FRASER STREATFIELD

Architect | Designer

CONTENTS

FRASER STREATFIELD

ARCHITECT | DESIGNER ARB. MArch. BArch.

Architect, Associate Partner and CPD (Continuing Professional Development) Organiser at Pilbrow & Partners, a competitive award-winning architectural practice in London. A successful architecture graduate, with both Bachelor's and Master's Honorary degrees from RIBA (Royal Institute of British Architects) accredited university courses, as well as a successful Part 3 graduate from the Architectural Association. An ARB (Architects Registration Board) registered Architect, with over 6 years of experience in the industry.

WORK

Dec. 2021 - Present
Pilbrow & Partners Architects
Architect & Associate Partner
CPD Organiser & Researcher

Key Projects:

- EDGE London Bridge

Jun. 2019 - Dec. 2021
Pilbrow & Partners Architects
Architectural Assistant
ARB / RIBA Part 2
CPD Organiser & Researcher

Key Projects:

- EDGE London Bridge
- 458 Oxford Street
- Hackney Night Shelter
- One Palace Green

Sep. 2015 - Aug. 2017
Pilbrow & Partners Architects
Architectural Assistant
ARB / RIBA Part 1

Key Projects:

- 8 Albert Embankment
- Ingram House
- Cyprus Archaeological Museum
- EMD Walthamstow

Sep. 2018 - Jun. 2019
Manchester School of Architecture
BArch Technologies Assistant

- Organised and led workshops
- Participated in design reviews

May. 2018 - Jun. 2018
The British Council
Research Fellow

- Steward of events & Researcher

Oct. 2017 - May. 2018
Manchester School of Architecture
Teaching Assistant

- Organised specialised tutorials
- Led focus groups on software

EDUCATION

Aug. 2020 - May. 2021
Architectural Association (AA)
ARB / RIBA Part 3 Examination

Sep. 2017 - Jul. 2019
University of Manchester (UOM)
Master of Architecture (MArch)

Sep. 2012 - Jun. 2015
Nottingham Trent University (NTU)
Bachelor of Architecture (BArch)

Sep. 2005 - Jun. 2012
Tring School Secondary School
GCSE's and A levels

VOLUNTEERING

May 2017 - Sep. 2017
The Architecture Foundation
Events, Arts and Culture

Mar. 2017 - May 2017.
Maximo Nivel
Construction & Poverty Alleviation

Sep 2014 - Oct. 2014
Nottingham Trent University
Activities Fresher's Representative

Feb 2013 - Apr. 2013
Link Community Development Int.
Fund-raiser for Education

PUBLICATIONS

Jul. 2022
NBS Chorus
Marketing Master-class for Manufacturers: What specifiers want from CPD

Jan. 2019
Met Magazine
Global Mancunians: rooted in Manchester but with branches on every continent.

COMPETITIONS

Dec. 2021
Buildner / Bee Breeders
International Architecture Competition

Feb. 2019
EU funded Horizon 2020 program
BAMB Reversible Design Competition

Aug. 2017 - Apr.2018
U.S Department of Energy
Race to Zero Student Competition

Aug. 2017 - Dec. 2017
ARCHMedium Student Competition
Barcelona Social Housing

HONOURS

Jul. 2019
University of Manchester
The UOM Dean's Prize Award

Feb. 2019
EU funded Horizon 2020 program
Prize Winner

Aug. 2017 - Apr.2018
U.S Department of Energy
Finalist in Attached Housing Category

INSTITUTIONS

Jan. 2023
Architects Registration Board (ARB)
Registered Architect. No. 100011J

Jul. 2019
Alumni of UOM
Member of the community

Jun. 2017
Alumni of NTU
Member of the community

CONTINUED...

A Designer that has also ventured outside from the academic and professional aspects of the career and explored installation work at an architectural scale. This has involved a series of exhibitions that range from research undertaken independently to collaborative work with professionals from different fields such as textile design, augmented reality and model making. This passion to explore new ideas and methods of production has also encouraged the use of a wide range of software to transform concepts into reality.

EXHIBITIONS

May. 2024
Clerkenwell Design Week
Fringe Partner

- Design Lead on event
- Organiser and coordinator

Jun. 2022
London Festival of Architecture
Studio Lates Event

- Concept designer, curator and coordinator of the installation 'Conductive Collaboration'

Apr. 2020
Clerkenwell Design Week
Suspending Time

- Design lead on concept
- Organiser and coordinator

Jan. 2019 - Jul.2019
Bluedot Festival
Icosahedron

- Lead Designer, coordinator, curator and installer
- Collaboratively working with researchers in knitted design

Mar. 2019 - Jul. 2019
The British Council
After ISLAND

- The 2018 Venice Fellows Exhibition at RIBA North
- Researcher and Participant

Oct. 2018 - Dec. 2018
Manchester School of Architecture
Host 4020 Installation

- Lead Designer, coordinator, curator and installer

Jan. 2018 - Jul. 2018
Bluedot Festival
The Big Bang

- Design lead on concept
- Organiser and coordinator

SKILLS

Microstation (CAD)
- Proficient with 10 years of experience in both 2d and 3d

Revit (BIM)
- Proficient with over 5 years experience

Dynamo
- Good understanding with a foundation of knowledge built up over the last year

Navisworks
- Good familiarity with over 2 years of experience

AutoCAD
- Good familiarity with over 2 years of experience

Rhino
- Good understanding with over 7 years of experience

Grasshopper
- Intermediate knowledge with over 5 years of experience

SketchUp
- Intermediate knowledge with over 3 years of experience

Twinmotion
- Proficient with over 3 years of experience

Enscape
- Proficient with over 5 years of experience

One Click LCA
- Competent with the Whole Life Carbon assessment tool

Adobe Suite
- Competent with Photoshop, Illustrator and InDesign

Microsoft Suite
- Competent with. Word, Power-point and Excel

HOBBIES

Golf
- Regular and active player

Windsurfing
- Intermediate certification achieved, looking to get back out on the sea

Martial Arts Karate
- Black Belt in Shotokan with over 10 years of dedicated training

Piano
- A student of both Jazz and Classical music with over 10 years of practice

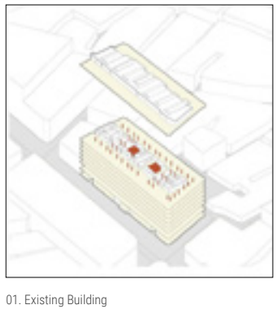
Life Drawing
- Regular participant in bi-weekly classes in the local studio

OASIS. ARCHMEDIUM

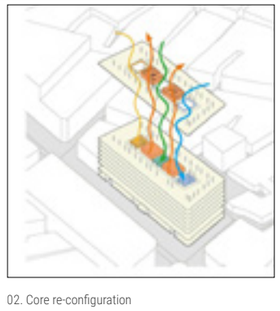
Student Competition. Shortlisted.

A short competition that looked at the housing emergency in Barcelona; where 40% of the purchases of flats are made only to invest and the increase of tourist apartments have exponentially increased the price of rents. Sensitive to this problem, the proposal seeks to transform an existing office building from the 20th century to social housing.

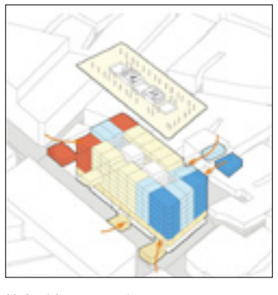
In principle, it would create an environment where people could live, work and play. This would be achieved by creating economic, efficient property types and a retail environment that sources its employment internally within the building thus contributing to sustaining the community of the building as whole.



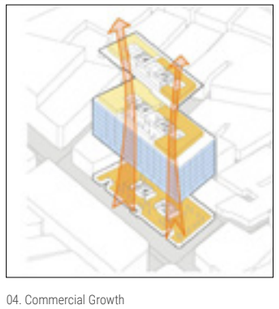
01. Existing Building



02. Core re-configuration



03. Spatial re-programming



04. Commercial Growth

Exterior view from upper level terraces

Interior view out from upper level terraces

Interior view from inside typical apartment

AQUA LIVING is centred around the theme of water, it creates a zero carbon, self-sustaining community.

Student Competition. Shortlisted / Finalist.

The proposal is a new approach to residential housing in America. It aims to seize areas of untapped potential near to the city of Tampa. A city close to sea level the proposal seeks to take advantage of its geographical location and situation. The proposal aims to encourage self-sustaining communities, become a zero carbon development, provide a high quality of life.

