



iaac

Institute for
advanced
architecture
of Catalonia

**MASTER IN ADVANCED ARCHITECTURE
2011-12**

**Emergent Territories
Self Sufficient Buildings
Digital Tectonics**

www.iaac.net



THE INSTITUTE

The Institute for Advanced Architecture of Catalonia (laaC) is an international centre for research, education, investigation and development oriented toward architecture as a discipline that addresses different scales of territorial analysis and urban development as well as diverse architectural projects, digital processes and information environments. Located in Barcelona, one of the international capitals of Urbanism, the institute directed by Vicente Guallart 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. laaC sets out to take R+D to architecture and urbanism and to create multidisciplinary knowledge networks, and to this end the institute works in collaboration with a number of cities and regions, industrial groups and research centres, including the Massachusetts Institute of Technology (MIT), the University of Brighton and the University of Chicago, developing various research programmes which bring together experts in different disciplines such as engineering, sociology, anthropology, architecture and other fields of investigation. laaC has made a name as a centre of international reference which welcomes students and investigators from diverse countries, among which are India, Australia, the USA, Poland, Argentina, Ethiopia, Iraq and others.

THE BUILDING

laaC's Master programs take place 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. The laaC 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 laaC premises include a Fab Lab, 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 laaC is engaged in a variety of research projects as well as workshops and courses, and special summer workshops, open to Spanish and international firms and institutions.



VISION

ARCHITECTURE FROM BITS TO GEOGRAPHY

The laaC takes a multiscale approach to the project of the physical construction of the world, simultaneously engaging issues on the scales of the territory, the building, and digital fabrication with the aim of transforming architecture into a discipline that, rather than build buildings, produces habitats, complete and complex multiscalar

The laaC works in close cooperation with experts from a wide range of fields, including engineering, anthropology, sociology, IT, mathematics, biology and ecology, as an optimum means of formulating the project in the physical world in terms of multi-disciplinary knowledge



environments that are open to the development of social living. With this in view it has created a locus of education, research, development and diffusion of architectural knowledge, an environment for international participation encompassing institutions, professionals and students from five continents that enables it to address global and local issues from a diverse and multicultural perspective.

and fostering the emergence of new ways of constructing reality. Barcelona, one of the great international centres of architecture and urbanism, is thus a hub for a new generation of ideas and initiatives in the development of architecture and the city, capable of attracting talent and stimulating innovation in the construction of the world on the basis of the understanding afforded by history and experience.





OBJECTIVES

The laaC's activities are rooted in specific objectives. To start with, the laaC Master Programme and further activities seek to stimulate, promote and develop research in the diverse areas of advanced architecture, increasing the potential of information-gathering teams working in architecture and in interaction with other disciplines. In addition, laaC is active in a consultancy role, working with local authorities and other public and private organizations on issues related to architecture. To date the Institute has established a number of scientific and academic collaborative ventures with universities and major national and international information-gathering centres specializing in architecture and related disciplines (notably information technology and sustainable development, among others).

The plan for the future consists in continuing and extending these academic collaborations as well as the establishment of appropriate collaborative ventures with local, regional and national government bodies and the private sector in terms of their own core activities. laaC's current reality and objective is to facilitate closer contact between basic and applied research, acting as a centre of technology transfer when appropriate, and organizing scientific encounters and national and international forums. Last but not least, laaC produces exhibitions and publications on a local, national and international level, activities that will be continued and extended in the future. Finally, the laaC seeks to relaunch Barcelona as a centre for the creation of knowledge in architecture, in which after the city's Olympic era, generated content and discourses for the 21st century.

MULTISCALAR STRATEGY

EMERGENT TERRITORIES
SELF-SUFFICIENT BUILDINGS
DIGITAL TECTONICS

SELF SUFFICIENCY AGENDA

The Self-sufficiency Agenda establishes the responsibility for confronting the process of global urbanization from multi-scalar operations and through prototypes that promote environmental, economic and social sustainability. In the early 20th century, the concept of 'dwelling' was defined as a 'machine for living', a reference to a new way of understanding the construction of inhabitable spaces that characterized the Machine Age. Today, a century later, we face the challenge of constructing sustainable or even self-sufficient prototypes; living organisms that interact and interchange resources with their environment, and which function as entirely self-sufficient entities, like trees in a field. In this way, each action on the territory implies a manipulation of multiple environmental forces, connected to numerous flows and networks such as energy, transport, logistics and information, generating new inhabitable and responsive nodes with the potential to use and produce resources. Territorial and urban strategies and building operations must therefore be coordinated processes that extend architectural knowledge to new forms of management and planning, in which a multiscalar thinking also entails an understanding of shifting dynamics, energy and information transmission and continuous adaptation.

Architecture is always facing the responsibility of responding to emergent needs, technologies and ever-changing programmes.

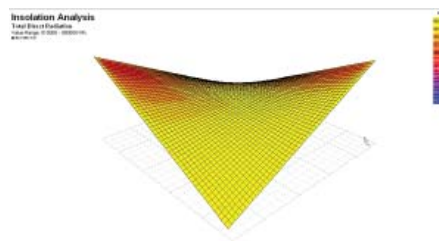
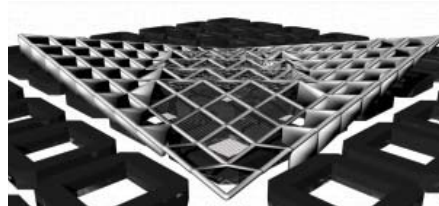
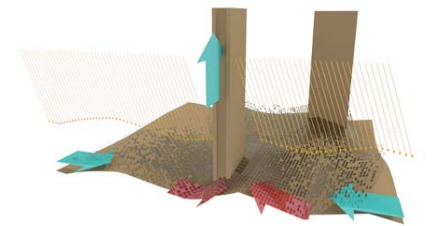
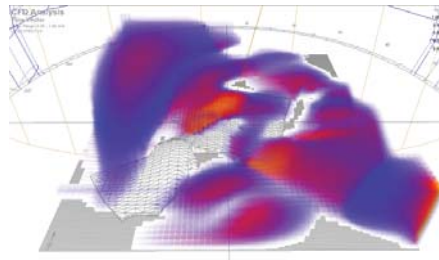
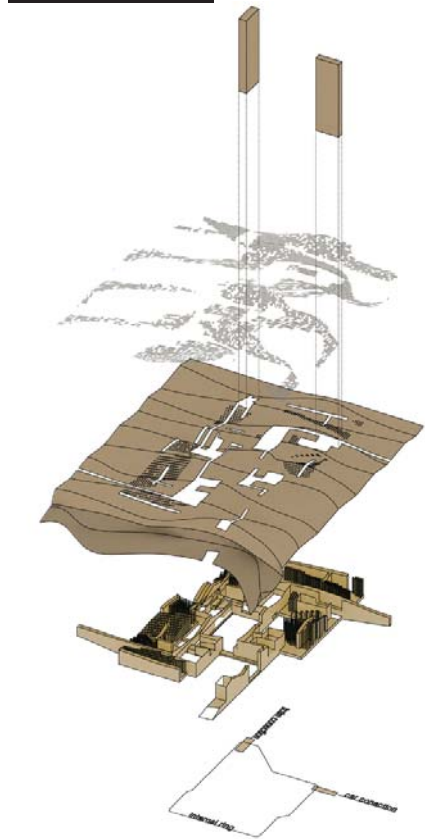
We must ask more of architecture: we as architects should be required to design inhabitable organisms that are capable of developing functions and integrating the processes of the natural world that formerly took place at a distance, at otherpoints in the surrounding territory. The models created for the metropolis of the last century are unable to accommodate new developments linked to contemporary urban lifestyles, which are more and more discontinuous in space and time. The building-over of the global landscape requires us to project at the same time the full and the empty, the natural and the artificial, in such a way as to make economic impetus compatible with sustainable development. It is necessary to generate complex knowledge with a multi-layered reading of realities that have traditionally been thought of as separate, such as energy manipulation, nature, urban mobility, dwelling, systems of production and fabrication, the development of software and information networks, etc. This will open up the possibility of generating new prototypes, capable of engaging with complex and changing environments. Finally, every new urban or architectural production needs to update its materiality and reinterpret centuries-old construction techniques, which are very directly based on the transformation of locally available materials. It is now time for interaction between disciplines and technologies with a vision that embraces different fields of research.

EMERGENT TERRITORIES

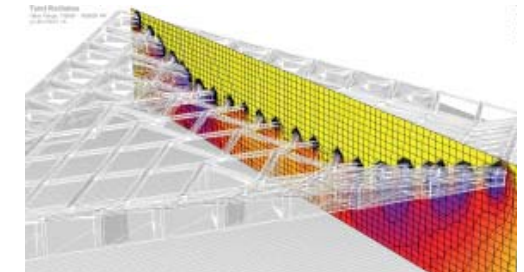
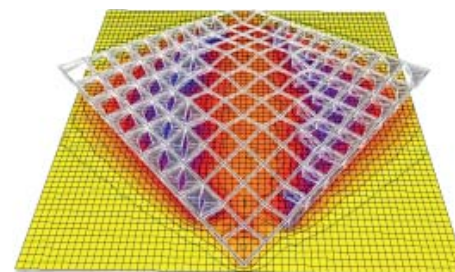
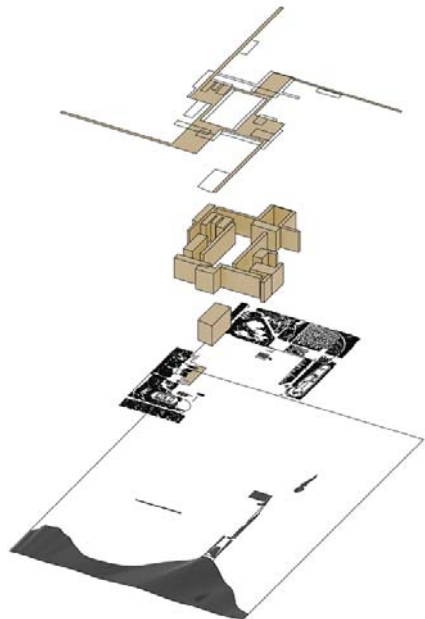
Director: Willy Muller

The laaC works beyond the conventional scales of territorial design, town planning, building or fabrication in designing a multiscale habitat. As in the design of ecosystems, each level has its own rules of interaction and relation, and at the same time must comply with certain parameters that pertain to the system as a whole. The Emergent Territories group works on projects that range in scale from the territory to the neighbourhood. The idea of Emergent Territories is related to two issues: On the one hand, the laaC is interested in understanding those countries and cities around the world with emerging economies and cultures that, by virtue of their regional or economic position, can contribute value to the planet as a whole. In recent years we have studied Brazil, Croatia, Taiwan, Romania, Colombia and Tunisia, or in the near future will be studying India and the countries of North Africa, the Persian Gulf and Sub-Saharan Africa. The work done in these countries seeks to identify the

particular urban and territorial values of these places in order to construct more intelligent territories anywhere in the world, moving on from the Western idea that there is a single model of city (be it European or American) to work on the basis of more complex and more open values. The other issue related to emergent territories has to do with the creation of intelligent territories that function in a multiscale way, in order that the relationship between natures, networks and nodes can foment the 'emergence' of an urban intelligence. To this end we are interested in pursuing what we call 'Hyperhabitat' research as a process of developing a general theory of the multiscale habitat that can be applied anywhere in the world and at any scale, as a basis for the construction of complete complex ecosystems. This group also focuses on Barcelona as a site for ongoing urban experimentation, with a view to contributing to the discussions and reflections in relation to the urban progress of the city.



