ASYLUM

architecture | design | research

Asylum 2020

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Introduction

Peter McPherson – Head of School, Architecture, Unitec New Zealand

In the 2019 edition of *Asylum* I spoke to the central philosoply the architecture programme at Unitec was founded on. Part of this philosophy talks of the need for relevance and capability in a changing world and, at that time, I was referring to the need for responsiveness in an architecture programme when various topics are highlighted and compete for importance as our world changes. The year 2020 has highlighted the need for responsiveness of a different kind. Instead of our usual preoccupation with content, this time we were focused on how we could deliver an architecture programme. Establishing alternative modes of delivery was a significant part of this. At least equal, however, was being able to understand and respond to the individual circumstances of students and teachers alike under the lockdown scenario. The extraordinary situation presented to us by Covid-19 has demonstrated the need to elevate in our thinking about how we do things, not just what we do.

As we conducted our lives remotely, in a virtual environment, it became evident to me that for many the absence of physical connection to people and place was most missed. In removing something that is at the core of our humanity, we were able to realise just how important those social interactions are, along with the physical connection to a place that can work to ground us and our activities. Our usual preoccupations with what we are doing started to give pause as we considered how we were interacting with each other. In switching our focus to particular needs of individuals, we were better able to accommodate the unique, and not so unique, needs. If we continue to think about this as designers, we can hope to further enrich the understanding and capability of individuals in society.

While 2020 has presented a number of challenges, it has also brought with it some pleasant surprises. In suspending our daily routines we have been able to spend more time with family in our 'bubbles,' or to perhaps experience the kindness of a friend who welcomes you into their home so as not to feel the isolation of a lockdown alone. The oft-times hidden aspects of our lives, our families, came to the forefront of our minds as we balanced work, with study, with caring for family members. As we move forward, in and out of pandemic lockdowns, the impact on those close to us becomes a greater consideration as we plot our paths forward. We are seeing an increasing desire for greater flexibility in the way we work and operate our lives. In time, will we return to the previous norm, or will the new ways that we have devised to connect and measure our time define how we operate in the future? In heightening our awareness of people, our behaviours and wants and needs, our approach to architecture can focus on providing solutions that meet the needs and expectations of our society. Possibly, we could consider a more humane approach to architecture that reflects the diverse world around us.

In architecture, part of acknowledging our own unique world often means reference to Te Aranga Principles, representing core Māori values. It may not always be

immediately clear how these relate to us, particularly for those non-Māori. However, two in particular stand out to me this year; wairuatanga and whanaungatanga. Wairuatanga talks of the immutable spiritual connection between people and their environments. Throughout this year all of us have been presented the opportunity to be more aware of the possibility of a spiritual dimension to life, and to this element of our world that requires regular attention and nourishment. Whanaungatanga speaks to our relationships, built through shared experiences and working together to provide ourselves with a sense of belonging. Our shared experiences through Covid can teach us something about ourselves and have the potential to bring us closer together, with a greater understanding of each other. In the drive to show kindness in 2020 we might have found ourselves reflecting on the role we as individuals can play more broadly in our society. We might build on this with an endeavour to actively seek out a greater understanding of each other and of the places we inhabit. In doing so, we undoubtedly become better architects, landscape architects and designers for it.

Further, we look for opportunities: it is said, never waste a good crisis. This edition of *Asylum* is the first in a new approach for the journal, seeking input from students, academics, and practitioners. These ideas sit together in the publication, and in many instances we see collaborations between all agents in the production of an output. In students being engaged with issues of the profession, and likewise the profession turning to academia to explore architectural questions and ideas, we can create a rich field of exploration for architectural debate in Aotearoa. As with many things, we try something, learn, adapt, and move forward. We have done this several times in 2020 and I see the 2020 *Asylum* journal as the first step on a new and exciting path for the publication of non-traditional research.

October 2020

Editors' Note

Dr Yusef Patel and Dr Renata Jadresin Milic

Prior to 2020, ***Asylum*** was published annually by the Unitec School of Architecture to document and promote the work of students in the Bachelor of Architecture Studies and Master of Architecture (Professional) programmes. This year, however, the school has reframed ***Asylum*** to become a peer-reviewed, quality-assured journal. Our aim is to provide a platform for non-traditional research outputs that are generally underserved within the architecture field in New Zealand and Australia. We seek to create an outlet for staff and student research collaborations, contributing to the research culture of Unitec's School of Architecture, as well as inviting submissions from other institutions.

A curated selection of non-peer-reviewed projects from the Bachelor of Architecture Studies and Master of Architecture (Professional) programmes continues to be presented in ***Asylum***, and this year we are also presenting work by students from the Interior Design and Landscape Architecture programmes.

The peer-reviewed section of *Asylum 2020* begins with our introduction on page 128.

To complete the issue, the *Asylum 2020* student team, who worked on the layout, design and the curation of the non-peer-reviewed section with beautiful youthful energy and enthusiasm, reflect on their experience.

We would like to use this opportunity to thank all who contributed to ***Asylum** 2020.* Special gratitude goes to the Advisory Committee and peer reviewers, whose academic and professional expertise and opinions helped us decide the publishing merit of work submitted. The constructive feedback and insightful comments were greatly appreciated by both the papers' authors and the ***Asylum*** editors.

Our gratitude also goes to our School of Architecture Business Administrator, Sandra Potier, for facilitating and resourcing the ***Asylum** 2020* team. We express gratitude to Tūāpapa Rangahau – Partnering Research & Enterprise, who supported us both financially and with quality-assurance guidance. Very special gratitude goes to Marie Shannon, ePress Editor.

The Asylum Team

Hayley Harris – Laurin Buch – Renee Buckingham – Till Buch – Rohan Sadhu

It's safe to say that 2020 has been very challenging for all of us. Whether we've experienced change in our homes, our careers, or communities, we have had to adapt to a new temporary way of living and working. For the Unitec New Zealand School of Architecture, the substantial change of switching from Building 1 to Building 48 (moving across campus) was overshadowed by the consequences of the Covid-19 outbreak.

Asylum 2020 is unlike any previous edition of the School of Architecture's annual publication. This year, ***Asylum*** comprises student work from the Architecture, Interior Design and Landscape Architecture programmes. The biggest change from previous years, however, is the addition of the peer-reviewed articles, a first for this publication.

The 2020 student ***Asylum*** team formed at the beginning of Semester 2 with five second-year students, with a passion for design and yet little-to-no experience of the graphic design process. Moving to a smaller building meant that we did not have a space to call our own for a while, especially with online learning coming into effect. We spent most of Semester 1 at home, and were only back for three weeks of the second semester before going into lockdown once more. We salute the perseverance of both the students and staff during this unstable and often confusing time.

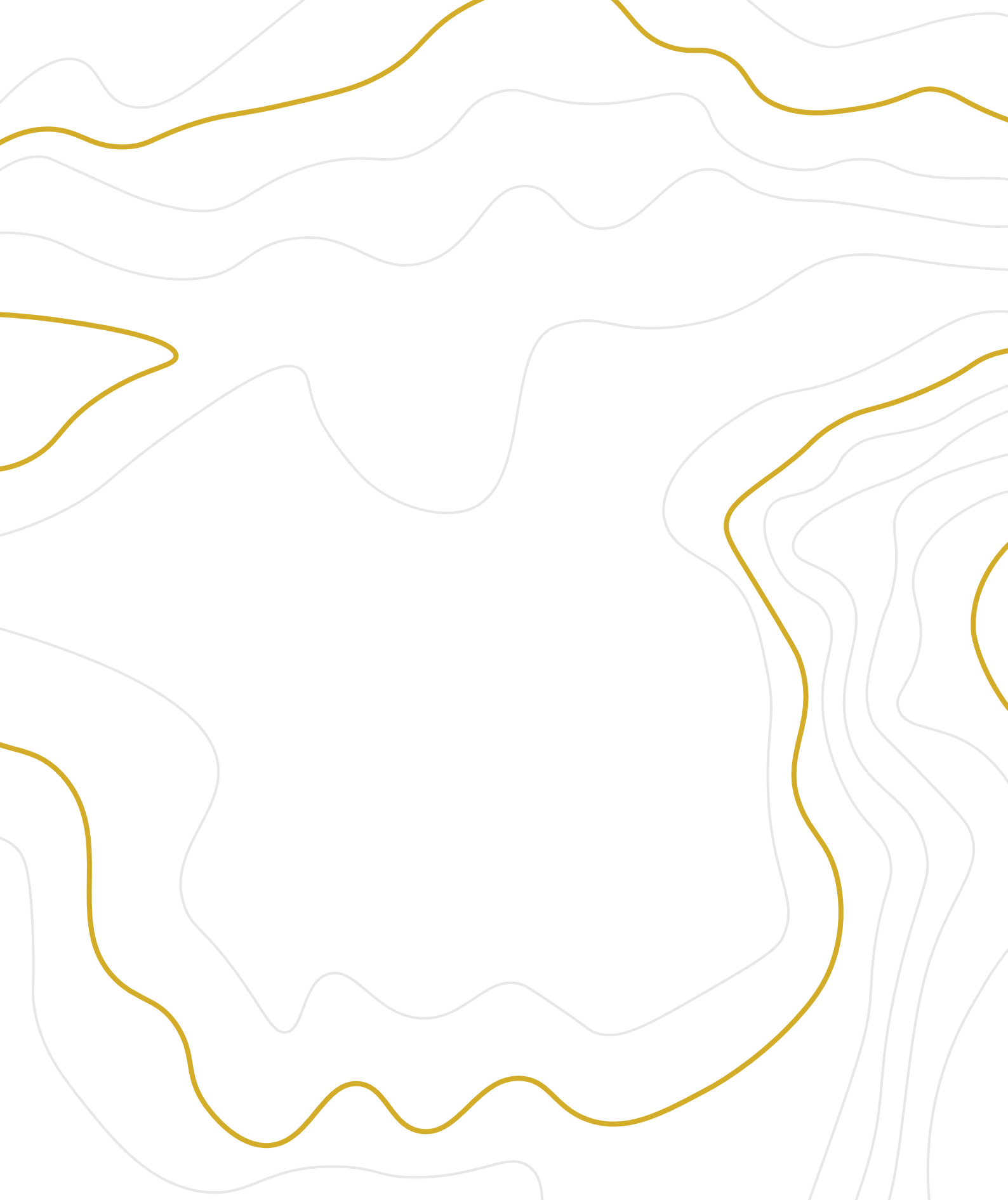
With past knowledge of the publications, and guidance from our remarkable tutor Diana Curtis, we initially began researching a theme for our book — the 'New Asylum.' Change was important to us. But so was professionalism. We wanted our book to have a lasting design that was creative and polished. Adapting to Building 48 was fascinating, and we wished to express our excitement for our new building in this book. Hence, the pages and covers of *Asylum 2020* are emblazoned with a contour map of our new home.

As a team, we expected this project to teach us about graphic design, but not much more. But in reality, ***Asylum 2020*** has been eye-opening and an amazing first step into the world of design. We learnt about the importance of all graphical aspects, be it the size of a font or the width of an image. From the long email threads to the countless posts on social media, we have learnt so much about reaching out to students, staff, and professionals. But most importantly, ***Asylum 2020*** taught us about the importance of collaboration. Having five designers wanting different things was a challenge, but it was crucial to compromise and co-operate. We split up our workloads equally, and immediately set personal deadlines for ourselves. Virtual scheduling boards were a godsend during a nationwide lockdown.

Despite the difficulties, we are proud of what we have accomplished, and we hope you enjoy reading this book as much as we have enjoyed creating it. A career in design is not easy, but the final result is always worth the struggle.

Thank you,

The *Asylum 2020* Student Team:
Hayley, Laurin, Renee, Till and Rohan.