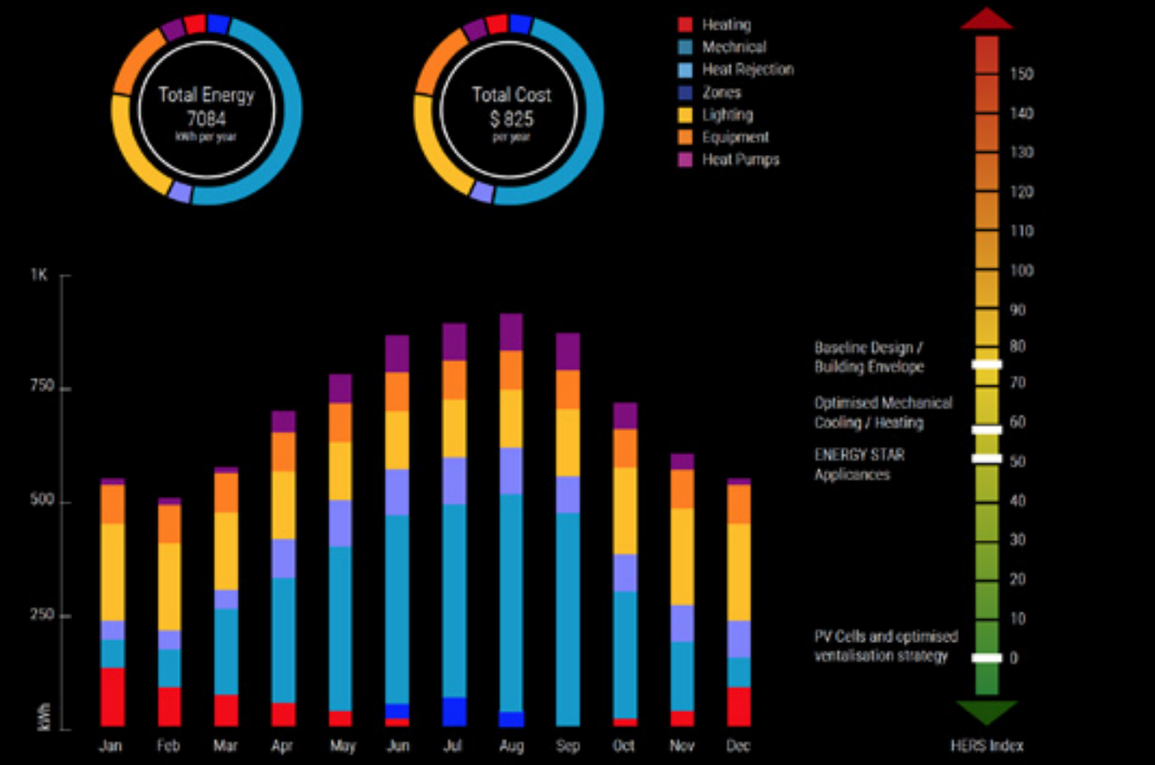
It seeks to create beautiful architecture and landscapes to spark the imagination and move the spirit. As well as offer product longevity that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Group Photo from the U.S. DOE, Colorado.

Axonometric of the community courtyard

The proposal consisted of three housing types, each designed to reduce heat gains, maximise availability to daylight and favour a natural ventilation strategy or mixed mode strategy. Sefaira and different strategies were tested to reduce energy consumption, such as optimising WWRs, adding shading devices etc.

These iterations were tested against the standards of the DOE Zero Energy Ready Home National Program Requirements, with the overarching objective to acheive NET zero. Through this framework each iteration and layout could be further refined and optimised to work within these parameters.



The Red Barns building is converted into a research centre for education and learning, innately linked to Gertrude Bell and her legacy.

Student Competition. Entrant.

The SPAB is a short competition, which invites students to devise a scheme that sympathetically repairs and revitalises a historic building for reuse through careful repair and new construction in contemporary design. The Red Barns building is strongly rooted to the town of Redcar and its history; the Bell Brothers, the Arts and Crafts Movement and the Victorian explorer Gertrude Bell. The proposal celebrates this history and seeks to make the site a hub for the local community with links to national and international frameworks for new explorers.

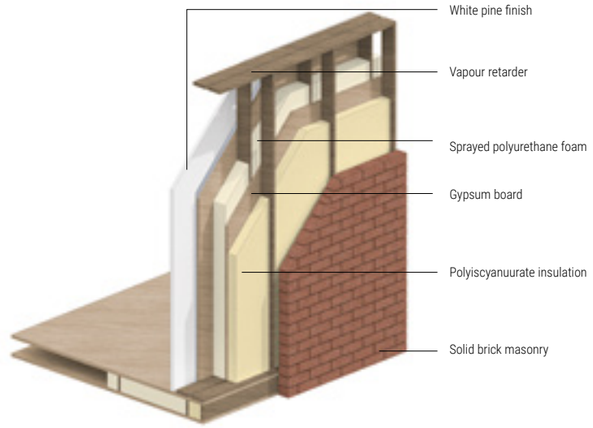
Axonometric cut through Ground

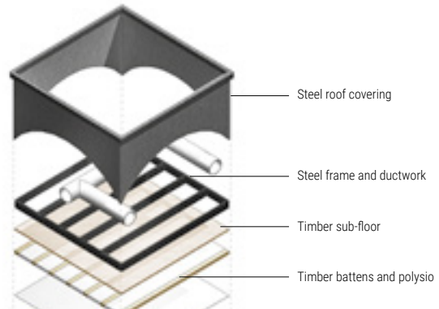
Axonometric cutaway through building

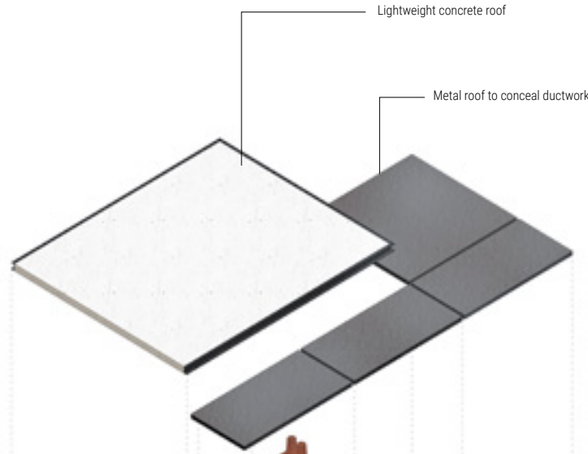
Axonometric cut through Ground

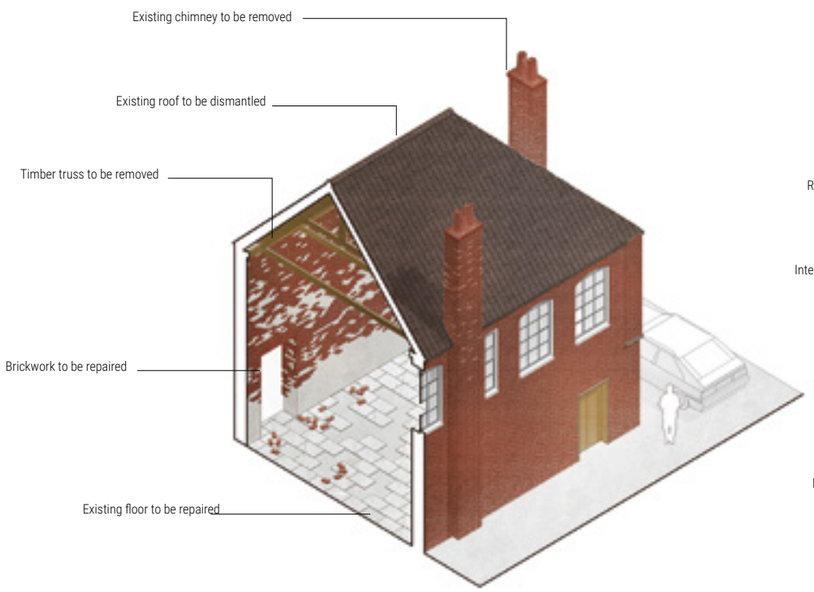
The local populace has suffered in recent years due to the collapse of the steel industry. The proposal seeks to be an instigator for change, it provides Redcar with an opportunity to create a new hub that links its past, its present and its future. The proposal would need a start-up investment that seizes the sites potential. The first stage, would be to deliver a modular system to the site; this would be a plug and play system that would be quick to assemble and set-up to enable use.

