

THOMAS ROSE PORTFOLIO

- UNIVERSITY OF NOTTINGHAM
- CARDIFF UNIVERSITY
- SHEPPARD ROBSON
- ARUP

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PROFILE

Ambitious and driven Architect, Engineer and Entrepreneur with 3.5 years of professional working experience and two business ventures. I have a keen interest in sustainability, carbon and innovation. I am a highly motivated designer and problem solver with the ability to understand macro to micro scales. I pride myself on the productivity, organisation and time management necessary to achieve great results.

PROFESSIONAL EXPERIENCE

Oct 2019 - Present
Sheppard Robson Architects
Architectural Assistant

Working as part of an architectural design team in commercial and education science projects. This involved design work, client/stakeholder engagement, logistics and strategic planning, along with managing the output of drawing information for multiple large projects. I have been commended for my technical knowledge, work output and organisational skills.

August 2020 - Present
Rose Brothers Digital LLP
Commercial Director
www.rosebrothersdigital.co.uk

A small marketing business set up with my brother to develop my client-facing skills and to learn front-end HTML coding. The business has a growing client base, providing an excellent service that has received great reviews. As commercial director, I make strategic business decisions, manage financials and work closely with clients to deliver the product they desire. All completed alongside my university and part-time work.

January 2021 - Present
Homeworking Carbon Model Consultant

Developing the homeworking carbon model I created for my MArch Dissertation into a consultant service for businesses interested in the carbon emissions of their post-pandemic homeworking strategies.

September 2017 - Oct 2019
Arup - Buildings Engineering London
Mechanical Engineer

Working as part of a larger design team on large building projects such as a 1000 seater auditorium, office tower, school and museums.

- Solving engineering problems with the bespoke solutions
- Ensuring the delivery of technical information packages to the client and design team.
- Using my architectural knowledge to the benefit of the rest of the team.

January 2016 - Sept 2020
Archive Design Studio LLP
Founding Partner
www.archivedesignstudio.rosebrothersdigital.co.uk

A small business founded by a group of four architecture students including myself from the University of Nottingham. By producing high-quality floor plans and feasibility studies for a wide range of landlords and homeowners in Nottingham and London, the business provided an invaluable experience of the architecture profession and building client relationships. It was as much a learning experience as it was a part-time job to help with course costs.

EDUCATION

September 2019 - July 2021
Cardiff University - WSA
Master of Architecture
MArch (Hons) First Class (Predicted)

The RIBA Part-2 course continuing my architectural/construction education.

- Dissertation - The impact of homeworking on carbon emissions - (85%) top of the year.
- Worked throughout the full-time course (5 days a week in the first year, 2 days a week in the second year) - using time management and organisational skills to stay on top of tasks and deadlines.

September 2013 - July 2017
University of Nottingham
Architecture & Environmental Design
MEng (Hons) First Class

The RIBA Part-1 course, which incorporated architecture, mechanical, electrical and public health building services, along with an appreciation for environmental design.

- Top of 100 students in final year design work (76%).
- Dissertation (75%) - top of the year.
- Maintained a first-class average over a large range of design and engineering modules.

EXTRA-CURRICULAR EXPERIENCES & ACTIVITIES

- Fundraiser and architect - Raised £30,000 to design and build a nursery school in South Africa during the second year of my undergraduate course.
- Social Mobility Foundation Mentoring programme - Giving advice on career choices to a student from the SMF scheme.
- Tutoring university students on building services engineering and sustainable design.
- Organising and captaining the Architecture football team during my undergraduate course.
- Read 30 - 45 books a year for the last 5 years.

PROFESSIONAL REGISTRATION

Royal Institute of British Architecture (RIBA) Student membership: 2019 - present
Associate Member (AMIMechE) of the Institute of Mechanical Engineers (IMechE): 2018 - present
Architecture Part 1 MEng Degree - Accredited by RIBA & CIBSE: Achieved - July 2017
Architecture Part 2 MArch Degree - Accredited by RIBA: Achieving in July 2021

SKILLS & INTERESTS

Hobbies & Interests
Learning
Software skills

Football, Running, Biking, Snowboarding, Traveling, Volunteering and Culture, Meditation.
Reading: Business, Design, Technology non fiction books and fiction for relaxation.
Revit, Rhino, Sketchup, AutoCAD, Photoshop, InDesign, Vray, Endscape, IESVE and Office.

