño en base al metodo de fabricacion.

1. Estructuras Metálicas
2. Patrones componenciales.
3. Intersección de material.
4. Topologías de piel en franjas
5. Tensión en Impresión 3d



Estructuras Metalicas

UNIVERSIDAD DE FABRICACIÓN DIGITAL Y DISEÑO PARAMÉTRICO
FACULTAD DE INGENIERÍAS Y ARQUITECTURA

2º ENCUENTRO DE
**EXPERIENCIAS
INSTRUMENTALES**

Relación entre lo digital y lo analógico en arquitectura y medios para la creación.



INSTITUCIÓN UNIVERSITARIA
**COLEGIO MAYOR
DE ANTIOQUIA**

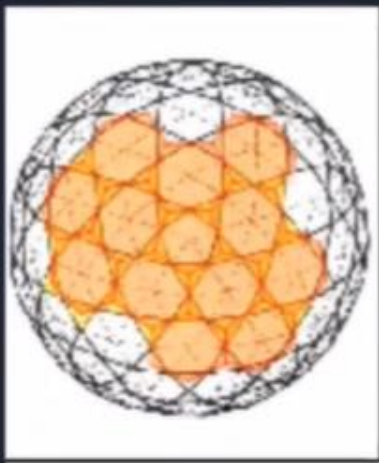


UNIVERSIDAD DE
**FABRICACIÓN DIGITAL Y
DISEÑO PARAMÉTRICO**

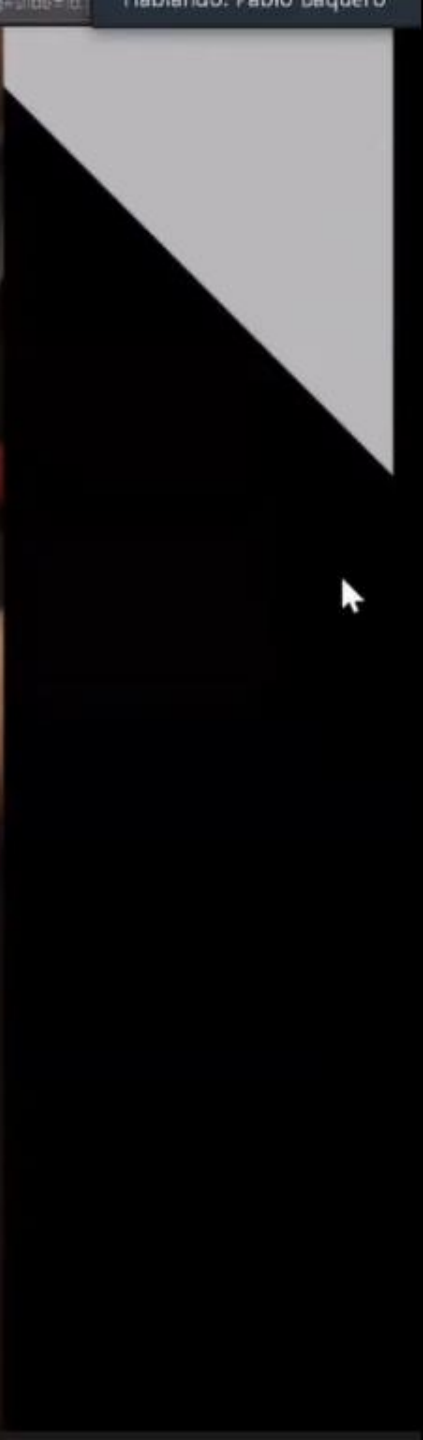
UNIVERSIDAD CATÓLICA
LUISAMIGÓ

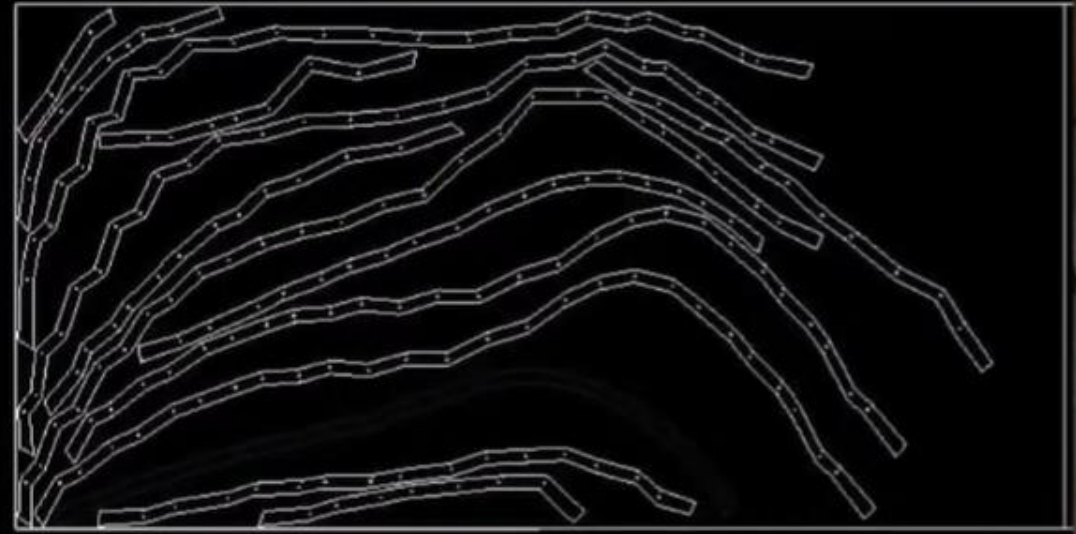


2020



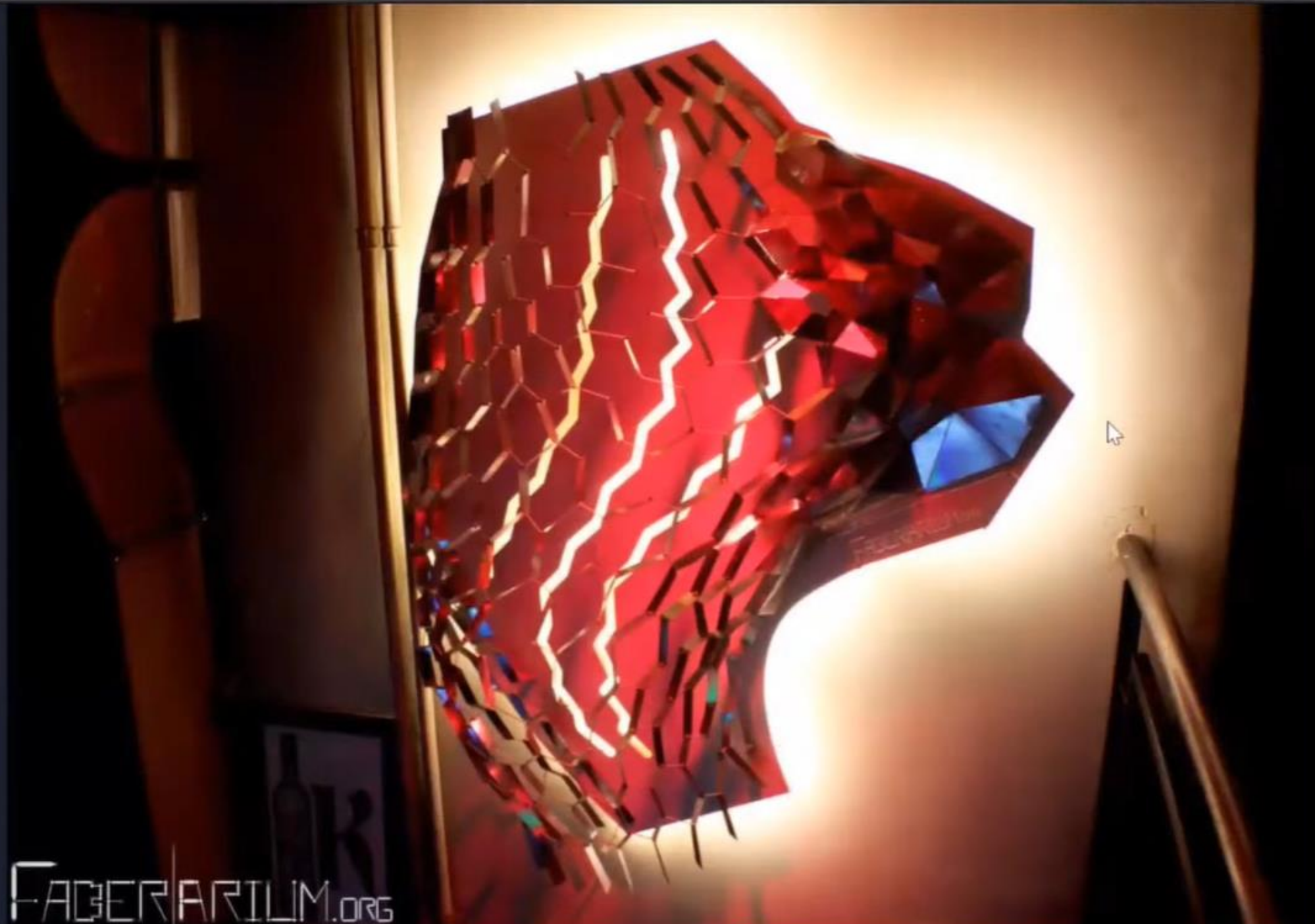
Eden Project Bio Domes
Grimshaw Architects
2001. St. Austell, Cornwall (UK).
From the grid configuration through the bouble
