WHO KILLED EILEEN GRAY?

E1027 and the making of an Architecture Methodology.

a thesis by Natalie Bradburn

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ABSTRACT

This thesis looks at a E1027, a 1929 villa designed by Irish born architect, Eileen Gray. E1027 will serve as a case study for this thesis to assist in design based research. Peter Downtown discusses research as an investigation or inquiry into things, a definition that supports the ongoing and inquisitive peeling back of the existing as a way to understand something new. E1027 will be analysed as a crime scene and pursued as an investigation. The work will be dissected into a series of suspects, tools and spaces that influenced both the building and the architect, in a 'whodunnit' style of . These components of the investigation will accumulate into a body of work that contributes to a new design knowledge, through the making of a structured methodology. This methodology will be used to inform the design of an architecture school for women. Hand built maquette's derived from existing details, furnishing and layouts found within E1027 will be analysed and multiplied as a way to generate an understanding of how Gray worked, and how her work can contribute to new architectures. The forensic act of dusting off and reexamining a work of architecture looks at the possibility of how we can learn from architects and the buildings they create. Integrating an architect with the author of a new work, presents the opportunity for a method of combined architectural authorship that derives from an existing body of knowledge.

ACKOWLEDGMENTS

There have been several teachers that have guided me not only over the past five years of architecture study, but throughout all my schooling. Their dedication and support throughout my life has profoundly influenced who I am today. I am quite sure most of you will not read this thesis, and for that I'm glad. But, I would like to say thank-you all the same, your role within the community is so very important. Thank-you for all you do.

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1.0 INTRODUCTION

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1.01. INTRODUCTION

This thesis examines Eileen Gray's 1929 villa, E1027.

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The villa serves as a case study to assist in design-based research, and is investigated through a methodological process to uncover the ways in which it can inform derivative architectures.

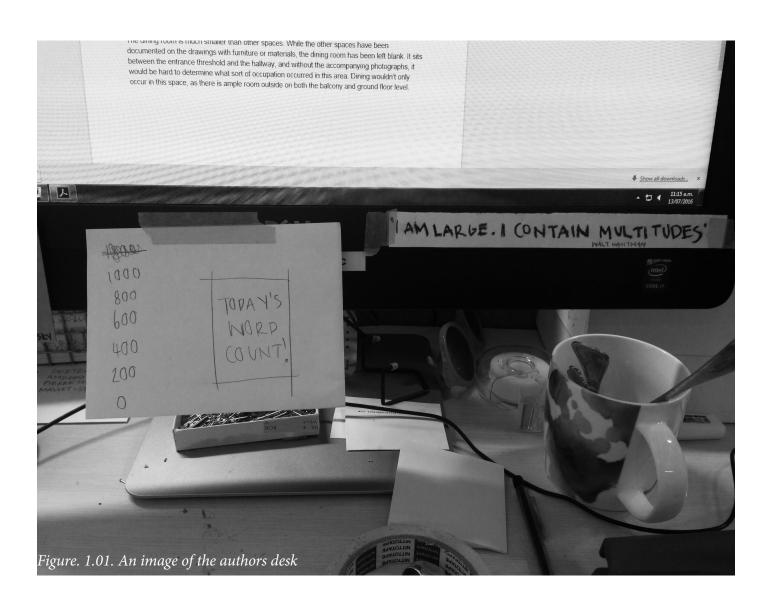
The process of analysing an existing piece of architecture, and considering how it can contribute to the development of future architectures will be at the centre of the inquiry. The re-reading of an existing building will support the idea of design as research (Downtown), and in this case inform the design of an architecture school for women.

E1027 will be primarily investigated through existing documentation: drawings, photographs and texts.

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The thesis is in two parts, the first analyses E1027 by examining the people involved. These characters are analysed as suspects and integrated into the scene to uncover who, 'Killed Eileen Gray', which, for the purposes of this thesis, is used as an analogy to discuss how her authorship was overlooked for some time. The existing spaces are then examined as a way to extract the specific architectural tools Eileen used to execute the design.

These clues will form the setting for part two: An architecture school for women. The design of the school will be generated from the same tools identified in E1027. These tools will be investigated through a maquette making process. Exclusively for women, the school of architecture will run a five year program, with a small cohort of 10 students per year.



1.02. STRUCTURE

The thesis is divided into six chapters. Chapter One begins by outlining the scope, method and structure of the thesis. Chapters Two to Six are separated into two parts, indicating a threshold between existing and new knowledge.

PART ONE

Chapter Two identifies six characters integral to the building, site, or life of Eileen Gray as a way to discuss the story of E1027. For the purpose of this investigation, these characters will be discussed as suspects and their relationship with Gray will be analysed to add context to the scene.

Chapter Three organises E1027 into six spatial categories to assist in creating a concise numerical rhythm within the subsequent methodology. These groups are created with the analysis of existing documentation (drawings, photographs, and texts). Each of the six spaces will be identified as having a dominant architectural attribute.

PART TWO

Chapter Four analyses the architectural attributes identified in Chapter Three through a series of twelve maquettes, as a way to understand the formal aspects of E1027. These maquettes look at details, finishes, compositions and arrangements found within each of the spaces.

The attributes formalised through maquette making are then used as tools in Chapter Five to design an architecture school for women. Working in reverse order, the maquettes derived from Chapter Four inform the details, finishes, compositions and arrangements of the school. This exercise experiments with a method of making that uses design as a research tool.

Chapter Six closes with a site plan, discussion and conclusion.





1.03. SCOPE

BACKGROUND

Eileen Gray was not a well known architect in her time. Instead, she was recognised as a furniture and interior designer, a service she primarily sold through her Parisian shop, Jean Desert. This is the story about how she came to build her first home, and how for many years her authorship of the house was lost.

~

In 1925 the editor of *L'Architecture Vivante*, Jean Badovici, asked his friend and close companion Eileen Gray to design and build him a "little refuge" (Adam 172). As a well-regarded furniture and interior designer who had designed, but never completed a building, Gray's architectural experience was found in the interior spaces she had crafted, furniture she had built, and drawings she had made. Badovici was a trained architect and encouraged her to pursue architecture despite her initial apprehension, "I always loved architecture more than anything," wrote Gray, "but I did not think I was capable of it." (Nevins). Based in Paris, both Badovici and Gray travelled to the south of France to find a plot of land suitable for the build. The search led Gray to discover a site on the coastal edge of Roquebrune-Cap-Martin:

She had heard of a land which was cut off so that one could not drive to it. She walked along the railway track from the small station at Roquebrune and came to a rocky terrain a hundred feet above the Mediterranean Sea, inaccessible and not overlooked from anywhere. (Adam 174)

It took four years for the villa to be designed and built. Gray worked closely with the builders and craftsmen to ensure every detail, finishing and interior fitting was crafted with the same attention and care she would offer any one of her lacquered screens, hand built chairs or woven rugs. She travelled often from Paris to the building site, and during the build stayed in the Roquebrune-Cap-Martin region to observe and manage construction. While the extent of Badovici and Grays' collaboration is somewhat unclear, Gray noted several years later, "We were associated. It is no use differentiating now. He had ideas for the roof and the staircase" (Adam 191).

By the time it was complete, the year was 1929 (Fig. 1.02). Eileen named the house E1027, an encrypted title that bound together Eileen Gray and Jean Badovici. E for Eileen, 10 for J - the 10th letter in the alphabet - 2 for B, and 7 for G. They lived there together during the summer months, until 1934, when Gray left to build another house for herself in Castellar (Colomina 10).

In 1938, Swiss architect Le Corbusier and his wife Yvonne accepted an invitation from Badovici to stay at E1027. Corbusier was enamoured with the house, having visited a few years prior, and wrote Gray a letter in which he praised her for, "The rare spirit which dictates all the organisation inside and outside" (Weber 396). Despite his admiration of the home, Corbusier's enthusiasm for wall paintings at the time was all consuming, and led him to cover several surfaces with hand painted murals (Fig. 1.03). Gray was not consulted on any of the eight frescos, and as Gray's biographer Peter Adam later suggests, "It was rape. A fellow architect, a man she had admired, had without her consent defaced her design" (Adam 311). It was one of several ways in which Corbusier attempted to undermine Gray's authority and ownership of E1027, contributing to what would later become a debate of authorship.



Figure. 1.03. Perhaps the most well-known of Corbusier's murals.

In 1946, when Corbusier published the murals in his Oeuvre Complète (and again in *L'Architecture d'Aujord'hui* in 1948) he referred to E1027 as, "House at Cap-Martin" (Colomina 15), and neglected to make any mention of Gray. Corbusier then managed to receive full recognition for Gray's design in two separate publications in 1948, and again, this erroneous attribution was repeated as late as 1981 (Colomina 15). In 1960 Corbusier published another book, My Work, and wrote of, "Eight murals (free of charge) in the Badovici and Helen (sic) Gray house at Cap Martin" (Adam 311), misspelling the name of an architect he once wrote of so fondly.

It has been argued that these examples of misappropriation are of no coincidence (Colomina and Adams). E1027 aligned with Le Corbusier's ambitious expectations of architecture, and exemplified his fi ve points of architecture with ease: It stands on pilotis, there is stairway access to the roof, a free plan, free facade, and horizontal windows (Constant 269). A theory that Corbusier published in 1923 but didn't appear in his work cohesively until Villa Savoye, a house he constructed after E1027 between 1928 and 1931. Gray and Corbusier had an amicable relationship, but didn't see each other often. Gray respected Corbusier's work, but she never copied him outright, and often critiqued his ideas, "The engineers art is not enough unless it is guided by human needs" (Adam 309). Through her analysis of his work, Gray was able to apply some of Le Corbusier's research in E1027, with the added beauty of humanness (Webb), a quality arguably lacking in Corbusier's machines for living. Gray argued:

A house is not a machine to live in. It is the shell of man, his extensions, his release, his spiritual emanation. Not only its visual harmony but is entire organisation, all the terms of the work, combine to render it human in the most profound sense (Constant 118).

In 1952 Corbusier built a small cabin overlooking E1027, alongside Thomas Rebutato's restaurant, Le Mer. It was the only house he built specifically for himself, and is perhaps the most simplest in form of all his buildings, at only 13sqm. Sitting directly above E1027, Le Cabanon offers a perfect voyeuristic view of Gray's architecture. Five years after Le Cabanon was built, Corbusier designed another structure overlooking the site, a set of five holiday hostel rooms known as Unités de Camping. Designed as accommodation for holidaymakers and a revenue for Rebutato, it was built the same year as Badovici's death in 1956.

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Perhaps Corbusier's fondness for E1027 highlighted some flaws in his own work that he was unwilling or unable to admit to. It is also perhaps the reason Corbusier continued to be entwined with the Roquebrune-Cap-Martin coast, and to E1027 for the rest of his life, right up to his death in August 1965 when he drown in the sea in front of the villa.

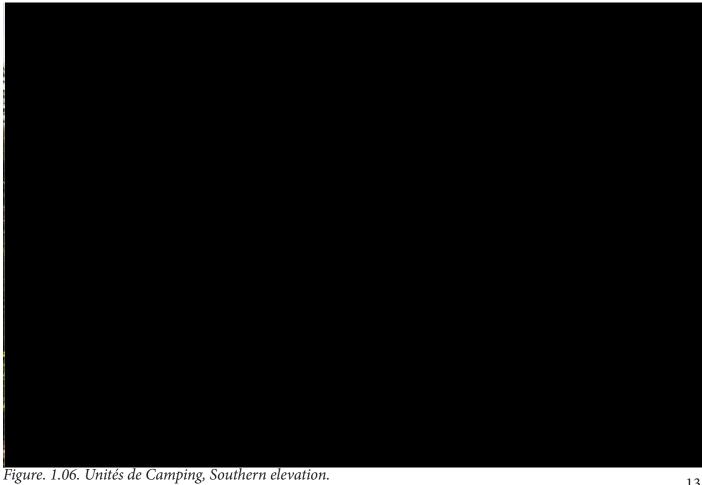
Le Corbusier's presence on the Roquebrune-Cap-Martin site is overwhelming. Both of his built works, Le Cabanon and Unités de Camping, overlook Eileen Gray's E1027 with a pervasive (male) gaze. By physically dominating the coastal edge, Corbusier's territorial presence overshadows the importance of Eileen Gray's participation modernism.

By reclaiming the site with a new work derived from E1027 (and Eileen Gray), this thesis offers an opportunity to further recognise how Gray's villa can contribute to our knowledge of architecture.

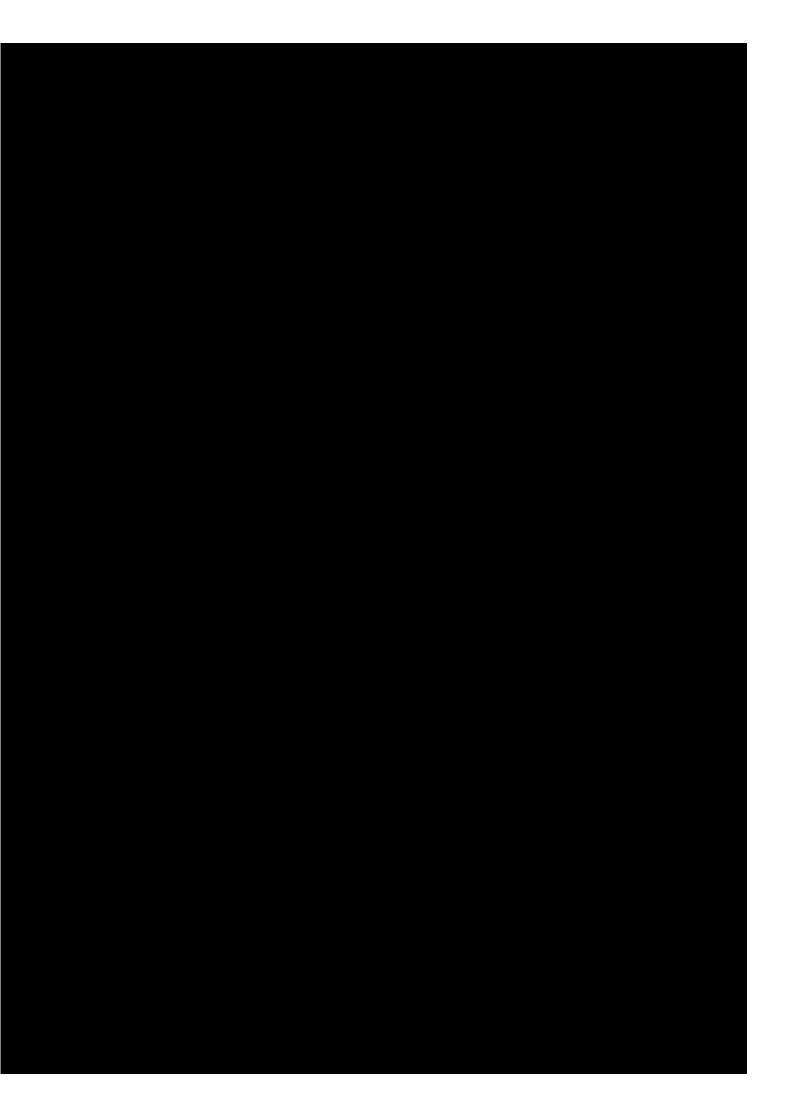


Figure. 1.04. Le Cabanon.

Figure. 1.05. Le Cabanon, interior.







SITE

Located on the edge of the south coast of France on the Roquebrune-Cap-Martin (Fig. 1.08.), E1027 sits between a railway line and a cliff edge (Fig. 1.09).

The site chosen for this thesis neighbours E1027 on the Eastern edge, and stretches out along the south coastline (Fig. 1.10). By locating this project alongside E1027, there is an opportunity to demarcate the site which this thesis argues is overwhelmed with the pervading gaze of Le Corbusier. Corbusier's contributions to the site are a direct act of ownership, and played a large part in temporarily erasing Eileen's authorship.

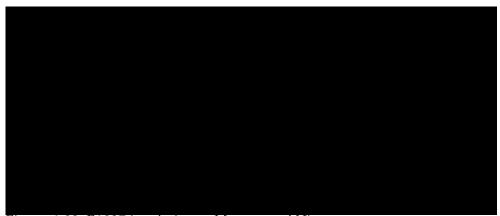


Figure. 1.08. E1027 in relation to Monaco and Nice.

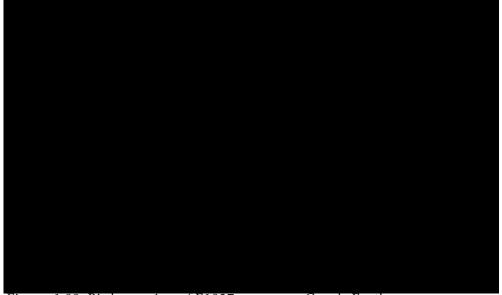


Figure. 1.09. Birds eye view of E1027 as seen on Google Earth.

