# Master in Advanced Ecological Buildings

Barcelona 2019-2020

Institute for advanced architecture of Catalonia

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# MASTER IN ADVANCED ECOLOGICAL BUILDINGS

2019 - 2020

Directed by: **Vicente Guallart / Daniel Ibañez**


The MAEB is a 11-month immersive Master Programme directed by Vicente Guallart, former chief architect of the city of Barcelona and Daniel Ibañez, Doctor of Design Candidate at Harvard University's Graduate School of Design. The programme has a emphasis in implementing a practice-oriented approach to train professionals with advanced expertise in the design and construction of ecological buildings.

During the first six months students will embark in a series of intensive and cumulative modules and workshops that will tackle all the fields interrelated to the design and construction of advanced ecological buildings, including material, thermal and metabolic building systems. After developing the aforementioned skills students will collectively create the design concept, strategies, fabrication techniques and blueprints for an ecological building prototype. During the last three months of the programme, students will finally have the chance to build the ecological building prototyped during their academic year.

# 1.0

# CONTEXT



Urban and architectural regimes today are characterized by the linearity of material flows: buildings take resources from the biosphere, such as energy, material, nutrients or water, and return waste in a linear fashion. The overemphasis on specific buildings easily obscures these relationships at a broader scale. A building, for example, requires elaborate infrastructure systems and resources that can extend hundreds of kilometers away from the built-up spaces of the cities. Today, while many of the sustainability questions are focused on evaluating building performance, ecology, on the other hand precisely highlights the interconnectedness of these processes as a fundamental design territory. As ecologist Barry Commoner reminds us, "everything is interconnected with everything else." With this ambition, the Master in Advanced Ecological Buildings aims to achieve a more meaningful and robust ecological buildings for the built environment.

Following up the urban research carried out by IAAC in the last years in fields like Solar Housings, Eco neighbourhoods, Internet of Energy, Hydrogrid, Digital Fabrication, the Master in Advanced Ecological Buildings (MAEB) aims at training professionals in the design, prototyping, and fabrication of buildings as ecological and thermodynamic systems.
Following the models of ecological processes, the proposed conceptual framework operates at multiples scales: both at the molecular and territorial scales. Properly designed, a wood building, for example, can act as a carbon sink, it can improve the health and reproduction of a forest, it can minimize energy expenditures in transportation (if locally produced), and trigger a local bio-economy. This ecological feedback-loops and potential retrofits between the building and the multiple scales that is connected with are central to the pedagogy of this Master.

This approach is necessary for a more materially exuberant and ecologically powerful design practice for the future.
The MAEB allows students to examine material and energy issues – broadly defined, from the material to the geographical – across disciplines and scales, taking full advantage of the unique location of Valldaura Self-Sufficient Labs: IAAC's fabrication lab located in the forest, its fabrication infrastructure and the potentials of its surrounding territories.
The curriculum of the programme is diverse: from short workshops with leading experts to module courses, regular seminars and lectures, to a year-long project with an emphasis on real scale prototyping. The Master addresses the question of the design as a comprehensive intellectual and applied project in which prototyping and fabrication processes are a central pedagogic component emphasising the role of the architect as a hands-on applied maker.

Each Master Candidate will develop technological and fabrication seminars, ecological and thermal analytical frameworks and real-scale prototypes to have a unique expertise in the development of ecological and thermodynamic buildings. The Master will also provide a unique opportunity to create a real size building prototype as the final Master project. From the material to the territory, the MAEB foresees the design, development, and implementation of a new wave of buildings, prototypes, technologies and design solutions of true ecological value that can be extended systematically to be part of the next urban future. The Master programme is oriented to engineers, architects, artist, makers and designers, and graduates in any discipline related to the crafting of the built environment. The programme will be developed with the collaboration of companies and industry partners, leading experts from around the world with the goal of forming new professionals interested in leading the design of ecological buildings worldwide.



# LOCATION

The MAEB is a 11-month immersive Master Programme directed by Vicente Guallart, former chief architect of the city of Barcelona and Daniel Ibañez, Doctor of Design Candidate at Harvard University's Graduate School of Design.
The programme has a emphasis in implementing a practice-oriented approach to train professionals with advanced expertise in the design and construction of ecological buildings.

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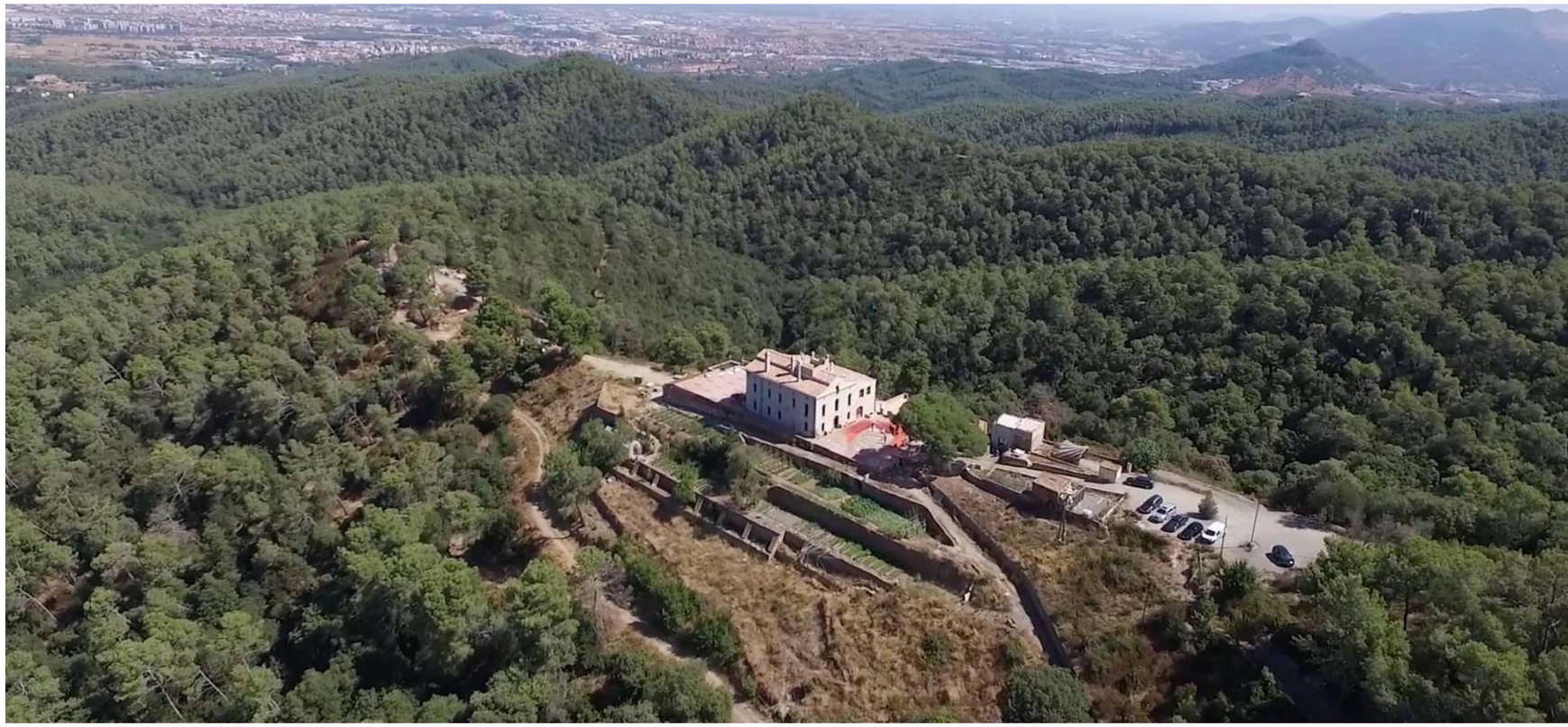


## Valldaura Labs - Barcelona, Spain.

Valldaura Labs is a living lab and centre for research on self-sufficient habitats. It's located inside a 19th century traditional building in the forest, its infrastructure aims at becoming a prototypical place for architecture and ecology in the post-carbon era. The lab has an area of

# PROGRAMME PRINCIPLES

**IMMERSIVE EDUCATION:**
The MAEB offers a unique immersive education experience at Valldaura Labs. Allowing students to live, share, design, build and socialise among them at this unique location.

**LEARNING BY DOING:**
Students learn based on their own experience and making their own full-scale prototypes. This master is fundamentally hands-on with an emphasis on professional expertise. Every edition of the programme will builds a 1:1 advanced ecological building.

**MULTIDISCIPLINARY EDUCATION:**
Students will have access to courses and workshops from many disciplines related not only to buildings and architecture itself but also to ecology and environment among many others.

**CONNECTED EDUCATION:**
Students collaborate with other academic design centres and institutions currently developing similar projects.

**RECORDING PROCESS:**
Each student registers and documents in a unique, open and online platform all the knowledge generated on the Master programme.

**INTERNATIONAL COMMUNITY:**
This Master programme is oriented to students coming from many backgrounds and both mature economies, as well as emergent ones such as China, India or Latin America.

# PROGRAMME ORGANISATION

## MASTER IN ADVANCED ECOLOGICAL BUILDINGS

## CREDITS: 90 ECTS

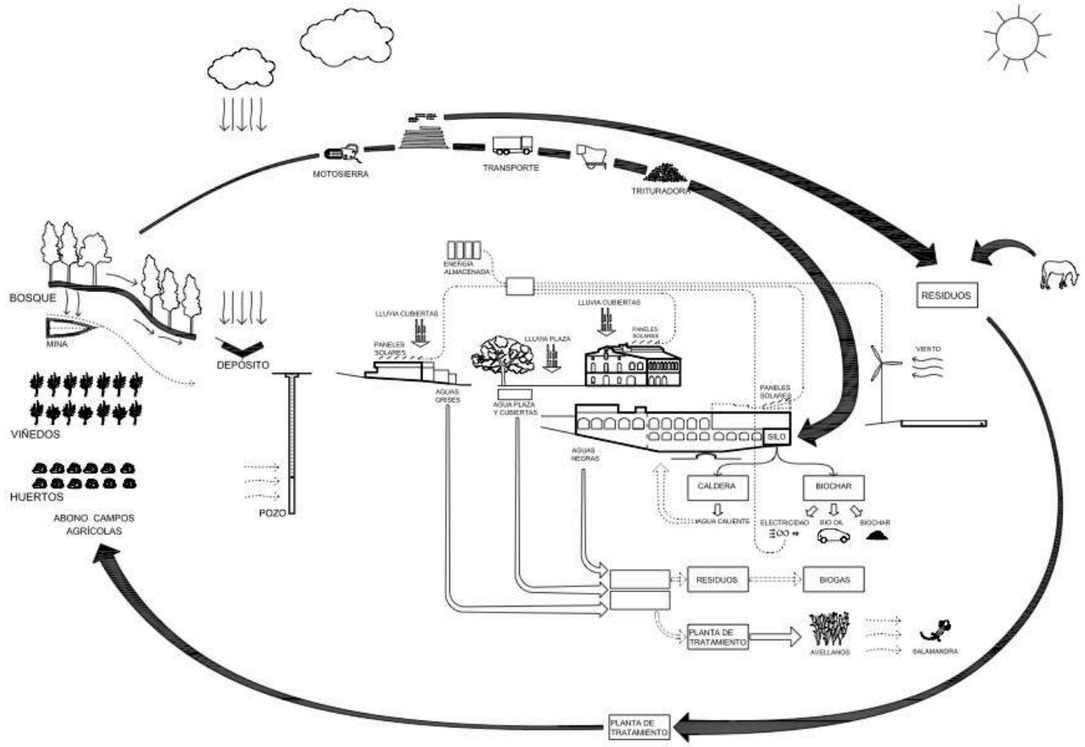
The Master in Advanced Ecological Buildings (MAEB) is an innovative educational format that offers interdisciplinary skills and understanding through the research on new categories of projects, technologies and solutions related to the design, prototyping, and fabrication of ecological buildings. IAAC gives students the opportunity to create individual studio agendas and develop thesis Projects based on ecological design, thermodynamics applied to buildings, new fabrication techniques, material experimentation, solar technologies and more. In this way, IAAC puts together an experimental and learning environment for the training of professionals with both intellectual and applied responses to the increasing complexity and environmental pressures of contemporary urban environments. Students have the opportunity to be part of a highly international group, including faculty members, researchers and lecturers, in which they are encouraged to develop collective decision-making processes and materialize their project ideas.
The Master develops through a series of seminars, workshops, studios and masterclasses along these thematics: Contemporary Theory and Practice of Ecological Architecture, Digital Fabrication, Ecology, Solar Energy and Thermodynamics, Eco-Materials, Advanced Structures and Metabolic Building Systems.

The programme is structured in three interrelated phases:
The first phase of the programme will take place during the first six months in which students will take a series of modules and seminars.
The second phase takes place during the following three months in which students will collectively create the design concept, strategies, fabrication techniques and blueprints for an ecological building prototype.
The last phase occurs during the last thwo months of the programme. Here students will embark in the construction of the previously-developed building phase.