clusters to the final built solution.





Installation for Bar LaDoze,
june 2013-june 2017

Intentamos a acceder al link que esta publicado en el chat de Youtube





Calycas
Workshop 2014beta ::
Metallic Freeform Structures



Pulsa Esc para salir del modo de pantalla completa



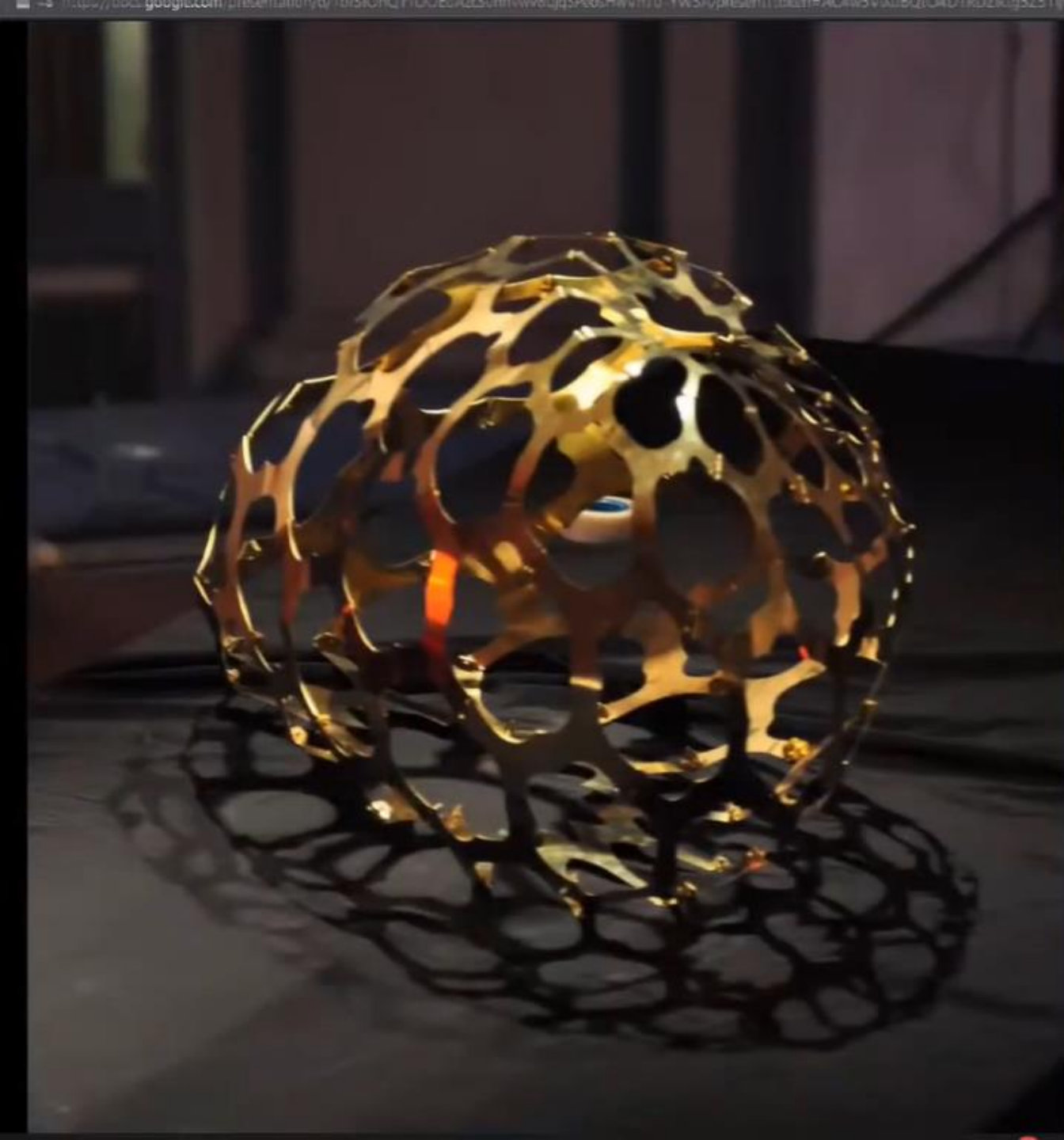
ArboSkin Pavilion made by ITKE
Made From a Bioplastic Containing Over 90 Percent
Renewable Materials, The spiky Modules Used to Build This
Curving Pavilion in Stuttgart, Germany



Al Bahr Towers by AHR, Abu Dhabi, United Arab Emirates

Clad with a unique dynamic shading system meant to reduce the buildings' solar gain by 50%, AHR's Al Bahr Towers manage to test the limits of responsive design. The façade features elements inspired by the traditional Islamic lattice shading system, Mashrabiya, which is completely computerized to adjust to changing weather conditions.

