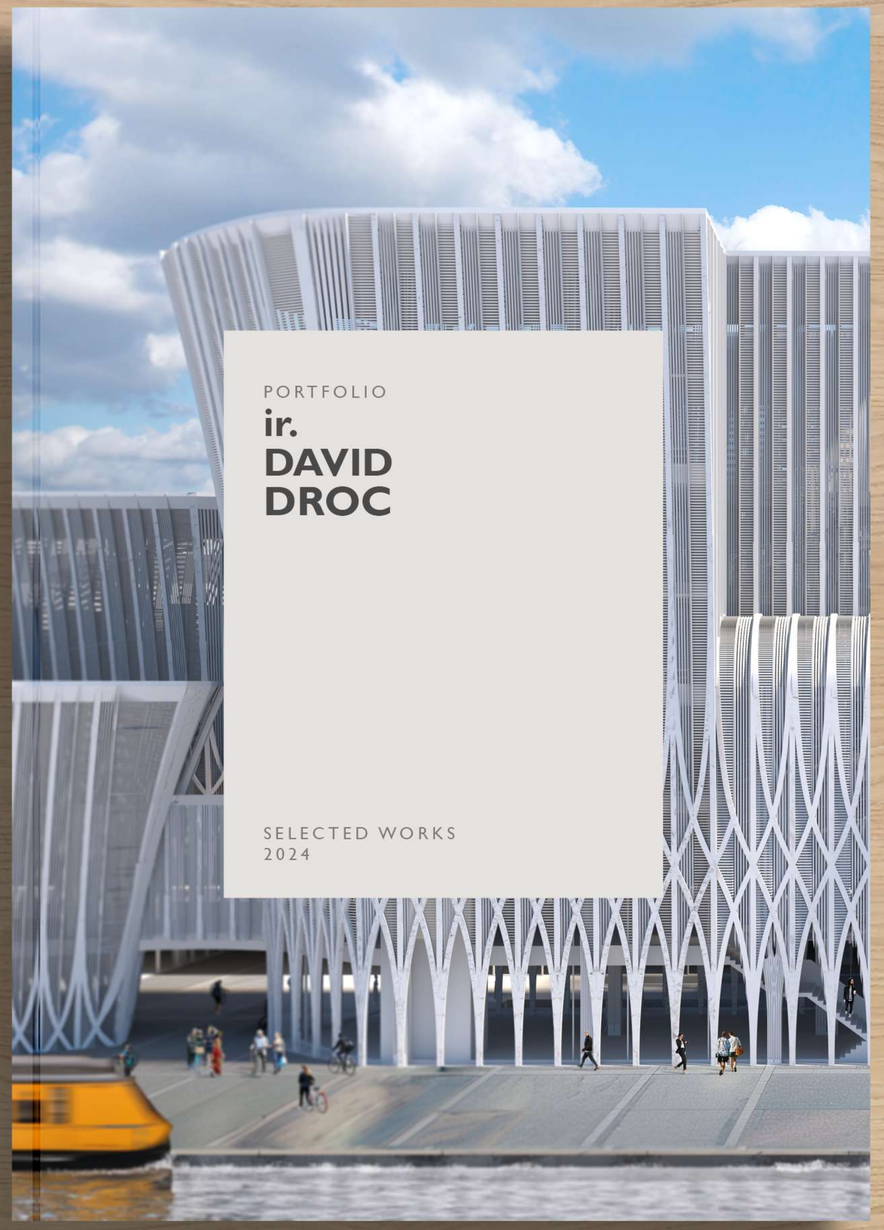

PORTFOLIO
ir.
DAVID
DROC
SELECTED WORKS
2024



Name: ir. David Ioan Droc

Email: drocarchitecture@gmail.com

Phone Number: +40 0753 054 118

Turin, Bucharest, Edinburgh, London, Eindhoven, Venice.
Traveling taught me the clear impact architecture has on us.
Good design betters lives. I believe this.
Whether it's a library or a kitchen cupboard, the scale is immaterial.
If my work can enhance even one person's life, I will always give my all.

Thank you for taking the time to consider my portfolio.
I hope you find it as enjoyable as I found creating it.

Languages

English
Italian
Romanian

Software

Rhino 8,
AutoCAD,
Revit,
Archicad
Grasshopper,
SketchUp Pro,
V-Ray 6,
Enscape,
Adobe Suit.

3D printing

Clay,
Resin,
Filament.

Laser cutting

Model Making

Work History

2020-2022 — **Architectural Assistant Part I**
24 months — *Simon Gill's Architects, London, United Kingdom*

- Being a member of the small practice (three architects) was an utterly transformative experience. Working in such a close environment allowed me to be exposed to the realities of running projects through all the different stages from inception to completion, including the technical issues of construction, under the supervision of the principal architect

2022-2023 — **TU Eindhoven Teacher Assistant**
9 months — *TU Eindhoven Clay Printing Lab, Prof. Cristina Nan*

- While pursuing my Master's degree, I served as a Teaching Assistant at TU/e, where I specialized in creating parametric designs and 3D printing them in clay. These designs were featured prominently at the Drivers of Change Exhibition during Dutch Design Week 2022.

2023-2024 — **Founder of DROCgallery**
12 months — *An Etsy storefront where I sell my unique collection of original paintings.*

Academic History

2021-2023 — **TU/e Master of Science (MSc) Architecture, Building and Planning**
24 months — *Eindhoven University of Technology*

- The Graduation Project, "Venetian Commons", aimed to revitalize Venice by designing innovative urban districts and architecture, analyzing the city's unique structure, and proposing sustainable, community-focused design strategies.
- The "Amsterdam Art Agora" initiative blended art into daily commutes with interactive workshops and social media galleries.

2022-2023 — **IUAV Erasmus, Research Exchange for Venetian Architecture and Urban Design**
3 months — *Università Iuav di Venezia*

- The goal of the Erasmus exchange was to conduct research on Venice's distinctive typo-morphological features to guide sustainable planning.

2017-2021 — **UoE Architecture MA (Hons) ARB Pt 1 Architecture, Building and Planning**
48 months — *The University of Edinburgh, Edinburgh College of Art*

- Dissertation and Project: "Meta-Beauty, or why liking things matters," examined the importance of beauty in architecture. Building on this, I designed "The Care Home of the Future".
- Form Follow Fiction, won the Editor's Choice Award at LAKA 2019 and was featured in the BA/MA (Hons) Architecture Catalogue 2019/20.

Awards, Exhibitions and Publications

2023 — First place in the SIRD3D competition by Sirolis - Prefabricados de Betão
2019 — Editor's Choice LAKA 2019 for "Form follows Fiction".

2022 — Drivers of Change Exhibition, Dutch Design Week 2022, for 3D Printed Clay.
2022 — Robots that Build: The Extensions of Man, for 3D Printed Clay.

2021 — ECA Show 2021, The University of Edinburgh.
2020 — BA/MA (Hons) Architecture Catalogue 2019/20, The University of Edinburgh.

SIMON GILL ARCHITECTS
RIBA Chartered Practice

26th January 2022

To whom it may concern

Re: David Droc - Employment at Simon Gill Architects

David worked full time with us from January to September 2020 and has worked part time since then. We interviewed a number of candidates for the role as assistant architect and we thought David was clearly the best. He has subsequently more than validated our choice.

From the start he has shown enormous enthusiasm for his work and a clear passion for architecture. He is hard working and something of a perfectionist. He is also extremely courteous and always willing to keep working until a piece of work is finished to everybody's satisfaction. The work he has done has evidenced his commitment to doing the best possible job throughout his time with us, even through all the difficulties presented by Covid. He also very much enjoys being part of a team and contributing to design discussions as projects take shape.

David has managed to visit some sites despite the difficulties of Corona virus and has gained some experience of what is involved in the realisation of buildings. We have included him in our discussions of projects, even when we have done much of this by Teams, so he has been exposed to the realities of running projects through all the different stages from inception to completion, including the technical issues of construction. His understanding has visibly increased throughout the time he has been with us. Also evident is his desire to learn, his frequent asking questions about both design and professional issues.

David's renders have been particularly good and particularly useful in the development of designs, enabling us to make really informed decisions, improving each iteration as we have moved forward.

I might also mention his extraordinary knowledge of film, another passion of his, and an art form not unrelated to architecture, and which adds a depth of perspective to what he is doing.