MAA 09-10 Milling the desert



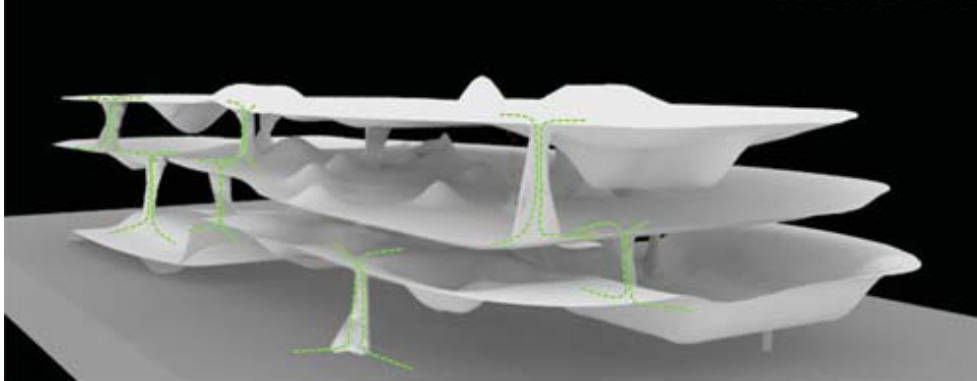
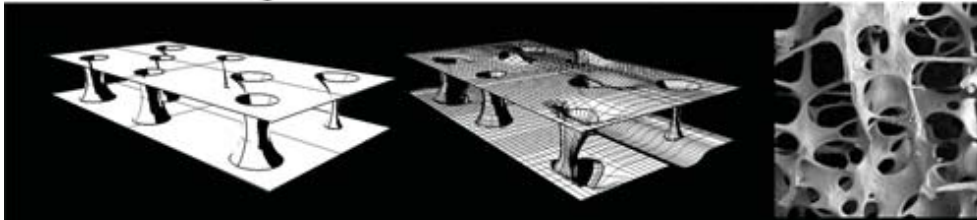
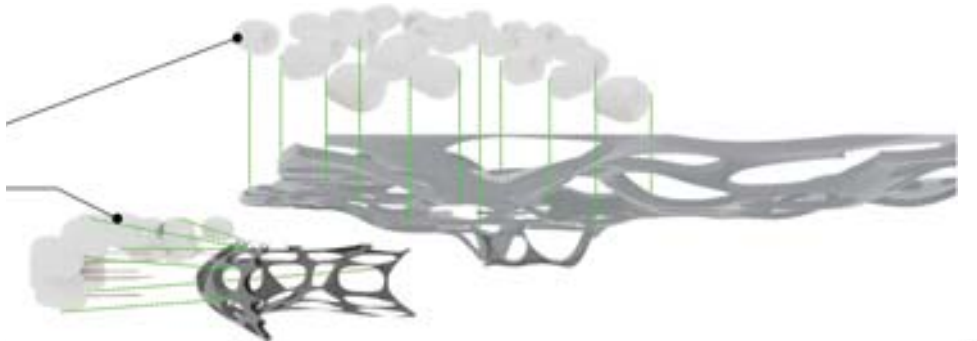
MAA 09-10 para.CITY

SELF SUFFICIENT BUILDINGS

Director: Vicente Guallart

Architecture goes beyond buildings. A building is a concentration of activities in a particular location which should be responsive to concrete cultural, social, economic and technological conditions. In the 21st century, the buildings are more than machines for dwelling in. They should be living organisms, capable of interacting with their environment, following the principles of ecology or biology rather than those of mere construction. In effect, a building should be like a tree, which is able to rooting itself in a particular place, generating its own energy, interacting with the natural networks around it and creating complex ecosystems and landscapes together with other trees. This being so, the Self-sufficient Buildings group works on scales that range from the macro-building to the individual home, developing principles and techniques that serve to organize the materialization of programmatic nodes of activity based on natural rules and principles.

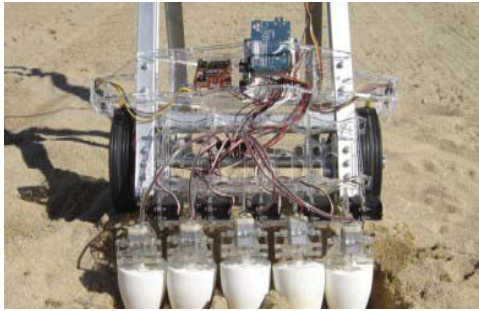
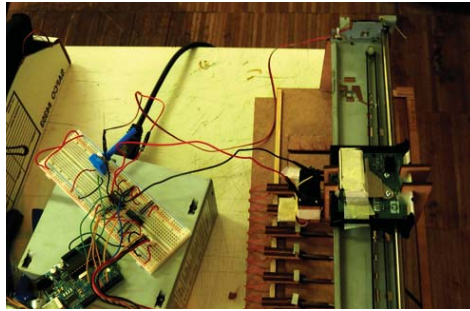
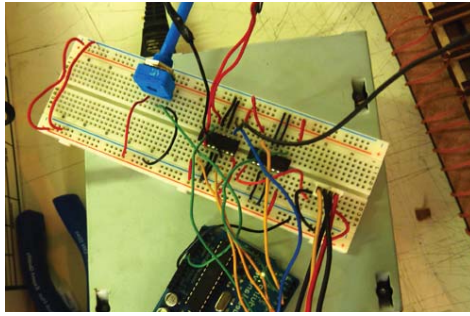
As a result, the building goes beyond being a mere interface for the economic activities it houses to being an environment that stimulates its inhabitants and functions as an active part of the ecosystem in which it is inserted. Buildings also need to respond to specific cultural conditions, and the multicultural global vision that the IaaC represents allows can be applied, via debate and research, to architecture projects anywhere in the world. This group devotes special attention to housing and the new forms of social organization of our time, by way of buildings with shared spaces, or macrobuildings that incorporate all the functions of a city. This group is working to introduce innovative techniques such as local energy generation, the development of self-sufficient buildings, the incorporation of hydrogen into the building and the use of new materials, responding to each situation with ad-hoc techniques and principles.



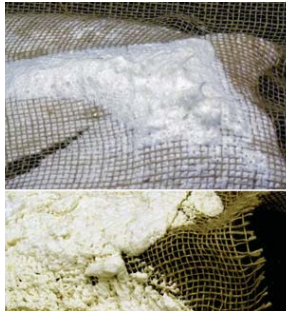
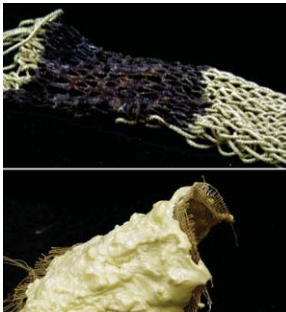
MAA 09-10 The bath hotel



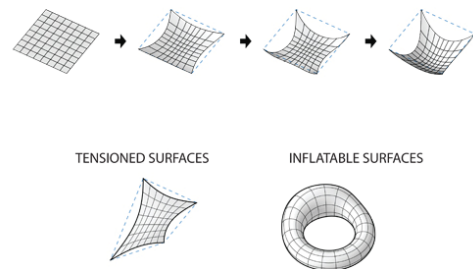
MAA 2009-10 Sandbot (Joel Letkemann, Viraj Kataria, Fabio Lopez)



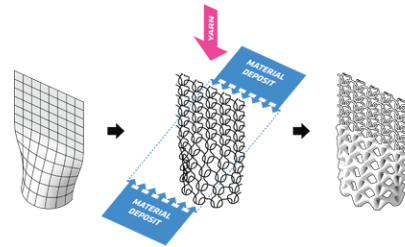
MAA 2009-10 Sandbot (Joel Letkemann, Viraj Kataria, Fabio Lopez)