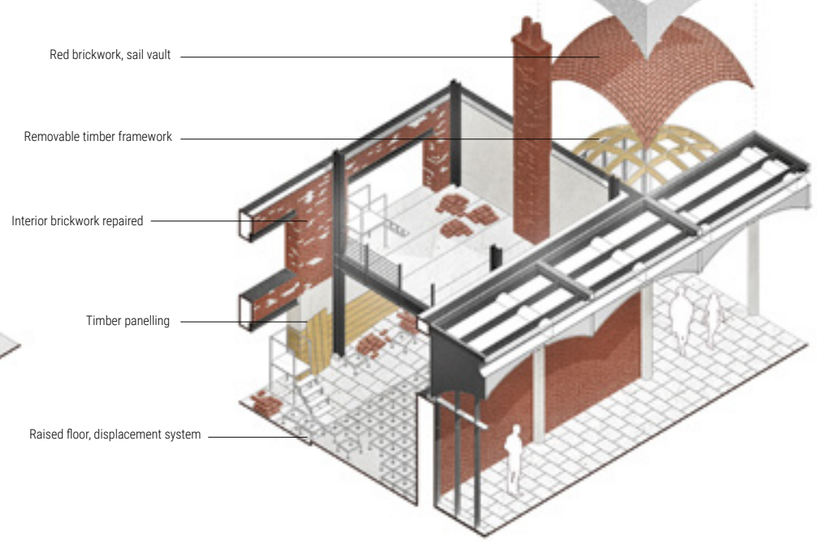
This modularised system would be integrated into the landscape would expand upon the sites existing garden layout. It will restore the original set-out and enable good accessibility for users to move freely through the existing building and its interchanging levels. This scheme architecturally ties itself to key features of the existing building and celebrates it through contrast in the way that it is built.

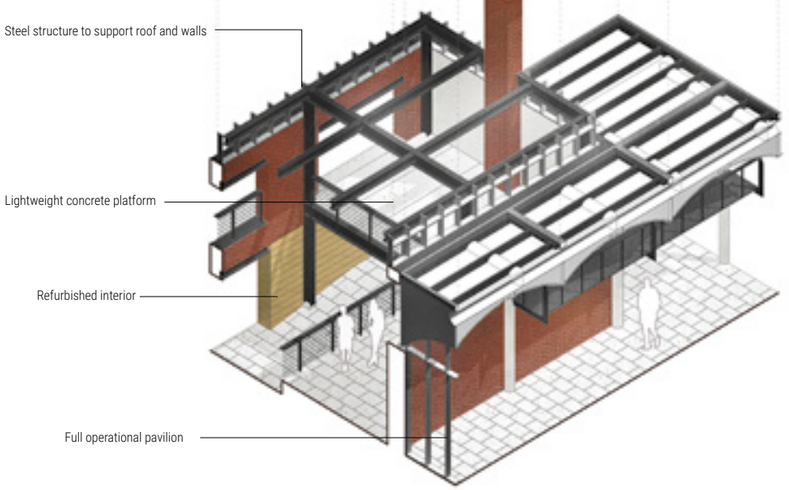












A Master's Thesis Project, which explores and interrogates the role of interlocking forms / 'knitting' in architecture and the circular economy through competition and installation.

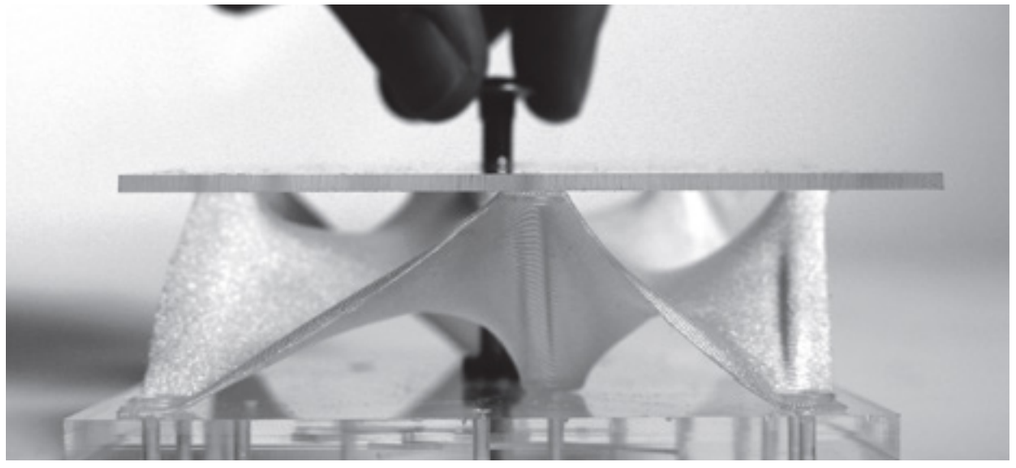
The purpose of this thesis is to investigate the potentials of textile architecture through a multi-layered study of knitting techniques. This empirical study explores the architectural application of knitting; demonstrating the potential of computational design methods to be transferred to knitting machinery.

Knitting offers the possibility of creating complex geometry, capable of incorporating double or multiple wall structures, through a single, flexible manufacturing process. It is a completely reversible process and therefore extends itself to principles of the circular economy; holding both economic and sustainable benefits.

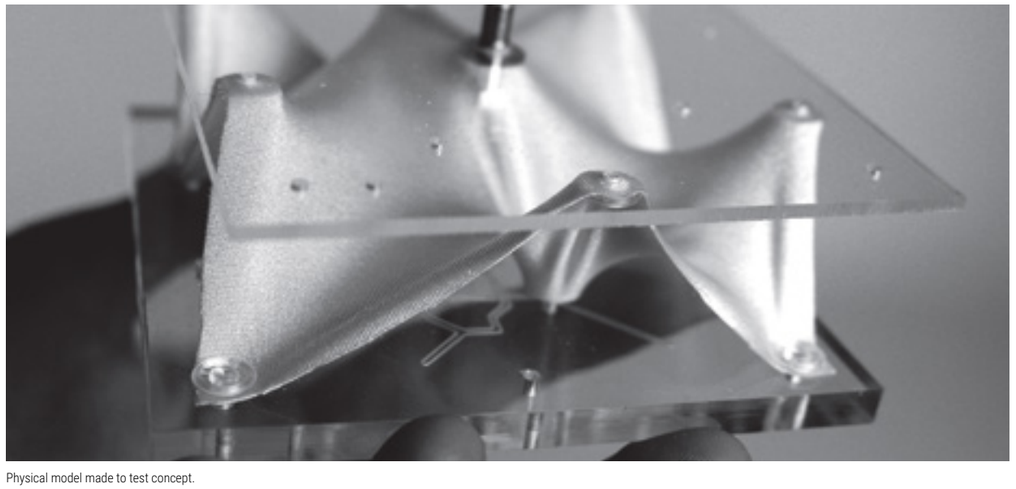
Student Competition. Prized Winner.

Part of the work within the thesis, included entry into the "BAMB's Reversible design competition". The proposal was prized third place and presented out in Brussels with the other winners in front of an audience that was invited to discuss buildings as material banks as well a methods of re-using material.

The work explored ideas and innovative plans to design a reversible building that has flexibility and transformation capacity to change its function by time according to three temporary functions: commercial, residential and services.



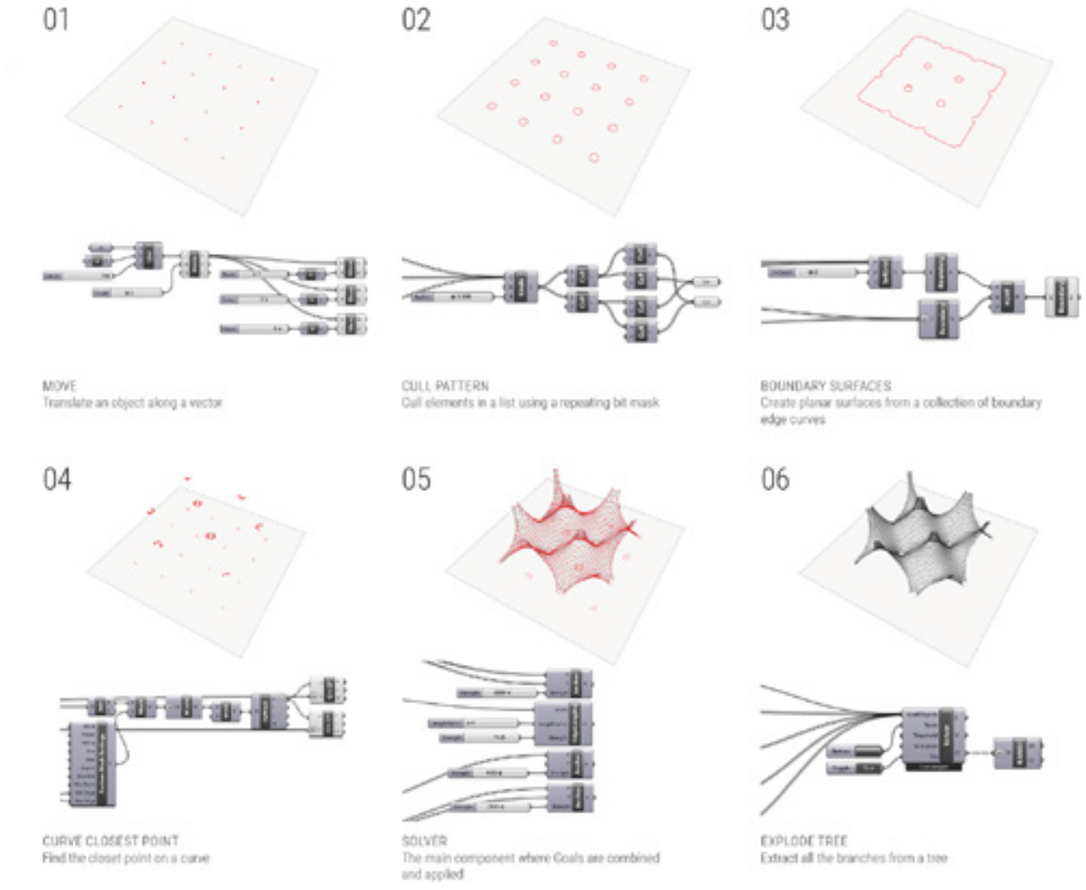
Physical model made to test concept.

