

# SUMMER WORKSHOP

*Bodega*  
*Enological Metabolism*

**AA VISITING SCHOOL**  
**BARCELONA**  
FROM 12TH TO 26TH JULY 2013

[barcelona.aaschool.ac.uk](http://barcelona.aaschool.ac.uk)  
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Architectural Association  
AA School of Architecture



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Escola Tècnica Superior  
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UNIVERSITAT POLITÈCNICA  
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UNIVERSITAT  
ROVIRA I VIRGILI  
Facultat d'Enologia de Tarragona



CEICS Enologia



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**FRONT** Poster of the AA Visiting School Barcelona 2013, 'BODEGA, 'Enological Metabolism'.

**BACK** Grapes at the Harvest. Photograph by Joan Tornay.

**A** Vineyard in autumn at MAS RODO Vitivinícola Estate in Mediona, Alt Penedès, Barcelona Spain. Photograph by Carles Sala.



BODEGA Enological Metabolism

## AA Visiting School

The purpose of this document is to bring the AA School the chance to travel for the first time to the Mediterranean city of Barcelona, a city with the perfect architectural environment and legacy for an AA Visiting School.

The ETSAB, 'Escola Tècnica Superior d'Arquitectura de Barcelona', will become the local and collaborative school for the AA Visiting School Barcelona. The school of Gaudí, Domènech i Montaner, Coderch, Bonet Castellana, Sert, Miralles, Llinàs, Moneo, Mateo or Ferrater will bring its long expertise and resources to achieve the appropriate academic environment for the course, under the umbrella of the UPC - BarcelonaTECH, 'Universitat Politècnica de Catalunya'.

The 'Facultat d'Enologia de Tarragona' / 'CEICS Enologia' at the URV 'Universitat Rovira i Virgili', will become the third party and will bring a rigorous scientific, technological and multidisciplinary approach to the course.

*"ETSAB, the school of Gaudí, Sert, Miralles, Llinàs, Moneo, Mateo or Ferrater, will become the local and collaborative school for the AA Visiting School Barcelona."*

### BODEGA

#### *Enological Metabolism*

AA Visiting School Barcelona

From the 12th to the 26th of July 2013

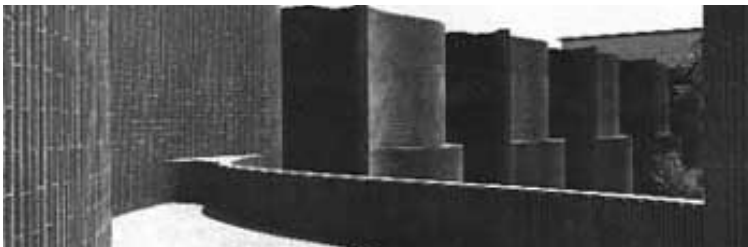
AA School of Architecture  
Architectural Association  
London

UPC - BarcelonaTECH  
Universitat Politècnica de Catalunya

URV - Facultat d'Enologia Tarragona  
Universitat Rovira i Virgili

ETSAB  
Escola Tècnica Superior d'Arquitectura  
Barcelona

CEICS Enologia  
Campus d'Excel·lència Internacional  
Catalunya Sud



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A Aerial photograph of the city of Barcelona.  
B ETSAB, Escola Tècnica Superior d'Arquitectura de Barcelona. Work by the Catalan architect Josep Antoni Coderch.  
C ETSAB school's working studio, inside the building designed by Coderch.



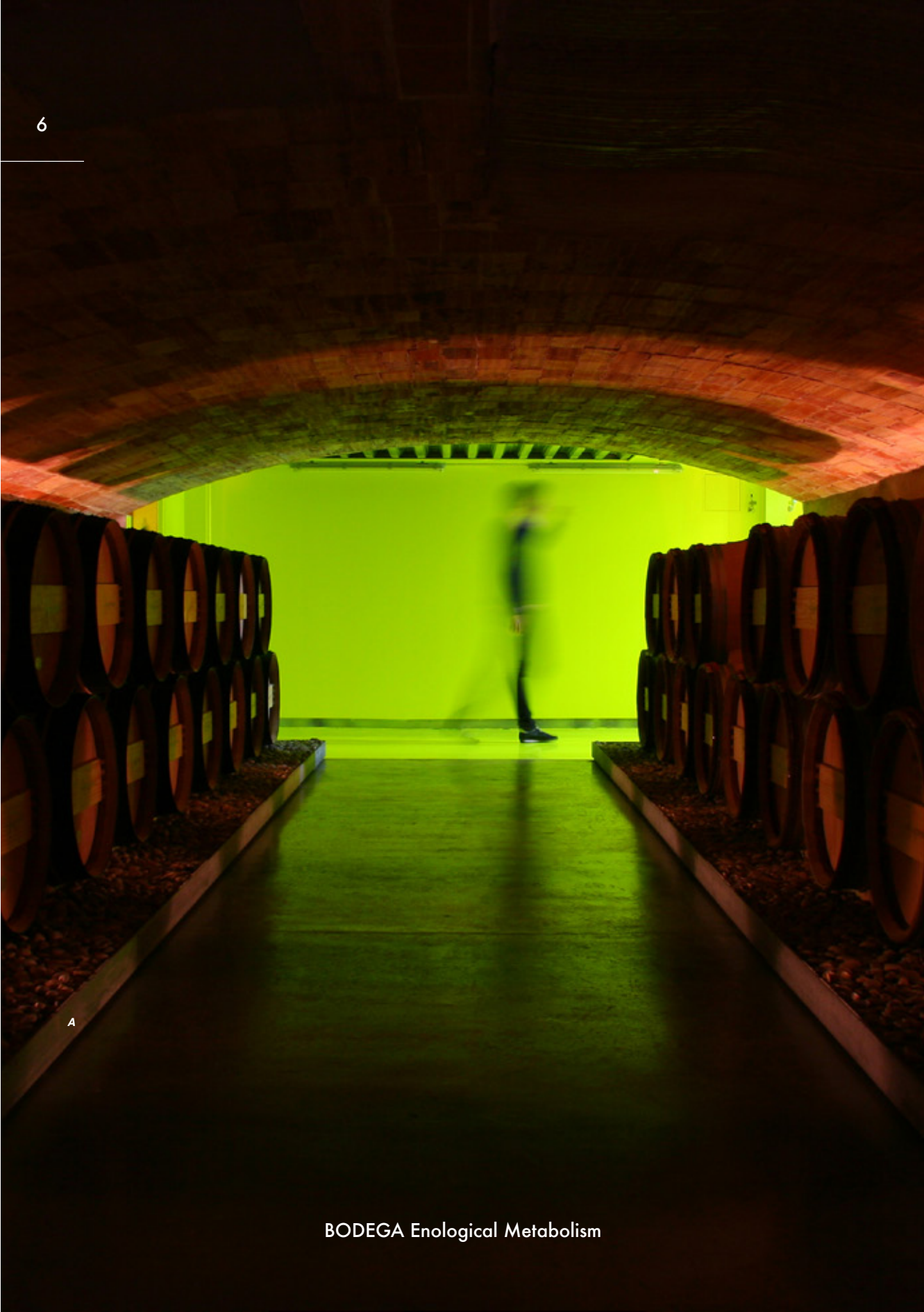
AA School of Architecture  
Architectural Association London