3. SOFT SURFACES APPLICATIONS



6. Panel Fabrication Diagram



DIGITAL TECTONICS

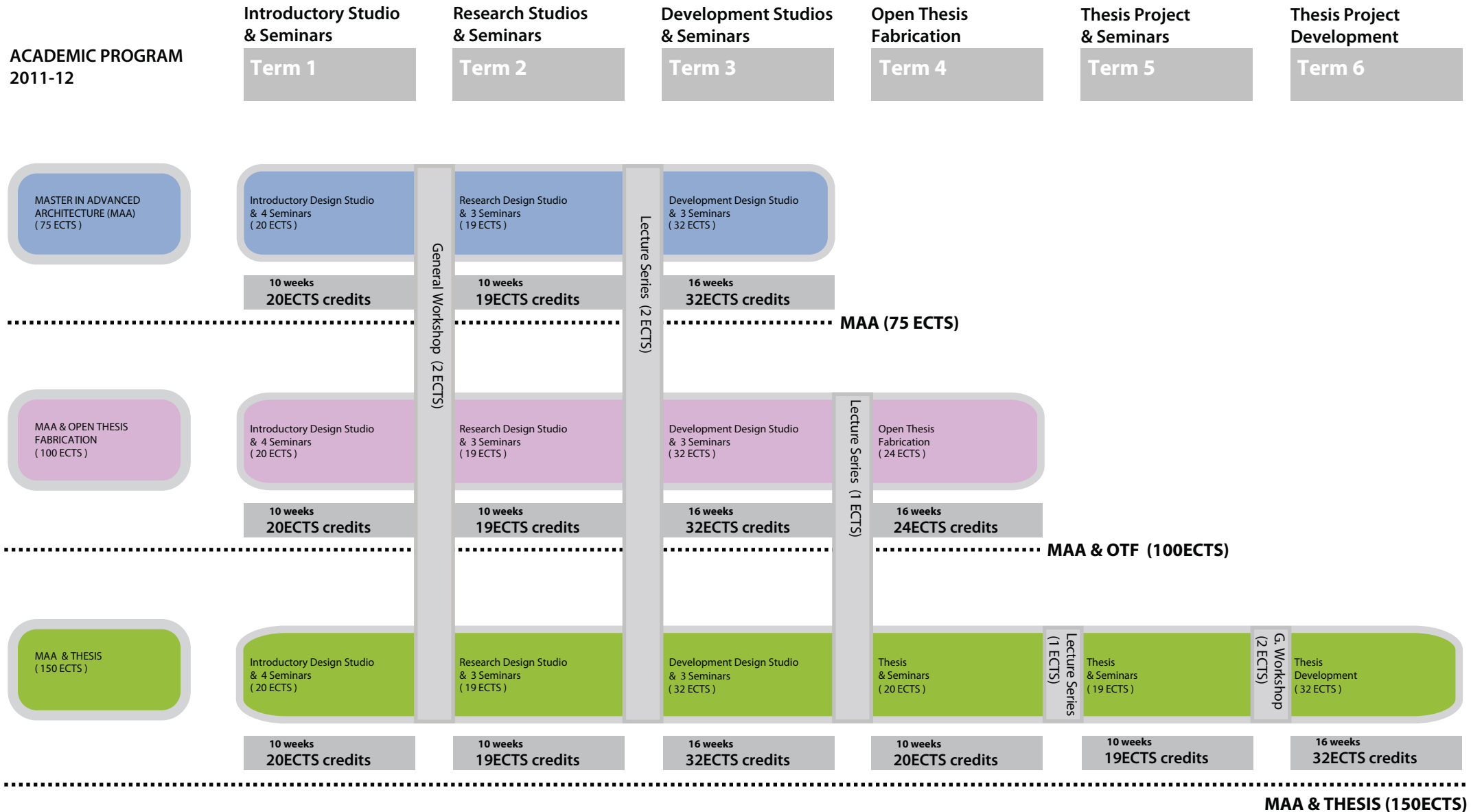
Director: Marta Malé-Alemaný

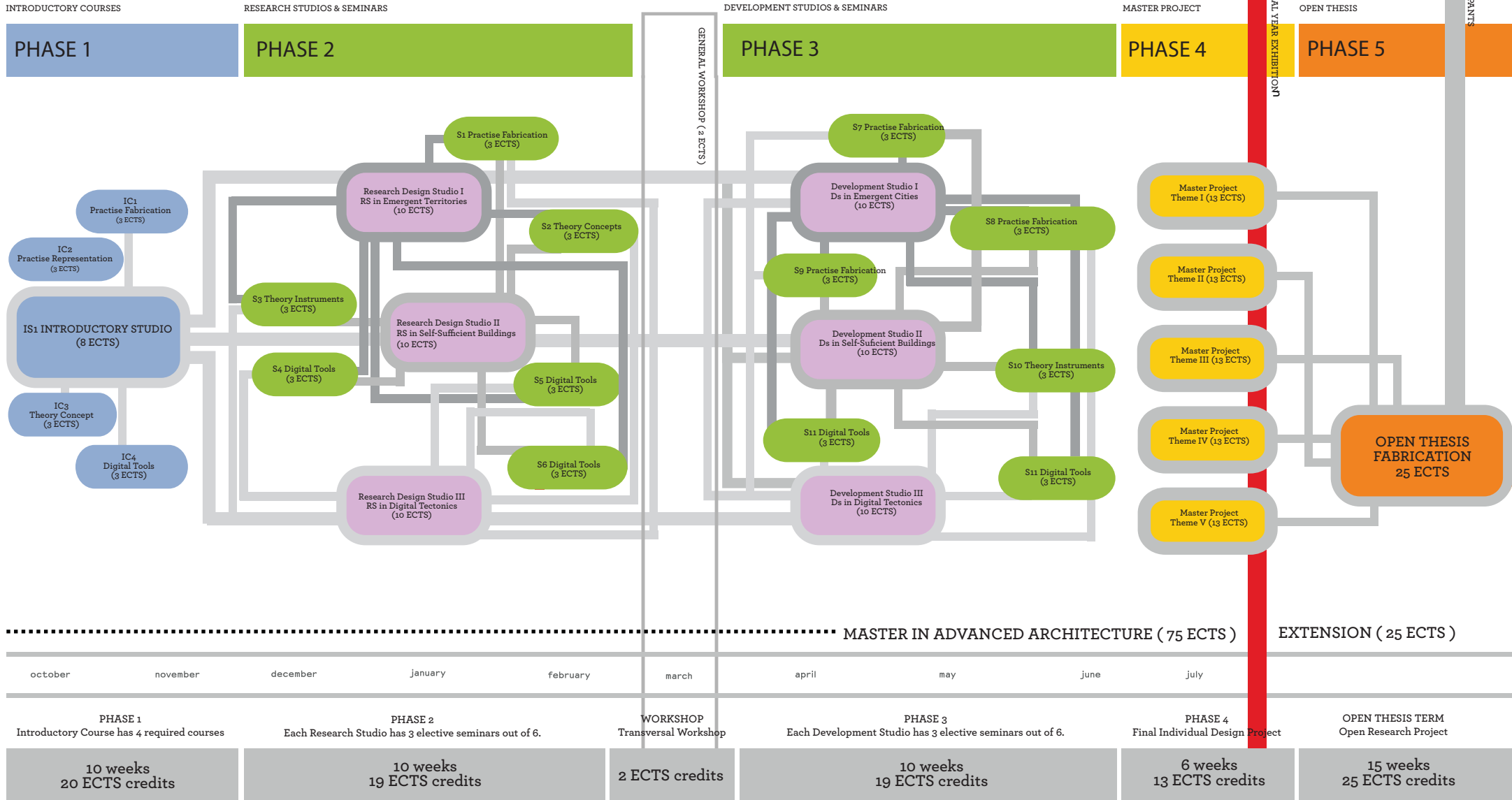
With the advent of the information society, architecture is no longer built but manufactured. The techniques of digital production have put the architect back at the centre of the construction process because the information generated in the design process is literally used to manufacture the various parts of a building. Digital technology has thus gone beyond the representation stage to take its place precisely in the production phase of architecture. In the light of this, parametric design makes it possible to approach the architecture project on everything from the territorial scale to the urban design of the building, in an open fashion, integrating algorithms and dynamic formulations in the project-design process itself.

With the development of new software, scripting techniques can now be integrated into architectural design, transforming the old plastic principles by the insertion of mathematical logics into the project. In order to experiment with these project-design processes, digitally control machines are used to produce scale models of the designs and prototypes of projects at 1:1 scale. The laaC has a workshop for the production of full-scale prototypes equipped with digital fabrication machines, including a 320 x 120 cm CNC cutter, a laser machine,

MAA PROGRAMME 2011 / 2012

ACADEMIC PROGRAM 2011-12





MASTER IN ADVANCED ARCHITECTURE

The Institute for Advanced Architecture of Catalonia offers a three-term Master's programme in Architecture and Urbanism accredited by the Fundació Politècnica de Catalunya. Directors Vicente Guallart, Willy Müller and Marta Malé-Alemany, together with the teaching staff, are committed to a long-term prospectus of creating an international research and academic centre in Barcelona, bringing together international students, tutors and researchers from different fields in order to materialize experimental forms of communication, inhabitation and planning.

The programme is oriented at 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. Over the last three years, the IaaC has received students from more than 25 countries, including China, Macedonia, the UK, the USA, Australia, the Dominican Republic, Mexico, Argentina, Puerto Rico, Ecuador, Peru, Germany, Iraq, Thailand, Turkey, India, Poland, Cyprus, Portugal, Italy, Greece, Spain, Guatemala, Bangladesh, Colombia and Korea, making it an exceptionally international and multicultural place.

 2	Australia	 1	Israel
 4	Argentina	 14	Italy
 1	Bangladesh	 1	Kenya
 3	Canada	 2	Korea
 2	China	 1	Lebanon
 5	Colombia	 26	Mexico
 5	Croatia	 2	Panama
 2	Cyprus	 2	Peru
 11	Dominican Republic	 14	Poland
 1	Ecuador	 4	Portugal
 1	France	 3	Puerto Rico
 8	Germany	 2	Russia
 26	Greece	 2	Slovenia
 2	Guatemala	 8	Spain
 1	Holland	 1	Switzerland
 1	Hong Kong	 2	Thailand
 1	Iceland	 7	Turkey
 15	India	 2	United Arab Emirates
 1	Iran	 11	USA
		 3	Venezuela



PROGRAM

MAA 11-12

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PROGRAMME ORGANIZATION

The Master in Advanced Architecture comprises the following elements:

1. Introductory Design Studio IS and Introductory Courses IC
2. Research Studios RS
3. Development Studios DS
4. Seminars S
5. General Workshop W
6. Open Thesis Fabrication OTF (optional)
7. Lecture Series LS

The programme is organized in four plus one (4+1) phases

Phase 1: Introductory Term (20 ECTS credits)

Phase 2: Research Studios and Seminars (19 ECTS credits)

Phase 3: Development Studios and Seminars (19 ECTS credits)

Phase 4: General Workshop and Final Studio development (15 ECTS credits)

Phase 5: Open Thesis Fabrication, optional Lecture Series (along the year) (2 ECTS credits)

PHASE 1 (20 ECTS CREDITS)

INTRODUCTORY TERM

The 10-week introductory Phase provides a common grounding of knowledge and skills to new IAAC students. It is a formative platform structured by a Design Project and four complementary courses anticipating ideas that will appear during the programme in relation to self-sufficiency, design strategies, innovative forms of planning and contemporary culture. A toolbox of both, theoretical and practical skills for further research work.

PHASE 1 COURSES AND CREDITS

IS. Introductory Design Studio
(8 ECTS credits)

IC1. Introductory Course 1_Practise_Fabrication

(Digital Fabrication, 3 ECTS credits)

IC3. Introductory Course 2_Practise_Representation

(Interactive Interfaces, 3 ECTS credits)

IC4. Introductory Course 3_Theory Concepts

(Contemporary Cities, 3 ECTS credits)

IC5. Introductory Course 4_Digital Tools

(Rhino, Ecotect, 3 ECTS credits)

PHASE 2 (19 ECTS CREDITS) RESEARCH STUDIOS AND SEMINARS

Phase 2 is an Open Educational Structure where the students attend a Research Studio and 1 obligatory seminar engaged with the studio plus 2 Seminars among 3 Optional Seminars that they choose according to their academic interests.

Phase 2 is focused in three different scales of investigation: territorial, architectural and parametric design.