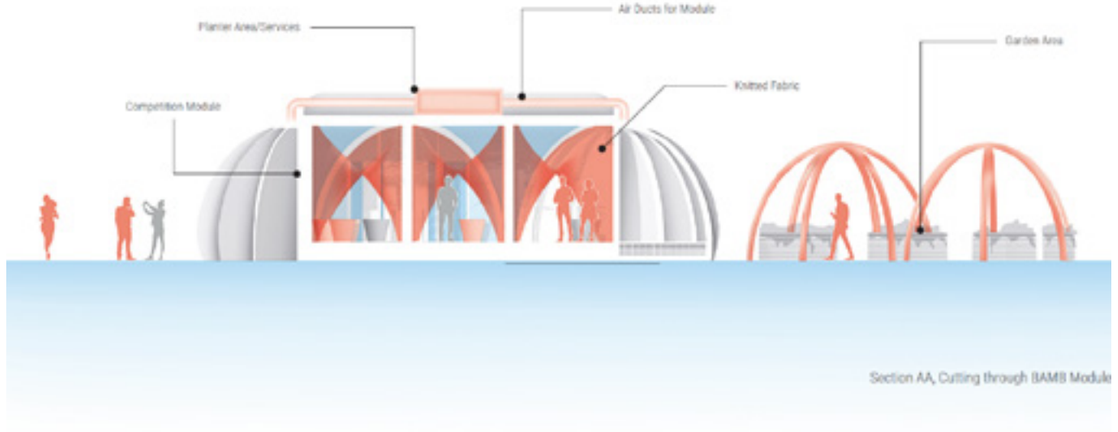


Physical model made to test concept.

The proposal sought to consider the building as a resource; creating value of otherwise worthless materials. This extended from material passports through to reversible building design; creating circular business models as well as policy recommendations.

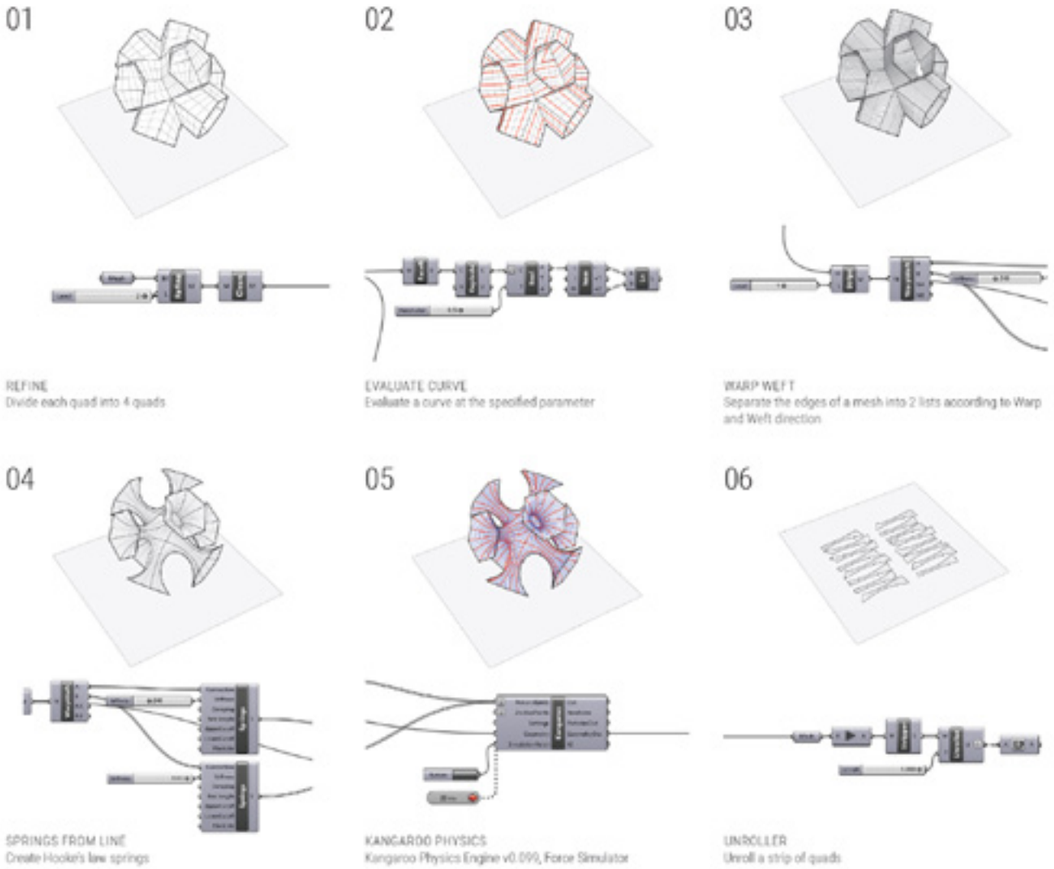
This textile material solution acted as a tensile structure, by fixing itself to the column grid enabling the users to play with the spatial arrangement of the interior. This textile function enabled spaces to adapt and change quickly in a 24-hour cycle.

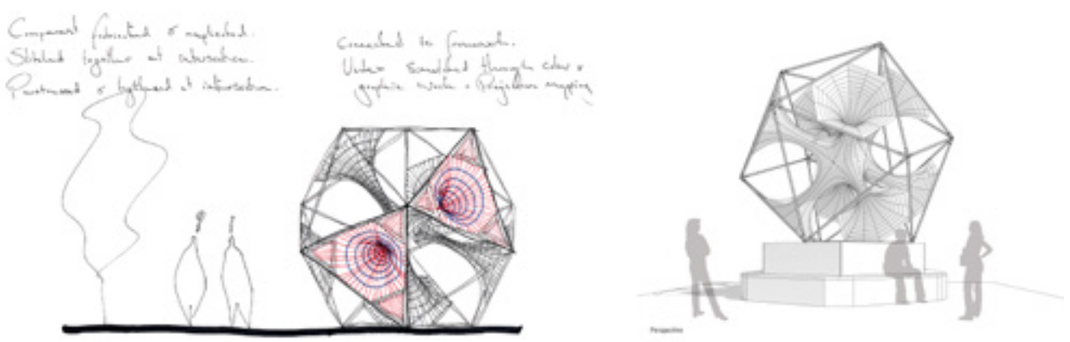


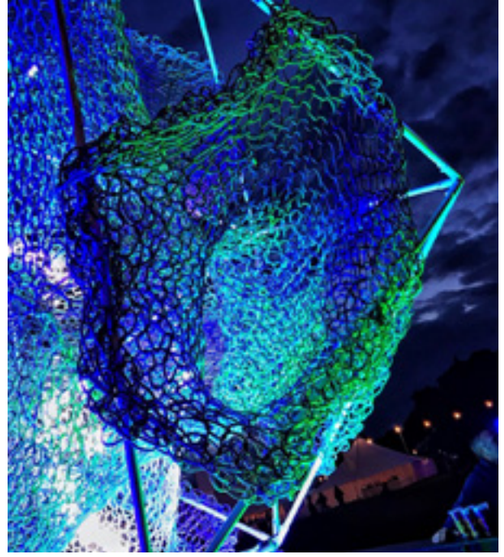


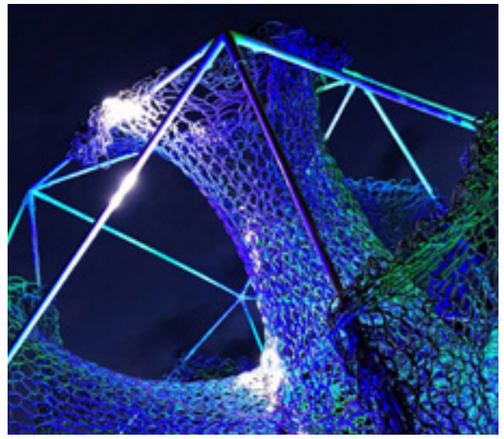
After the BAMB entry, the work evolved through the thesis and developed into an installation for the Bluedot Festival. A music, science and culture event held annually. The concept derived from on-going research on knitted structures and the possible geometry that could be created through learned techniques.