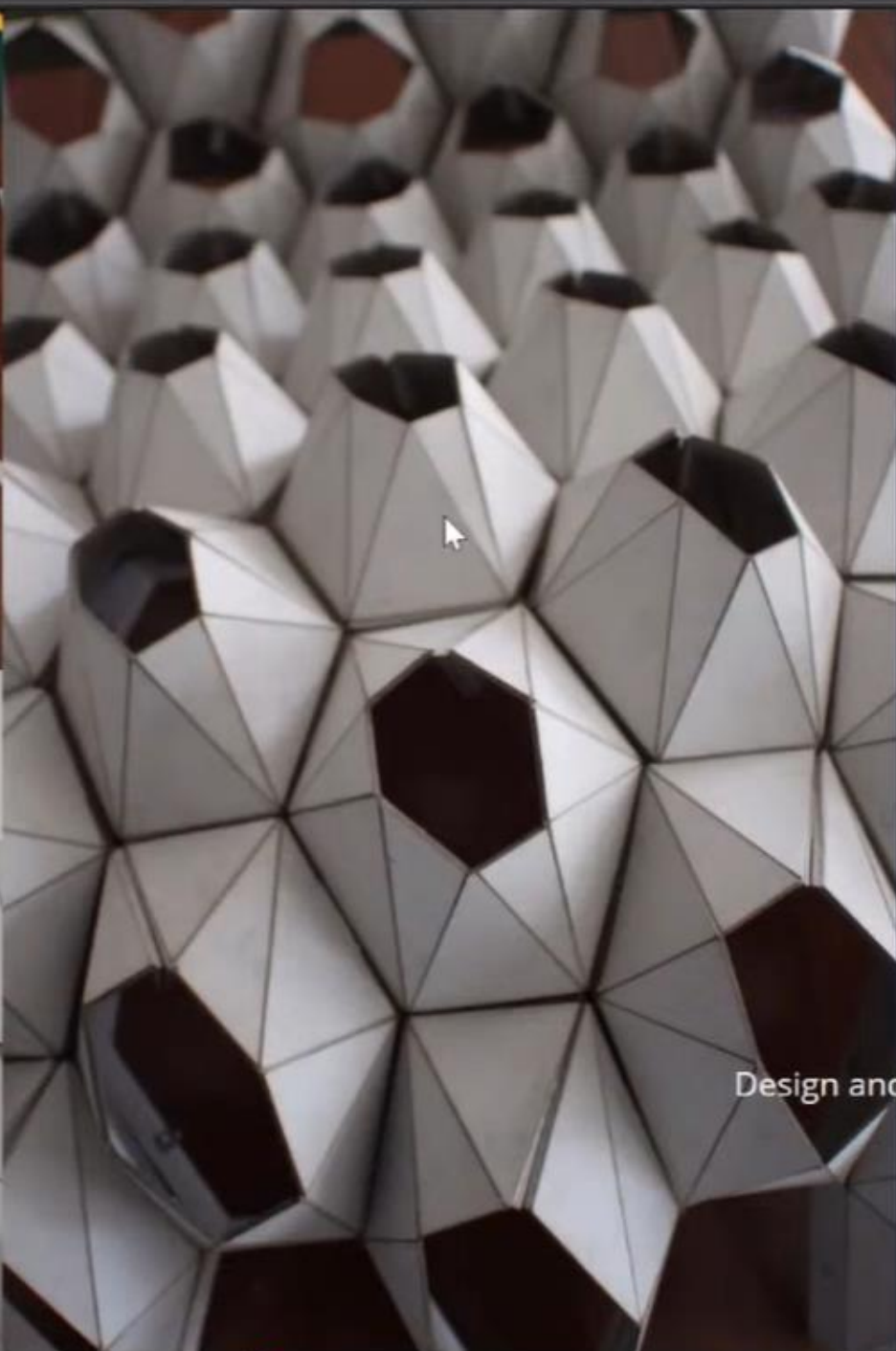
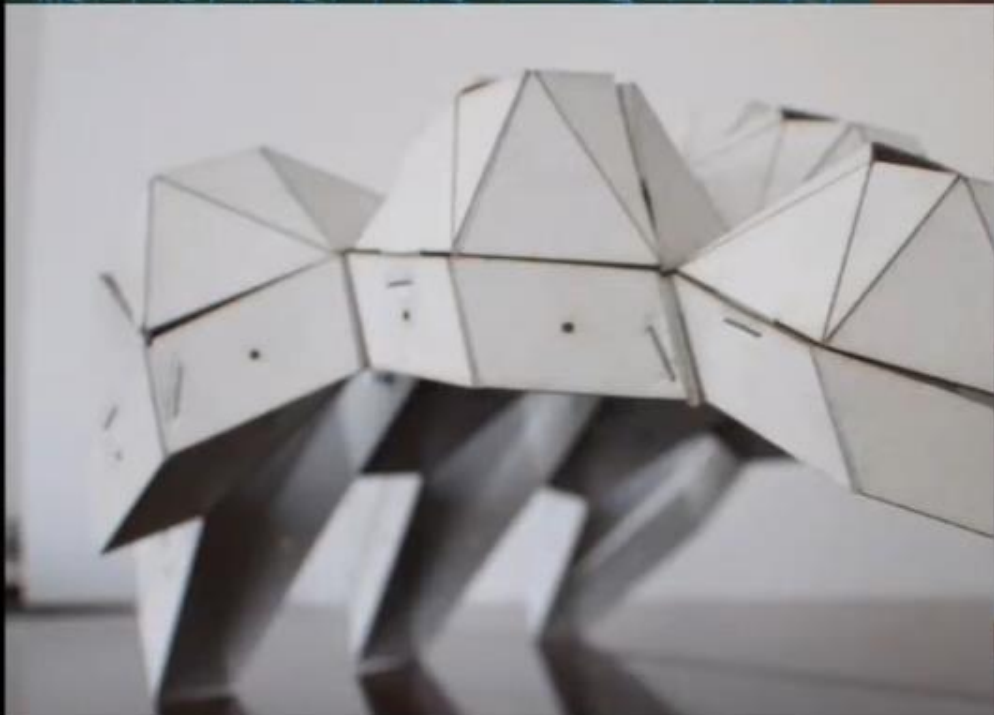
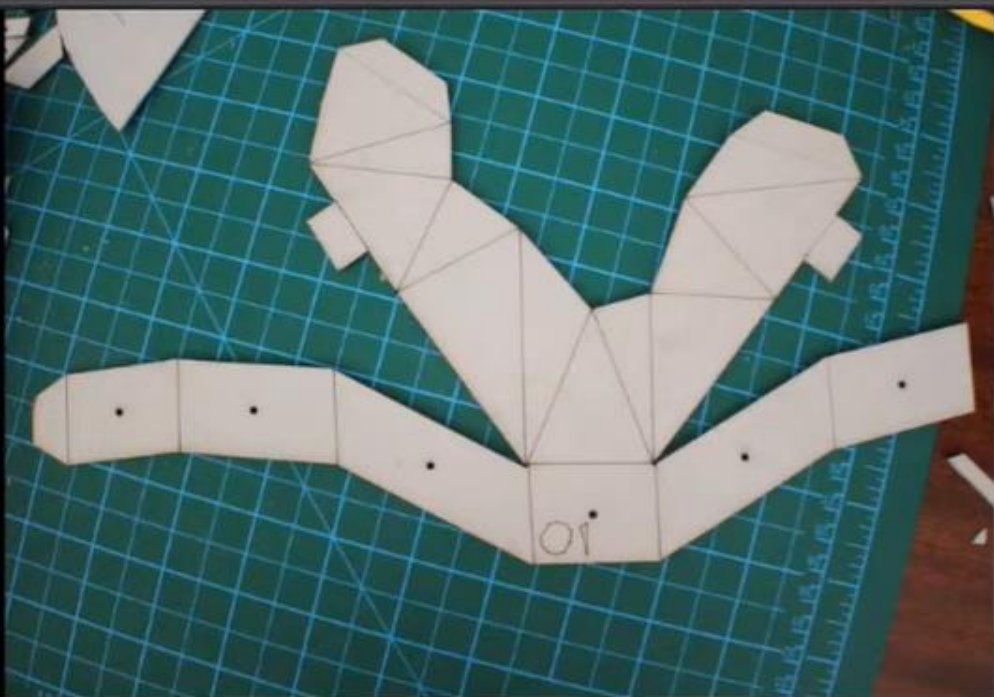