PHASE 2 COURSES AND CREDITS

RS. Research Design Studio

(10 ECTS credits)

S1. Seminar 1_Practise Fabrication
(Experimental Structures, 3 ECTS credits)

S2. Seminar 2_Theory Concepts
(Green Dictionary II, 3 ECTS)

S3. Seminar 3_Theory Instruments
(Solar Energy, 3 ECTS)

S4. Seminar 4_Digital Tools
(Ecotect, 3 ECTS)

S5. Seminar 5_Digital Tools
(Parametric Design, 3 ECTS)

S6. Seminar 6_Digital Tools
(Open Source Design, 3 ECTS)

Distribution of Research Studios and Seminars of Phase 2 is done based on the student grades acquired at Phase 1.

PHASE 3 (19 ECTS CREDITS) DEVELOPMENT STUDIOS AND SEMINARS

Phase 3 is an Open Educational Structure where the students attend the Development Studio that corresponds to the Research Studio assigned to them at Phase 2 and 1 obligatory seminar engaged with the studio plus 2 Seminars among 3 Optional Seminars that they choose according to their academic interests.

At Phase 3 students are required to attend 1 Development Studio (the one corresponding to the Research Studio which they attended during the Phase 2) and 3 Seminars.

Distribution of the optional Seminars is done based on the student grades acquired at Phase 1 and Phase 2.

PHASE 3 COURSES AND CREDITS

DS. Development Design Studio

(10 ECTS credits)

S7. Seminar 7_Practise Fabrication

(3 ECTS)

S8. Seminar 8_Practise Fabrication

(3 ECTS)

S9. Seminar 9_Practise Fabrication

(3 ECTS)

S10. Seminar 10_Theory Instruments

(3 ECTS)

S11. Seminar 11_Digital Tools

(3 ECTS)

S12. Seminar 12_Digital Tools

(3 ECTS)

PHASE 4(15 ECTS CREDITS) DEVELOPMENT STUDIO PROJECT/ GENERAL WORKSHOP

Phase 4 focuses on an extended research of the Development Studio Project (13 ECTS credits).

The students during this period have the opportunity intergrate to their projects more in depth issues related to the self-sufficiency agenda, as well as the inherent material, organizational and spatial complexities determined by the chosen working scale and the experience gained during the year's programme.

The transversal workshop (2 ECTS credits) offered by the Master programme is a short term intensive experience, in which the students work together for 3-5 days on collective projects organized by local or invited international tutors.

PHASE 5_ one term extension OPEN THESIS FABRICATION

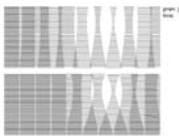
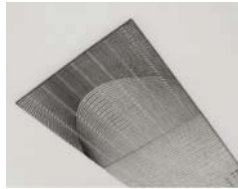


PROGRAMME

The Master in Advanced Architecture is an innovative educational format that offers interdisciplinary skills and understanding through the researching of territorial, architectural and parametric design operations for the production of Self-sufficient Habitats. Proposing a dynamic, customized structure, the Institute gives students the opportunity to create single or multi-scalar Studio agendas based on their academic interests within the programme. In this way, the laaC puts together an experimental and learning environment for the training of architects with both theoretical and practical responses to the increasing complexity of contemporary urban environments, economic forces, information flows, fast-growing cities and massive energy consumption and waste production. With 24 hour-a-day access to the laaC Studio working space and its prototypes fabrication lab, 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 aim of the Institute is to form graduates who, after the completion of the programme, will be able to develop their acquired skills in a diversity of professional environments, engaging in projects that range from large-scale sustainable planning and building construction to the industrialized fabrication of architectural components.

OPEN THESIS FABRICATION PROGRAMME

In design and architecture, Computer Numerically Controlled (CNC) fabrication equipment has given designers unprecedented means for executing formally challenging projects directly from the computer. The impact of digital production in these fields allows the production of complex geometries and opens up a wide field of research and experimentation. Open Thesis Fabrication is a 25 ECTS credits program which extends over the period of 15 weeks from September to December 2011. The course is open to students and professionals who would like to develop a specific research agenda within the field of digital design and fabrication. The program focuses on the development and completion of full scale prototypes using advanced CNC machinery, applying experimental materials and testing smart energy solutions. Student projects will be followed by experienced tutors and regularly discussed with external guests and consultants with expertise in the field. Along these special sessions will take place specifically related activities such as: factory and building sites visit, field trip etc.



TEACHING STAFF

Consultants and reviewers will be guests from all over the world specialised in the field of digital design, fabrication and manufacturing

PROGRAM STRUCTURE/CALENDAR

Open Thesis Fabrication starts on September 5th. The first week is an introductory week where the students will be given bibliography for readings (book, articles and software manuals) and they will have a short introduction to the Fab Lab BCN, one of the most equipped digital laboratory in Europe. After the introductory part participants should present their Thesis topics within the Open Thesis Fabrication Research Agenda which they will be developing during the 15 weeks of the program. There will be weekly activities and conferences such as desk crits with advisor tutor every 2 or 3 weeks. Final submission of the supervised projects will take place on December 20th along with an Open exhibition of the final projects.

PROGRAM ACTIVITIES

- Factory Visits
- Building Sites Visit
- Field trip (not sponsored, optional)
- Special desk crit sessions with consultants
- Desk crits with advisor tutor (every two weeks)

COLLABORATIVE COMPANIES

The program seeks to develop projects that could possibly continue developing in collaboration with Industry Companies.

Therefore, representatives of several companies will be participating in the program following the projects. Some of the collaborative companies with IAAC and Open Thesis Fabrication are:

- CRICURSA, www.cricursa.com
- ESCOFET, www.escofet.com
- SANTA & COLE, www.santacole.com
- FUPICSA, www.fupicsa.com
- FINNFOREST, www.finnforest.es
- IMAR, www.imarsa.com
- KUKA, www.kuka-robotics.com
- ZERO TO INFINITY, www.01100.com

PROGRAM RESEARCH AGENDA

- Digital tectonics
- Parametric Facades
- Micro-Houses
- Self Sufficient Buildings
- Solar House
- Experimental Structures
- Advanced Materials
- Digital tectonics
- Parametric Facades
- Micro-Houses
- Self Sufficient Buildings
- Intelligent Houses
- Intelligent Facades

LANGUAGE OF TEACHING

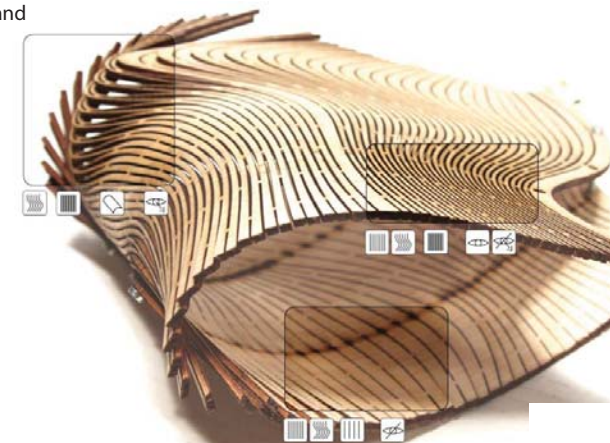
English

AIM AT

Students or professionals from the field of Architecture, Engineering, Fine Art, Design, Landscape, etc.

CREDITS

25 ECTS credits



PHASE 01

DESIGN STUDIO/
SEMINARS

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IS. DESIGN STUDIO

(8 ECTS credits)

FACULTY / Vicente Guallart, Wily Muller, Marta Malé-Aleman

IS. Introductory studio (8 credits)

Introductory project on the logics of self-organized forms. By means of an intensive model-making and prototyping agenda this course will explore morphological, growth and evaluative processes observed nature. Setting up rules for material organization and performance, these organisms will be re-interpreted in their generative nature and extrapolated into artificial physical forms. Tutors: Vicente Guallart, Willy Müller, Marta Malé-Aleman

INTRODUCTORY COURSE 1

DIGITAL FABRICATION (3 ECTS credits)

FACULTY / Marta Malé-Aleman, guest experts

The Digital Fabrication introductory course is intended to initiate students in the use of advanced digital design methods and fabrication processes in an integrated way, to make physical things from virtual data. It will focus on the design, development of construction of full scale prototypes in a variety of materials, focusing on the transition between computer modeling and materialization.

Students will be introduced to the different digital fabrication processes available in the market with a series of comprehensive lectures, including discussions on specific case-studies. In the class, they will be guided through the use of Rapid Prototyping and CAD-CAM fabrication devices, by following design assignments specifically conceived to develop their skills.

The course will give them the opportunity to test some of these processes, using the machines available at IAAC (CNC lasercut, CNC milling and 3D Printing). Besides the development of technical skills, the ultimate goal of the course is to inquiry how these new fabrication methods are changing the language of design, while challenging the traditional architectural process from conception to construction.