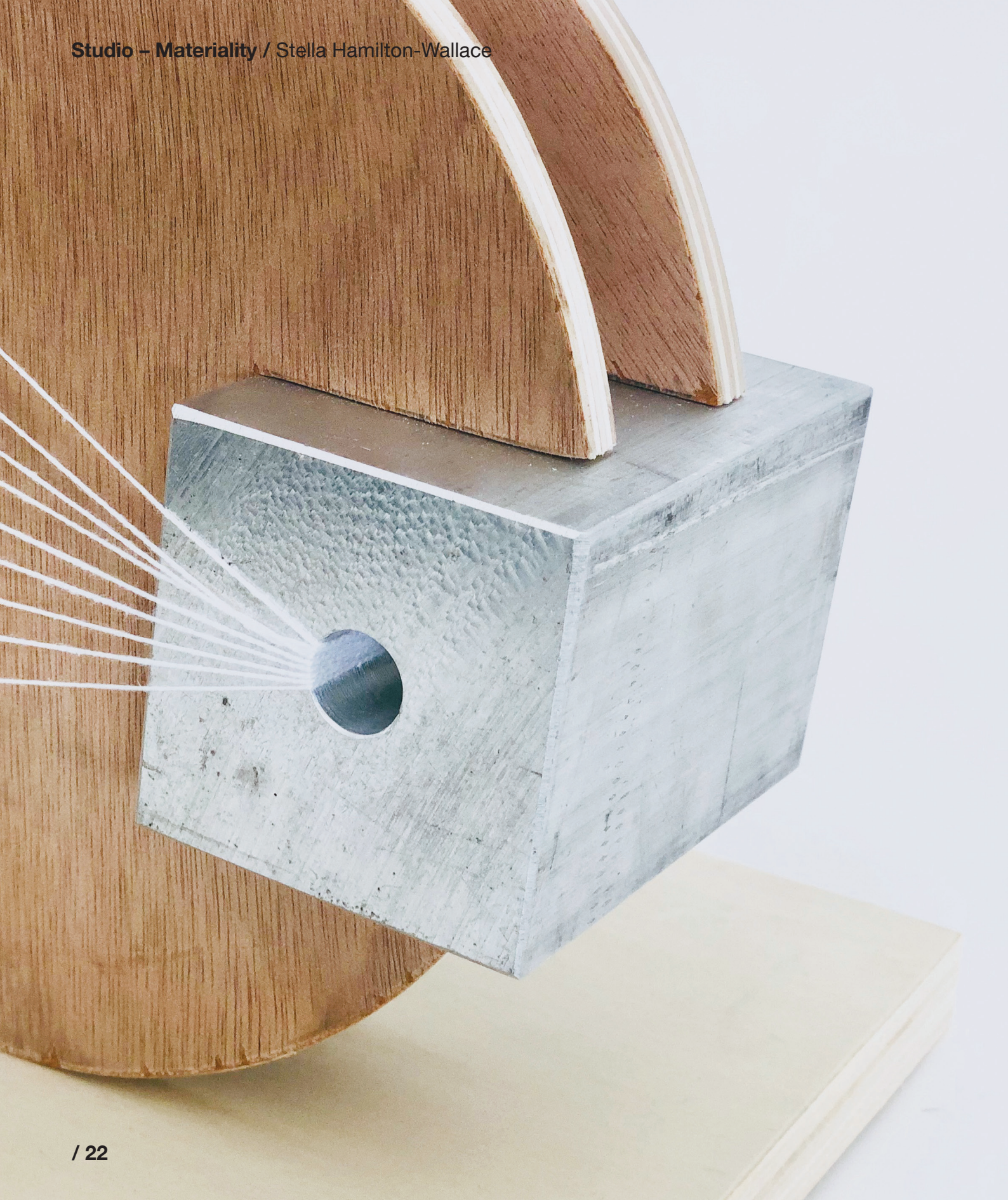


Student Work

Year 1 – Bachelor

Work from the first year of the **Bachelor of Architectural Studies** programme comprises Studio and Critical Studies. *Asylum 2020* features abstract models from the Materiality Studio brief, and analytical drawings of historical buildings from Critical Studies. It is inspiring to see what students have accomplished in their first year of architecture school, and it is clear that the calibre of this cohort is exceptional.

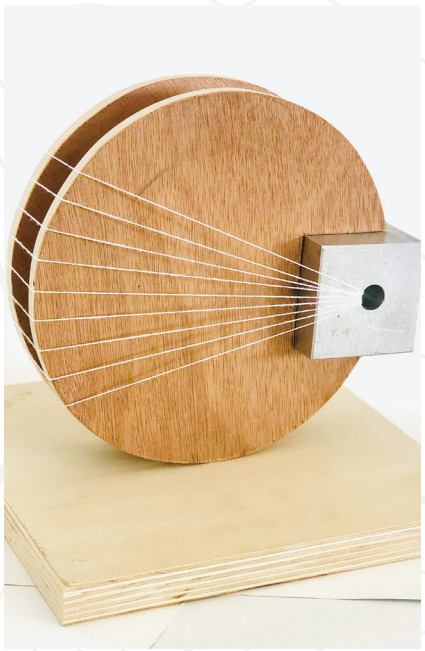
1



Materiality
Industrial (R)evolution

Stella Hamilton-Wallace

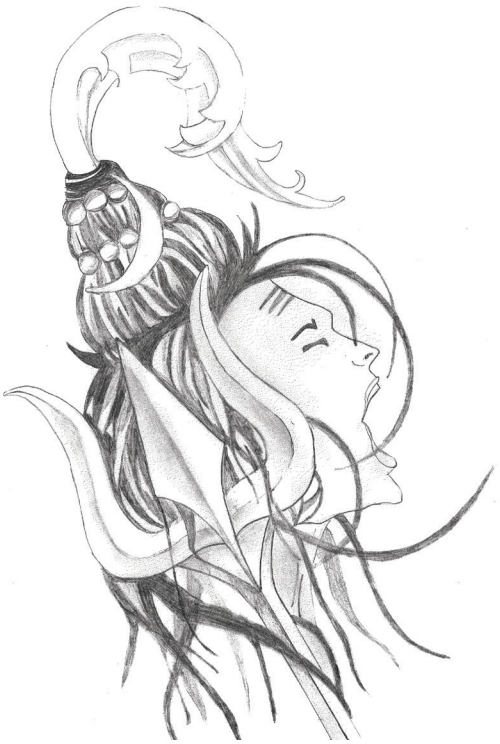
Evolution and Revolution are two ideals characterised by change – one thing constantly transforming into something new that is superior to what it once was. The narrative of 'change' is told in these models through the revolutionary material of aluminium, 'breaking apart,' and conventional fibre and wood. As we follow its story from past, present, through to future applications, we can see the manipulation of each material in the journey to discover its fullest potential. The models maintain a sense of impermanence to them through their stages, hinting at the ever-evolving nature of construction and technology in our world.



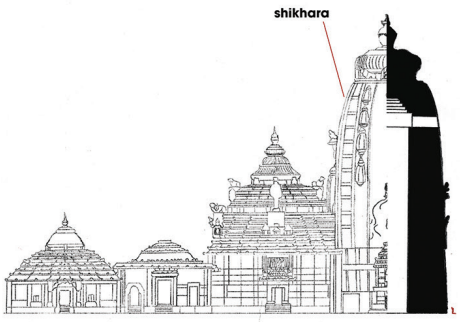
Hindu Shiva Temples
Critical Studies

Rohan Sadhu

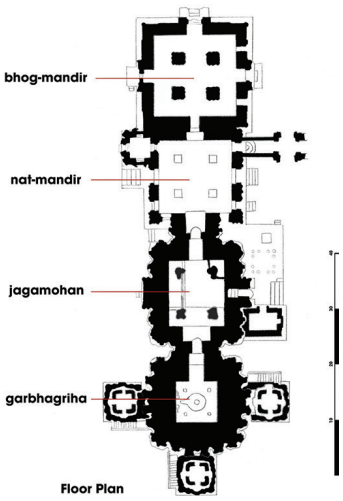
Unknown to the majority of the Western world, Hindu architecture is an ancient and fascinating art form that encompasses mathematics, design, tradition and symbolism in an unfathomably intricate and beautiful style. This project delved into the aesthetics and function of three ancient Hindu temples, all constructed in India around the turn of the first millenium AD: Shore Temple, in Mahabalipuram; Lingaraj Temple, in Bhubaneswar; and Kandariya Mahadeva Temple, in Khajuraho.



