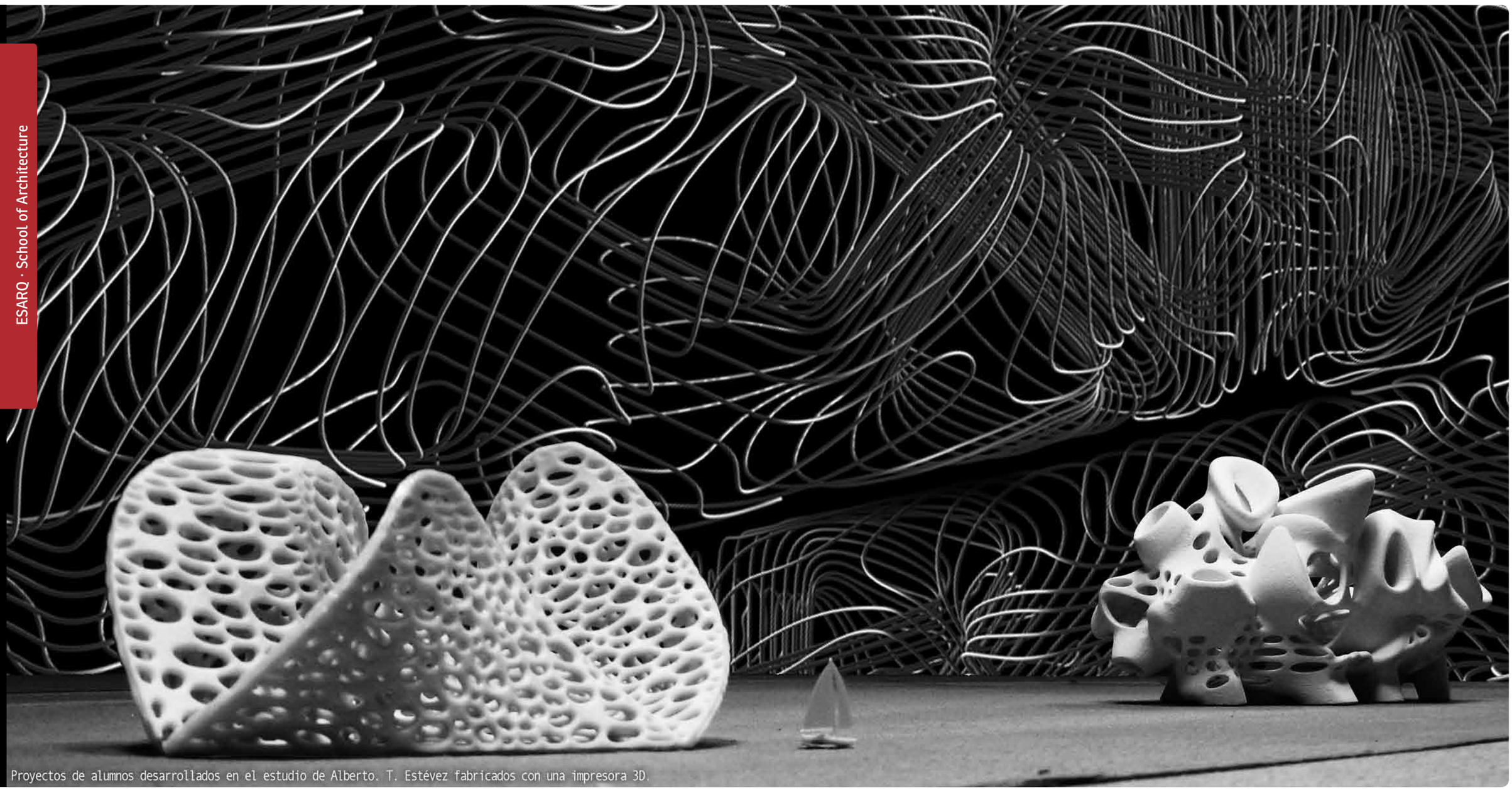
ESARQ · School of Architecture



Proyectos de alumnos desarrollados en el estudio de Alberto. T. Estévez fabricados con una impresora 3D.