Escola Tècnica Superior  
d'Arquitectura de Barcelona



Facultat d'Enologia  
de Tarragona



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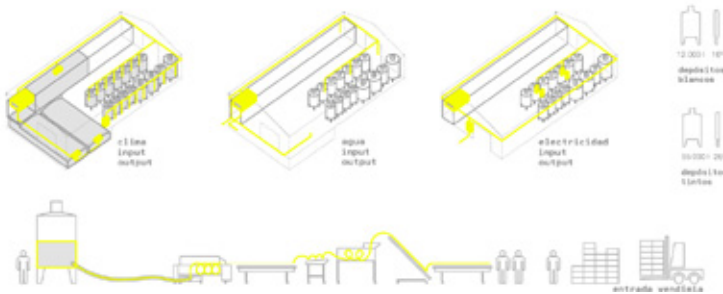
## Bodega, Enological Metabolism

Spain's great heritage and tradition on wine production has led the country to become the world's first region in vineyard extension and, as a result, the pursuit for quality is already an obsession for many wineries to gain a foothold in the international market. In turn, a very accurate set of methods and techniques are currently being implanted to ensure a full control over the whole process of wine making as means of optimization in design for enologists.

Relying on the use of digital diagramming and mapping, we will unfold the metabolism of wine production and dissect techniques and technologies involved in the processes. Underlining the characteristics of time information and feedback, we will recognize the potential of the use of Control Systems as an essential design tool.

Concluding the research with an internal presentation, we will address the spatial and organizational attributes of the process to envisage, through the production of drawings, digital and physical models, potential architectural solutions for a contemporary bodega.

*"We will unfold the metabolism of wine production and dissect techniques and technologies involved in the processes"*



