

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	James van Caloen
Student number	5753996

Studio		
Name / Theme	Architectural Design Crossovers	
Main mentor	Johan van Lierop	Design Tutor
Second mentor	Florian Ekardt	Second Tutor
Third mentor	Alper Alkan	Research Tutor
Argumentation of choice of the studio	I chose this studio due to its inter-disciplinary nature and the freedom it gives its students, particularly with regards to program, site, medium, and aesthetics. Refusing any dogmas and willing to experiment any valid idea, Crossovers had already appealed to me in MSc 2. Since I enjoyed my time in the studio then, it felt like a logical choice for my graduation.	

Graduation project	
Title of the graduation project	(Un)Common Threads
Goal	
Location:	The Ciudad Universitaria, Madrid, Spain
The posed problem,	The main topic being addressed is the relative lack of expression of current architecture, in part due to a disconnection from material's properties, as well as the tools and labor forces that shape them into spaces.
research questions and	How could the reinvention of the designer-producer relationship lead to greater ornamental use in the built environment?
design assignment in which these result.	The topic of the ornament is applied to a specific program: a center for the research of natural fibers and their applications. It focuses particularly on a

grass called "esparto", its importance in Spanish national psyche, its potential to fight against desertification in the country, and its deep link with architecture. The workers within the center use the same tools of mass customization that are changing the way we design and build, thus connecting the program back to the underlying topic, as it serves as an illustration of the findings of my research on the ornament.

The building's materiality and the processes employed to construct it are thus deeply related to this drive to bring a form of expression back in our designs. Indeed, the architecture serves as the continuation and even the testing bed for the theories developed over the year.

Emphasis is given to the role of architectural expression and its realization within shifting labor conditions, in the hope of defining the contours of a new architectural ecosystem.

One that better respects materials and the forces that shape them, to produce characterful designs, whether with esparto or any other material.

Process

Method description

To understand the reasons for the ongoing reduction of the architect's palette, research was made into the topic of the ornament. The latter is at the heart of architectural expression, and I tried to better understand its role to assess its relevance and potential renaissance in design.

For this, a literary review was conducted. A few canonical sources like Ruskin, Morris or Semper were consulted to better ground the research in its historical terms. Furthermore, more recent sources like Antoine Picon or Lars Spuybroek were then researched for me to better determine the later evolution of the ornament. Together,

these all paint a clearer picture of the close link between labour forces and architectural expression, one enabling the other.

Following this text-based research, a site survey was conducted in Spain, mainly in Madrid but also in Barcelona. A wide range of master craftsmen were interviewed to determine the evolution of their trade and discover their point of view on their shifting tools and the changes impacting their profession. In addition to this, groundbreaking institutions and associations were also consulted to give a more complete view of the state of labor in Spain and more generally, in Western Europe. From the information that was gathered, a more speculative set of conclusions around the future of crafts was compiled and serves as the justification for the structural logic of the building.

Thus, the architecture ties together the concern for architectural expression as well as changing production tools and labor conditions to explore the design possibilities emerging from these changes. The project is a speculative interpretation of how some of societies' shifts could be harnessed to create spaces that are richer, more respectful of materials and the forces that shape them.

The material aspect is also central to the project, as I tested new ones like esparto-crete and searched for new ways to use common, low-carbon ones like stone.

In other words, this project paints a picture of the reinvention of the designer-craftsman relationship and its potentialities, within a specifically Spanish context.

Literature and general practical references

Bachelard, Gaston. (1958). Poetics of Space (Poétique de l'Espace). Presses Universitaires de France, Paris

Cook, Peter. "Primer", John Wiley & Sons, 1995

Carpo, Mario. 2023. Beyond Digital. MIT Press.

Hvattum, M. (2004). Gottfried Semper and The Problem of Historicism. Cambridge University Press. See p.110-11.

Jolliffe, Eleanor, and Paul Crosby. 2023. Architect: The Evolving Story of a Profession. RIBA Publishing

Lars Spuybroek. 2011. The Sympathy of Things : Ruskin and the Ecology of Design. V2, Rotterdam.

Moravanszky, Akos. "Truth to Materials' the Principle of Cladding" - The Language of Materials in Architecture, AA Files, Number 33, 1996

Pallasmaa, Juhani. The Eyes of the Skin : Architecture and the Senses, John Wiley & Sons, Incorporated, 1996. ProQuest Ebook Central, accessed October 25, 2023.

Picon, Antoine. "Ornament: The Politics of Architecture and Subjectivity", AD Primer, 2013

Picon, Antoine. "The Materiality of Architecture", University of Minnesota Press, 2021.

Worringer, W. (1997). Abstraction and empathy: A contribution to the psychology of style. Ivan R. Dee

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?
2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

1. The choice of the topic is related to the studio's focus on Madrid.
On a purely programmatic level, the decision to study esparto is due to its link with local traditions and its potential to resolve very real issues impacting Spain, like desertification.
On a more theoretical side, the discussion around the evolution of labor and our relationship to materials is relevant to a nation where crafts are still so present, and the ornamental tool is used so liberally. Therefore, Madrid has proven to be a fertile ground for many architectural debates thanks to its unique qualities. The interdisciplinary nature of the studio, on the other hand, has been useful to address seemingly unrelated topics and to tie them together on various scales.
2. The relevance of my graduation work to the general debate is twofold.
On a simple material level, it represents a step towards an architecture that is more sustainable, from all angles. Natural, local materials, as well as vernacular techniques

are combined with the latest production processes and techniques to produce an architecture that responds to some of architecture's more pressing questions while presenting an ambitious design.

On a deeper level, the research and its conclusions represent a new position in a wider theoretical debate around aesthetics in architecture, and the underlying societal changes that impact them. As such, it tackles some of the great questions of the profession in its own, limited way. Through the novelty of its point of view and its practical nature, I hope it could represent a refreshingly practical take on some of the evolutions of our profession.