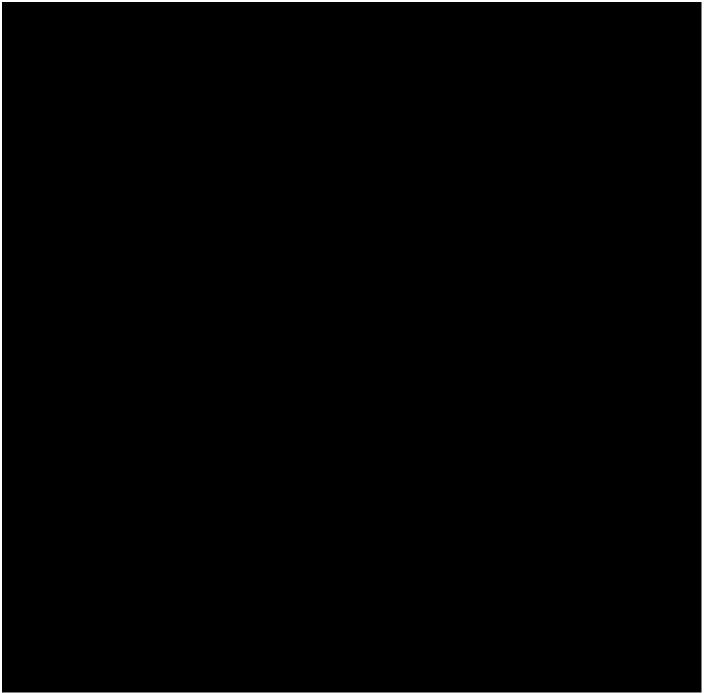


Figure. 1.10. Site shown in yellow, adjacent to E1027 on plot 249.

E1027

Eileen Gray believed that interiors should not be dictated by exterior form, and instead by the formal qualities of the interior, "External architecture seems to have absorbed avant-garde architects at the expense of the interior. As if a house should be conceived for the pleasure of the eye more than for the well-being of it's inhabitants" (Constant 93).

E1027 exemplifies Gray's critique of architecture, with the integration and design of furniture throughout. Bedside tables adjust in height to catch crumbs (Watson-Smyth), seating arrangements are not fixed to facilitate the change in light and season, and rugs are used as a tool to determine a room's boundary.

With a spatial sensibility that integrates objects with architecture, Gray subsequently drew floor plans that emphasised furniture and walls in equal measure (Fig. 1.11). Drawing in this way was prevalent in the representation of interiors in the eighteenth century, and is best known, by Robin Evans, as developed surface drawings (Evans). This style of representation documents interior elevations as foldouts of the plan and establishes furniture formally within the space. It allows for a full reading of an interior, indicating how it could be occupied within the walls. The use of these drawings supports Grays ideas of how architecture should be treated as an integrated whole.

Gray lacked specific architectural training, which is evident in her working drawings which deviate from traditional architecture drawings. The most peculiar example of this is the Sunlight Plan (Ryan), where Gray not only indicates the movement of external light but also marks the movement of sun within the interior (Figure 1.14). Suggestive arrows move between internal spaces, indicating connections between the rooms and possible bodily occupation. This particular plan also manipulates several components of the drawing by reducing solid walls to thin lines, removing doors and windows, and simplifying or even removing the furniture.

A reading of E1027 today requires an assemblage of drawings and photographs to establish a thorough understanding. While some of the spaces have been documented more consistently than others, such as the upper living and main bedroom, there is still substantial ambiguity within some of the downstairs service spaces. Even with the use of an online photographic 3D fly-through of the interior, several rooms downstairs have been excluded (Benton). Understanding E1027 in its entirety requires a compilation of clues, which are gleaned from the various publications dedicated to the villa and it's architect.



Figure. 1.11. Plan and elevations of upper living spaces.

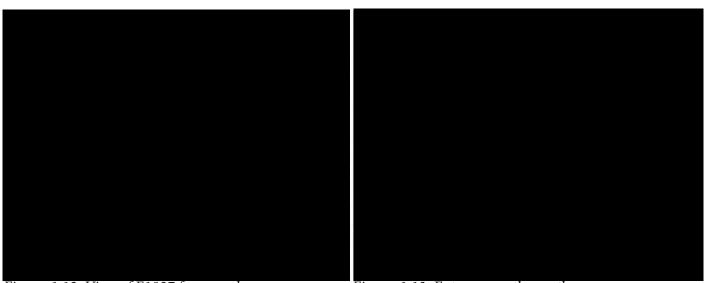


Figure. 1.12. View of E1027 from garden.

Figure. 1.13. Entrance on the south.

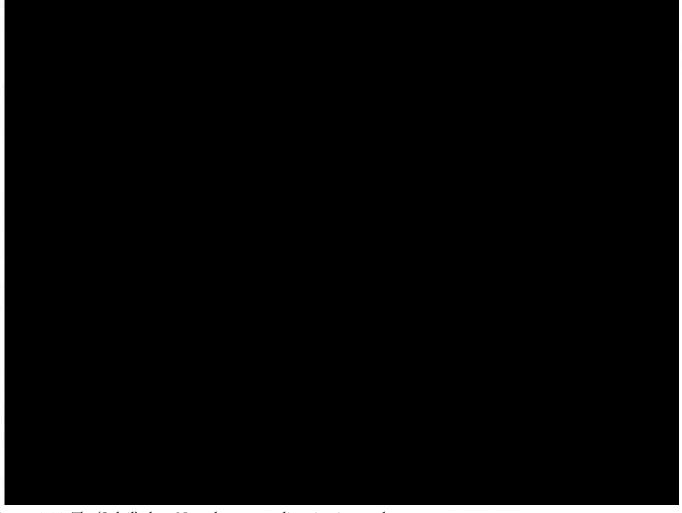


Figure. 1.14. The 'Soleil' plan. Note the arrows dictating internal movement.

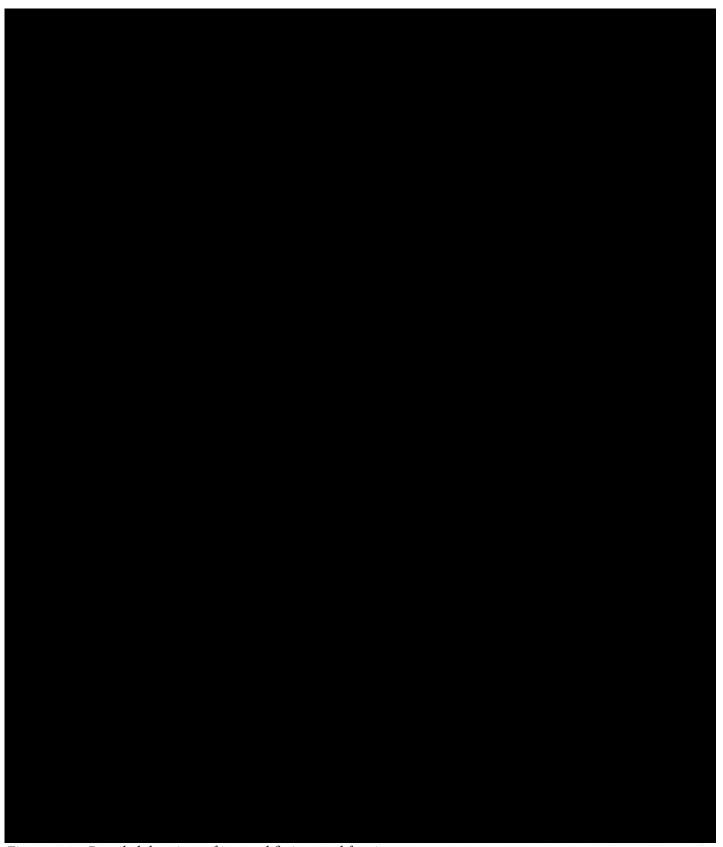


Figure. 1.15. Detailed drawings of internal fittings and furniture.

1.04. METHOD

For the purposes of this thesis, each of the rooms in E1027 has been grouped into six spatial sets. These sets recognise consistent spatial qualities throughout the interior and have been categorised based on their function and occupational biases. They are as follows:

Intimate - Bedroom, Guest Bedroom

Leisure - Daybed, Lounge

Thresholds - Entrance, Hallways

Hygienic - Bathrooms, Shower, Toilet

Outdoor - Balcony, Lower lounge, Garden

Service - Kitchen (summer/winter), Maid's Quarters.

While the spaces can already be recognised by their initial definition (bedroom, bathroom, kitchen, etc), it becomes productive to discuss them as a group, as a way to understand their combined architectural attributes. This spatial rearranging allows a reading of E1027 that specifically looks at the key architectural tools Gray used to design the holiday home.

The sets were made from a reading of the house that was informed by a collection of clues sourced from existing photographs, drawings and texts. As the documentation of the site is irregular and often in French, compiling these clues perform an important role in the investigation.

Within these six spatial sets a dominant architectural attribute will be identified. Each of these six attributes are then deemed as 'tools' in the subsequent chapter and provide a useful source to enable a production of maquettes. These maquettes will interrogate how the tool has been applied within E1027. The tools will later be used as a way to generate a tectonic language for an architecture school.

These six spatial sets and six tools will be discussed alongside the six characters who played an intimate role in the life of E1027 and/or Eileen Gray. These characters, who for the purposes of this thesis will be recognised as 'suspects', are integral to the house and will be investigated alongside the reading of E1027's spaces and tools. These 18 elements come together to form the story of E1027.

The purpose of Part One of this investigation is to understand Eileen Gray's architectural practice, by using E1027 as the primary case study. This research about design will feed into Part Two, which will exemplify a process of design as research, which will in turn inform the design of the architecture school.

In part two, the six spatial sets will be used to allocate twelve different spaces within the architecture school. These are as follows:

Intimate - Accommodation, Studios Leisure - Gallery, Library Thresholds - Entrance, Train station Hygienic - Bathrooms, Toilets Outdoor - Lecture Theatre, Coastal Access Service - Canteen, Workshops

These twelve spaces will be informed by twelve of the maquettes made in Part One. They will be analysed through a series of sketches that accumulate in a set of floor plans. Floor plans will be used as a way to experiment with the representation of bodily occupation within the spaces. "The floor plans of E1027 and their notated movement are a good record of all those in attendance within the house" (Hedges).

The purpose of this structure is to determine how an existing building can contribute to the design of a new architecture.



Figure. 1.16. A view of the villa's Northern elevation from Unités de Camping.

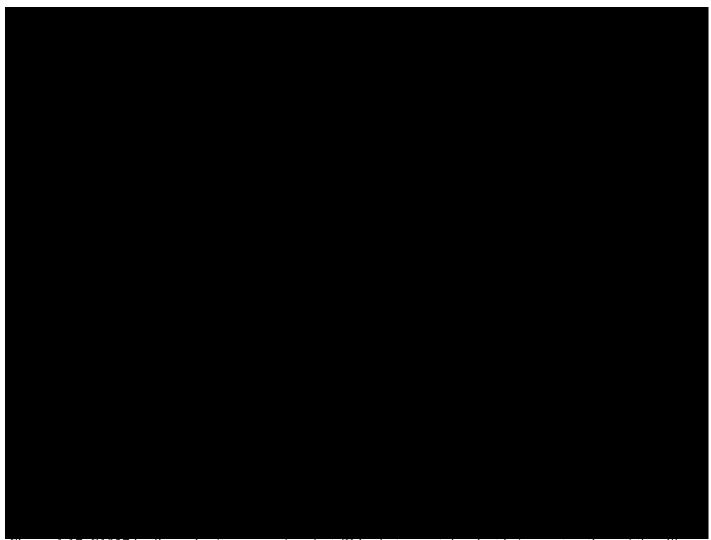


Figure. 1.17. E1027 in disrepair after years of neglect. This photo was taken just before restorations of the villa were undertaken between 2006 - 2010.

PART ONE

2.0 **SUSPECTS**

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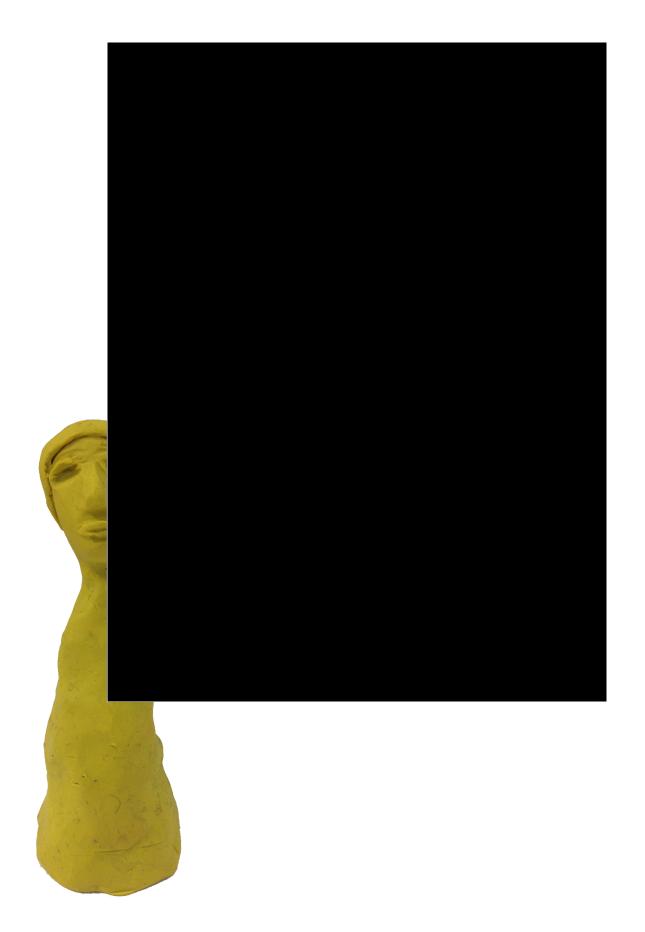


The following suspects have been selected by their close involvement with Eileen Gray. Their biographies in this chapter connect them to Gray and/or E1027, and have been included in this thesis as a prelude to discussing Eileen's Gray's story.

2.01. EILEEN GRAY

Eileen Gray was born in Ireland on the 9th of August, 1878. Gray studied at the Slade School of Fine Arts in London before moving to Paris in 1902 and continuing her studies at the Ecole Colarossi (Adam 26-28). Born into a wealthy family, Gray had the freedom to live, study and explore Paris, without the burden of employment. In 1906 Gray met Sugawara, a Japanese-born lacquer artist, and asked him to teach her the art of lacquer. Gray began her professional life lacquering screens and pieces of furniture in the bathroom of her apartment on the Rue Bonaparte.

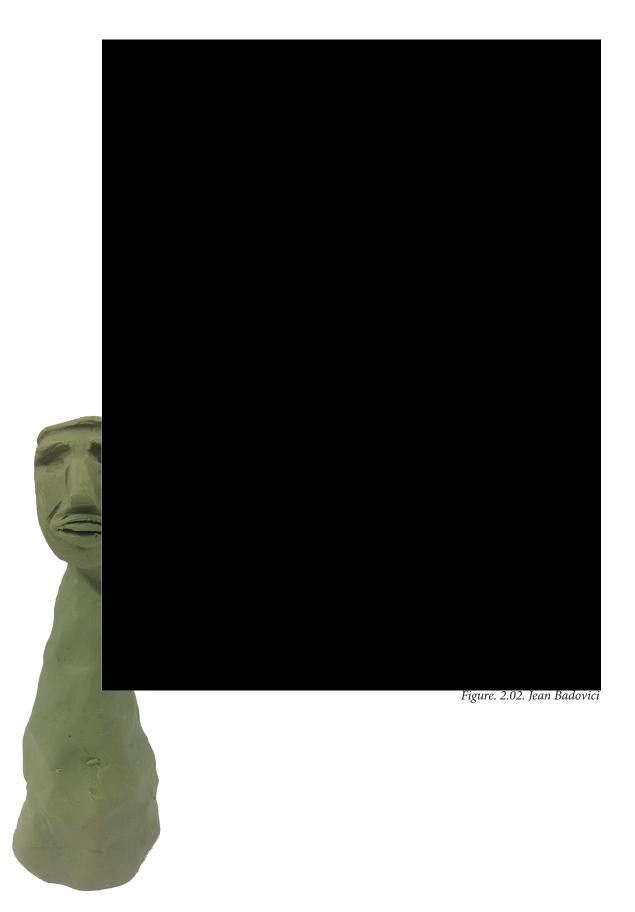
The apprenticeship with Suagawara turned into more of a collaboration, when Gray began making furniture for wealthy clients, and later to stock her Parisian shop, Jean Desert. Gray then began to introduce new materials to her practice, as her interest in the modern movement developed. Collaborating closely with her friend Evelyn Wyld to design rugs, Gray experimented with glass, leather, ivory and chrome, and included them in her furniture designs. Gray's practice expanded to include whole interiors, including that of Jean Badovicis apartment, which ultimately lead to her involvement with architecture.