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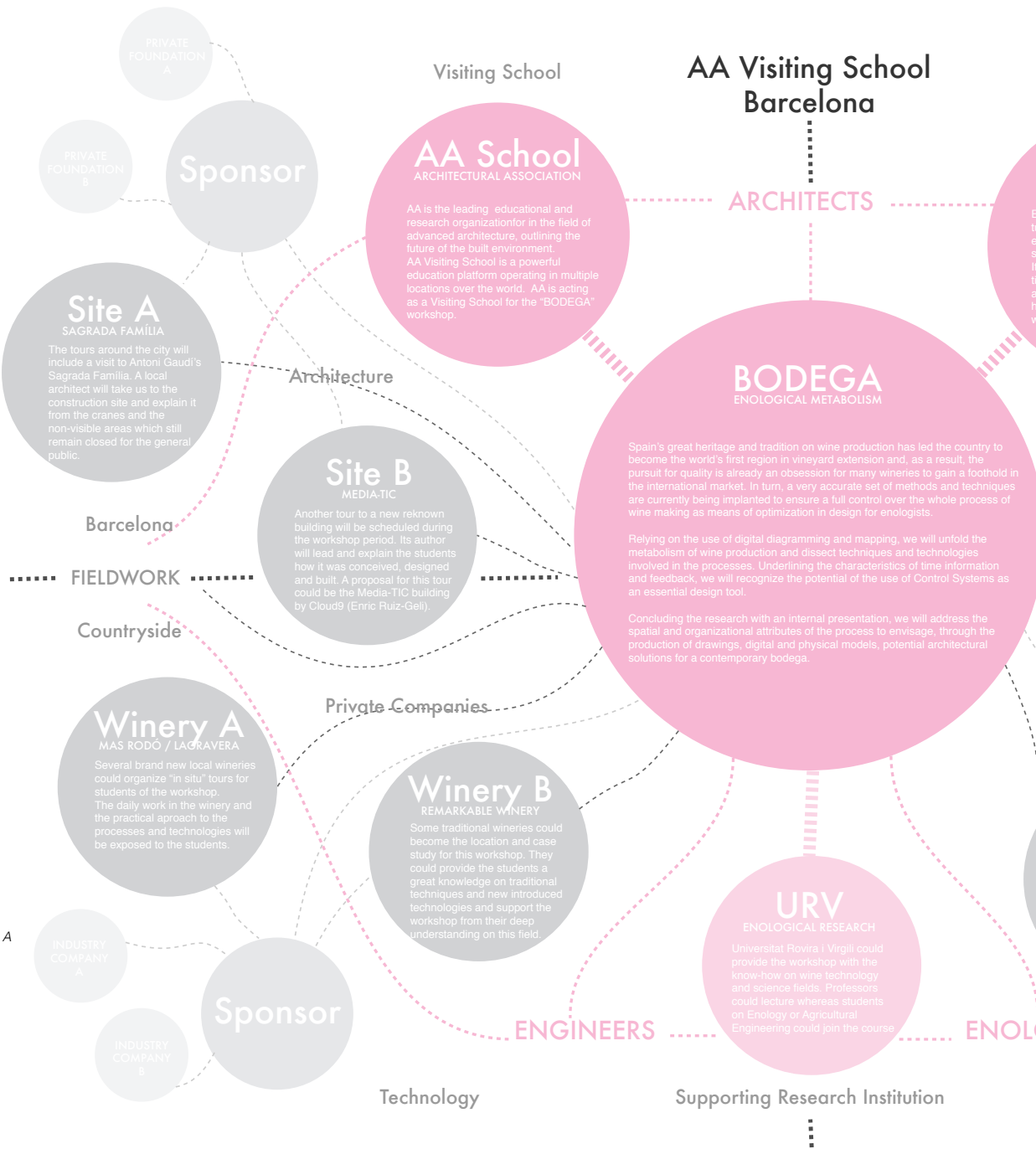
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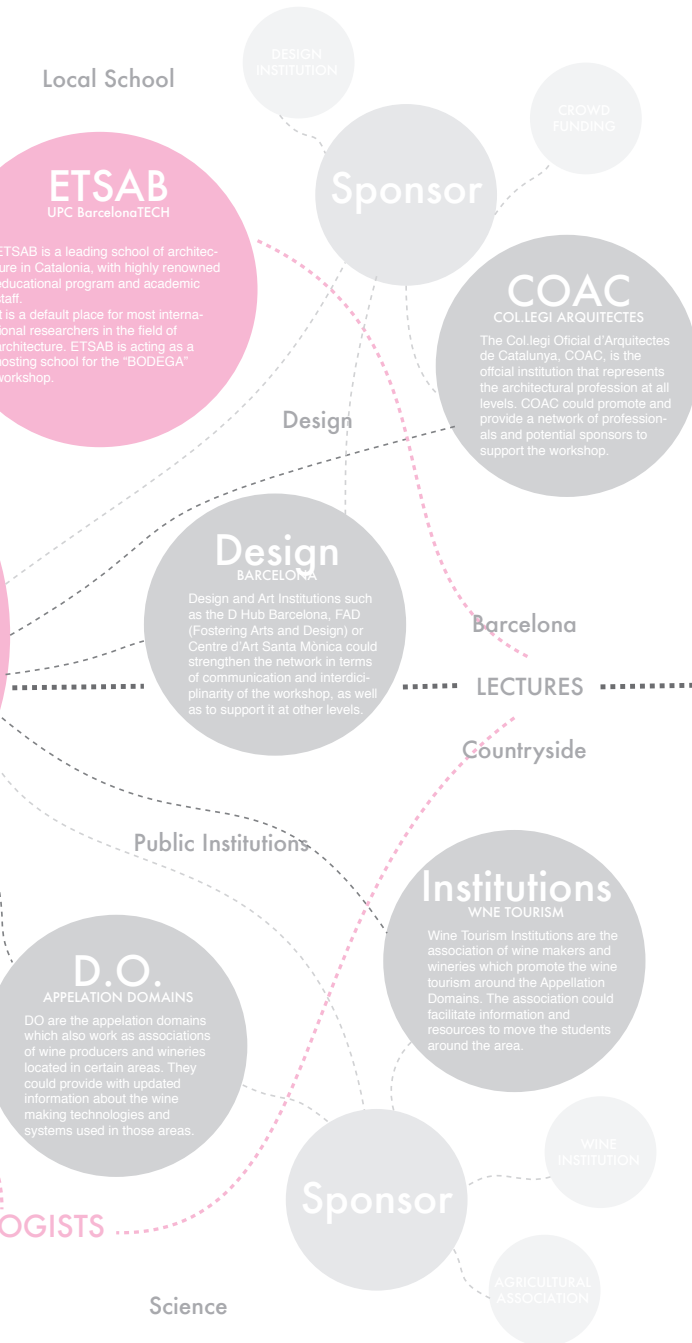
- A Aging room at SALA FERUSIC's work "¿Menos da una piedra? Lagravera Winery".
- B Working processes inside Lagravera Winery to produce wine, by using all sorts of technological means.
- C-D Grape harvest in Mas Rodó Vitivinícola, in late summer.
- E Vineyard in Mas Rodó Vitivinícola in autumn. Each variety can be appreciated as they evolve at various times and their colors appear different.