REFERENCES

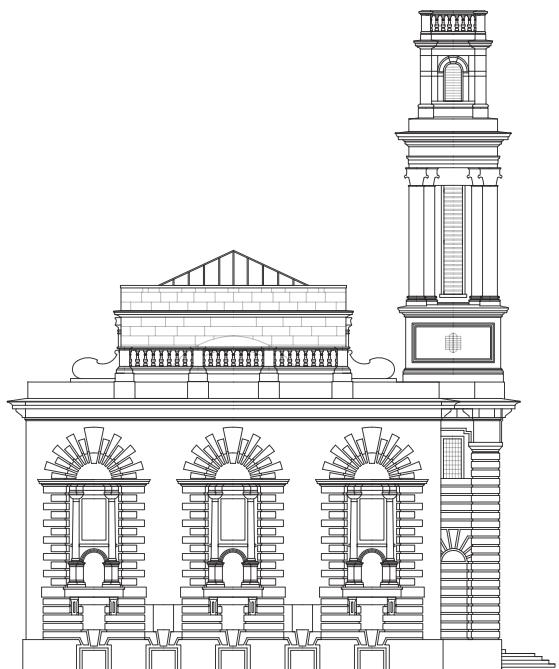
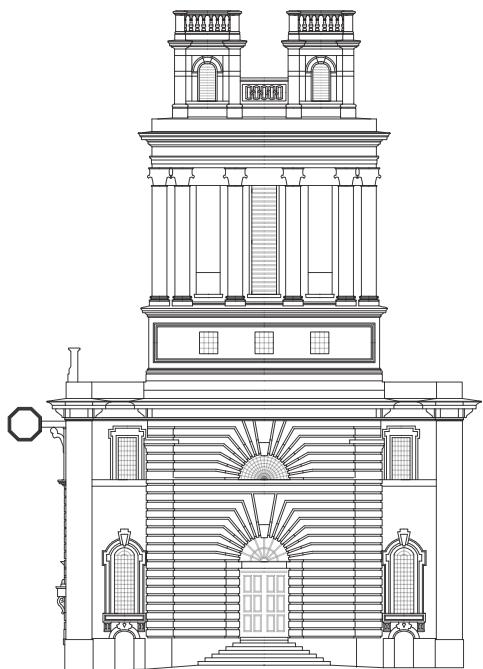
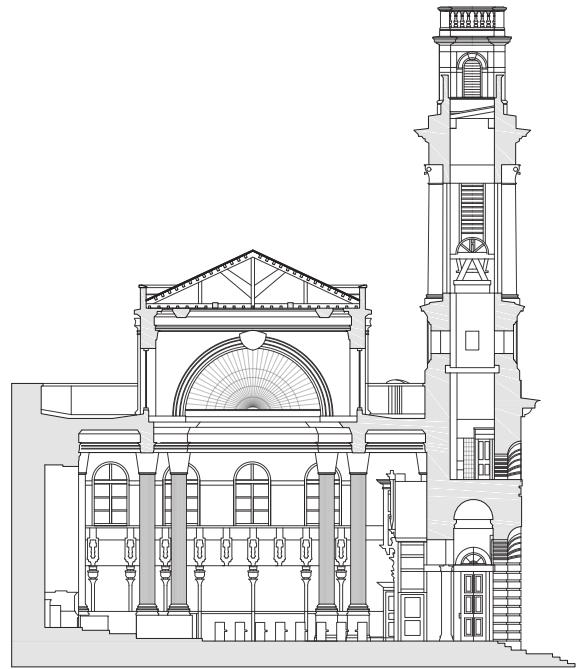
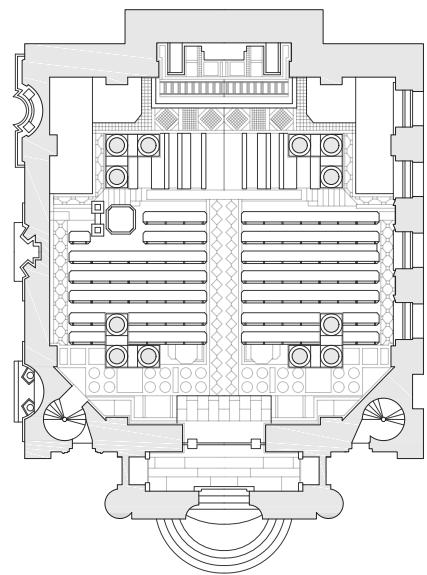
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FROM THE SHADOWS

