

**ON
OFF**

ARCHITECTURE OF THE EARTH

_FALL 2024 // MATTER TO DATA STUDIO + WORKSHOP

2024 Fall studio

Architecture of the Earth | Matter to Data

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“Architecture is an art when one consciously or unconsciously creates aesthetic emotion in the atmosphere and when this environment produces well being.”

“I don’t divide architecture, landscape and gardening; to me they are one”

- *Luis Barragán*

STUDIO Description:

Architecture of the Earth is a space where innovative thinking meets the environment, fostering a unique and harmonious design language. By immersing ourselves in this connection, we can learn, unlearn, and innovate, leading to a new understanding of the built environment. The studio explores the creative resources that are shaped by our surroundings, aiming to manipulate the existing ground with common forces and energies that generate spatial events. Through this approach, we can develop a new language of building that is adapted to the local context, taking into account the specific climate, culture, and geography. This will enable architects to design buildings that not only minimize environmental impact but also enhance the well-being of occupants. By developing observation and analytical skills, students can navigate the complexities of spatial design and create innovative solutions that transform the built environment.

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Research Methodology:

The studio departs from analyzing the existing ground, where the students are challenged to develop alternative frameworks that generate spatial ideas and techniques that diverge from conventional standards. This involves a deep understanding of local materials, production methods, and typical applications, as well as a reimagining of these elements with specific program constraints and site conditions. Through an iterative design process, students develop from experiments to prototypes, refining their understanding of material limitations and exploiting untapped possibilities. This process is characterized by a combination of scientific rigor and artistic expression, as students carefully monitor each step and use improvisation as a creative tool. By embracing experimentation and creative exploration, students develop innovative solutions that transform the built environment. As they work, students also recognize the importance of media as a site for creative exploration. They produce physical models, digital scans, audiovisual documents, and instruction manuals, utilizing these tools to disseminate their designs. This comprehensive approach encourages productive discovery, inspiring the evolution of their work. By adopting this empirical approach, students gain a deeper understanding of the built environment and develop innovative solutions that not only minimize environmental impact but also enhance the well-being of occupants.



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Lazaretto of Mahón, Menorca, Spain (*Llatzeret de Maó*)

Architecture of the Earth is a development of the On/Off hybrid studio, between Hands-On models sessions and online classes, in which students will integrate research, fabrication and design. This studio will focus on imagining and designing an Expo Space in *Llatzeret de Maó* at Mahón, Menorca, Spain. [Site Location Link](#)

The port of Mahón has a storied past, playing a pivotal role in the history of global trade and commerce. Strategically located along ancient trade routes, the territory has been shaped by the influences of various cultures. After the fall of the Roman Empire, it was absorbed into the Arabic Islamic State, followed by a period of Ottoman rule. The 18th century saw a tumultuous era of conflict between British and French powers, with the island ultimately becoming part of Spanish territory in the early 19th century.

The Lazaretto of Mahón became operational in 1817, with Menorca already under Spanish domination. The lazaret was to be a gigantic quarantine island, a first line of defense against the diseases that at that time plagued the Mediterranean Sea. The design of the Expo Space will be situated at the heart of this island with attention paid to the history of the earth and also the emerging forces that are at play.



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Student Learning Outcome Objectives:

This course is designed for students who are willing to challenge assumptions, explore the unknown, and adapt to uncertainty. We welcome individuals who can work independently, while also contributing to a collective project that fosters collaboration and shared learning. By embracing active participation, both in class and through online platforms, you'll be empowered to grow, learn, and thrive alongside your peers.

This is a hands-on-line studio. Students are expected to work continuously, both independently as a coordinated online group, with and without the instructor. Google Suite platform will serve to build a class diary where each student is responsible for sharing the evolution of the work and any other related materials that contribute to enriching the class conversations.

We will also learn some advanced 3D scan techniques, hardware, and software, online through a series of workshops. Students will learn to study the site closely, suggest appropriate ideas, and to 3D scan their proposal spaces (models) with some post-processing.

Students will have the opportunity to participate in an enriching experience involving academic and theoretical design and research followed by practical application of their concepts.

During the design phase, students will participate in seminars to expand their technical skills and will start developing their ideas through iterative model studies, exploring intuitive design approaches.

The studio involves and connects physical and digital design methods, and includes case studies, models, drawings, engineering, and construction, with the potential for 3D printing and 3D scans, 3D printed molds, structural reinforcements, concrete casting, etc. Models and mockups as part of prior research are also encouraged.

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Deliverables:

All materials will be progressively produced throughout the studio as essential parts of the research, helping the design effort versus serving as mere means of representation. Different media will be part of the experimentation agenda and students are encouraged to be creative with design and with the tools that help develop it.

→ Google Spaces OnlineDiary ([Every class](#))

→ Working Models ([Weekly basis_Design development phase](#))

- Physical Models: from concept to construction: unlimited (minimum 10)
- Photographic Material documenting models
- 3D scans of models testing scale and context, translated into animations

→ Documentation ([Semester final delivery](#))

- of Spatial Experience
- of Construction Process

→ *15 minutes of fame* as final video delivery. ([Semester final delivery](#))

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Schedule:

(Week 01 - 06 : Research & Design development / Week 07 - 12 : Final production & Documentation)

- **Week 01: Studio Introduction and Online Warm Up**
Presentation (4th September)
Set-up of online tools (Google Suite & Google Spaces):
online communication and sharing of first ideas/ intuitions/ doubts.
- **Week 02: Topic Research & Case Studies**
Student presentations and group discussion
- **Week 03-06: Mockup study and Design**
Model Mockups and Concept design of the expo.
- **Week 07: Mid-Term Presentations & Reviews [3rd week of Oct tentatively]**
- **Week 08: Audiovisual Documentation Kick-off and Design Development**
- **Week 9-12: Production**
Online Submission* of Final Review Materials will happen the first week of December

FINAL REVIEW - First week of December

Note: All classes will happen on Thursdays and Fridays

Portfolio Preparation/Final Digital Submission Video**

**Online submissions will be shared to all the Google space groups and show the work evolution. It should consist of a narrated audiovisual that explains the progress of the project plus a link to materials. These materials will be gradually taking the form of the final studio publication.*

***Final Digital Submission: All final work completed as a requirement of this course is to be submitted to the Instructor digitally for final grading and documentary purposes; inclusive of all physical materials. Models and/or physical materials will need to be adequately photographed. Failure to submit material can result in an incomplete and/or lower grade.*