2.02. JEAN BADOVICI

Jean Badovici was born in Bucharest in 1893, and from 1917 - 1919 studied at the Ecole des Beaux-Arts and Ecole Superieure d'Architecture in France (Adam 149). A man without inherited wealth, Badovici worked hard, "doing all sorts of evening jobs" (Adam 149) to live in the city of Paris. In 1923 he started the publication *L'Architecture Vivante* with his friend Christian Zervos, thoroughly documenting the architecture and design that was forming the modern movements (Constructivism, De Stijl, Bauhaus), as well as the people who were behind them. Within the 21 issues, across 10 years, they published works by Le Corbusier, Mies van der Rohe, Frank Lloyd Wright, and Eileen Gray, among many others.

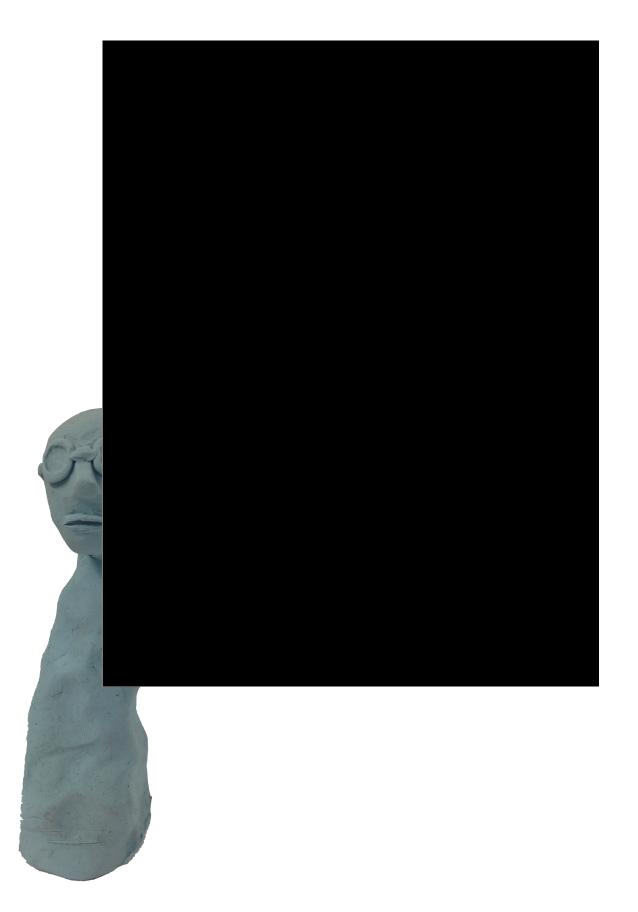
Badovici and Gray quickly became close companions after meeting in Paris, a friendship founded on mutual admiration. Badovici influenced Gray enormously throughout their friendship, and it was he who pushed her into architecture. "Badovici, a man not without ambition, saw in [Eileen] immediately a woman of great artistic talent" (Adam 149). The two travelled together extensively and worked together on several projects, their most notable being E1027.



2.03. LE CORBUSIER

Swiss architect Le Corbusier was born Charles-Edouard Jeanneret in 1887. Jeanneret's parents lived off modest means, his father a watchmaker and mother a pianist. After studying watch engraving at a young age, in anticipation of following his father's footsteps, Jeanneret was encouraged to expand his studies and pursue architecture. In 1907 at the age of 20, he completed his first project, Villa Fallet, commissioned for l'Ecole d'Art (Weber 36). In 1920, he decided to change his name to Le Corbusier, the same year he first published his first magazine, *L'Espirit Nouveau*. By this time Corbusier had been practising architecture for 15 years.

In 1930 Corbusier married actress and model Yvonne Gallis. During a summer holiday in 1938, they stayed at E1027 for the first time, as guests of Badovici. Eileen Gray no longer spent her summers at the villa at this time, so in 1939 when Corbusier decided to paint eight murals on the walls without her permission, she was unimpressed. In 1952 Le Corbusier built Le Cabanon, a cabin overlooking E1027, that shared a wall with local restaurant Le Mer. It was the only home he ever built for himself, and the last place he lived. Four years later, in 1956, he built Unités de Camping for friend and restauranteur Thomas Rebutato.



2.04. EVELYN WYLD

Trained as a cellist, Evelyn Wyld was raised in a wealthy American family and, much like Eileen Gray, felt the need to escape her family as soon as she could. After moving to Paris around 1907, Evelyn met Eileen, marking the beginning of a 17 year professional collaboration between the two, making rugs and carpets. The two friends travelled to North Africa to learn the art of weaving and dyeing wool. In 1909 Evelyn travelled across England to continue her studies, soon returning to Paris with looms, wool and a personal tutor in tow. Their working relationship consisted of Eileen designing and Evelyn running the workshop, with the stock primarily being sold through Gray's Jean Desert shop front.

The two remained friends for life, despite parting ways professionally when Evelyn branched out on her own to design carpets. They divided their looms and Eileen moved out of their studio on the rue Visconti. Evelyn continued her practice with writer Elizabeth de Lanux, who later left her husband to live with Wyld in 1924. While Eileen was already independently successful in her ventures and had no cause for professional jealousy, her relationship with Evelyn suffered during this period. Eventually Elizabeth left Evelyn, at which point Evelyn gave up her work in favour of gardening.

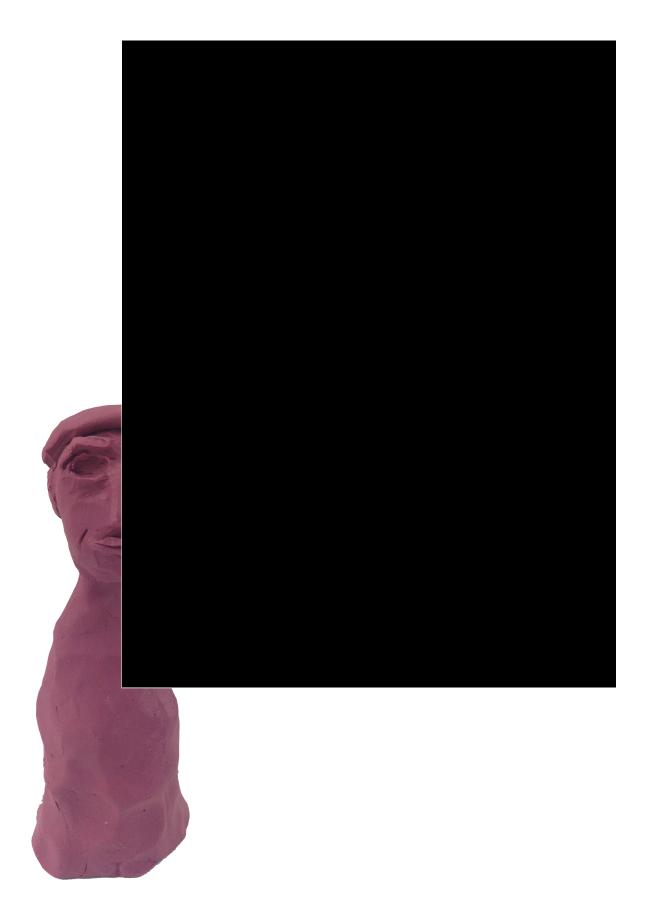
Note: No photographic document of Evelyn Wyld could be found.



2.05. THOMAS REBUTATO

French born tradesman Thomas Rebutato bought 1000m2 on the Roquebrune Cap-Martin coast in 1947. Situated behind a "white villa" (Gardette) belonging to Jean Badovici, he had the idea to build six small holiday cabins. By 1949 a prototype was built, and Thomas decided to turn part of the building into a restaurant. His first customer to Etoile de Mer (The Starfish) was a guest of Badovici, named Le Corbusier. The two became friends, and when staying on the coast, Corbusier would visit the restaurant every day.

In 1952 Le Corbusier bought a piece of Rebutato's land and built Le Cabanon. Designed with the west wall butting right up against the restaurant, there was a door installed for easy access. Corbusier paid for the plot of land with labour, and designed a set of cabins further along Badovici's site. They were built in 1957 and called Les Unités de Camping. Sitting directly above E1027 and painted with a facade of coloured window panes, they intrude on all the photos of the site which are taken from the sea. For thirteen years, the cabins were used as accommodation units. Thomas died in 1971, aged 63.



2.06. LOUISE DANY

Louise Dany saw a 'help wanted' note posted by Eileen Gray in a shop window advertising for a job as a maid, shortly after arriving in Paris in 1927. Louise was 18 and had no experience as a maid. When Gray asked Dany if she knew how to cook, iron or clean flats, she replied 'no' (Adam 186). Despite this, Gray offered her the job. That night Louise slept on the couch in Eileen's apartment, and soon took on the title La Bonne (the maid), although she soon became far more than that, working alongside Gray in Jean Desert, dealing with various affairs of the business.

Gray designed a service space in all of her homes, as she had never run a household on her own, "Oh, how I abominate housework" (Adam 215). The two travelled together often and it was Dany who slept in a hospital armchair as Gray recovered from major surgery. Dany survived Gray, and upon her death placed a small black marble engraving of Gray's name and date of death at the Père Lachaise cemetery.



2.07. FORMAL EVALUATION

While the suspects outlined above do not necessarily have a direct effect on the design of E1027, they are included as a way to situate Gray among those closest to her. Gray was largely considered to be a quiet and reserved character, even though she maintained a keen interest in the work of her peers. It is possible that the way in which she lived, most often in solitude contributed to her lack of recognition in architecture during the time she practised.

~

NB: This thesis recognises that there are numerous stories that surround the case of Le Corbusier and E1027. While this document will not discuss the full extent of their relationship, there are numerous documents that can be sought in order to cater further understanding of the extent to which Corbusier was involved.

3.0 SPACES

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The built spaces within E1027 have been grouped together in six spatial categories, as a way to accumulate a series of clues that contribute as design evidence. These are as follows:

Intimate - Bedrooms, Study
Leisure - Lounge, Daybed, Dining Room
Thresholds - Doors, Staircases, Hallway, Entrance
Hygienic - Bathrooms, Toilets, Bedroom sinks
Outdoor - Balconies, Foyer, Terrace
Service - Kitchens, Laundry

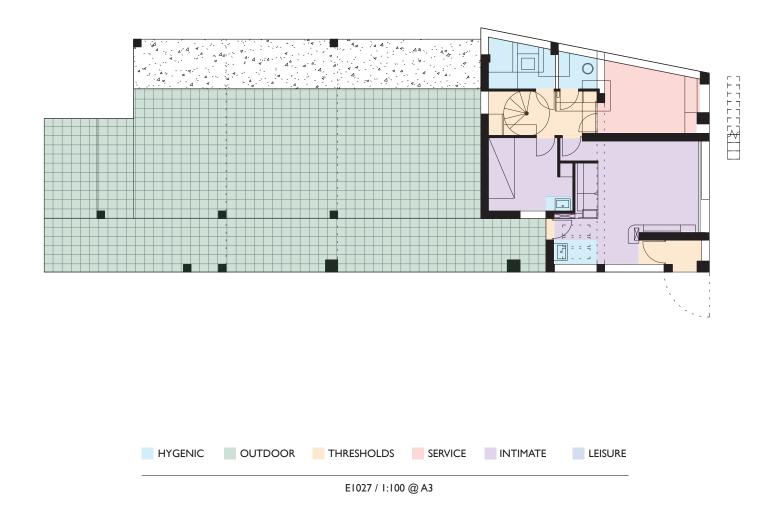


Figure. 3.02. E1027, Ground Floor.



Figure. 3.03. E1027, Upper Floor.

3.01. INTIMATE

- 1 x Main bedroom
- 1 x Guest bedroom
- 1 x Maid's Bedroom
- 1 x Study

Intimate spaces have been defined as places of solitary intimacy, as opposed to shared.

~

The main bedroom on the first floor is connected with the study. There is no divide, curtain or door to separate the two (Fig. 3.05.). The openness suggests a very intimate link between professional pursuits, that of drawing, reading or drafting, with that of sleep and rest. The floor is tiled. The head of the bed sits on the southern wall, and faces a view of the sea through the northern elevation. The photographs of the bed show layers of fabrics, linen, quilts and fur (Fig. 3.10). There are eight drawers on the eastern wall, a built in wardrobe, lampshade and clock.

Downstairs in the bedrooms the flooring is the same. The guest room is generous in size and there are three doors that provide access to the room: one from the spiral staircase and two from outside. A built in wall unit folds down to serve as a table, and there are two rugs and two mirrors. The maid's bedroom is the smallest bedroom. There is a single bed and a single wardrobe.



Figure. 3.04. Maid's bedroom plan and elevation.



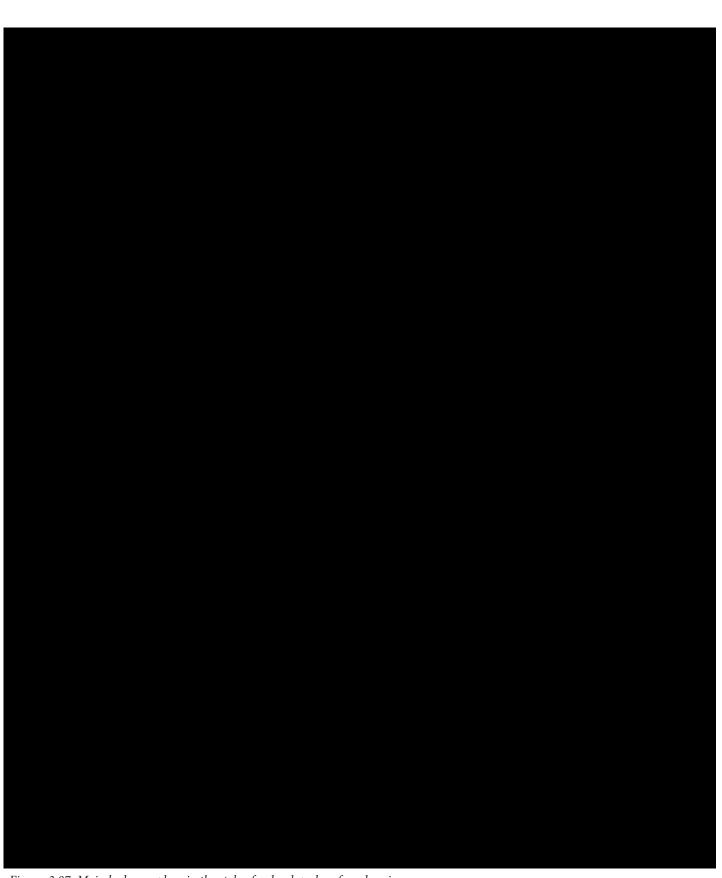


Figure. 3.07. Main bedroom plan, in the style of a developed surface drawing.

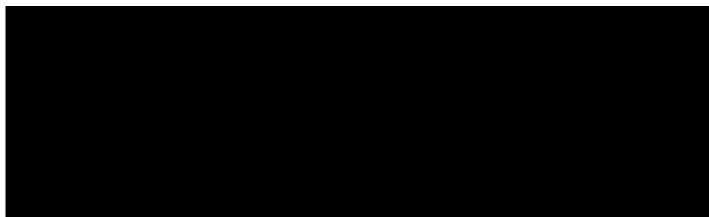
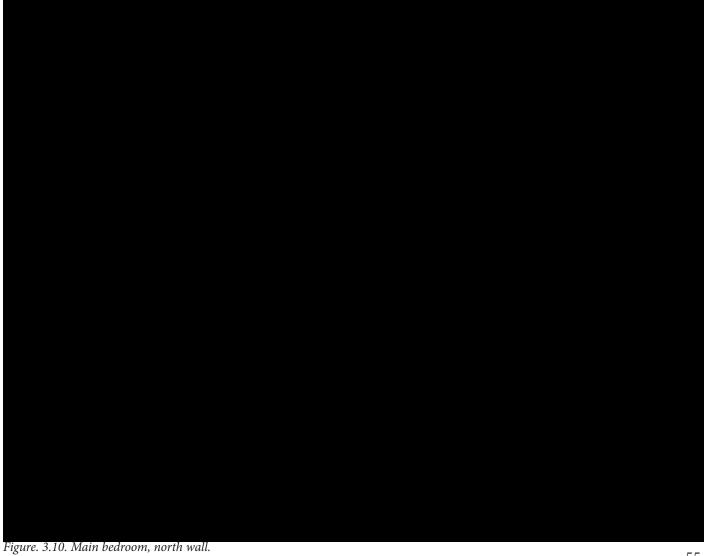


Figure. 3.08. Main bedroom, scrim curtains.

Figure. 3.09. Main bedroom, detail of bedside table.