### PHASE 1: MODULES
> Individual Project
> October to March > 26 weeks
> Valldaura Labs, Barcelona, Spain

### PHASE 2: PROJECT DEVELOPMENT
> Collective project
> April to June > 12 weeks
> Valldaura Labs, Barcelona, Spain

### PHASE 3: CONSTRUCTION
> Collective construction
> July to August > 8 weeks
> Valldaura Labs, Spain




# PROGRAMME

## OCTOBER-AUGUST

### PHASE 1

**MODULES**

- M.0 DIGITAL PROTOTYPING
- M.1 INTRODUCTION TO ADVANCED ECOLOGICAL BUILDINGS
- M.2 THERMODYNAMIC FABRICATIONS
- M.3 SURPRISE! I AM A HYBRID BUILDING
- M.4 ECOSYSTEMIC STRUCTURES
- M.5 PROACTIVE ENVELOPES
- M.6 METABOLIC BUILDING SYSTEMS: WATER, ENERGY AND INFORMATION
- M.7 EXTENDED BUILDING: URBAN NETWORKS
- M.8 SYNTHESIS, TESTING AND EXHIBITION

**SEMINARS**

- S.1 | ENVIRONMENT
- S.2 | TECHNIQUES
- S.3 | READINGS
- S.4 | LECTURES

PHASE 1

### PHASE 2

**COLLECTIVE PROJECT**

- P00 | DESIGN AND MAKE WORKSHOP
- P01 | DESIGN AND PROTOTYPING OF TWO SELF-SUFFICIENT CABANON PROTOTYPES

PHASE 2

### PHASE 3

**COLLECTIVE CONSTRUCTION**

- C01 | FABRICATION, CONSTRUCTION AND TESTING OF TWO SELF-SUFFICIENT PROTOTYPES

PHASE 3

The following programme refers to the Academic Year 2019-2020

# 2.0
# MAEB

## Programme Organisation // Detailed Structure

The following program refers to the Academic Year 2019-2020

# ACADEMIC SUMMARY

## MODULES AND SEMINARS AT VALLDAURA LABS

The master program is structured in three distinct phases: One with the emphasis on the expertise creation on the design of advanced ecological buildings; A second one with the emphasis in the design, prototyping; And a third one, with the emphasis on fabrication and construction of a real scale of a small advanced ecological building.

### MODULES

**M.0** DIGITAL PROTOTYPING
**M.1** INTRODUCTION TO ADVANCED ECOLOGICAL BUILDINGS
**M.2** THERMODYNAMIC FABRICATIONS
**M.3** "SURPRISE! I AM A HYBRID BUILDING"
**M.4** ECOSYSTEMIC STRUCTURES
**M.5** PROACTIVE ENVELOPES
**M.6** METABOLIC BUILDING SYSTEMS: WATER, ENERGY AND INFORMATION
**M.7** EXTENDED BUILDING: URBAN NETWORKS
**M.8** SYNTHESIS, TESTING AND EXHIBITION

### SEMINARS

**S.1** ENVIRONMENT
**S.2** TECHNIQUES
**S.3** READINGS
**S.4** LECTURES



# PHASE ONE

## DESIGN OF A (LARGE) ADVANCED ECOLOGICAL BUILDING

The goal of the first phase is to equip the students with the necessary expertise in the design and partial prototyping on large scale advanced ecological buildings (AEB). This phase is central since it resembles the most prevalent scale of design intervention for designers today, thus complements the current state of affairs with the much needed ecological turn. In this regard, rather than deploying a conventional methodology and agenda to design buildings, this phases brings to the front a series of drivers that are fundamental in the generation of AEB. The methodology for this phase is iterative. Deep academic dives into crucial aspects of AEB in an iterative fashion where the product of one module is further refined and elaborated with the next one. This work will be develop in teams of two people.

### M0 | DIGITAL PROTOTYPING FOR ARCHITECTURE

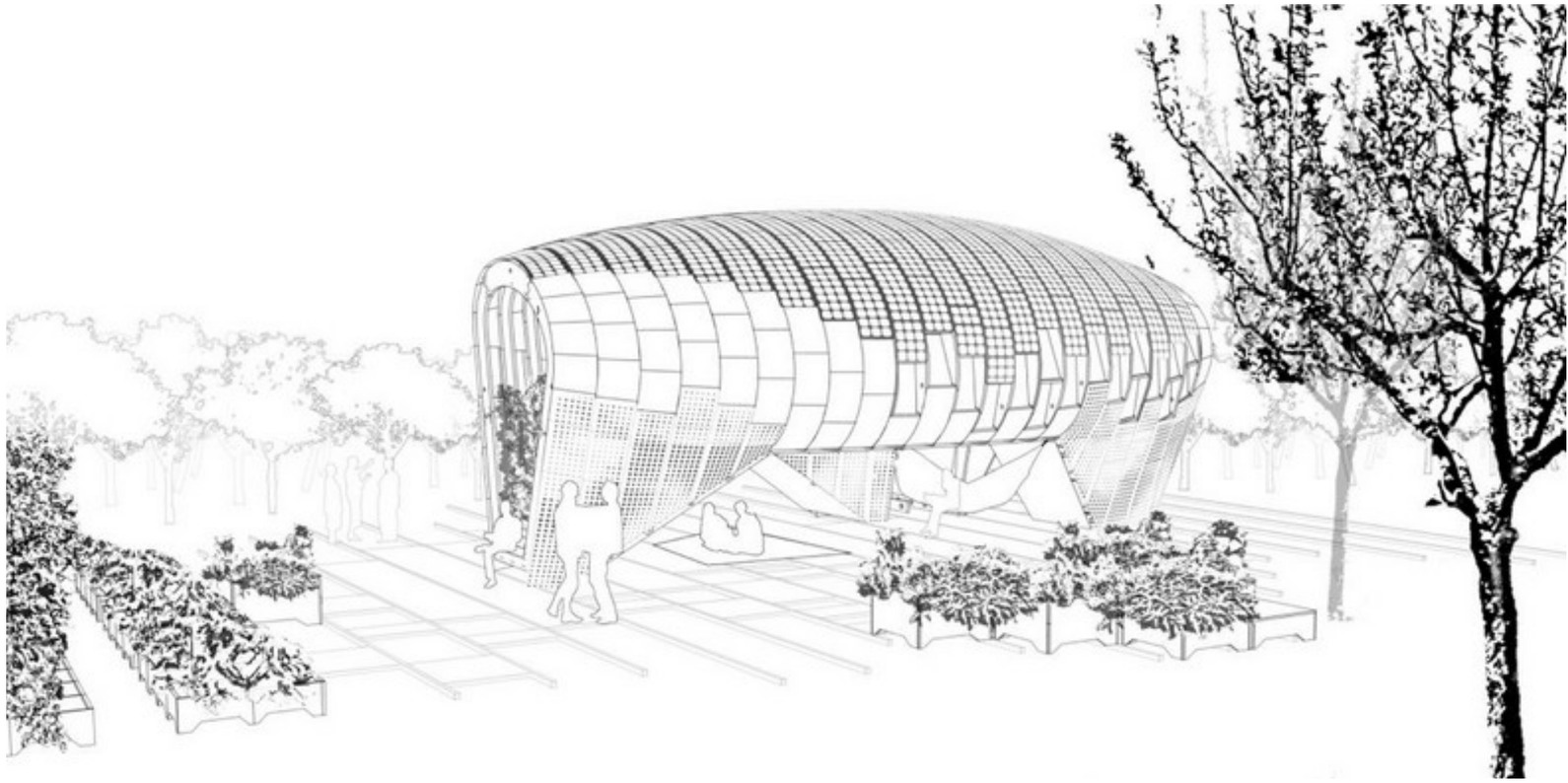
DURATION: 3 weeks
FACULTY: Eduardo Chamorro

This module is an introduction to basic methodologies and workflows of digital design and fabrication.

### M1 | INTRODUCTION TO ADVANCED ECOLOGICAL BUILDINGS

DURATION: 1 week
FACULTY: Daniel Ibañez

This module offers the conceptual, theoretical, ideological and epistemological foundations of the what mean today building with an advanced and ecological mindset.



## M2 | THERMODYNAMIC FABRICATIONS

DURATION: 3 weeks
FACULTY: Javier García German

This module provides an ecological approach to building making derived by the understanding of thermodynamic principles.

## M3 | SURPRISE! I AM A HYBRID BUILDING

DURATION: 2 weeks
FACULTY: Alex Ollero

This module introduces the question of program in buildings from the lens of functional diversity and entropy, a key aspect on ecological systems.

## M4 | ECOSYSTEMIC STRUCTURES

DURATION: 4 weeks
FACULTY: Elena Orte y Guillermo Sevillano

This module provides an overview on structural and assembly processes when dealing with cellular based ecological materials, such as wood.

## M5 | PROACTIVE ENVELOPES

DURATION: 3 weeks
FACULTY: Miquel Rodriguez

This module develops the importance of the envelop as a building interface that manages ecological relations with the environment as an active and passive device.

## M6 | METABOLIC SYSTEMS: WATER, ENERGY AND INFORMATION

DURATION: 5 weeks
FACULTY: Jochen Scheerer, Oscar Aceves, Guillem Camprodon

This module explores in design, technical and experimental cuts the implementation of life supporting metabolic systems such as water, energy and information

## M7 | EXTENDED BUILDING: URBAN NETWORKS

DURATION: 1 week
FACULTY: Honorata Grzesikowska

This module integrates the advanced ecological buildings developed in teams into the urban fabric creating a comprehensive ecological urbanism.

## M8 | SYNTHESIS

DURATION: 3 weeks
FACULTY: Vicente Guallart

This module synthetizes all the previous iterative modules into a public exhibition of advanced ecological buildings as the final output of Part One of the MAEB.

# PHASE TWO

## COLLECTIVE DESIGN, PROTOTYPING OF AN (SMALL) ADVANCED ECOLOGICAL BUILDING

The goal of this phase is to design, prototype, fabricate, build and test a small self-sufficient building with all the operative elements of a housing unit at Valldaura Labs. The development should occur in a collaborative manner and it should end up being built to its ultimate consequences. Some of the typological precedents are, for instance, Le Corbusier's Cabanon or Renzo Piano's house for Vitra. This phase will be develop in teams of nine or ten people. Teams should reflect diversity of profiles and skillsets. This second phase will be divided into two parts, one with the design and prototyping of the two projects; and a second part with the full fabrication, construction and testing of the project.

### P00 | DESIGN AND MAKE WORKSHOP

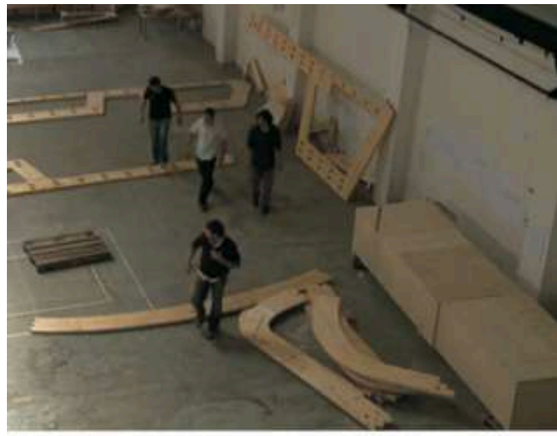
DURATION: 2 weeks
FACULTY: Marta Domènech, David López López and Mariana Palumbo

This module comprises the phases of design, prototyping, fabricating and building in few weeks with the design and making of a brick oven vault for Valldaura.

### P01 | DESIGN AND PROTOTYPING OF SELF-SUFFICIENT PROTOTYPES

DURATION: 6 weeks
FACULTY: Daniel Ibañez, Vicente Guallart

This module produces the design of two self-sufficient prototypes for a small living unit to be deployed in Valldaura.



# PHASE THREE

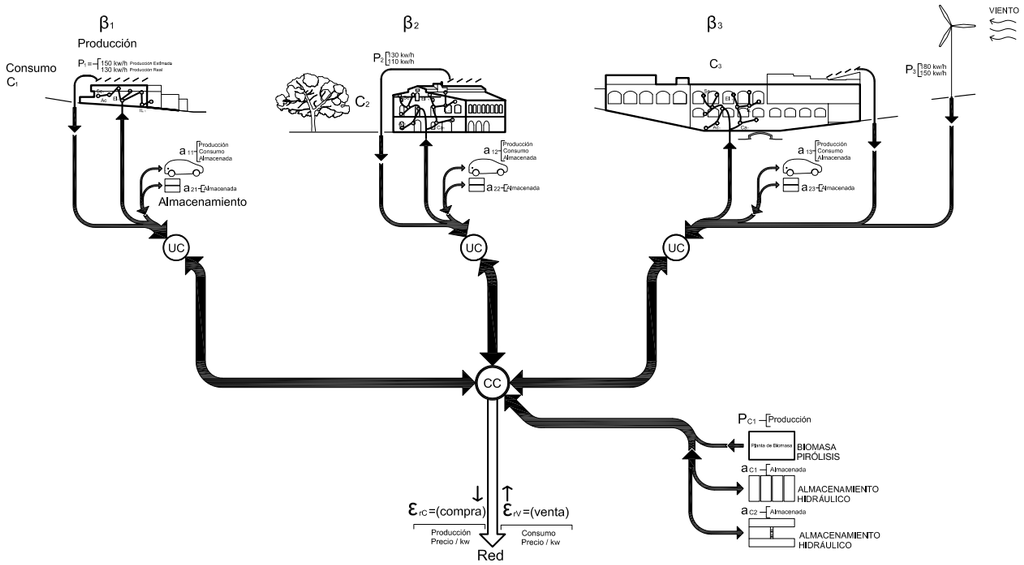
## COLLECTIVE CONSTRUCTION AND FABRICATION OF AN ADVANCED ECOLOGICAL BUILDING

### C01 | FABRICATION, CONSTRUCTION AND TESTING OF TWO SELF-SUFFICIENT PROTOTYPES

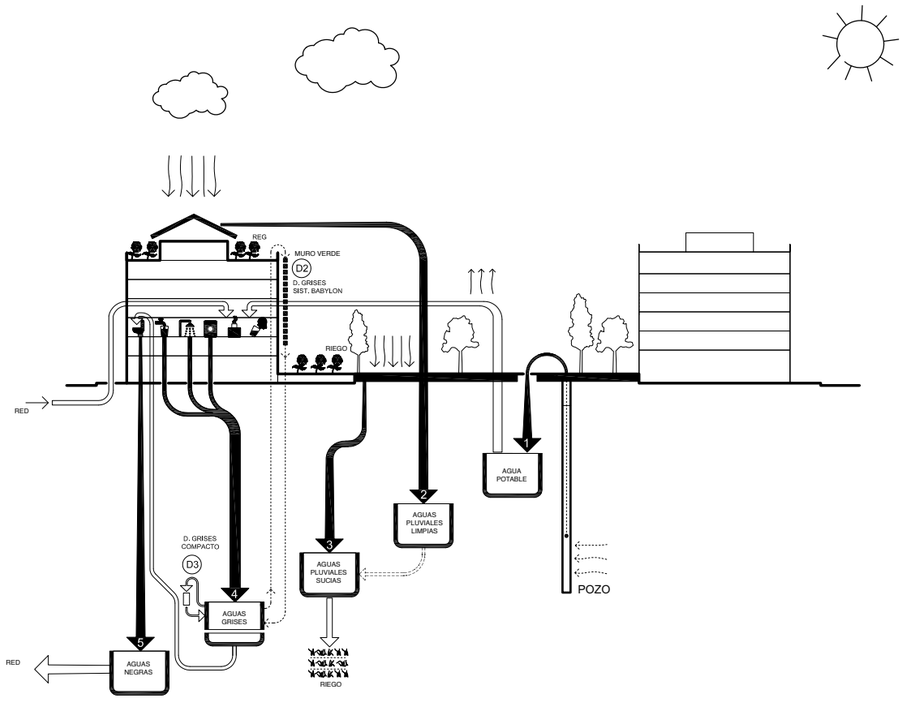
DURATION: 10 weeks
FACULTY: Daniel Ibañez, Vicente Guallart

This module consists in the fabrication, construction, and testing of the two self-sufficient prototypes for a small living unit to be deployed in Valldaura.