Athanasios Tsaravas
Workshop2014alpha::Design & Construct Data Trees



Vasileios Varnas, George Gkiatas, Konstantinos Tousias.
Workshop2012beta:::Parametric Metal Structures



Nick Konstatinidis
Workshop 2013alpha:
Design and Construct data tree relations



Intersecciones de Material





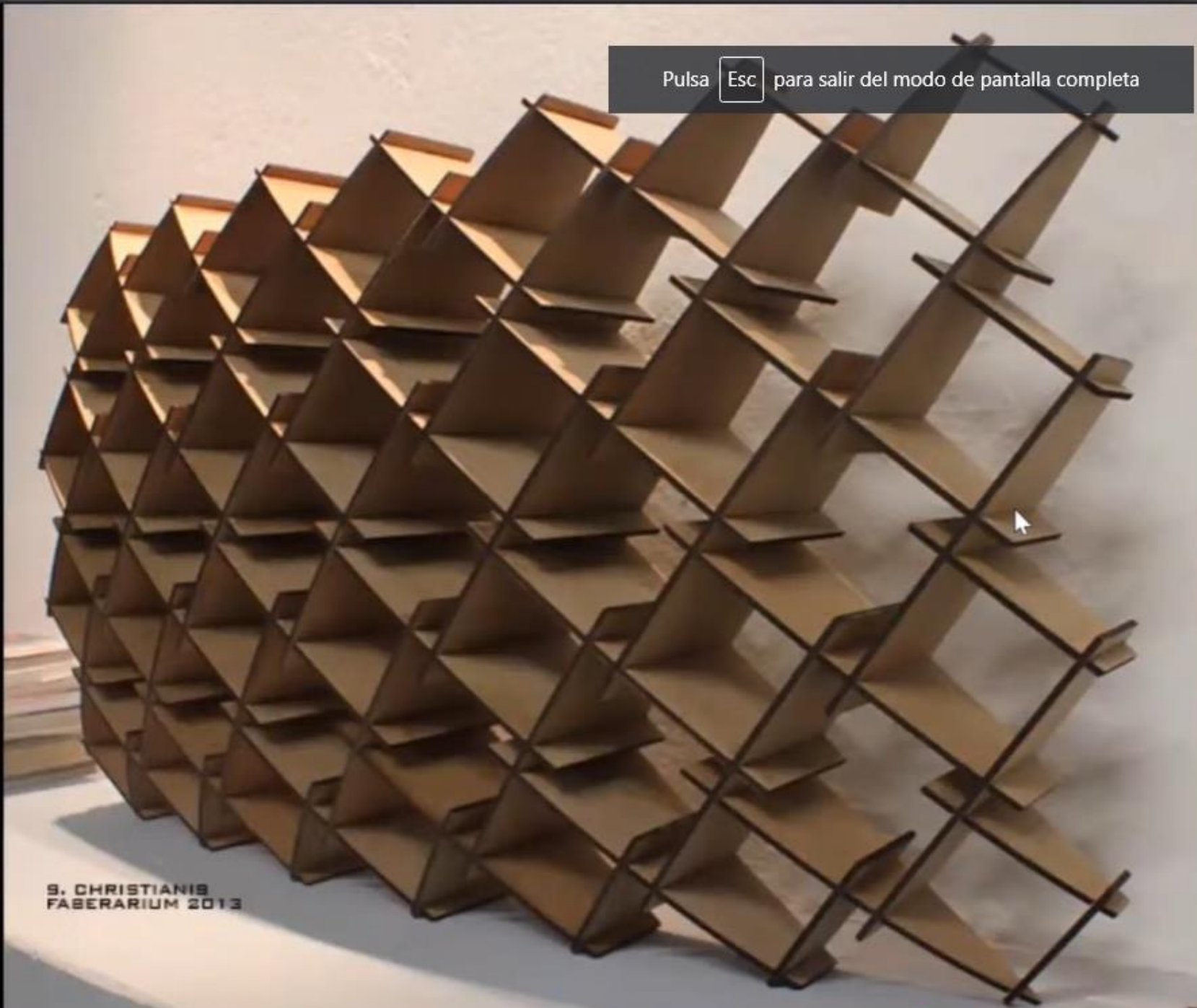
Designed by the German architect Jürgen Mayer and completed in April 2011. It has dimensions of 150 by 70 metres and an approximate height of and claims to be the largest wooden structure in the world,