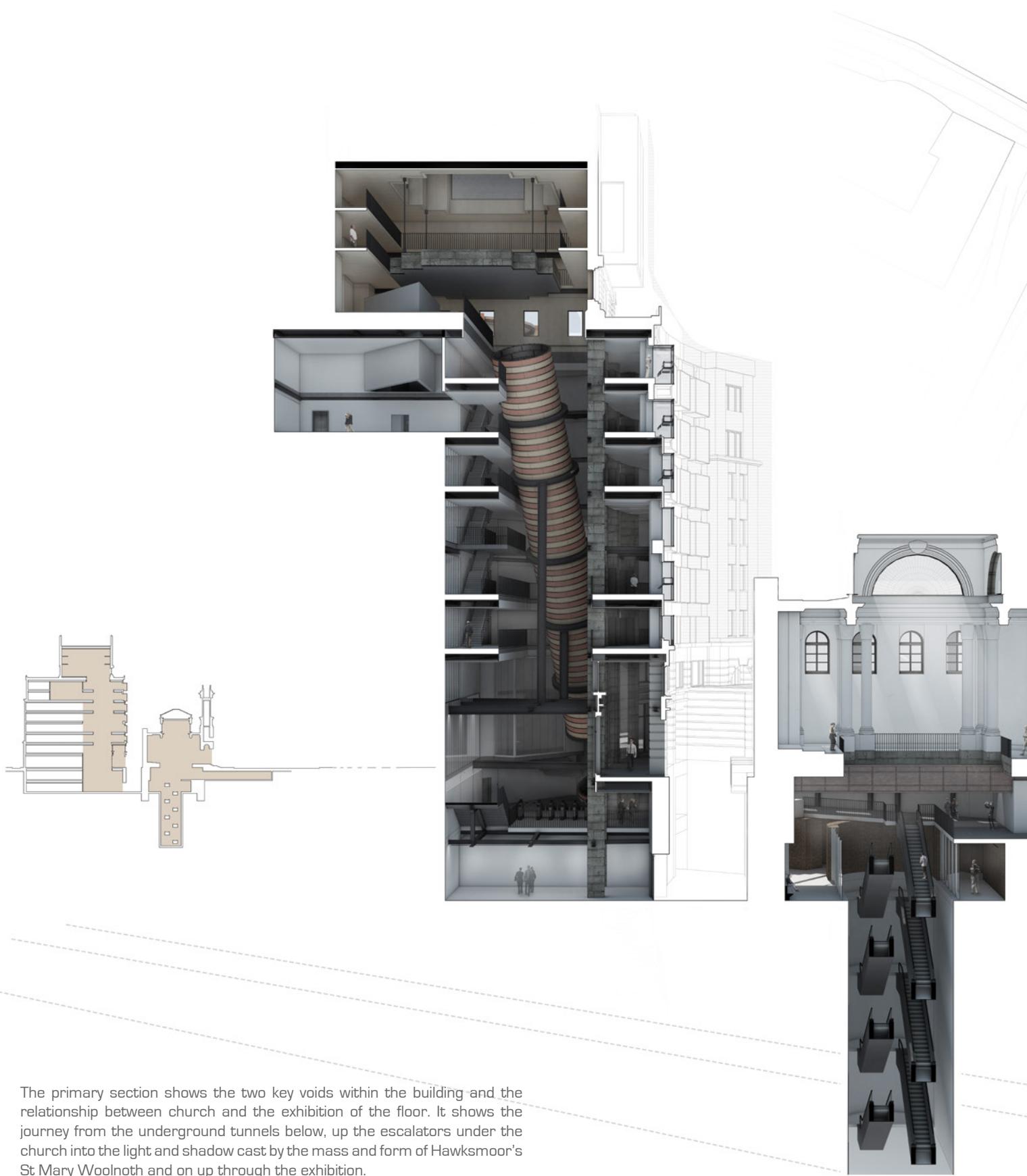


Located under and around St Mary Woolnoth Church, in the Bank district of London. A conversation between Hawksmoor and Stirling over the London Underground. A redevelopment of one on the entrances to Bank tube station. An exhibition showing how the London Underground was built and of artefacts found while building new lines. Most importantly, the journey "From the Shadows" of the Underground tube tunnels into the light above, in what would be the 'fanciest' tube exit in London.



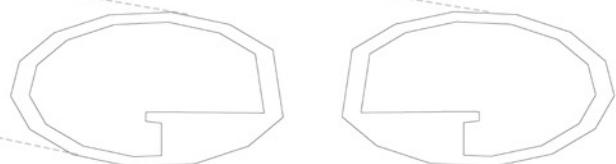
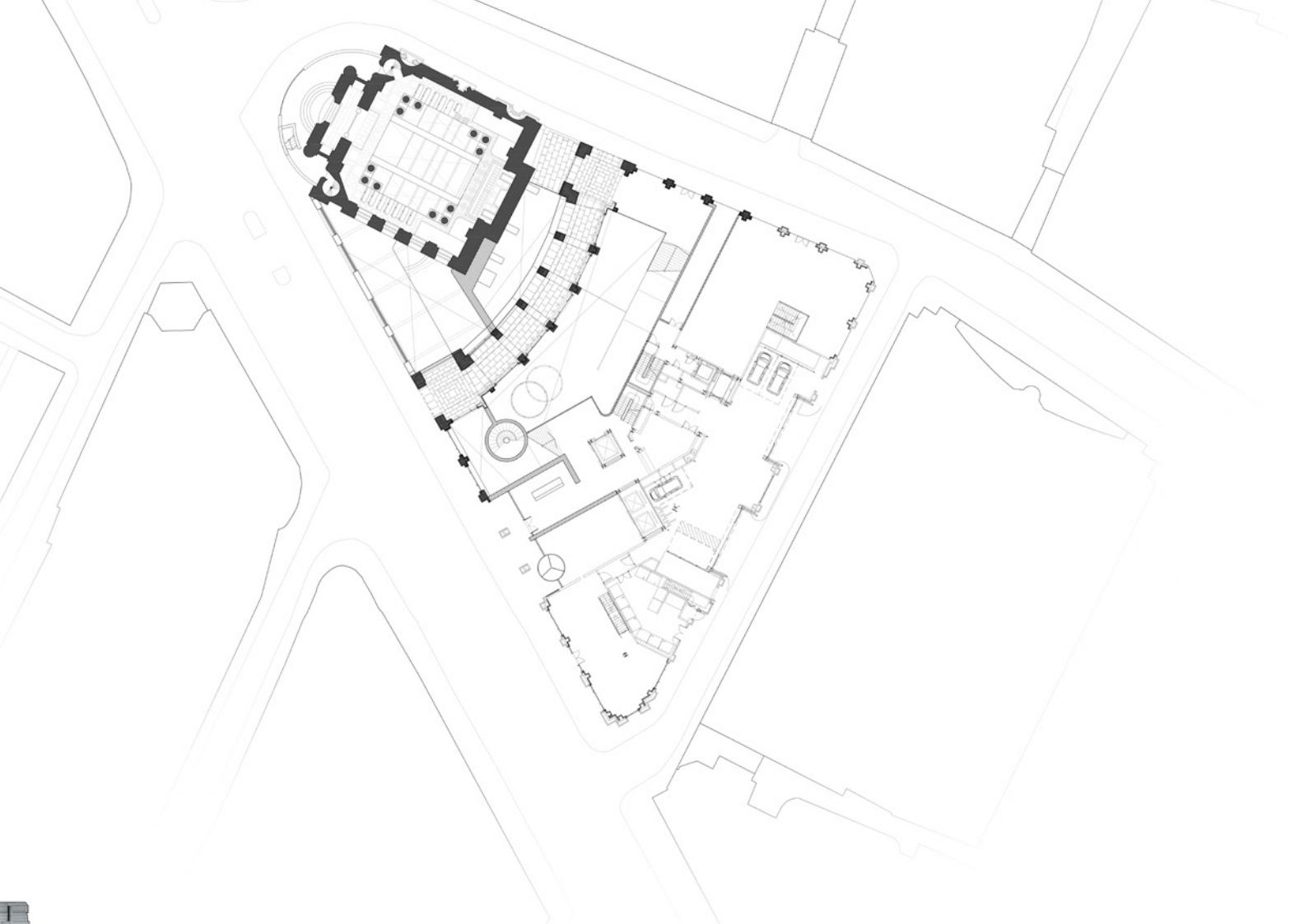