ENERGRID: EL INTERNET DE LA ENERGÍA




HYDROGRID: EL INTERNET DEL AGUA

# SEMINARS

The seminars will be taught in parallel to the modules, the programme offers a series of seminars on:

## S1 | ENVIRONMENT

This seminar provides the opportunity to learn ecological principles on site. Forestry practices and regimes, ecological agriculture, permaculture are some of the environmental practices the seminars provide. Students will learn by doing some of this practices as part of the harvesting, production, and generation of material for future projects in the Master programme.

## S2 | TECHNIQUES

This seminar provides the necessary training for students on the techniques of digital fabrication, including CNC milling, laser cutting, 3D printing but also carpentry and conventional fabrication and construction. This seminar will also cover all the necessary software instruction, including design, parametric and fabrication software.

## S3 | READINGS

This seminar provides the intellectual and scientific foundation for all the related research, design and development of projects in the MAEB program. These readings range from conceptual and theory readings which support the premise of the Master to precedent studies, construction strategies and innovative materials related to the execution of projects.

## S4 | LECTURES

The Master programme hosts lectures by external experts in the multiple interrelated disciplines. The goal of this lectures is to provide students with a broad perspective on the construction of cities, development of ecological buildings, as well as the constructive techniques and systems. Additionally, students have full access to all the lecture series organised at IAAC in its 22@ location.
**Tentative names:** Bjarke Ingels (Pre-opening lecture) /Kiel Moe/ Salmaan Craig/ Khaled Pascha/ Andrew Waugh from Waugh Thistleton Architects/ Foster and Partners

# MAEB IN BRIEF

| | |
|---|---|
| **EDITION** | 2nd edition |
| **DIRECTORS** | Daniel Ibañez & Vicente Guallart |
| **DEGREE:** | Master in Advanced Ecological Buildings |
| **CREDITS:** | 90 ECTS* |
| **DURATION**: | 11 months – From October 2019 to August 2020 |
| **MODALITY:** | Immersive and full time |
| **LANGUAGE:** | English |
| **LOCATION:** | Barcelona, Spain. |
| **ADMISSION:** | Architecture, Engineering, Design, Bachelor or higher degree from other related professions |

**Check more details in the web site**
https://iaac.net/educational-programs/master-advanced-ecological-buildings/

# 3.0

# MAEB

## FACULTY
## INTERNSHIP
## PUBLICATIONS

# MAEB DIRECTORS

### VICENTE GUALLART

CO DIRECTOR MAEB

Vicente Guallart is the former Chief Architect of the city of Barcelona, founder of Guallart Architects (1993), founder of the Institute for Advanced Architecture of Catalonia (2001). and Co-Director of the immersive Master in Advanced Ecological Buildings (MAEB). Guallart is a pioneer of the interaction between nature, technology, urban planning and architecture. Innovative hybrid projects include Sociópolis (Valencia, Spain): a housing project where 1000 year old canals water a hi-tech sociopolis, and Sharing Blocks (Gandia, Spain): a student residence which melds with social housing for senior citizens with a civic and social centre for the town council. He was also the first General Director of Urban Habitat, a new department encompassing the areas of Environment, Infrastructures, Urban Planning, and Information Technologies. Guallart has won numerous awards for his innovative and collaborative work.

### DANIEL IBAÑEZ

CO DIRECTOR MAEB

Daniel Ibañez is a practicing architect and urbanist, and founder and co-director of the design firm Margen-Lab: a transcalar targeted office invested in the developing more ecologically powerful and materially exuberant design. He holds a MArch from ETSAM in Madrid, a MAA from the Institute for Advanced Architecture of Catalonia, and an MDes in Urbanism, Landscape and Ecology with honors from the Harvard University Graduate School of Design where he was awarded with the Dimitris Pikionis award for best academic performance. He is currently Co-Director of the immersive Master in Advanced Ecological Buildings (MAEB), instructor and Doctor of Design candidate at the Harvard GSD, researcher at the Harvard Office for Urbanization, and faculty at Rhode Island School of Design.

Daniel is editor several book publications, including New Geographies 6: Grounding Metabolism (HUP, 2014), editor of Third Coast Atlas (Actar, 2017) and the Wood Urbanism: From Molecular to Territorial (forthcoming, Actar, 2018). Also, since 2015, Daniel is editor at urbanNext (urbanNext.net). His work as scholar and practicing architect has been recognized by the La Caixa Foundation, the Real Colegio Complutense at Harvard, the Venice Biennale of Architecture 2012, Oslo Triennale 2013 or the Boston Design Biennial 2017, among others.

# FACULTY
# 2018/2019



### MARTA DOMÈNECH / MAP 13

MAEB _ PROFESSOR

Marta is an expert in bricks and vaults. She is co-founder of map13 architects, where she develops projects and workshops building with the traditional technique of Thin-Tile Vaulting in order to recover its contemporary value to build in a more sustainable economically and environmental way. Architect, lecturer and PhD candidate in the Architectural Design Department at the School of Architecture of Barcelona (ETSAB, UPC). She holds a Master of Advanced Architectural Design from ETSAM, UPM and an Advanced Master in Theory and History of Architecture from ETSAB.

### MIQUEL RODRIGUEZ

MAEB _ PROFESSOR

Miquel is a building envelope consultant. He is director of xmade Barcelona and co-owner of xmade Basel. Currently based in Barcelona after working in Basel, Hamburg and Madrid as an associate of Herzog & de Meuron (1999-2011). He also collaborated with Josep Lluís Mateo, MAP architects (1992-1997). Architect (ETSA) he is specialized in envelope technologies. He is Design Studio Professor of the Barcelona Architecture Centre since 2016 and Professor on the Master of Integrated Architectural Design (MIAD), Barcelona, on the subject “Energy and Envelope”.

### JOCHEN SCHEERER

MAEB _ PROFESSOR

Jochen is an expert on the cycle of water. Partner-director of ASEPMA, company specialized in the treatment and decentralized management of water in the domestic and urban environment. He is co-author of the largest green facade or vertical garden in Spain, the Tabacalera building, in Tarragona. In total, 185m wide and 18m high, which represent more than 3000 m2 of green space. Schreer tries to arise awareness on the importance of water, in all its forms, as a valuable resource.

### HONORATA GRZESIKOWSKA

MAEB PROFESSOR

Honorata co-authored the entries that won 1st prize in Europan12 Barcelona -´Green Ramblas - adaptable neighbourhood´ and 2nd Prize in Europan13 Barcelona - ´Sustainable Interface. Self-sufficient social housing´. After graduating in Architecture and Urban Design from two universities in Poland and in the Netherlands, she gained professional experience in internationally renowned offices in Rotterdam and London. Her, originated by the landscape, and defined by nature and surrounding environments works have been extensively published in various specialized media and books.



### OSCAR ACEVES

MAEB _ PROFESSOR

Oscar is the expert with more experience in design of photovoltaic covers in Spain, where he designed the first solar house more than 20 years ago. Engineer in renewable energies he is specialist in photovoltaic integration and solar installations of self consumption in the fields on industrial roofs, architectural integration and smart solar projects.

### DAVID LÓPEZ / MAP 13

MAEB _ PROFESSOR

David is co-founder of the international collective map13 architects, which has been used as a platform to test and implement the results of academic research. He is a PhD candidate at the Block Research Group, Institute of Technology in Architecture, ETH. His doctoral research within the Block Research Group focuses on the structural behavior and assessment methods of thin-tile vaults. He has experience in this field as a mason, designer, project manager and structural consultant. Architect from ETSAM, Advanced Master Degree in Building Technology, specializing in structural design, from the School of Architecture of Barcelona (UPC).

### JAVIER GARCÍA-GERMÁN

MAEB PROFESSOR

Javier García-Germán studied architecture at the School of Architecture of Madrid (ETSAM), Oxford School of Architecture and Harvard University Graduate School of Design, where he was Fulbright Scholar. In 2005 he founded ToTem arquitectos. Since 2008 he is Associate Professor at ETSAM and since 2010 Director of the Energy and Sustainability module in the Master’s Degree in Collective Housing and The New School of Architecture (PUPR). He has edited several books linked to energy and sustainability, among others De lo Mecánico a lo Termodinámico.

### ELENA ORTE AND GUILLEMO SEVILLANO

MAEB _ PROFESSOR

Guillermo Sevillano is an Associate Professor at the Polytechnic University of Madrid (ETSAM) and he has been teaching at Camilo Jose Cela University. He studied the MS in Advanced Architectural Design, GSAPP at Columbia University. Elena Orte has been Assistant Professor at ETSAM and has studied the MS in Advanced Architectural Design in ETSAM. Together they are the directors of SUMA architecture. SUMA is currently developing the largest cross-laminated timber public building in Spain, located in Barcelona.

**JONATHAN MINCHIN**

MAEB _ PROFESSOR

Having studied Fine Arts and Design Craftsmanship, Jonathan attained a masters degree MSC in 'International Cooperation, Sustainable Emergency Architecture' in 2010. In this field he has worked on housing and development projects alongside 'Habitat for Humanity' in Costa Rica, 'UNESCO' in Cuba and with 'Basic Initiative' in Tunisia. He has worked in conjunction with 'UN Habitat' in Barcelona and holds a particular interest in appropriate technology and local manufacturing. His professional career has focused on architectural and urban development projects with Architects Offices in both England and Spain and his writing on "Geographic referencing for Technology Transfer" was published in the book "Reflections on Development and Cooperation" in 2011. He took part in the Fab Academy at the Fab Lab Barcelona in 2013. Jonathan is currently the coordinator of the Green Fab Lab at Valldaura Labs, IAAC Campus in Barcelona.

**ALEX OLLERO**

MAEB _ PROFESSOR

Alex Ollero is an architect graduated from the School of Architecture of Madrid (ETSAM).
Throughout his career, he has worked as an editor for Arquitectura Viva; he has been a designer for Jakob+MacFarlane Architects in Paris; he has designed and developed the graphic concepts of A+T Architecture Publishers; he has worked as a consultant for several advertising agencies such as Young & Rubicam; he has defined shopper-marketing strategies alongside LabStore Madrid; he has worked as a retail-design consultant for Blank Architects in Moscow; and he has worked the past 3 years as an art director for the strategic design consultancy 3g Smart Group.
Innovation and "life changing moments" do not come out of the absolute control of an idea but of the good management of surprise. We have to negate universal recipes, the megahype of the "know hows", and shake off the "a prioris" - Alex Ollero

**JORDI VIVALDI**

MAEB _ PROFESSOR

Born in Barcelona, Jordi Vivaldi received his degree in Architecture from the ETSAB and in 2013 he received a Master's Degree in Advanced Architecture at IAAC. Currently, he is finishing his degree in Philosophy at UNED and developing his PhD at the Institute of Urban Design in Innsbruck tutored by Peter Trummer. After working in the urban agency Barcelona Regional for almost two years, he is currently involved as faculty and researcher in several academic projects at IAAC, especially in the fields of Theory and Urban Design.

**RODRIGO AGUIRRE**

MAEB _ PROFESSOR

Rodrigo Aguirre is a Nicaraguan architect specialised in the fields of parametric tooling, digital fabrication and manufacturing. He obtained his bachelor in architecture at UAM (American University) in Managua, Nicaragua and completed the two-year Master in Advanced Architecture at the Institute for Advanced Architecture of Catalonia (IAAC) in Barcelona, Spain.
His ongoing collaboration with the Institute's REsearch + DEvelopment department and IAAC special projects have involved advanced form finding and computational methods related to generative design. He is a principal member of the computational faculty

**EDUARDO CHAMORRO**

MAEB FACULTY

Working towards to discover how technology can transform architecture and his processes to improve people´s lives has always been my passion.
My education background and work experience as architect is diverse. I have a Master in Advanced Architecture from the Institute for Advanced Architecture of Catalonia (IAAC) and a combined Undergraduate and Master Degree in Architecture from CEU San Pablo University of Madrid. I am an spanish registered architect. In addition I have been working as Fab Lab Seoul director and researcher, several architecture studios as junior Architect, computational design and fabrication professor at CEU University and Fab Lab Madrid collaborator.