Kaliopi Valsamidou
Workshop 2013alpha:
Design and Construct Data Tree Relations

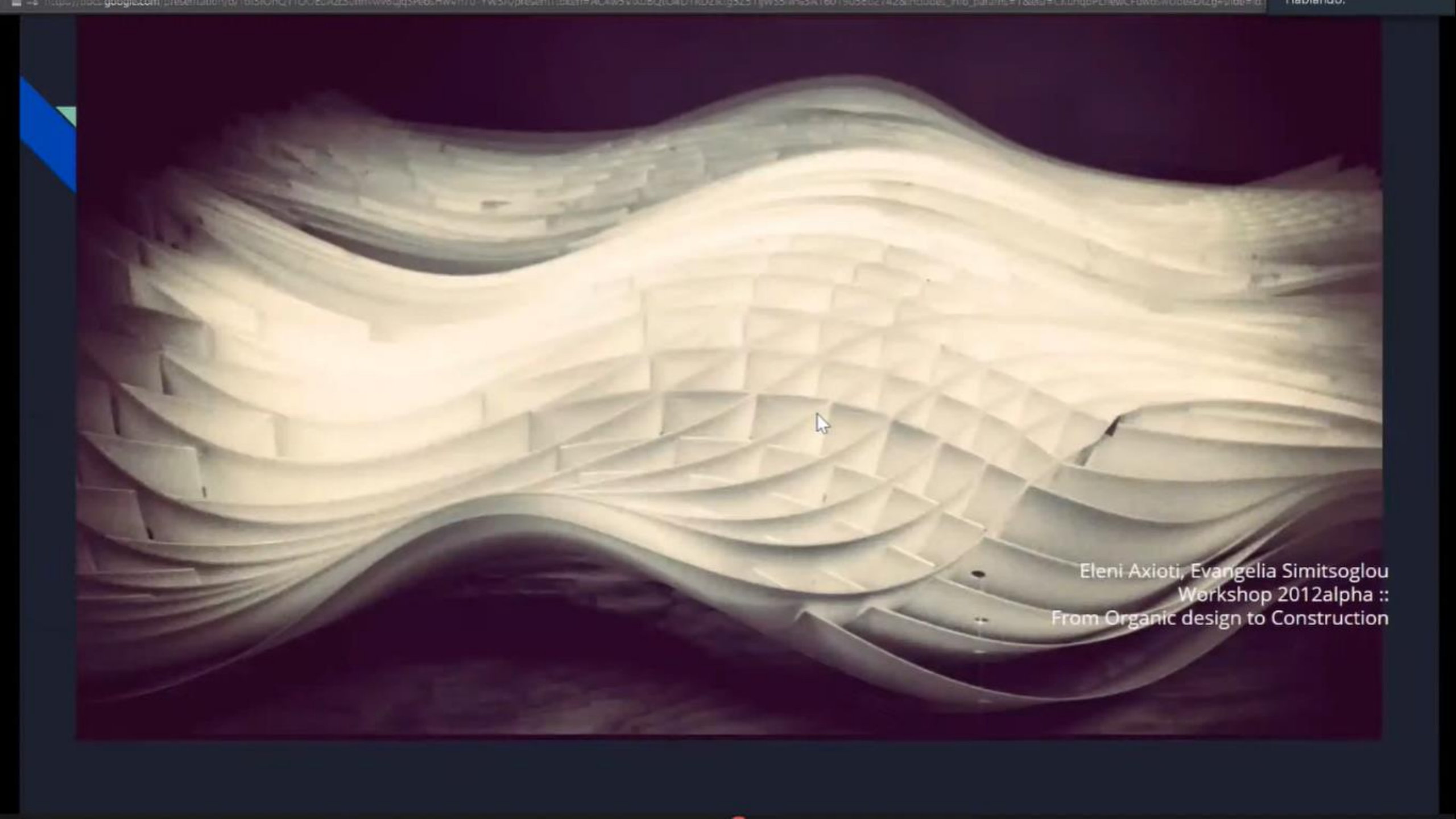


Pulsa **Esc** para salir del modo de pantalla completa



S. CHRISTIANIS
FABERARIUM 2013

Stelios Christanis
Workshop 2013beta ::
Parametric Grid Structures



Eleni-Axioti, Evangelia Simitsoglou
Workshop 2012alpha ::
From Organic design to Construction



Georgos Kontominas and Ioanna Tatli
Workshop 2013alpha ::
Design and Construct Data Tree Relations



Topologías de piel en franjas

DESIGN BY MARC FORNES /
THEVERYMANY

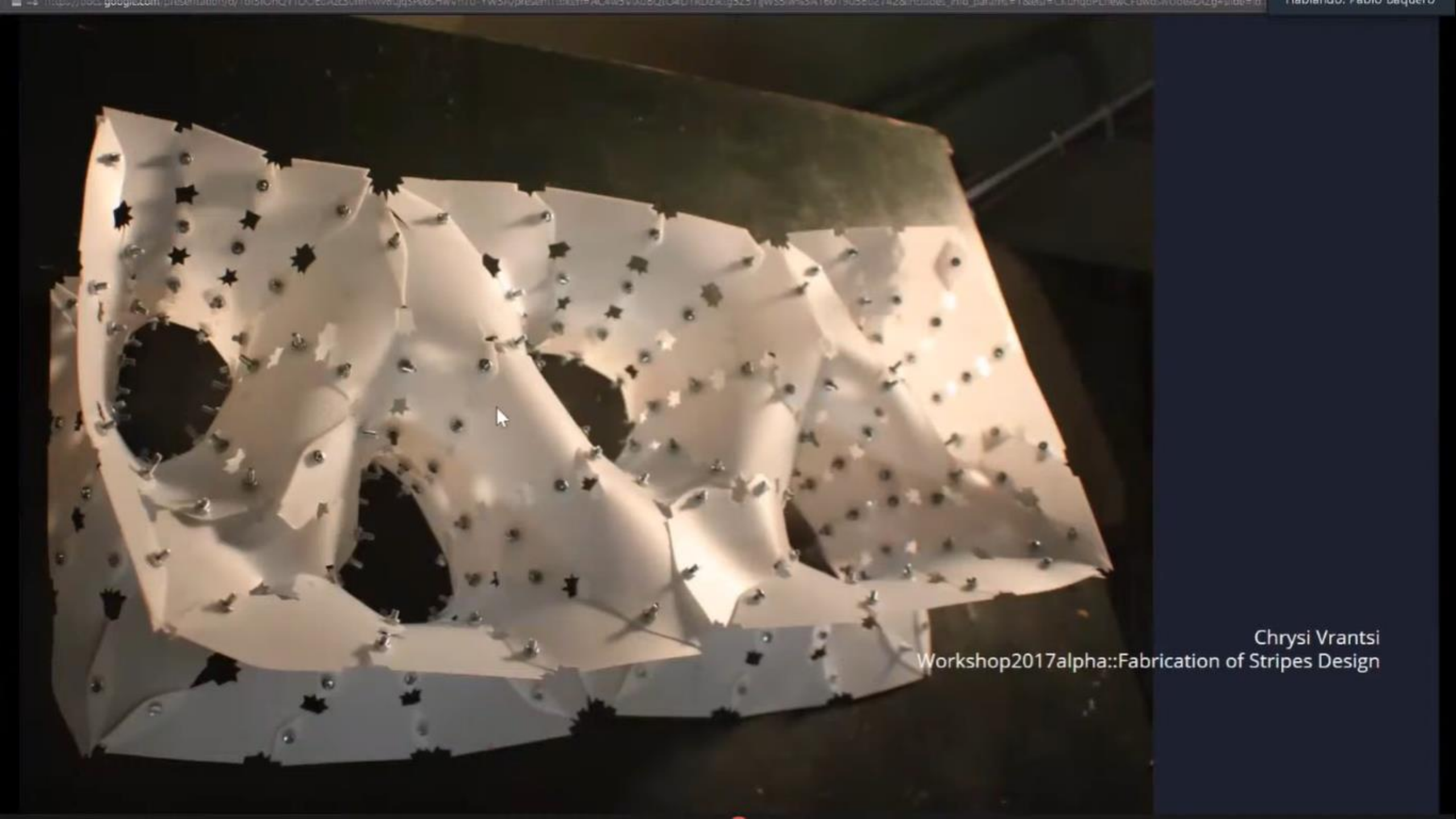
Minima | Maxima is the latest
Structural Stripes "Crawling
Assembly" from MARC FORNES /
THEVERYMANY. This permanent
installation provides a moment of
contemplation amid the busy
grounds of World Expo 2017 in
Astana, Kazakhstan.







Konstantina Iakovou,
Workshop2017alpha::Fabrication of Stripes Design



Chrysi Vrantzi

Workshop2017alpha::Fabrication of Stripes Design



Ioulia Eleftheriadou / Evina Giouri
Workshop 2013beta ::
Parametric Grid Structures



