

Component 2: Three-Dimensional Design

Standard Mark: 54

Performance Levels 5: Confident and Assured

	AO1	AO2	AO3	AO4
Mark	13	13	14	14
Performance Level	5	5	5	5

Moderator Commentary

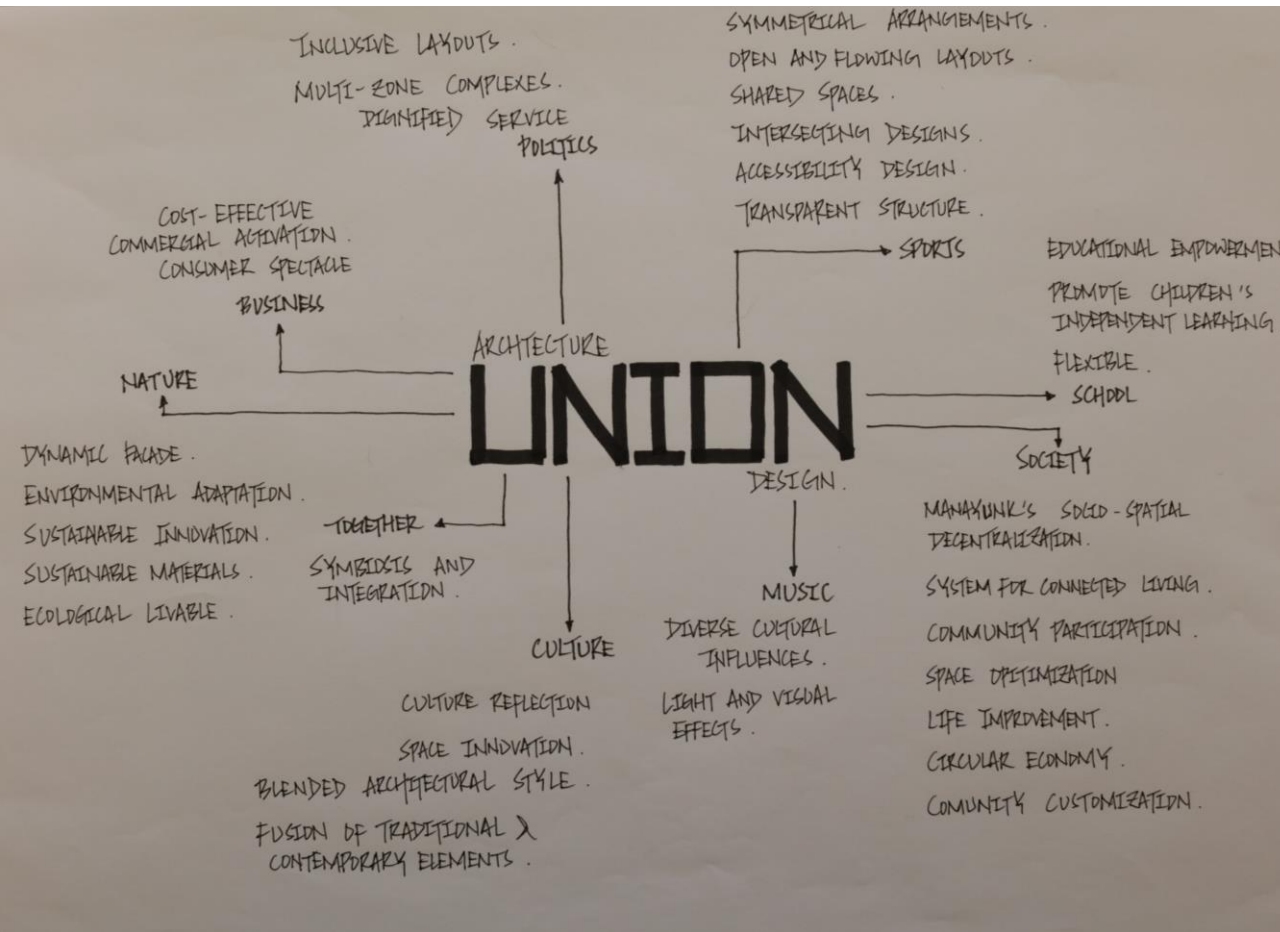
Lewis is working in Three-Dimensional Design for Component 2, exploring the theme of Union. His primary research focuses on iconic structures like the Lloyds Building and Heron Tower, and he produces a few intricate and detailed drawings of stacked and layered building for his initial ideas. He uses CAD modelling extensively to develop his concepts, exploring unusual, crooked shapes and the integration of negative space and greenery within urban areas. Some of his CAD work has a functional feel, almost like interior or furniture design, but this reflects his careful consideration of ergonomics and practical use. Ultimately, Lewis aims to create green spaces within urban housing complexes, combining innovation with sensitivity to both structure and function. The final concept is novel, visually striking, and beautifully executed for the chosen outcome.

Lewis - Component 2 Three-Dimensional Design

Standard Mark 54

Performance Level 5: Confident & Assured

A01	A02	A03	A04	TOTAL
13	13	14	14	54



PRIMARY RESEARCH ARCHITECTURE RESEARCH

30 St Mary Axe



Heron Tower

The tower has a sleek, rectangular profile that emphasizes its height. Its volume is subtly divided into stacked vertical sections, breaking the monotony of a single mass while maintaining a coherent visual effect. The spire enhances the sense of upward momentum and accentuates the skyscraper's presence in the London skyline.



70 St Mary Axe

The building has a bulging, tapering form, reminiscent of a ham tin, which gives it its nickname. The smooth, curved facade reduces visual mass, creating a gentler skyline presence compared to angular skyscrapers. The form gradually slims at the base and top, ensuring a fluid integration with its surroundings.

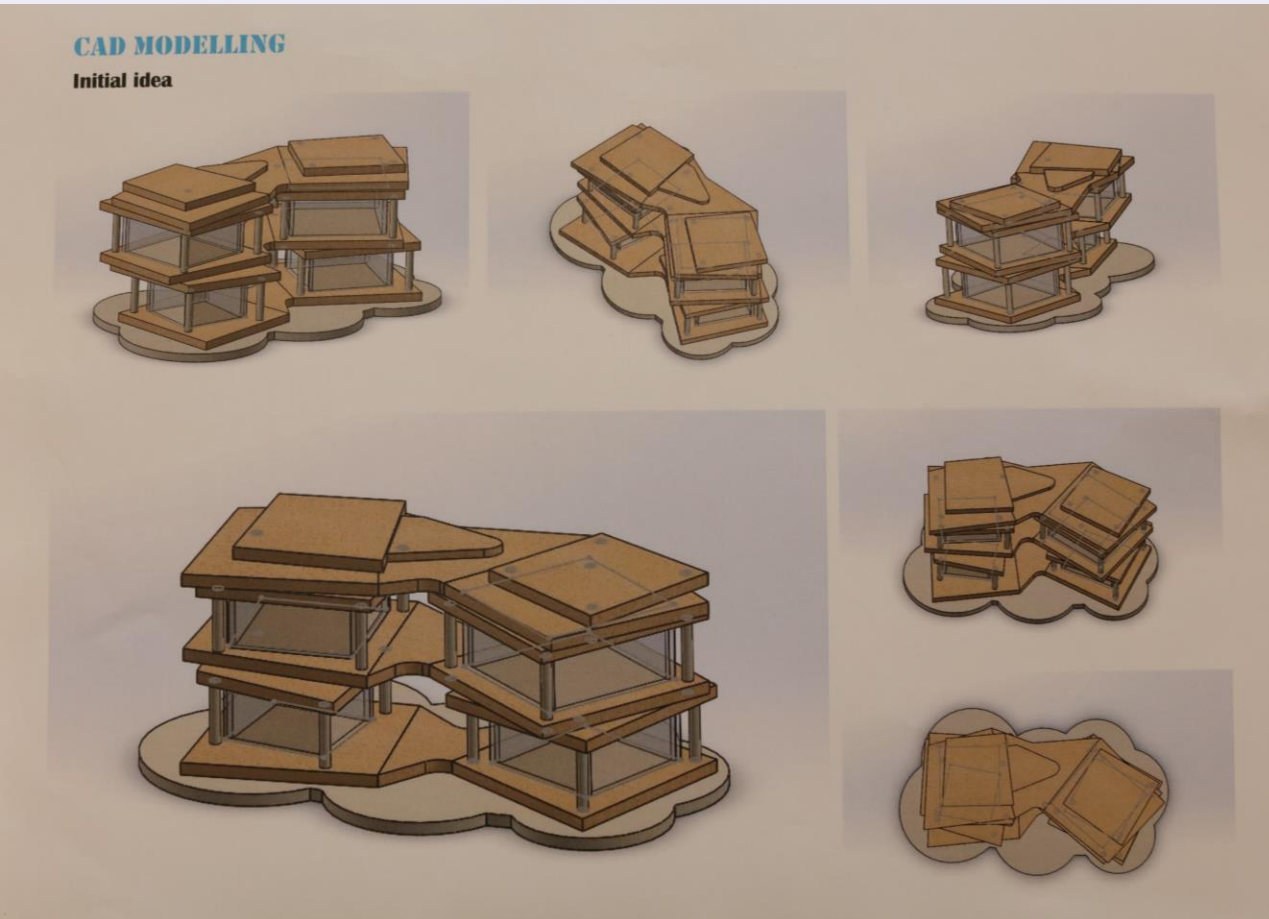
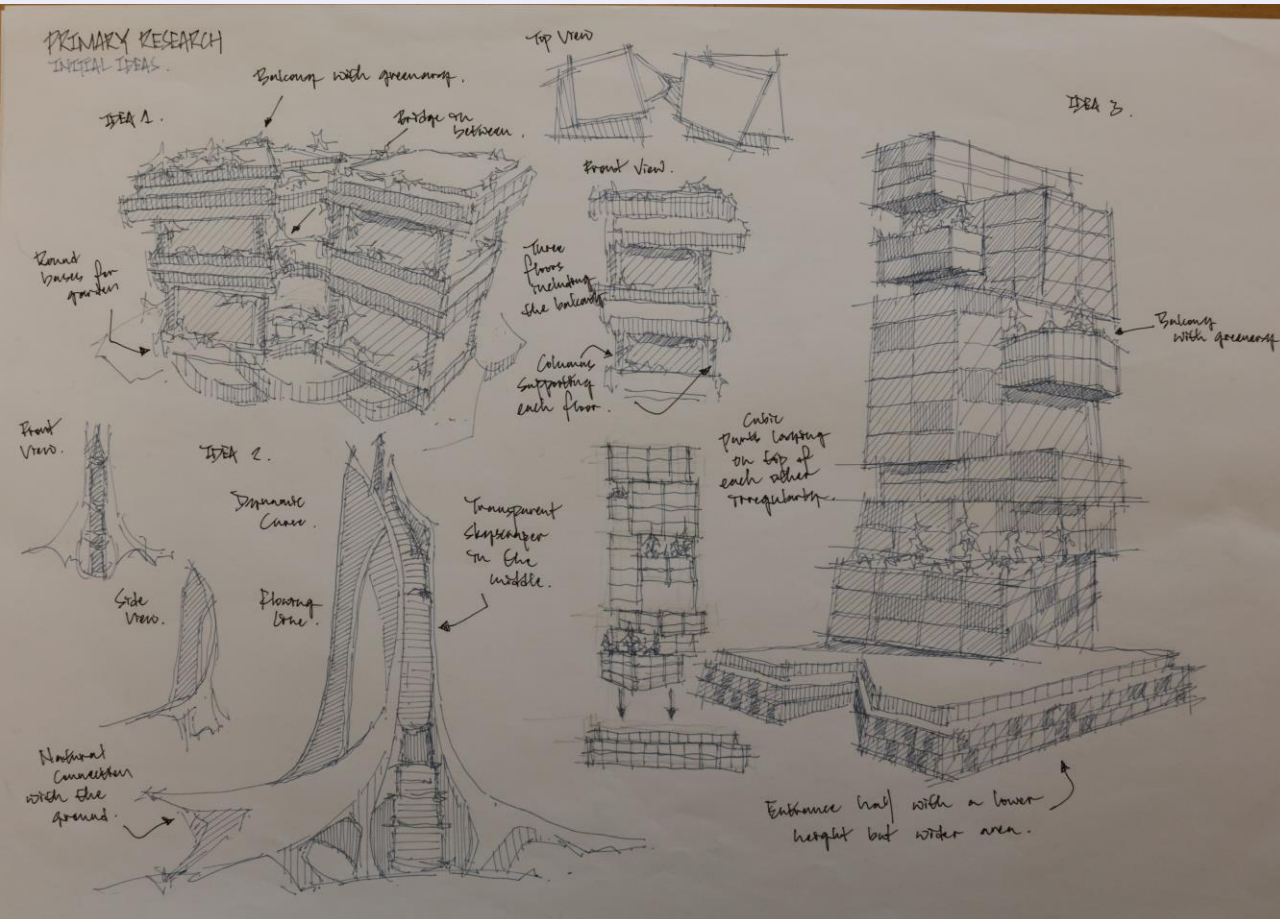