**MARZIAH ZAD**

MAEB_ACADEMIC COORDINATOR

Marziah Zad is an award-winning architect and researcher interested in the application of digital tools and advanced technologies for the benefit of society. She is currently the Academic Coordinator of the Master in Advanced Ecological Buildings at IAAC. She has a BArch from the University of Tehran and a MArch from the Institute for Advanced Architecture of Catalonia (IAAC) specialising in Digital Morphogenesis and Behavioural Urbanism. As a practising professional, Marziah has worked independently and in collaboration with architects in the Middle East, Europe and the USA. She has also Co-Founded UDA, a multiscalar design practice based in Tehran, Iran.
Marziah's investigations in light-weight structures and morphogenetic design strategies to seed intelligent design solutions informs her parallel pursuits of practice and pedagogy. She has taught generative design at universities in Iran and the USA.

**GUILLEM CAMPRODON**

MAEB_PROFESSOR

Guillem Camprodon is an interaction designer with a long experience working on projects between the Internet of Things and Digital Fabrication. His broad knowledge of internet technologies and hardware development among his training as a designer makes him an expert on developing projects involving emergent technologies with communities.

Since 2010 he holds a research position at the Institute for Advanced Architecture of Catalonia (IAAC) and Fab Lab Barcelona where he currently leads the development of Smart Citizen, a global open-source environmental monitoring platform. He is also a regular advisor on many projects as a tangible interaction expert and teaches regular workshops on open-source software and hardware.

**Faculty:**

Matthias Schuler
Kiel Moe
Nadir Abdessemed
Nikos Katsikis
Khaled Saleh Pasha
Salmaan Craig
Jacob Mans
Benjamin Peek
David Kennedy/ Bestiario

# INTERNSHIP
# ARCHITECTURE





**BENEDETTA TAGLIABUE,**
EMBT

RIBA Stirling Prize Architect, author of the Best International Building of 2011- Spanish pavilion of the World Expo Shanghai 2010. Founder of EMBT studio, her projects include, among others: Business School of Fudan University in Shanghai, office towers in Xiamen and Taichung, public spaces of HafenCity in Hamburg Germany, station Clichy-Montfermeil in Paris, France.

www.mirallestagliabue.com

**ENRIC RUIZ**
GELI

Founder and Director of Cloud 9 studio in Barcelona. Author of Media-TIC - a Net Zero Building, Best Building of the World by WAF. His works belong to the collections of MoMa (New York), FRAC Centre Collection (Orleans) and Centre Pompidou (Paris). Together with Cloud 9 has signed Knowledge Transfer Contracts in Taiwan, OECS, Qatar, Kuwait and Russia.

www.ruiz-geli.com

**JOSEP LLUÍS MATEO,**
MATEO ARQUITECTURA

Member of l'Ordre des Architectes de Paris, Swiss Society of Engineers and Architects (SIA) in Zürich, Professor of Architecture and Design at the ETH-Zürich and Guest Professor at the GSD-Harvard. His practice, mateoarquitectura, is globally active, won many prices and awards and has been worldwide published and exhibit.

www.mateo-arquitectura.com

**JORDI BADIA,**
BAAS ARQUITECTURA

Founder and director of the BAAS architecture studio. Curator of the Catalan Pavillion at the 13th Venice Architecture Biennale. The practice has been working on various projects, the headquarters of the Barcelona Supercomputing Centre, the new premises of the MUHBA, the rehabilitation of Alta Diagonal office building or the Radio and TV University in Poland.

www.jordibadia.com

**VICENTE GUALLART,**
GUALLART
ARCHITECTS

Chief Architect of the city of Barcelona (2011-2015), founder of Guallart Architects and of IAAC (Institute of Advanced Architecture in Catalunya). He won numerous awards for his innovative and collaborative work, among others, Sociópolis in Valencia, Sharing Bloks in Gandía, Fugee Port and Keelung Port in Taiwan or Vinaròs Microcoasts modular platforms.

www.guallart.com

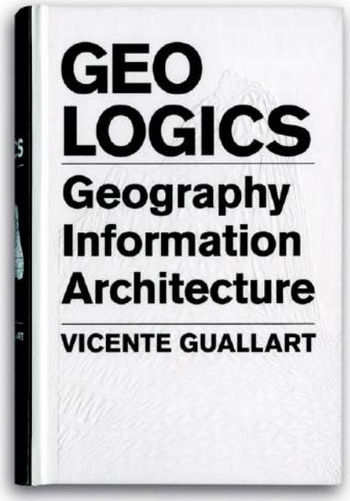
**ALI BASBOUS,**
BAD

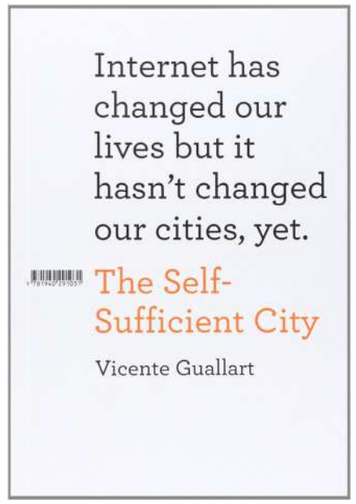
Founder and Director of BAD. Built by Associative Data. A Canadian, Lebanese Architect living between Barcelona and Beirut. Ali's global experience in the offices from Copenhagen, Shanghai and New York, and in creating pioneering ideas have been prized and granted with many internationally notable awards. He won several competitions on major landmark projects.

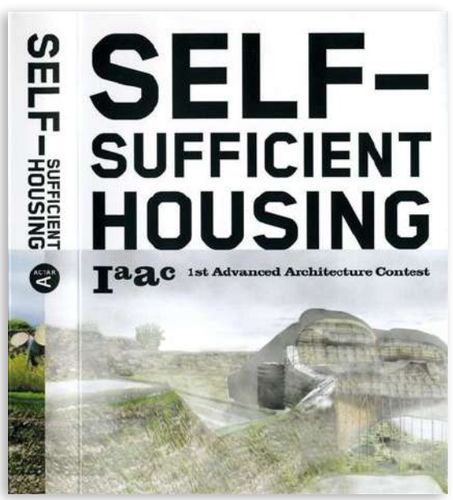
www.bbad.co

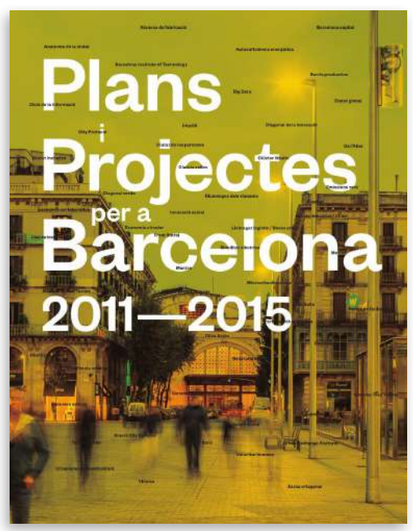
# PUBLICATIONS

## BOOKS WRITTEN OR EDITED BY VICENTE GUALLART



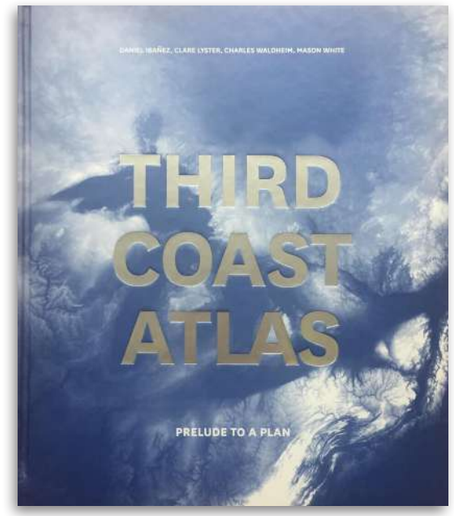



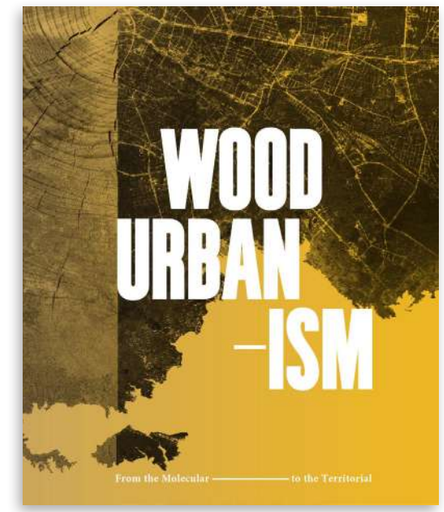



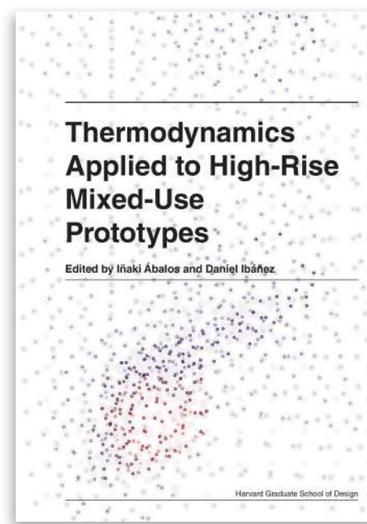



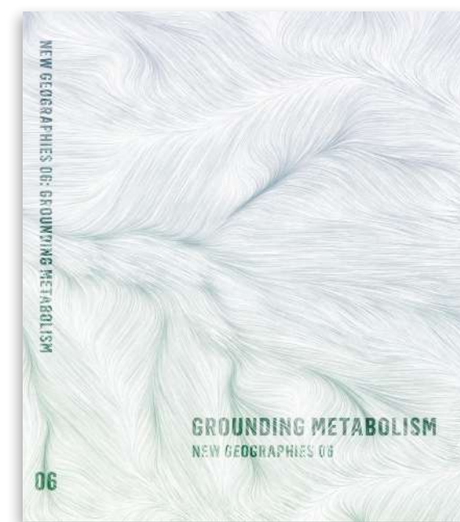

# PUBLICATIONS

## BOOKS WRITTEN OR EDITED BY DANIEL IBAÑEZ





# 4.0 GENERAL INFORMATION

# TUITION FEES

## TUITION FOR STUDENTS ATTENDING MAEB (90 ECTS: 11 MONTHS)

**Tuition, Room and Board fees for 2019/2020:**
**Non-EU citizens 28.350€**
**EU citizens 24.500€**

The Full Tuition Fee includes the price of the academic programme (Non-EU citizens 19.250€ & EU citizens 15.400€) together with other fees such as accommodation in shared rooms, full board, laundry, use of the washing machine, WIFI, access to the Green Fab Lab and expenses at Valldaura Labs.
*Transportation and other services not mentioned are not included.
**Non resident options are available for applicants already based in Barcelona, please get in contact with the applications department for more information.
applications@iaac.net

The selected candidates must send to the Institute a scanned proof of a down payment of 2,500€ to confirm participation, maximum 4 weeks after their acceptance. The remaining part of the tuition fee may be paid either in one or two intallments, 60% before September 1st, 2019 and 40% before December 1st, 2019.

**All payments of the selected programme must be paid by bank transfer only to:**

**Bank: Santander**
**Agency: 6784**
**IBAN – ES55 0049 6784 3226 1615 5632**
**SWIFT – BSCHESMMXXX**
**Holder : Institut d'Arquitectura Avançada de Catalunya.**
**Address: Via Augusta, nº182 (Es 08021 Barcelona)**

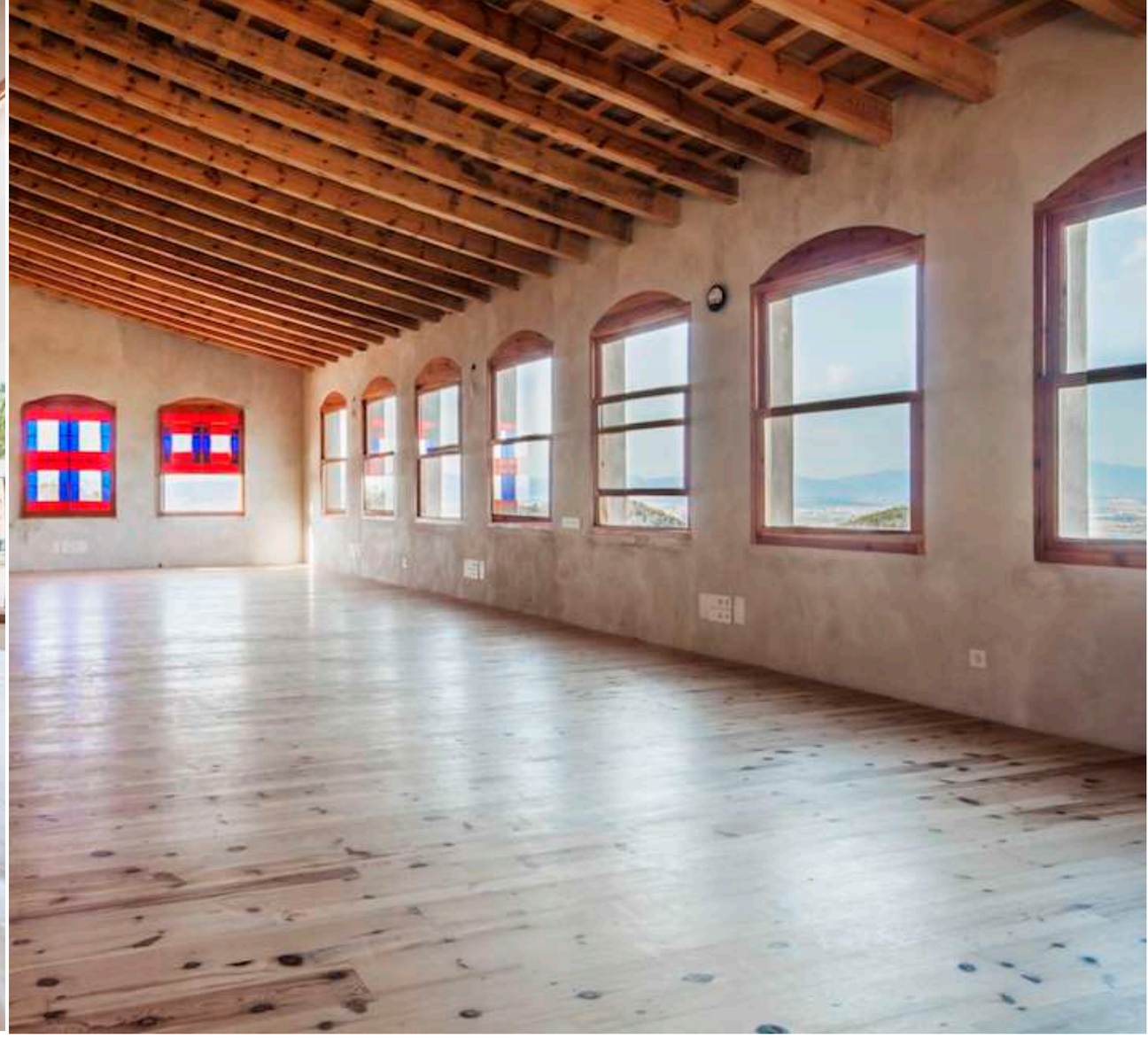
Note: Make sure that bank transferring SUBJECT is the applicant's name, and not the person who orders the transfer. Also make sure to select the SWITF instructions code "OUR" when ordering the bank transfer. This means that you have to pay the transfer charges.