I have absolutely no hesitation in thoroughly recommending David. He is extremely able, completely committed to architecture, clearly has a great passion for it. I believe he will make a first rate architect and that he would be a great asset, both as a very good, enthusiastic employee and also as a person who is a great pleasure to have around.

Yours sincerely

Simon Gill

Principal – Simon Gill Architects

RIVERBANK HOUSE
1 PUTNEY BRIDGE APPROACH
LONDON SW6 3JD
T 020 7610 9344
F 020 7610 6887
E info@simongillarchitects.co.uk
simongillarchitects.co.uk

Contents

Year	Location	Function	Name	Scope	Awards/Exhibitions	Page
2021-2022	Amsterdam	Cultural	**Amsterdam's Art Agora**	Academic	-	4-6
2022-2023	Venice	Cultural/Residential	**Venetian's Commons**	Academic	-	7-10
2021	Edinburgh	Care Home	**Scotland's Care Houses**	Academic	ECA Show 2021	11-12
2022	Brussels	Residential/Commercial	**Brussel's Maker City**	Academic	-	13-14
2021	Valencia	Cultural	**Valencia's Film Library**	Academic	-	15
2022	Eindhoven	Sculpture	**3D Printed Clay Tower**	Professional	Dutch Design Week	16
2023	Lisbon	Urban Furniture	**Spirolateral Bench**	Competition	SIR3D by Sirolis	17
2021	Edinburgh	Cultural	**Form Follows Fiction**	Competition	LAKA Competition	18
2021	Brighton	Residential	**45 Marine Drive**	Professional	-	19
2022	London	Residential	**17 Rusthall Avenue**	Professional	-	20
2024	-	-	**the DROCgallery**	Personal	-	21

3

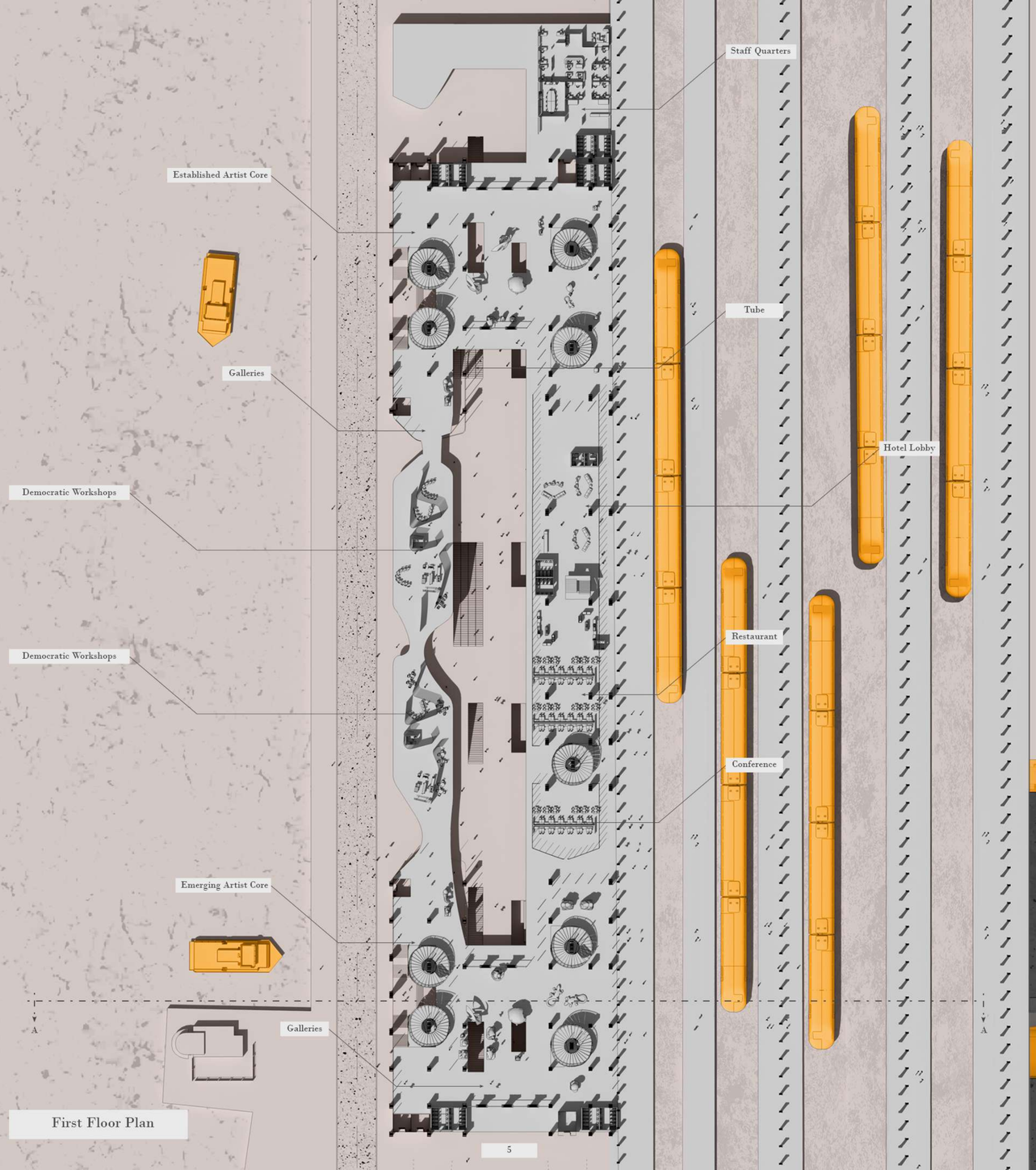


Art Agora - New Art Museum at Amsterdam Centraal

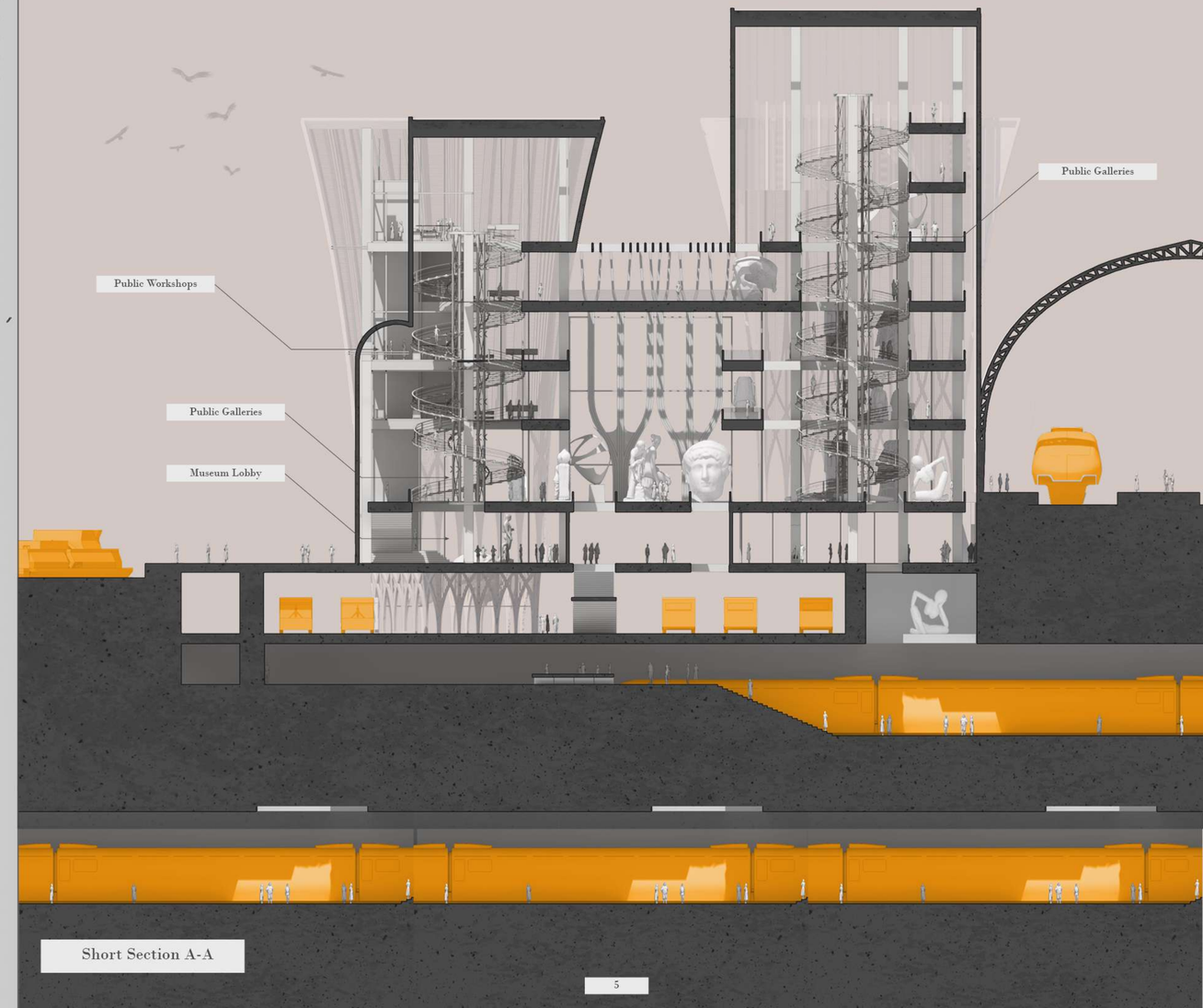
The "**Amsterdam Art Agora**" initiative seeks to weave art into daily commutes through interactive workshops and social media galleries, democratizing access to art and fostering public participation and creativity. Its objective is to enhance daily engagement with art, integrating artistic interactions into everyday life.