Lloyd's Building

Stainless steel cladding gives the building a futuristic look while providing durability. Glass curtain walls introduce transparency, contrasting with the exposed steel framework. The building resembles a mechanical organism, reinforcing the High-Tech movement's focus on exposing technology.



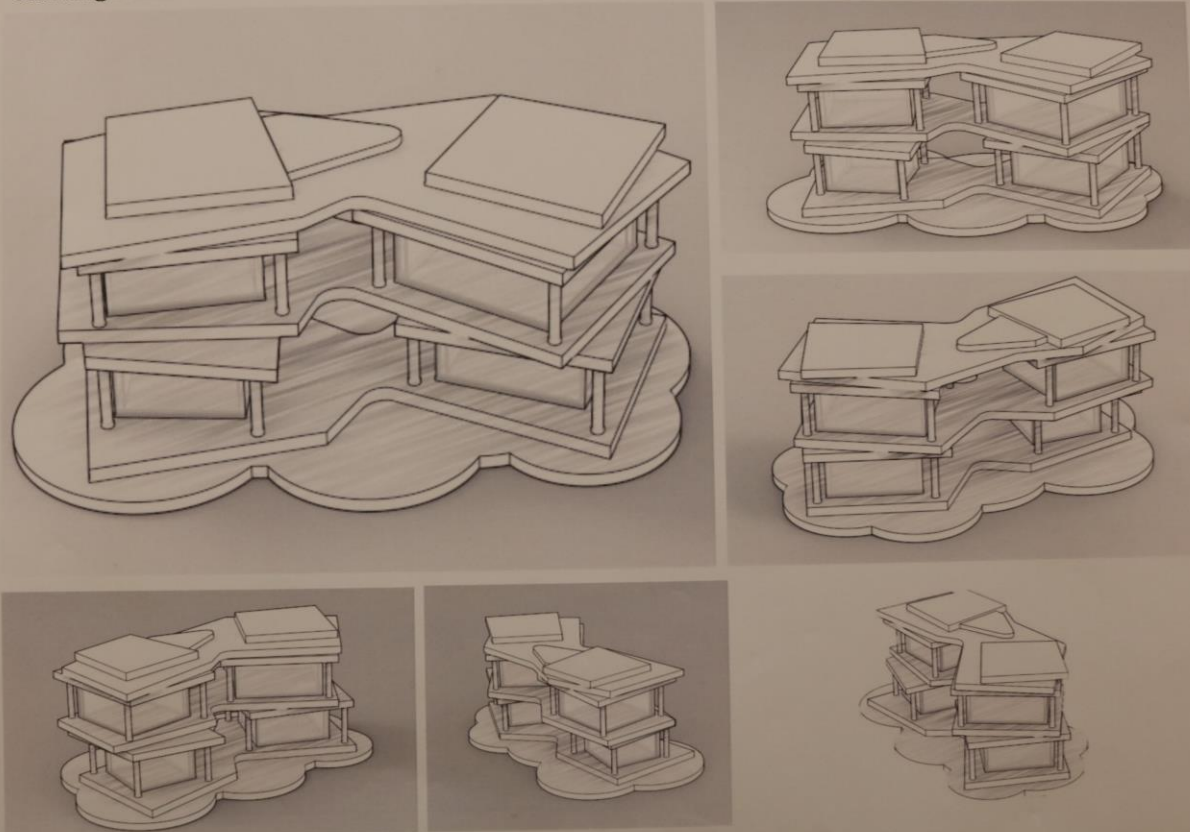
Component 2 Three-Dimensional Design



Component 2 Three-Dimensional Design

CAD MODELLING

Sketching render



CAD MODELLING

Final Render



Component 2 Three-Dimensional Design

CAD MODELLING

Potential developments

Increasing the height of one of them.

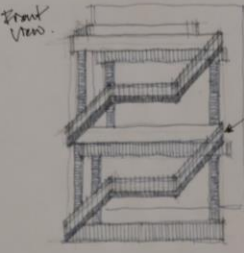


Adding more space to the residence.

Adding a ramp, enclosed form, adding for stepped, semi-open terraces.

Enhance air circulation and sunlight penetration.

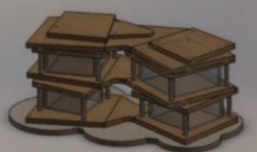
Large open-air sections suggest the use of passive ventilation and natural daylighting.



Adding staircases on the side.

Increasing focus on co-working and co-working spaces.

Buildings and buildings are more connected.

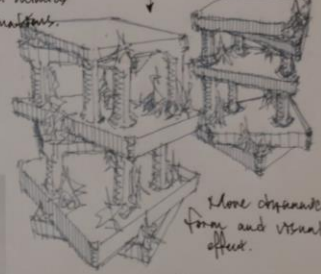


Integrated walkways and public plaza.



Remove all the sharp edges and adding greenery.

Curvilinear, stacked form creates natural connections.



More organic form and visual effect.

The inclusion of plants throughout the structure helps with natural cooling, air purification, and storm management.

Front View



Providing public area for the people.

Promoting walking and social interaction.

Top View

Adding a garden in the balcony.

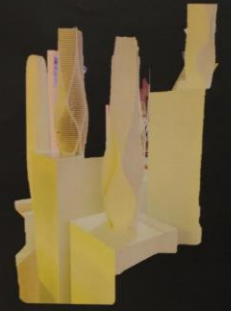
PRIMARY RESEARCH

ARCHITECTURE RESEARCH



Curved Forms with a Converging Apex

Twisting forms create a sense of upward movement and lightness. Reducing wind resistance, improving structural stability. Smoothly converging at the top. Curved designs often distribute loads more evenly, reducing material use. Can improve wind resistance by preventing vortex shedding.



Complex Facade Patterns

Geometric & Parametric Patterns inspired by nature. Designed for both aesthetics and structural reinforcement. Kinetic shading systems that adapt to sunlight to optimize energy efficiency. Perforated or layered facades improve natural ventilation. Adaptive lighting can create patterns that change with seasons or events.