# ACOMMODATION

## VALLDAURA

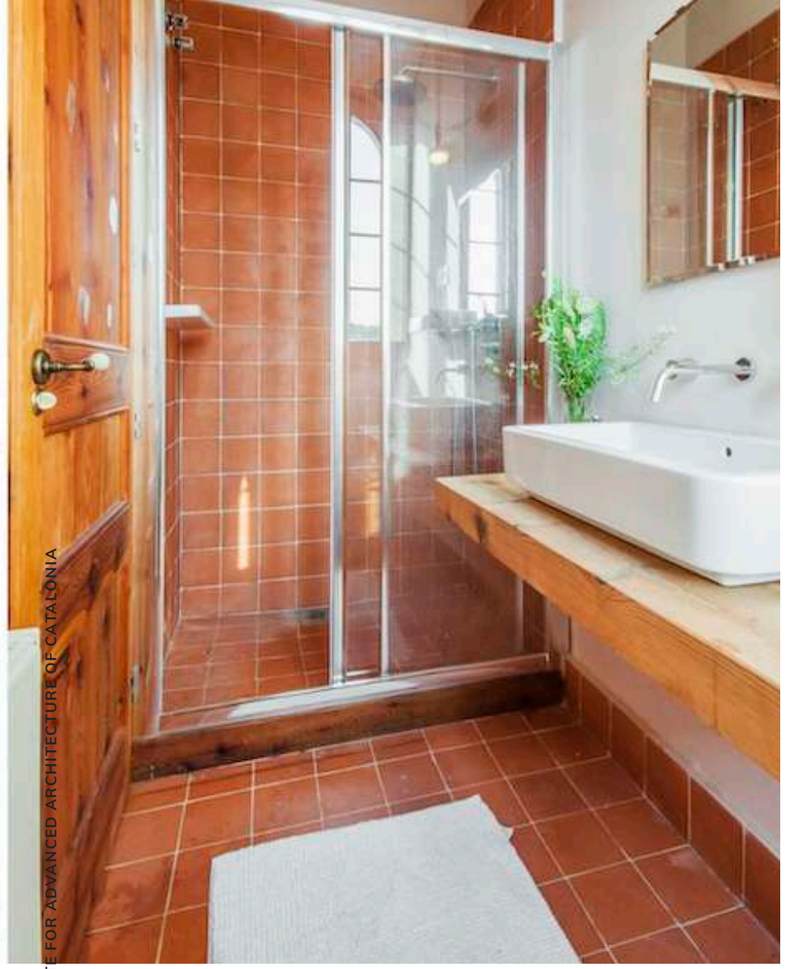
Valldaura offers different accommodation formats: Shared double rooms with individual shower and toilet, and attic shared rooms with bathrooms.

The programme is conceived to be an immersive experience. Distance from Valldaura metro station to Valldaura Labs is 10 minutes by car or moto, 25 minutes by bike and 45 minutes walking.





SHARED ROOM WITH BATHROOM



# APPLICATIONS, GRADING SYSTEM & MORE





## APPLICATIONS

To apply for IAAC, please fill out and submit the online applications form (www.iaac.net/iaac/apply) for the programmes: MAA01, MAA02, MaCT01, MaCT02, MAA01 + OTF, OTF, MAEB, MRAC, MDEF.

For the online application, the following required documents should all be submitted in English, with the exception of the undergraduate diploma (All documents must be uploaded onto the designated space on the online application form in PDF format).
A letter of intent expressing the reasons for which you wish to attend the chosen master – Written in English, PDF and with a maximum of two A4 pages.
Curriculum vitae
Portfolio, showing samples of your work –maximum of 10MB.
Two letters of recommendation (from professional or academic referees) – In English, PDF and with the corresponding referee contact information.
A copy of your highest academic degree.*If you haven't graduated and therefore your diploma is not available at the moment of your application, you will need to send a letter in English or Spanish emitted by your University acknowledging that you are currently studing (name of the programme) and will graduate in (specific date).
A copy of a valid passport (copy of valid I.D. is accepted for citizen of member states of the EU) *If you hold more than one passport bear in mind that the one you provide in the application form is the one IAAC will use for your acceptance letter and therefore the one you will use to apply for your Spanish visa (non EU students) and NIE (all students).
*Bear in mind that you can apply with a copy of your title but If you are accepted you will be required to send a legalised copy of your degree and an official SWORN translation of it in Spanish. More info about SWORN translation and legalisation in the "FAQ" section in IAAC's website.
* If you have not yet graduated, but will be graduating before the commencement of the academic year to which you are applying at IAAC, you are still eligible to apply. However, to complete the application process, you will need to provide the document explained in the section 5 above.
If you have any questions or doubts with regards to the application process, please feel free to contact us at applications@iaac.net

## GRADING SYSTEM

Class attendance is obligatory for studios and seminars. In both cases, courses are graded as follows:

0–4.9 Fail (this means that the student is not going to get his/her Master's Degree, this grade will be justified and well explained)
5.0–6.9 Passed
7.0–8.9 Good
9.0–10 Excellent/Distinction

- Under no circumstances will students be excused from presenting their design work at the final review of a project.

- Diplomas will not be delivered to students with any incomplete in their final grades.
In addition to the above, Midterm Reviews will be held with the members of the faculty in order to inform each student briefly of the general feelings of the faculty about his or her work. Suggestions may be given on how to prepare for the Final Review

## STUDENT FEEDBACK & EVALUATION

The usual procedure IAAC uses for the collection and analysis of information to ensure the quality of the programme is the student surveys and evaluation reports. IAAC performs two different types of surveys: one survey is specific for each course, and is being made immediately after a course finishes, and the second survey is a general survey, which is conducted at the end of the academic year. Course Survey: The surveys contain questions related to course content and structure of the class, the methodology used and the level of facilities where the course has been conducted. There are also questions about the faculty , allowing the student to evaluate the faculty's communication capabilities, the capacity of synthesis and organise the content structure as well as the faculty's competence in assessing and explaining the results obtained. The survey also include questions about the relevance of the class with respect to the students own interests and the relevance with the general research agenda of the Master programme. Students are also asked within this survey to suggest improvements in the courses that IAAC takes into consideration for the future editions. General Survey: The general annual survey refers to the overall management of the programme and the efficiency of the entire organisation. It includes questions of whether students had difficulties in the application and admission process, whether they had problems in acquiring all necessary certificates and/or other documents and more. It also includes question of satisfaction in relation with the efficiency level of IAAC staff, whether faculty and content have met their expectations, and whether they were satisfied with the level of access to facilities and material resources at the Institute . Also, students are asked what course or activities considered more interesting and relevant to the programme and they are also asked to express ideas for overall improvement.

## STUDY EXPENSES

Study-related expenses such as the purchase of books, graphic reproduction, printing and model moking are not included in the tuition fee.
For field trips and excursions an individual financial contribution may be required.

## MATERIALS

Students are expected to bring their ownly a laptop computer no more than two years old, with the following specifications:
PIV at 2.4 GHz (or similar in the case of an AMD processor).
8 Gb RAM.
WIFI internet connection.
1280 x 1024 screen display resolution

## NON EUROPEAN STUDENTS

Non European students accepted to the programme are advised to contact the nearest Spanish Embassy to start the Visa procedure. Be aware that the application procedure for a Student Visa can take up to 3 months.

## MEDICAL INSURANCE

Participants are responsible for their own health insurance and other personal insurance. It is mandatory to acquire a Medical Insurance to cover your stay here in Barcelona. The Catalan Public Health System does not cover students, and will charge you for any visit or consultation.
Please note that the IAAC is not liable for loss or damage to personal belongings.

# 5.0 THE INSTITUTE

The Institute for Advanced Architecture of Catalonia – IAAC is an international centre for Education, Fabrication and Research dedicated to the development of architecture capable of meeting the worldwide challenges in constructing 21st century habitability.
Based in the 22@ district of Barcelona, one of the world's capitals of architecture and urbanism, as well as the European Capital for Innovation (2014), IAAC is a platform for the exchange of knowledge with researchers, faculty and students from over 60 countries around the world.

IAAC is Education, with the Master in Advanced Architecture, Advanced Interaction and the Master in City & Technology giving the next generation of architects and professionals the space to imagine, test and shape the future of cities, architecture and technology. This is possible through Open Thesis Fabrication, the implementation of Applied Research and allowing learning by doing, as well as through short programmes, implementing global agendas developed through local solutions, such as the Global Summer School.
IAAC is Fabrication, with the Fab Lab Barcelona, the most advanced digital production laboratory in Southern Europe, a laboratory where you can build almost everything, that recently hosted Fab10, the 10th annual worldwide Fab Lab conference.
IAAC is Research, with Valldaura Labs, a self-sufficient research centre located in the Collserola Metropolitan park, 20 minutes from the centre of Barcelona, where a series of laboratories are implemented for the production and testing of Energy, Food and Things.

And IAAC is also Barcelona, the European Capital for Innovation (2014)*, the city that aims to be a self-sufficient city, a Fab Lab city, a smarter city. Thanks to its innovative visions, IAAC is strategically aligned to the new urban policies of the city, developed in close collaboration and mutual inspiration between the two entities.
The Institute develops multidisciplinary programmes that explore international urban and territorial phenomena, with a special emphasis on the opportunities that arise from the emergent territories, and on the cultural, economic and social values that architecture can contribute to society today.
IAAC sets out to take R+D to architecture and urbanism and create multidisciplinary knowledge networks. To this end the institute works in collaboration with several cities and regions, industrial groups, research centres, including the City Council of Barcelona, the Collserola Natural Park, the Massachusetts Institute of Technology (MIT), the Centre for Information Technology and Architecture (CITA), the Southern California Institute of Architecture (Sci-Arc), as well as diverse companies among which CISCO, Endesa, Kuka Robotics and many others. Together with these the Institute develops various research programmes bringing together experts in different disciplines such as architecture, engineering, biology, sociology, anthropology and other fields of investigation.
IAAC has made its name as a centre of international reference, welcoming students and investigators from over 60 different countries among which Australia, the USA, India, Brazil, Russia, Ethiopia, all European countries and many others.

* http://ec.europa.eu/research/innovation-union/index_en.cfm?section=icapital

# MISSION, VISION & VALUES

## MISSION

The Institute for Advanced Architecture of Catalonia (IAAC) is a vanguard academic and research centre whose mission is to promote scientific and technological innovation in the conception, design and construction of the human habitat, at all scales (from bits to geography), integrating technological, social and cultural innovations of our time and contributing to the consolidation of Barcelona as a global platform for the urban habitat.
To this extent IAAC works with a multidisciplinary approach, facing the challenges posed by our environment and shaping the future of cities, architecture and technology.
This is obtained through the focus on select criteria:

- Design for Self-sufficiency
- Application of ICT (Information and communication technologies) at all levels of daily life.
- Contribution to the distributed networks in the conception of the environment.
- Advanced digital and parametric design.
- Digital and Robotic Fabrication

## VISION

IAAC encourages innovation and construction of the human habitat, offering a working environment in the following areas:

- Education through academic programmes for graduate students and international faculty and students, continuous education programmes in design, interaction, architecture, urbanism and landscape.
- Research by developing projects to expand the boundaries of architecture, in collaboration with experts from multiple disciplines.
- The development of innovation projects with companies and institutions that define role models, responding to global realities.
- The promotion of projects through publications, exhibitions and competitions developed physically and virtually. For all this, IAAC works with local and global organisations participating in multidisciplinary knowledge networks. It promotes transformation from its humanistic ideology based on learning by doing.

## VALUES

**COMPACT**
An organisation that is flexible, agile, quick and able to anticipate new challenges of our time.

**INDEPENDENT**
Private foundation that collaborates with individuals, universities, companies and public organisations to innovate the human habitat and interaction.

**GLOBAL**
In thought and action, in the origin of human capital, learning from the diversity of the world, promoting the construction of local realities with very specific identity.

**INFORMATIONAL**
Recognition of digital systems as a technological base that transforms our world today, integration of technologies and processes associated in all areas of their action.