Map of Lingaraj Temple Complex, Bhubaneswar

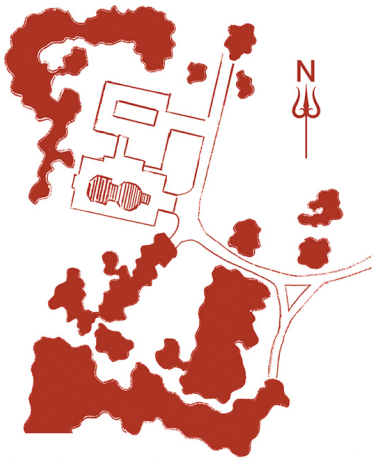


Northern Elevation and Section

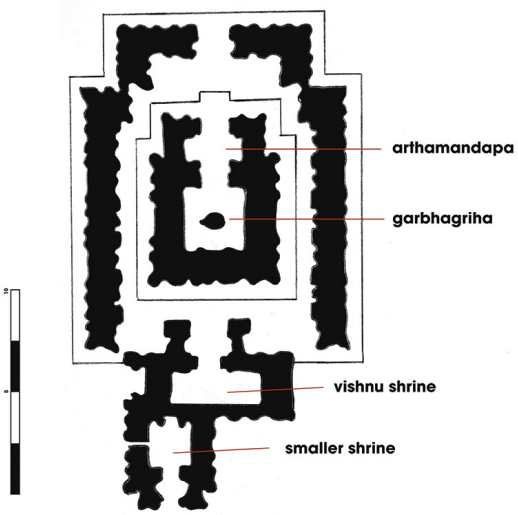


Floor Plan

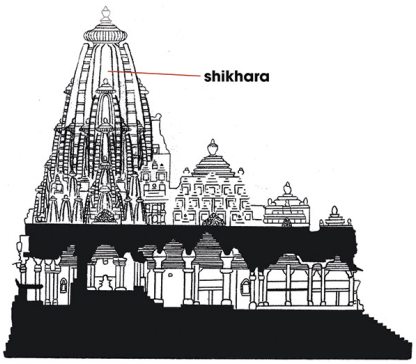
Map of Shore Temple, Mahabalipuram



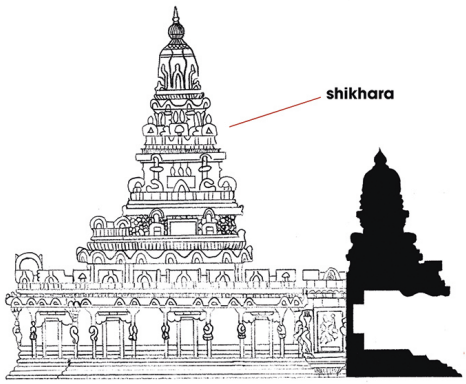
Map of Kandariya Mahadeva, Khajuraho



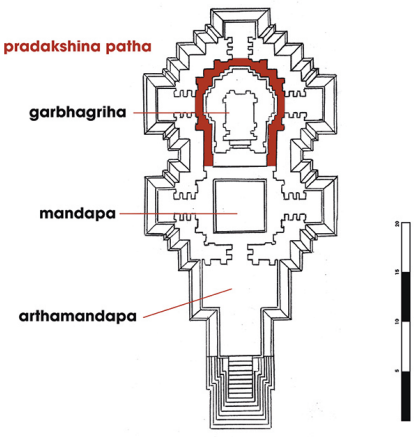
Floor Plan



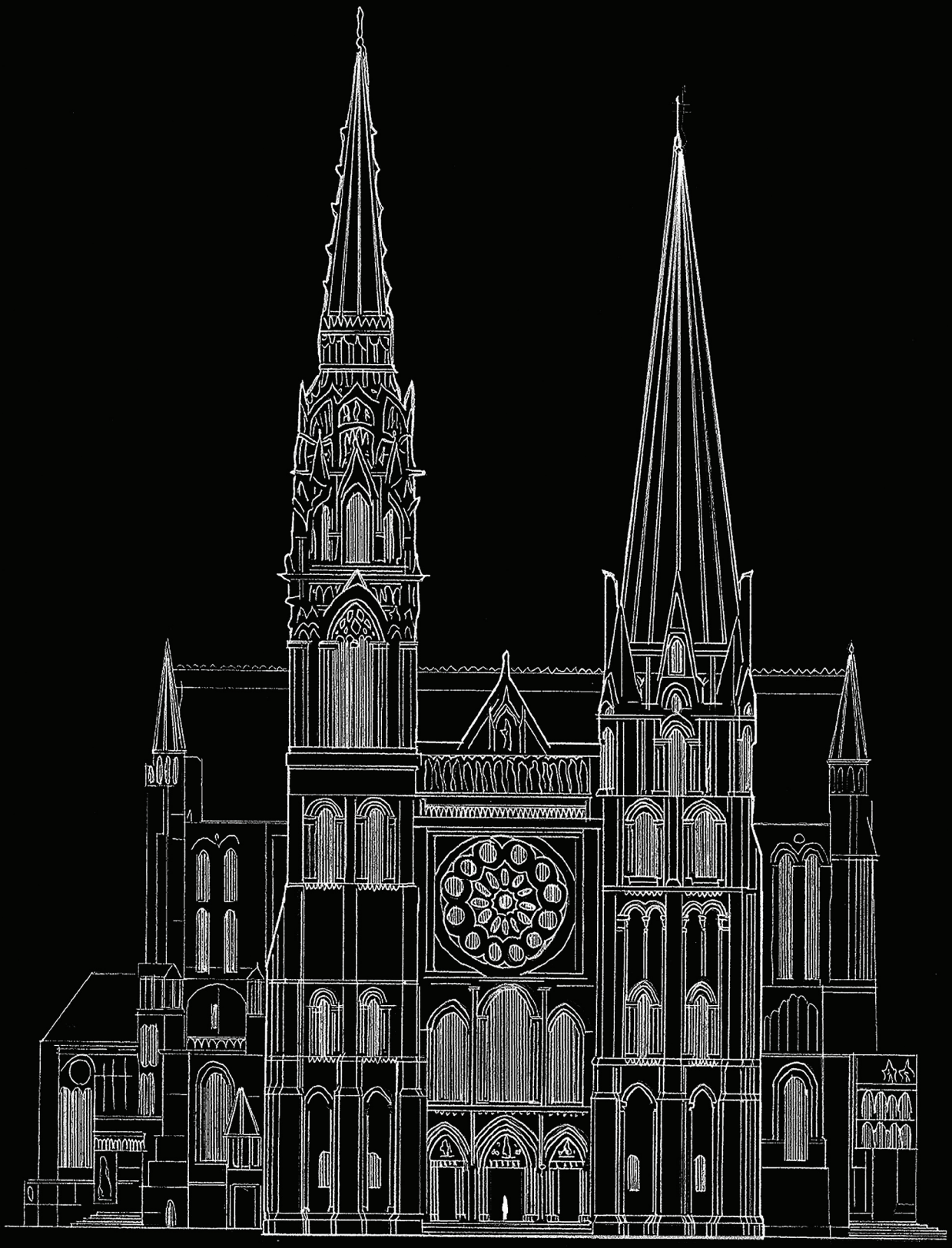
Southern Elevation and Section

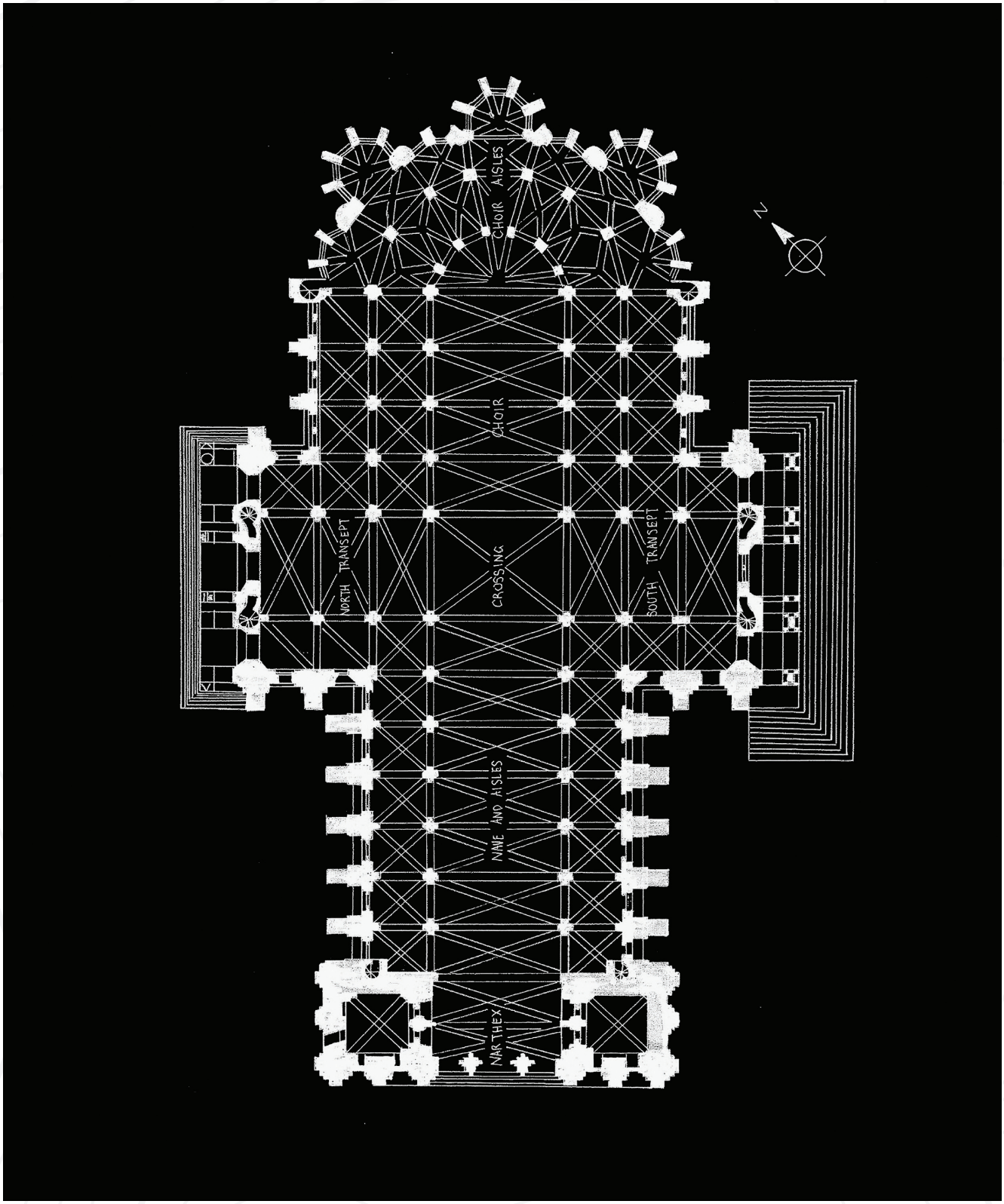


Northern Elevation and Section



Floor Plan

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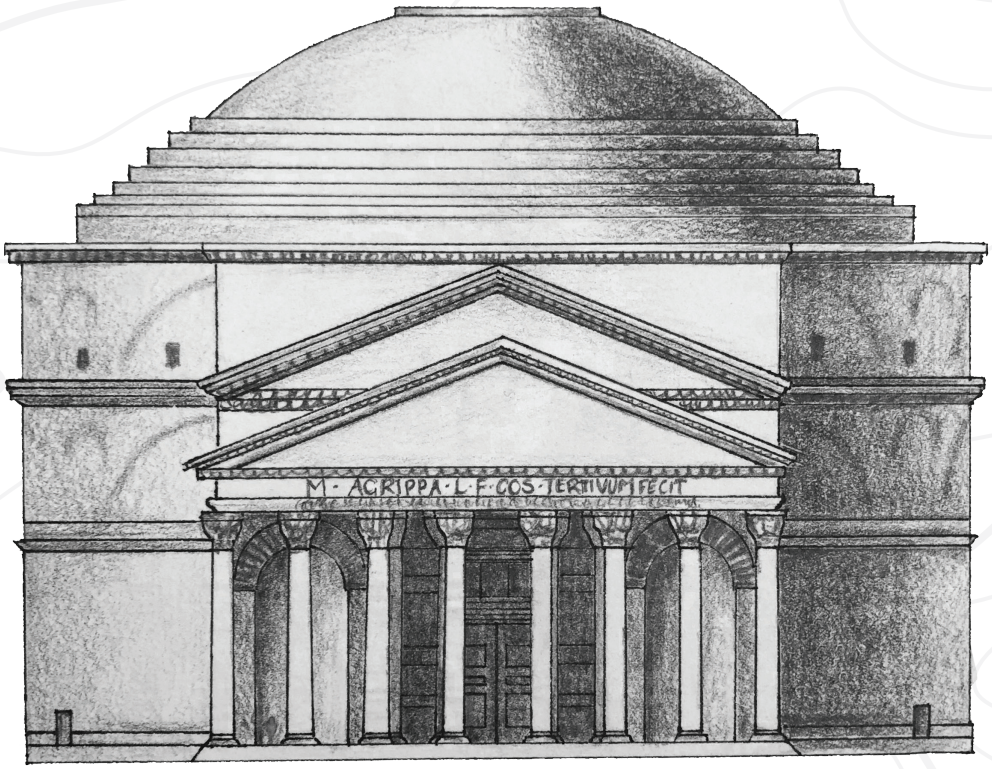
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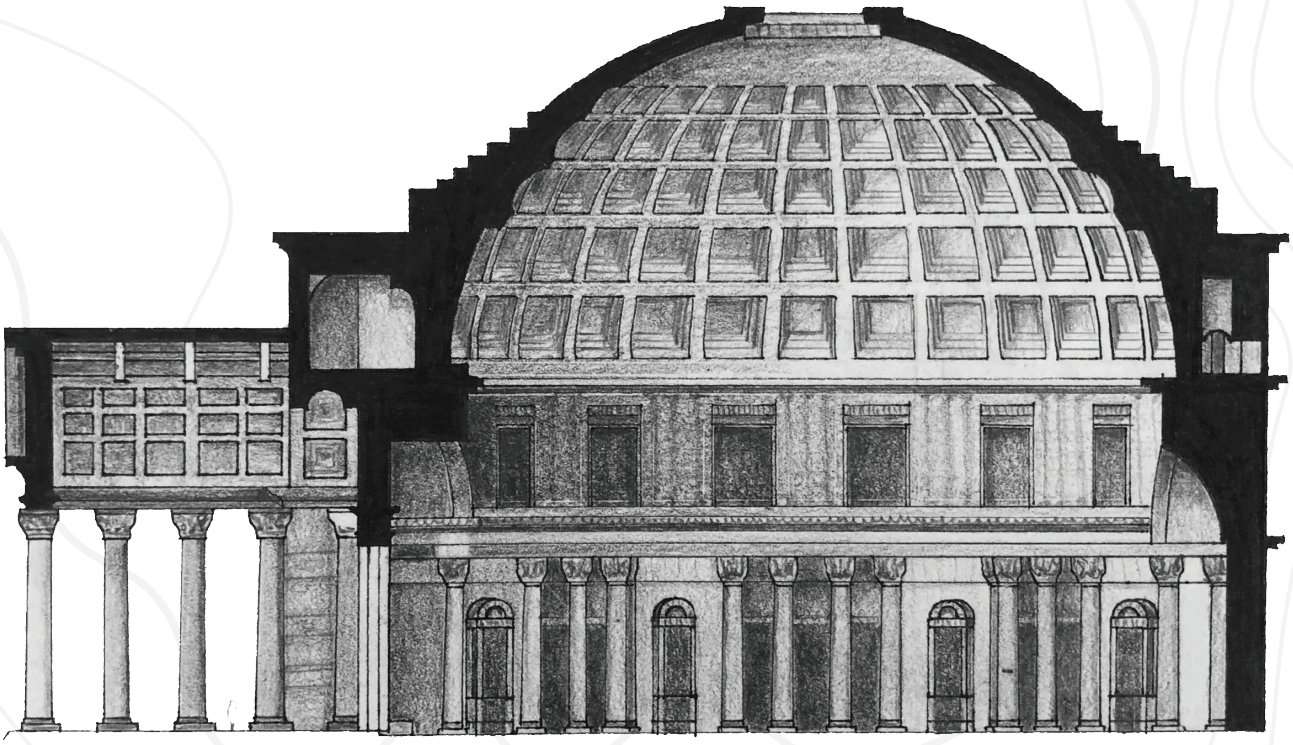