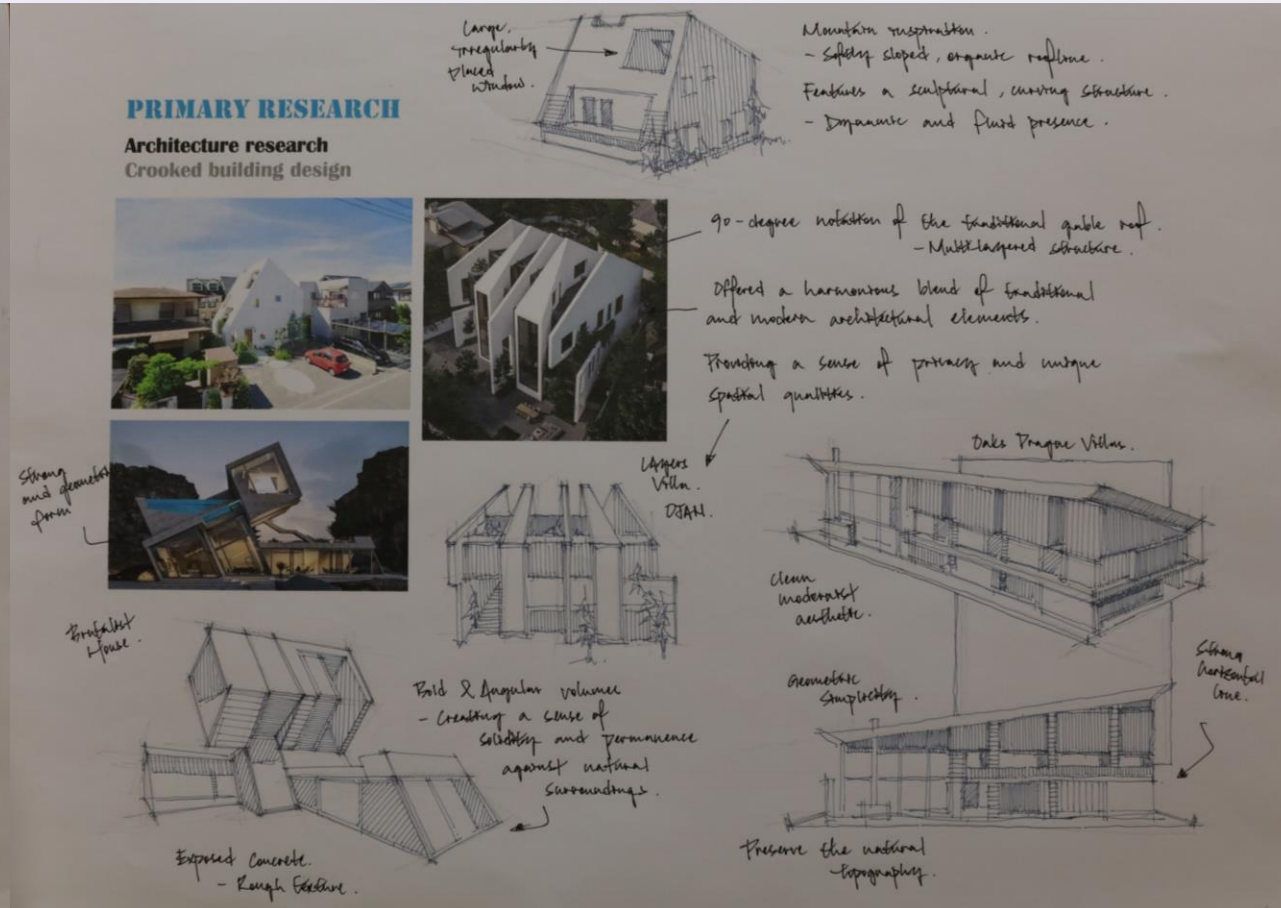
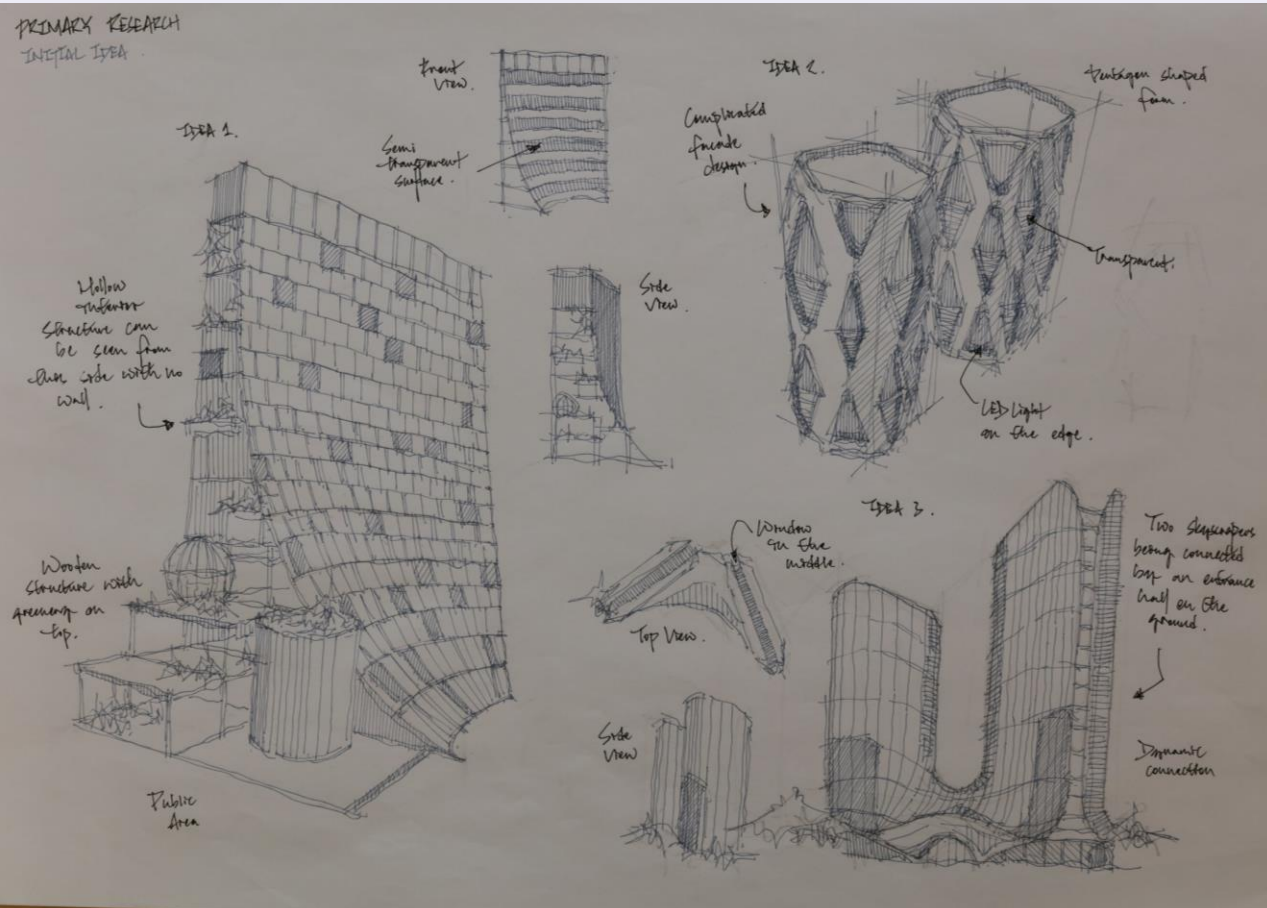


The facade slightly projects outward, giving it a strong street presence. The tapered roofline and corner positioning enhance its distinctive look.

Fully integrated into the building envelope using modular panels, hydroponic systems, or soil pockets. Can be designed with artistic patterns, offering customized aesthetics.



Component 2 Three-Dimensional Design



Component 2 Three-Dimensional Design

PRIMARY RESEARCH

Architecture research
Façade design



DA14
Flagship
Store.

"Co-working
Village".



Imagery of small,
stacked houses
carved into a
pure white box.

Creating striking
contrast in form
colour and
texture.

Two parallel
concrete plates.



Pale white facades
are pierced by interesting
geometric openings.

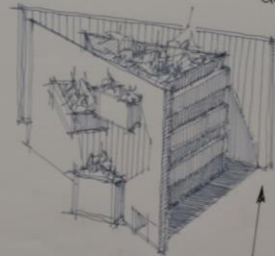
coloured with colours
and greens.

Unique spiral
form.

Creates a
continuous upwards
movement.

Office Building of
Poussan Central

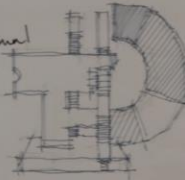
Innovative approach
to integrating traditional
architectural elements
with modern
contexts.



Symbolizing electrical boards
- Poussan Central company's
specialization in electrical
engineering.

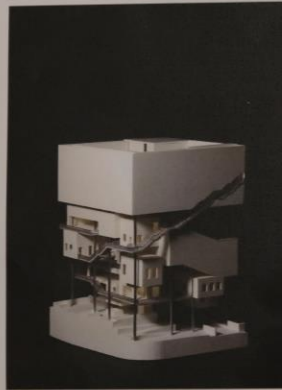


Complex
and multifaceted
architectural
narrative.



PROJECT DIRECTION

Architecture research
Residential building



FOLDING
SHENZHEN

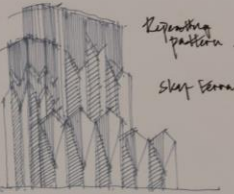


Sharp
Angular
form.

Repeating
pattern.

Sharp corners.

feared
Serious
and irregular
stacking.



'The fragmented blocks are connected by sky streets. The civic center no longer represents the citizens with a single image. It is an arena for acknowledging richness and complexity. There are vertical streets and villages.'

A solid upper volume acting as a protective or enclosing structure.

Floating lower volumes supported by thin columns, creating a sense of openness.

Terraced arrangement of modular units, potentially optimizing light, ventilation, and spatial diversity.

External staircases zigzagging across the façade, emphasizing movement and circulation.



Elevated residential
units.
Lightness & Openness.
External staircases
and walkways.
Metabolist
architecture.



Folding Structure
Maximize vertical integration.
Adaptability and
scalability.
High-tech and vernacular
elements.
Green terraces.

'The design aims to build a new type of urban and rural infrastructure and its mode of operation, in response to the problem of urban and rural expansion and squeezing each other. The design refers to the theory of plate tectonics in geology - we view the urban and rural areas as plates that are pushed against each other, and their edges are compressed, folded, and lifted to form a composite three-dimensional spatial form.'

The design integrates urban megastructures with organic, lower-density village forms, creating a contrast between modern and traditional spatial arrangements. The large folding canopy appears to provide climatic control, shading, or even energy generation. The rendering suggests green terraces, courtyards, and vertical gardens, promoting environmental resilience.

Component 2 Three-Dimensional Design

PROJECT DIRECTION

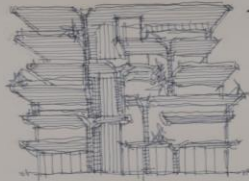
Architecture research Residential building



Support
but coastal
life.

Curves and
textures.

→ Flow and
visibility.



Blends the grandeur
of the ocean with the
tranquil beauty.

Textured paint
enhances the warm
living atmosphere.

The facade is composed of independent wooden
modules, suggesting a prefabricated or adaptable
housing system. Use of wood as a primary material
suggests an emphasis on sustainable construction.

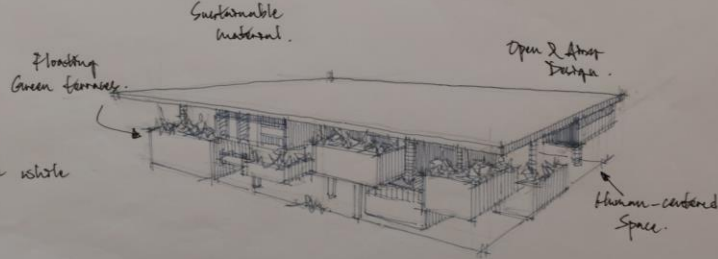
Mimicking a forest canopy, with an extensive flat
overhanging roof that provides shade and
protection. Abundant greenery on terraces, rooftops,
and facades promotes natural cooling, biodiversity,
and well-being. The stacked wooden modules
resemble treehouses, creating a flexible and organic
living environment.

Open terraces and shared outdoor spaces
encourage social interaction and collective living.
Ground-level activation suggests a mix of
commercial, cultural, and social functions integrated
with nature.

The staggered, box-like extensions host
lush vegetation, enhancing biodiversity.

The predominant use of wood and
glass suggests an eco-friendly approach.

The large overhanging roof provides shade while
allowing natural light to filter through.



ARCHITECT RESEARCH

Mecanoo Façade design

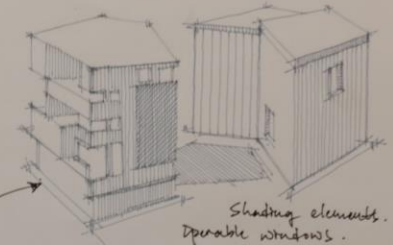
Thematic
and
Layered
Composition



Green balconies
and vegetation.

- Reduce heat
gain.
- Offers sense of
privacy.
- Manufacturing
operates.

Angular form contrasts with
the lush greenery.



Shading elements.
Operable windows.
Natural ventilation
strategies.

Bank
Tower.

Stacked &
Modular
Composition.

Vertical rhythm
of window arrangements
and protruding elements.

Concrete facade
emphasizes an industrial
aesthetic.

Offering
adaptability
and
low
maintenance.

Koching
Social Housing.