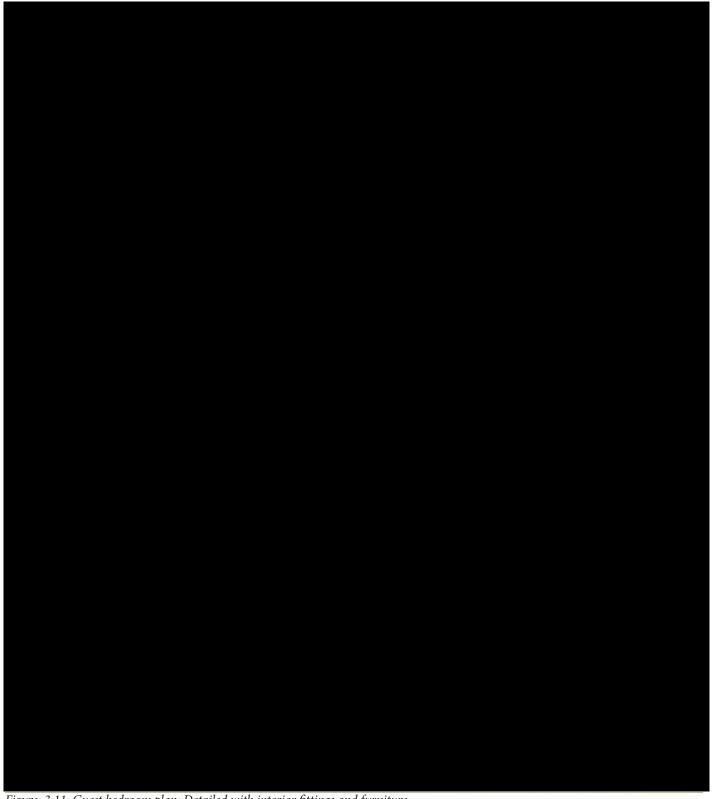


Figure. 3.11. Guest bedroom plan. Detailed with interior fittings and furniture.



Figure. 3.12. Guest Bedroom, view of the bed and adjustable bedside table.

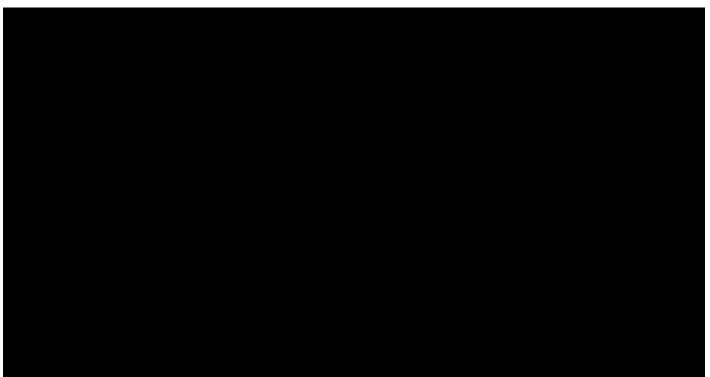


Figure. 3.13. Guest bedroom, detail.

Figure. 3.14. Guest bedroom, detail of wardrobe and hand basin.

3.02. LEISURE

- 1 x Lounge
- 1 x Daybed
- 1 x Dining Room

Leisure has been determined by shared, internal communal spaces.

~

The daybed, lounge and dining room form one continuous space. It is accessed from four points on the first floor; the front door entrance, the hallway adjoining the study, the bi-folding doors on the southern face, and a western door adjoining the daybed area.

Within the open plan there are spaces and surfaces allocated for one or four people. The daybed placed in the south-western corner is presumably for reading (Fig. 3.13). There is no view, only a small east-facing opening onto the balcony, with the window only wide enough for a sliver of natural light (Fig. 3.14.). The lounge consumes a generous portion of the of the first floor, and is central to the daily occupation of the space. Photographs show furniture placement is almost identical to the plans, with chairs, rugs and murals all specifically designed to fit within the interior.

The dining room is much smaller than the other spaces. While the other spaces have been documented on the plans with furniture or materials, the dining room has been left bare, despite a separate detailed drawing of the table (Fig. 3.19). It sits between the entrance threshold and the hallway, and without the accompanying photographs it would be hard to determine what sort of occupation occurred in this area. Dining would not only occur in this space, as there is ample room outside on both the balcony and ground floor level.



Figure. 3.15. Upper living with block colouring, as published orginially in L'Architecture Vivante.



Figure. 3.16. Daybed, detail of moveable table, lamp and recessed cabinet with a sliding face.

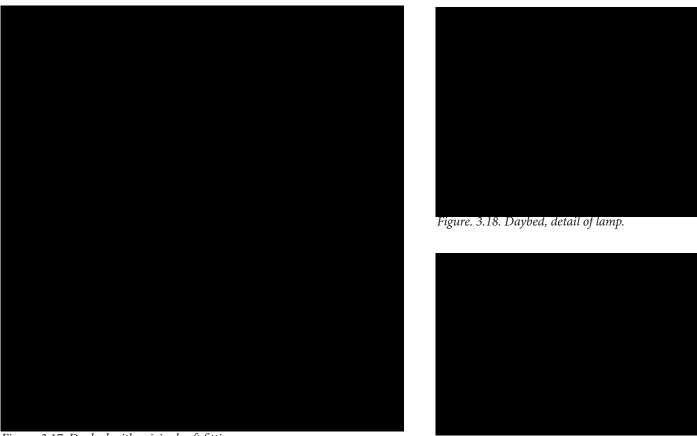


Figure. 3.17. Daybed with original soft fittings.



Figure. 3.20. Lounge, detail

Figure. 3.21. Lounge, detail



Figure. 3.22. Dining Table, detail. Furniture was drawn in the same manner as floor plans and elevations.

3.03. THRESHOLDS

20 x Doors

3 x Staircases

1 x Hallway

1 x Entrance

Threshold spaces have been determined as passages.

~

The main entry to E1027 is through the northern threshold. There are three stages to this entrance. First, a platform with canopy. From here one moves past a gate and into an enclosed entry, and finally through the front door where there is a hat shelf and coat rack. The coat rack has been detailed in the drawings and operates as both a piece of furniture and a wall (Fig. 3.20). It separates the lounge from the entry and ensures that those who arrive have ample room to settle themselves into the internal environment.

The hallway connecting the study, staircase and bathrooms is a narrow room. Photographs show a small bar on the wall adjoining the bedroom, while the plans leave it bare. The spiral staircase is one of three ways to access the ground floor, and the only way to access the roof (Fig. 3.21). Not all thresholds offer a door, and some rooms are visually and acoustically accessible from other spaces. Specifically, this affects the upstairs western bathroom and the entrance.

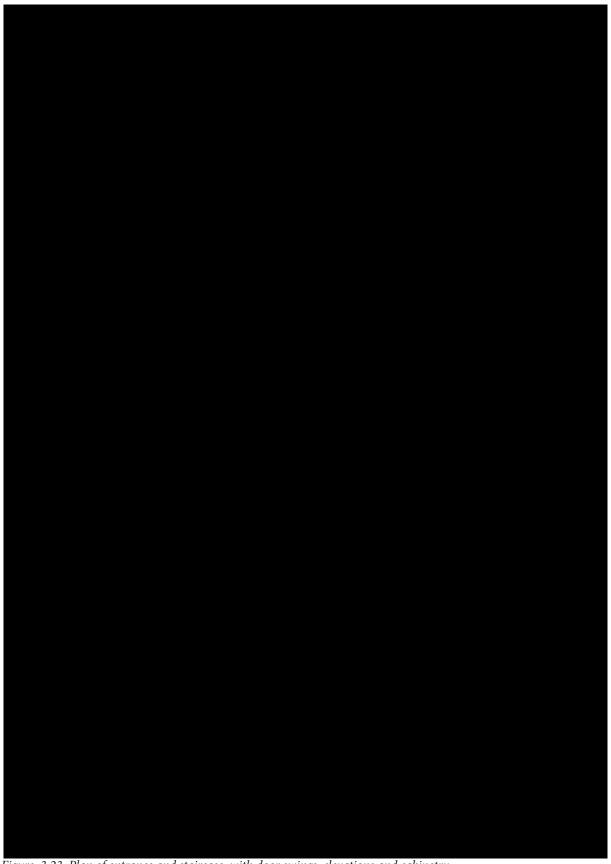


Figure. 3.23. Plan of entrance and staircase, with door swings, elevations and cabinetry.

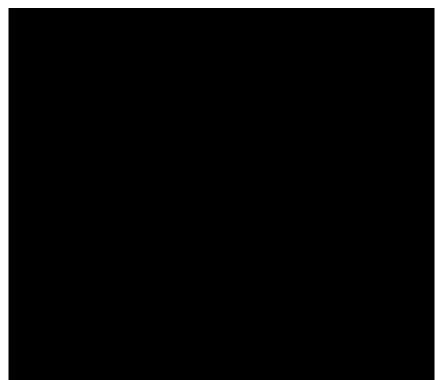


Figure. 3.24. Staircase, detail. Looking up towards the sky.

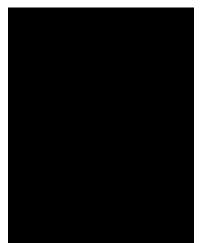


Figure. 3.25. Staircase, detail.

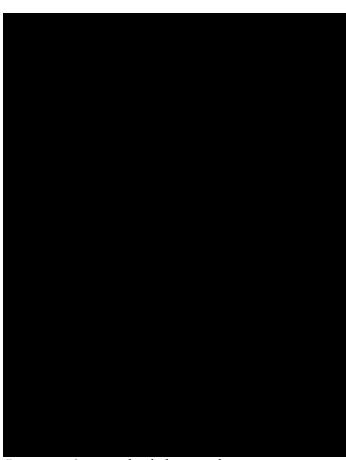


Figure. 3.26. Staircase, detail of cast spiral.

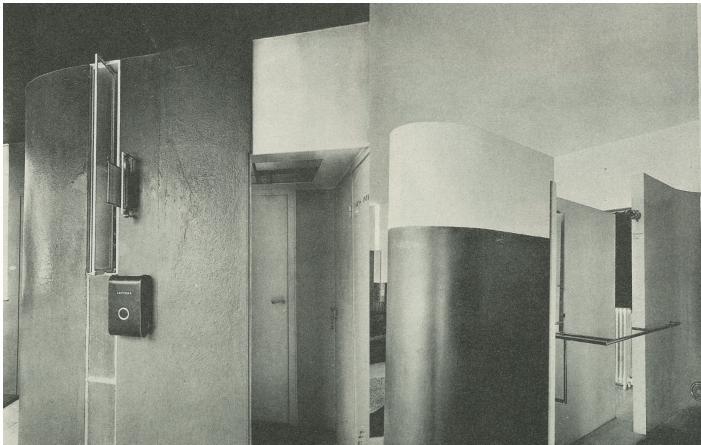
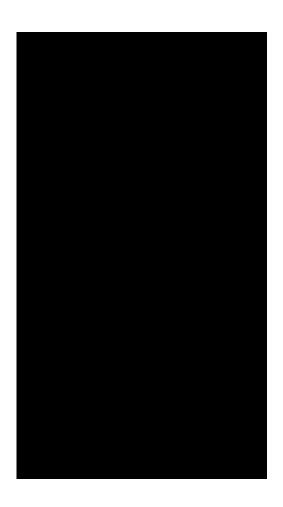
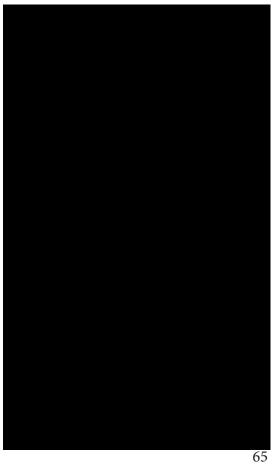


Figure. 3.27. Entrance, exterior.

Figure. 3.28. Entrance, interior.





3.04. HYGIENIC

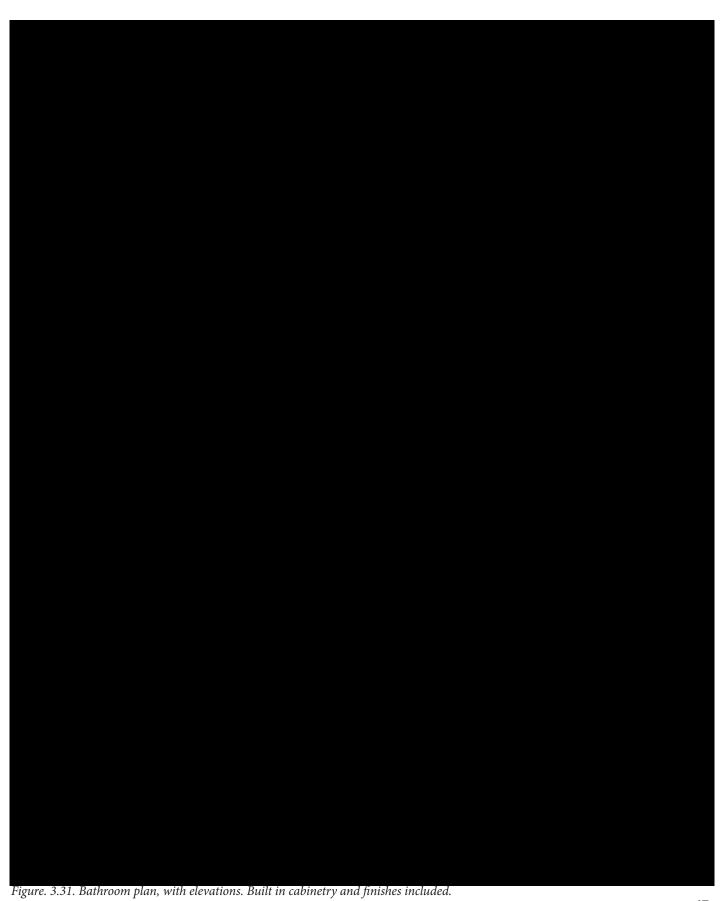
- 2 x Bathrooms (upstairs)
- 2 x Toilets (upstairs and downstairs)
- 3 x Bedroom sinks (upstairs and downstairs)

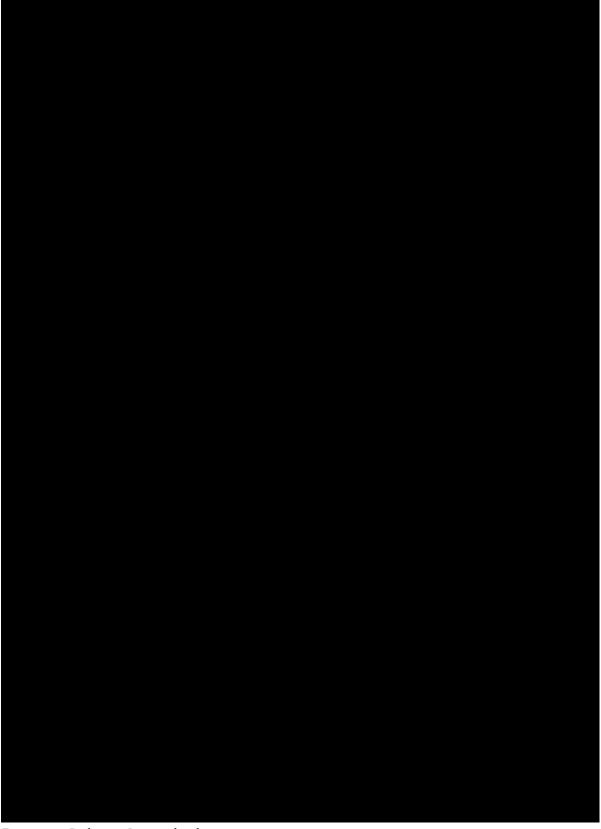
Hygienic spaces have been determined as places where personal cleanliness occurs.

~

Upstairs there are two bathrooms, one toilet and one bedroom basin. The bathroom on the west end has a round shower curtain rail, a square basin and two mirrors (Fig. 3.32). The internal wall does not reach the ceiling and sits about 1200mm below. There are two curved corners, three shelves and black floor tiles. The hand basin is white and sits across from the wall heater. One window offers an external opening, is about 300mm wide and is the length of the northern wall. The other bathroom has three access points: through the hallway, the bedroom, and from a slim outdoor staircase on the first floor (Fig. 3.28). The bath is a generous oval shape and sits close to the bidet (Fig. 3.33). There is a skylight above the bath and black tiles that finish halfway up the wall. A cupboard the length of the wall sits on the southern elevation, and there are two white bath mats. It shares a wall with the toilet and the bedroom.

Downstairs there are two bedrooms with a basin and one toilet. There are no photographs of the toilet but from the maid's room and the guest room there is easy access. White hand basins in each of the rooms sit near a window.





 $Figure.\ 3.32.\ Bathroom,\ Interior\ detail.$



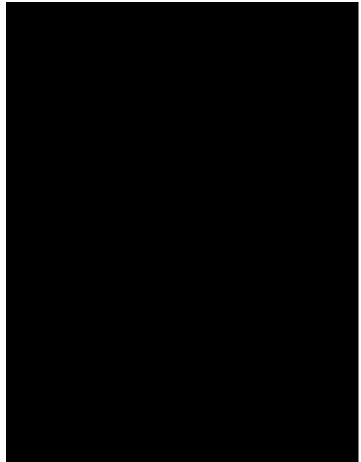


Figure. 3.35. Bathroom, interior.



Figure. 3.36. Downstairs bathroom, detail.

Figure. 3.37. Downstairs bathroom, detail.

3.05. OUTDOOR

2 x Balconies

1 x Foyer

1 x Terrace

Outdoor spaces have been determined by their openness to the external elements.