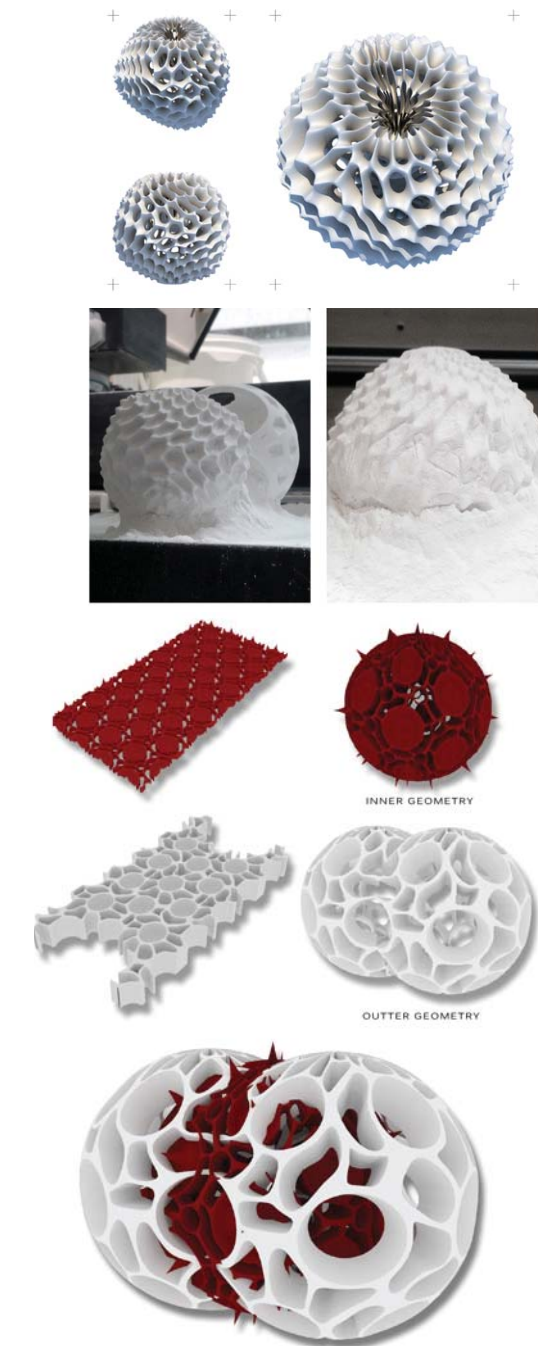
INTRODUCTORY COURSE 2

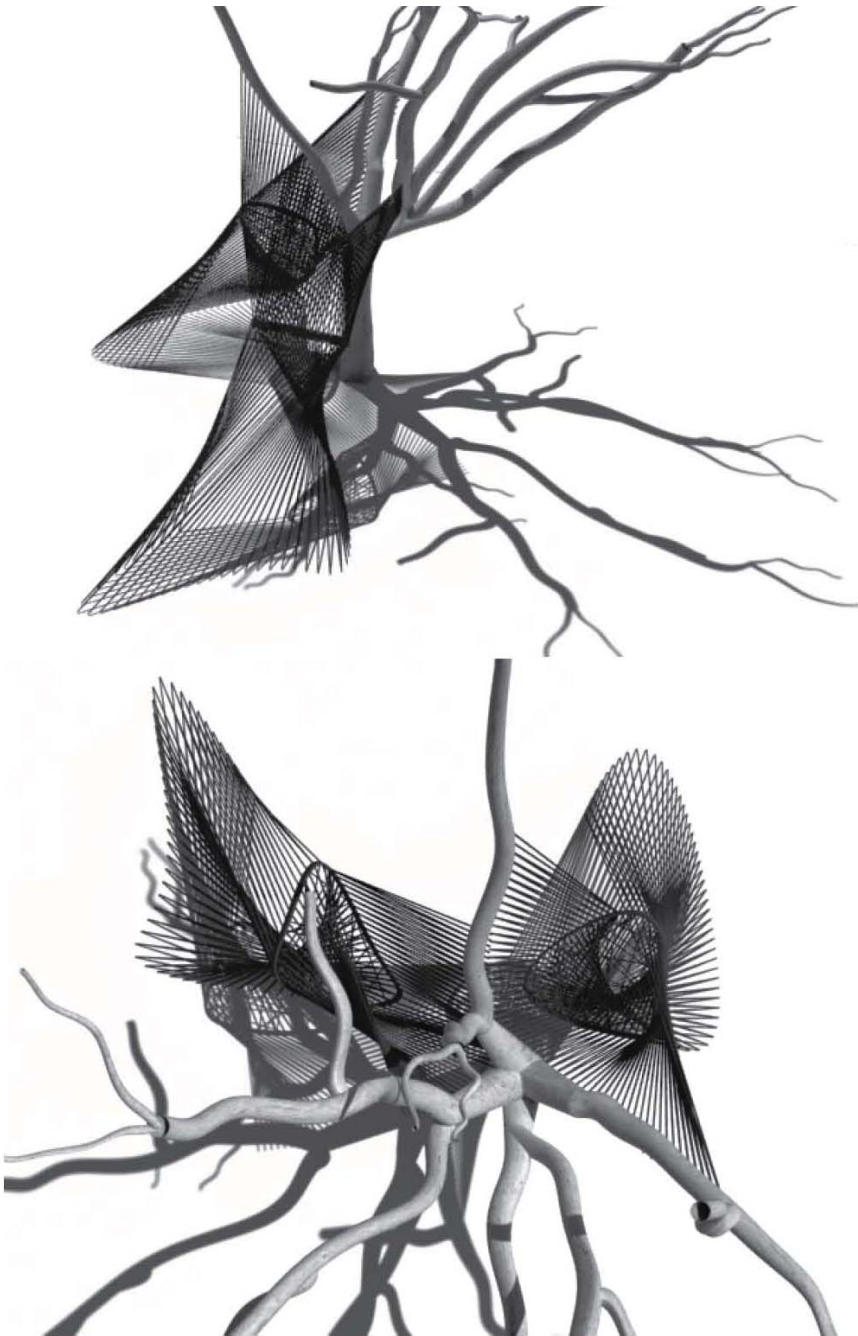
THEORY CONCEPTS (3 ECTS credits)

FACULTY / Michael Weinstock, Neil Leach, guest experts

This seminar course brings together a series of seminal essays on architecture by key thinkers of the twentieth century. In so doing it attempts to show that there is a consistent body of critical thought on architecture that exists outside of mainstream architectural discourse, which offers an effective means of critiquing that discourse. The seminar course covers the key intellectual traditions of thinking in the twentieth century: Modernism, Phenomenology, Structuralism, Poststructuralism and Postmodernism.

The course starts with the work of the key modernist thinkers, such as Walter Benjamin, Siegfried Kracauer and Theodor Adorno, who have offered some of the most incisive comments on the emergence of the new modernist metropolis and who have provided some of the most potent critiques of the tradition of functionalism. It then looks at phenomenological thinkers, such as Gaston Bachelard, Henri Lefebvre and Martin Heidegger, who questioned the abstraction of International Style architecture, and influenced the thinking of architects and theorists from Kenneth Frampton to Bernard Tschumi. It then covers structuralist and poststructuralist thinkers, such as Roland Barthes, Umberto Eco, Jacques Derrida and Gilles Deleuze, who inspired deconstruction and more recent parametric thinking in architecture. Finally it looks at some of key postmodernist thinkers, such as Fredric Jameson and Jean Baudrillard, who have provided some of the most radical critiques of conservative architectural writing about regionalism, place and identity.





INTRODUCTORY COURSE 3

DIGITAL TOOLS (3 ECTS credits)

FACULTY / LUIS FRAGUADA

In this introductory course we will survey contemporary design tools in order to ENABLE 3D and 2D strategies for design and representation. The tools utilized in this course will facilitate several issues including introducing common platforms for collaboration as well as exposing the student to potentially new workflows and design environments. The primary focus of the class will involve learning 3D modeling with McNeel's Rhinoceros v4. The adoption of Rhino as the main 3D tool deals with its ability to interface with many different file formats. In many ways Rhino will act as the bridge between many applications, 3D and 2D alike. Rhino also has a rich list of plug-ins and other methods by which to extend its capabilities. Finally, Rhino has a vast community of users, thus allowing for various ways to seek help, find example files, and share the work completed in the class.

Another aspect of the course will be to explore methods to represent the work coming from the other courses in conjunction with the skills learned in this course. Tools such as Adobe Illustrator, InDesign, and After Effects will enable both static and motion based representation and has broad compatibility with the file formats available in Rhino.

There are a multitude of other tools that will be utilized throughout the course in order to complement the main 3D and 2D software packages. These tools include plug-ins for the main tools and small applications.

Throughout the entire course it is expected that students use the laaC Blogging system to discuss their work progress. Blogging will also be introduced early on in the course.

INTRODUCTORY COURSE 4

PRACTISE REPRESENTATION

(3 ECTScredits)

FACULTY / to be confirmed

Context interventions take place on inscription documents where the architecture designs are negotiated. The change of paradigm from the "modern agreement" (based in anthropocentric principles) to an amplified and networked present time implies a necessary revision of the systems of inscription and the techniques of (re)presentation as the necessary tools to (re) construct the context. Our installation, as cartographers, determines our possibilities of managing the context information and of gaining access to its topological configuration.

The construction of every cultural context gets registered and materialized in the maps. It emerges through efficient rhetorical strategies over these surfaces of inscription. These strategies become the conditions of possibility of:

- the organization of the context information,
- the mobilization of circular references,
- the contemporary archive systems,
- the data gathering,
- the critic of the common categories,
- the pragmatic structures,
- the links between the actors involved,
- the socialization of the entities,
- the increase of being.

This investigation is done partly in the lab and partly in the natural world; modality is always considered.

The maps do not re-present the context. They are neither literal nor mechanical adjustments to an external world. They activate links, actions and neighbourhood agreements that advance unprecedented strategies that transform the space.

Through the maps we shall (re)produce the context. But also, through the maps, the context will (re)produce us.

PHASE 02

RESEARCH STUDIOS

SEMINARS

OBLIGATORY SEMINAR 1

(3 ECTS credits)
FACULTY / TBA

Seminar 1 is an obligatory Seminar related with Research Studio I of Emergent Territories. All students assigned Research Studio I (RSI) will be automatically assigned this seminar that is focused to provide expertise in the research objectives of the Studio class. Students will be requested to choose 2 more seminars from Seminars 4,5 and 6.

OBLIGATORY SEMINAR 2

(3 ECTS credits)
FACULTY / TBA

Seminar 2 is an obligatory Seminar related with Research Studio II of Self sufficient Buildings. All students assigned Research Studio II (RSII) will be automatically assigned this seminar that is focused to provide expertise in the research objectives of the Studio class.

Students will be requested to choose 2 more seminars from Seminars 4,5 and 6.

OBLIGATORY SEMINAR 3

(3 ECTS credits)
FACULTY / TBA

Seminar 3 is an obligatory Seminar related with Research Studio III of Digital Tectonics. All students assigned Research Studio III (RSIII) will be automatically assigned this seminar that is focused to provide expertise in the research objectives of the Studio class. Students will be requested to choose 2 more seminars from Seminars 4,5 and 6.

SEMINAR 4

ENERGY (3 ECTS credits)
FACULTY / TBA

Seminar 4 is part of a series of seminars related with environmental design and sustainability concepts.

The focus will be towards energy analysis, parametric softwares of solar analysis and production of prototypes able to capture energy and perform in a self sufficient mode.

SEMINAR 5

INFORMATION (3 ECTS credits)
FACULTY / TBA

Seminar 5 is part of a series of seminars related with information of all types. From geographical information to programming code information. From Bits to Geography. The focus will be towards specific software, parametric design and digital tools as well as interaction and new embedded technologies to objects or buildings.

SEMINAR 6

FABRICATION (3 ECTS credits)
FACULTY / TBA

Seminar 6 is part of a series of seminars related with digital and personal fabrication. The focus will be towards advanced CAD/CAM technologies, DIY thinking and producing, local fabrication as well as open source and collaborative design.

PHASE 03

DEVELOPMENT STUDIOS

SEMINARS

OBLIGATORY SEMINAR 7

(3 ECTS credits)

FACULTY / TBA

Seminar 7 is an obligatory Seminar related with Development Studio I of Emergent Territories. All students assigned Development Studio I (DSI) that is the continuation of Research Studio I will be automatically assigned this seminar which focus is to provide expertise in the research objectives of the Studio class.

Students will be requested to choose 2 more seminars from Seminars 10,11 and 12.