Rhythmic
arrangement
of balconies and
windows.

Adds depth
and variety.



Creating strong &
sculptural presence.

Emphasizes vertically,
while ensuring
a sense of
order and balance.



Grid-like
structure.

Montevideo
Residential
Tower.

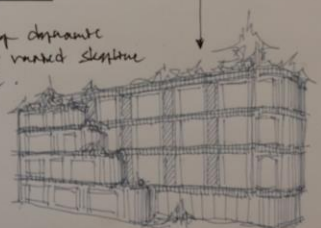
Strong geometric
composition.



Natural black tone.
Lighter colour brick
and glass sections.

Creating visual
overarching and
depth.

Creating dramatic
and varied skyline
presence.



Floor-to-ceiling
windows.

Rooftop solar panels
and water collection
system.

Component 2 Three-Dimensional Design

ARCHITECT RESEARCH

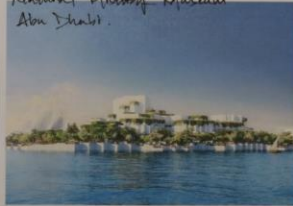
Mecanoo Interaction with greenery

Habitat Kapsale.
Blend with natural surroundings.

Collaborates with ecologists and landscape architects.
- Ensuring sustainability and ecology.



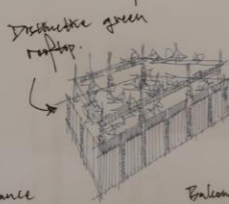
Creates seamless transition between the building and surroundings.
National History Museum Abu Dhabi.



Incorporates green roofs - enhance the aesthetic appeal.



Improve air quality.

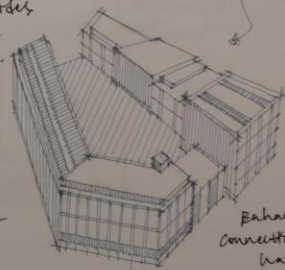


Central Park NYC.

Adds visual elegance also provides outdoor spaces.



Balcony garden.



Enhancing connection to nature.

Internal private green courtyard offers a tranquil environments.

Fostering a sense of community and providing a natural retreat within the urban setting.

Promoting a healthy living environment for all inhabitants.

Features lush landscaping that complements its rock-like form.
Improved insulation and bioclimatic protection.



Offering visitors serene spaces for relaxation and reflection.

DEVELOPED IDEA

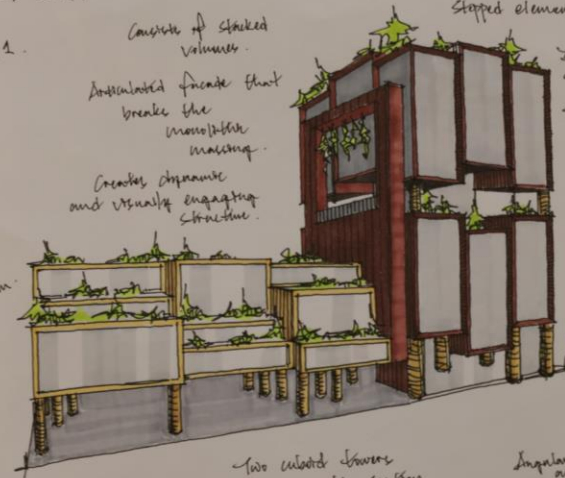
STEP 1.

Consists of stacked volumes.

Articulated facade that breaks the monolithic massing.

Creates dynamic and visually engaging structure.

Introduces depth and rhythm.



Staggered stepped elements.

Improve air quality and provide social spaces.

The introduction of open plots, green terraces enhances connectivity between indoor and outdoor environments.

Ensuring a vibrant and functional hub.

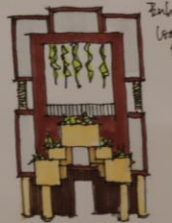


Extensive glass. Ensuring visibility and accessibility.

Downward use of earth, reddish-brown cladding.

Large glass panels help maintain transparency.

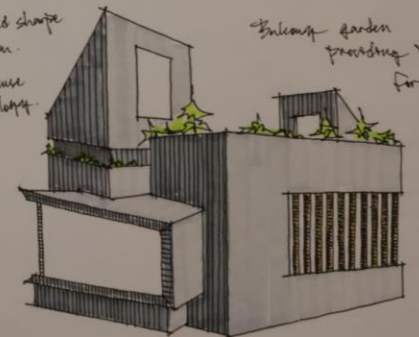
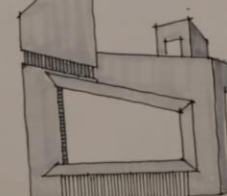
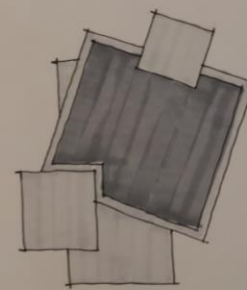
Enhancing local penetration.



Two cuboid towers with a cube section stacking on a footstone slotted section in the middle.

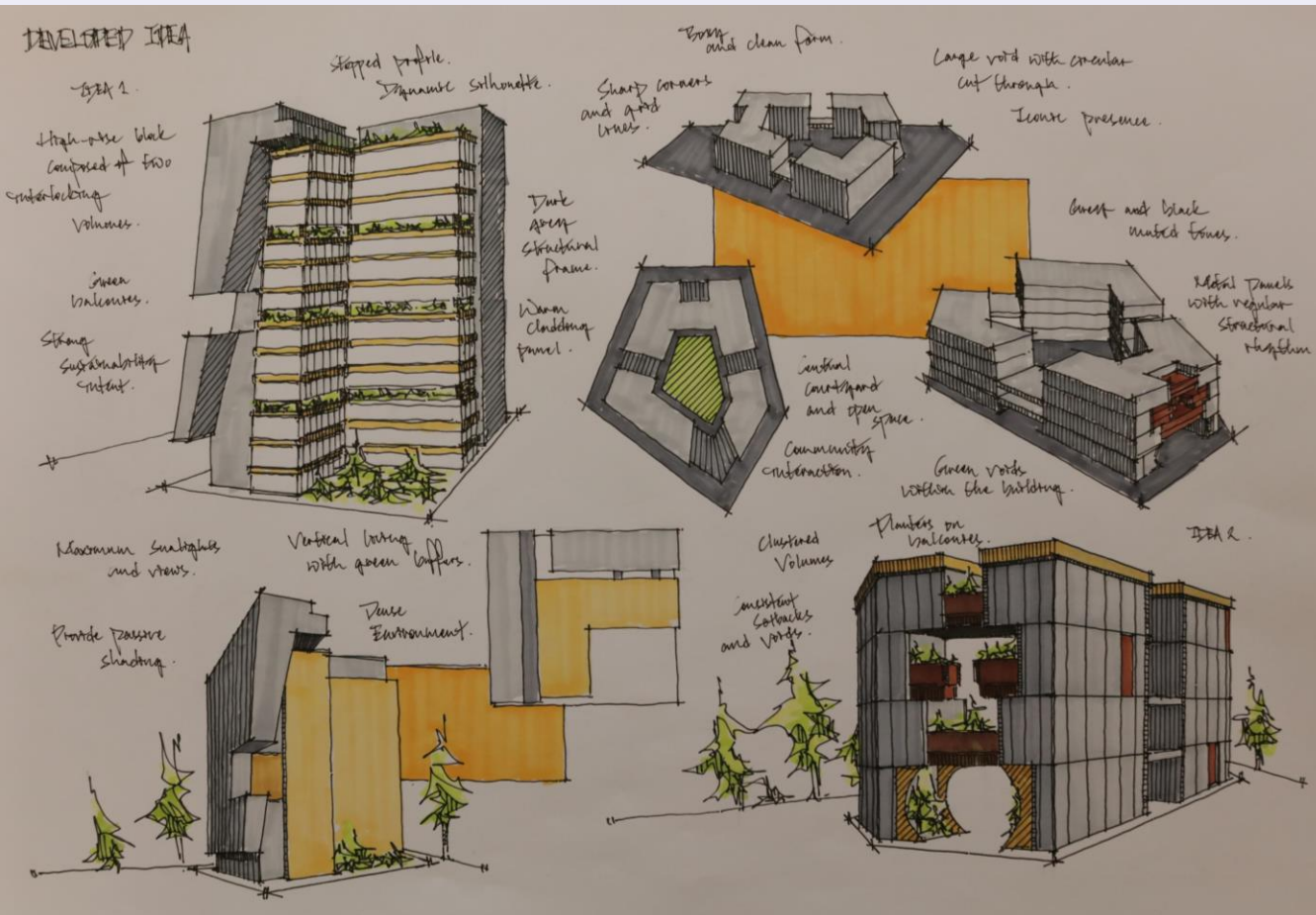
Angular and sharp form. Creating sense of technology.

Enclosed garden providing public space for the community.



Wooden columns for protection.