4

The building is designed as a dynamic, multifunctional hub that integrates various artistic forms with urban life, challenging traditional museum boundaries with open, interactive spaces. Art is displayed and created in real time, fostering spontaneous interactions between artists and the public. This design transforms the site into a living dialogue of art, enhancing cultural engagement through integrated workshops and live sessions in a major transit hub.

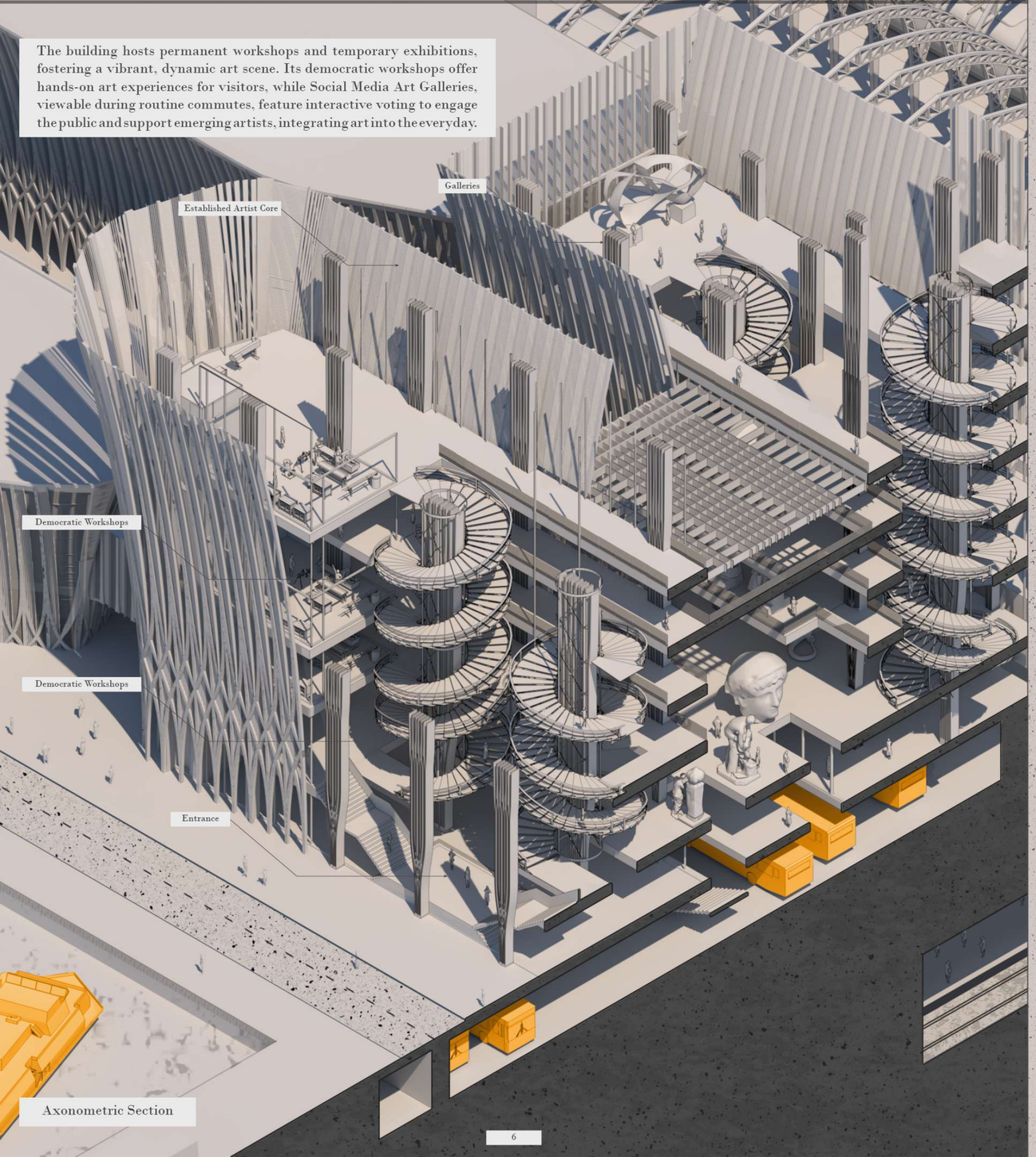


First Floor Plan



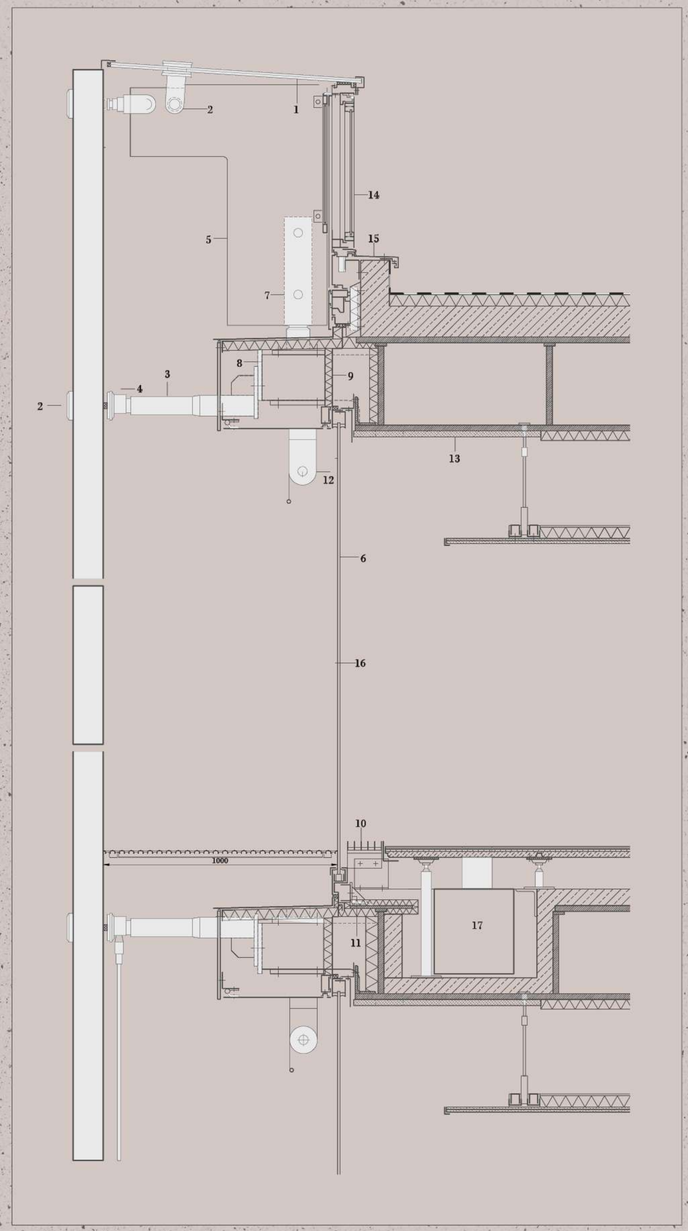
Short Section A-A

The building hosts permanent workshops and temporary exhibitions, fostering a vibrant, dynamic art scene. Its democratic workshops offer hands-on art experiences for visitors, while Social Media Art Galleries, viewable during routine commutes, feature interactive voting to engage the public and support emerging artists, integrating art into the everyday.