Pantheon
Critical Studies

Renee Buckingham

Recognised for its revolutionary engineering and impressive architecture, the Pantheon is Ancient Rome's best-preserved monument and of enormous historical importance in Rome.

The Pantheon is an excellent example of contributions the Romans made to modern-day engineering and to the architectural world, and shows some of their most useful inventions: concrete and arcuate construction.

The Romans invented concrete in 120 BCE. It had many advantages in construction, specifically that they could cast it into any shape desired, at any scale. They then developed facings for the concrete, which were used to add aesthetic value. The use of space was of high importance in Roman architecture and was an active element of buildings. In the first centuries BC, Romans perfected arcuate construction, and concrete proved useful in making the enclosure of large-scale, column-free internal space possible. Due to its height of 142 feet, the Pantheon had to be specially engineered to prevent its collapse. Concrete meant that to reduce the weight of the building, the walls of the rotunda and dome could have spaces carved out of them.

The Pantheon's famous dome is an example of the grandest form of a vault, formed by a series of arches around a central vertical axis. For the dome to remain stable, the building's engineer added weight to the exterior to restrain the hoop stress caused by the concrete having little-to-no tensile strength. The dome was made as light as possible by using pumice as an aggregate, tapering the width of the dome towards the top, and constructing it upon wooden centring. This centring created the internal coffers and oculus, which replaced concrete with space. A compression ring called the oculus sits centre at the top of the dome and acts as a three-dimensional keystone, with a hole in the middle. The dome rests on the walls of the rotunda, which provides 360-degree lateral support and transfers the weight of the dome to the foundations. Pouring rings of concrete into a wooden framework formed the rotunda. They used different aggregates for different layers of the concrete: brick aggregate for the base of the dome, a lighter material called tufa towards the middle, and lightweight pumice for the top of the dome. Seven evenly spaced niches puncture the interior face of the rotunda, and relieving arches are situated above them to transmit the vertical load through the drum and around these thinner parts of the walls.

The designer/engineer of the Pantheon is not known for sure; however, it is likely to be Apollodorus of Damascus. Apollodorus proved through other builds that he had the architecture and engineering knowledge to design with such complexity, and there are design similarities between the Pantheon and some of his known builds. Apollodorus was Emperor Trajan's builder of choice, meaning that he was likely to be assigned the job. There is no way to be sure whether he can take credit for the Pantheon's design, however, the building is a model of structural integrity and uses engineering systems that are still practised today.

The Pantheon is an architectural masterpiece from its design to its engineering. It is one of the most mimicked pieces of architecture in history, influencing the designs of buildings all over the world: Hagia Sophia in Istanbul, St. Peter's in Rome, Thomas Jefferson Rotunda at the University of Virginia and the Parliament of Bangladesh. The architect's precise and technical engineering created a building that is both structurally sound and fascinating to see. The importance of the Pantheon to Ancient Rome in both a religious and political sense has aided its survival over the years, and it is still in use today.

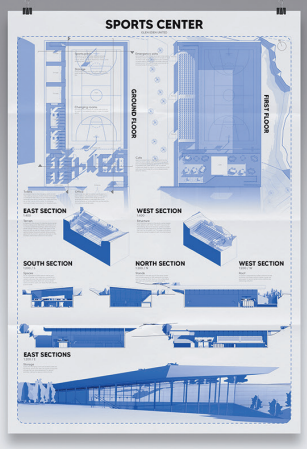
Source: Ressler, Stephen. "Three Great Domes: Rome to the Renaissance," *Understanding the World's Greatest Structures Science and Innovation from Antiquity to Modernity.* Kanopy, 2011. https://www.kanopystreaming.com/product/three-great-domes-rome-renaissance

Year 2 – Bachelor

Second-year submissions in the **Bachelor of Architectural Studies** feature the first leap into computer-aided design, with a greater focus on 3D-rendering and the use of the Adobe Creative Suite. *Asylum 2020* harbours work from Architectural Representation, Studio and Critical Studies. Attention to detail in the presentations is striking.

2


SPORTS COMPLEX
LOCATION
SITE ISO
PERSPECTIVE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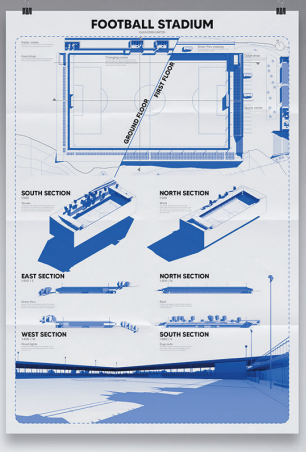
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EAST SECTION
NORTH SECTION
WEST SECTION
SOUTH SECTION

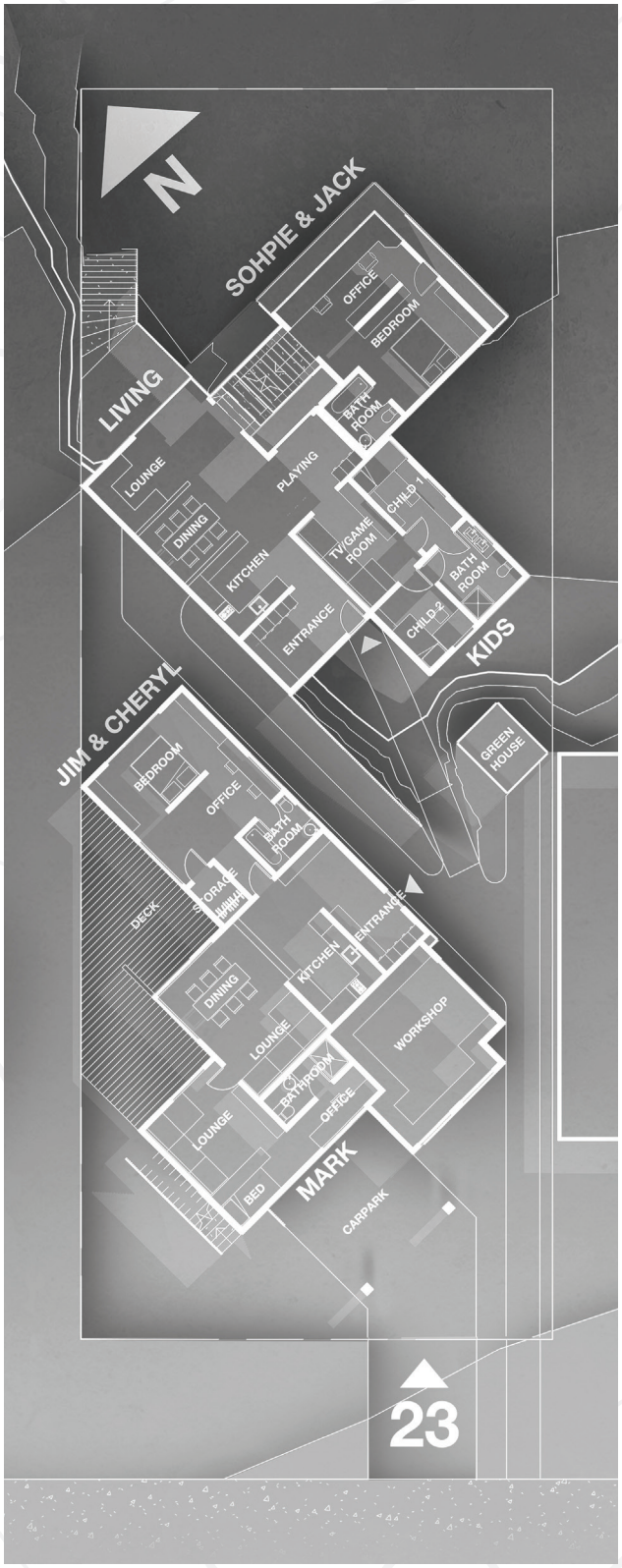
Glen Eden United
Sports Centre

Till Buch

Glen Eden United is a small football club in West Auckland. The goal of this brief was to design a multi-purpose sports facility space for the club to be used for various sporting disciplines.

The new Glen Eden United Sports Complex is moulded into the existing terrain. New structures blend into the environment with their low height reducing the ecological footprint of the construction, using timber structures as well as green roofs that can soak up the rainfall on the property. Roughly 100 car parks are provided. These are split up into smaller casual sports centre car parks situated between the stadium and the sports centre. An overflow car park can be used for larger games that are located in the west of the stadium.

The roofs of the sports complex are roughly 3 metres high to reduce visual pollution for passersby. Slightly slanted grass roofs of the stadium and sports centre create an illusion of a 'slab of grass' being lifted from the ground to shelter the complex. The structure of the grandstands shelters the spectators from the prevailing south-west wind while the sun floods the stadium from the north.