Component 2 Three-Dimensional Design



CAD MODELLING

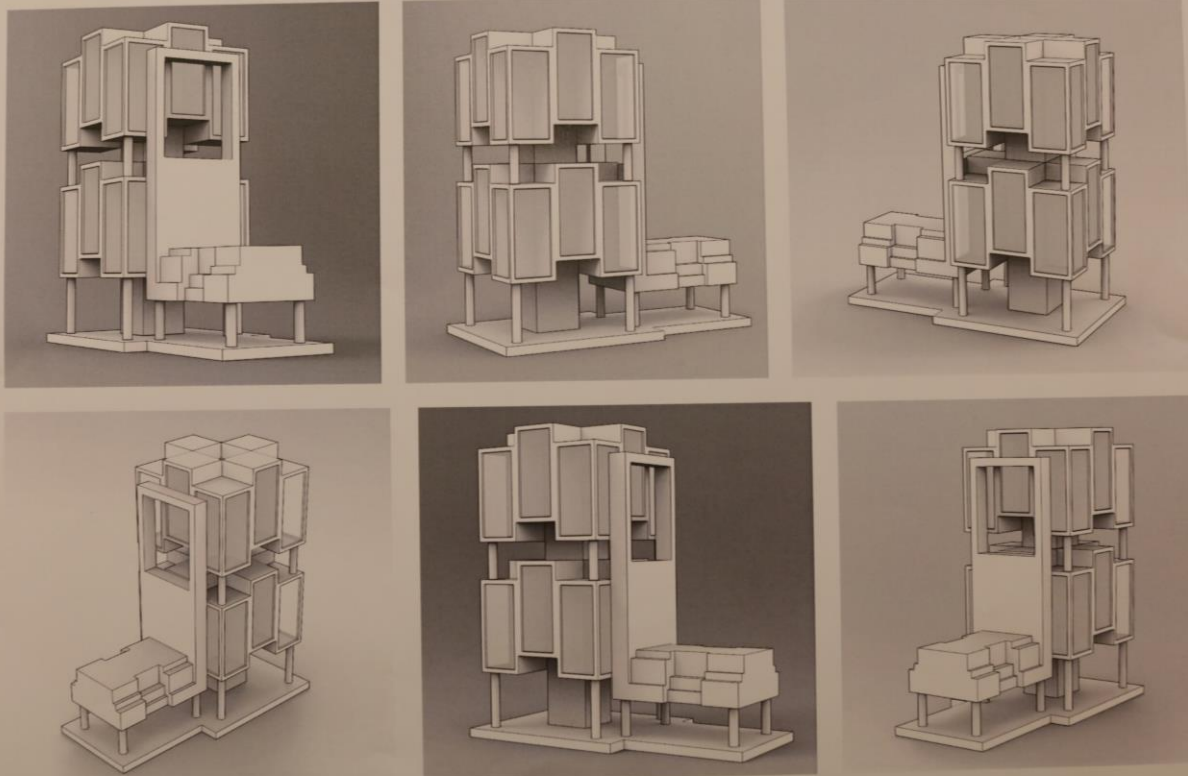
Initial idea



Component 2 Three-Dimensional Design

CAD MODELLING

Sketching render

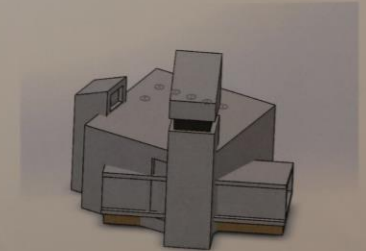
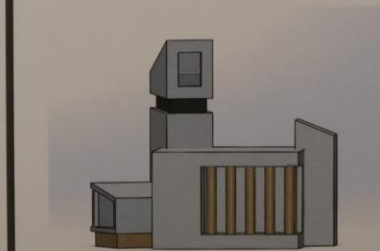
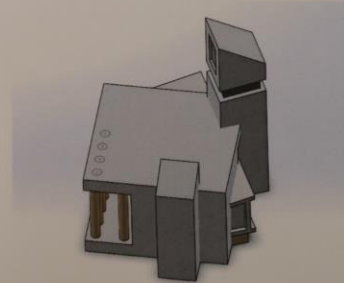
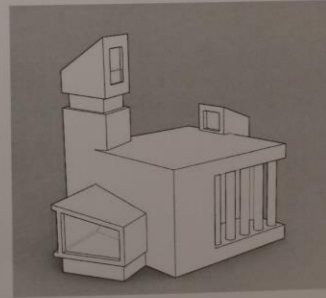
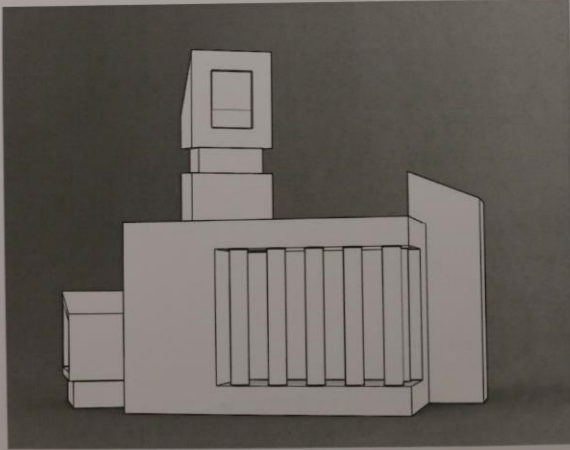
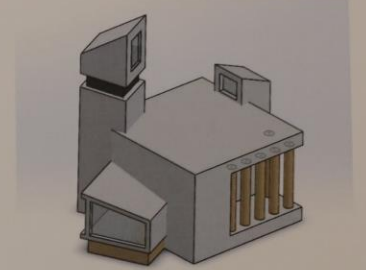
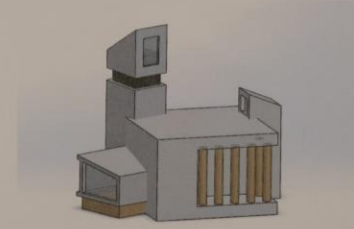
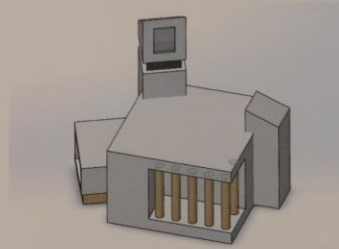
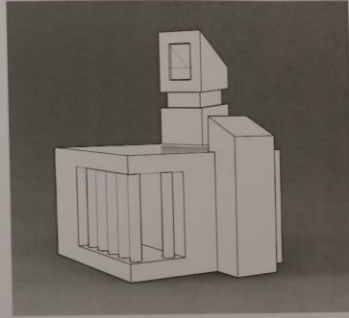
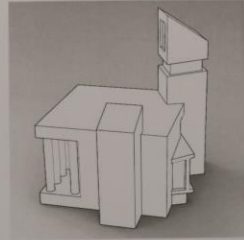
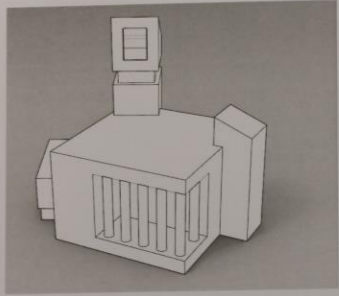


CAD MODELLING

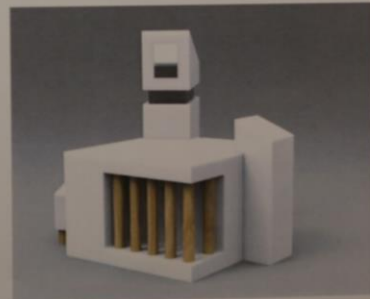
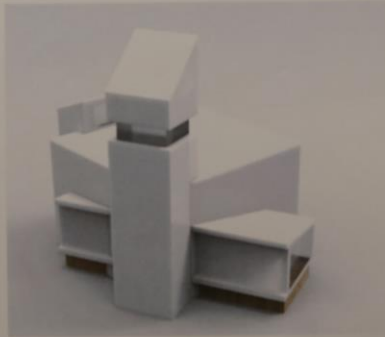
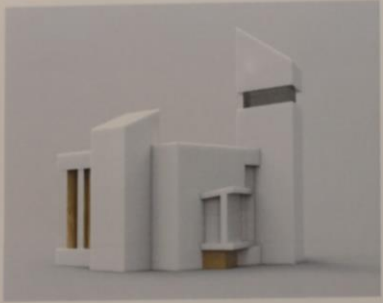
Final Render



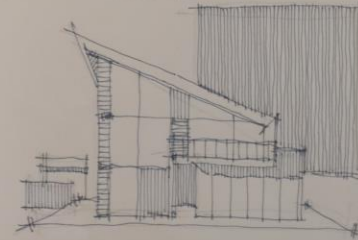
Component 2 Three-Dimensional Design



Component 2 Three-Dimensional Design



PHYSICAL MODEL Developed idea



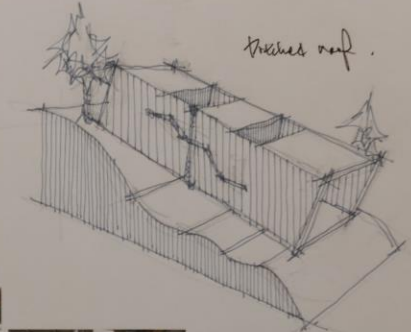
Emphasis on shape and spatial composition.

Sculptural form, giving the building a sense of identity and vertical emphasis.

Single-tone, uniform surface. Strong vertical and horizontal geometry suggests a modernist influence.



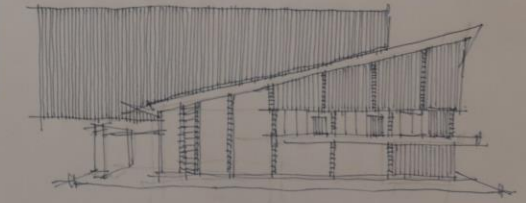
Indicating different program zones.



trusses roof.

Tall vertical volume at the rear left resembles a chimney. Stairwell or lookout tower.

Provides visual hierarchy and could house vertical circulation or lookout wells.

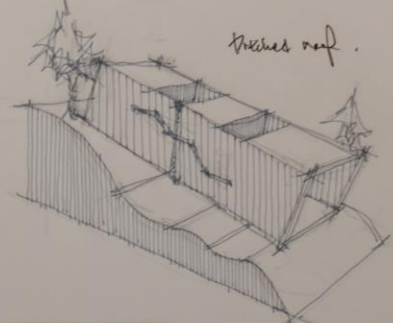


Component 2 Three-Dimensional Design

PHYSICAL MODEL

Developed idea

Single-tone, uniform surface.
Strong vertical and horizontal geometry suggests a modernist influence.



pitched roof.



Tall vertical volume at the rear left resembles a chimney structure or lookout tower.



Provides visual hierarchy and could house vertical circulation or loggia wells.



Emphasis on shape and spatial composition.

Sculptural form, giving the building a sense of identity and vertical emphasis.

Integrating different program zones.

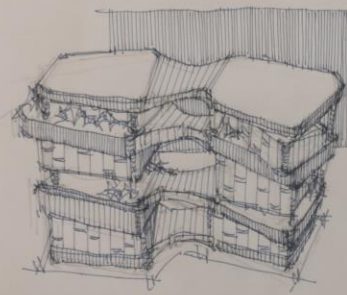
PHYSICAL MODEL

Developed idea

Organic and expressive design.

Curvilinear, stacked form mirrors natural formations.

Integrating greenery on multiple levels.



Combination of commercial, residential and recreational spaces.

Natural cooling, air purification and stormwater management.

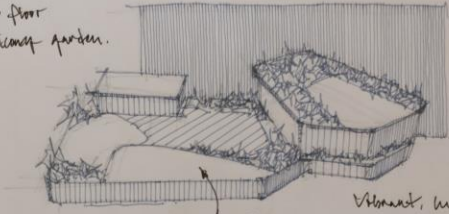
Integrated walkways and public plazas.

Supports efficient transportation, potentially incorporating smart transit solutions.



Seamless blending with the pedestrian-friendly environment.

top floor balcony garden.



Sitting area

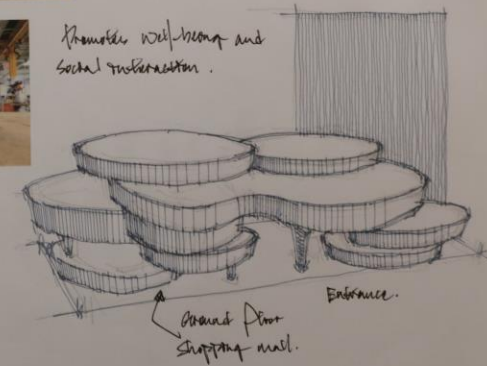
Vibrant, multi-functional community.

Enhance air circulation and natural penetration.

Large open-air sections suggest the use of passive ventilation and natural daylighting.