Axonometric Section

1. Fibreglass panels
2. Individual fixing, stainless steel, 125 mm dia.
3. Round stainless steel bar, 35 mm dia.
4. Tie, stainless steel, 14 mm dia
5. Glass fin, 19,mm laminated safety glass
6. Inner glazing, frosted finish toughened safety glass, 10 mm
7. Stainless steel glass fixing
8. Steel fin
9. Sheet steel, 1.6 mm
10. Ventilation Grill
11. Steel angle, 110 x 110 x 10 mm
12. Adjustable anti-glare blind
13. Fire-resistant lining
14. Opening light for ventilation
15. Aluminium capping plate
16. Silicone joint
17. Heating/ventilation duct



Facade Detail



Venetian Commons - New Residential District in Venice

"Venetian Commons" project, part of an Erasmus program at IUAV in Venice, aimed to revitalize Venice by designing a new urban nucleus that blends historical architectural elements with modern needs. It integrated public buildings, public squares, interconnected pathways, and private residences to rejuvenate community spaces and preserve Venice's architectural heritage.

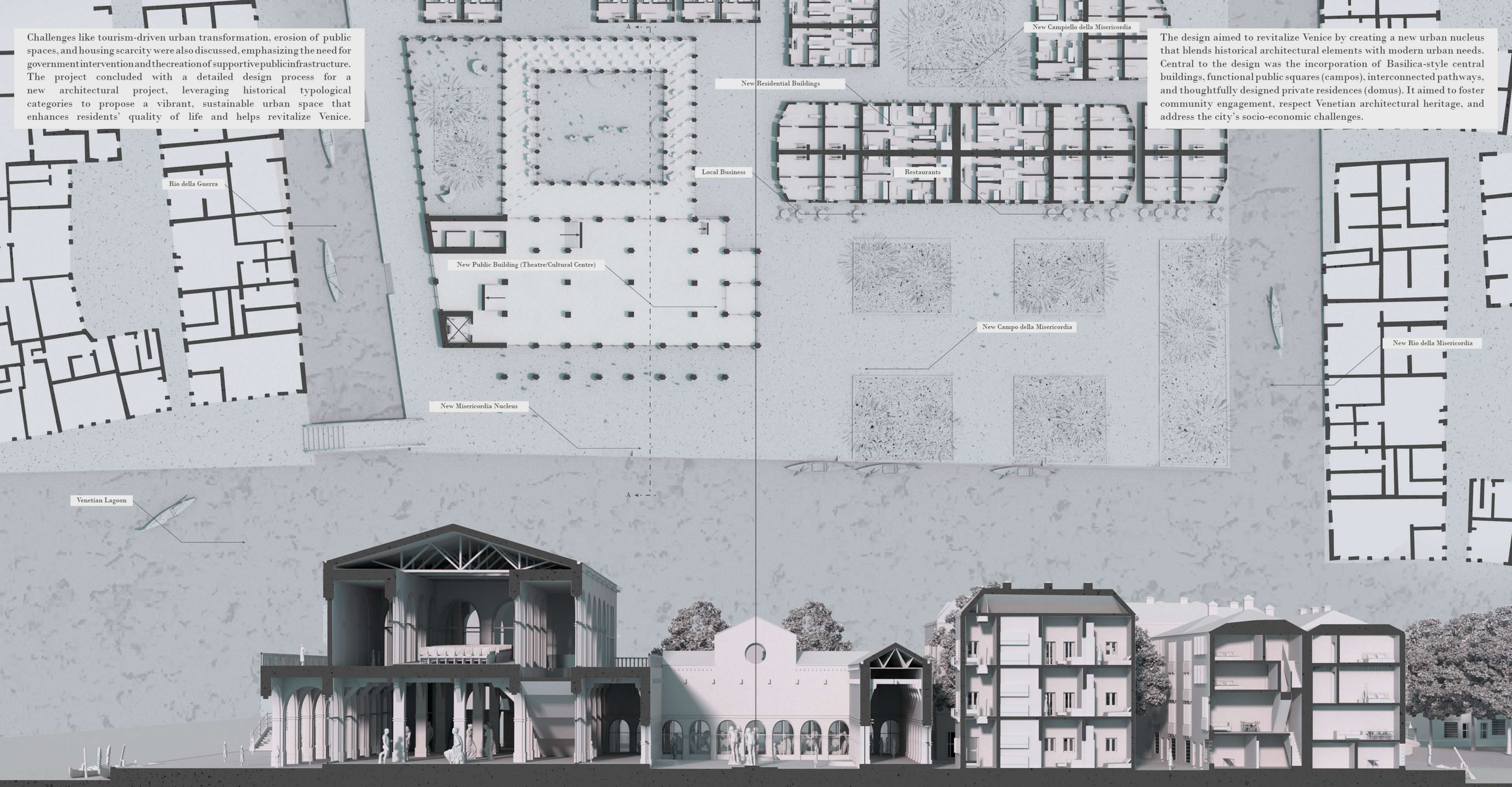
The study began with an exploration of urban morphology, particularly the Italian School approaches by Saverio Muratori and Gianfranco Caniggia, who viewed the urban fabric as an organism and emphasized its typological and morphological aspects. Subsequent chapters examined the evolution of Venice as it grew around its archipelago, forming autonomous Parish-Island Urban Nuclei. These chapters delved into the historical and spatial dynamics of these nuclei, highlighting the unique urban categories like the church (chiesa), public squares (campo), and their interconnected relationships, as well as pathways and private edifices. Further analysis focused on how these typological features influenced Venice's overall urban fabric. Special attention was given to the areas of S. Margherita and the Rocco-Frari super-Nucleus, drawing insights for designing new, sustainable urban spaces within Venice.



Axonometric

Challenges like tourism-driven urban transformation, erosion of public spaces, and housing scarcity were also discussed, emphasizing the need for government intervention and the creation of supportive public infrastructure. The project concluded with a detailed design process for a new architectural project, leveraging historical typological categories to propose a vibrant, sustainable urban space that enhances residents' quality of life and helps revitalize Venice.

The design aimed to revitalize Venice by creating a new urban nucleus that blends historical architectural elements with modern urban needs. Central to the design was the incorporation of Basilica-style central buildings, functional public squares (campos), interconnected pathways, and thoughtfully designed private residences (domus). It aimed to foster community engagement, respect Venetian architectural heritage, and address the city's socio-economic challenges.