OBLIGATORY SEMINAR 8

(3 ECTS credits)

FACULTY / TBA

Seminar 8 is an obligatory Seminar related with Development Studio II of Self sufficient Buildings. All students assigned Development Studio II (DSII) that is the continuation of Research Studio II will be automatically assigned this seminar which focus is to provide expertise in the research objectives of the Studio class.

Students will be requested to choose 2 more seminars from Seminars 10,11 and 12.

OBLIGATORY SEMINAR 9

(3 ECTS credits)

FACULTY / TBA

Seminar 9 is an obligatory Seminar related with Development Studio III of Digital Technics. All students assigned Development Studio III (DSIII) that is the continuation of Research Studio III will be automatically assigned this seminar which focus is to provide expertise in the research objectives of the Studio class.

Students will be requested to choose 2 more seminars from Seminars 10,11 and 12.

SEMINAR 10

ENERGY (3 ECTS credits)

FACULTY / TBA

Seminar 10 is part of a series of seminars related with environmental design and sustainability concepts.

The focus will be towards energy analysis, parametric softwares of solar analysis and production of prototypes able to capture energy and perform in a self sufficient mode.

SEMINAR 11

INFORMATION (3 ECTS credits)

FACULTY / TBA

Seminar 11 is part of a series of seminars related with information of all types. From geographical information to programming code information. From Bits to Geography. The focus will be towards specific software, parametric design and digital tools as well as interaction and new embeded technologies to objects or buildings.

SEMINAR 12

FABRICATION (3 ECTS credits)

FACULTY / TBA

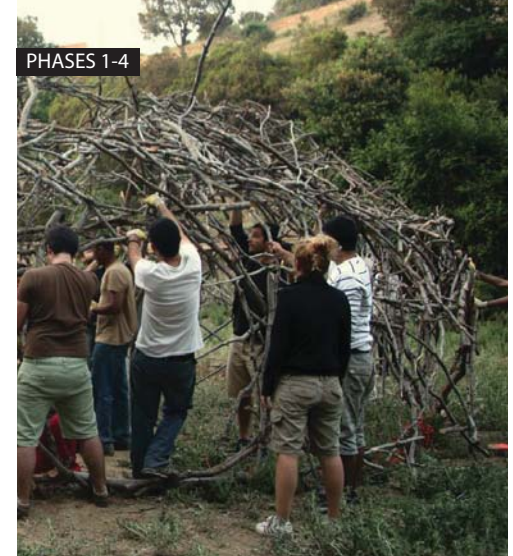
Seminar 12 is part of a series of seminars related with digital and personal fabrication. The focus will be towards advanced CAD/CAM technologies, DIY thinking and producing, local fabrication as well as open source and collaborative design.

PHASE04

DEVELOPMENT STUDIO

WORKSHOP

PHASES 1-4



PHASE4 (15 ECTS credits)
MASTER DESIGN PROJECT AND GENERAL WORKSHOP

The purpose of this module is to develop the in depth the project of the Development Studio(13 ECTS credits) of the course, where the students will have the opportunity to work individually co guided by prestigious international visiting tutors. The projects will address specific issues related to the self-sufficiency agenda, as well as the inherent material, organizational and spatial complexities determined by the chosen working scale and the experience gained during the year's program.

The transversal workshop (2 ECTS credits) offered by the Master program is a short term intensive experience, in which the students work together for 3-5 days on collective projects organized by local or invited international tutors.

LECTURE SERIES

2011-12

Iaac
Institute for
advanced
architecture
of Catalonia



Lecture series 2009-10, Kas Oosterhuis

LECTURE SERIES

(2 ECTS credits)

Since 2000 the Master's in Advanced Architecture runs an international lecture programme in which architects and experts from a variety of disciplines present their work at IAAC.

The lectures are open to public.

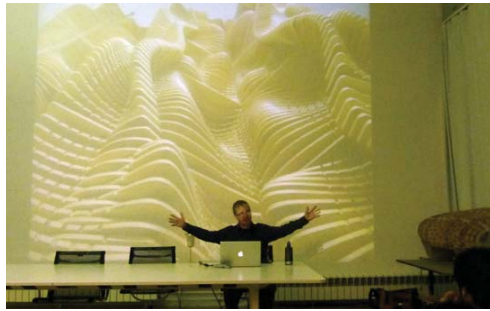
Some of the Guest Lecturers for Lecture Series 2011/12 are:

- Shigeru Ban
- Jean Nouvel
- Bernard Tchumi
- Hanif Kara
- Michel Rojkind
- Theo Spyropoulos
- Matthias Kohler
- Tomas Jaskiewicz
- Martin Sobota

more to be announced



Lecture series 2009-10, Massimiliano Fuksas
Fuksas Architects



Lecture series 2009-10, Sean Hanna
Director Bartlett School



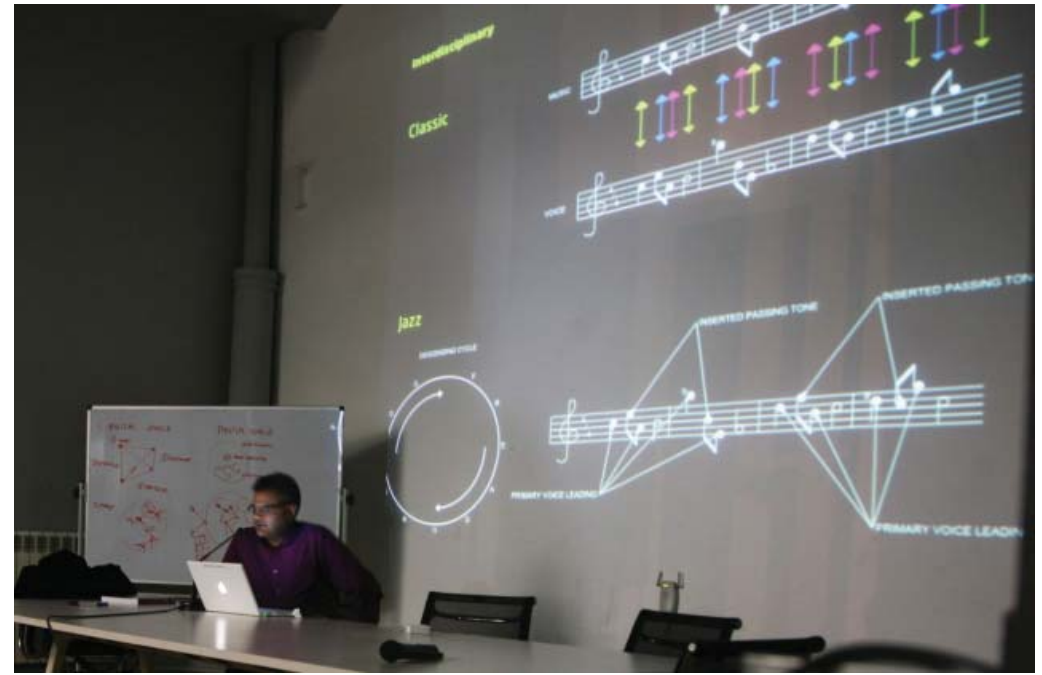
Lecture series 2009-10, Andrew Kudless
CCA, California College of Arts



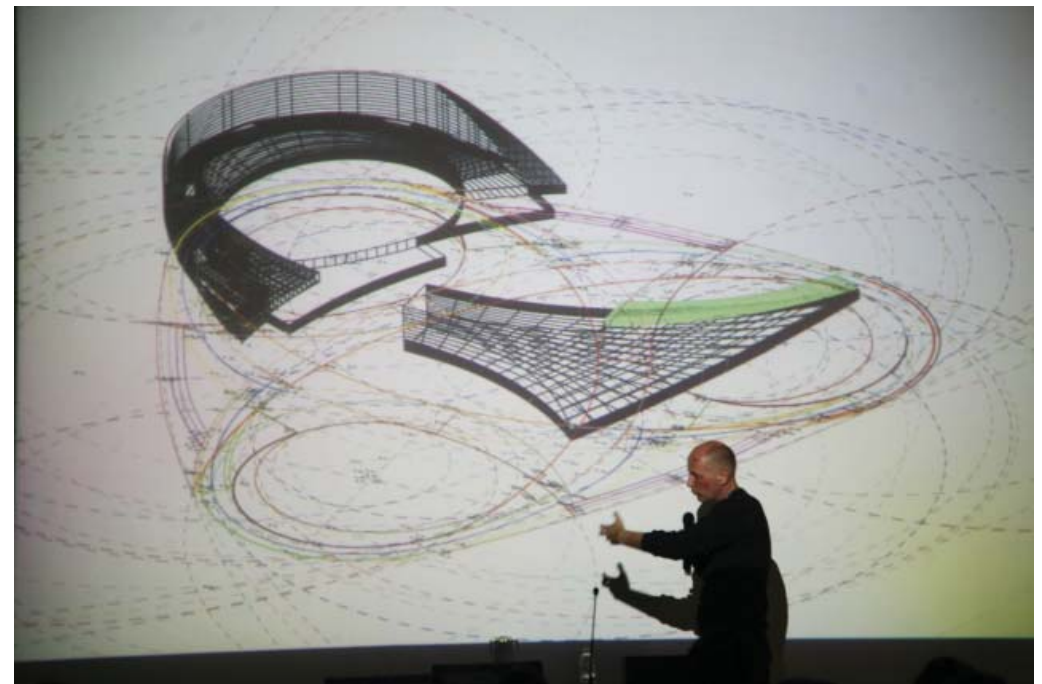
Lecture series 2009-10, Bostjan Vuga
Sadar Vuga Architects



Lecture series 2009-10, Lars Hesselgren
Director of KPF Research



Lecture series 2009-10, Hanif Kara
AKT/Adams Kara Taylor Engineers



Lecture series 2009-10, Ben Van Berkel
U.N. Studio

IAAC SPECIAL PROJECTS



Fabrication Laboratory Exhibition, Disseny Hub Barcelona, June 2010

SPECIAL PROJECTS

IAAC develops different research and special projects along the Academic Year. Students will be asked to participate in some of those initiatives in parallel to their studies.

The Fab Lab House is a new generation Fab Lab home whose goal is to not industrialize but allow any person to manufacture anywhere in the world, from the platform of Fab Labs, or fabrication laboratories. The production methodology of the house is founded in a structure fabricated from common materials sourced globally (plywood panels, etc.), and in the use of locally found machinery (laser cutting and/or milling machine). It is definitely a very affordable housing solution, designed with a combination of simple construction, geometric sophistication and technological wealth, both in its creation as an energy system as well as in the active and passive management of the house. It was produced in 2010 for the Solar Decathlon Europe and it will be rebuilt in the next months.