Reducing reliance on artificial cooling and lighting.

Promotes well-being and social interaction.



Ground Floor Shopping mall.

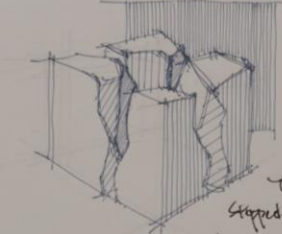
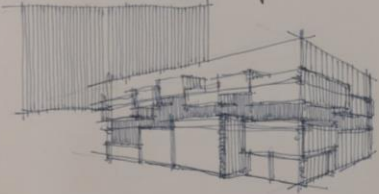
Entrance.

Component 2 Three-Dimensional Design

PHYSICAL MODEL

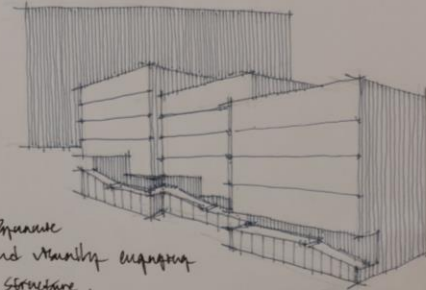
Developed idea

Consists stepped volumes,
articulated facade that breaks the monolithic massing.



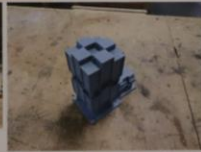
Visually connect the interior
with surrounding open space.

The staggered,
stepped elements
introduce depth and
physiom.



Square
and visually engaging
structure.

Dominant use of earthy,
reddish-brown cladding
reflects a connection to the
Australian landscape.

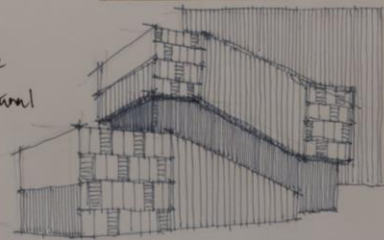


The ground floor and lower
podium feature extensive glass.

Ensuring visibility and
accessibility.

Large glass panels help
maintain transparency.

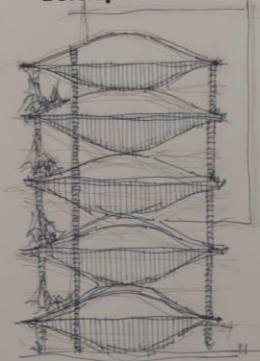
Presenting both appearance
while enhancing natural
light penetration.



PHYSICAL MODEL

Developed idea

The juxtaposition of opaque and
transparent surfaces contributes to
a sense of lightness while
maintaining structural
integrity.



Designed likely aid in
controlling solar gain,
reducing reliance on
artificial cooling.

Maximized use of natural
light reduces energy consumption.
Provide social spaces.

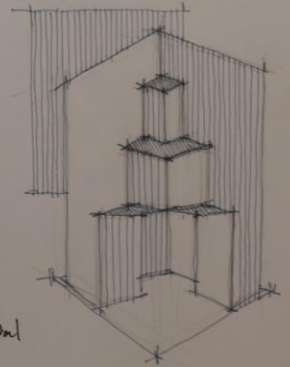


Ensuring a vibrant and
functional hub.



The incorporation of open
plazas, green terraces and pedestrian-friendly
zones enhances connectivity between
indoor and outdoor environments.

Future expansions could focus
on incorporating more collaborative
spaces for research and industrial
partnership.



Component 2 Three-Dimensional Design

ERGONOMIC

Fit to function

An ergonomically designed residence considers the flow of movement between rooms. Circulation spaces—such as hallways, entrances, and doorways—must provide enough clearance for comfortable passage, including accommodation for individuals with limited mobility. Ideally, corridors should be at least 900 mm wide, and doorways should accommodate a wheelchair with a minimum of 800 mm of clearance.

The zoning of functions is also key; private, public, and service areas should be arranged to minimize unnecessary movement and increase convenience. For example, placing a kitchen near the dining area enhances ergonomic efficiency in daily routines.

The placement of furniture and fixtures is critical to ensuring that activities such as cooking, bathing, sleeping, and working can be performed with ease. Countertop heights, for instance, should typically range from 850 mm to 950 mm for comfortable standing use in kitchens. Seating should support good posture with appropriate back support and height in relation to tables or desks.

Bathroom fixtures such as sinks, toilets, and showers must be placed at comfortable heights and locations, especially in homes designed for aging users or those with accessibility needs.

The gate, as a key point of daily interaction, plays an essential role in the ergonomic design of a residence. Its handle is positioned at an accessible height (900–1100mm) to accommodate users of various statures, including children, the elderly, and individuals with mobility challenges. The gate's structure incorporates lightweight materials and smooth hinges, requiring minimal effort to open and close, enhancing comfort and safety. With a clear opening width of at least 900mm, it ensures easy passage for wheelchairs, bicycles, and strollers, promoting inclusive access. Transparent or semi-open elements are used to maintain visibility, reduce blind spots, and improve spatial awareness. For added functionality, smart entry features such as motion sensors or keypad systems may be integrated to reduce physical contact and enhance convenience. Overall, the gate's ergonomic design enhances not only accessibility and ease of use but also contributes to the safety and daily comfort of its users.



MATERIALS RESEARCH

Materials selection

Structural Timber

Renewable and low-carbon if sourced responsibly.
Warm, organic texture enhances human comfort.
Naturally resists heat transfer.
Easy to shape, repair, and adapt.

Structural timber plays a fundamental role in many architectural systems due to its strength, flexibility, and natural beauty. As a load-bearing material, it can be used in beams, columns, floor joists, and framing systems. Timber has an excellent strength-to-weight ratio, making it ideal for both traditional and modern structures. It also supports intricate craftsmanship, as seen in historical architecture, allowing expressive design details.

Glass Panels

Enhances interior brightness, reduces lighting costs.
Links interior and exterior environments.
Can integrate operable sections.

Sleek, contemporary, and minimalist.

Glass panels are widely used in architecture to provide transparency, daylight, and visual connection between indoor and outdoor spaces. In modern and traditional contexts, glass enables passive solar gain, promotes natural lighting, and enhances spatial openness.

Plaster & Brick

Keeps interiors cool in summer, warm in winter.

Allows for natural humidity regulation.

Sustainable and eco-friendly.

Fire resistant.

Plaster and brick are time-tested materials often used together for wall construction and finishing. Brick provides the structural mass, while plaster acts as a protective and decorative surface layer. This combination is especially effective in load-bearing walls and thermal mass strategies.

Clay

Durable & Long-lasting.

Good Drainage.

Fire Resistant.

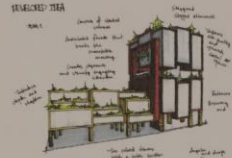
Clay is used in architecture in multiple forms, most commonly as roof tiles, bricks, and rammed earth or adobe. Its natural availability and low embodied energy make it a sustainable material for construction.



Component 2 Three-Dimensional Design

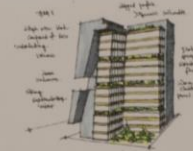
REVIEW OF IDEAS

I HAVE LISTED THE ADVANTAGES AND DISADVANTAGES OF EACH OF MY DEVELOPED IDEAS AND TAKEN SOME POTENTIAL IMPROVEMENTS



POSITIVE	<p>THE COMPACT MASSING AND CENTRAL COURTYARD CREATE A SENSE OF PRIVACY WHILE ENCOURAGING NATURAL VENTILATION AND LIGHTING.</p> <p>THE SLOPED ROOF IS EXCELLENT FOR WATER RUNOFF AND POTENTIAL SOLAR PANEL INSTALLATION.</p> <p>A SHADED ROOF GARDEN PROVIDES GREEN SPACE FOR RESIDENTS AND IMPROVES THERMAL INSULATION.</p>	<p>STRONG VERTICAL RHYTHM AND MODULARITY ALLOWS FOR PREFABRICATION AND SCALABILITY.</p> <p>TERRACED GREEN ROOFS ON MULTIPLE LEVELS IMPROVE MICROCLIMATES AND REDUCE HEAT ISLAND EFFECT.</p> <p>THOUGHTFUL BALCONY INTEGRATION ENCOURAGES INDOOR-OUTDOOR FLOW AND PASSIVE COOLING.</p>
NEGATIVE	<p>THE TIGHT INWARD-FACING DESIGN MAY LIMIT CROSS-VENTILATION DEPENDING ON THE SURROUNDING SITE CONTEXT.</p> <p>THE ANGULAR GEOMETRY MIGHT RESULT IN INEFFICIENT INTERIOR LAYOUTS WITH AWKWARD CORNERS OR UNUSABLE SPACES.</p>	<p>THE EXPOSED BOX FORMS MAY RESULT IN THERMAL GAIN IF NOT PROPERLY INSULATED OR SHADED.</p> <p>REPETITION OF MODULES COULD RISK MONOTONY WITHOUT ENOUGH VARIATION IN COLOR OR MATERIAL.</p>
MATERIAL	<p>APPEARS TO USE CONCRETE OR RENDERED BLOCKWORK FOR THE WALLS AND CORRUGATED METAL ROOFING, POSSIBLY WITH TIMBER DETAILS.</p> <p>VERTICAL SLATS ON THE FAÇADE SUGGEST WOOD OR LIGHTWEIGHT METAL FOR SHADING AND PRIVACY.</p>	<p>COMBINATION OF TIMBER OR RED COMPOSITE CLADDING WITH GLASS PANELS FOR TRANSPARENCY AND LIGHTNESS.</p> <p>LIKELY TO USE STEEL FRAMES OR LIGHT-GAUGE FRAMING FOR MODULAR EFFICIENCY.</p>
SUSTAINABILITY	<p>THE ROOF GARDEN AND CENTRAL COURTYARD IMPROVE THERMAL COMFORT AND REDUCE RELIANCE ON ARTIFICIAL COOLING.</p> <p>USE OF NATURAL VENTILATION STRATEGIES SHOWS PASSIVE ENVIRONMENTAL CONSIDERATION.</p> <p>MATERIAL SELECTION COULD BENEFIT FROM MORE RENEWABLE OR RECYCLED MATERIALS TO FURTHER ENHANCE ECO-PERFORMANCE.</p>	<p>THE EMPHASIS ON GREEN ROOFS, CROSS VENTILATION, AND DAYLIGHTING BOOSTS ENERGY EFFICIENCY.</p> <p>PREFABRICATION POTENTIAL SUGGESTS REDUCED CONSTRUCTION WASTE AND FASTER BUILD TIMES.</p> <p>GLASS AREAS SHOULD BE DOUBLE-GLAZED OR SHADED TO AVOID OVERHEATING.</p>
IMPROVEMENTS	<p>INTRODUCE LARGER WINDOW OPENINGS ON SHADED SIDES FOR BETTER DAYLIGHT ACCESS.</p> <p>ADD FLEXIBLE MODULAR INTERIOR SPACES FOR ADAPTIVE USE OVER TIME.</p> <p>INTEGRATE RAINWATER HARVESTING FROM THE SLOPED ROOF.</p>	<p>INTRODUCE SOLAR SHADING ELEMENTS OR KINETIC LOUVERS ON SUN-EXPOSED FAÇADES.</p> <p>VARY THE MODULE HEIGHTS OR TEXTURES TO ENHANCE ARCHITECTURAL INTEREST.</p> <p>ADD COMMUNITY GREEN TERRACES OR SHARED OUTDOOR ZONES TO IMPROVE SOCIAL SUSTAINABILITY.</p>