# DIAGRAM

## Graphical Representation of Parties







A Diagram of all parties involved in the AAVS Barcelona. This graphical representation shows the role of the two schools involved, the visiting school AA and the local school ETSAB, as well as the collaboration of a third party concerning research in agricultural engineering and enology, the URV. Several Institutions at both levels, Design and Wine promotion, will be involved and strengthen the course by offering lectures and support of all kinds. The AAVS will also do some fieldwork in local wineries as well as in significant buildings around the city of Barcelona.

**AA Visiting School Barcelona**

## Methodology and Outputs

The workshop is an investigation in the very metabolism of Enological, in other words the development of an understanding of the entire process of the production of wine which will enable to envision the design of a contemporary winery.

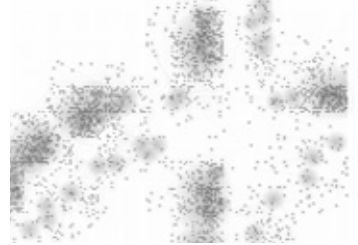
Wine is the object of a field of science and technology; the characteristics that define it are the result of the combination of all the particularities of the process used in its making. These attributes will be the core object of our research, understanding them as the variables of a system, fed, as logics, into the definition of parametric models, which will become our design both analyse and to design.

### Phase 1

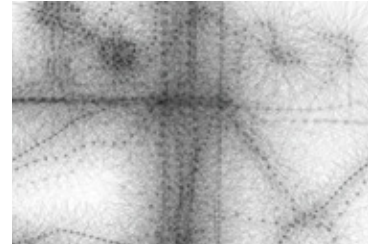
*Cartography of the genesis of a wine.*

Before entering the design phase, we will be working on an analysis of a selected winery. Dissecting all the steps of the production, from the growth of the grape to the shipment of the bottle, we will thoroughly examine the processes, the technologies, the conditions, the spaces, the activities... The students will be organised in groups and will be focussing on a different segment of the production. Equipped with analogic or digital tools, students will record quantitative information onsite during a period of two days. An emphasis will be placed on understanding the variable factors that can influence the quality of the wine, for example, the temperature, the exposition of the vineyard, the length of the fermentation process, the technologies used...

The following two days will be destined to the creation of a series of drawings using digital tools, such as parametric design, to work on the cartographical representation of the mappings. This exercise will converge towards the construction of large 2-dimensional drawings or diagrams depicting all the characteristics of the production, and the variables that can influence its quality.



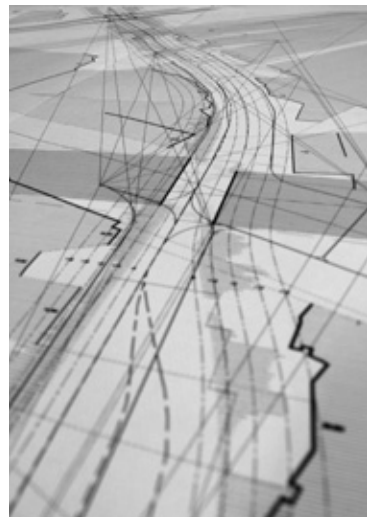
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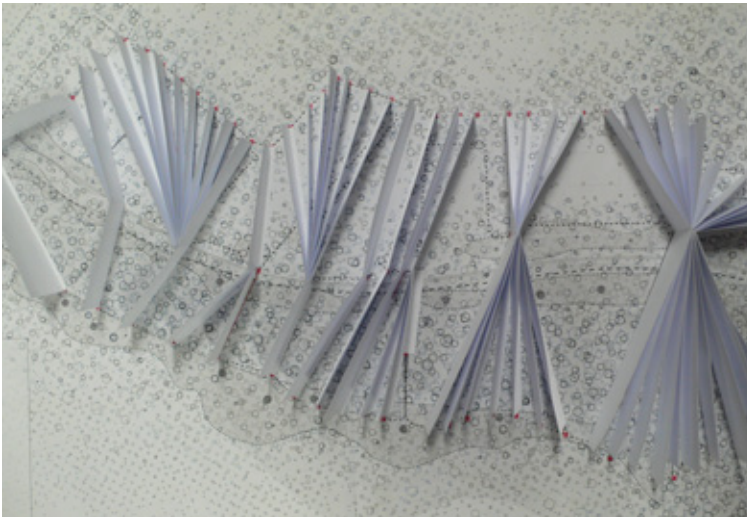
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The first phase will be concluded as an internal presentation or jury during which students will explain the results of their mapping exercise and the drawings produced. It will be the occasion to have a joined discussion on the subject between students, enological experts and tutors that will set the ground for the second part of the workshop.

## Phase 2

*Design charette - Envisioning a new winery.*

Departing from the maps created in the first part of the workshop, students will be configured into new groups to tackle the design of a new winery based on the instrumentalisation of the relationship between the diagram of the production and potential architectural systems that can embed it.

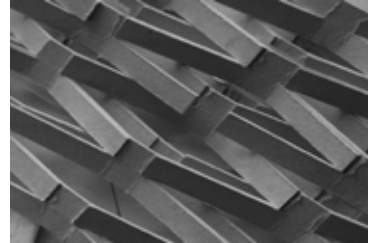
Enriched by the parametric maps produced in phase one, we will develop holistic design strategies in order to define the space, the construction technologies, the spatial organisations of the winery.

The process of design will rely on the use of parametric tools and the potential of generative diagramming to embed the variables of the wine production. Students will invent possible schemes as systems that will emerge under the form of drawings, models, diagrams...

Students will be assisted in their design by tutors and experts in parametric design tools.

The early part of this phase will happen as a two day long design brainstorm, assisted by tutors, students will then use the last few days to represent their scheme appropriately.