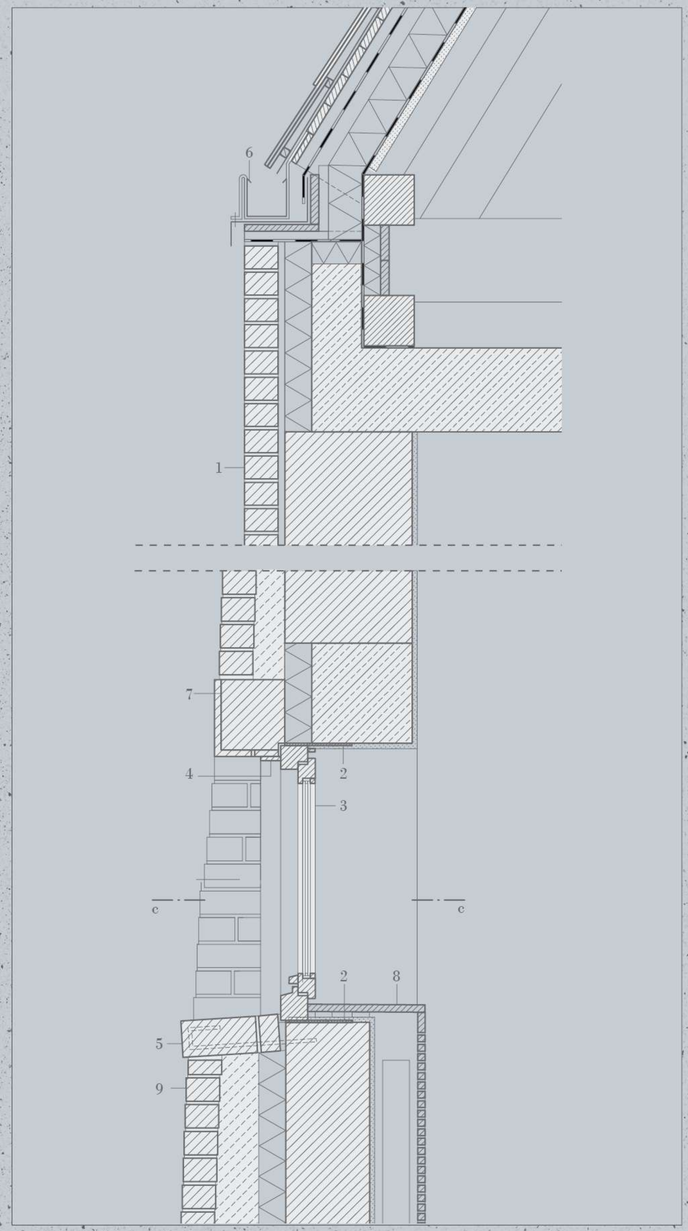
Perspective Section A:A

Ground Floor Plan



Canal View of Homes

1. Wall construction 120 mm facing bricks 20 mm air cavity 380 mm hollow clay block masonry between reinforced concrete frame 15 mm plaster
2. Steel flat, 200 x 100 x 6 mm
3. Wooden window with double glazing
4. Pine cover strip, 60 x 10 mm
5. Brick-on-edge course (facing bricks) as window sill
6. Sheet zinc gutter
7. Insulated stone lintel, 200 x 200 mm, with facing brick work on outside
8. Beech window board
9. Spandrel panel 120 mm facing bricks 100–200 mm lightweight concrete 80 mm thermal insulation 250 mm hollow clay block masonry 15 mm plaster 130 mm radiator behind 24 mm perforated pine panelling
10. Glass block, 195 x 195 mm
11. Steel flat, 400 x 400 x 20 mm
12. Slate, 10 mm
13. Insulated shallow brick lintel



Brick Facade Detail



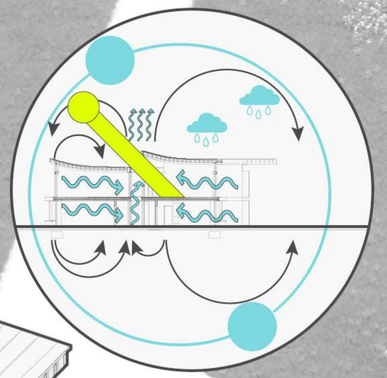
Scotland's Care Houses of the Future - "Dementia Village"

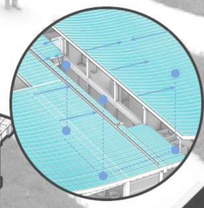
The "**Care Houses of the Future**" project reimagines care home design by focusing on deinstitutionalized care, promoting enhanced community interaction and improved living conditions for elderly residents. The project aimed to create a care home that is both functional and harmonious with its surroundings.

11



The project envisions a care home that isn't just functional but is seamlessly incorporated into the urban fabric, promoting interactions between residents and the community. This includes thoughtful planning around public and private spaces, environmental considerations, and the architectural integration with the surrounding landscape. The care home design considers the specific needs of its elderly residents, providing a supportive, interactive, and integrated environment.

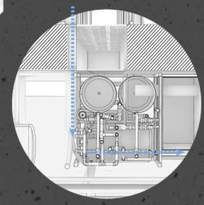




Roof Harvest



Gutters



Filtration

Section Axonometric

Additionally, the project's commitment to environmental sustainability is underscored by its innovative water management strategies. Each care unit is equipped with a rainwater harvesting system that filters and stores water for potable use and irrigation purposes.



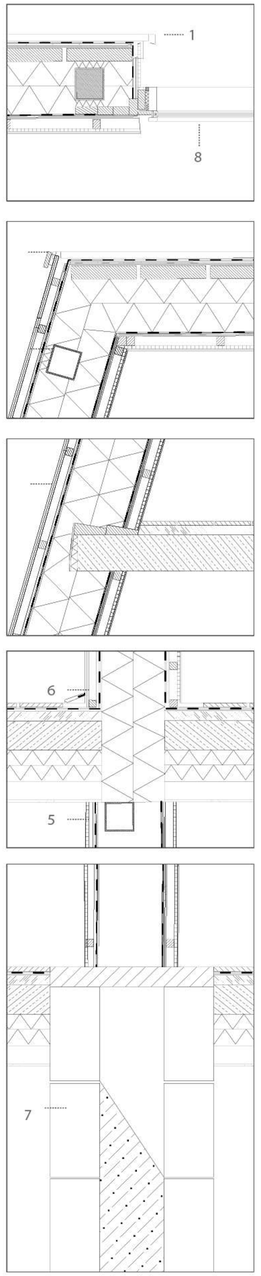
Brussels' Maker Wave - the New Maker Space Nucleus

"**Brussels Maker City**" project envisions transforming Brussels' Biestebroekdok area into a dynamic community space with a hybrid building that blends residential, commercial, and maker spaces. This urban renewal aims to strengthen local connections and support the maker movement, fostering a vibrant, sustainable community.