I HAVE LISTED THE ADVANTAGES AND DISADVANTAGES OF EACH OF MY DEVELOPED IDEAS AND TAKEN SOME POTENTIAL IMPROVEMENTS



POSITIVE	<p>THIS CONCEPT EMPHASIZES STEPPED TERRACED MODULES WITH VERTICAL GARDEN SPACES, ENCOURAGING URBAN GREENING AND PROMOTING RESIDENT WELL-BEING.</p> <p>THE LAYERED AND STAGGERED FORM MAXIMIZES VENTILATION AND SUNLIGHT EXPOSURE, WHILE ALSO PROVIDING SHADE FOR LOWER LEVELS.</p> <p>THE TRANSPARENT GLASS FAÇADE COMBINED WITH WOODEN SHADING PANELS BALANCES LIGHT CONTROL AND AESTHETIC WARMTH.</p> <p>A LARGE CENTRAL COURTYARD CREATES A COMMUNAL FOCAL POINT AND PROMOTES PASSIVE AIRFLOW ACROSS THE TOWER.</p>	<p>THIS CONCEPT CELEBRATES COMMUNITY-FOCUSED LIVING WITH A CENTRAL GREEN COURTYARD AND MULTIPLE SEMI-PRIVATE SPACES.</p> <p>EMPHASIZES CLUSTER HOUSING, WHICH PROMOTES SOCIAL INTERACTION WHILE MAINTAINING MODULAR FLEXIBILITY.</p> <p>THE COMPACT VOLUME IS BROKEN INTO ARTICULATED BLOCKS, GIVING VARIETY IN MASSING AND CREATING SHADED NOOKS.</p>
NEGATIVE	<p>HEAVY RELIANCE ON GLASS CAN LEAD TO OVERHEATING WITHOUT PROPER SOLAR SHADING OR GLAZING TREATMENT.</p> <p>STACKED COMPLEXITY MAY INCREASE CONSTRUCTION DIFFICULTY AND COST, ESPECIALLY IN LESS-RESOURCED SETTINGS.</p> <p>POTENTIAL LACK OF PRIVACY IF OPENINGS ARE TOO EXPOSED OR COMMUNAL AREAS AREN'T CLEARLY ZONED.</p>	<p>DENSE CENTRAL COURTYARD LAYOUTS MAY LIMIT NATURAL AIRFLOW IN HOTTER CLIMATES IF NOT CAREFULLY VENTILATED.</p> <p>THE CLUSTERED ORIENTATION MAY REDUCE EXTERNAL VIEWS AND COULD BE PERCEIVED AS INWARD-LOOKING.</p> <p>REQUIRES WELL-PLANNED CIRCULATION ROUTES TO AVOID TIGHT OR INEFFICIENT PATHWAYS.</p>
MATERIAL	<p>DOMINANT USE OF GLASS PANELS, WOODEN LOUVER SHADING, AND GREY CLADDING</p> <p>VERTICAL GREENERY APPEARS TO BE INTEGRATED WITH MODULAR SUPPORT FOR PLANTERS OR GREEN WALLS.</p>	<p>USE OF METAL ROOFING AND CLADDING, LIKELY CORRUGATED OR STANDING SEAM, ENSURES DURABILITY.</p> <p>TIMBER ELEMENTS APPEAR IN THE PERGOLAS, SCREENS, AND TERRACES, GIVING WARMTH AND TACTILITY.</p> <p>THE ORANGE-BROWN SHADING SUGGESTS CLAY, TERRACOTTA, OR COMPOSITE BOARDS FOR WALL FINISHES.</p>
SUSTAINABILITY	<p>STRONG BIOPHILIC APPROACH THROUGH VERTICAL GARDENS REDUCES URBAN HEAT AND IMPROVES AIR QUALITY.</p> <p>PASSIVE DESIGN STRATEGIES LIKE NATURAL VENTILATION, LIGHT SHELVES, AND VEGETATED SHADING SHOW ENVIRONMENTAL MINDFULNESS.</p> <p>THE LARGE OPEN CENTRAL SPACE SUPPORTS WATER COLLECTION AND COOLING OPPORTUNITIES.</p>	<p>SHARED GREEN SPACES, VEGETATION ON TERRACES, AND ROOF GARDENS ENHANCE THERMAL COMFORT AND ENCOURAGE URBAN AGRICULTURE.</p> <p>CLUSTERED MASSING REDUCES EXPOSED SURFACE AREA, IMPROVING THERMAL PERFORMANCE.</p> <p>EMPHASIZES RESOURCE-SHARING, FROM SHADED COURTYARDS TO POSSIBLY SHARED WATER OR ENERGY SYSTEMS.</p>
IMPROVEMENTS	<p>INTEGRATE ADAPTIVE FAÇADE TECHNOLOGY SUCH AS ADJUSTABLE LOUVERS OR SMART GLASS TO HANDLE SUN ANGLES MORE DYNAMICALLY.</p> <p>ADD RAINWATER HARVESTING FEATURES OR SOLAR PANELS TO ENHANCE SELF-SUFFICIENCY.</p> <p>REFINE ZONING BETWEEN PRIVATE AND PUBLIC TERRACES TO AVOID USER CONFLICT.</p>	<p>INTRODUCE SKYLIGHTS OR LIGHT WELLS INTO DEEPER CLUSTER ZONES FOR IMPROVED DAYLIGHT.</p> <p>ADD ROOF-LEVEL SOLAR PANELS OR SHARED AMENITIES TO ENHANCE ECO-EFFICIENCY.</p> <p>CONSIDER SLOPED ROOFS TO ASSIST WITH RAINWATER RUNOFF AND SOLAR PANEL ORIENTATION.</p>

Component 2 Three-Dimensional Design

FURTHER DEVELOPMENT

Integration of Nature with Architecture
Repetition with Variation
Urban Sustainability

Each unit has a private landscaped terrace that combines the benefits of suburban homes such as gardens, fresh air and privacy with the density of an urban apartment building. The design emphasizes modularity, community and integration with nature.

The building presents a plant-covered facade set within a grid "rack" system. This plant-filled project exemplifies the integration of greenery into the building design, promoting biodiversity and enhancing the environmental performance of the building.

Redefine the concept of vertical urban greening. Essentially creating a vertical forest in the middle of the city. Vegetation helps filter dust, reduce noise and regulate temperature, while also absorbing carbon dioxide and producing oxygen.

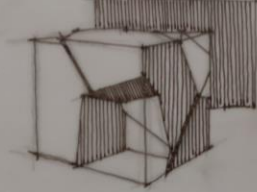
These buildings can reinforce my terrace garden concept, not only aesthetically pleasing but also practical, encouraging a living approach to architecture - allowing nature to evolve alongside the building enhances a sense of well-being and creates a visual connection between floors and units.

My design allows for scalable flexibility - I can expand or contract the structure depending on population or project needs. Simplify construction logistics while still providing visual complexity and uniqueness, providing customization opportunities in a consistent system

The terraced form can serve as a new housing type that blends urban life with nature. My project can be a statement about life in the future - especially if located in a rapidly urbanizing area or in a rural-urban transition environment. Support sustainable development goals in urban planning.

Inspiration:

Habitat 67 - Montréal, Canada.
Bosco Verticale - Milan, Italy.
The Green Villa - Netherland.



FURTHER DEVELOPMENT

Contextual Integration with the Landscape
Honest Use of Natural Materials
Climate Responsiveness

Terrace houses are arranged horizontally in the landscape. Natural stone and white stucco are used to blend in with the surroundings, offering stunning views of the Mediterranean Sea. The design combines terrace levels in harmony with the environment, emphasizing the connection between the built form and nature.

This residential complex integrates courtyards and terraces to bring nature into the living spaces. The design maximizes natural lighting and thermal comfort through variations in sunlight exposure, while the green roof provides architectural, aesthetic and environmental benefits. The interaction of solids and void spaces, as well as vegetation, promotes an intimate experience with nature.

The house features cascading courtyard shapes that form terraced garden hills that allow light to penetrate into the house and promote cross-ventilation. The use of raw materials such as concrete, wood, iron and glass strengthens the connection with nature, brings warmth to the interior and emphasizes sustainability through the honesty of the materials.

The stepped form of my design aligns with the natural flow of the site. Make the design feel like a part of the environment, not an imposition on it. Especially the location of the terrace to get views, sunlight and ventilation.

I can emphasize the material contrast between the structural elements and the greenery. The thermal and aesthetic qualities of the building are enhanced - wood and Stone Age beautifully and are low maintenance. I can use locally available materials to keep the site sensitive and sustainable.