IAAC is also developing the project ENERGRID with the Spanish power company ENDESA in order to develop "the Internet of Energy". Prototypes of this system will be developed in IAAC during the following months and finally they will be brought in Can Valldaura House.

Other projects developed by IAAC are exhibitions, such as the Fabrication Laboratory exhibition at the Disseny Hub Barcelona as well as special workshops during the academic year.



PHASES 1-4



Fab Lab House, June 2010, Solar Decathlon Europe 2010



VALLDAURA ASSOCIATION

Valldaura Association is an association which base core of activities is located in the House of Can Valldaura, in Collserola Park, Cerdanyola de Vallés.

The Association is an initiative of the Institute for Advanced Architecture of Catalonia.

Valldaura Association is a group pf people that are interested in taking place in innovative activities and experimentations related with green architecture, nature, sustainability, energy and social activities such as the Green Fab Lab project.

The official members of the Association will form a leading group of research projects and innovative activities taking place at the Collserola House and its surrounding forest. The members also form a group of volunteers that gather during weekends or other arranged dates and support the project with the means that each one can.

All IaaC present and x students are eligible to register in Valldaura Association for free.

Can Valldaura House would potentially host MAA 09-10 Workshops or special events under certain conditions.



LIBRARY BOOK LIST

010 publishers 25 años Catalogue 2007/2008 010 publishers
 10+1 Experimental Houses nº41/2005 Inax
 100 preguntas que nos hemos hecho sobre Puerto Rico Universidad Politécnica de Puerto Rico
 12"Sleeves Disco Graphics Actar
 1ª Bienal de Valencia Generalitat de Valencia
 216.arhitektura European
 4dsocial Interactive design Environments Lucy Bullivant Arquitectural Design
 A New Kind of Science Stephen Wolfram Wolfram Media
 A New Philosophy of Society Manuel de Landa Continuum
 A Thousand Plateaus (Continuum Impacts) Gilles Deleuze
 A Thousand Plateaus Capitalism & Schizophrenia Deleuze & Guatari The Athlone Press
 A Thousand Years of Nonlinear History (Swerve Editions) Manuel de Landa Manuel de Landa
 AA Projects Review 05/06 Experimentation AA Publications
 AA Prospectus 2006/07 Architectural Association School of Architecture
 Acconci studio Vito Hannibal
 Acunpuntura urbana Jaime Lerner Actar
 ADN Studios Architecture Champ libre
 ADN Studios Architecture 2006 Champ libre
 Alfredo Jaar Santiago de Chile 2006 Actar
 Anglo files Lucy Bullivant Thames & Hudson
 Aprendiendo de Las Vegas Robert Venturi, Steven Izenour y Denise Scott Brown GG Reprints
 Archis nº5/1998 Archis
 Architecture and revolution Neil Leach Routledge
 Architecture of the Indeterminacy Yago Conde Actar
 Arquine Revista internacional de arquitectura y diseño Arquine
 Arquitectos Arquitectura enzimática nº3/2006 CSCAE
 Arquitectos Construcción de ciudad CSCAE
 Arquitectos Estrategias de formación nº1/2007 CSCAE
 Atlanta Jordi Bernardó i Ramón Prat Actar
 Atlas of Novel Tectonics Reiser+Umemoto Princeton Architectural Press
 Atles dels Països Catalans Enciclopèdia Catalana
 Barcelona + Actar
 Barcelona International Convention Centre CCIB Josep Lluís Mateo Actar
 Barcelona Lab Actar
 Basa Colegio Arquitectos Canarias
 BASTARD Choose my identity Actar
 Bauwelt 32.07 Bauwelt

BCN Barcelona: a Guide to its modern architecture Actar
 Berlín Jordi Bernardó Tarragona i Ramón Prat Actar
 Beyond Shrinking Japan International Architecture Workshop in Somieres Champ libre
 brevincuentro 3 brevincuentro 3
 brevincuentro 4 brevincuentro 4
 Building Barcelona Peter G. Rowe
 Buy me a Mercedes-Benz The Book of the Museum Actar
 B-ZONE Becoming Europe and Beyond Kunst-Werke Berlin e.V. Actar
 Catalunya Arquitectura Obra pública a Catalunya Generalitat de Catalunya + Col. Arq. Barcelona
 cip 584-585 covjek i prostor 1/2 2003 First Congress of Croatian Architects
 cip 586-595 covjek i prostor 3/12 2003 First Congress of Croatian Architects
 Cities and Complexity Michael Batty The MIT Press
 City of innocence "Workshop International d'Architecture Sendai Japon" Champ libre
 Coming from the South Eduard Bru Actar
 Construir con acero Tomo 5 Publicaciones Ensidesa
 Costa Iberica MVRDV Actar
 covjek i prostor LI/03-04 First Congress of Croatian Architects
 covjek i prostor LI/05-06 First Congress of Croatian Architects
 covjek i prostor LI/07-08 First Congress of Croatian Architects
 covjek i prostor LI/09-10 First Congress of Croatian Architects
 covjek i prostor LI/11-12 First Congress of Croatian Architects
 covjek i prostor LII/01-02 First Congress of Croatian Architects
 Crossed Lines New Territories of Design FAD and Actar
 Dead or alive Kiajima lab. University of Tsukuba+Atelier Bow-wo
 Decoding the Universe... Charles Seife Penguin Books
 Desert America Territory of Paradox Actar
 Design in the rain Delaware Actar
 Digital Ground: Architecture, Pervasive Computing and Environmental Knowledge Malcom McCulloch
 The MIT Press
 digital tectonics Leach, Turnbull & Williams Wiley-academy
 Earth Moves: The Furnishing of Territories Bernard Cache
 Easily Flooded Architecture International Architecture Workshop in Somieres Champ libre
 El Efecto Albacete: Una investigación territorial José Miguel Iribas Iac + Actar
 El progreso ¿Un concepto acabado o emergente? Jordi Agustí y Jorge Wagensberg Metatemas 52
 El sector agrario a Catalunya Generalitat de Catalunya
 Emergence Steven Johnson
 Emergence Steven Johnson Penguin Books
 Emergence from chaos to order John H. Holland Oxford University Press
 Emergence: From Chaos to Order John H. Holland
 Emergence: Morphogenetic Design Strategies Hense, Menges & Weinstock Architectural Design
 Wiley-academy
 Endless Forms Most Beautiful: The New Science of Evo Devo and the Making Sean B. Carroll Norton
 Envisioning Information Edward R. Tufte Graphic Press
 Espírito Santo Um estado Singular Sandra Medeiros Ima Casa Editora
 ETS, Zoología y Botánica Enciclopedia Temática Sopena Editorial Ramón Sopena
 Everything about Catalonia Generalitat de Catalunya
 Everywhere: The Dawning Age of Ubiquitous Computing Adam Greenfield New Riders
 Experimentation AA Projects Review 05/06 The AA
 FAB Neil Gershenfeld Basic Books

Factor Four Doubling wealth, halving resource use Weizsäcker, Lovins & Lovins Earthscan
 Filogénesis: Las especies de foreign office architects Alejandro Zahera-Polo & Farshid Moussavi Actar
 Flying Lightness A Benkers, Ed van Hinte
 Flying Lightness Promises for structural elegance Adriaan Beukers & Ed van Hinte 010 publishers
 Forum Volume 7 nº 1.2007 Editorial Team
 Fragments of a Country Remix Romanian Pavilion Venice Biennale 2006
 Frames Massimiliano Fuksas Actar
 Freshmadrid Fundación Coam
 Fuksas Actar
 Gentelman Junkie The Life and Legacy of William S. Burroughs Graham Caveney
 Geocat Territorial loops IaaC
 Global networks, linked cities Saskia Sassen
 Good news Jordi Bernadó
 HiCat (spanish) IaaC Metapolis
 HiCat (catalan) IaaC Metapolis
 Holland Desing new graphics Ramón Prat / Tomoko Sakamoto
 I send you this cadmium red... (A correspondence between John Berger and John Berger & John Christie Actar
 if...revista de innovación nº38 infonomía.com
 Inex Housing 2004 vol.3 inexhousing
 Inex Housing 2004 vol.4 inexhousing
 Infodomus nº1/mayo-junio2006 Infodomus
 Infodomus nº10/10junio2007 Infodomus
 Infodomus nº16/febrero2008 Infodomus
 Infodomus nº2/julio-agosto2006 Infodomus
 informal Cecil Balmond Prestel
 Informal city Caracas Case Prestel
 Inquietud teórica y estrategia proyectual en la obra de ocho arquitectos conRafael Moneo Actar
 it's small it rains inside and it's got ants Soriano Palacios Actar
 Japan Graphics 2 Actar
 JOLA Journal of Landscape Architecture spring 2006 ECLAS
 Kazuyo Sejima in Gifu Actar
 KM3 MRDV
 La seguridad de las estructuras de acero ante el incendio Tomo 1 Publicaciones Ensidesa
 La Suisse Portrait Urban Frontières, communes Birkhäuser
 La Suisse Portrait Urban Frontières, communes MAPA Birkhäuser
 Las Angeles Reyner Banham
 Liboscópio Amancio Pancho Guedes & Ricardo Jacinto Instituto das Artes / Ministério da Cultura

MVRDV EN VPRO Actar
 Liboscópio Cuaderno de Veneza Instituto das Artes / Ministério da Cultura
 Los Ángeles: The Architecture of Four Ecologies Reyner Banham Penguin Books
 Made in Tokyo Kaijima, Kuroda y Tsukamoto Kajima Institute Publishing
 MEG Abet Laminati
 met 1.0 Metapolis Actar
 MHS Kazuyo Sejima
 MID Trimestral de Design e Arquitectura Mid Edições Dimensao
 Mies van der Rohe Award 2005 Actar
 mosaico territorial para la región metropolitana de Barcelona Richard T.T.Forman GG
 Muntadas on Translation MACBA
 Mutations Actar
 Nano City Champ libre
 NBE Norma Básica de la Edificación Ministerio de Fomento
 net.it A Snapshot of Contemporary Architecture, Desing and Photography in Italy Actar
 Neutra 15 Neutra Revista
 Neven Segvic arhitektura nº1º Croatian Architects Association
 Nice to meet you Txema Salvans Actar
 Non-places: Introduction to an Anthropology of Supermodernity Marc Augé Verso
 Object Laboratory Architectural Papers 1 Josep Lluís Mateo María Viñé
 Objetar Memoria y Creación Actar
 Olafur Eliasson: Surroundings Surrounded Peter Weibel
 On Diseño nº283 On diseño on barcelona Actar
 On growth and Form D'Arcy Thompson Cambridge University Press
 operative optimism in architecture OPOP! Actar
 Pet Architecture Guide Book by Tokyo Institute of Technology Tsukamoto
 Place: 35 designers 35 cities Actar
 Place: 35 relatos 35 ciudades Actar
 Políticas del Espacio José Miguel G. Cortés IaaC
 Premio Especial Fundación Asprima 2006 Fundación Asprima
 Premis Fad d'Arquitectura i d'Interiorisme 1987 FAD
 Premis Fad d'Arquitectura i d'Interiorisme 1989 FAD
 Princeton University School of Architecture 2004-2005 Princeton University School of Architecture
 Programming Cultures Mike Silver Architectural Design Wiley-Academy
 Project on the city (negre) Taschen
 Project on the city (vermell) Taschen
 Promateriales de construcción y arquitectura actual nº6/julio2007 Editorial Protiendas
 Promateriales de construcción y arquitectura actual nº7/julio2007 Editorial Protiendas
 Promateriales de construcción y arquitectura actual nº8/septiembre2007 Editorial Protiendas
 Promateriales de construcción y arquitectura actual nº10/noviembre 2007 Editorial Protiendas
 Protección Anticorrosiva / Fabricación / Montaje Tomo 3 Publicaciones Ensidesa