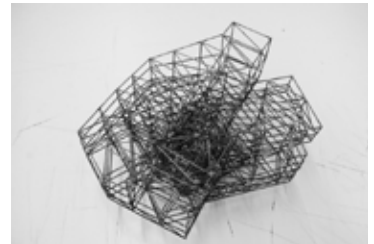
The results of will be presented on the last day of the workshop to a panel of experts from the architecture and enological world in a public presentation at the University ETSAB. This will be the occasion for each group to explain their investigation and proposal, clearly highlighting the effects of their early mappings on the design and the use of parametric means and generative diagrams.



G



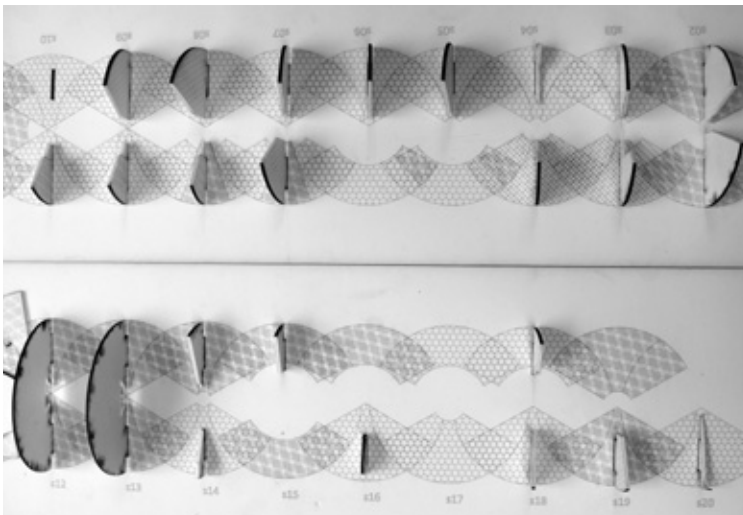
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- A-C** Cartographies to pursue design strategies, at Edouard Cabay's Units at the AA and ESA.  
**D** Representational model by Sandra Caminada, Relja Ferusic's student at D-Arch ETH.  
**E-F** Work on analytical models at Edouard Cabay's Units at the AA and ESA.  
**G-I** Models at Relja Ferusic's Units at the D-Arch ETH and ESArq UIC, by Zed Yung Chieh, Jordi Farell and Ricard Gonzalvo.  
**J** Jury at Relja Ferusic's Unit at the D-Arch ETH.

## Course Schedule

### Day 1

*Friday 12th of July 2013*

*General Introduction day in school.*

General Introduction day in school.

Introductory words by the representative of the ETSAB and the course directors. Introduction of the brief first mapping exercise by the course tutors, short presentation in parametric tools and methods of mapping. Formation of the groups of students who will work together in the first phase of the workshop.

### Day 2

*Saturday 13th of July 2013*

Visit to a selected winery in the surroundings of Barcelona with tutors and enologist as first experience into the specificities of wine production and the space and infrastructure that it necessitates.

### Day 3/4

*Sunday and Monday 14th/15th of July 2013*

Two day on site in a selected winery to record information as mappings of the entire process of wine production. The collected information might be climatic, vegetal, territorial, technical, spatial, infrastructural, acoustical... The students will have to invent their own methodology of recording information, which could be a mere pencil and paper, laser meter, telephone app... Tutors will be doing group tutorials.

### Day 5/6

*Tuesday and Wednesday 16th/17th of July 2013*

Two day work session in school during which the students will work on the graphic translation of the information collected on site in the previous visit of a winery. Between 10:00 and 12:00 on both days, students will be given a class in parametric design. During the afternoon, they will be working in groups on the elaboration of their map. Tutors will be doing group tutorials.

### Day 7

*Thursday 18th of July 2013*

*Mid-jury.*

Students will spend the morning in school completing their maps and preparing a short presentation.

The presentation will occur in the afternoon and will be run by the course tutors as well as one or more external architects and oenologists. As a general discussion, the conclusions derived will form the core of the next exercise.

Introduction to the second phase of the workshop.

Formation of the groups of students who will work together in the second phase of the workshop.



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**Day 8**

19th of July 2013  
Work session in school.

Between 10:00 and 12:00, students will be given a class in parametric design. During the afternoon, they will be working in groups developing their design proposal. Tutors will be doing group tutorials.

**Day 9**

20th of July 2013

Visit of a winery  
Visit to the Sagrada Familia

**Day 10**

21th of July 2013

Day off

**Day 11/12/13/14**

22th/25th of July 2013  
Work sessions in school.

Between 10:00 and 12:00 on the 22nd and 23rd students will be given a class in parametric design. The four days will be used by the students to develop and finalise their design proposal. Tutors will be doing group tutorials. Thursday afternoon and evening will be used to print and prepare models for the final jury.

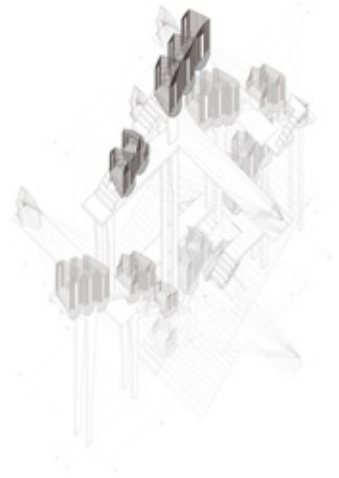
**Day 15**

26th of July 2013  
Final presentation and keynote lecture.