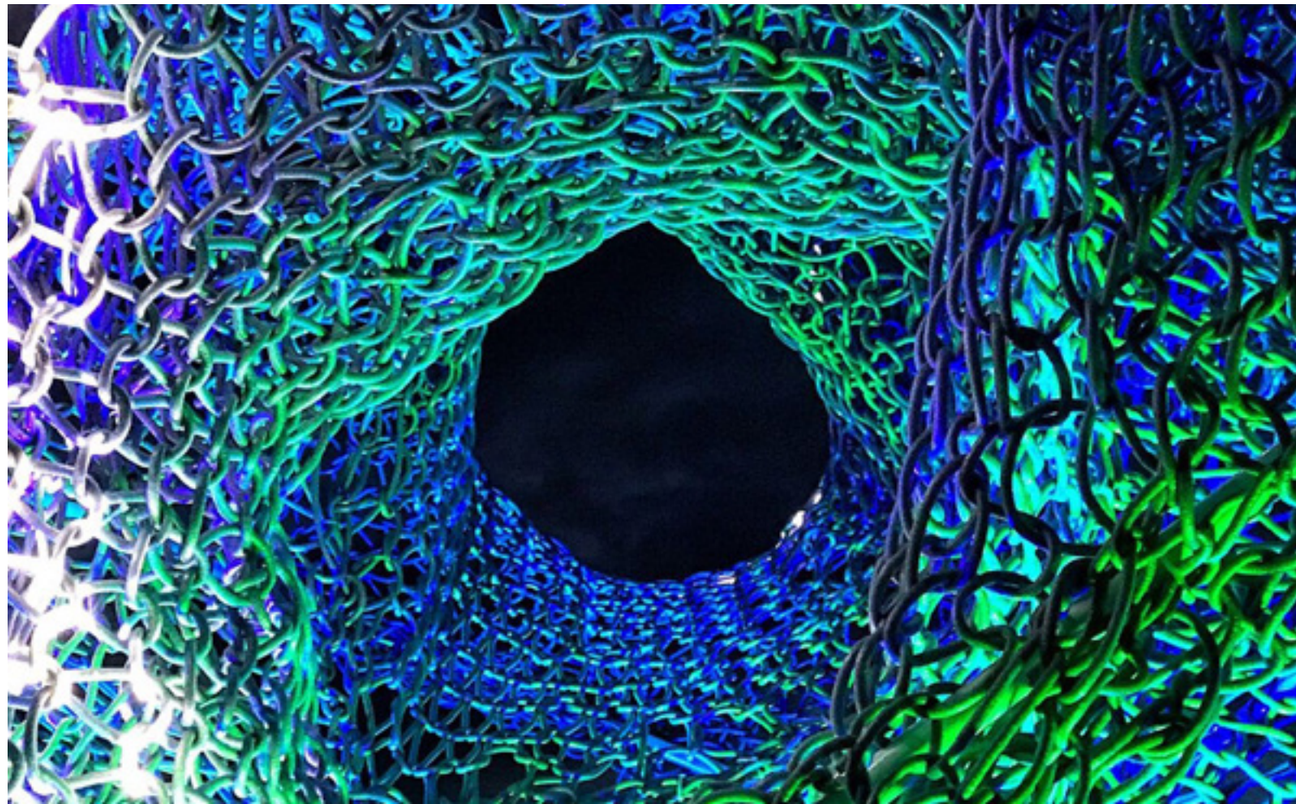
The outcome was an abstract representation of a series of 'wormholes'. Design ideas came from the intent to re-purpose the aluminium frame designed for last year's event as well as incorporate research about seamless knitting from Annie Shaw. The iterations were developed through Rhino / Grasshopper.

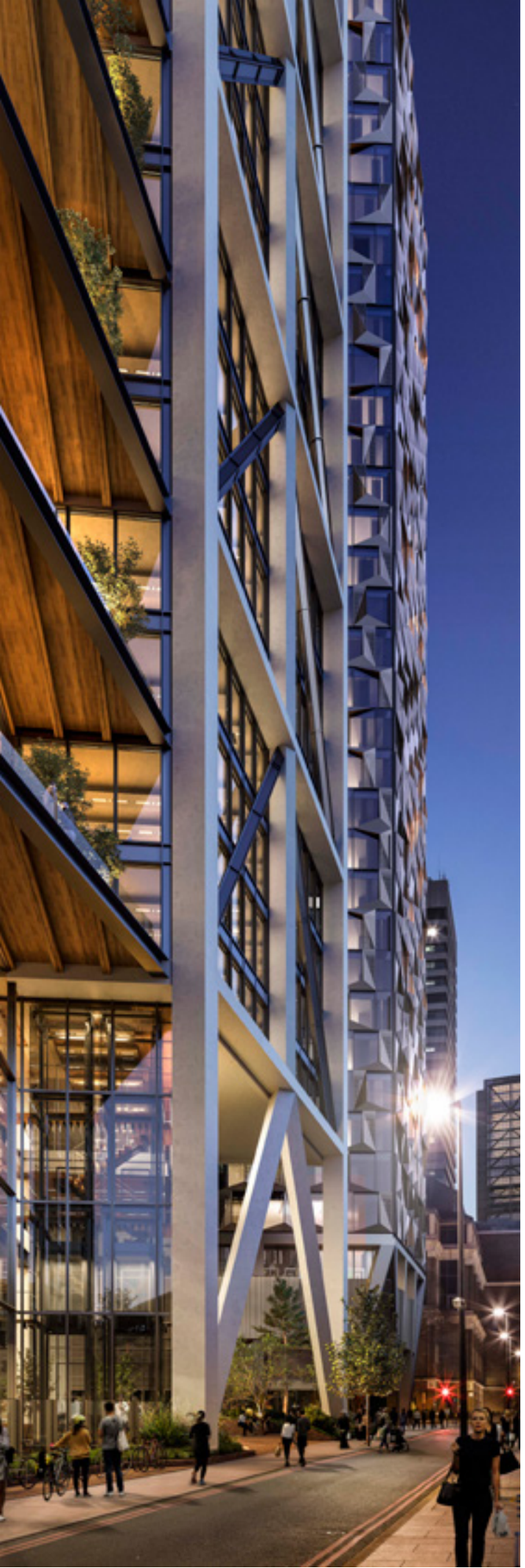












EDGE London Bridge is EDGE Technologies' first London project. Located on St Thomas Street in London's South Bank. It aims to be London's Most Sustainable Multi-tenant office and its first high-rise that integrates timber construction.

In line with EDGE's mission and previous successful projects, this state-of-the-art development aims to turn the ca. 23,500 sq m tower featuring 26 floors of commercial office space into London's most sustainable office tower, designed to achieve both BREEAM Outstanding and WELL Platinum certification. Involvement on the project has encompassed working through the RIBA stages of work 01 - 04 from 2019 to 2023. The project is now progressing into Stage 05 - construction. The work looks specifically at my role as facade lead, extending from coordinated work with internal design team members, model-making teams, visualisers, consultants and contractors.