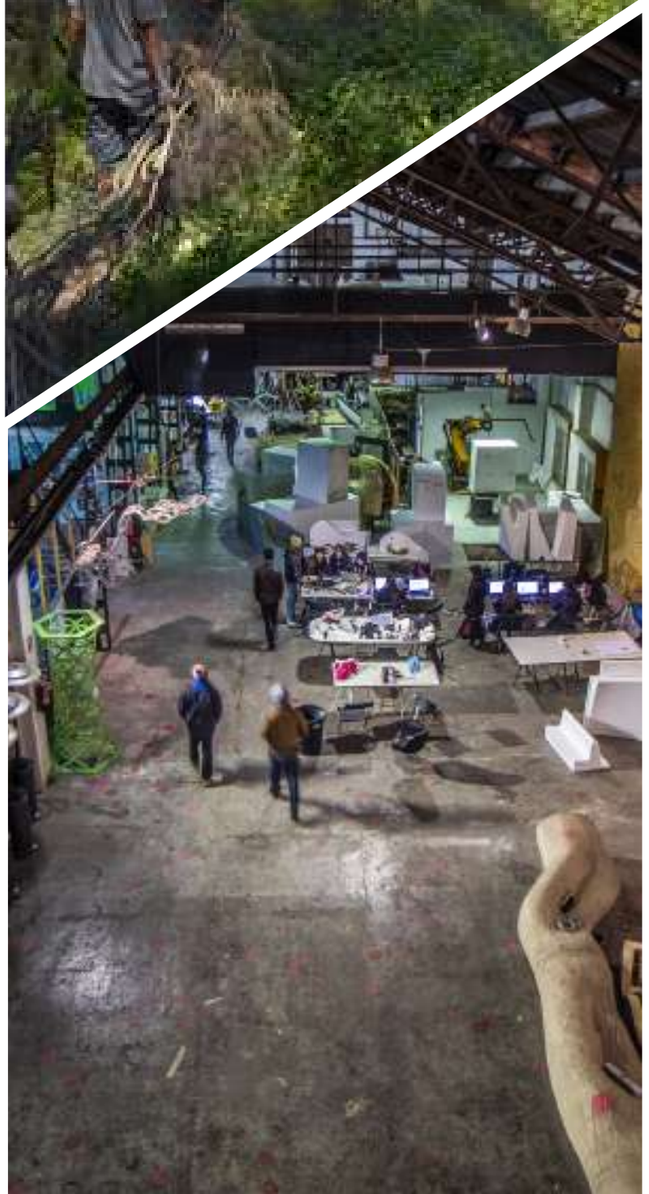
**NATURAL**
Promoting connected self-sufficiency, according to the rules of biological ecosystems, to help build a more ecological and social world.

**HOLISTIC**
Broad overview of the conception, design and construction of the human habitat, and this works at all scales, in interaction with multiple disciplines.

**SOCIAL**
Important social base, from interaction with individuals, companies and organisations that promote innovation in the construction of the human habitat, prioritising talent and avoiding social and economic stigmatism.

# IAAC OBJECTIVES

- To underline and reinforce our position as a worldwide reference for education and research, as well as for self-sufficiency and digital fabrication, through the consolidation and expansion of research projects, as well as offering up to date and evolving academic programmes.
- To expand our collaborations with strategic public and private partnerships both nationally and internationally.
- To strengthen our consultancy role by creating specific alliances with industries that promote and support applied research.
- To actively pursue an agenda of activities related to green architecture, sustainability and renewable energies through the development of the Green Fab Lab, the Food Lab and the Energy Lab.
- To enhance our current work and profile as a specialised think tank for innovative strategies within the fields of urban planning and urban design with particular attention to the Smart Cities challenge.



# BARCELONA IS..

**MODERNISM**
7 works by Gaudi are UNESCO World Heritage sites.

**IMAGE**
Almost 2.500 film shoots took place in the city during 2015.

**CULTURE**
50 museums and exhibition centers, Palau de la Musica, Sonar, Primavera Sound etc. Barcelona is part of the Network of UNESCO Creative Cities as City of Literature since 2015.

**SPORT**
In addition to the pulling force of FC Barcelona, the city also hosts several international sporting events each year; these include the X Games, the World Swimming Championship etc.

**PROFITABLE**
Since 2000, Barcelona has been the top European city in terms of the quality of life of employees (Report by Cushman & Wakefield and Cinco Dias).

**TOURISM**
More than 15,5 million foreign tourists visited Barcelona in 2015.

**AFFORDABLE**
Barcelona is not among the world's 50 most expensive cities (according to Mercer Human Resource Consulting).

**MOBILE**
The city will continue to host the Mobile World Congress (MWC) until 2018. Barcelona welcomes more than 70.000 visitors during this annual event.

# FACILITIES

## 22@

The Institute for advanced architecture of Catalonia is located in the Poblenou neighbourhood of Barcelona, in the recently created district known as 22@, a focus for companies and institutions oriented toward the knowledge society. The neighbourhood is close to the historic centre, the seafront, the Plaça de les Glòries and the Sagrera APT station, making it the most dynamic enclave in the city.

IAAC is housed in an old factory building, with 2,000 m² of space for research, production and dissemination of architecture, so that the space itself is a declaration of principles, embodying an experimental and productive approach to architecture. The IAAC premises include the Fab Lab Barcelona, an architecture and design oriented fabrication laboratory which is part of the global network of Fab Labs set up by The Center for Bits and Atoms at MIT. The Green Fab Lab, hosted in IAAC's forest campus in the Valldaura Labs, is also part of the same global network, a fabrication laboratory this time oriented towards self sufficient and productive solutions.


## VALLDAURA CAMPUS

Valldaura is IAAC's second campus located in the Collserola Park, the natural centre of the metropolitan area of Barcelona. Valldaura campus is a large park and testing ground for innovation that features the latest technologies in the fields of energy, information and fabrication. The core of this innovative project developed by IAAC is a laboratory to implement investigation and set a new bench mark for self-sufficiency.
The Valldaura Self Sufficient Labs express a new concept for sustainability established by IAAC. Its aim is to create a sustainable, consciously designed ecology using both cutting edge technology and traditional craftmanship.
Valldaura Self Sufficient Labs Centre is at the forefront of developing a new concept of habitability placing people as the centre of all actions.
Local self-sufficiency is promoted in the use of the environment, and the expansion of knowledge is promoted through the participation in global information networks to share and generate progress.
The Valldaura Self Sufficient labs and its three Laboratories, Food Lab, Energy Lab and Green Fab Lab; allow to research the specificities of the production of key elements involved in self-sufficiency: food, energy and things, combining ancestral knowledge that connects us to nature with the latest advanced technology.

# MASTER & POSTGRADUATE PROGRAMMES

## LONG TERM

IAAC Educational Programmes give the next generation of architects the space to imagine, test and shape the future of cities, architecture and technology through applied research, learning by doing, and implementing global agendas developed through local solution.
IAAC is also part of the European consortium InnoChain, a consortium of six renowned research institutions and 14 leading industry partners: an interdisciplinary network developing PhD research in innovative building design practice under the Horizon 2020 programme.

### MAA01 - 1 YEAR, 75 ECTS
### MASTER IN ADVANCED ARCHITECTURE

The MAA01 - Master in Advanced Architecture Programme is oriented to graduates who wish to commit and develop their design research skills in the context of new forms of practice within architecture and urbanism, ranging from large scale environments to tectonic details and material properties. In order to allow the highest quality and applied research, the Master in Advanced Architecture proposes a multidisciplinary approach, considering architecture as a transversal field, for which it is imperative to integrate all research and applications with the knowledge of specialists form a diversity of fields of expertise.
The MAA01 emerges as an Innovative Structure focusing on four select Research Lines all led by Internationally renowned experts, and bringing together students and faculty from different disciplines and origins, towards the creation of a Networked Hub dedicated to Research and Innovation for the habitability of the 21st Century.

### MAA02 - 2 YEARS, 130 ECTS
### MASTER IN ADVANCED ARCHITECTURE

The MAA02 programme combines the first year Master (MAA01) with a second year of investigation towards the development of a thesis project. This programme allows senior students, already having developed the appropriate sensibility and tools from MAA01, to get further a personal investigation, around the themes of the advanced technology, architecture and urbanism. During this second year students are required to deal with a project counting on the possibility of developing it with international faculty and enterprises, highly specialized in different fields.
During the second year each student will propose and develop his/her Individual Thesis Project through an academic programme structured in:
- Individual Tutoring with internationally renowed experts that will support the student in the development and in the theoretical definition of the thesis project
- Seminars focused on the topics of Advanced Digital Tools, Research Methodology and 1:1 Fabrication
The thesis, sumbitted in publication format, can be developed according to diverse research methodologies.

### MACT01 - 1 year, 75 ects
### MASTER IN CITY & TECHNOLOGY

The Institute for Advanced Architecture of Catalonia (IAAC) is launching an EU accredited Master programme in City & Technology (MaCT). In an effort of understanding the needs for the habitability of the 21st century cities and the significant role of technology for the formation of the new urban environments IAAC proposes a new Master programme oriented in training Change Makers that City Government Administrations, the Industry and Communities need in order to develop projects for the transformation of the cities.
The Master programme represents an effort of facilitating the exchange of knowledge and the mutual learning of urban experiences among cities.
MaCT foresees new city economy and new city management models for the creation of a decentralized, productive and social city of the future.

### MACT02 - 2 year, 130 ects
### MASTER IN CITY & TECHNOLOGY

With the objective of furthering the research developed in the first year of the MaCT01 programme, IAAC launches the MaCT02. Throughout the MaCT02 programme students will have the opportunity to work on an individual thesis focused on the development of a pilot project, allowing them to fully engage with both the theoretical and practical aspects of the project. The students will also follow associated seminars amplifying their knowledge of technologies associated to the urban context, allowing them to integrate these in the development of holistic projects, mixing technology with social, economic and environmental benefits.
The individual thesis, or pilot project, will allow the students to gain in depth knowledge on elaborating disruptive urban proposals that use technology to better citizens' quality of life. Additionally, through the development of the individual thesis based on a real case study, students will have the opportunity to collaborate with industrial and governmental representatives, among the collaborative entities of the MaCT programme, giving students the necessary support and knowledge to develop solutions for the real world.

### MAEB - 12 MONTHS, 90 ECTS
### MASTER IN ADVANCED ECOLOGICAL BUILDINGS
### IMMERSIVE PROGRAMME

Current discourses on sustainability and design do not yet adequately frame questions of energy and ecology. Whether you consider how building design overlooks landscape and urbanisation interdependencies; or incomplete interpretations of the ecological processes that could otherwise better support building, urbanisation, and life today; or how the material choices in buildings are governed by stylistic abstract notions instead of something ecologically more powerful, the Master in Advanced Ecological Buildings aims for a more ambitious and comprehensive approach of energy and ecology for the built environment.
Following up the urban research carried out by IAAC in the last years in fields like Solar Housings, Eco neighbourhoods, Internet of Energy, Hydrogrid, Digital Fabrication, the immersive Master in Advanced Ecological Buildings (MAEB) aims at training professionals in the design, prototyping, and fabrication of buildings as ecological and thermodynamic systems.
The iimmersive programme takes place in Valldaura Labs, IAAC's campus located inside Collserola Natural Park in Barcelona

# MASTER & POSTGRADUATE PROGRAMMES

## LONG TERM

### MRAC - 1 YEAR, 75 ECTS
### MASTER IN ROBOTICS AND ADVANCED CONSTRUCTION

With the Master in Robotics and Advanced Constructions (MRAC), IAAC seeks to train a new generation of interdisciplinary actors capable of facing our growing need for a more sustainable and optimised construction ecosystem. The Master is focused on the emerging design and market opportunities arising from novel robotic and advanced manufacturing systems.
Through seminars, workshops and studio projects, the master programme challenges the traditional processes in the Construction Sector; it investigates how robotics and new digital fabrication tools change the way we build, and develops the design tools and processes for such new productions methods.
The master offers an international and multidisciplinary environment in which Engineers, Designers, Architects, Craftsmen, Academics and Industry partners must rethink the construction industry. The master will take place in IAAC, a creative space fully equipped with the latest manufacturing technologies, based in Barcelona, an International hub for innovation in a traditionally rich industrial region.

### MDEF - 1 YEAR, 75 ECTS
### MASTER IN DESIGN AND EMERGENT FUTURES

The aim of the Master in Design for Emergent Futures (MDEF) is to provide the strategic vision and tools for designers, sociologists, economists and computer scientists, to become agents of change in multiple professional environments. This programme focuses in the design of interventions in the form of products, platforms and deployments in the context of emerging future scenarios in society and industry.
Students will be encouraged to work at multiple scales (product, platforms, strategic planning and distribution strategy) in order to create prototypes to be tested in the real world. The theoretical and practical contents in this programme propose an exploratory journey aimed to comprehend and critique the role of disruptive technologies -including digital fabrication, blockchain, synthetic biology, Artificial Intelligence, among others, in the transformation of the established order.
The programme is recommended for designers, sociologists, computer scientists, economists, anthropologists, technology entrepreneurs and changemakers who are looking to develop an interdisciplinary career path to conceive and produce impactful ideas to transform the world.
This Master has a high component of hands-on learning and project-based learning where students will be requested to turn big ideas into design strategies, prototypes and interventions to be tested in the real world, focused in Barcelona but connected globally with other cities.

### OTF - 6 MONTHS, 25 ECTS
### OPEN THESIS FABRICATION

The aim of the programme, in line with the opportunity of making a difference, is to develop research to be applied through patents or products for marketing. This will be obtained through the common goal of researching of different fabrication techniques, materials and form, towards the implementation of a large scale prototype, understanding the potentials of digital fabrication together with new needs of current society and the market.
All the IAAC BUILDs researchers will be working together in 1 group towards a collective goal and project, in turn subdivided into different specialized research teams each focusing on a specific aspect of the project's development. Hence the implementation of a 1:1 scale prototype allowing to test techniques and materials on real scale.
IAAC BUILDs follows in the footsteps of OTF developing the applied research in partnership companies, whose involvement will vary according to project focus. The program mealso counts on the collaboration of experts in various fields such as engineering and structures, materials, technical components, and much more, allowing the development of a full scale and fully functioning prototype.