Whole day presentation in the presence of to be defined and the tutors. This will be the occasion to reflect and engage in a critical discussion on the work produced during the two week workshop. Keynote lecture, invited to be defined.

Diploma ceremony. Following the keynote lecture, every participant receive an AA diploma, certifying their participation in the workshop.

Final diner for guest critiques, students and tutors on the terrace of the ETSAB.



E



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A ETSAB, Escola Tècnica Superior d'Arquitectura de Barcelona.

B Lecture at the ETSAB school.

C Grape Press and vineyard at Mas Rodó Vitivinícola, where the course will base part of its supportive fieldwork.

D-E Mapping and axonometry of projects developed at Edouard Cabay's Units at the AA and ESA.

F Relja Ferusic's Unit studio at D-Arch ETH.

G Jury of the team Spoon Benders at AA DRL.

# *Archi/tech/e/nologies*

## AAVS Barcelona Open Lecture Series

**Jaime Coll**  
Coll Leclerc, Barcelona

**Enric Ruiz-Geli**  
Cloud9, Barcelona

**Dr. Fernando Zamora**  
Facultat Enologia Tarragona, URV

**Jordi Mansilla**  
Architect, Barcelona

**Vicente Guallart**  
Chief Architect of the city of Barcelona

**Enric Batlle / Joan Roig**  
Batlle i Roig, Barcelona

**Dra. Montse Nadal**  
Facultat Enologia Tarragona, URV

**Dr. Joan Miquel Canals**  
Catedràtic Facultat Enologia Tarragona, URV

**Keynote Lecture**  
26th July 2013

**Sir Peter Cook**  
CRAB studio, London



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Facultat d'Enologia de Tarragona



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Enologia

## Multidisciplinary Speakers

ARCHI/TECH/E/NOLOGIES is a Lecture Series open to everyone, which will bring together professionals of all kinds concerning architecture, technology and enology. Local and international architects with expertise in designing wineries will explain their strategies to develop their work on the wine field, whereas enologists and agricultural engineers will support and contrast all the techniques and current technologies used both, in the vineyard and the winery, to control the whole process of wine making in order to optimize the quality and the design of its coupage. The confirmed lecturers are as follows:

### **Dra. Montse Nadal**

#### **Dr. Fernando Zamora**

#### **Dr. Joan Miquel Canals**

Facultat d'Enologia de Tarragona

CEICS Enologia - Campus d'Excel·lència Internacional Catalunya Sud

*URV - Universitat Rovira i Virgili*

[www.urv.cat](http://www.urv.cat)

### **Vicente Guallart**

Chief Architect of the city of Barcelona

[www.bcn.cat](http://www.bcn.cat)

Founder of the IAAC, Institut d'Arquitectura Avançada de Catalunya, Barcelona.

Fundació UPC, Universitat Politècnica de Catalunya.

[www.iaac.net](http://www.iaac.net)

Architect and Founder at Guallart Architects, Barcelona.

[www.guallart.com](http://www.guallart.com)

### **Enric Ruiz-Geli**

Unit Tutor at the AA School of Architecture, Architectural Association, London.

Unit Tutor at the IAAC, Institut d'Arquitectura Avançada de Catalunya, Barcelona.

Architect and Founder at Cloud9, Barcelona.

[www.ruiz-geli.com](http://www.ruiz-geli.com)

[www.e-cloud9.com](http://www.e-cloud9.com)

### **Jaime Coll**

Tutor at Escola Tècnica Superior d'Arquitectura de Barcelona, ETSAB.

UPC – Barcelona Tech, Universitat Politècnica de Catalunya.

Architect and Founder at Coll Leclerc, Barcelona.

[www.coll-leclerc.com](http://www.coll-leclerc.com)

### **Enric Batlle / Joan Roig**

Tutors at Escola Tècnica Superior d'Arquitectura de Barcelona, ETSAB.

UPC – Barcelona Tech, Universitat Politècnica de Catalunya.

Architects and Founders at Batlle i Roig Arquitectes, Barcelona.

[www.batlleiroig.com](http://www.batlleiroig.com)

### **Sir Peter Cook**

Gold Medal by the RIBA, Royal Institute of British Architects.

Founder of Archigram.

Former Director of The Bartlett School of the Built Environment

UCL, University College of London.

Architect and Founder at CRAB Studio, London.

[www.crab-studio.com](http://www.crab-studio.com)