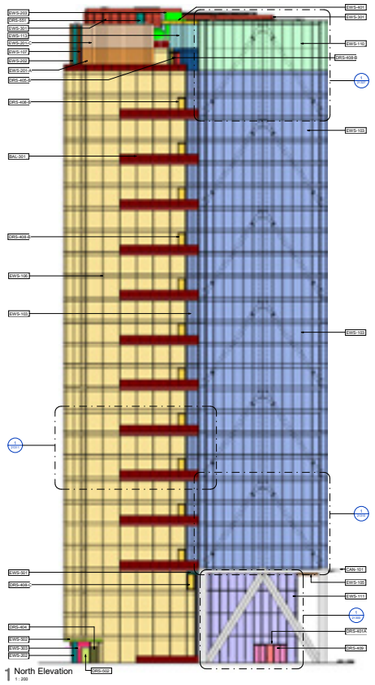
Above, a collection of massing models developed over Stages 01 and 02; here I had 3D modelled the iterations developed with the team, whilst coordinating with the model-makers

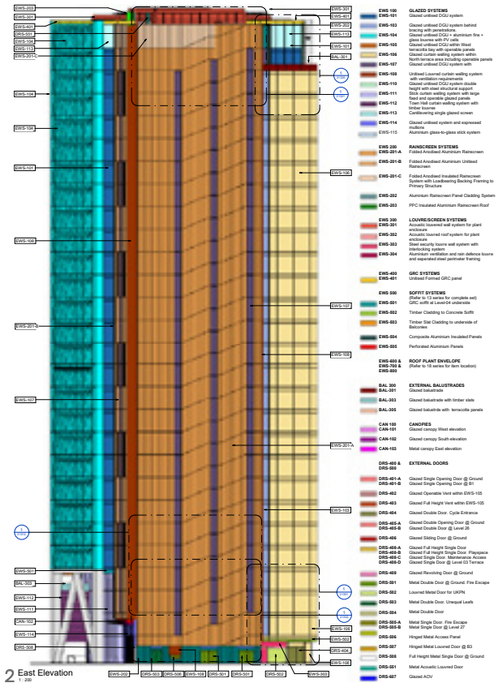
A bay study of a unitised facade panel, designed and coordinated over the Stage 03. Here I worked with the team to produce a 1:20 model for discussion with the Facade sub-contractor.

Working with specialist teams within the office I was able to develop and convey the design intent for both internal review as well as further discussion with external consultants, contractors and sub-contractors.

To progress the development of the design, I had contacted a local metal worker to produce a 1:1 of the detail for further discussion. This was used to convey the design intent.

Through this exploration process of working, details could be developed and tested as well the materiality of the details could be explored. Thus enabling more refined conversations of the viability of the solution.





Throughout Stages 02 - 04, the EWS drawings were developed to identify the various conditions around the building. These drawings have been used to coordinate the technical, performance, cost and aesthetic conditions with both external consultants as well as contractors and sub-contractors.

The various colours on these drawings indicate the EWS systems, each given a unique code that would help to identify it. This modelling was undertaken in Revit, with the appropriate properties completed to enable the systems to be filtered with the project dependent on the drawing.

As the design progressed through Stage 03 and 04 areas of the building were reviewed through visualisations and real-time rendering; my role here was to also produce views, videos and walk-throughs showcasing areas that had developed for internal and external review as well as present back to the client.

An internal view studying the PV arrangement produced in Twinmotion

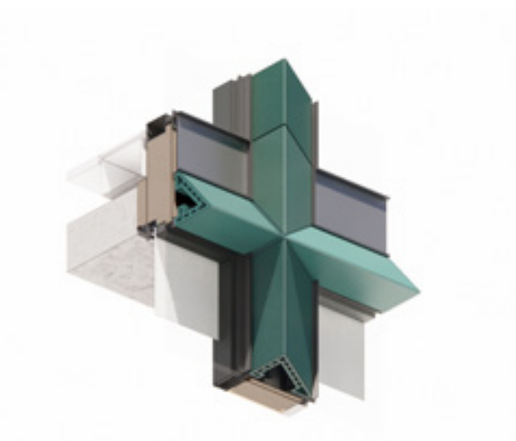
An external view studying the terracotta arrangement produced in Twinmotion

An external view studying the Ground floor arrangement produced in Twinmotion

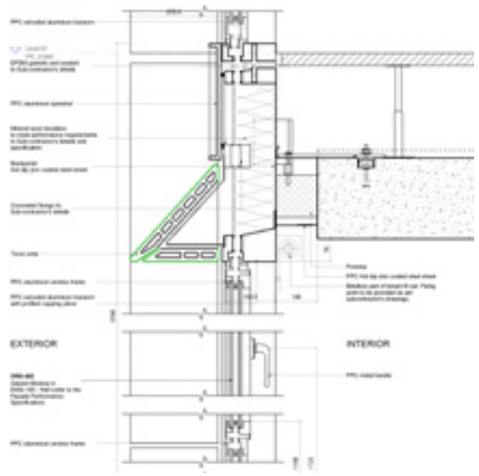
These views had been developed with both Revit and visualised through Enscape, as well as through Twinmotion. At times, dependent on the complexity of the detail, CAD had also been utilised in combination to help streamline the workflow and produce results at at a faster rate, working flexibly where needed.

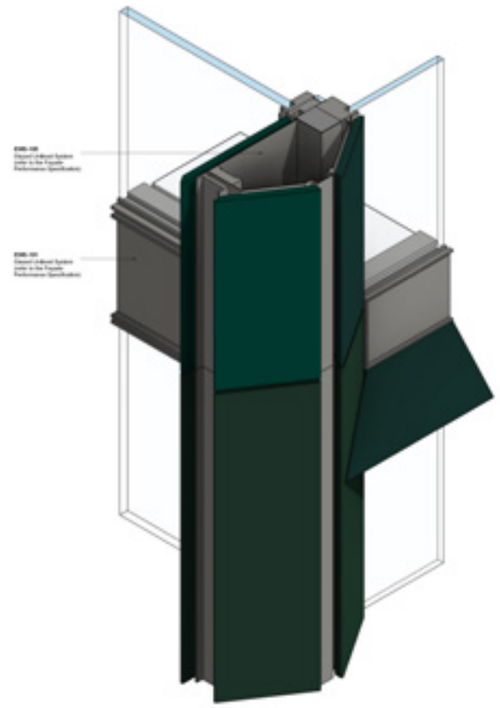
An axo view reviewing external structure to interior produced in Enscape

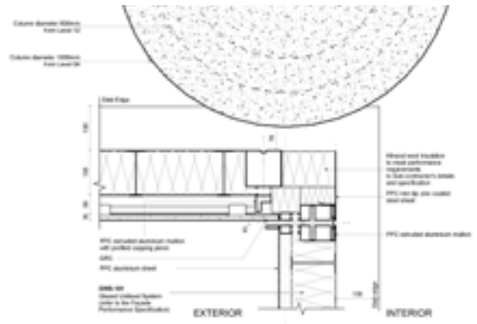
A bay study of the unitised facade panels produced in Enscape



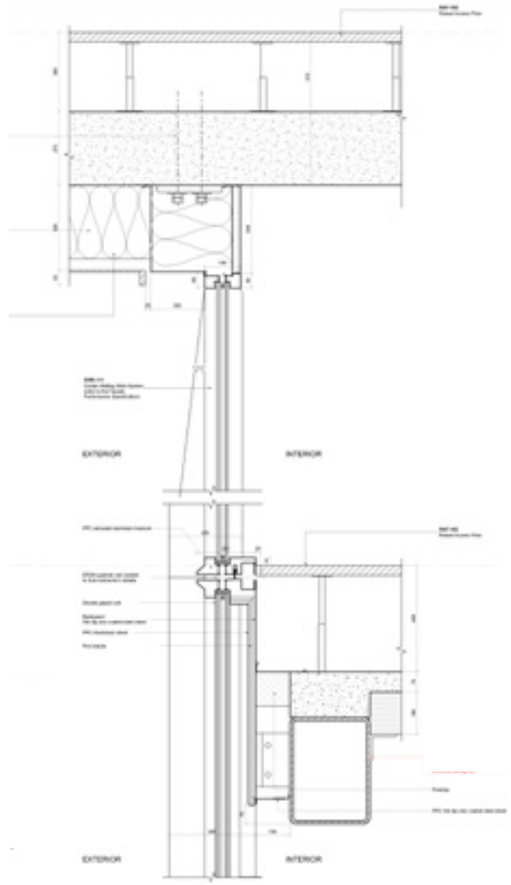
A detail study reviewing the crucifix junction produced in Enscape

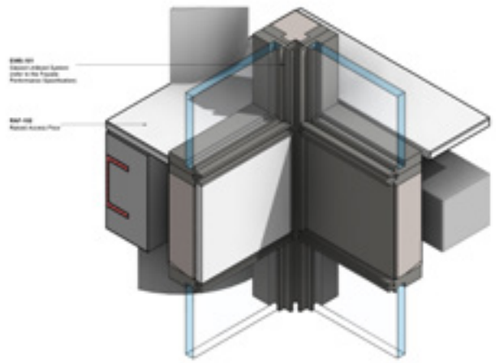






Work has included coordinating the technical design for EDGE, primarily around the facade. This has involved further coordination with the wider design team, as well as appraising information from the client monitoring team. It has included regular workshops with the contractor and sub-contractor to asses the construction sequencing, build-ability and interfaces between different elements of the design.





The M&S proposals deliver an ambitious mixed-use development for a new flagship store on Oxford Street. The project contributes to Westminster City Council's vision for the wider Oxford Street district.