~

The south facing balcony is an integral part of the enjoyment of E1027. With bi-folding doors along the southern wall, the central living space expands considerably. Canvas screens provide protection from harsh sunlight and diagonal rain. South facing, they offer a view of the coast and provide ample sunlight. One of Eileen's drawings offers a mapping of how the sun would circulate the house (Fig. 1.14), and provides an appropriate eaves extension to ensure shading during the hotter months.

Downstairs reveals a generous terrace sheltered by the first floor. The area is largely left bare, with no furniture annotated on the drawings. Photographs show two cane arm chairs under shelter, a built-in sunbathing booth on the grass platform (Fig. 3.40) and a built in bench between trees and tiles (Fig. 3.39).

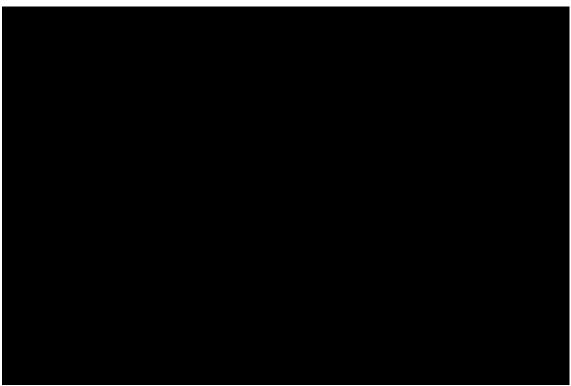


Figure. 3.38. E1027 exterior, Looking north-east.

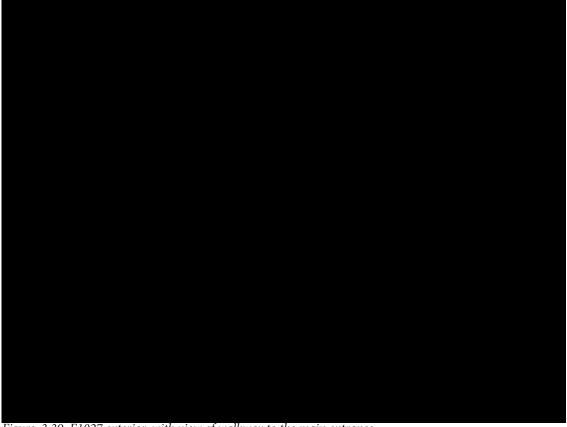


Figure. 3.39. E1027 exterior, with view of walkway to the main entrance.

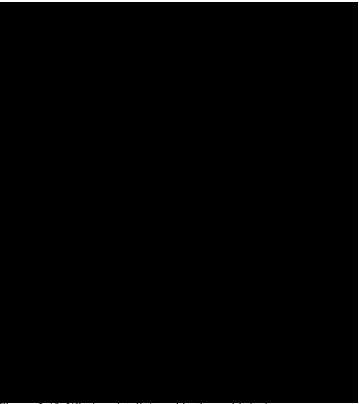


Figure. 3.40. Window detail, found in the maids bedroom.



Figure. 3.41. Lower living.



Figure. 3.42. Looking onto garden from lower living, facing south.



Figure. 3.43. Outdoor, recessed sun bathing booth.

3.06. SERVICE

2 x Kitchens (summer + winter)

1 x Laundry

Service space is primarily used by a maid. This is where the meals are cooked and the clothes are cleaned.

~

There are two kitchens in E1027, one used during the winter months and one in summer. The winter kitchen is entirely enclosed within walls. There is a stove, built in cabinetry and electrical appliances (Fig. 3.44). To deliver food to the guests, you need to pass through the door on the west wall and walk along the main entry to the front door into the leisure spaces. The north wall of the winter kitchen has large glass windows and a door that accesses the summer kitchen and laundry (Fig. 3.43).

The summer kitchen is open to the exterior elements, with only two solid walls. This would suit the warm temperatures of the Roquebrune Cap-Martin coast during the high season. The coal burner, icebox and water filter are in the summer kitchen. From here there is easy access to the laundry.

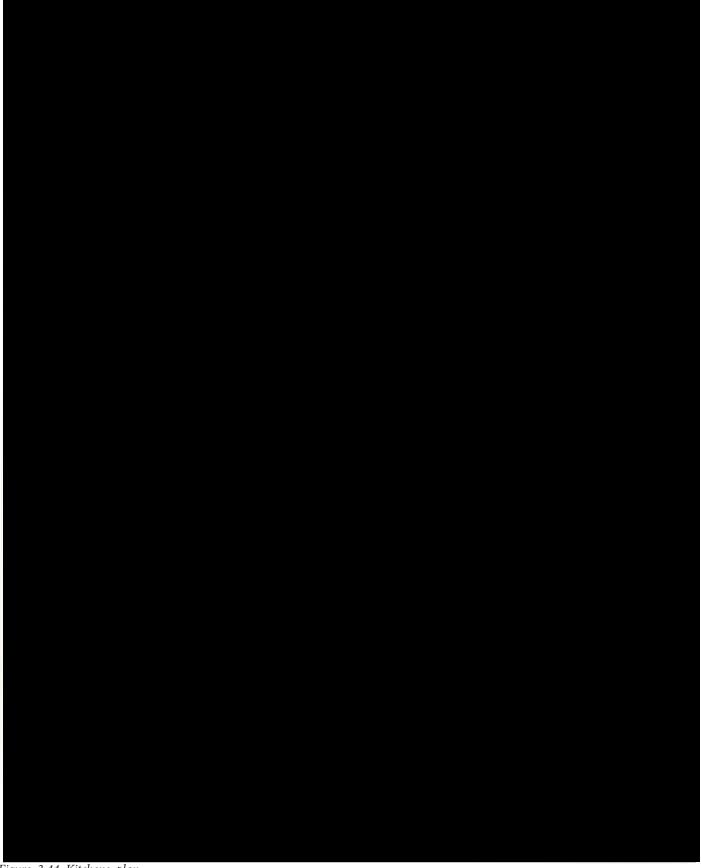
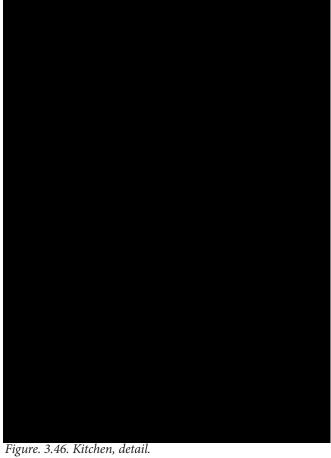


Figure. 3.44. Kitchens, plan.



Figure. 3.45. Kitchen, detail of the sink, drying rack and water pump.



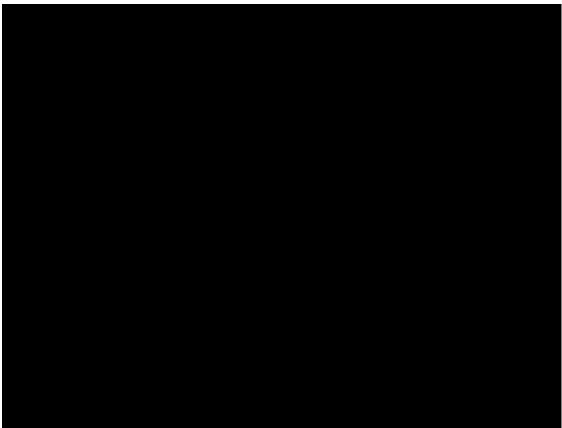


Figure. 3.47. Kitchen, detail of the pantry and kitchen cabinetry.

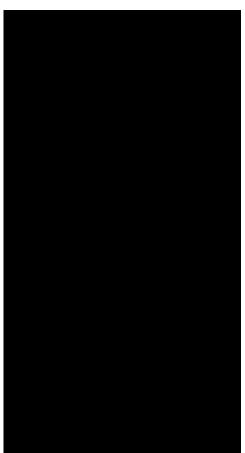


Figure. 3.48. Kitchen, detail.

3.07. FORMAL EVALUATION

During the division of rooms into their respective six categories, it becomes apparent that several spaces could fall into multiple categories. There is an ambiguity to various aspects of the plan that is perhaps best exemplified with the basins in the bedrooms, the ground floor terrace, and the proportionally small (and entirely absent in the original plan) dining space.

There is also the matter of the upstairs living areas. Dividing the upper living areas into lounge, daybed and dining, in some ways goes against Gray's formal planning of the area. While there are various lines drawn in the plan to indicate the transition of spaces, the photographs reveal that this refers to a change in ground material rather than vertical division. In this way, the differences in the colour of a floor tile, or placement of a rug operate similarly to a wall. An exception to this rule can be seen with the dividing wall between the upstairs bathroom and the adjacent living spaces. While a solid wall is present, it maintains acoustic connection in its separation from the ceiling, offering instead only a visual division.

The study and bedroom are similarly separated in this way, with no solid wall. The connection between the bed and the desk is intimate, and only separated by open space and a colour change in the floor tiles. This relationship offers an insight into Gray's approach to her work, as something intimate and personal, as opposed to a chore or duty.

PART TWO

4.0 TOOLS

| 4.01. | Translucent | 90 |
|-------|-------------------|-----|
| 4.02. | Moveable | 98 |
| 4.03. | Rounded | 106 |
| 4.04. | Reflective | 114 |
| 4.05. | Porous | 122 |
| 4.06. | Contrasting | 130 |
| | | |
| 4.07. | Formal Evaluation | 139 |

Each of the six spatial sets in chapter 3.0 were analysed for a dominant architectural tool. These 'tools' were found in the qualities of surface treatments, layouts, materials, and textures. When each space and tool are connected with a suspect, a diagram such as this emerges:

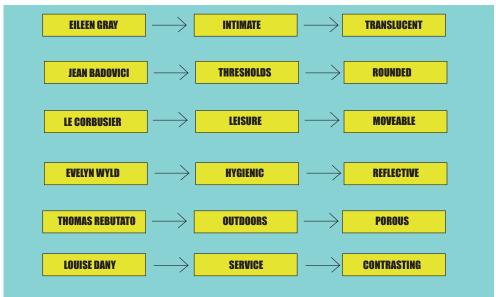


Figure. 4.01. Diagram connecting the suspects, spaces and tools used.

Each tool is then analysed in an iterative process of maquette making. Six maquettes (1-6) are made by imitating the formal qualities of how the tool has been applied within E1027.

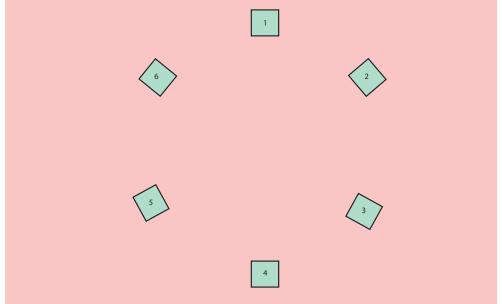


Figure. 4.02. Diagram of the first six maquettes.

These six maquettes are then used to derive six more maquettes (7-12). This time, instead of deriving from E1027, they imitate the existing maquettes. i.e. maquette number seven is a combination of the qualities found in maquette one and six. This process is undertaken for each architectural tool, ultimately producing twelve maquettes per tool, seventy-two in total.

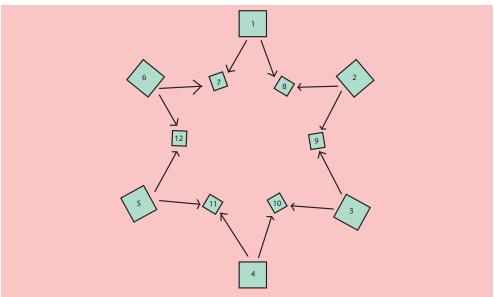


Figure. 4.03. Diagram of how the next six maquettes are made.

Each of the maquettes are then documented through photography, to remove scale and surroundings. They are then archived in their respective groups.



Figure. 4.04. Archived boxes of maquettes with dates produced.



The subsequent pages document this methodological process. By first outlining a definition of the tool, the text goes on to discuss how it was found within the six spatial categories. Images of the twelve maquettes from each tool are then documented.

4.01. TRANSLUCENT



definition: // Not completely clear or transparent but clear enough to allow light to pass through.

~

Several components of the interior have been constructed of materials that gently obscure light and restrict accessibility for the viewer. Examples of this can be seen throughout the four spaces identified as intimate: light-shade above the bed, set of drawers under the window, scrim curtains, and obscured glass bedside table.

Translucency has been used primarily as a veiling surface to create visual obscurity within the interior. It operates on various scales with different use of materials. With the light-shade it is used to manage luminosity, creating atmospheric qualities appropriate to the bedroom setting. A set of drawers with translucent sliding doors reveal neatly folded clothing. The scrim curtains combine the obscuring of light and object; whether closed in the evening or daytime, light is able to pass through on alternative routes across the single layer. The bedside table adds to the levels of opacity by the overlapping of multiple translucent surfaces.

The tool offers a voyeuristic view of the various componentry of E1027. As an observation tool, translucency operates in other media throughout the house, through the use of acoustic connections, the absence of doors, and through reflective surfaces and porous openings.







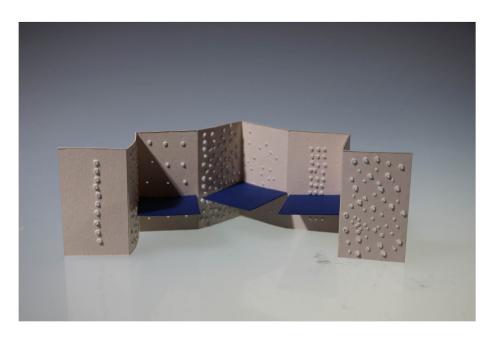


Figure. 4.07. Maquette: Translucent 001

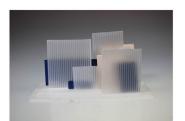






Figure. 4.08. Maquette: Translucent 002





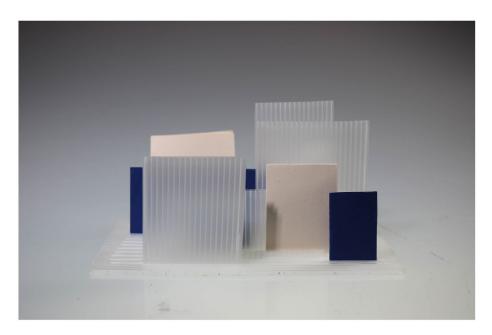


Figure. 4.09. Maquette: Translucent 003







Figure. 4.10. Maquette: Translucent 004





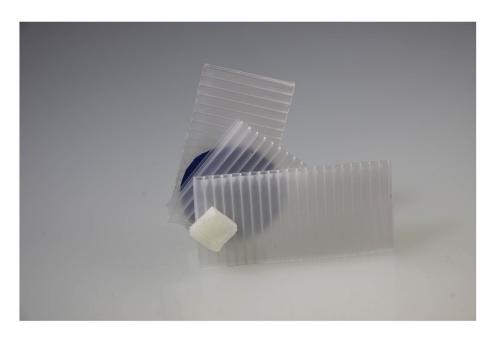
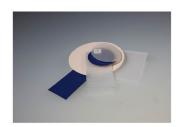


Figure. 4.11. Maquette: Translucent 005





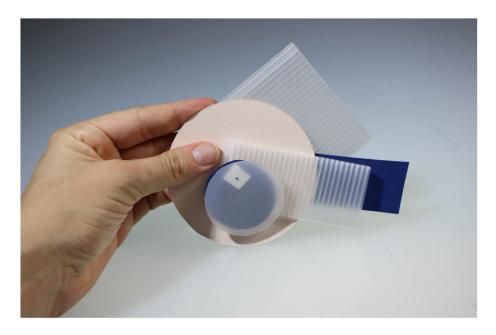
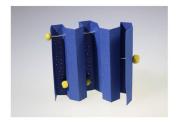


Figure. 4.12. Maquette: Translucent 006





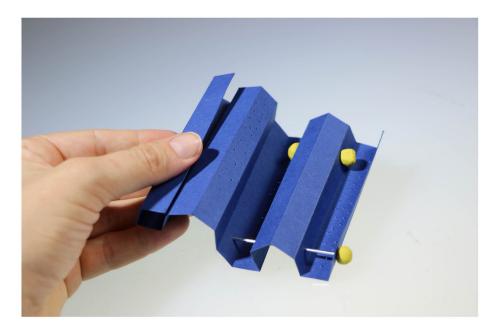
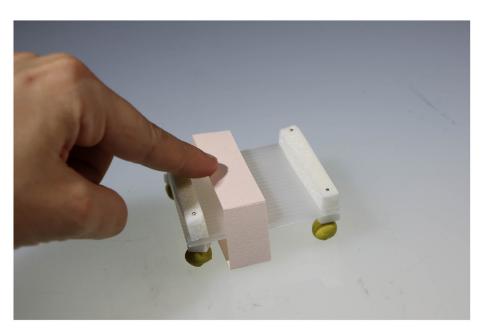