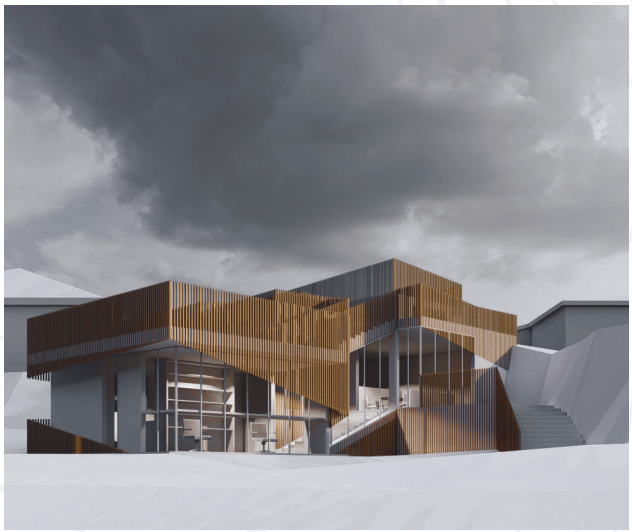
The Wave
Studio

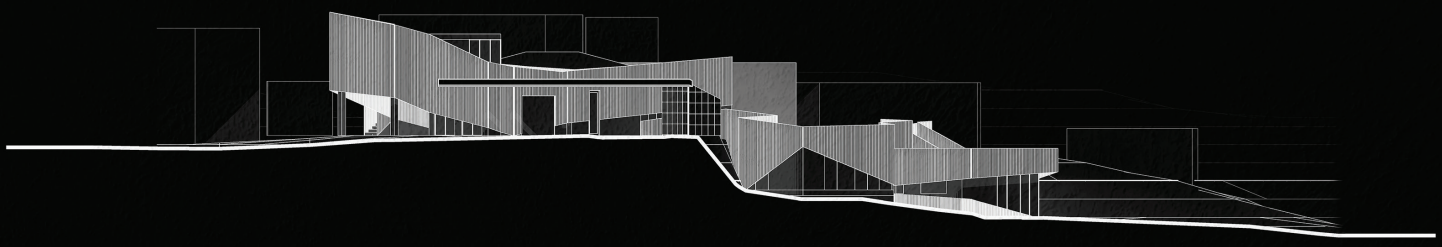
Laurin Buch

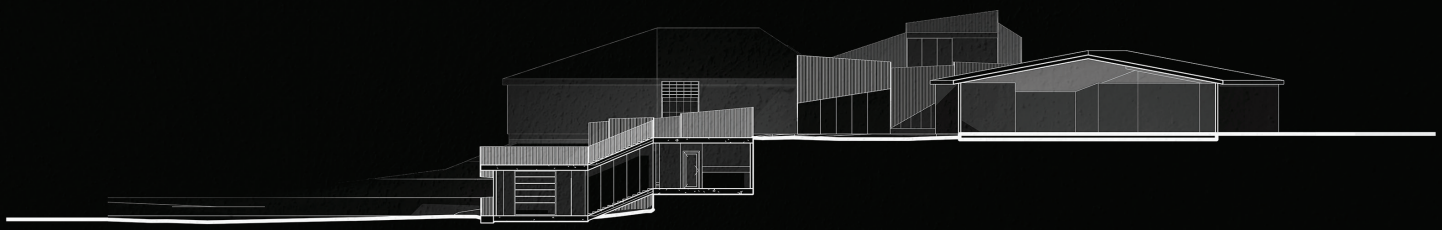
The design of this building is based on the movement and flow of water. As the site slopes, I imagined a bucket of water pouring down the site, solidified in a light wooden shell engulfing the final building. House shapes are kept simple with a white exterior cube-like appearance, focusing on the interior and livability for each of the parties inhabiting individual spaces. Three main zones divide and define the site.

A private, separate space for a young couple and their kids, with a private bedroom separated by a ramped bridge. The south dwelling is designed to cater to an older couple with a teenager. This is made possible due to the distance between the parents' area and the area designated for their teenager.

A guest house sits on top, overlooking the the site, with its own roof garden for complete privacy. All zones are connected by a main communal area in the centre of the site, on top of the northern dwelling, allowing parents and children to spend outdoor time together.







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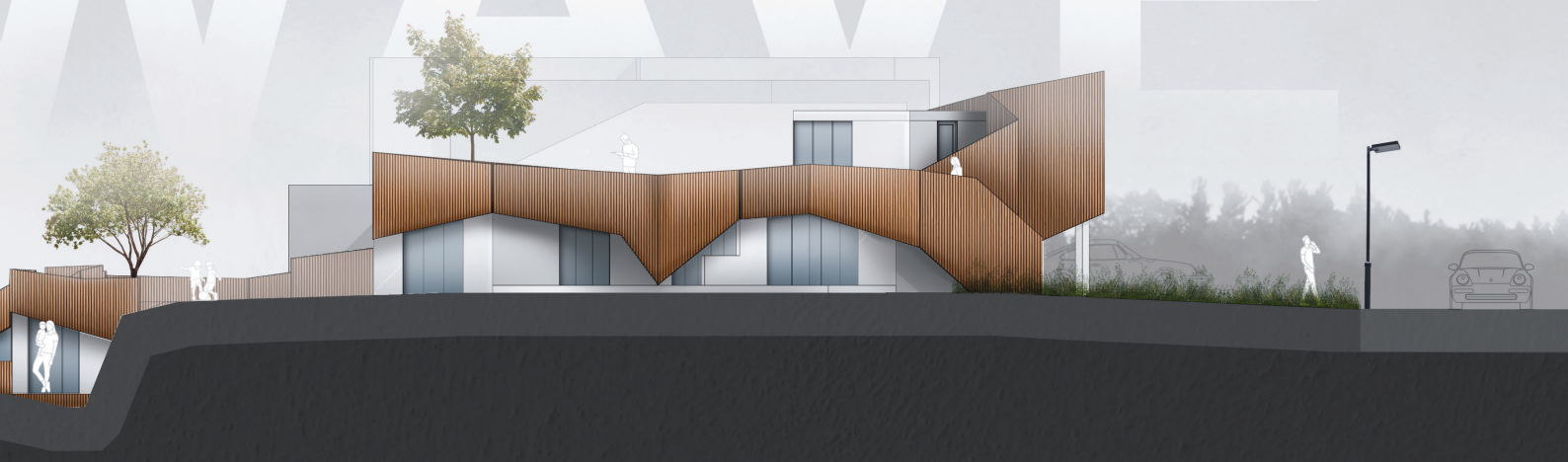
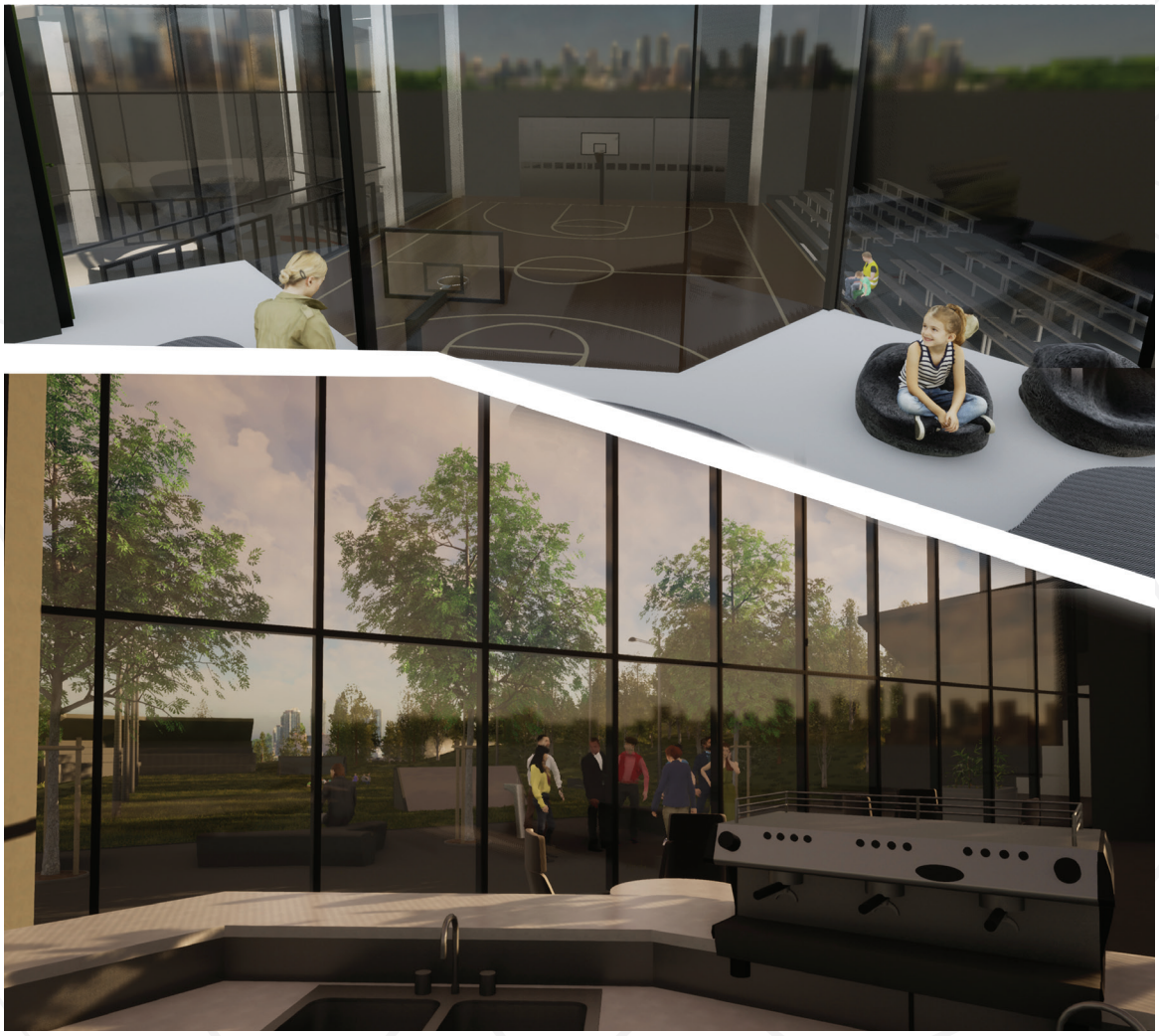




Glen Eden United
Sports Centre

Hayley Harris

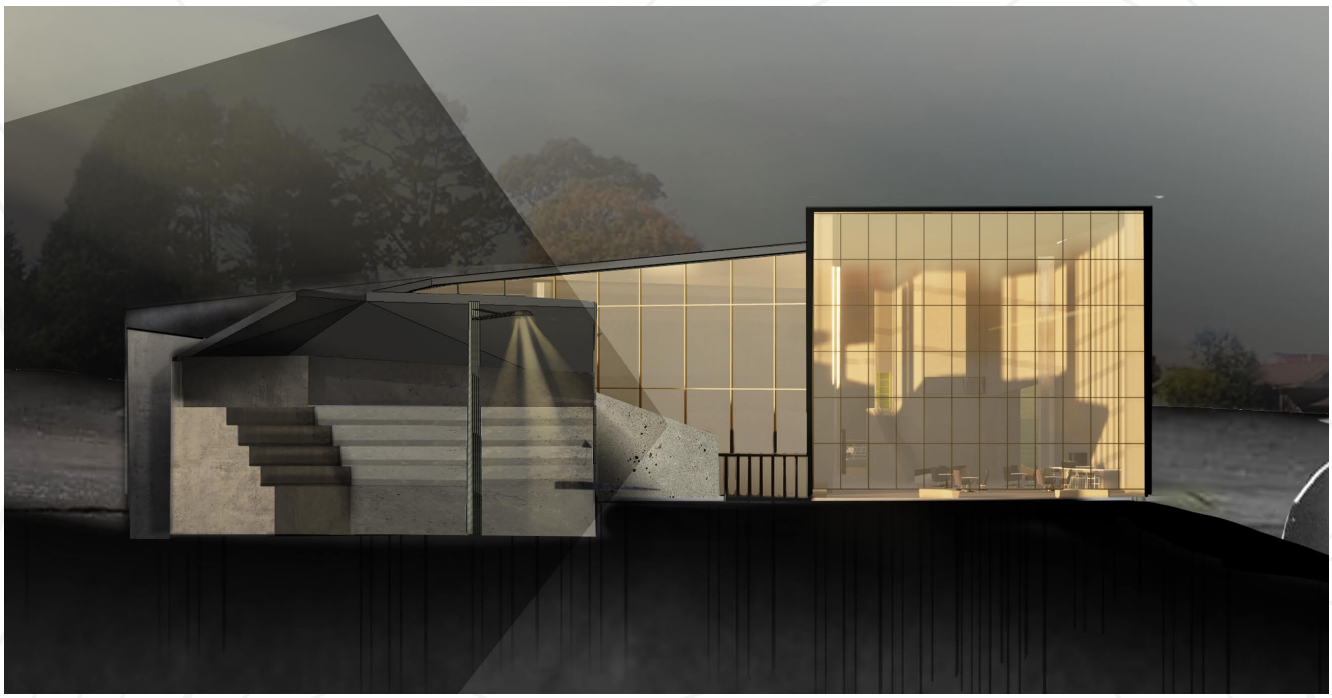
This design was a response to the Glen Eden Sports Facility brief. The brief required a redesign of the original sports club on West Coast Road. It required multi-purpose spaces, south light, two grandstands, and other facilities such as cafés and bathrooms.