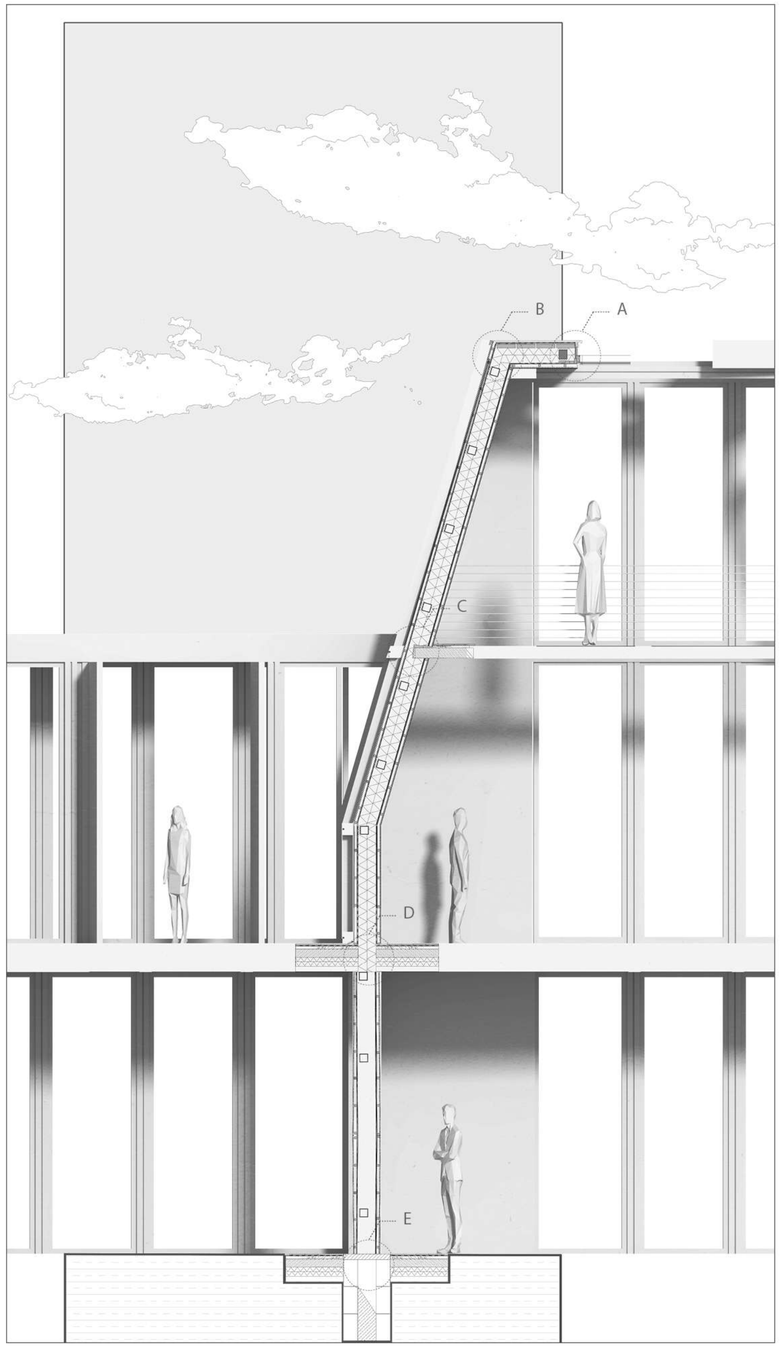
13



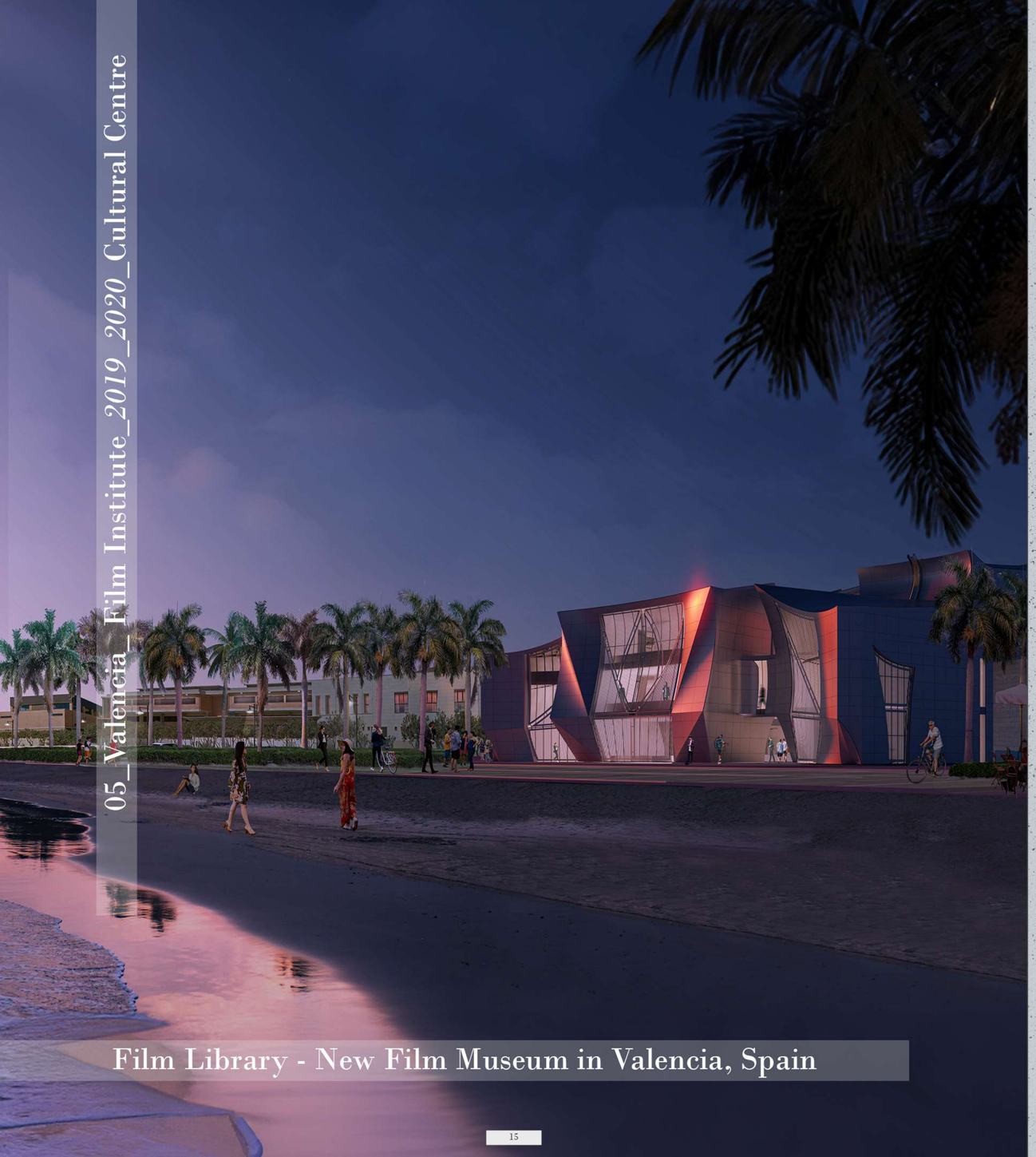
Ground Floor Plan



Technical Details

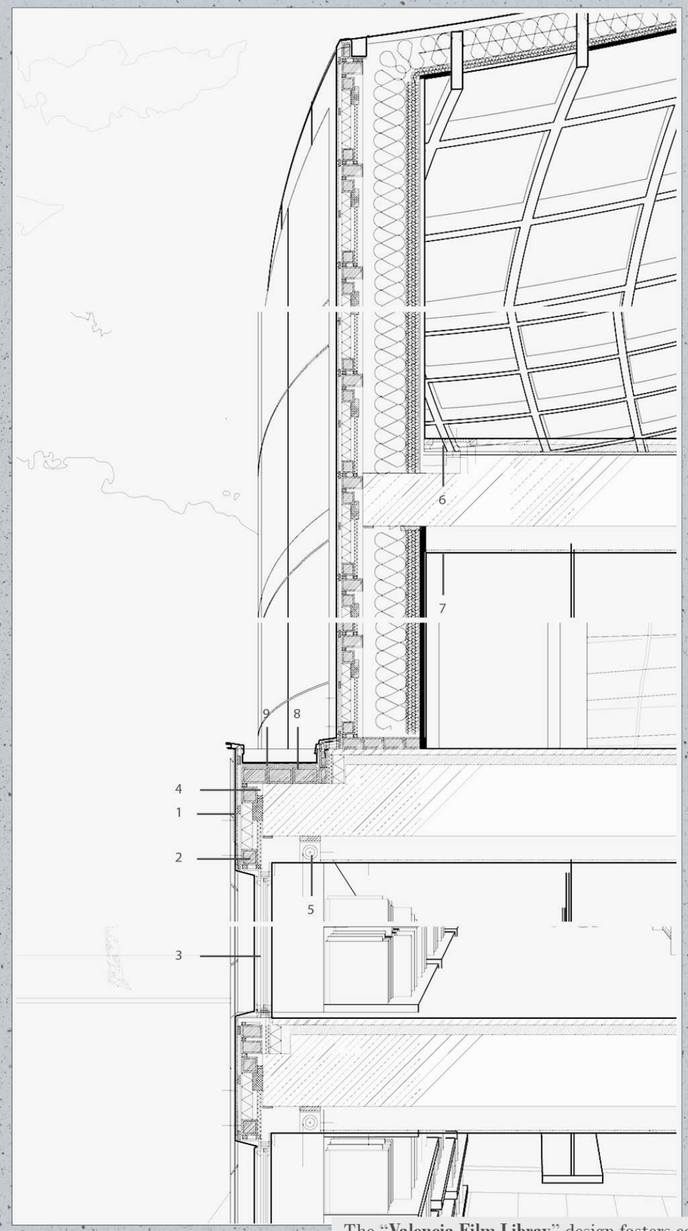


Technical Section



Film Library - New Film Museum in Valencia, Spain

1. Facade panel:
Fiberglass panels with textured surface finish, fixed with specially fabricated stainless steel screws, left exposed externally air cavitygalvanised steel sheet extruded rigid polystyrene thermal insulation mineral fibre thermal insulation sheet steel.
2. Supporting framework of steel square hollow sections, 65 x 65 mm
3. Aluminium window with double glazing, 16 mm toughened safety glass + 12 mm cavity + 6 mm toughened safety glass.
4. Fire stop.
5. Roller blind to combat glare
6. Grating over heating pipes, anodisedaluminiuminwooden frame.
7. : Plasterboard suspended ceiling.
8. Bonded plywood, watetproof.
9. Rubber granulate board on separating layer and gutter heating.



Facade Section

The "**Valencia Film Libray**" design fosters community gathering, strategically located to connect El Cabanyal with surrounding affluent areas. It features a central courtyard and a theater, with a film library that doubles as an outdoor cinema, enhancing social interaction through free Spanish film screenings.

06_Eindhoven_ Expo__2022_Sculpture for Dutch Design Week

3D Printed Clay Tower - Dutch Design Week 2022

While studying for my Master's degree, I worked as a Teaching Assistant at TU Eindhoven in the Clay Printing Lab under Professor Cristina Nan. I specialized in developing parametric designs using Rhino 8 and Grasshopper, generating G-code for the Delta WASP 40100 Clay 3D Printer, which I operated myself. My responsibilities included adjusting the printer settings to accommodate the complex geometries of my designs, such as slowing the extruder speed and increasing the flow. My work was featured prominently at the Drivers of Change Exhibition during Dutch Design Week 2022 and Robots that Build: The Extensions of Man.