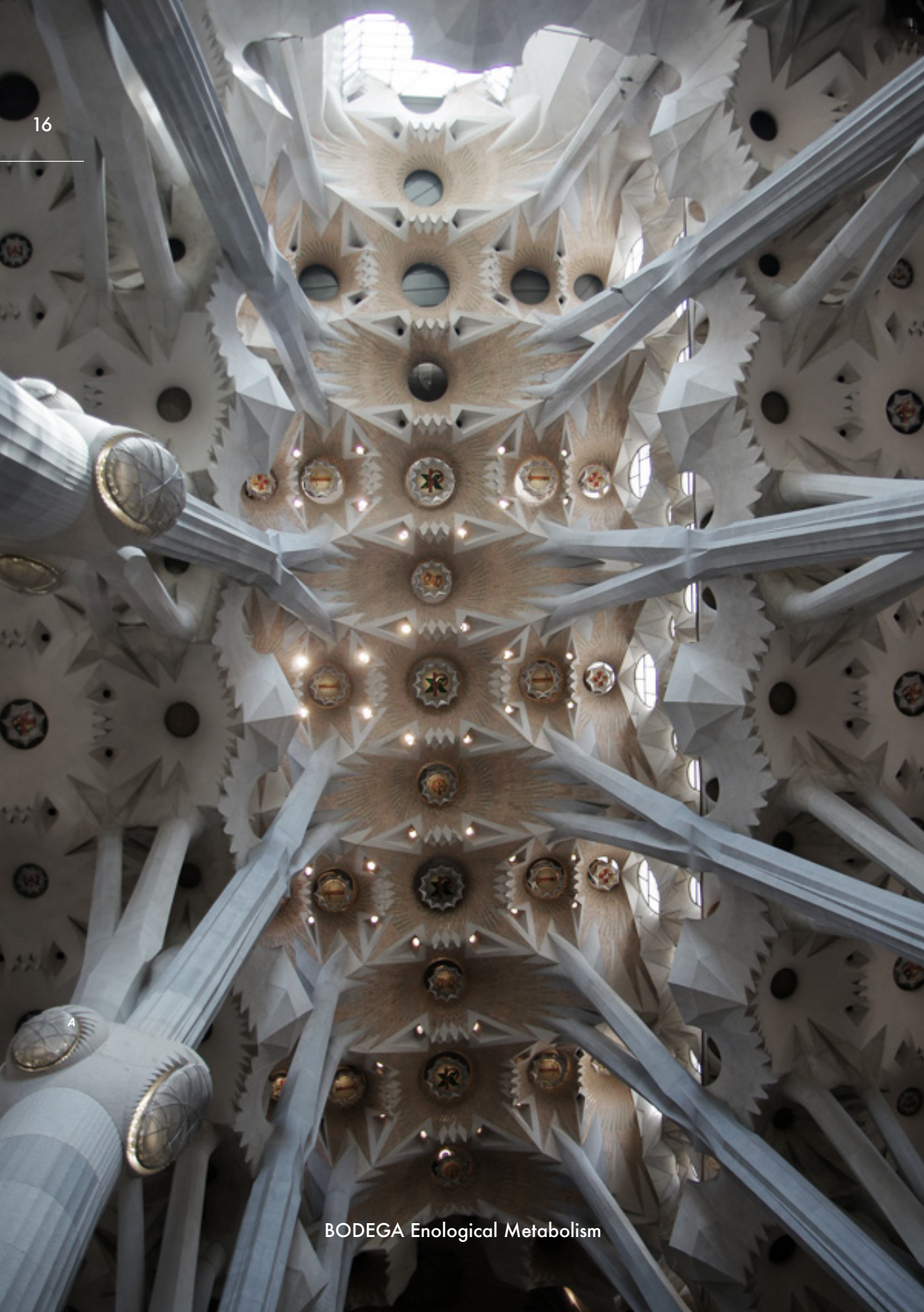
*“This lecture series  
will bring together  
professionals of all kinds  
concerning architecture,  
technology and enology”*



**B**

**A** Poster of the ARCHI/TECH/E/NOLOGIES Open Lecture Series.

**B** Lecture at the Lecture Hall in the AA School of Architecture in London.





## Excursions and Data Collection

The course will be supported by some fieldwork. That is, the students, together with the faculty members will travel to some sites of architectural interest around the city of Barcelona. Some local architects will accompany them and explain the architecture of these remarkable buildings. Moreover, some tours to the countryside will be scheduled, on one hand, to see some examples of modern and contemporary architecture of wineries, as well as to collect data according to the brief of the course. From this information, students will start understanding and analyzing the process of wine making, as a first step to detect feasible opportunities to trace architectural strategies and elaborate an architectural output.

### Sagrada Família, Barcelona

*Design by Antoni Gaudí*

*Special tour inside the building working site with a local architect*

### Media-TIC, Barcelona

*Design by Cloud9*

*Tour around the building guided by the architect Enric Ruiz-Geli*

### Mas Rodó Vitivinícola, Mediona, Barcelona

*Design by SALA FERUSIC Architects*

*Tour around the winery and vineyard; and brief course on wine tasting*

### Celler Lagravera, Alfarràs, Lleida

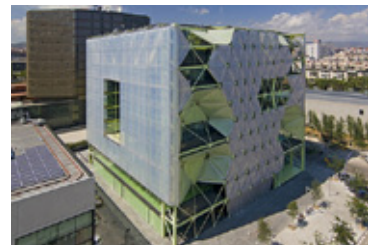
*Design by SALA FERUSIC Architects*

*Tour around the winery and vineyard; and special focus on technological methodologies of wine making*

### Remarkable Local Winery (To be confirmed)

*Tour inside the building*

*The estate will be taken as the case study for the course*



C



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- A Sagrada Família Temple by the Catalan architect Antoni Gaudí. Photograph by Martin Abegglen.
- B SALA FERUSIC's work "Spring in Pantone 375C. Mas Rodó Winery".
- C Cloud9's work Media-TIC, by the Catalan architect Enric Ruiz-Geli
- D SALA FERUSIC's work "¿Menos da una piedra? Lagravera Winery".

## Team Members



**Edouard Cabay**  
*Director and Tutor*  
 AA Visiting School Barcelona

Edouard Cabay is a registered architect at the Catalan College of Architects in Spain and is graduated from the Architectural Association School of Architecture in London.

After gaining professional experience in Foreign Office Architects in London and Anorak in Brussels he worked as head office for Cloud 9. In 2011, he founded Appareil in Barcelona; architectural office developing projects both in Spain and abroad.

In parallel to practice, he teaches in the Diploma School at the Architectural Association in London as a Unit Master and in the Institute of Advanced Architecture of Catalonia in Barcelona as Faculty of Fabrication and as Visiting Professor at the Ecole Spéciale d'Architecture in Paris. He has been lecturing and attending juries in various universities in Europe.