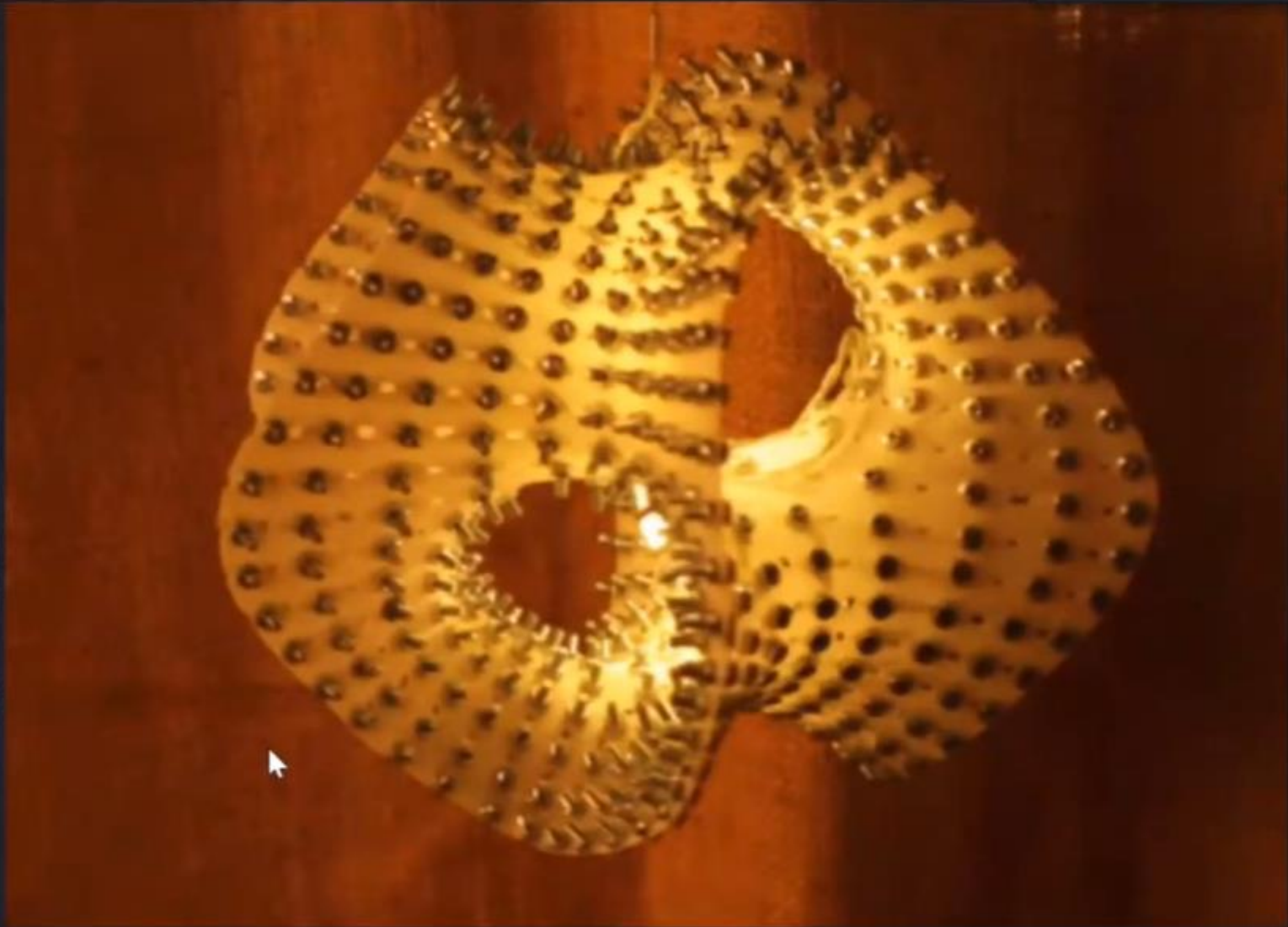
Panagiotis Pallis/ Kalliopi Valsamidou/
Lora Papasotiriou
Workshop 2013beta ::
Parametric Grid Structures





Vasilis Makriyiannis
Workshop2014alpha::Design & Construct Data Trees::

el evento te invitamos a acceder al link que esta publicado en el chat de Youtube y llenar la encuesta

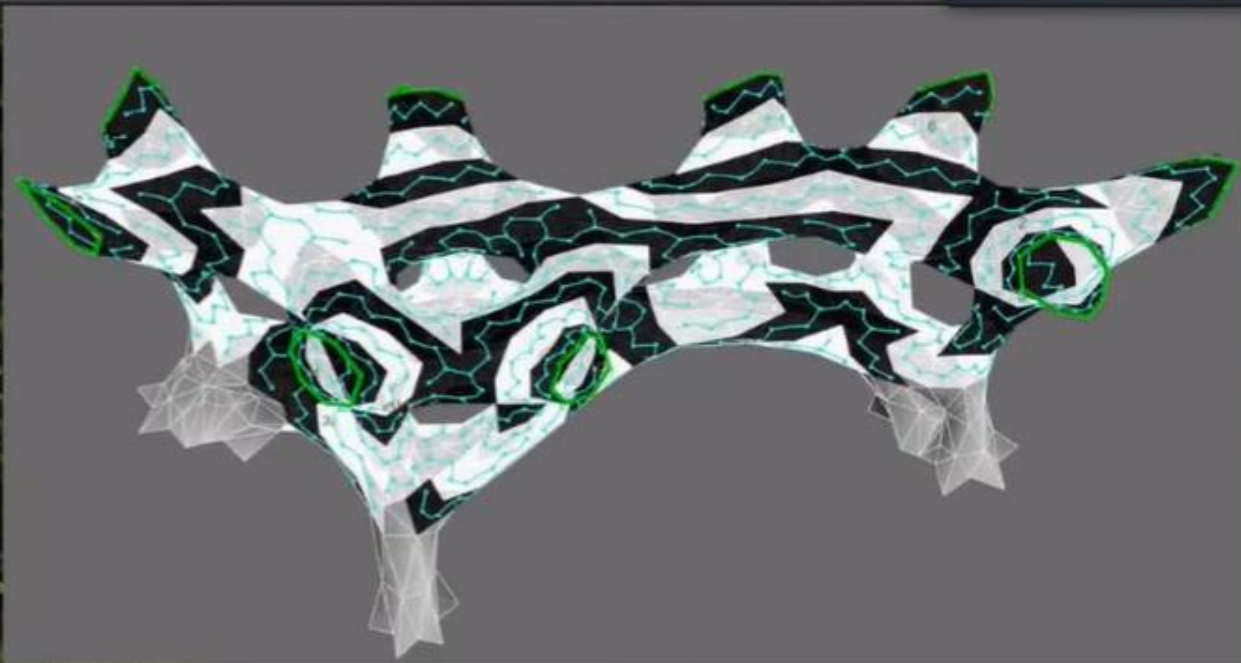


Stavroula Ioakeimidou/Apostolos Kazakis
Workshop2017alpha::Fabrication of Stripes Design