16

07_Lisbon _ Competiton__2023_3D printed Urban Furniture



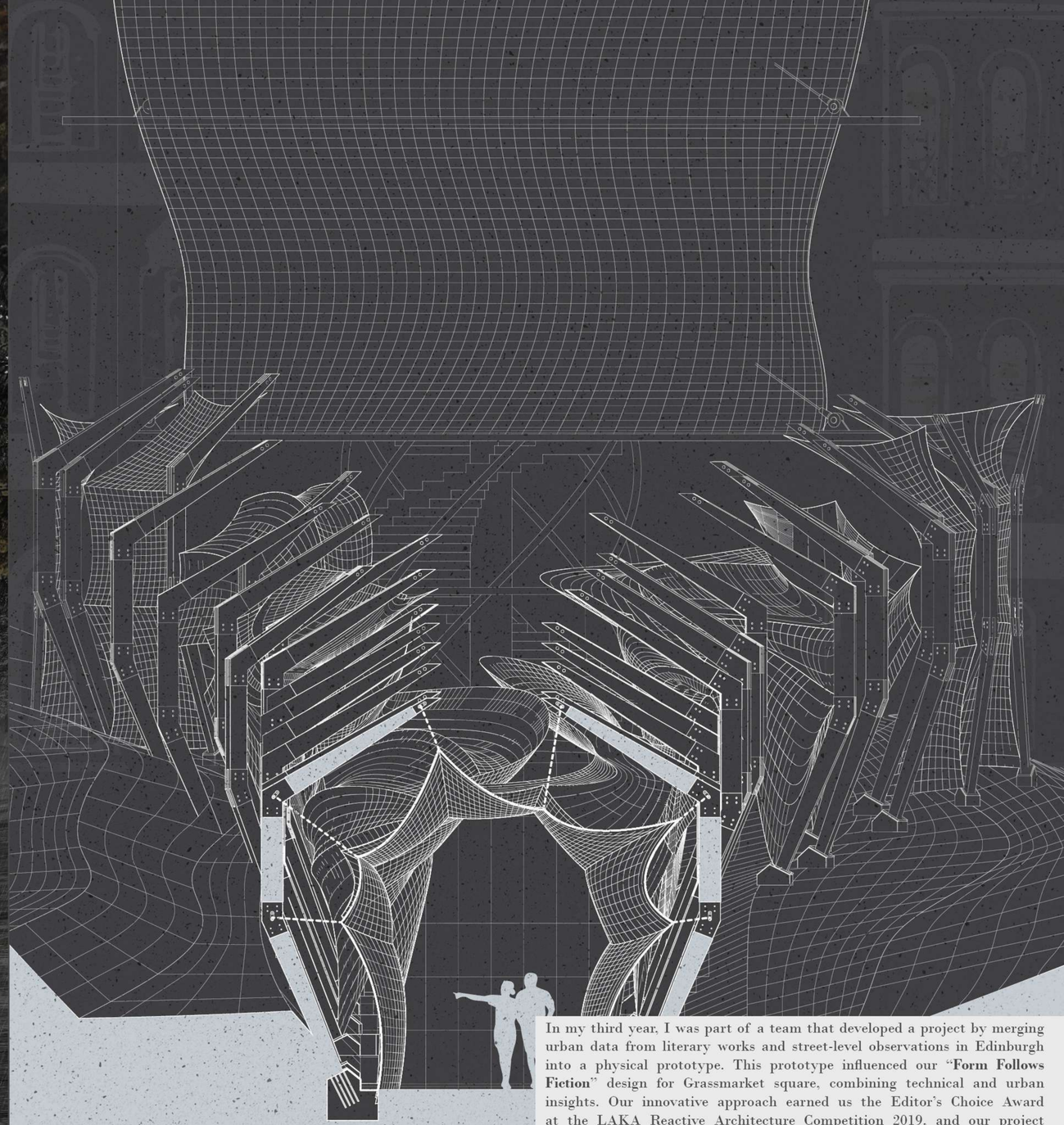
Spirolateral Bench - First Place at SIR3D by Sirolis Competion



I won first prize at SIR3D by Sirolis competion for my project, "**The Spirolateral Bench**," a 3D concrete printed outdoor bench. The bench showcases a spirolateral curve with a concrete printing pattern, highlighting parametric form generation and the organic potential of concrete printing. Designed with Rhino 7 and Grasshopper, it features a modular structure with five arrayed 'cores' and an aluminum seating top.



Form Follows Fiction -Editor's Choice Award - Alt. Architecture

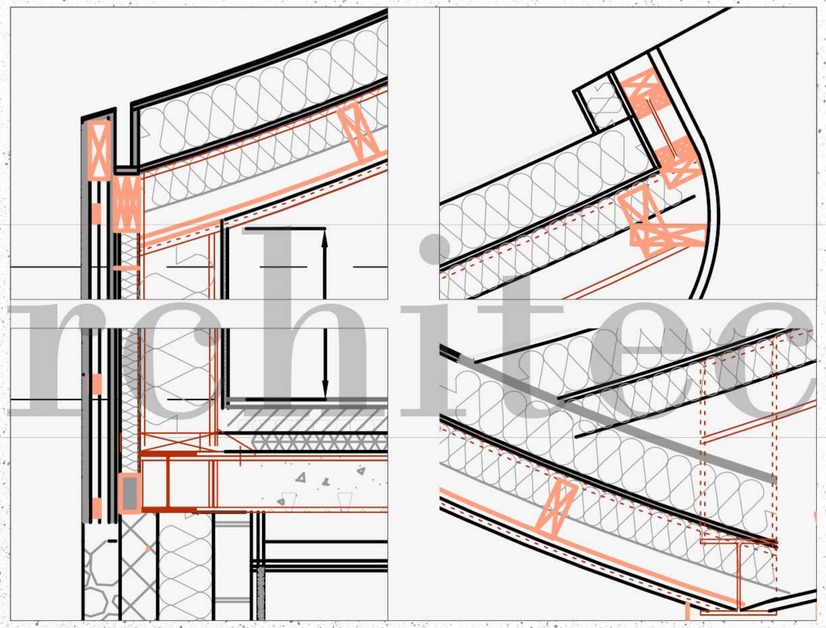


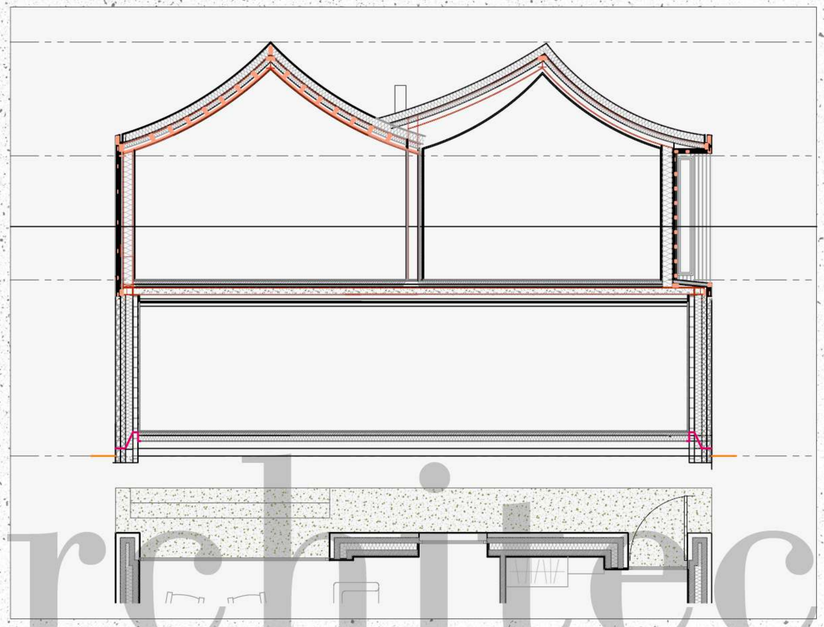
In my third year, I was part of a team that developed a project by merging urban data from literary works and street-level observations in Edinburgh into a physical prototype. This prototype influenced our "**Form Follows Fiction**" design for Grassmarket square, combining technical and urban insights. Our innovative approach earned us the Editor's Choice Award at the LAKA Reactive Architecture Competition 2019, and our project was featured in the BA/MA (Hons) Architecture Catalogue 2019/20.