### VISITING PROGRAMS

Every year, IAAC organises and takes part in a number of international educational programmes and projects. IAAC annually participates in Global Architecture & Design exchange programme organised by CIEE, international education and exchange centre. Global Architecture&Design Programme simultaneously runs in three locations: Barcelona, Berlin and Prague. Students are working with leading architecture and design experts and innovators to complete a real world design project within an emerging global context. This programme aims to pursue hands on design work in a state of the art studio using the latest technology to address an aspect of the current global environmental crisis.

### IAAC GSS
### GLOBAL SUMMER SCHOOL

The Global Summer School (GSS) is a platform defined by ambitious, multiscalar investigation into the implications of emergent techniques on our planned environments. The programme develops a global agenda in various institutions around the world, each focussing on developing localised solutions.International teams located in key cities around the globe explore a common agenda with projects that are deeply embedded in diverse local conditions. This intensive two week course connects each participant to ongoing research agendas in robotics, simulation, physical computing, parametric design, digital fabrication, and other relevant emerging design methodologies.
The programme focuses on a global agenda developing local solutions.

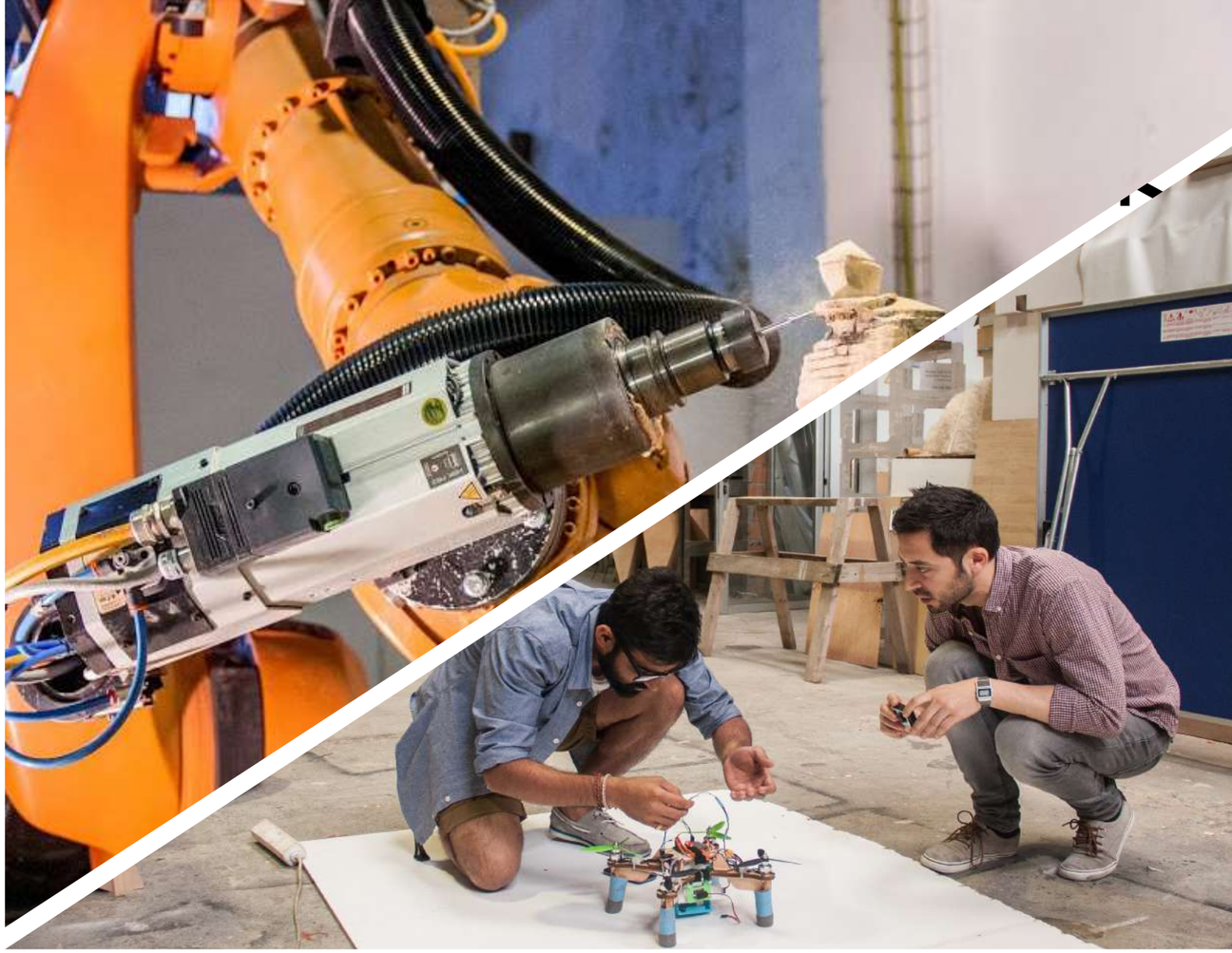
### FAB ACADEMY

Fab Academy is an intensive six month programme that teaches students to design, prototype and invent almost anything using digital fabrication tools and machines.
The Fab Academy brings together a multi-disciplinary and hands-on learning experience that can be taken in any number of participating Fab Labs (digital fabrication labs) around the world. At it's core, Fab Academy Barcelona empowers students to learn by doing, inspires them to make stuff locally, and to become active participants in sustainable cities and communities such as Barcelona's Poblenou district.
The course is directed by Neil Gershenfeld from MIT's Center For Bits and Atoms and based on MIT's rapid prototyping course: How to Make (Almost) Anything. Since 2001, they have been at the cutting edge of the global maker movement; enabling innovation and democratising the use of digital fabrication technology through the growing network of Fab Labs around the world.

# FAB LAB BARCELONA

FabLab Barcelona is one of the leading laboratories of the worldwide network of Fab Labs, a small scale production and innovation centre equipped with digital fabrication tools and technologies for the production of objects, prototypes and electronics.
Fab Lab Barcelona is part of the Institute for Advanced Architecture of Catalonia, where it supports different educational and research programme related with the multiple scales of the human habitat. It is also the headquarters of the global coordination of the Fab Academy programme in collaboration with the Fab Foundation and the MIT's Center for Bits and Atoms; the Fab Academy is a distributed platform of education and research in which each Fab Labs operates as a classroom and the planet as the campus of the largest University in construction in the world, where students learn about the principles, applications and implications of digital manufacturing technology.
The Fab Lab Barcelona has produced projects such as Hyperhabitat IAAC (official selection for the Venice Biennale XXI) or the Fab Lab House (Audience Award in the first Solar Decathlon Europe in Madrid). It is currently developing projects of different scales, from smart devices for data collection by individuals (Smart Citizen innovative project award in the Smart City Expo and World Congress in Barcelona), the development of the new generation of Fab Labs in the Green Fab Lab project, to the new production models for cities with the Fab City project being implemented in Barcelona in collaboration with the city council.

Fab Lab's mission is to provide access to the tools, the knowledge and the financial means to educate, innovate and invent using technology and digital fabrication to allow anyone to make (almost) anything, and thereby creating opportunities to improve lives and livelihoods around the world. Community organisations, educational institutions and non-profit concerns are our primary beneficiaries.





# VALLDAURA GREEN FABLAB

As a part of the Fab City network, the Green Fab Lab works towards the creation of a self-sufficient habitat and research centre at Valldaura Self Sufficient Labs, one of IAAC's campus locations.
Located in the Collserola Natural Park, in the heart of the metropolitan area of Barcelona, it has laboratories for the production of energy, food and things, and develops projects and academic programmes in association with leading research centres around the world.

As part of IAAC's commitment to promoting and advancing habitability in the world based on ecological principles and making the fullest use of all available technologies and resources, we have created a research centre focused on the idea of self-sufficiency, with a view to provide a worldwide point of reference. The Green Fab Lab offers an opportunity to learn directly from nature to bring that understanding to the regeneration of 21st century cities.

# FAB LAB PROGRAMMES



## BIO ACADEMY

Bio Academy offers education on the implications and applications of synthetic biology. Students with no experience in any of the fields thereof are encouraged to first gather some experience in a DIY bio lab, or via online courses, but there is no need for any official accreditation to sign up for the course.
How to grow almost anything (Bio Academy) is a Synthetic Biology Program directed by George Church, professor of Genetics at Harvard medical school. The HTGAA is a part of the growing Academy of (almost) Anything, or the academany.

## FAB ACADEMY

Fab Academy is a distributed educational model providing a unique educational experience. It consists of a 6 month part-time student commitment, from January to June. The Fab Diploma is the result of the sum of Fab Academy Certificates. Progress towards the diploma is evaluated by a student's acquired skills rather than time or credits.
The Fab Academy is a fast paced, hands-on learning experience where students plan and execute a new project each week. Each individual documents their progress for each project, resulting in a personal portfolio of technical accomplishments.
At the Fab Academy, you will learn how to envision, prototype and document your ideas through many hours of hands-on experience with digital fabrication tools. We take a variety of code formats and turn them into physical objects.

## FAB KIDS

The Fab Kids, is a creative laboratory that favours the development of intelligence, creativity and imagination of children and youth. It is a place where thinking is encouraged and innovation occurs, a space where educational and recreational activities take place, focused on design and digital fabrication.

## TEXTILE ACADEMY

Fabricademy is a transdisciplinary course that focuses on the development of new technologies applied in the textile industry, in its broad range of applications, from the fashion industry and the upcoming wearable market. The two phase program will last 6 months, with approximately 3 months of seminars and learning modules and three months focusing on individual in depth applied project research.
The methodology and network developed in Fab Academy platform has subsequently been used to add classes (collectively called Academany) that share the model of hands-on instruction to students in workgroups, with local mentors, linked by shared content and interactive lectures by global leaders.

## WORKSHOPS

Fab Lab Barcelona offers a programme of workshops focused both on specific aspects of Advanced Digital and Robotic Fabrication, as well as spreading knowledge and empowering citizens and creative people. Some of the latest workshops include: Computational couture, 3d printing, building with robots, cutting and blending, extreme manufacturing, making things talk, mould's fabrication and object production, networking environmental robotics (NERO), and much more.

# 5.8

## SPECIAL PROJECTS

As part of IAAC's commitment towards the investigation of new and emerging areas of the Architectural discipline, pilot projects are launched on a yearly basis. These projects, such as the Fab Lab House (1) , the Endesa Pavillion (2), Hyperhabitat (3) and Smart Citizen Kit (4), operate in the field between academia, architectural practice and information technologies, and are designed and fabricated by IAAC faculty, students and collaborative companies.
These projects operate on several scales, from 1:1 architectural interventions to pocket sized microprocessors, all sharing a common vision of investigation towards a more sustainable and socially empowering design approach. All projects have been welcomed with considerable success, with various distinctions in events such as the Solar Decathlon and the Venice Biennale, as well as being published in several reviews and publications.
In the development process of these pilot projects, IAAC collaborates with a network of partners from various disciplines, including leading universities and innovative companies.

# SPECIAL PROJECTS

## EVENTS 2014/2018

### 2017 - CONSTRUMAT

The twentieth edition of Barcelona Building Construmat, put a particular emphasis on innovation and new technologies. IAAC played a central role in the Future Arena of the fair, where the Institute could showcase its most recent research projects about additive and robotic manufacturing applied to the construction sector: **On Site Robotics**, the project born from the collaboration between IAAC and Tecnalia with the participation of Noumena, on-site construction of a 3D printed pavilion made with 100% natural materials, which has been completed in only four days.

### 2016 - IN3DUSTRY

This is an international event, focusing on the current state and future of Additive and Advanced Manufacturing.
The event, co-organised by IAAC Fab City Research Laboratory and Fira Barcelona, is a global hub bringing together all components of the Additive Manufacturing ecosystem to showcase the latest technologies and innovations.

### 2015 - BEYOND // INNOVATION PAVILION

The Pavilion of Innovation 2015 in Beyond Building Barcelona, curated by IAAC | Fab Lab Barcelona, presented new ideas and construction paradigms emerging from international excellence in research and pilot projects, forming the basis of future buildings and cities. Novel and reactive materials, advanced digital/robotic manufacturing techniques and responsive environments were the key topics presented, towards shaping the future of the building industry.

# SPECIAL PROJECTS

## LLUM BCN INSTALLATION 2014/2018

### 2018 -PLAYBALL! // LLUM BCN

Playball! is an interactive art light installation that engages a big number of users that play together to create a visual and aural experience. Playball uses light to create interactions between the viewer and installation, and between the viewers themselves.

### 2017 -BRILLEN EN LA FOSCOR // LLUM BCN

Located in an enclosed patio in the Gothic quarter of Barcelona, the installation, an interactive audiovisual instrument, transforms the space through a musical performance based on citizen participation. The visitor enters the patio space and is invited to play with the strings of light, composing musical melodies based on the citizens' real time interaction.

### 2016 - LLUM TAFANERA // LLUM BCN

La Llum Tafanera, The Curious Light, was an interactive kinetic light installation that wanted to make technology more friendly and closer to the public through the simulation of the personality of a star. IAAC once again had the honour of being invited to participate in the Llum BCN Urban Light Festival in Barcelona.

### 2015 - PLUJA DE LLUM // LLUM BCN

The Llum Bcn festival of lights takes place each year in February. For the 2015 edition, IAAC created an illuminated installation that combines art, tradition and technology. The concept of the installation follows a mixture of the elements of the tale of Santa Eulalia, in particular her tears, transforming these into conceptual rain. A rain of light, emanating from translucent vertical elements interacting with sounds and music.