Pavlos Symianakis
Workshop2017alpha::Fabrication of Stripes Design

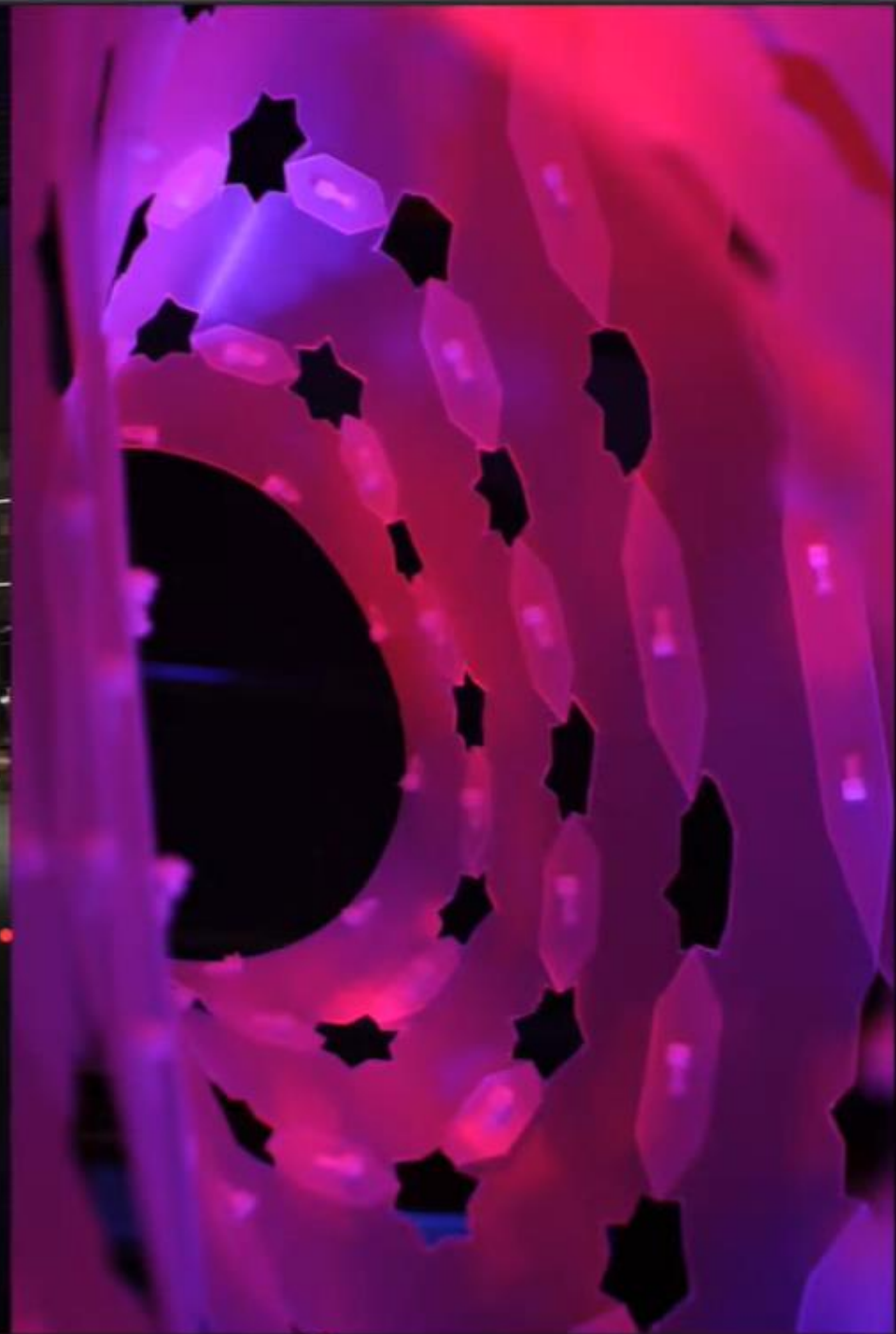




Biodigital Master
2018

Porifera

















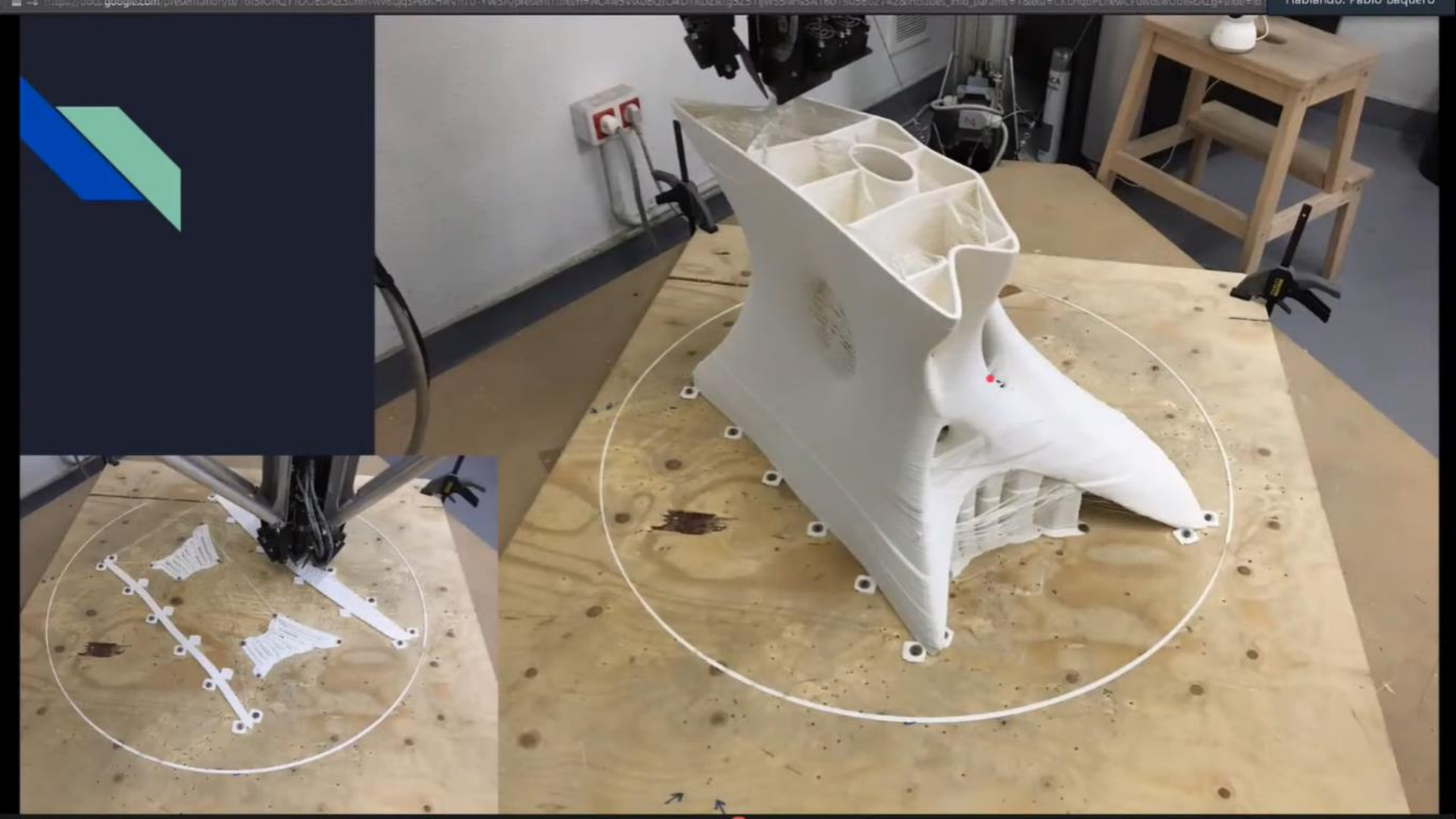


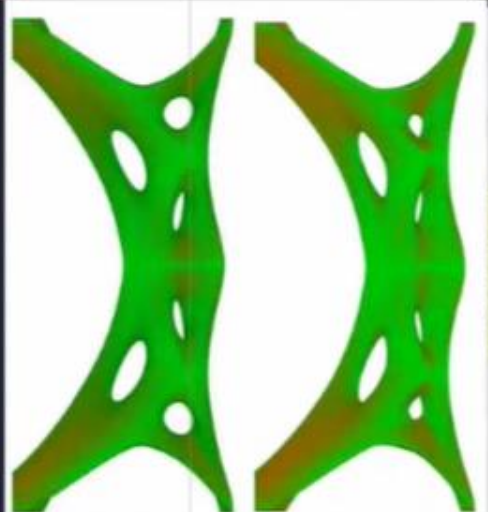
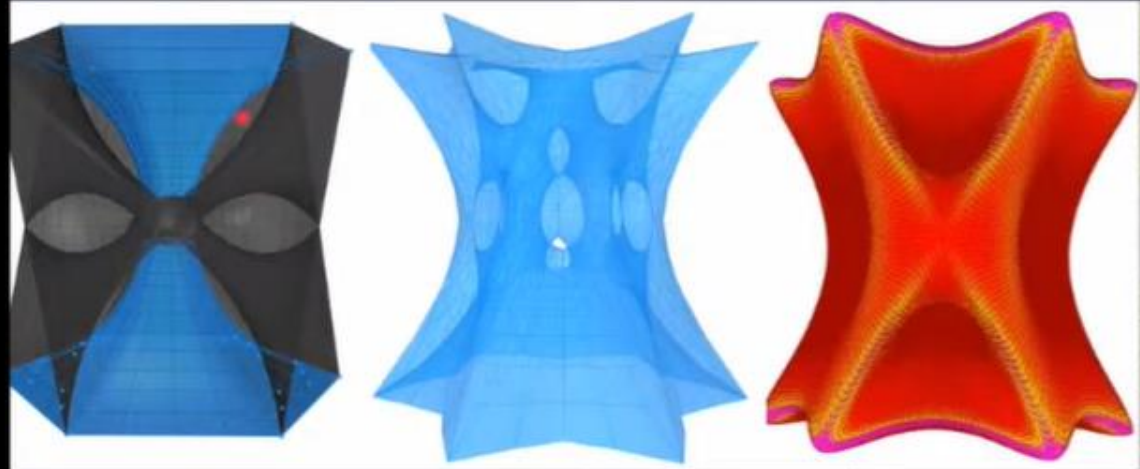
Tensión en Impresión 3d