09_Brighton _ Professional__2021_Summer House



45 Marine Drive - the New Summer House





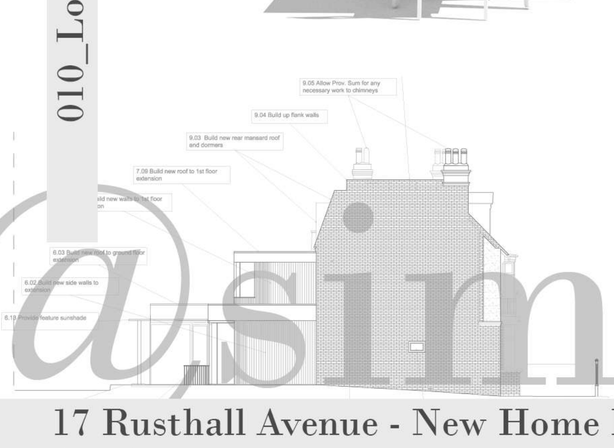
From June 2020 to April 2021, I served as an Architectural Assistant Part I in West Wittering, where I was involved in the design of a two-story beachside dwelling. My role included participating in meetings, assisting with the design process, creating 2D and 3D visuals for clients, and contributing to the planning application. I was also involved in the tendering process for this project.

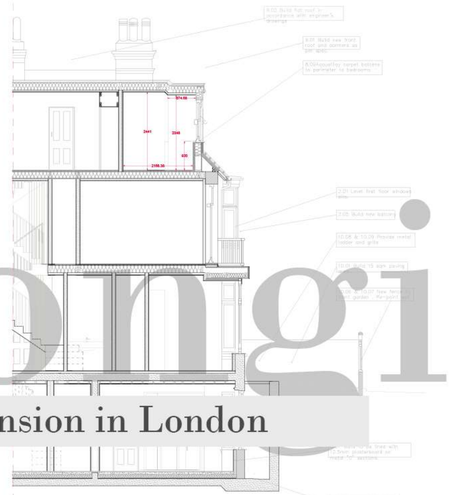
@simongillarchitects

@simongillarchitects

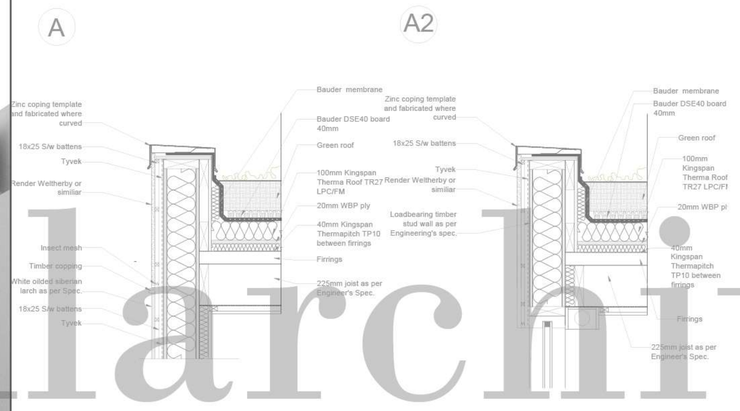
010_London _ Professional__2020-2022_Home Extension

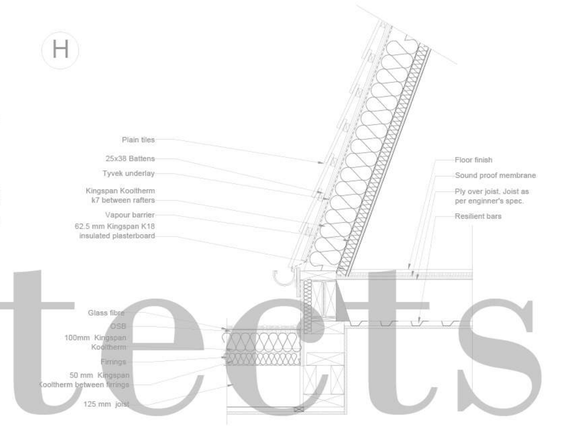


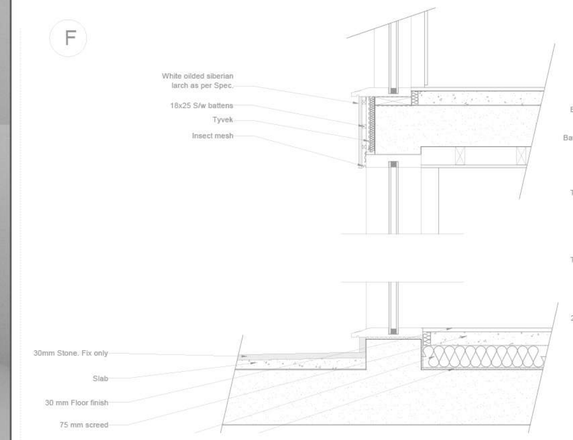


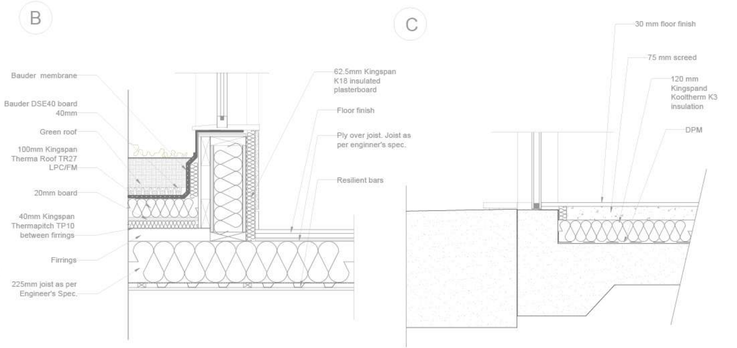


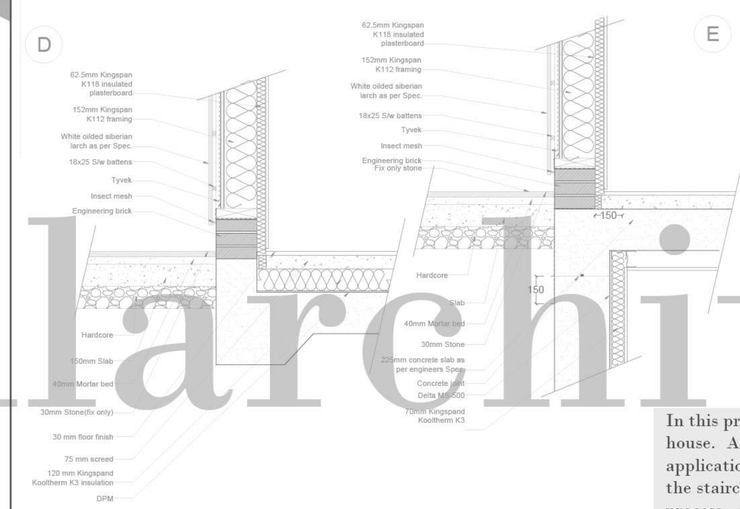
17 Rusthall Avenue - New Home Extension in London

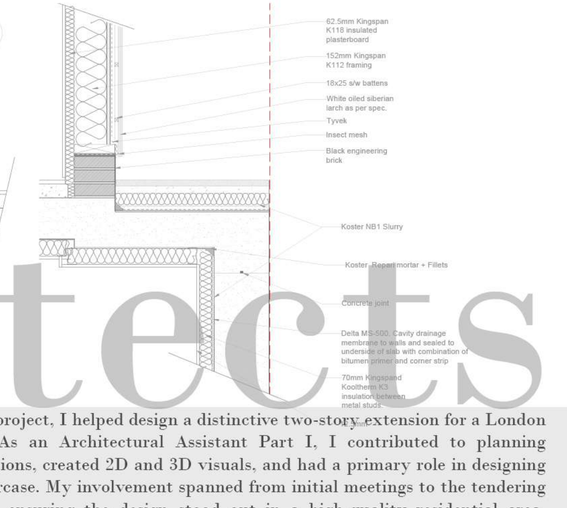












In this project, I helped design a distinctive two-story extension for a London house. As an Architectural Assistant Part I, I contributed to planning applications, created 2D and 3D visuals, and had a primary role in designing the staircase. My involvement spanned from initial meetings to the tendering process, ensuring the design stood out in a high-quality residential area.

011_Home _ Personal__2024_Etsy Store

the DROC Gallery
contemporary art ensemble

The DROCgallery - Personal Etsy Store

the DROC Gallery
contemporary art ensemble



After finishing university, I decided to launch my own business, DROCgallery, an Etsy storefront where I sell a curated collection of original paintings. This venture allows me to share my artwork with a wider audience, providing unique pieces for art enthusiasts and collectors alike. As the founder of DROCgallery, I've enjoyed the challenge of growing my brand and connecting directly with customers who value original and creative expressions.


THE END.
drocarchitecture@gmail.com
+40 0753 054 118