Studying Hawksmoor's architecture - St Mary Woolnoth Church



The primary section shows the two key voids within the building and the relationship between church and the exhibition of the floor. It shows the journey from the underground tunnels below, up the escalators under the church into the light and shadow cast by the mass and form of Hawksmoor's St Mary Woolnoth and on up through the exhibition.

Taking the design back into the surrounding context of Bank, and Bank Station. Stirling was obviously heavily influenced by Hawksmoor and the church 300 meters from No. 1 Poultry. His use of weight and detail has the elegance and emotional connection of Hawksmoor. The building also has a powerful central void and its own link to the Underground Station below.





James Stirling - "The grand arcade: A re-evocation of a much neglected urban type"

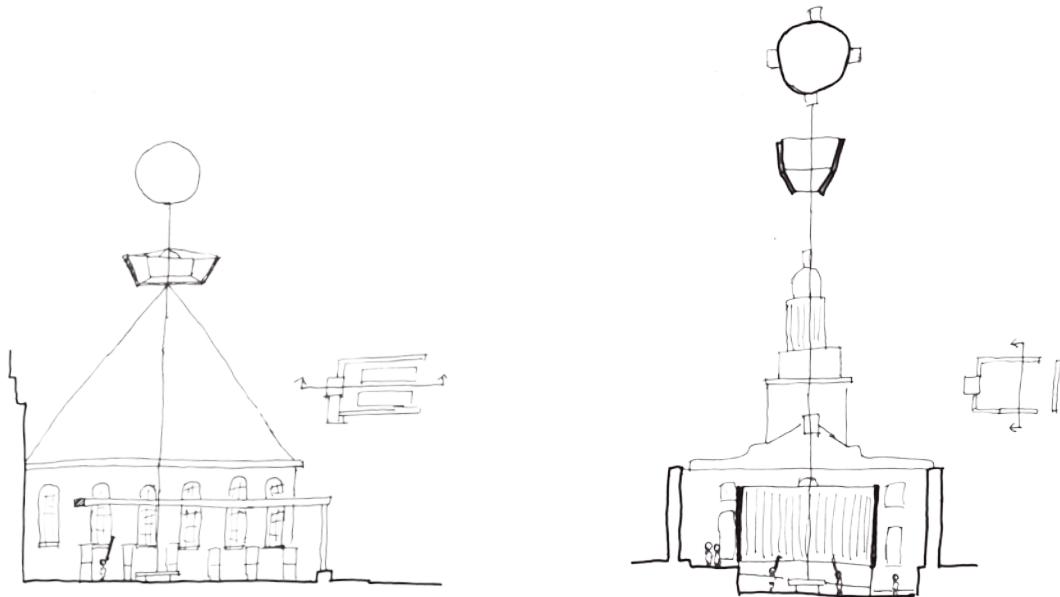
← The underpinning of St Mary Woolnoth in the 1890s