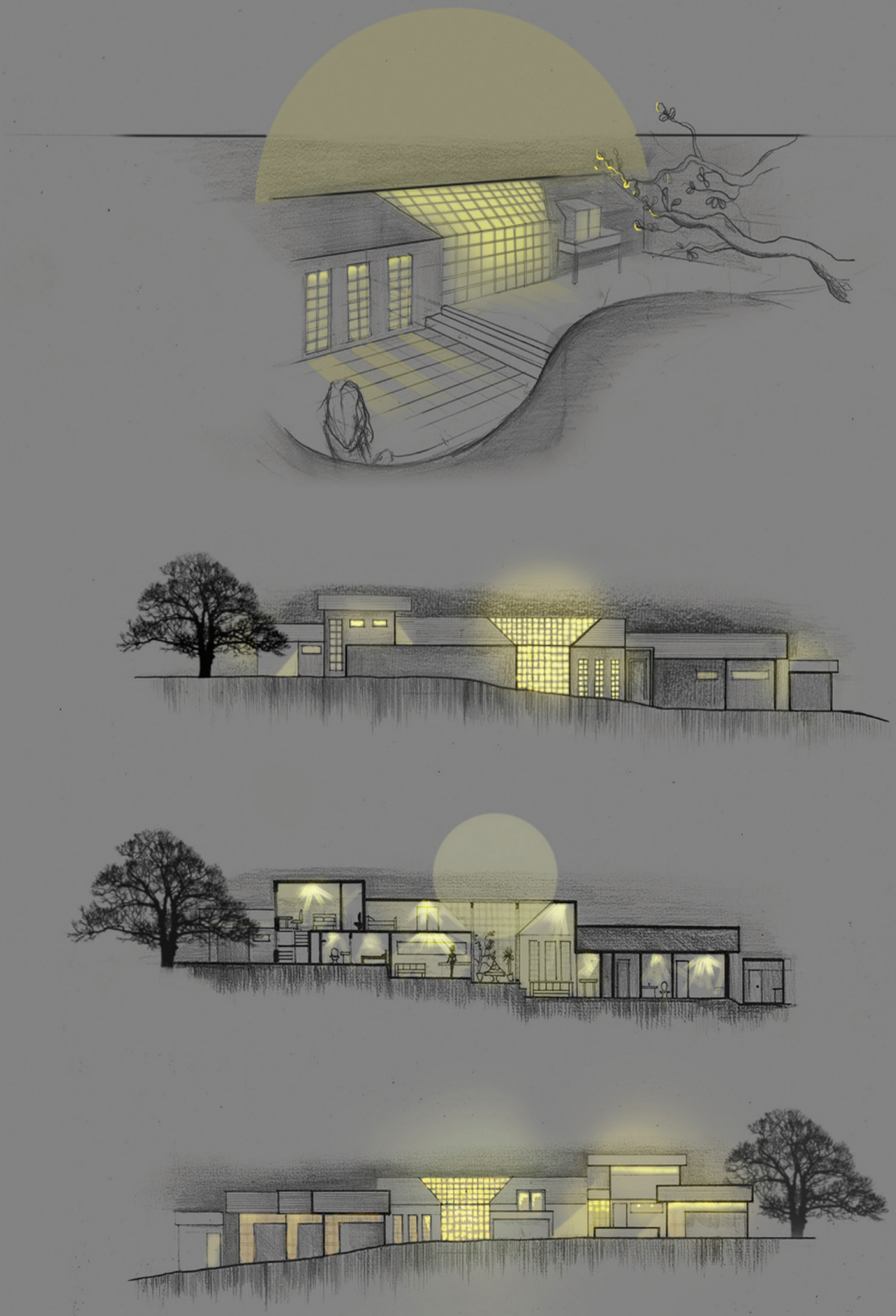
My design uses a spiral shape inspired by the Fibonacci spiral. The building spirals around a skate bowl in which people can skate in and out of the indoor skate park. The sports facility, as well as an indoor skatepark, has a large basketball court that can accommodate tennis, karate and other sports.

Opposite page, top, shows the indoor skatepark facility. Each level differs in difficulty.

Opposite page, middle, shows the club room – a place where you can watch the game. It has a kitchen and pool table for staff and members to hang out before or after the game.

Opposite page, bottom, shows the café and lobby space overlooking the football field. The public can sit at the café and watch the football game while having a cup of coffee.





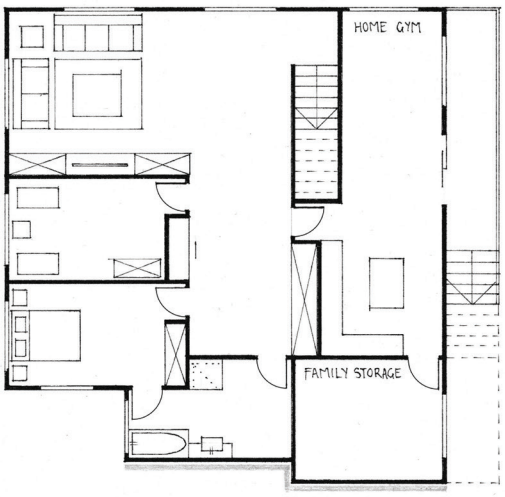
Verona
Studio

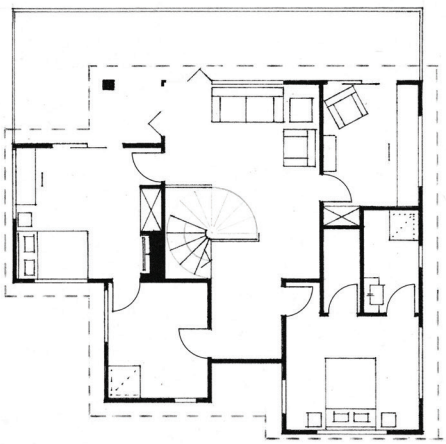
Hayley Harris

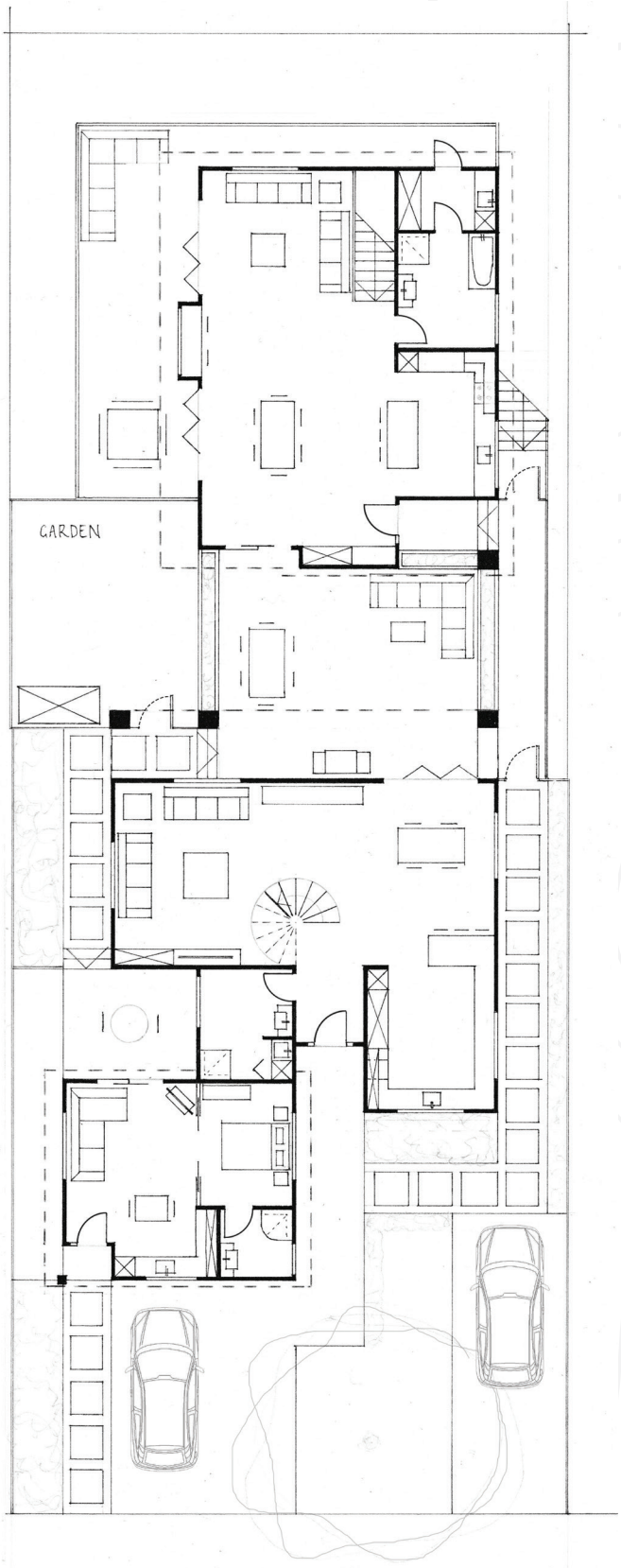
This project was a response to a Studio 2 brief requiring three dwellings on the same land. The brief also called for a greenhouse, a workshop and private outdoor living spaces for each family. The main focus for designing these houses is the intimacy gradient and north light.

My point of difference with this brief is that I combined the greenhouse with the guest house to create an indoor terrarium; a zen space connecting to the lounge of Sophie and Jack's house.

This project was one of my favorites to render. I hand drew the sections and elevations then edited them on Photoshop to make them glow and accentuate the glasshouse in the centre of the complex.


HOME GYM
FAMILY STORAGE




GARDEN

Solo-Darity

(noun) **Unity or agreement of feeling or action, especially among individuals with a common interest; mutual support within a group.**