Figure. 4.13. Maquette: Translucent 007











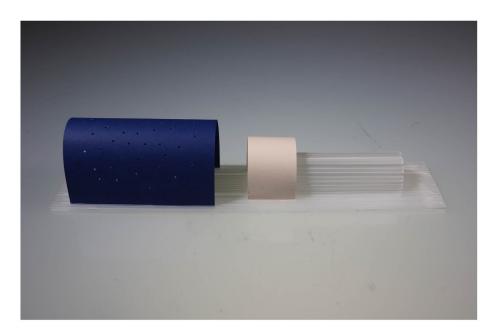


Figure. 4.15. Maquette: Translucent 009





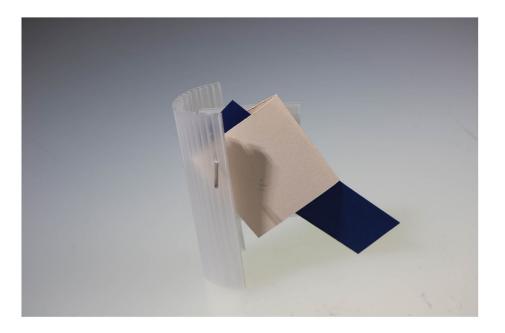
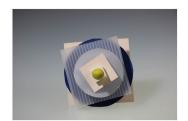


Figure. 4.16. Maquette: Translucent 010





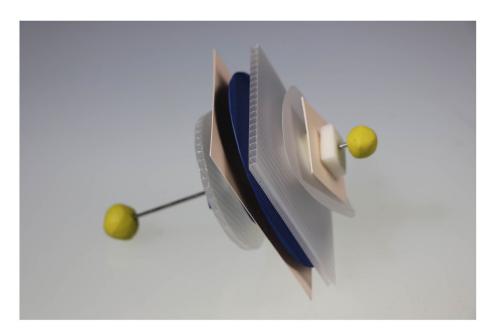
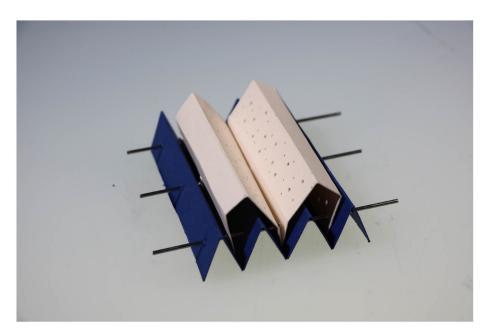


Figure. 4.17. Maquette: Translucent 011







97

4.02. MOVEABLE



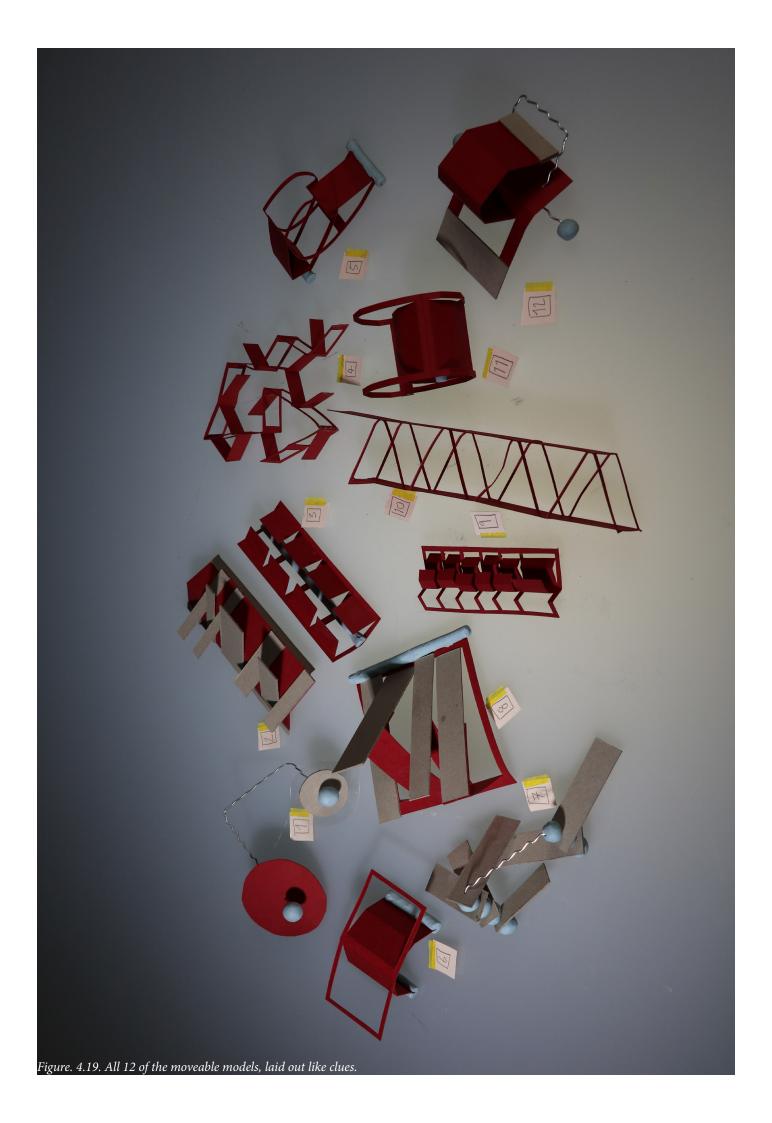
definition: // Capable of being moved; not fixed in one place, position, or posture.

~

The plans and elevations of E1027 show furniture in place with equal conviction as walls, floors and windows. While on a flat surface these elements appear fixed, the photographs reveal a flexibility that allows the occupier to customise the space. Throughout the leisure spaces there are several examples of these architectural prosthetics.

The daybed side table unfolds from the wall with chrome arm extensions. On the wall above, cupboards and cubbyholes slide and unfold as storage compartments; with room for a pillow, a beverage, and a book. Blinds in front of the adjacent door filter light with manual adjustment. A cupboard unit on the southern wall protrudes into the lounge, with drawers that rotate on a single pivot. A central skeletal table with two circular surfaces that swivel, stand on chrome legs. Armchairs, rugs and tables which are not fixed to the floor are placed throughout.

While several of these elements are not fixed, Eileen Gray designed them specifically for the space. Their ability to flex within the room attests to the consideration given to the change of light, number of guests, and personal preference.







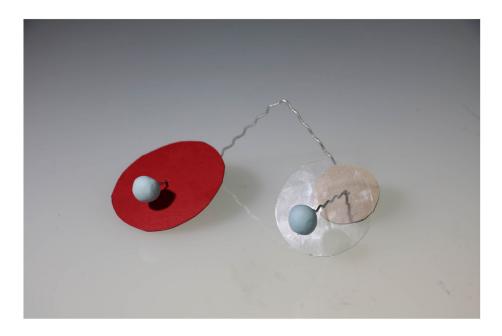


Figure. 4.20. Maquette: Moveable 001







Figure. 4.21. Maquette: Moveable 002





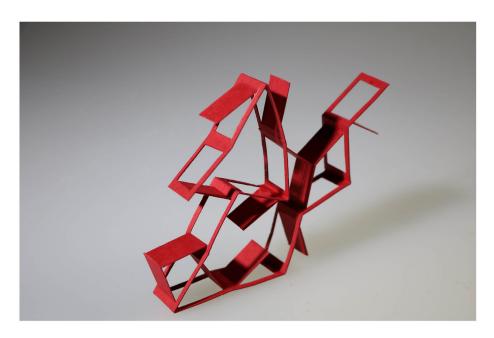


Figure. 4.22. Maquette: Moveable 003





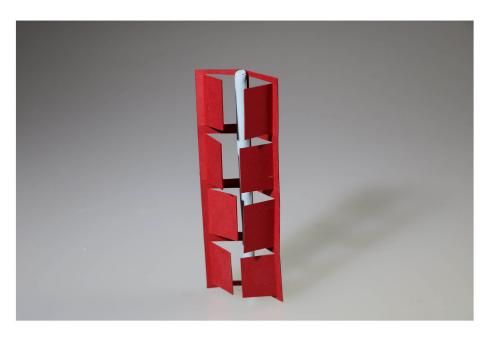


Figure. 4.23. Maquette: Moveable 004





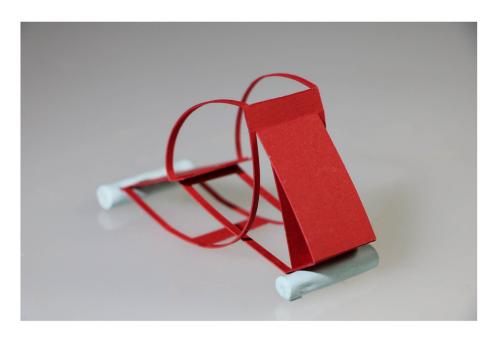


Figure. 4.24. Maquette: Moveable 005







Figure. 4.25. Maquette: Moveable 006





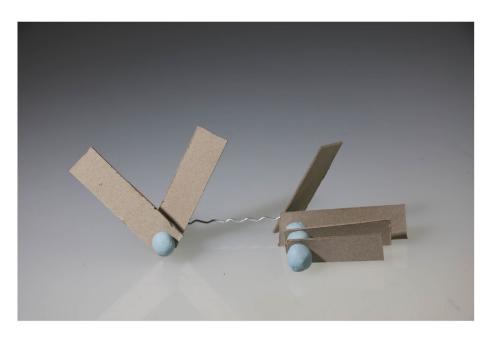


Figure. 4.26. Maquette: Moveable 007







Figure. 4.27. Maquette: Moveable 008





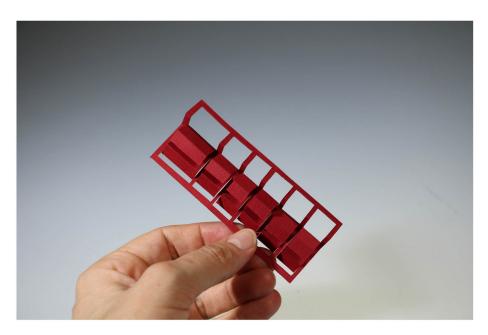


Figure. 4.28. Maquette: Moveable 009





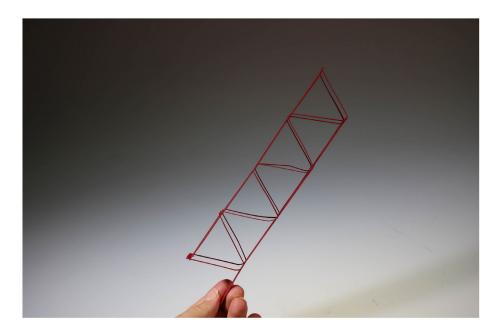


Figure. 4.29. Maquette: Moveable 010







Figure. 4.30. Maquette: Moveable 011





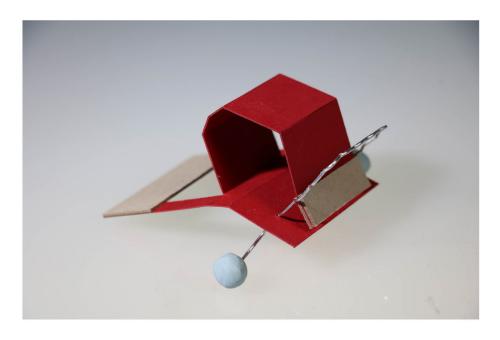


Figure. 4.31. Maquette: Moveable 012

4.03. ROUNDED



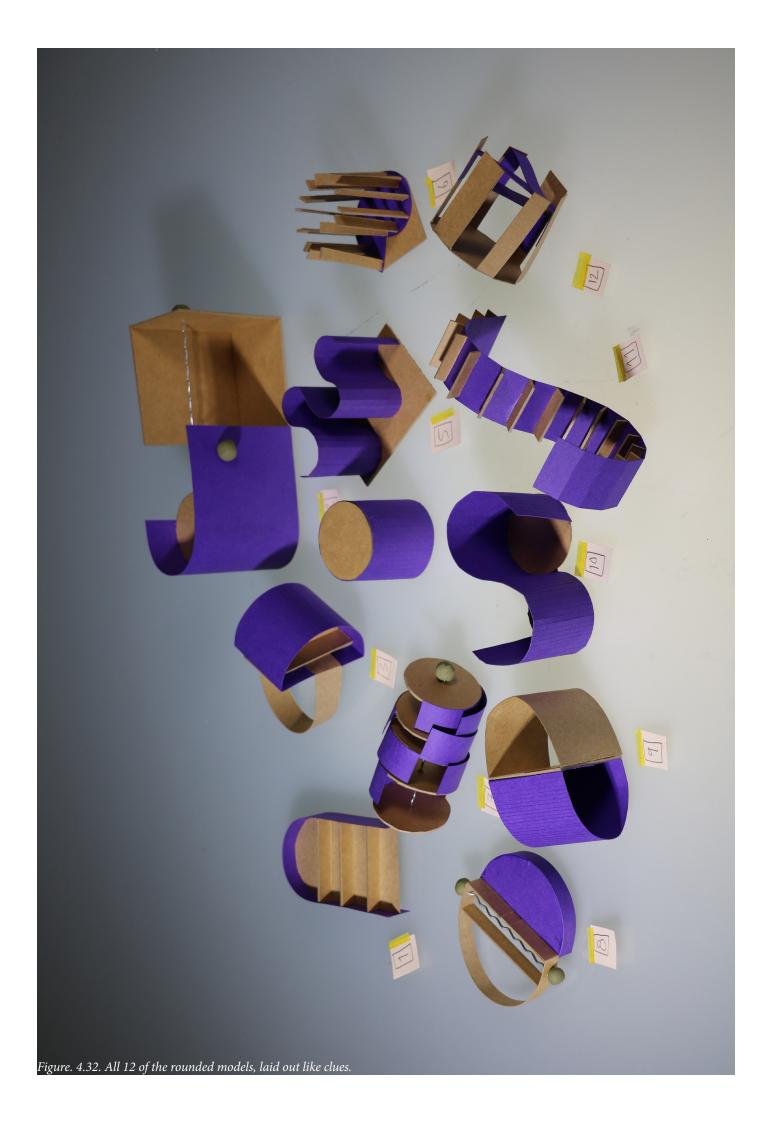
definition: // Having a smooth, curved surface.

~

The curving of a surface to smooth out edges that would usually meet at a point, is a tool that has been used throughout E1027. The threshold spaces offer two strong examples of this tool; the main entry and the spiral staircase.

Rounded edges offer a directional flow for the user. The body can naturally follow the surface, and it acts as a subtle guide. Rounded edges also work with light to throw a less definite shadow on a surface, adding an ambiguity to an interior, whereas a corner is exposed so exactly. The main entrance has three rounded edges; entering from the exterior patio a dark plaster wall guides you to the front door, the first edge encountered on the right guides the occupier to a coat and hat rack, the coat rack then offers soft edges as a transition into the lounge. The staircase is a continuous spiral that transcends the three levels of E1027. It's central location acts as a pivot in the drawings.

Surfaces have been rounded to work together with the body. Other examples of this tool being used can be seen in furniture; drawers, rugs, mirrors, bidets and basins. Their ability to acknowledge movement, and even provoke it, works seamlessly with the other five tools to create a comfortable and lively experience.