The grandest London Underground tube exit

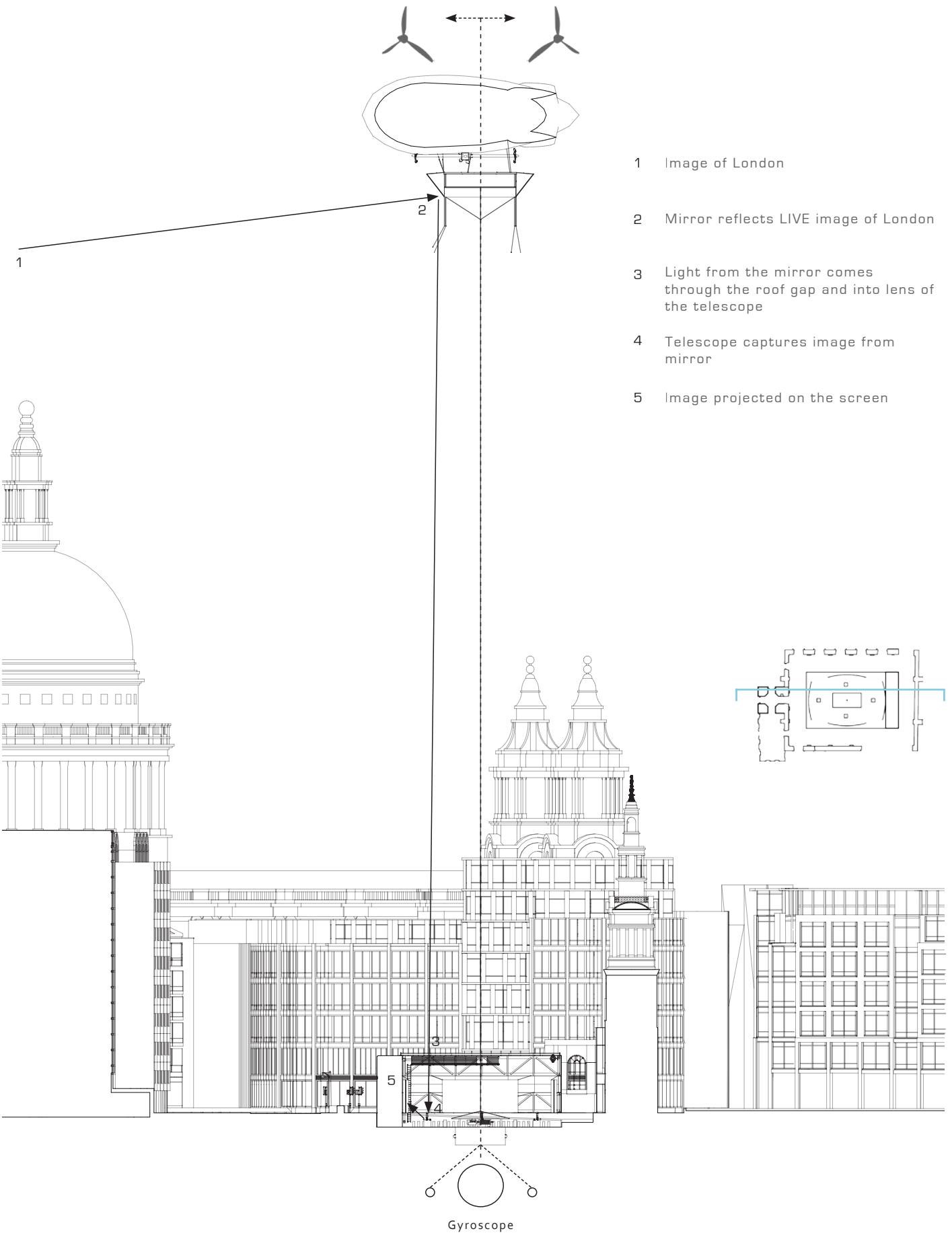
CHRISTOPHER WREN EXHIBITION

A pavilion, housing an exhibition of Christopher Wren's 50 London Churches. Located in Christ Church Greyfriars, which was mostly destroyed in the Blitz and is now a public Garden just North of St Pauls. The exhibition is the rediscovery of Wren's churches that are becoming lost in the city skyline. Telescopes inside the enclosure look up at mirrors suspended in the sky, producing a live image of London that is then projected onto large screens. The public can then move and zoom in and out using arcade controls in order to find Wren's churches. The mirrors are suspended using a barrage balloon that is raised and lowered and the beginning and at the end of the opening hours.

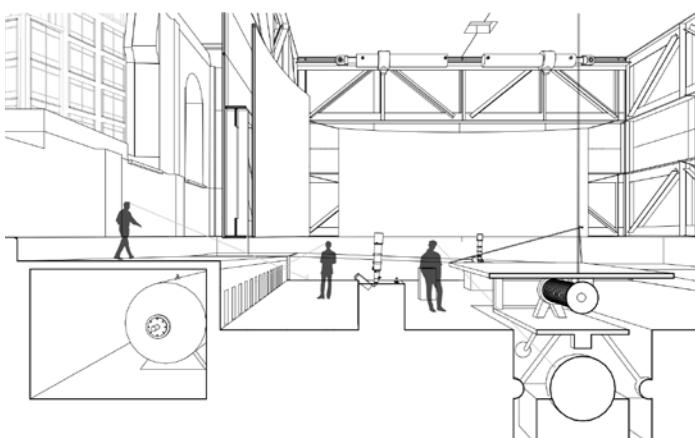


Initial sketches





INTERIOR EXHIBITION

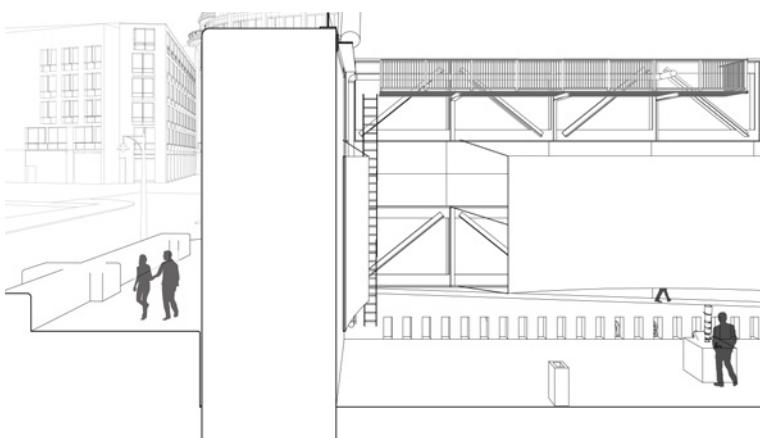


This view shows the exhibition space during exhibition hours, where the public can use the joystick and zoom in and out controls to move the telescope in front of them. By moving the telescope, they are moving the image projected onto the screen which is showing the live image of London reflected from the mirrors suspended from the balloon 120m above their heads. They can then use the model table in the middle as a reference to see what church they have managed to find.

The key section shows the three views that have been achieved through the use of different levels in the design (left to right):

- The slow reveal of the exhibition as you walk down the ramps.
- View into where the helium tanks are situated under the first ramp.
- View down the gyroscope under the model table.