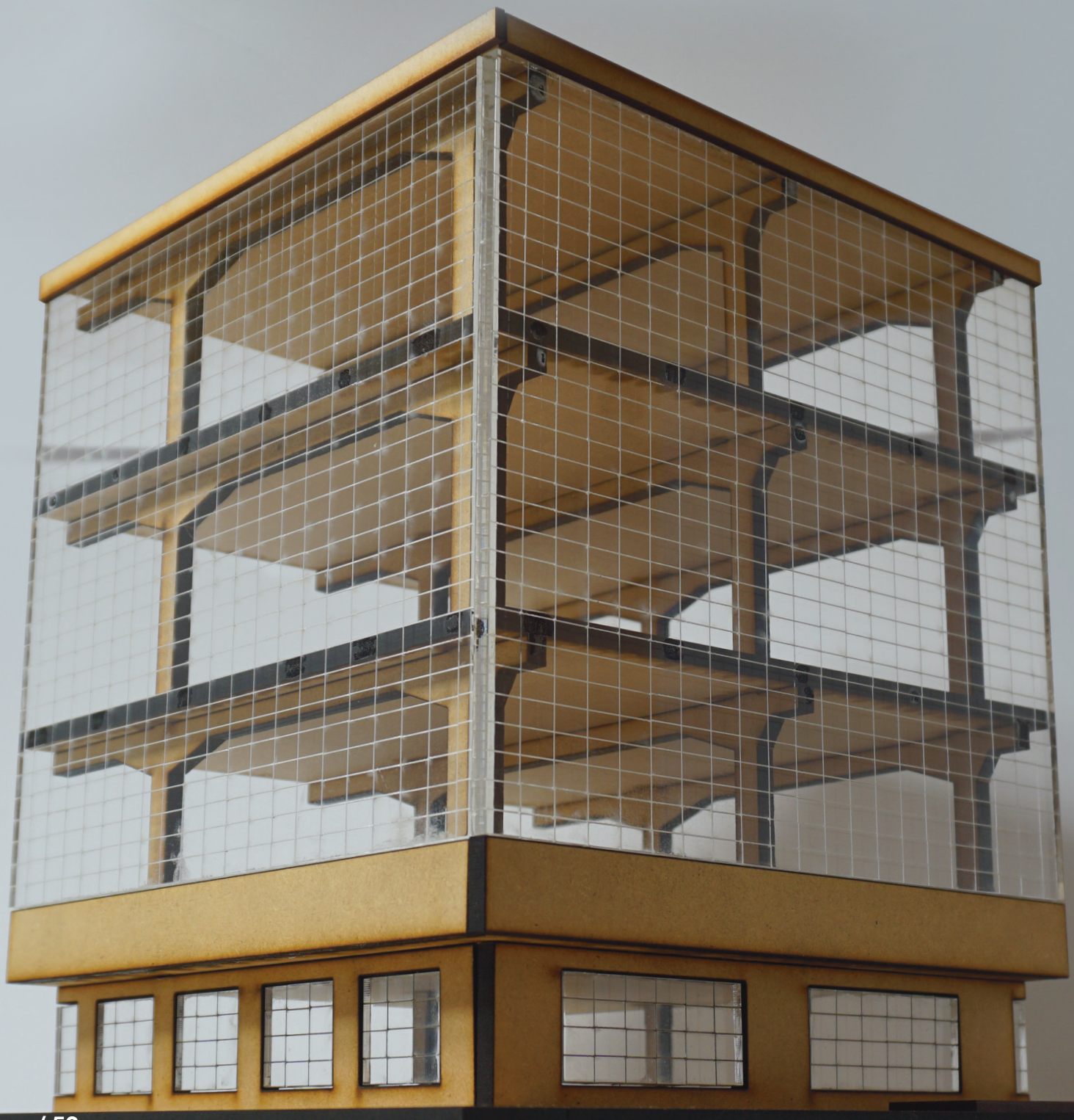
Renee Buckingham

Incorporating the idea of unity through design was of high importance when designing the proposed house for 23 Verona Avenue. The current pandemic has made one thing clear: family members are drawn closer together through time spent in communal spaces. However, individuals also need spaces of their own in order to maintain order. In this case it was important for each family unit, and each individual within that unit to have a space to be on their own. With the proposed design, the family members of 23 Verona Avenue are to be unified through communal and solitary spaces.

The house follows the landscape of the site, creating views of the adjacent park for every level of the home, as well as tying the building in with the curves of the land. The design style of the proposed house reflects the idea of solidarity. It is different from its neighbours, however there is a certain harmony between itself and the existing houses. This is found in the extension towards the street of the floor level. This extension is a nod to the other houses on the street, and unifies the houses by tying the new in with the old.


SPIRITUAL


Psychological



Bauhaus School

Critical Studies Model

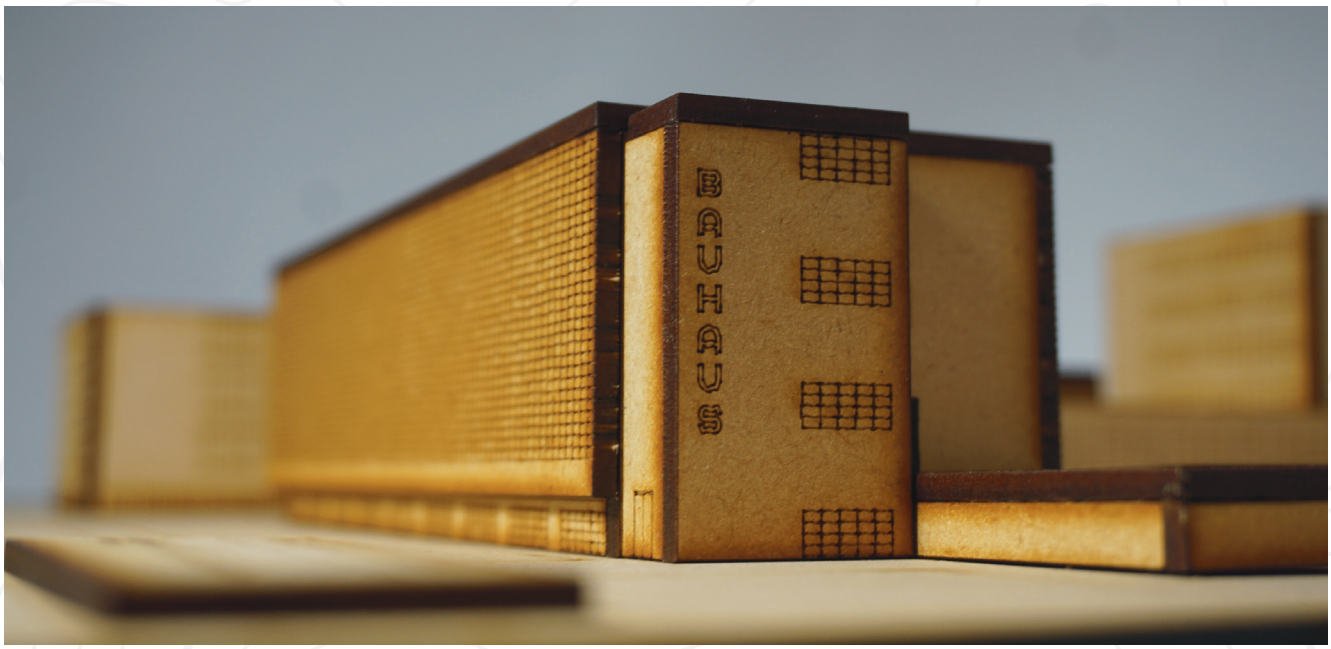
Till Buch and Laurin Buch

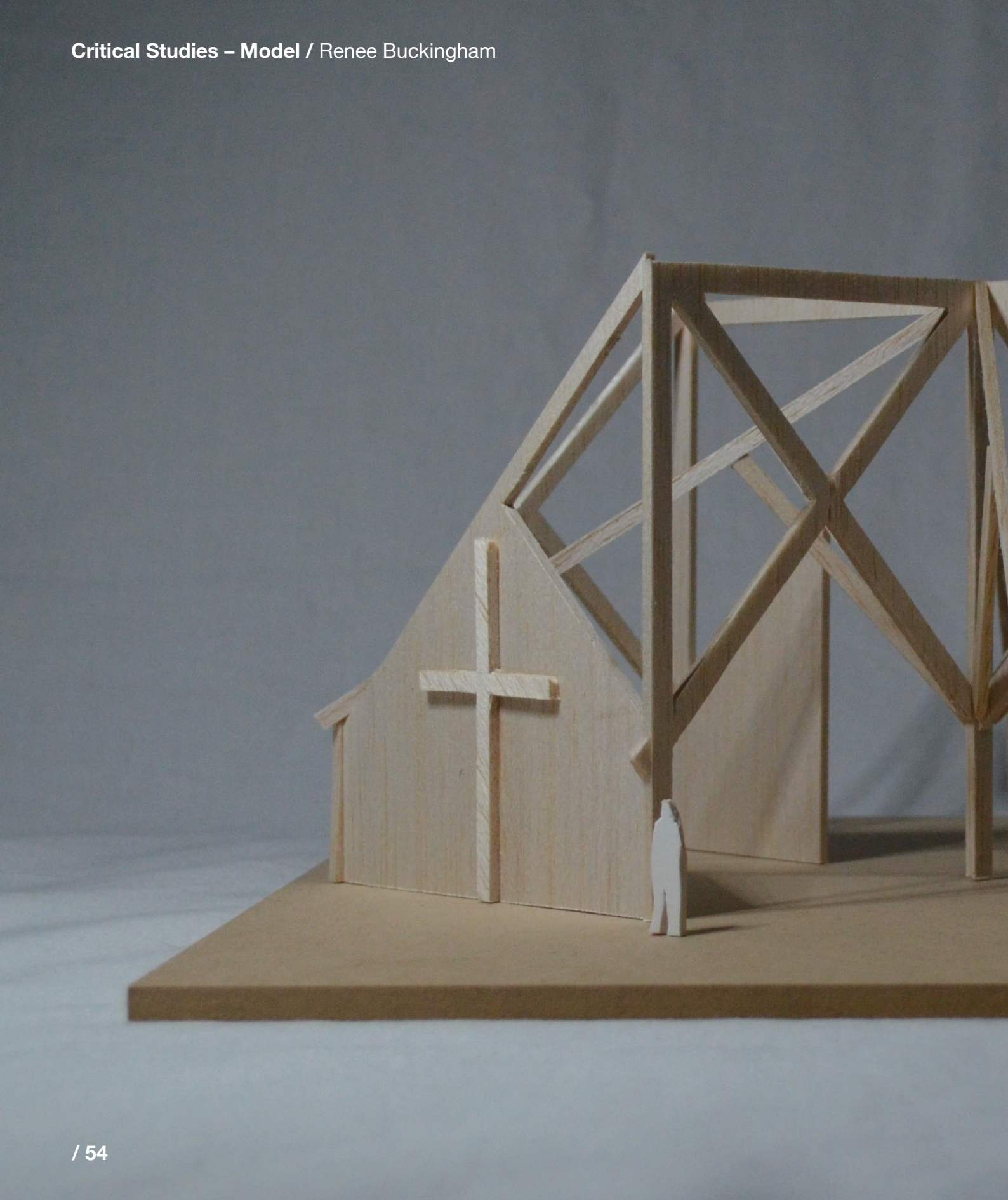
The Bauhaus school building was constructed in 1925 and is located in Dessau, Germany. It housed the famous Bauhaus design and architecture school led by Walter Gropius, who also planned the building.

The principle of the Bauhaus school was design reduced back to the root function of any object or work of architecture, eliminating decoration.

While other architects produced ornate designs based on the classic teachings of architecture dating back to the Greek, the modernist movement that Gropius was a part of invented a style of architecture that is still popular and used today. Gropius attempted to make the best-quality products and architectural design available to everyone while keeping it as cost-effective as possible, boosting the popularity of the Bauhaus.

For us it was clear that we wanted to showcase the ground-breaking architecture and engineering involved in the structure of the Bauhaus school building. To do this we decided to cut a chunk out of the corner of the main façade and show exactly how Gropius designed the school, including all the floor slabs and beams, and the curtain wall. The model's construction shows how the actual structure would work in the school. Beam and column elements are assembled on top of each other, directing the load into the foundation, while the floor slabs rest on top of these beams. This 'skeleton' provides the support for the large curtain wall laser cut from acrylic, which includes the exact number of windows as in the actual building. This curtain wall simply attaches to the bottom and top 'concrete' slabs, perfectly imitating the structure.