[appareil.es](http://appareil.es)  
[edouardcabayatelier.blogspot.fr](http://edouardcabayatelier.blogspot.fr)



**Carles Sala**  
*Director and Tutor*  
 AA Visiting School Barcelona

Carles Sala is a registered architect at the Catalan College of Architects in Spain and is graduated with Honours from the ETSAB in Barcelona. After receiving La Caixa'11 Scholarship, he became an MArch by the Architectural Association School of Architecture in London.

In 2008, he founded SALA FERUSIC Architects in Barcelona; an international architectural studio which pursues multidisciplinary work at all levels.

He designed several wineries such as Mas Rodó or Lagravera, which have been widely acknowledged and published. His work has been shown at MIT, 'X Bienal Española de Arquitectura', 'Círculo de Bellas Artes', COAC, FAD or 'Centre de Cultura Contemporània Barcelona'. He has collaborated with The Batlett UCL London, ETSAM-UPM Madrid, ETSAG-UAH Alcalá or LA SALLE-URLL Barcelona.

[salaferusic.com](http://salaferusic.com)  
[carlessala.com](http://carlessala.com)



**Relja Ferusic**  
*Coordinator and Tutor*  
 AA Visiting School Barcelona

Relja Ferusic, registered architect at COAC and AABiH, graduated with Honours in Architecture from ETSAB-UPC, and became a MSc by ETSAB-UPC, on Urban Space and Digital Networks in Mass Society.

After working as Head of Office at Domingo-Ferré Architects in Barcelona, he founded SALA FERUSIC Architects studio in Barcelona, where he is currently working. Several of his projects have been awarded and acknowledged by architectural institutions such as COAC or AABiH, as well as, widely published and exhibited.

He has been teaching as an Assistant Professor of Architectural Design at D-Arch, ETH Zurich, as well as in Diploma Unit at ESARQ-UIC Barcelona. He is a current member of the IT Commission at ETSAB-UPC. Besides, he has lectured at several universities and institutions, such as ETSAB, ETH, COAC or AABiH.

[salaferusic.com](http://salaferusic.com)  
[reljaferusic.com](http://reljaferusic.com)



**Pablo Ros**

*Coordinator and Tutor  
AA Visiting School Barcelona*

Pablo Ros graduated as an architect with Honours by the ETSAB. He received his MSc in Advanced Architectural Design from the Graduate School of Architecture, Planning and Preservation at Columbia University in New York City. He is recipient of Arquia-Fundación de Arquitectos'03, La Caixa'09, Gatsby Arts Foundation'12 and Kinne'12 grants.

He has worked for Cloud 9 and Foreign Office Architect. He has developed La Rioja Technological Center in Logroño or the Madrid Pavilion in Shanghai, for which he has been nominated and awarded by the Mies Van der Rohe, FAD or Think-Space Prizes.

He has taught at Columbia University and Barnard College; and he is a current Unit Master in the Diploma School at the Architectural Association in London as well as at IAAC in Barcelona.

*neolexia.net*



**Anna Ramos**

*Tutor  
AA Visiting School Barcelona*

Anna Ramos is a registered architect at the Catalan College of Architects in Spain and graduated from ETSAB in Barcelona. Granted student at TU Delft School of Architecture. PhD candidate by the Architectural Technology Department in ETSAB-UPC, her research and contributions focus on Sustainable Architectural Technologies and Materials.

She teaches in both undergraduate and master programs at ETSAB, where she is a resident jury member for the Graduation Project. Visiting Professor at Münster School of Architecture, Clemson University, Texas A&M University and the University Network for Sustainable Design and Urban Planning, UNAUS.

She has taught seminars at ESARQ-UIC, at the Catalan College of Architects and at the College of Building Engineers in Barcelona. She has lectured for UPV in Valencia, Spain, Università de l'Aquila, Italy, and Hanoi University, Vietnam.

*es.linkedin.com/pub/anna-ramos/1a/583/618*



**Mar Santamaria**

*Tutor  
AA Visiting School Barcelona*

Mar Santamaria is an architect based in Barcelona who focuses her activity on research and teaching. She is graduated from the ETSAB Barcelona, where she teaches Urban Design and Planning. She has also lectured at ETSAB-UPC Vallès, ETSAR-URV Reus, IED Barcelona as well as taken part in several juries and international workshops.

Her theoretical and educational activity investigates the understanding of new territorial and urban processes through landscape project. In recent years, she has engaged herself in the development of new cartography tools to represent urbanity by using new audio-visual media (Mirades Urbanes) and data visualization (atNight project, Grant for art and contemporary theory research, Catalan Government).

*miradesurbanes.net  
atnight.ws*

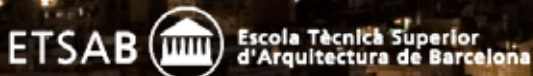
*▲ Panoramic view of the city of Barcelona.  
Photograph by Reija Ferusic.*



## Companies and Institutions



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SCHOOL OF ARCHITECTURE



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d'Arquitectura de Barcelona



Enologia



UNIVERSITAT POLITÈCNICA  
DE CATALUNYA  
BARCELONATECH



UNIVERSITAT  
ROVIRA I VIRGILI  
Facultat d' Enologia de Tarragona

*A Montoneta variety of grape in MAS RODÓ  
Vitivinicola Estate in Mediona, Alt Penedès,  
Barcelona Spain. Photograph by Joan Tornay.*



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