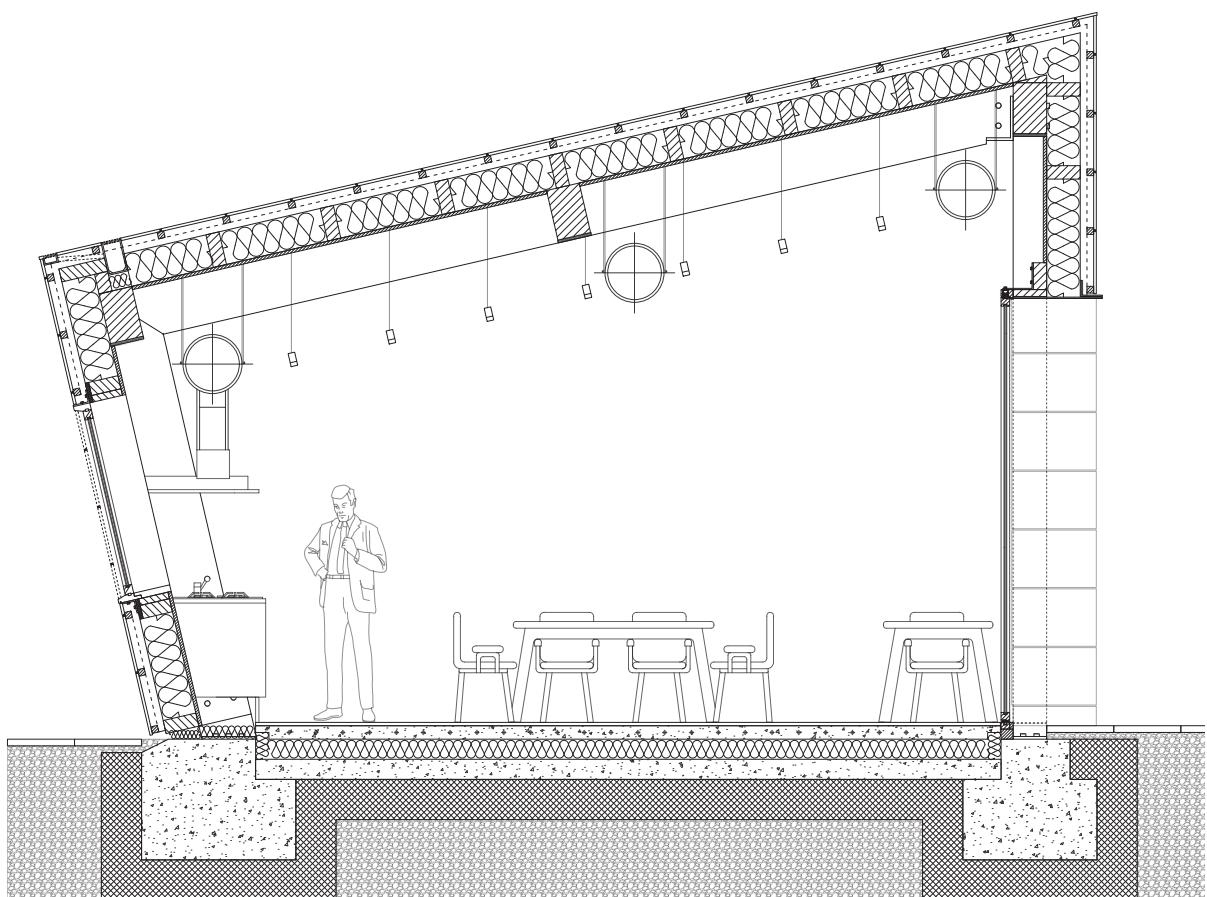
INTERIOR BALLOON LANDING



This view shows the internal view as the balloon is being brought in to land after the end of exhibition hours. The balloon is pulled back down using the winch underneath the model table until the legs of the mirror structure slot into the concrete feet. The balloon is then deflated onto the top of the mirrors where it is kept overnight. The doors are then closed until the next morning.

The key section shows the thickness of the concrete that is cantilevering the steel structure of the enclosure. It also shows the balloon servicing platform, along with the pipe coming from the helium tanks situated under the first ramp, which is used to inflate the balloon.

CARDIFF COMMUNITY CENTRE - CAFE



The project brief was a community centre for a low-income area of Cardiff. Although a university project, the end goal was to produce ideas that would input into what the community would eventually build. Therefore we had a real-world client to engage and understand. The images and drawings above are from the final part of the project that required the exploration of one space to a Stage 4 level of detail. The final design was a multi-functional community cafe/cookery school space that could be used to educate the community on healthy eating, and a meeting place for different groups within the community.