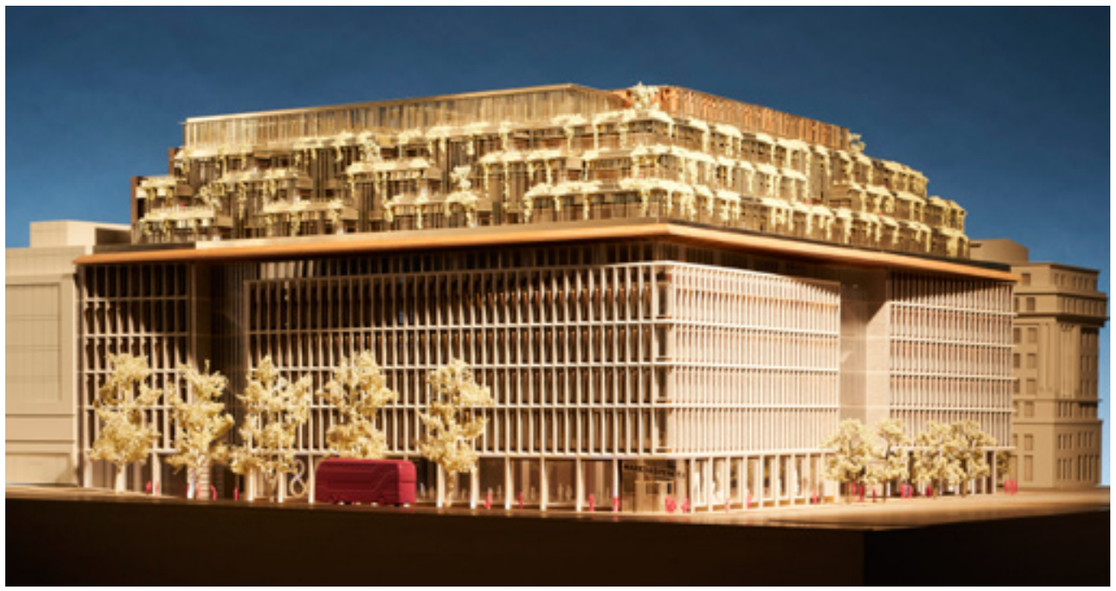
The offices on the upper floors of the building are designed to achieve BREEAM Outstanding and WELL Platinum accreditation. The design delivers ambitious operational energy consumption targets of 33khw/m²/GIA (regulated) and 55kwh/m²/GIA (unregulated). A1/A5 embodied carbon is calculated to be 653 C02e m² GIA. The proposals carefully consider how the building will meet fundamental health and wellbeing needs integrating a new generation of sensor technology that draws on the work from EDGE at London Bridge. My role on the project involved the design and coordination of the facade elements and structure, including extensive involvement in energy modelling.

A view from 'street' level,indicating the shading elements that were designed to optimise shading. My role was to 3D model the exterior and structure, this digital model was used to produce the model in

As architects using suitable environmental analysis tools is becoming more critical in the way that we develop façades to achieve high performance and operation targets. It is part of a 'be lean' approach in targeting the reduction of energy use and operational carbon. Through carefully considered façades natural daylight can be maximised and solar gains mitigated.

Fundamentally, the process developed on this project aimed to streamline the work-flows within the practice to meet the clear targets outlined in both the Part L of the Building Regulations as well as the policies outlined in the London Plan for minimising Carbon Dioxide emissions. Here, my role was to ensure the facade design was optimised and appropriately coordinated to meet the RIBA Stage 02 criteria and planning requirements.

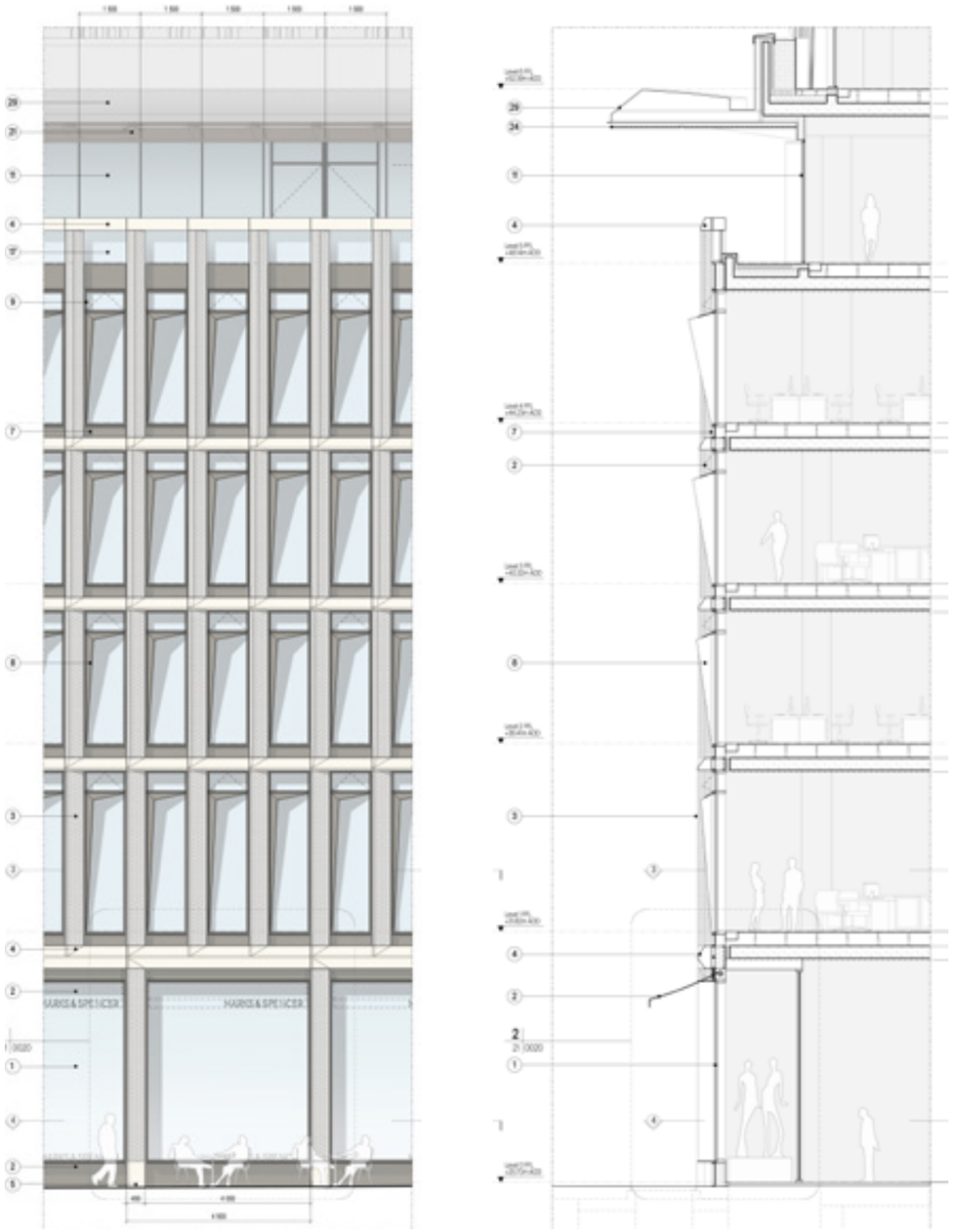
A view of the exterior upper level terraces that setback to address scale and mass in the context of the local conservation area on Oxford Street. These terraces also provide good landscaping and views out.



The development as a whole responds to the local context whilst also delivering state of the art facilities and good quality architecture suitable for the 21st century.

My involvement in the project has included preparing drawing information for both the completion of Stage 02 as well as the planning application of the scheme, This has included full elevations, details and visuals to be included within the relevant reports. The work has involved discussions with design team members about the performance standards, environmental provisions and budget allocation required to meet the brief.