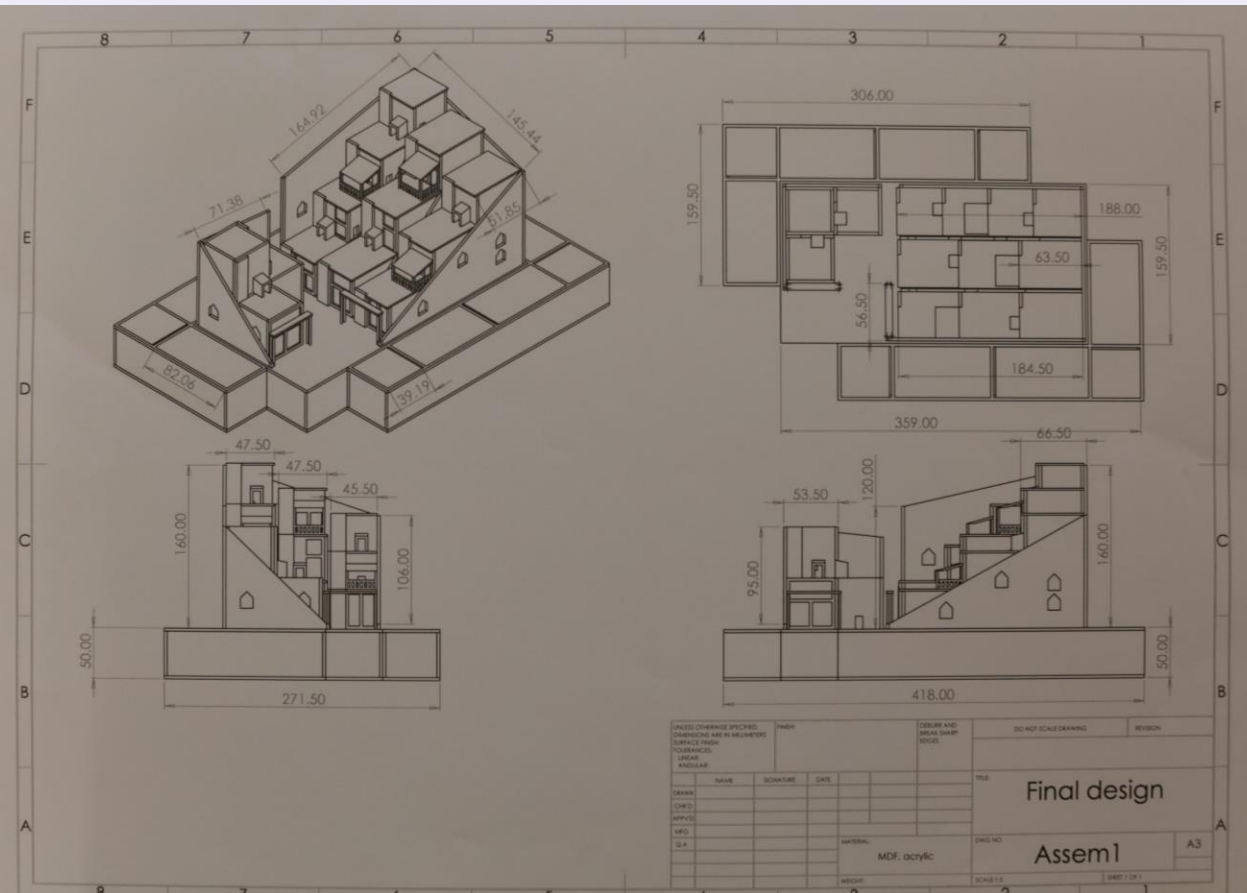
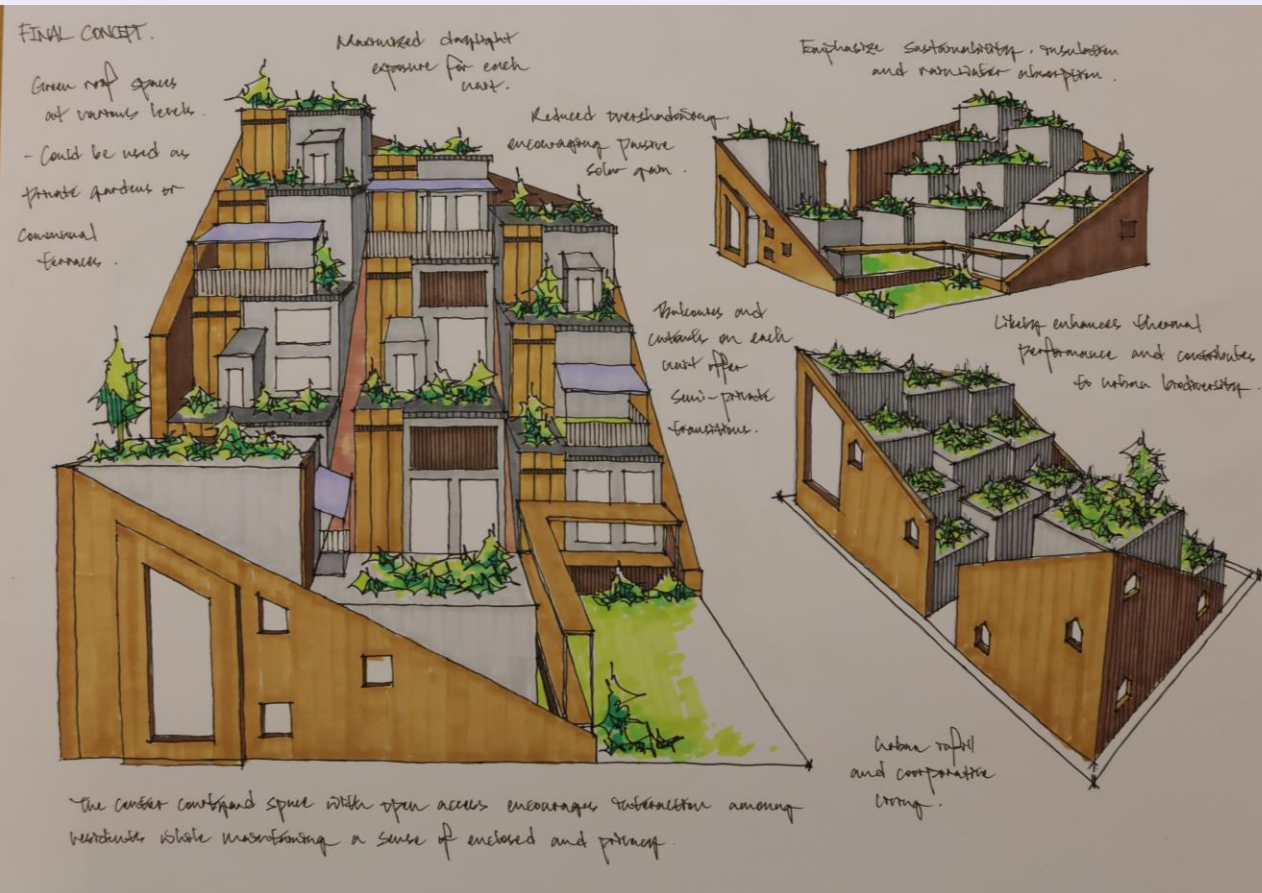
I was able to optimize the light and airflow on each patio to make it more comfortable without having to rely on heavy HVAC. Support my green zone to maintain microclimate balance. Reinforcing my sustainability narrative is rooted in form, not just technology.

Inspiration:

The Terraces - Brih, Lebanon
San Lorenzo Residential Complex - Portugal
Olivos House - Argentina



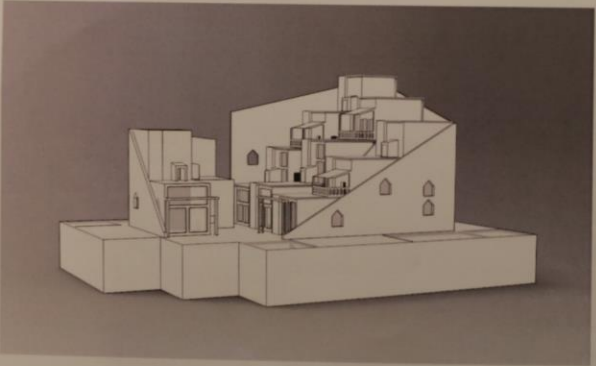
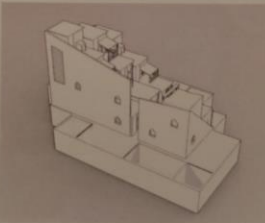
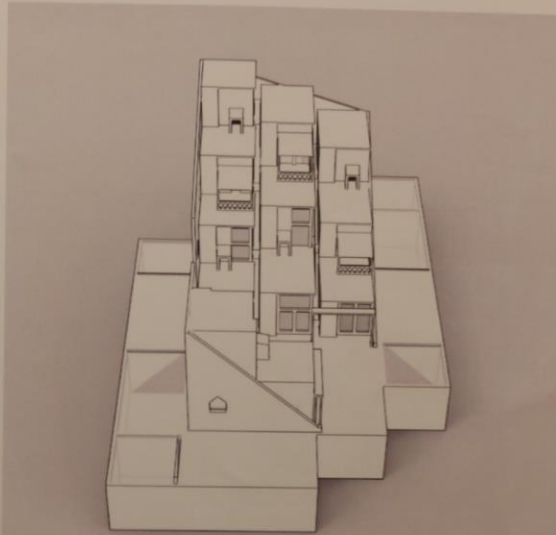
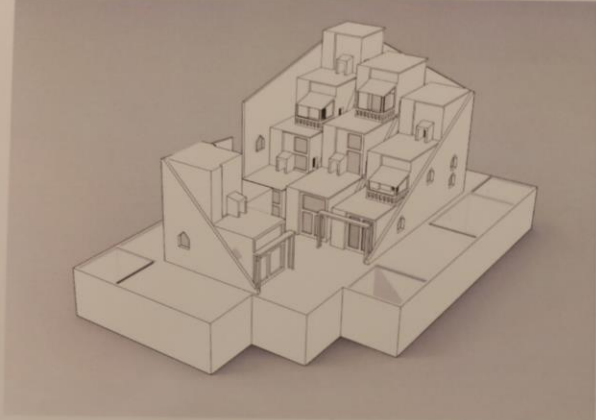
Component 2 Three-Dimensional Design



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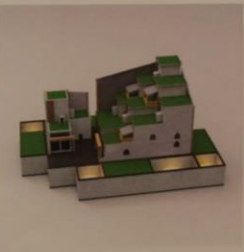
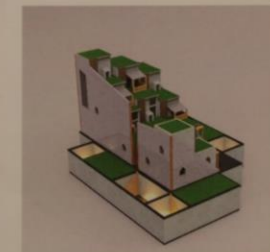
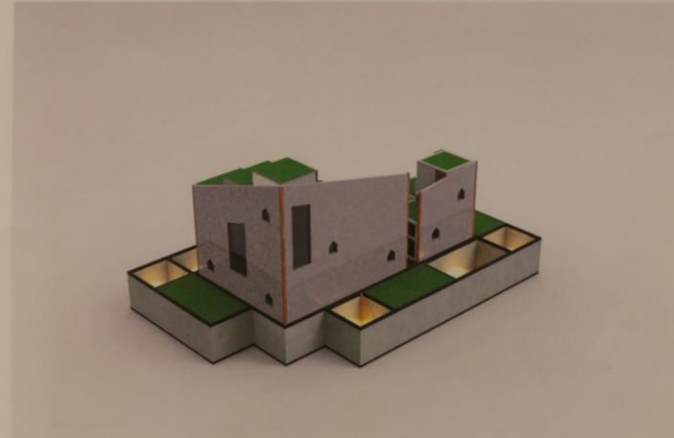
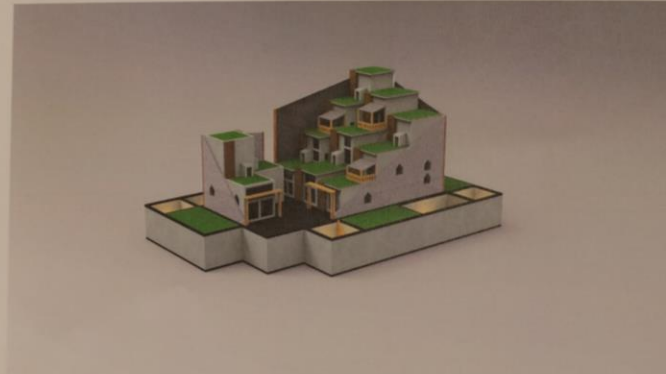
CAD MODELLING

Sketch render



CAD MODELLING

Final render



» Pearson