SOUTH LONDON OFFICES - BERMONDSEY

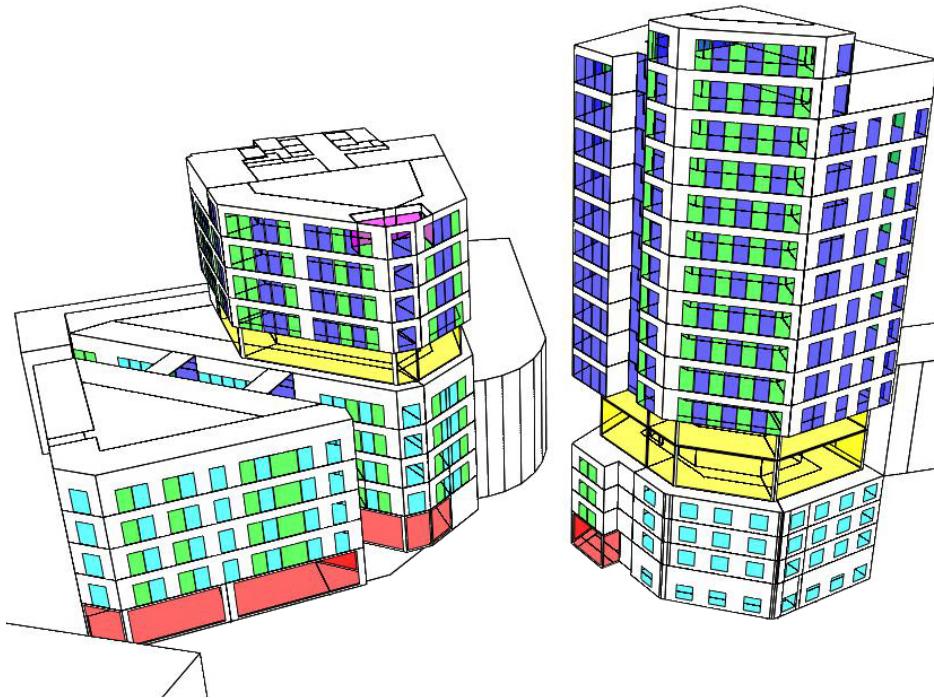


Image from IES Virtual Environment simulation software showing the different facade modules.

During my time at Arup I helped design the Facade of a new London office with Renzo Piano Building Workshop. The work involved iterations of solar load simulations on IESVE, reporting back to the architects on how the optimum amount of glazing for limiting heat gain and maximizing natural light. Another important factor was the buildings energy performance for Part L Compliance. This was also reported back to the architect and client in every iteration. The final design involved the use of 4 different facade types that included: opaque, glazed with glass brick outer skin, glazed only and glazed with solar blinds.

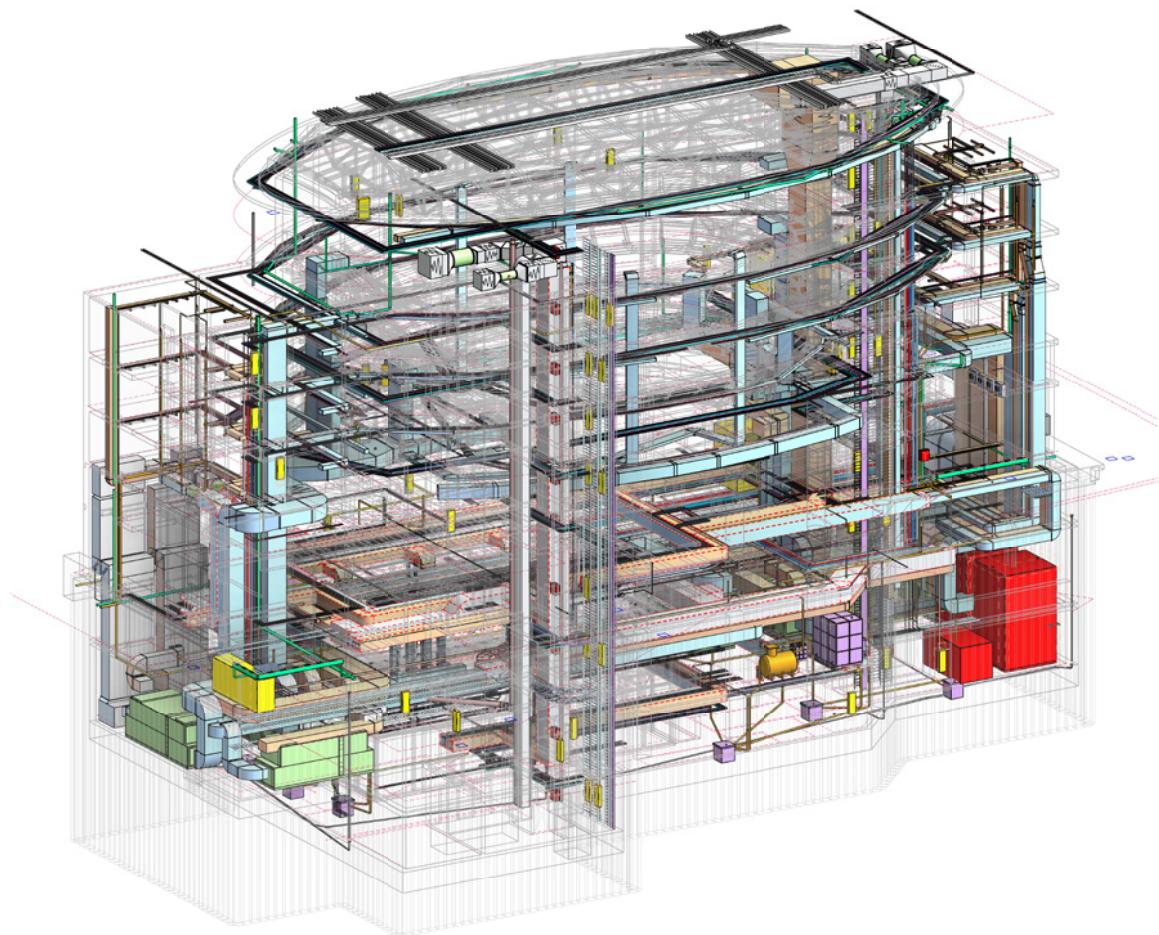


Architectural visuals by Renzo Piano Building Workshop - Shown to give context

THE IMPACT CENTRE - EDINBURGH

A considerable amount of my work at Arup was on The IMPACT Centre in Edinburgh, designed by David Chipperfield Architects [DCA]. A brand new music venue; the first music venue to be built in Edinburgh in over 100 years and set to be the new home for the Scottish Chamber Orchestra. The project consisted of a 1000 seat auditorium and 200 seat studio space, and a large open ground floor foyer.