### 2014 - DATANET // LLUM BCN

For the Llum Bcn 2014, in the courtyard of the Museu Frederic Marés in Barcelona, IAAC 'plants' DATA NET, a new artificial tree, forming an interactive mesh. The intensity of light of the installation changes, reacting to the location and the density of the visitors through a series of sensors that track peoples' movement.

## LLUM BCN INSTALATIONS

# SPECIAL PROJECTS

## ACTIVE PUBLIC SPACES 2014/2018





### 2017 - SUPERBARRIO // SUPERILLA

SuperBARRIO is a videogame that boosts participatory design processes Developed as an open source video game for smartphone and tablets, it is a tool for architects and public entities to engage the citizens in the design of the public space, to educate to sustainability and inclusiveness, and to collect data about the citizens' needs, desires and proposals
SuperBARRIO is a flexible tool that can be applied to different neighborhood. Pilot projects have been developed for the Superilla Pilot Barcelona, and for the Gavoglio area in Genoa, Italy.

### 2016 - POBLEJOC // SUPERILLA

Poblejoc, an interactive installation conceived during the Active Public Space workshop, was designed as an Urban Game with the aim of activating public space. Poblejoc was created in the framework of the #Superilla (Super-block) workshop, a pilot test of the Superilla plan for Barcelona, that was developed in the Sant Martí district. The plan aims to close a part of the cities roads to traffic, allowing to use these new pedestrianised areas as public space.

### 2014 - LIBERTY

Designed and fabricated for the Re.Set festival, a circuit of ephemerous architecture in the streets of Barcelona., Liberty follows the concept of FREEDOM. Knowledge provides freedom and progress; and the power of freedom is expressed through reading. This installation consists of three different trees whose trunks and branches are made of steel, while the leaves are made of books, and the earth made of concrete. Liberty activates a new public space; a shady bench and a new interactive area in the city centre.


ACTIVE PUBLIC SPACES

# SPECIAL PROJECTS

## 1:1 FABRICATION 2014/2018

### 2017 - 3D PRINTED BRIDGE

The first pedestrian, 3D printed bridge in the world was inaugurated on December 14th in the urban park of Castilla-La Mancha in Alcobendas, Madrid.
The Institute for Advanced Architecture of Catalonia (IAAC) was in charge of the architectural design of the bridge, which has a total length of 12 meters and a width of 1.75 meters and is printed in micro-reinforced concrete. The 3D printed bridge, which reflects the complexities of nature's forms, was developed through parametric design, which allows optimising the distribution of materials to minimise the amount of waste by recycling the raw material during manufacture.

### 2017 - NOMAD FOLDING FLAX PAVILION

Castejón de Monegros has once again hosted the Nowhere Festival, the one-week festival promotes cultural and educational activities focused on the self-expression. The Nomad Folding Flax Pavilion, result of the lightweight Bio Composite seminar, was among the installations presented at the event, developed around the structural value of origami shapes.

### 2014 - ENDESA WORLD FAB CONDENSER

Pavilion for the FAB10 Symposium (July 2nd to 8th, 2014). Initial design by Margen-Lab, produced by IAAC and collaboratively designed, built, and customized by the Fab Lab Network.

### 2014 - CATALAN VAULT

IAAC MAA01, in collaboration with Map13 Architects built a Parametrized Catalan Vault, fruit of a 2 week long workshop in Valldaura Labs. Using digital tools along with traditional century old Catalan masonry techniques, with students seeking to re-engineer, compute, and construct a Vault in the forest.
IAAC is also furthered this research investigating in the field of advanced robotic fabrication techniques towards the implementation and autonomation of these complex Catalan vault forms.

# SPECIAL PROJECTS

## EXHIBITIONS 2014/2017

### EXPERIENCE FUTURE CITIES EXHIBITION

IAAC End of Year Exhibition Experience Future Cities, the public event which showcased the best projects of IAAC international researchers. The work displayed had been developed in Institute's Master programmes.
Given the multidisciplinary and multiscale nature of the Master's methodology, the exhibition content ranged from experimentations on new materials to scale-up proposals for new cities, using a variety of materials and supports.

### AUTO-MÀTIC EXHIBITION

An exhibition that addresses the limits and potentials of generative drawing, emerging from data through mathematical and mechanical operations; raising questions on automation, reproducibility, and the role of the arbitrary or accidents as sources of creative experimentation.
The research was developed in the framework of Machinic Protocols, a research line directed by Edouard Cabay, in IAAC's Master in Advanced Architecture.

### LIVING IN FUTURE CITIES

The exhibition Living in Future Cities is a product of work developed by the international architectural researchers of IAAC. The work examines issues of the near future and proposes a series of solutions in the era of experience, where technology can aid us to positively define the spaces and cities we live, grow and thrive in.

### VENICE BIENNALE

The Institute for Advanced Architecture of Catalonia took part in the 15th Venice Biennale, titled "Reporting From the Front" and curated by Alejandro Aravena, with an interactive installation made in collaboration with the Indian architect Anupama Kundoo. Information Technology has opened up new ways of sharing knowledge, moving towards faster and more inexpensive ways, making knowledge more accessible, and making it easier to gather people around common topics of interest.

Symposium

# RESPONSIVE CITIES

## URBANISM IN THE EXPERIENCE AGE





Some of the brightest minds in the fields of Sociology, Urban Sciences, Technology and Architecture gathered in Barcelona to discuss the Future of our Cities.

The first edition of the Responsive Cities Symposium, chaired by Areti Markopoulou, with programme chairs Chiara Farinea and Mathilde Marengo, established itself as a major event in the architectural debate.

Fifteen outstanding keynote speakers, fifty-four international panellists and more than 400 visitors animated the two-day gathering, held in Barcelona CaixaForum on the 16th and 17th of September 2016 and followed online by more than 700 spectators.

What is the most important challenge for the future Urbanity? What should the role of technology be in the Future City?

Saskia Sassen, Carlo Ratti, Philippe Rahm, Janet Sanz Cid, Areti Markopoulou, Tomás Diez, Albert Cañigueral, Mariina Hallikainen, Lydia Kallipoliti, Maíta Fernández-Armesto, Mar Santamaria, Manuel Gausa, Ethel Barona Pohl and Daniele Quercia were among the international speakers and panellists who met in Barcelona to join the debate about the Urbanism in the Experience Age.

The Symposium was organised by the Institute for Advanced Architecture of Catalonia as one of the main activities carried out under the Knowledge Alliance for Advanced Urbanism – KAAU, the EU co-funded project seeking to promote the innovative education and training that emerging technologies require.

Saskia Sassen


Tomas Diez


Philippe Rahm


Janet Sanz Cid


Mar Santamaria

Symposium

# RESPONSIVE CITIES

## ACTIVE PUBLIC SPACE 2017



The second edition of the Responsive Cities Symposium, chaired by Areti Markopoulou, with programme responsibles Chiara Farinea and Mathilde Marengo.More than a dozen outstanding keynote speakers, 30 international panelists and more than 400 visitors animated the two-day gathering, held in Barcelona CaixaForum and Smart City Expo on the 13th and 14th of November 2017.
On the first day of the symposium the opening of the APS exhibition “Implementing Technology Towards Active Public Space” aimed to promote the knowledge generated in the framework of the Active Public Space Project. At the show, visitors were able to explore best examples of implementation of innovative technologies for public space activation.

How do we design and inhabit our Public Space? How does it perform? What does it produce? These were some of the questions and discussion topics raised during the roundtables and debates taking place at CaixaFòrum and Smart City Expo. Through transversal viewpoints, the 2nd edition of the Responsive Cities Symposium combined disciplines such as urban planning, biology, advanced architecture, interaction, participatory technology and even performing arts to respond to the challenge of how cities can shape their public spaces towards more dynamic, productive and active citizen meeting places.
The Symposium was organised by the Institute for Advanced Architecture of Catalonia as one of the main activities carried out under the Knowledge Alliance for Advanced Urbanism – KAAU, the EU co-funded project seeking to promote the innovative education and training that emerging technologies require.






Areti Markopoulou


Crimson Rose

Conference

# FAB CITY SUMMIT

## FAB CITY PROJECT 2018

The Fab City Summit 2018 was an invitation to take part in the global shift towards a more sustainable and accessible future for cities and society. Participants to the summit were invited to experience and learn about how to grow the future of cities. The potential that collaboration and disruptive technologies have to create locally productive and globally connected cities was explored across greater Paris; a fertile territory with many initiatives around circular economy, co-living, urban food production and transformative policy.

The bi-annual summit gathers experts and communities interested in circular economy, urban planning, digital fabrication, new business models, civic engagement and sustainable design and production. Fab Lab Barcelona and IAAC were co-producers of the 2018 two week event at the Parc de la Villette and Hotel de Ville, specifically focused on curating the three-day speaker program which included speakers Saskia Sassen, Dave Hakkens and Mayor of Barcelona Ada Colau.

Conference

# MAKER FAIRE BARCELONA

## 2018

Maker Faire is a gathering of fascinating, curious people who enjoy learning and who love sharing what they make. From engineers, to artists, to scientists, to crafters, Maker Faire is a meeting place for these "makers" to show experiments, projects and innovations.

We call it the Greatest Show (& Tell) on Earth – a friendly showcase of invention, creativity, and resourcefulness. Glimpse the future and get inspired!

Maker Faire is a hands-on visual feast of invention and creativity and a celebration of technology, arts, craftsmanship, science, and the Do-It-Yourself (DIY) culture. It's for innovative, creative people who like to tinker and love to create, and also for those curious minds who want to see what new and innovative things are just around the corner... and get hands-on!

Maker Faire Barcelona is not just another Maker Faire, or another event in the city, it is the celebration of a new vision for a productive city that a world capital in design, innovation, architecture, urbanism and creativity.

The fifth edition of Maker Faire Barcelona, was an event that aims to bring together Barcelona's creative and innovation communities, and understand them as part of an ecosystem that holds the potential to transform how we will live, work and play in our cities, through the democratisation of technology.

# 5.9

## LECTURE SERIES

Since the year 2000, IAAC runs an international lecture programme in which architects and experts from a variety of different disciplines present their work. The lectures are open to the public, making it a high quality cultural activity open to the city of Barcelona.

### 2014/2018 LECTURERS

Mathis wackernagel
Neil Harbisson
Massimiliano Fuksas
Bjarke Ingels
Elizabeth Diller
Bob Sheil
Laura Andreini
Li Xiangning
Izaskun Chinchilla
Oscar Tomico
Mitchell Joachim
Farshid Moussavi
Giovanna Carnevali
Rodolphe el-Khoury
Alberto Diaspro
Alfredo Brillembourg
Hubert Klumpner
Andrew Watts
Jose Luis de Vicente
Dave Pigram
Jelle Feringa
Aaron Betsky
Ali Basbous + Luis Fraguada
Kengo Kuma
Jan Knippers

MAA 2017-18- Lecture Series
Bjarke Ingels


MAA 2017-18 - Lecture Series
Neil Harbisson


MAA 2018-19 - Lecture Series
Massimiliano Fuskas

# LECTURE SERIES

## PREVIOUS LECTURERS

Yael Reisner
Manuel Jimenez Garcia
Winy Maas
Benhaz Farahi
Shigeru Ban
Michel Rojkind
Matthias Kohler
Peter Eisenman
Farshid Moussavi
Bjarke Ingels
Peter Cook
Ricardo Bofill
Ben Van Berkel
Gunter Pauli
Enric Ruiz-Geli
Brett Steele
Pepe Ballesteros
Laura Cantarella
Santiago Cirugeda Parejo
Luca Galofaro
Lourdes García Sogo
Adriaan Geuze
Xaveer de Geyter
Toyo Ito
Francisco Jarauta
Young Joon Kim
Kamiel Klaasse
Anne Lacaton
Duncan Lewis
Greg Lynn
Winy Maas
Josep Lluís Mateo
Fernando Menis
Alfredo Payá
Jaime Salazar
Max Sanjulián
Charles Renfro
Amadeu Santacana
Mark Wigley
Yung Ho Chang
ILSA & Andreas Ruby
Jacub Szczesny
Jou Min Lin
Lucy Bullivant
Momoyo Kaijima
Manuel Bailo + Rosa Rull
Andres Cánovas
Andrés Jaque
Carlos Arroyo
Angel Borrego
Colectivo Zuloark
Ana Salinas
Maria Auxiliadora Galvez
Isabela Wieczorek
Ecosistema Urbano
Claudia Pasquero
Marco Poletto
Bernhard Franken
Sabine Müller
Bostian Vuga
Axel Kilian
Benedetta Tagliabue
Alejandro Gutierrez
Juan Herreros
Winka Dubbeldam
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Neil Leach
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Manuel Gausa
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Maurizio Carta
Philippe Rahm
Eva Franch
Benjamin Barber
Francis Soler
Maria Sisternas
Mosè Ricci
Massimo Banzi
Simon Schleicher
Ronen Kadushin
Ethel Baraona
Hernan Diaz Alonso
Luca Galofaro
Maria Aiolova
Mette Ramsgaard Thompsen
David Mocarski
Neil Leach
Richard Blythe
Ben Flanner
Marco Poletto
Anupama Kundoo
Arndt Goldack
George Jeronimidis
Eric Owen Moss

and many others...



MAA 2014-15- Opening Lecture
Winy Maas

MAA 2015-16 CLOSING LECTURE
WOLF D. PRIX


MAA 2015-16- Lecture Series
Alfredo Brillembourg

MAA 2012-13 - Lecture Series
Barozzi Veiga


MAA 2014-15- Lecture Series
Rodolphe El-Khoury

# 5.10

# IAAC PEOPLE





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FAB LAB ASSISTANT - Ioannis Romanos
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SOFTWARE DEVELOPER - Viktor Smari

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