Ibag Chair

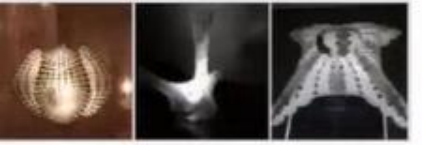




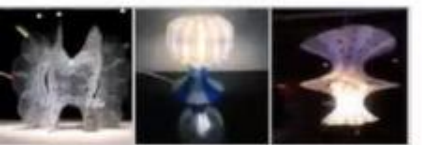
Workshops2017 A-B- Projects



Christina Stathakopoulou, Chrysi Vrantzi, Pavlos Symianakis



Stavroula Ioakimidou, Apostolos Kazakis, Angeliki Fotiadou, Konstantina Iakovou, Christina Lymperopoulou



Marianna Tosounidou, Maria Vagavanidou, Ioannis Kapagiannidis, Kalliopi Valsamidou, Konstantina Iakovou, Pablo Baquero, Effimia Giannopoulou

Workshop2017A: Fabrication of Stripes Design

Tutors: Pablo Baquero, Effimia Giannopoulou, Kalliopi Valsamida
Participants: Chrysi Vrantzi, Christina Stathakopoulou, Christina Lymperopoulou, Angeliki Fotiadou, Konstantina Iakovou, Stavroula Kermdou, Apostolos Kazakis, Pavlos Symianakis

Workshop2017B: Strip Construction of Ruled-based Design

Tutors: Pablo Baquero, Effimia Giannopoulou, Kalliopi Valsamida
Participants: Paraskevi Papatziou, Maria Vagavanidou, Marianna Tosounidou, Ioannis Kapagiannidis

Continue Reading

Student Metal Projects



Athanasios Tsaravas, Vasileios Varnas, George Giata, Konstantinos Tousias



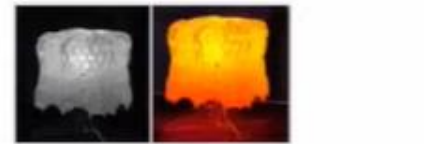
Kallikratis evlogimenos, Nikos Bandis, Dimitris Giovas, Savvas Lespoundis

Student Projects

Workshop2014alpha-Projects



May 10-2014 Exhibition @ Toss Gallery, Athanasios Tsaravas, Athanasios Tsaravas



Vasilis Makryiannis, Vasilis Makryiannis

Workshop2014alpha: Design & Construct Data Trees

Tutors: Pablo Baquero, Effimia Giannopoulou
Participants: Vasilis Makryiannis, Lenia Margariti, Athanasios Tsaravas

Student Projects, Workshop2014-Alpha

Workshop2013Beta-Projects



Ioula Eleftheridou, Evina Glouri, Stelios Christanis, Panagiotis Pallas, Kalliopi Valsamidou, Lora Papatziou



Konstantina Iakovou, Dec-15-2013 Exhibition @Toss Gallery, Dec-14-2013 Exhibition day @Toss Gallery

Workshop 2013Beta :Parametric Grid Structures

Tutors: Pablo Baquero, Effimia Giannopoulou
Participants: Ioula Eleftheridou, Lora Papatziou, Evina Glouri, Panagiotis Pallas, Konstantina Iakovou, Stelios Christanis, Kalliopi Valsamida

Student Projects, Workshop2013-Beta

Workshop2013Alpha-Projects



Kalliopi Valsamidou, F3- final exhibition, Kalliopi Valsamidou



Nick Konstantinidis, Leonidas Leonidou, Georgos Kontommas and Ioanna Tafi

Workshop 2013Alpha: Design and Construct data tree relations

Tutors: Pablo Baquero, Effimia Giannopoulou
Participants: Georgos Kontommas, Ioanna Tafi, Nick Konstantinidis, Leonidas Leonidou, Kalliopi Valsamidou

Student Projects, Workshop2013-Alpha

Workshop2012Beta-Projects



Vasileios Varnas, George Giata, Konstantinos Tousias, Vasileios Varnas, George Giata, Konstantinos Tousias, Kallikratis evlogimenos, Nikos Bandis, Dimitris Giovas



Workshop 2017 & 18 Projects



Ornament, Ornament, Ornament, Ornament, Ornament



Ornament, Ornament, Ornament, Ornament, Ornament



Ornament, Ornament, Ornament, Ornament, Ornament

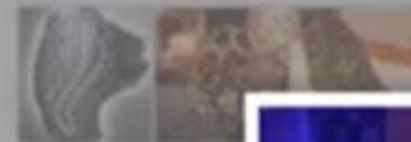
Workshop 2018 Publications of Single Design

Workshop 2018 Publications of Single Design
Ornament, Ornament, Ornament, Ornament, Ornament

Workshop 2018 Publications of Single Design

Workshop 2018 Publications of Single Design
Ornament, Ornament, Ornament, Ornament, Ornament

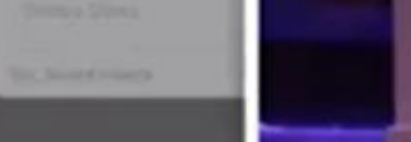
Workshop 2018 Projects



Ornament, Ornament

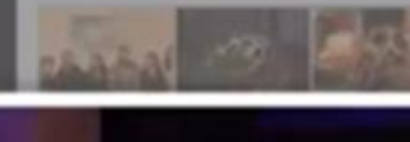


Ornament, Ornament



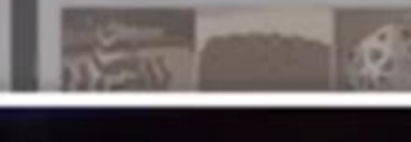
Ornament, Ornament

Workshop 2018 Projects



Ornament, Ornament, Ornament

Workshop 2018 Projects



Ornament, Ornament, Ornament

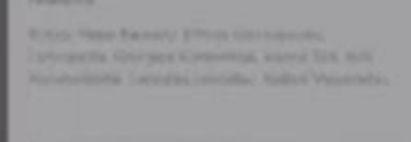
Workshop 2018 Projects



Ornament, Ornament, Ornament

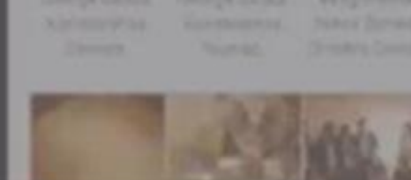


Ornament, Ornament, Ornament



Ornament, Ornament, Ornament

Workshop 2018 Projects



Gracias