This project is on a very constrained site that gave the design team lots of challenges to solve. Working on the Mechanical design from Stage 2 to Stage 4 I carried out typical heating/cooling/ventilation load calculations, equipment sizing and coordination of services. More importantly I helped DCA to imagine their space designs with minimal impact from building services. The project gave me invaluable experience of putting together all aspects of a complex building.



Architectural visuals by David Chipperfield Architects - Shown to give context



SCIENCE PROJECTS

During my experience at Sheppard Robson I have worked on a range of science projects. This involved design work, client/stakeholder engagement, logistics and strategic planning, along with managing the output of drawing information for multiple large projects.

Project 1

This project was a feasibility study for a science park that involved the renovation of existing 1980s buildings, and the design of a new 5000m² office and laboratory building.

*The visuals were produced externally



Project 2

This project was a feasibility study of a GMP facility. This involved the reuse of existing retail units to provide GMP and office space.



*Visuals were produced by me



Project 3

The third project, which I spent most of my time working on, was a research and development facility for a commercial science client. This was a 15,000m² building that included office, laboratories and manufacturing spaces.

PROJECT KAGISO



During my second year at the University of Nottingham I had the pleasure of being involved in Project Kagiso. This was a charity project, organised by the University of Nottingham. During the Autumn semester we designed a nursery for a community in Limpopo, South Africa, and went out to build it during the Easter break. This on site work was an invaluable experience to my architecture, but also an eye opening and educational life experience.





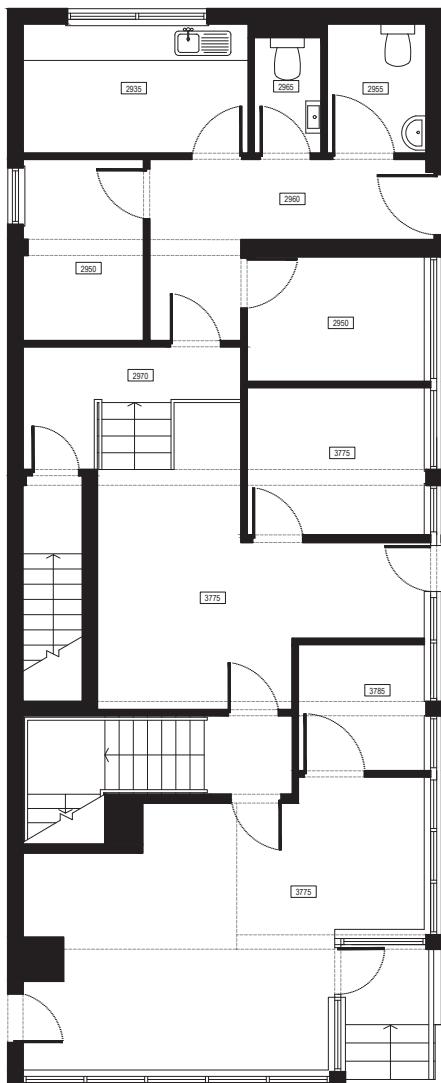
During the 3rd year of my undergraduate degree, as well as my university work, I was the founding partner of a small business that offered architectural services. This gave me the chance to apply some of skills and knowledge gained during my degree to some real-world small jobs.

By producing high quality floor plans and feasibility studies for a wide range of landlords and homeowners in Nottingham and London, the business has provided an invaluable experience of the profession and building client relationships. It has been as much a learning process as it has been a part time job to help with course costs.

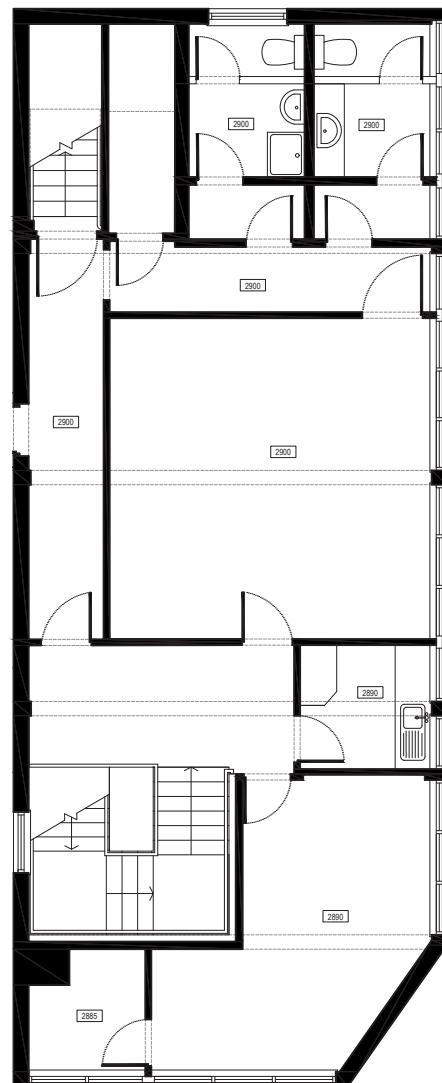
Please feel free to visit our website to find out more about the business and a chance to see more examples of our portfolio of work.

www.archivedesignstudio.rosebrothersdigital.co.uk

Two floors of a 3 story office space that I surveyed and drew on CAD.



Ground Floor Plan



First Floor Plan

Thank you for looking through my work,
I look forward to hearing from you

Email: laytr2@gmail.com

Phone: 07792122632