Master's Degree in Biodigital Architecture

(Official) 2012-2013 Academic Year

ESARQ School of Architecture | Universitat Internacional de Catalunya

Campus Barcelona
Immaculada 22
08017 Barcelona
Tel. (+34) 932 541 800

PROGRAMME

The UIC Master's Degree Programme in Biodigital Architecture was created in 2000 as a pioneering postgraduate programme, the first that treated the subject of architecture from the biological and digital perspectives, and the first to provide systematic studios, workshops and seminars with the founders of digital organicism, the new cutting edge of the 21st century. Within the context of the research line on genetic architectures at the ESARQ School of Architecture, students will pay special attention to new cybernetic-digital and new ecologic-environmental architectural design as a way of developing biodigital architecture, emergence, genetic and generative concepts in the biological and digital worlds, biomimesis, biolearning, morphogenesis, etc. Students will also experiment with genetic-driven software, evolutionary processes, emerging systems, algorithms, parametrics, scripting, etc. New technologies have given us new production possibilities (Data-Driven Production, CNC machines, 3D printers) that lead to new formulations of non-standard architecture based on genetic principles (variation, mutation, hybridization): New architecture for new possibilities.

LANGUAGE OF I NSTRUCTION

This programme can be followed indiscriminately in English and/or Spanish.

PROGRAMME STRUCTURE

Introduction to Genetics and Biodigital Architecture.

Seminaris and conferences on:

· Metaphysics and Computation
· Theories of Emergence
· The Fundamentals of Genetics
· The Emergent Character of Life
· Eco Manipulation
· Genetic vs. Generative
· Digital Tools and Organic Forms
· New Bio & Digital Techniques
· The Work of Antoni Gaudí and Salvador Dalí source of Biodigital Architecture

Information Systems:
Digital Tools and Organic Forms

Practical classes with training on digital tools such as generative software, parametric associative software, scripting, production tools and CAD/CAM machining, linked to project development.

Genetic and Biodigital Architectural Design

Studios and workshops with personalized tutorials for the development of designs and research.

Master's Thesis

Final presentation of research project:
25th July 2013.

PROFESSORS AND LECTURERS FROM PREVIOUS EDITIONS (AMONG OTHERS)

All of the members of the group of international professors and lecturers have made relevant contributions in cutting-edge areas of biodigital architecture:

Mark Burry
Bernard Cache
Karl S. Chu
Josep Corcó
Mauro Costa
Matias Del Campo
Dennis Dollens
Evan Douglis
Alberto T. Estévez
Agustí Fontarnau
Mark Goulthorpe
Michael Hensel
Maruan Halabi
Neil Leach
Duncan Lewis
Greg Lynn
Sandra Manninger
Achim Menges
Marcos Novak
Kas Oosterhuis
Affonso Orciuoli
Ignasi Pérez Arnal
François Roche
Lars Spuybroek
Judith Urbano
Mike Weinstock

LINKS

www.biodigitalarchitecture.com
www.geneticarchitectures.weebly.com
www.uic.es/esarq-msto

twitter: **@biodigarq**
facebook: **biodigital architecture**
google+: **biodigital architecture master**

DIRECTORS

Alberto T. Estévez y Karl S. Chu.

TIMETABLE AND DEVELOPMENT

In November and December 2012: students do an online preliminary study that involves reading a specific list of books, articles and software manuals.

From January to July 2013: full-time daily onsite work programme (9 a.m. to 9 p.m.) at the ESARQ School of Architecture, Barcelona.

CREDITS

60 ECTS.
1 academic year (9 months, 1.800 hours)

TARGET STUDENTS

Holders of university degrees, especially in the areas of Architecture, Engineering, Fine Arts, Design, Landscape Design and even Biology, Genetics (no prior specialized knowledge of software, cybernetics or ecology required).

PRE-ENROLMENT DEADLINE

31 October 2012.

Student's projects during the different Studios with Campo-Manninger (floral obsession), Evan Douglis (autogenic structures) and Karl S. Chu (generic architecture).

Barcelona Biodigital Pavilion, Alberto T. Estévez. Developed in Genetic Architectures research group.