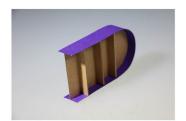




Figure. 4.33. Maquette: Rounded 001





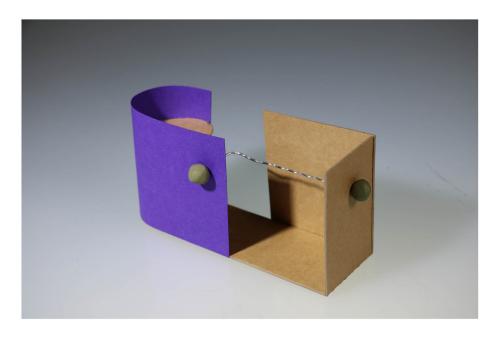


Figure. 4.34. Maquette: Rounded 002







Figure. 4.35. Maquette: Rounded 003







Figure. 4.36. Maquette: Rounded 004





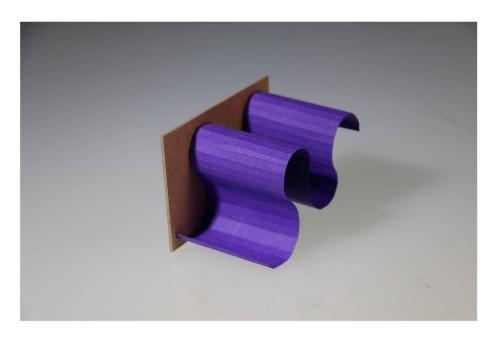


Figure. 4.37. Maquette: Rounded 005







Figure. 4.38. Maquette: Rounded 006





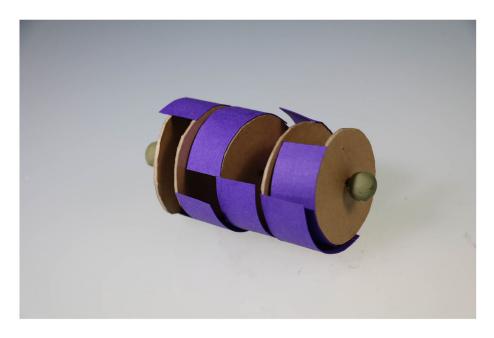


Figure. 4.39. Maquette: Rounded 007





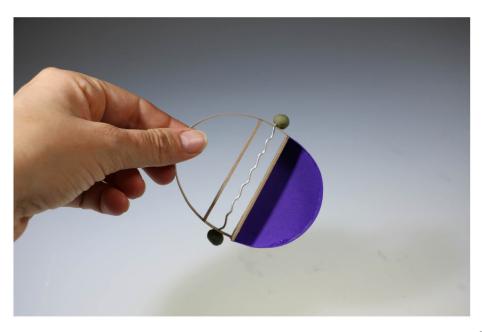


Figure. 4.40. Maquette: Rounded 008





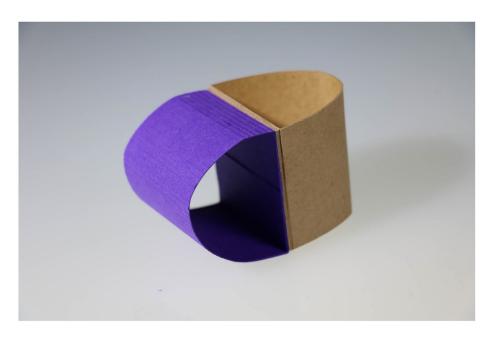


Figure. 4.41. Maquette: Rounded 009







Figure. 4.42. Maquette: Rounded 010





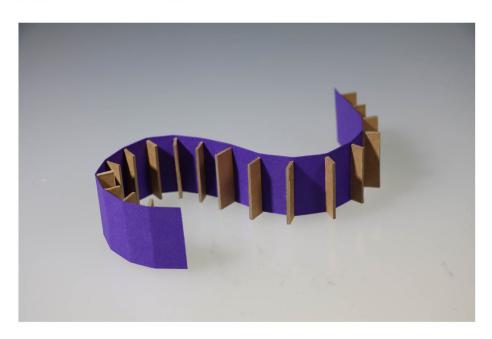


Figure. 4.43. Maquette: Rounded 011





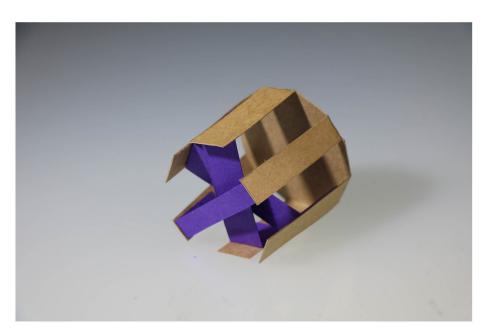


Figure. 4.44. Maquette: Rounded 012

4.04. REFLECTIVE



definition: // Causing light, sound, or heat to move away : reflecting light, sound, or heat.

~

The quality of reflecting or being reflective is more of a consequence than a construction. It requires a surface treatment but also demands the complementary element of light. Reflective surfaces are dominant within the hygienic spaces, as they are generally non permeable and easy to clean. They also give the illusion of a space larger than the actual form.

Flooring in all of the rooms is consistently made from tile. Both bathrooms have a black floor, while the bedroom basins have white. Each of the hygienic spaces are equipped with a basin and at least one mirror. The bathroom adjoining the main bedroom exhibits a multitude of reflective surfaces; the bath elevation is a shiny silver and is surrounded by glossy black tiles. There is one full-length mirror on the eastern wall and one smaller mirror above the basin. The taps in all of the hygienic settings are made of chrome and the basins are porcelain white.

Reflective surfaces are generally easy to clean, as they are made with hard, non-absorbent materials. This ensures that dirt can be eliminated easily, and cleanliness, which coincides with hygiene, can be achieved.

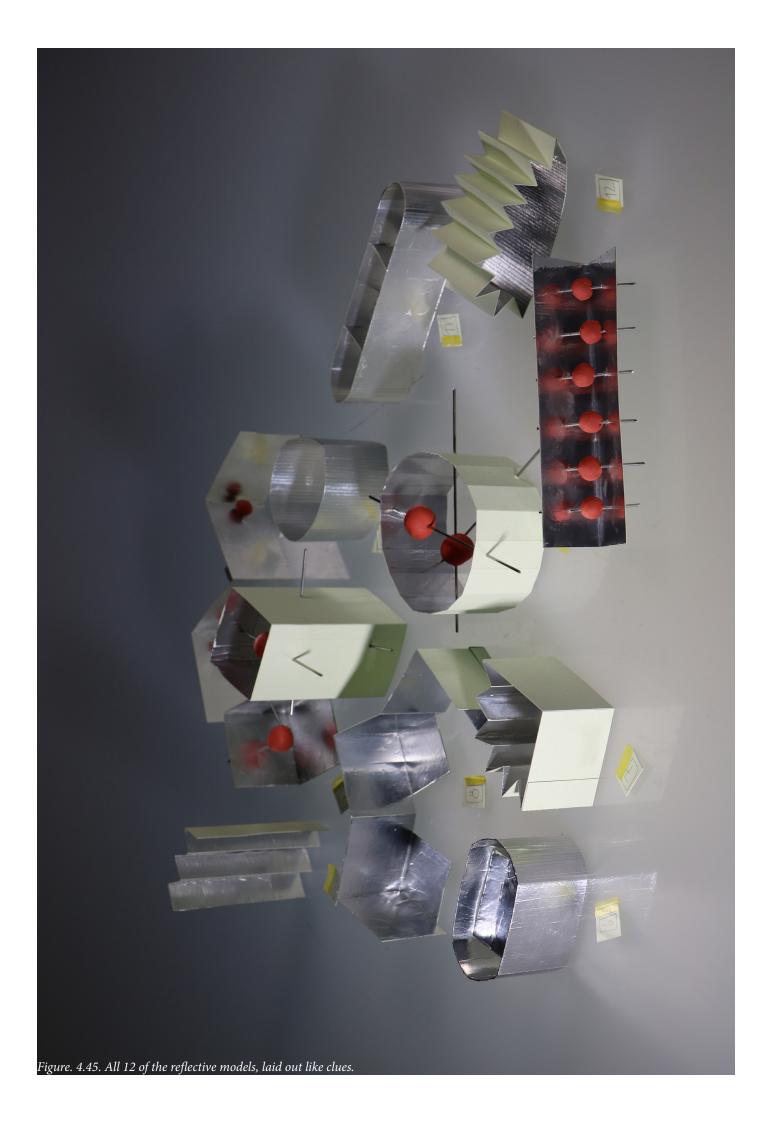








Figure. 4.46. Maquette: Reflecting 001





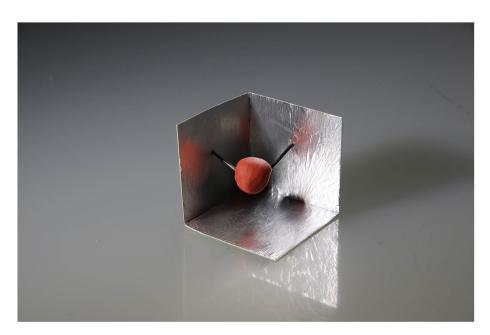


Figure. 4.47. Maquette: Reflecting 002





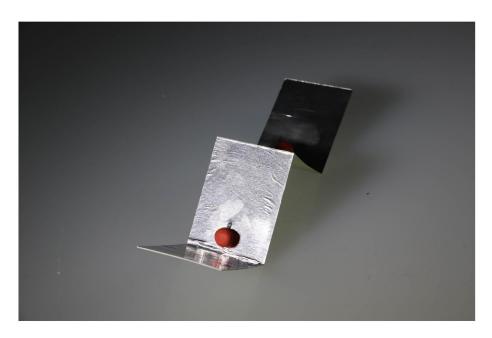


Figure. 4.48. Maquette: Reflecting 003





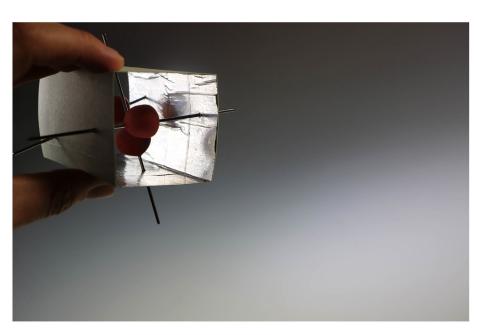
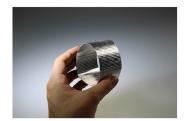


Figure. 4.49. Maquette: Reflecting 004





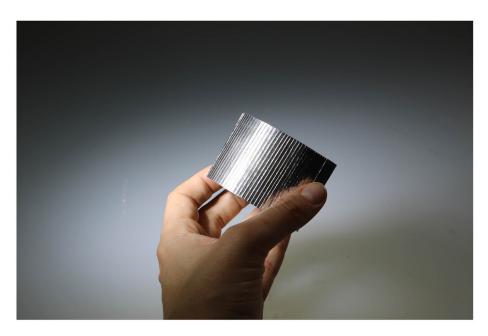


Figure. 4.50. Maquette: Reflecting 005







Figure. 4.51. Maquette: Reflecting 006







Figure. 4.52. Maquette: Reflecting 007







Figure. 4.53. Maquette: Reflecting 008





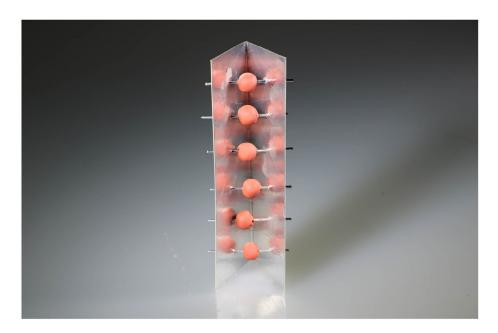


Figure. 4.54. Maquette: Reflecting 009





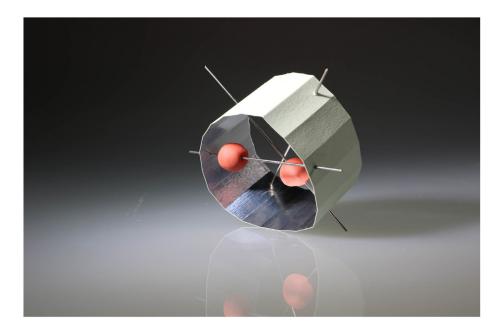


Figure. 4.55. Maquette: Reflecting 010







Figure. 4.56. Maquette: Reflecting 011





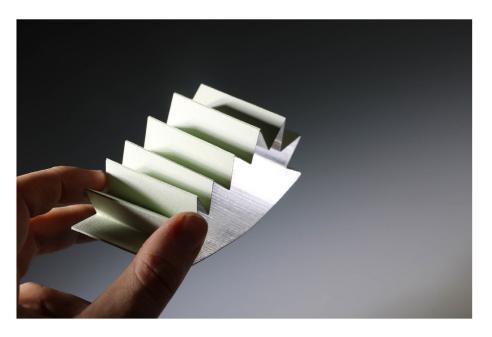


Figure. 4.57. Maquette: Reflecting 012

4.05. POROUS



definition: // Allowing passage in and out

~

Elements of E1027 permanently and temporarily open up to exterior elements. The ground floor terrace is punctured with openings on three sides, North, South and West. While it is sheltered from overhead weather, wind and light are still able to travel through the excavated walls.

The ground floor terrace is a place to find reprieve from the heat, rest in an armchair or gain access to the guest and maid quarters. Sitting on pilotis legs, the formation of this structure gives the building a lightness that Le Corbusier sought in his manifestation, '5 Points of Architecture' (Le Corbusier). The first floor balconies also become porous spaces with the adjustment of bifolding doors and windows. Internal spaces are able to substantially expand, introducing exterior elements otherwise only offered through window openings.

As a tool, porousness allows not only for a flow of air and natural elements, but also people. Occupational direction can be enhanced or reduced, exhibiting levels of control and adaptability.







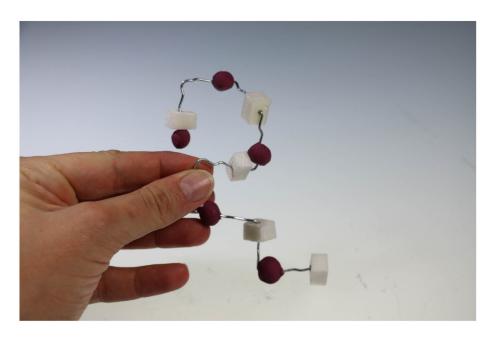


Figure. 4.59. Maquette: Porous 001







Figure. 4.60. Maquette: Porous 002





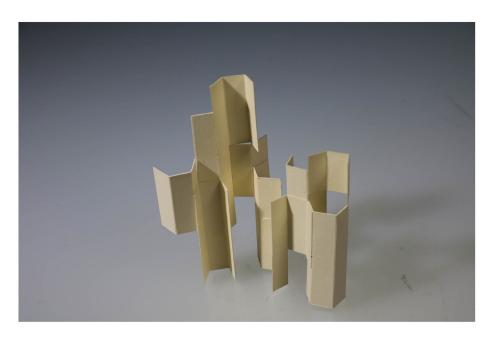


Figure. 4.61. Maquette: Porous 003





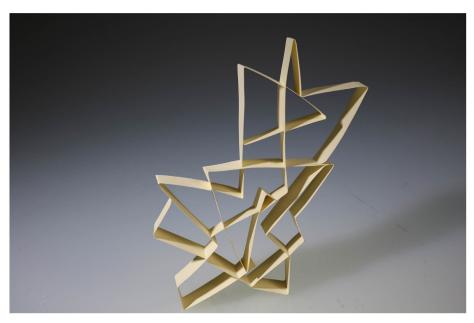


Figure. 4.62. Maquette: Porous 004





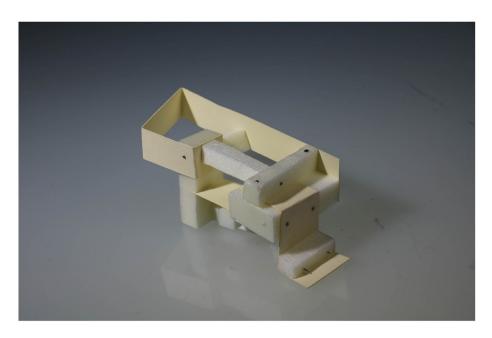


Figure. 4.63. Maquette: Porous 005





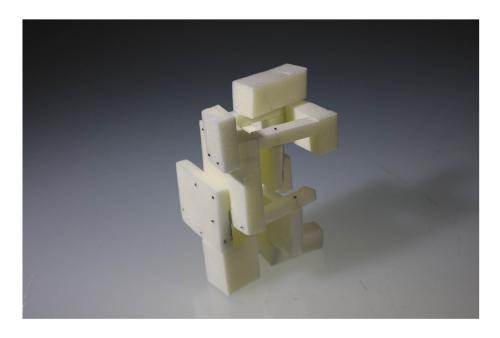


Figure. 4.64. Maquette: Porous 006





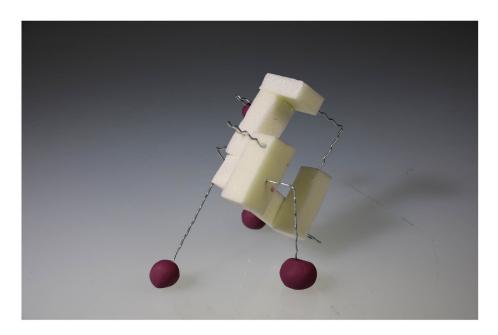
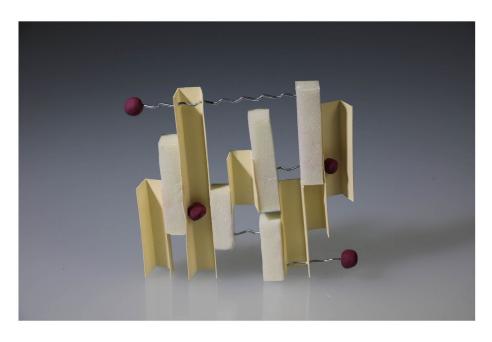


Figure. 4.65. Maquette: Porous 007











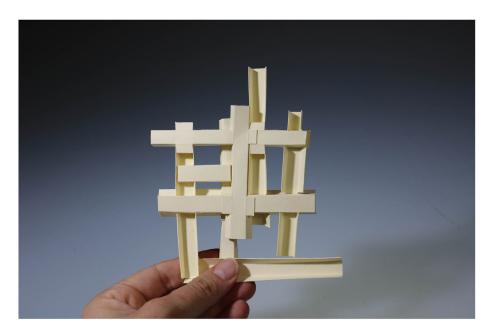


Figure. 4.67. Maquette: Porous 009





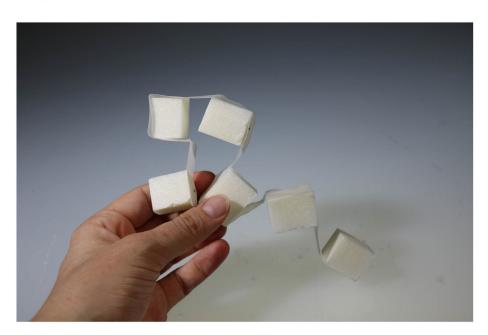


Figure. 4.68. Maquette: Porous 010



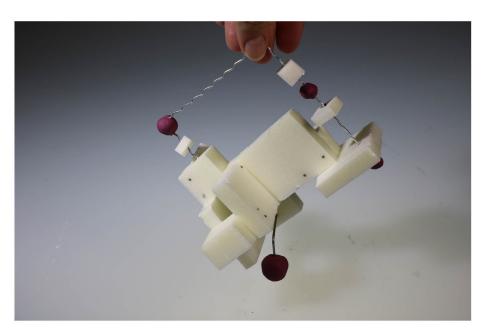




Figure. 4.69. Maquette: Porous 011







4.06. CONTRASTING



definition: To be different, especially in a way that is very obvious

~

Service spaces have been defined as those that serve the main part of the house. This includes the two kitchens, the laundry, and the undefined downstairs room on the north wall.