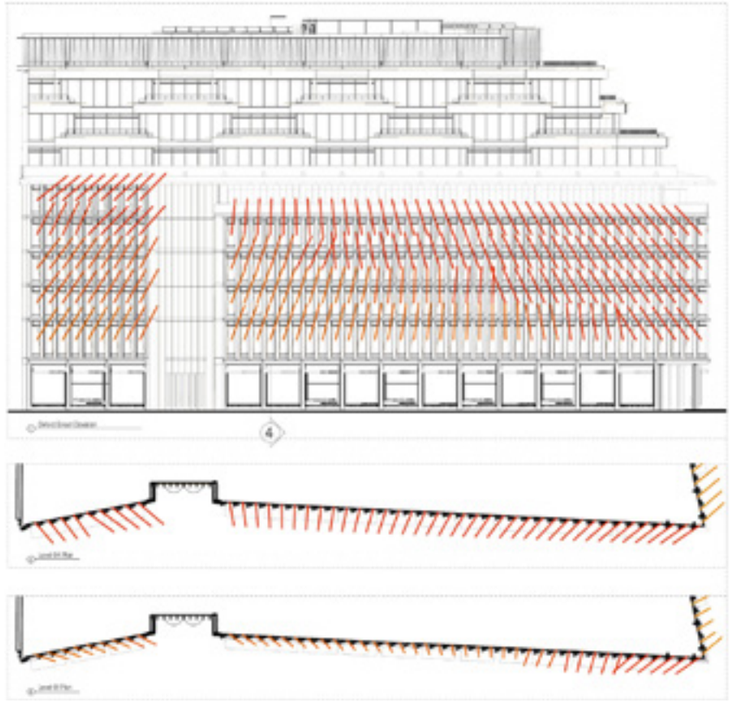
In addition to this, I have also had to ensure that the presentation of material is prepared in a way which can be readily integrated into the overall design concept. My role has also included keeping careful records of all conversations, consultations and design team meetings. As well as ensuring all notes and sketches prepared during the design process are stored correctly and readily available.



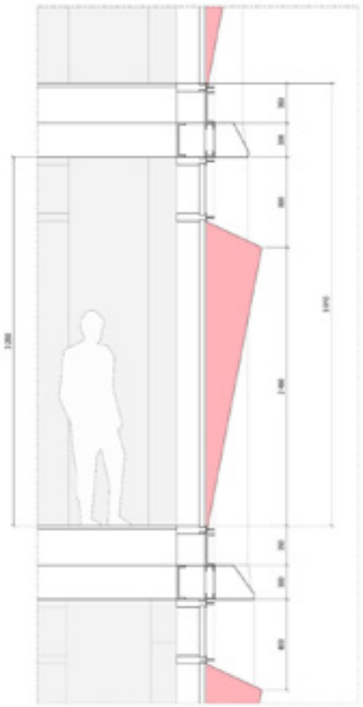
Above drawings prepared as part of the detailed set for the coordination of the facade.

Further testing was undertaken on the proposal to combine the solar radiance analysis with generative facade components. These components were used to assess, via simulation, the maximum number of hours each window within the building envelope would be exposed to solar radiation; this in turn would then generate a shading device that would mitigate this exposure by its geometry and orientation.

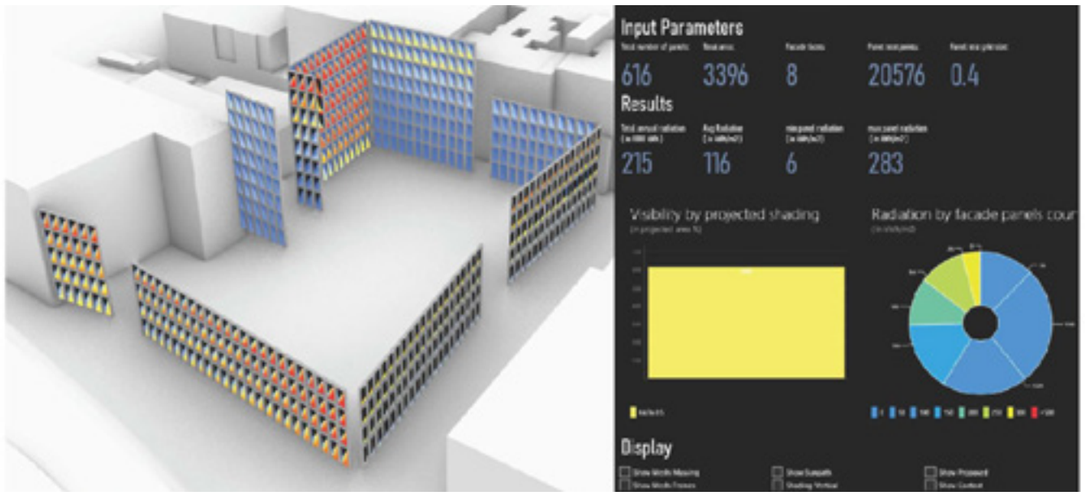
These shading devices were directed by the target G-value. The peak solar radiation analysis assessed 441 windows which were then categorised, with the top and bottom 5% being discounted to assist with standardisation. Bands of performance were created to identify different types. Unsurprisingly, the data confirmed that the building was less covered by the context the higher up it went.



An extract from the solar radiation analysis, which indicated the best orientation for the shading devices.



A sketch of shading device being adopted.



An extract from the solar radiation analysis indicating the results from the most efficient arrangement of the solar hoods.

Prepared on behalf of U+I and The London Fire Brigade. The scheme restores the Grade II listed 1937 London Fire Brigade Headquarters and creates a new urban quarter.

The DNA of the masterplan celebrates mixed-use. At its heart the scheme delivers a modernised Fire Station and the new London Fire Brigade Museum set at the ground floor of the Grade II listed 8 Albert Embankment building. Above, residential accommodation faces the river with a new hotel wing facing Lambeth High Street to its rear.

An exterior view of the restored London Fire Brigade museum. My role entailed 3d modelling for design coordination at RIBA Stages 01 and 02, this included visualisation and marketing.

My role was primarily centred around the design and coordination of the office block on the site. This entailed assisting the Design Partner in modelling, generating drawings for coordination as well as for the planning documentation. This included early massing developments to assist with the brief at RIBA Stage 01, through to concept design work at RIBA Stage 02.

An axonometric of the office configuration as well as its position within the masterplan.

Further to this, I would work extensively with the in-house resources such as the model-making team to create development models to assist the Design Partners in communicating the intent to not only external consultants within the Design Team but also to communicate to the client. Below a section cut model through the office block and courtyard.

A section model of the office building, illustrating its spatial configuration as well as its relationship to neighbouring buildings within the masterplan.

A section model of the office building, illustrating its spatial configuration as well as its relationship to neighbouring buildings within the masterplan.

A competition for a new archaeological museum on the island of Cyrpus. The proposal is to relocate the Archaeological Museum of Cyprus to the Hill of Agios Georgios, onto the site formerly planned for the new House of Representatives.

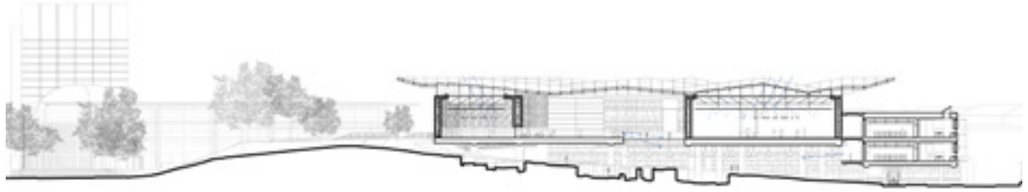
This site has a rich and unique archaeological heritage that traces continuous occupation since the foundation of settlement in Nicosia. So extensive and varied were the discoveries made that the planned House of Representatives had to be abandoned in this location.

Relocating the archaeological museum to the site transforms its potential. It places visitors and staff in close connection with real and ongoing archaeological investigation, serving both to contextualise the artefacts displayed in the collection and to demonstrate how archaeology is a dynamic process that continuously enriches and revises our understanding of the past.

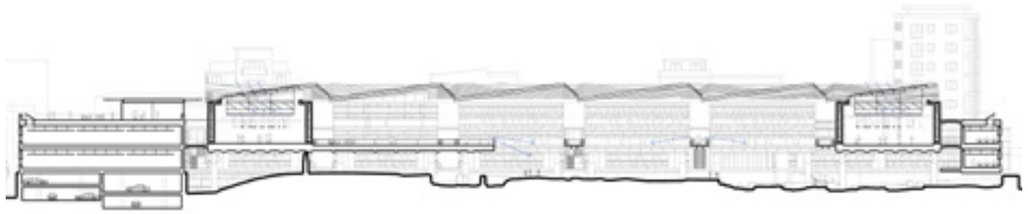
My role was to assist the team with 3d models for the purpose of making a physical representation as well as visuals. In addition to creating drawings for information and final presentation in the submission.

A physical model of the proposal. My role here was to assist the model-making team with the development of the scheme. Fast paced 3d modelling and communication was key.

A floorplan of the proposed ground floor, illustrating the programmed spaces sitting atop the archaeological grounds.



A section of the proposal illustrating the programmed spaces sitting atop the archaeological grounds as well as its relationship to the National theatre,



A section of the proposal illustrating the programmed spaces sitting atop the archaeological grounds and the routes across for the visitors.

THANK YOU FOR YOUR CONSIDERATION

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