READINGS

SUGGESTIONS

IaaC (apart from the books listed in the Book Library) suggests the following readings:

ALLEN, STAN. Points + Lines. Diagrams and Projects for the City. Princeton Architectural Press. Nueva York. 1999.
 «Diagram Work». ALLEN, S. ANY 23, Anyone Corporation, Nueva York, 1998.
 AUSTIN, J. L. Palabras y acciones. Ed. Paidós, Buenos Aires, 1971.
 BORGES, J. L. El Hacedor. Alianza Editorial. Biblioteca Borges, Madrid. 1972, p. 119
 BREWER, CYNTHIA A. Designing better Maps. A Guide for GIS Users. ESRI Press. California. 2005.
 CARERI, FRANCESCO. Walkscapes. El andar como práctica estética. Ed. GG, 2002, Barcelona.
 DE DIEGO, ESTRELLA. Contra el mapa. Disturbios en la geografía colonial de Occidente. Ed. Siruela, Col. La Biblioteca Azul, serie mínima, Madrid, 2008.
 DERRIDA, J. De la Gramatología. Ed. Siglo XXI, México D.F., 1994. (Eng trans: Of Grammatology, trans. Gayatri Chakravorty Spivak, Baltimore & London: Johns Hopkins University Press, 1976).
 DELEUZE, G. Diferencia y repetición. Amorrortu Editores, Buenos Aires. 1968. (Eng trans: Difference and Repetition (New York: Columbia University Press, 1994) by Paul Patton)
 DELEUZE, G. GUATTARI, F. Mil Mesetas. Ed. Pre-Textos, Valencia, 1998. (Eng trans: 1980. A Thousand Plateaus. Trans. Brian Massumi. London and New York: Continuum, 2004)
 EISENMAN, PETER. Diagram Diaries. Thames & Hudson. London. 1999.
 FOUCAULT, M. Las palabras y las cosas. Una arqueología de las ciencias humanas. Ed. Siglo XXI, Méjico D.F., 1968. (Eng tans: The Order of Things: An Archaeology of the Human Sciences, Vintage Books USA, New York, 1994).
 GADAMER, H.-G. Verdad y Método. Ediciones Sígueme. Colección Herminia, Salamanca, 1977. (Eng trans: Truth and Method. 2nd rev. edition. trans. J. Weinsheimer and D.G. Marshall. New York: Crossroad, 1989).
 GARCÍA GUTIÉRREZ, ANTONIO. Desclasificados. Pluralismo lógico y violencia de la clasificación. Ed. Anthropos, Serie Comunicación y Periodismo, Barcelona, 2007.

HANN, R. Anaximander and the Architects. The contribution of Egyptian and Greek Architectural Technologies to the Origins of Greek Philosophy. State University of New York Press. Suny Series in Ancient Greek Philosophy. Anthony Preus, ed. Albany, New York, 2001.
 HARVEY, D. La condición de la posmodernidad. Investigación sobre los orígenes del cambio social. Amorrortu Editores, Buenos Aires, 1998.
 (Eng trans: The Condition of Postmodernity Oxford, Basil Blackwell, 1989).
 HODGKISS, ALAN G. Discovering Antique Maps, Shire Publications Ltd, Buckinghamshire, 2007.
 KRYGIER, JOHN y WOOD, DENIS. Making Maps. A Visual Guide to Map Design for GIS. The Guilford Press. New York. 2005.
 FOGUÉ, URIEL. «MTN50-796 (Mapas Y Diagramas. Superficies de Inscripción en Dimensiones Inconmensurables». En: OÑATE, T., NÚÑEZ, A. Y ARENAS, F. (Eds.). POLITEISMO Y VIOLENCIA. HERMENÉUTICA ENTRE CIVILIZACIONES II. Ed. Dickinson, Madrid, 2008.
 LATOUR, BRUNO. La esperanza de Pandora. Ed. Gedisa. Barcelona. 2001. (Eng trans: Pandora's hope: essays on the reality of science studies, Harvard University Press, Cambridge Mass., USA, 1999)
 MACEACHREN, ALAN M. How Maps Work. Representation, Visualization and Design. The Guilford Press. New York. 2004.
 PHOTOESPAÑA. PHE05. Ciudad. (Catálogo). Photoespaña 2005.
 PHOTOESPAÑA. PHE08. Lugar. (Catálogo). Photoespaña 2008.
 SERRES, MICHEL. Atlas. Ed. Cátedra. Colección Teorema. 1995. Madrid. (Eng trans: SERRES, MICHEL. Atlas, Flammarion, 1997)
 R. TUFTE, EDWARD. The Visual Display of quantity information. Ed. Graphics Press. Cheshire, Connecticut. 1983.
 R. TUFTE, EDWARD. Visual explanations. Ed. Graphics Press. Cheshire, Connecticut. 1997.
 SORIANO, FEDERICO. Diagramas. Ed. Fisuras de la Arquitectura Contemporánea. Madrid. 2002. Revista LOTUS, nº 127. Diagrams.
 AAVV. UHF, COLECTIVO. Mapas. Ed. UHF, Madrid, 2002.
 AAVV. Diccionario Metápolis de Arquitectura Avanzada. Ed. Actar, Barcelona, 2000.

APPLICA- TIONS

APPLICATION AND SELECTION PROCEDURE

All Master Programme applicants should submit digitally at applications@iaac.net the following documents:

- * Completed application form
- * Letter of intent
- * Copy of (valid) passport
- * Legalized copy of your applicant's architecture degree (Bachelor or higher degree from other professions) officially translated both in English and in Spanish. The legalisation should be done according to the country of origin of the applicant. In the following link can be found all the information about the above requirement: http://www.fundacio.upc.ed/acollida.php?origen=P3_Internacional
- * Two letters of recommendation
- * Portfolio containing representative samples of design work (academic and / or professional). The portfolio should not exceed DIN A4 format.
- * Curriculum Vitae
- * A non-refundable application fee of 100€

Note: in the bank transferring SUBJECT must appear the applicant's name. All documents should be submitted in English. These documents will be reviewed and will serve to determine whether you will be admitted to the program.

TUITION FOR STUDENTS ONLY ATTENDING THE MAA

Tuition for the year 2011/2012 is 14.200€. The selected candidates must send to the Institute a scanned proof of a down payment of 2.000€ to confirm participation, maximum 6 weeks after their acceptance.. The remaining part of the tuition fee (12.200€) may be paid either in one or two instalments, 60% (7.320€), before 15 September 2011 and 40% (4.880€) before 15 January 2012.

TUITION OF STUDENTS ATTENDING MAA AND OPEN THESIS FABRICATION (4 MONTHS)

The tuition for the Students that will decide to enter both the Master in Advanced Architecture and the Open Thesis Fabrication project for the year 2011/2012 is 18.950. The selected candidates must send to the Institute a scanned proof of a down payment of 2.000€ to confirm participation, maximum 6 weeks after their acceptance. The remaining part of the tuition fee (16.950€) may be paid either in one two instalments, 60% (10.170€), before 15 September 2011 and 40% (6.780€) before 15 January 2012. All payments must be paid by bank transfer only to:

Instituto de Arquitectura Avanzada de Cataluña

Bank: Caixa de Arquitectos

Account Number: 3183-0800-8200-0064-8636

IBAN: ES86 3183 0800 8200 0064 8636

BIC/SWIFT: CASDESBB

Note: in the bank transferring SUBJECT must appear the applicant's name

MORE

STUDY EXPENSES

Study-related expenses such as the purchase of books, graphic reproduction, printing and model-making 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 own computer, preferably a laptop no more than two years old, with the following specifications:

PIV at 2.4 GHz (or similar in the case of an AMD processor).

1024 Mb RAM.

WIFI Internet connection.

1280 x 1024 screen display resolution.

NON SPANISH STUDENTS

Non-Spanish students are advised to visit the Fundació UPC as soon as possible after arriving in Barcelona.

The Fundació UPC offers advice on medical insurance, accommodation and legal procedures for student visas. Please be aware that the application procedure for a student visa can take up to 3 months. Please contact your nearest Spanish Consulate for more information.

For more information on the Fundació UPC, please visit the website: www.fundacio.upc.edu

MEDICAL INSURANCE

Participants are responsible for their own health insurance and other personal insurance. The Foreign Student Service at the Fundació (UPC) can assist in finding the most suitable insurance. Please note that the IAAC is not liable for loss or damage to personal belongings.

The Fundació UPC offers accident insurance. Students are advised to visit the FPC for further details.

Please note that treatment in Spanish National Health centres is guaranteed to anyone who is registered as resident in any city district.

Non-EU citizens must also be in possession of a residence visa.

ACCOMODATION

IAAC does not provide accommodation for students, although the master class coordinator will provide information and assistance related to rental procedures. IAAC recommends the following websites for students looking for information about accommodation options and costs or rental procedures in Barcelona:

www.bcn.es/ciaj/serveis/validacion.htm

www.rentabedroom.com

www.barcelona-home.com

www.resa.es

www.loquo.com

www.habitatgejove.com

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Tom Mayne, Architect, Premi Pritker
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Neil Gershenfeld, Physic, Director CBA
MIT, Boston

Hanif Kara, Engineer, Director AKT,
London

Aaron Betsky, Director Cincinnati Mu-
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Hugh Whitehead, Engineer, Director
Foster+ Partners technology, London

Salvador Rueda, Ecologist, Agencia Eco-
logia Urbana Barcelona, Barcelona

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Barcelona

IAAC Board

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Vicente Guallart, IAAC, Board Mem-
ber

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MASTER IN ADVANCED ARCHITECTURE

11-12

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