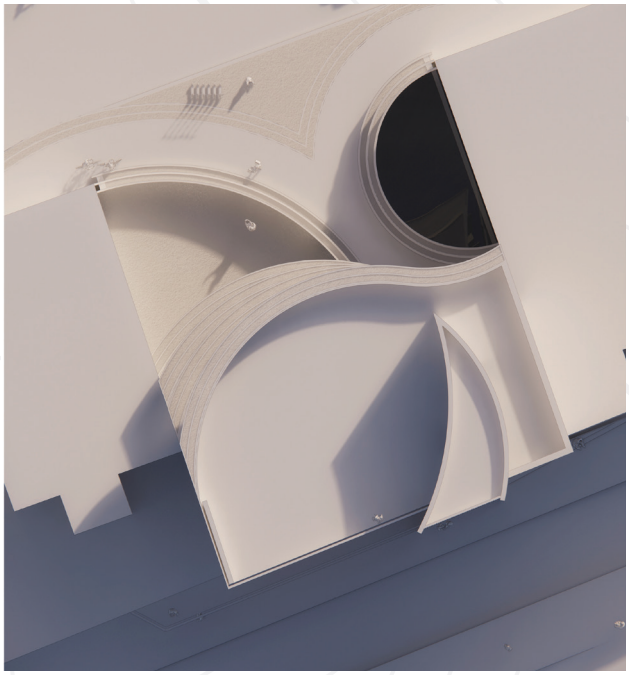
A Centre for Kingsland
Studio

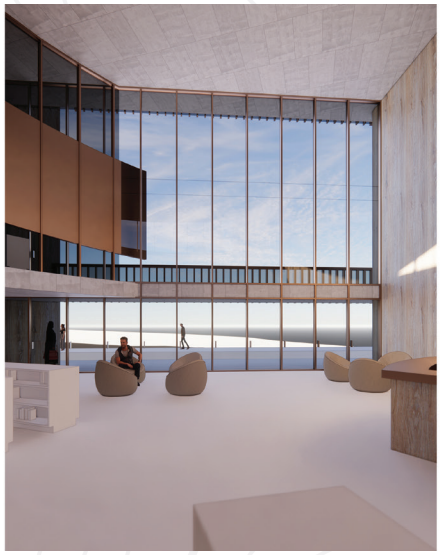
Gregory Mann

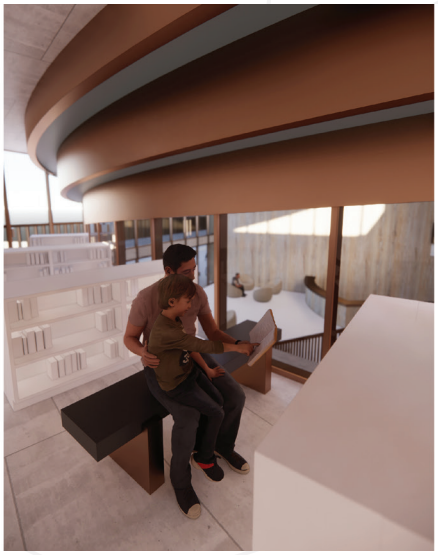
Glow, the major assignment for the second semester of Design Studio 2, had to be cancelled this year due to Covid-19, but fortunately our quick-thinking lecturers threw an exciting new brief together for us.

The brief was to create a building that would connect New North Road to the Kingsland train station, provide a public space, library, gallery and at least six apartments.

I began the exciting new assignment with a circulation heat map that followed foot traffic from the New North Road footpaths to Kingsland train station taking the most direct route and discovered a pattern which became the project's parti diagram. The idea behind massive curving structures is to draw passersby into and through the space.







Year 3 – Bachelor

Work from the final year of the **Bachelor of Architectural Studies** programme shows the finesse and aptitude that students gain from the three-year course. Studio and Critical Studies work is refined and advanced, and the dedication that our third-year students put into their work cannot be overstated.

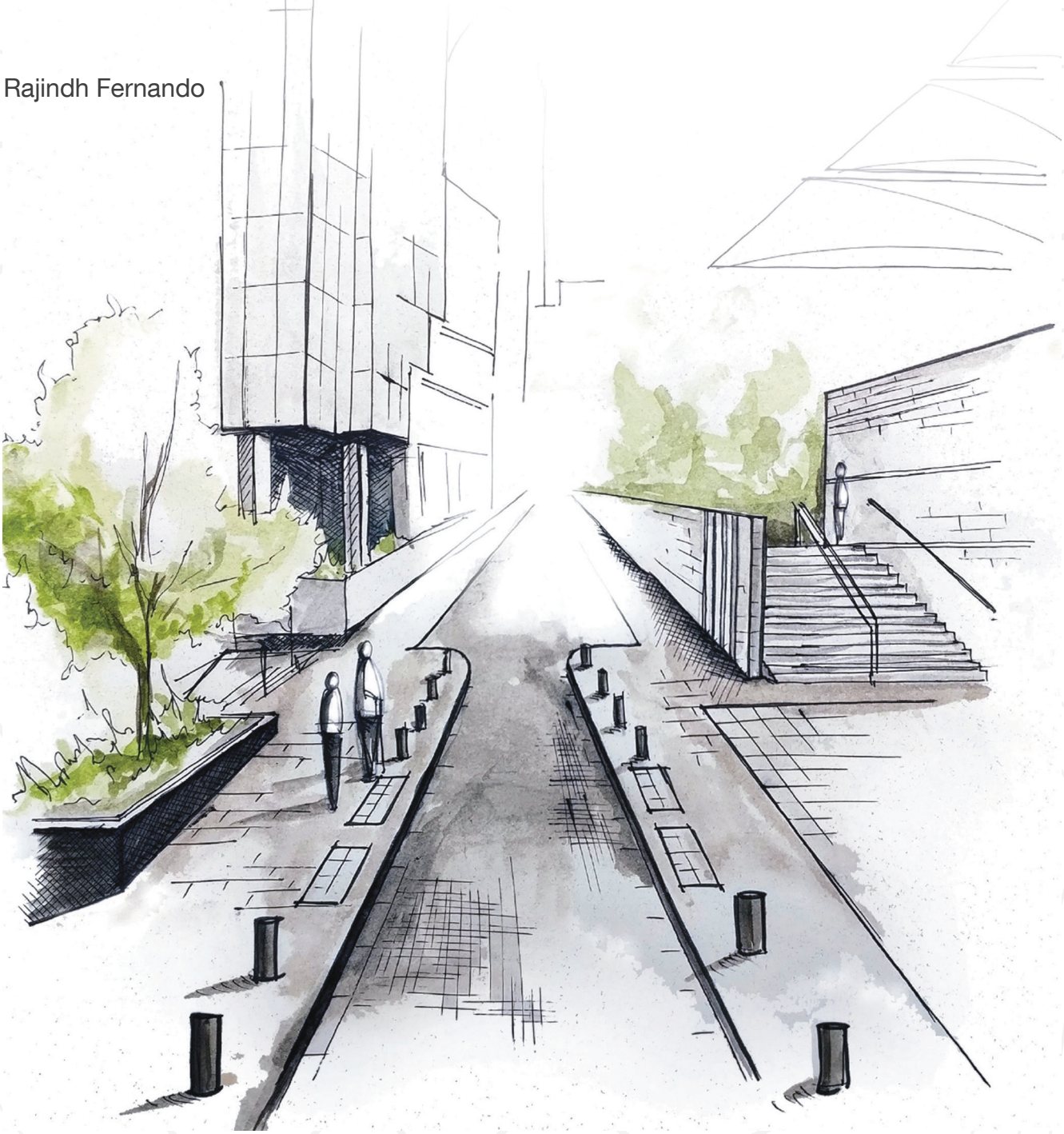
We've worked on larger-scale developments including master planning of large sites, apartment buildings and high-rise buildings. The projects allowed us to implement our Architectural Technology knowledge into our design work. It was a great way to tie up the BAS programme.

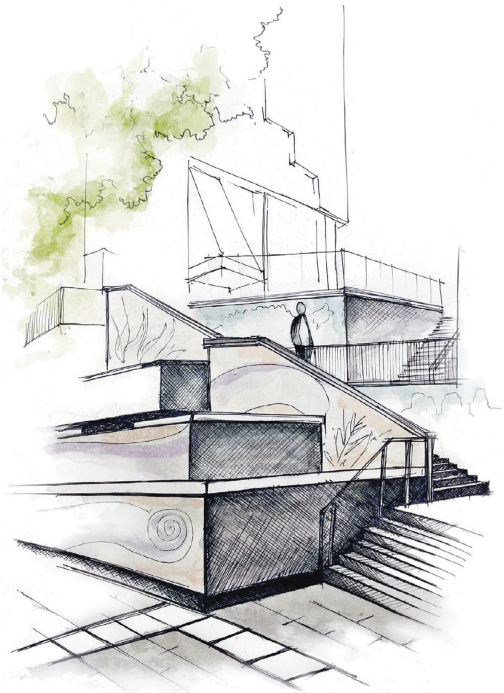
Rajindh Fernando, third-year student

3

Khartoum Place
& Te Hā o Hine Place

Rajindh Fernando





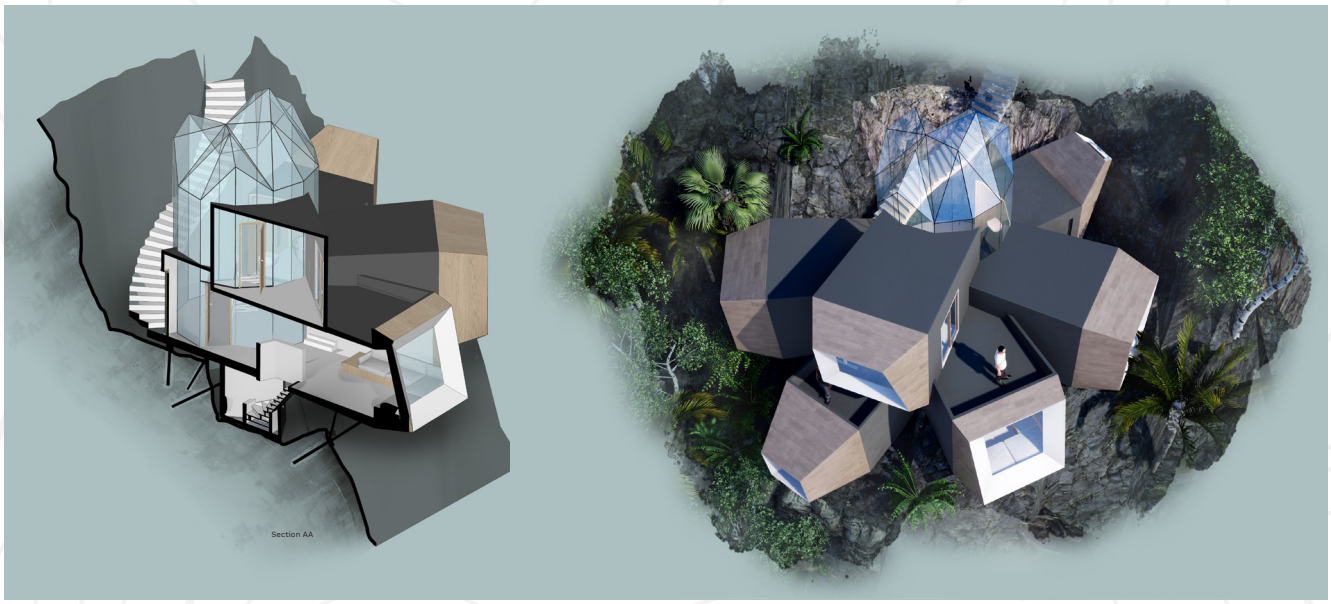
Isolate
Studio

Ciaran O'Neill

My isolation house is close to the area I grew up in: located on the steep riverbanks of Otaki Gorge in the mighty Tararua Ranges. This peaceful spot has views over the ever-changing river, along with the native birdlife and native bush. The geometric forms grow like a crystalline structure out from the central atrium, mimicking the jagged rock formations of the cliff face.

The central atrium provides a glasshouse in which to grow plants. Interacting with and watching plants change with the seasons during the lockdown helped me to observe the passing of time.

Being able to move around through distinct spaces during lockdown helped me avoid the feeling of monotony and boredom. This idea is incorporated into the design by creating separate spaces for each activity, with different views, daylighting and spatial conditions.



Interior Design & Landscape Architecture

This is the first time that *Asylum* has included **Interior Design** and **Landscape Architecture**; programmes that play host to some incredible students and breathtaking work, and a worthy addition to the future of *Asylum*.


IDLA


POTTING MIX
POTTING MIX