The kitchens form a large part of the service area, and are the only service areas of the house on the upper floor. They have been divided in two, summer and winter, and contrastingly operate outside and inside. The winter kitchen is fully enclosed, whereas the summer kitchen is open to the elements. These two settings reflect the temperature variation which the differing seasons provide. Contrasting materials and colours have also been used to define elements within the space. The shelving units and walls are divided between dark and white colours. White tea cups are set against a lacquered black wall. Panes of glass on the north and west wall contrast with the solid, plastered wall on the south and east.

Documentation for the downstairs service areas are minimal, with no original photographs of some spaces.

Contrasting colours have been used throughout the entire house. Different shades of floor tiles represent room allocations, paint on the walls gives the illusion of lowering the ceiling height, and pieces of furniture are defined by their palette.









Figure. 4.71. Maquette: Contrasting 001



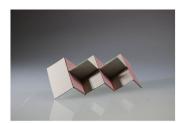




Figure. 4.72. Maquette: Contrasting 002







Figure. 4.73. Maquette: Contrasting 003





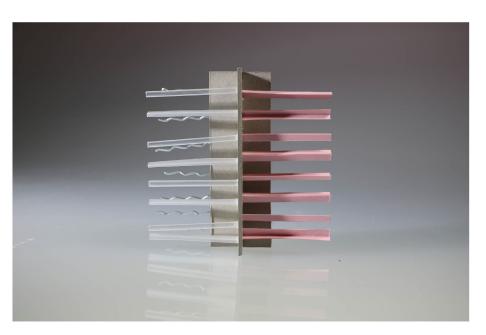








Figure. 4.75. Maquette: Contrasting 005





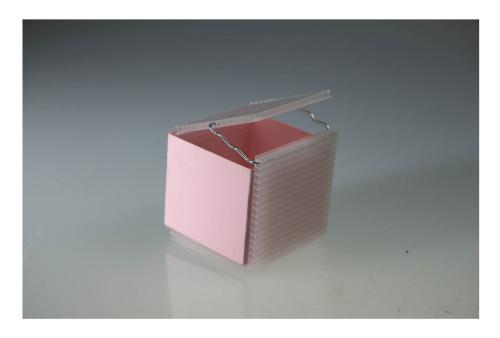


Figure. 4.76. Maquette: Contrasting 006





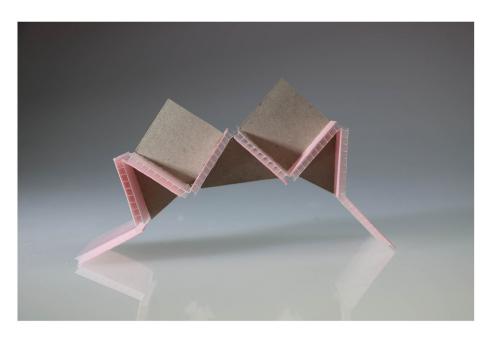


Figure. 4.77. Maquette: Contrasting 008











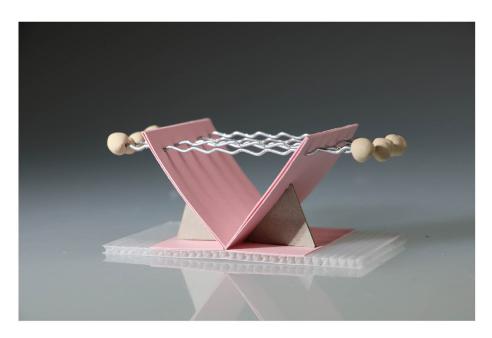


Figure. 4.79. Maquette: Contrasting 009



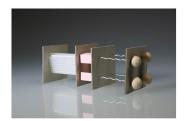




Figure. 4.80. Maquette: Contrasting 010







Figure. 4.81. Maquette: Contrasting 011







4.07. FORMAL EVALUATION

Not all of the 72 models were successful. A certain level of production was required, in order to generate a multitude of ideas. As seen on the exterior of the archive boxes (Fig. 4.04), the dates of manufacture vary from one day to one week. A rhythm developed for some models, and lacked in others, contributing to an inconsistent success rate.

A successful maquette is recognised by its ability to represent an existing detail, and how well the materials used are able to translate into future prototypes. When the materials used were transformed in a way that best promoted their physical qualities, the maquettes communicated a detail most successfully. Unsuccessful maquettes were generally too abstracted from the initial detail they were attempting to imitate, or they were later too difficult to interpret as an architectural element.

The materials used within this maquette making exercise were deliberately limited. There was a consistent use of cardboard, paper, moulding clay, steel rods, reflective tape, core flute and foam blocks. This narrow selection of materials was determined by availability, cost, scale and usability. While it made for ease of construction, travel and storage, there were noticeable limitations with how the maquettes could be constructed. Paper as a substitute for walls, flat surfaces, corners and edges was productive due to its strong but malleable qualities. However, upon reflection, the moulding clay rarely represented the existing details. The clay was more often used to finish sharp edges or achieve a curved free-form not otherwise possible with some of the more architecturally accurate materials. It did, however, introduce new elements to the maquettes that add a richness to the diversity in detailing.

5.0 THE ARCHITECTURE SCHOOL

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The Eileen Gray Architecture School for Women will enrol ten students each year. The duration of the program will be five years, resulting in a total cohort of 50 students. On site accommodation will be provided for every student, along with workshops, teaching spaces, studios and a library.

Workshops will perform an important role in the education of the students, to build confidence in making within the various workshops: wood, metal, and ceramics. The curriculum will expand every year, beginning with basic training in drawing, painting, model making and experimental work. The final year will focus on a research-through-design based thesis.

By providing the students with on site accommodation, the school promotes a social network between peers. Individual accommodation units are offered to all students, as collaboration within the school environment will be advocated, therefore a private space at the end of the day is deemed necessary.

The architecture school will consist of twelve spaces. They are as follows: entrance, trainstation, studios, workshops, lecture theatre, gallery, library, accommodation, kitchen, bathrooms, toilets and coastal access. The design of these spaces will be informed by the maquettes produced under each spatial category in chapter 4.0. Designing twelve spaces ensures that two spaces can be allocated to each architectural tool, to test how successfully they can inform a design.

The exclusion of men from the program is an act that facilitates growth of women in architecture. The profession, like the site of E1027, has a dominant masculine orientation (Ahrentzen) that can be reorientated by the active inclusion and recognition of women. This begins with the support, encouragement and opportunities available within architectural education.

The design process will follow on from the research in Part One, by categorising the spaces with their respective tools. These groups are organised by their similarities in occupation as seen in E1027.

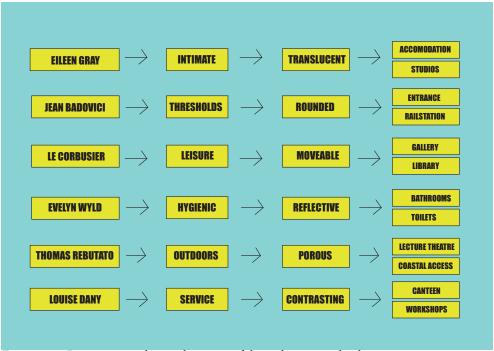


Figure 5.01. Diagram introducing the spaces of the architecture school.

Each of the twelve maquettes created in chapter 4.0 will then produce two designs (A + B). Aspects learned in the maquette making process will perform as direct influence to the design of spaces, in the use of form and performance.

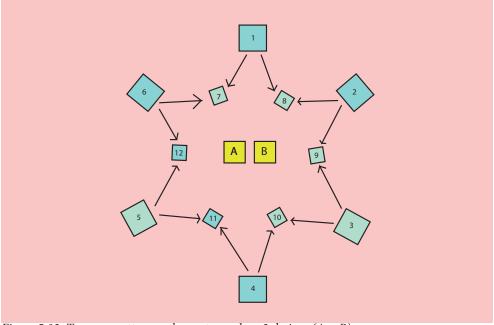
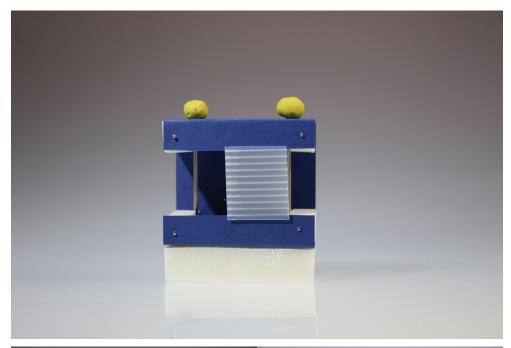
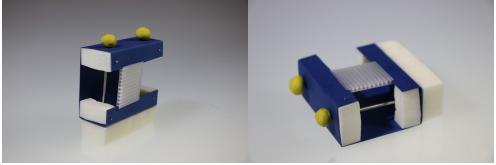


Figure 5.02. Two maquettes are chosen to produce 2 designs (A + B).

5.01. ACCOMMODATION





Maquette: Translucent 002

~

The translucent screen within this maquette became the centre of inquiry. While there are several elements within the maquette that could be translated into an architectural detail, Eileen Gray used the screen not only in E1027 but several other of her interior projects. Gray's use of the screen enabled a dynamic use of space, complementing the modern use of open plan living. Operating as both an architectural wall and piece of furniture, it is used as a way to designate and divide interior space without conforming to a fixed location.

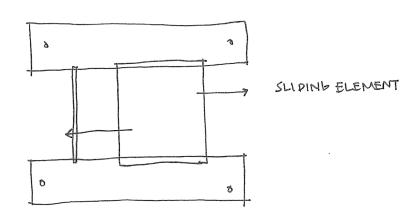
EILEEN GRAY

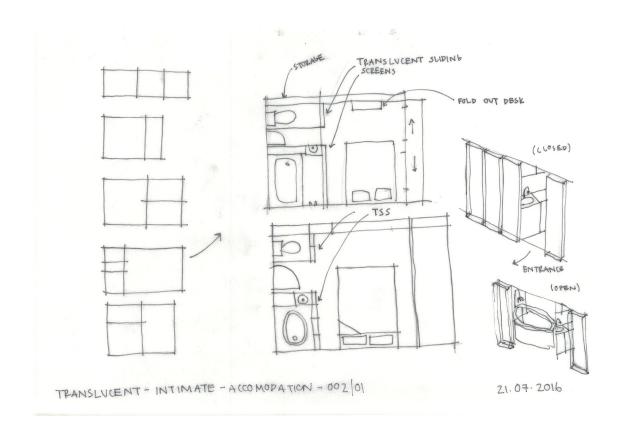
INTIMATE

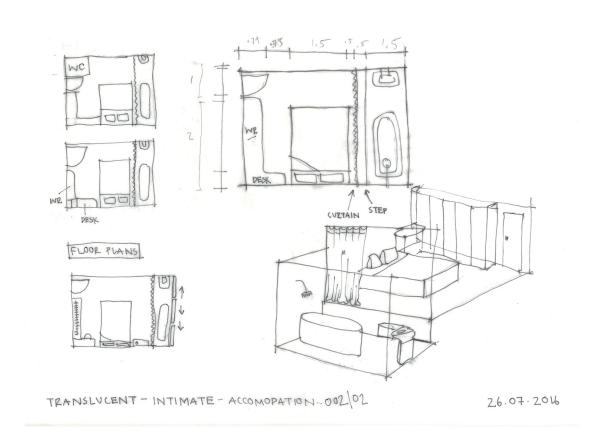
TRANSLUCENT

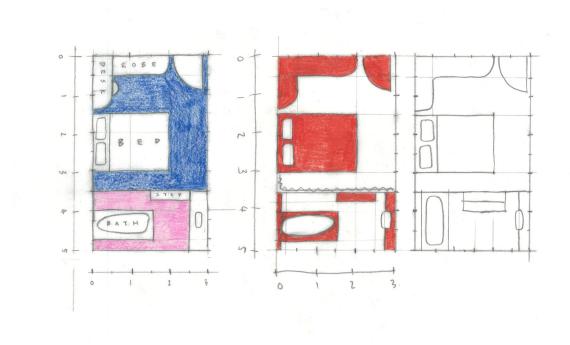
ACCOMODATION

STUDIOS



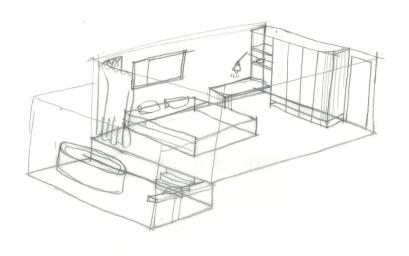




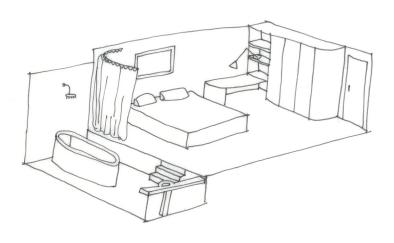


TRANSLUCENT - INTIMATE - ACCOMODATION - 002 03

09.09.2016



TRANSLUCENT - INTIMATE - ACCOMOPATION - 002/04



TRANSLUCENT - INTIMATE - ACCOMODATION - 002 05

09.09.2016

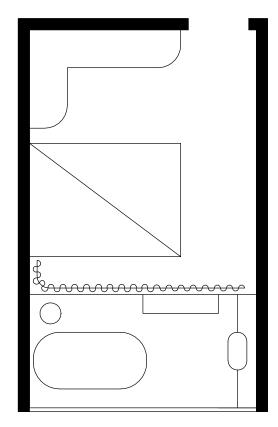
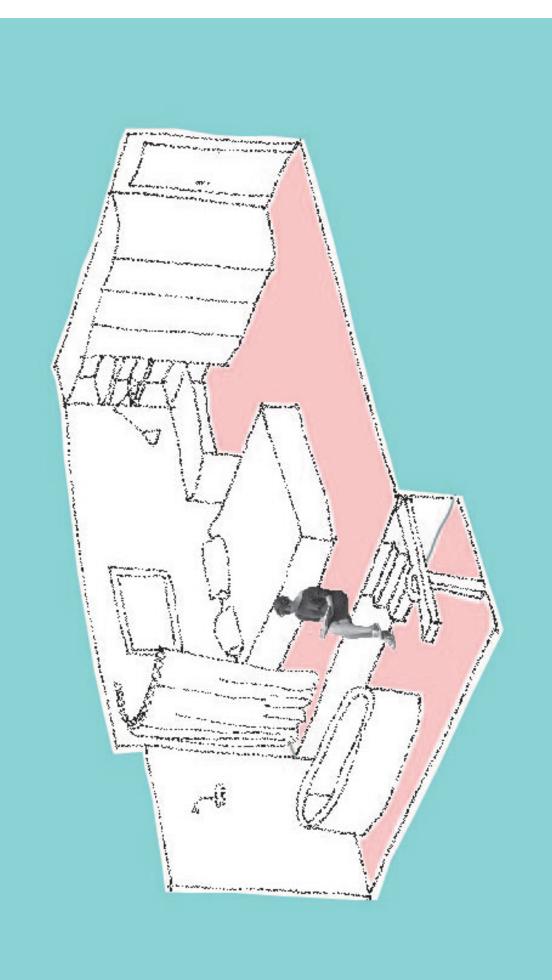
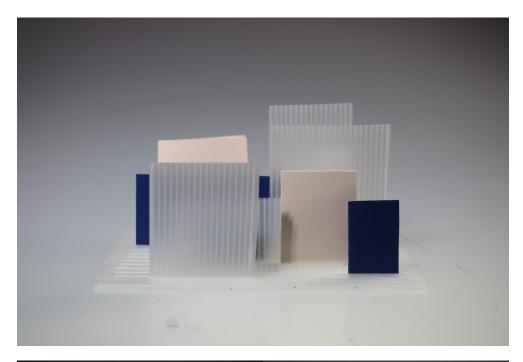
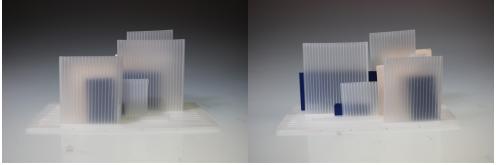


Figure. 5.03. 1:50 Accommodation



5.02 STUDIOS

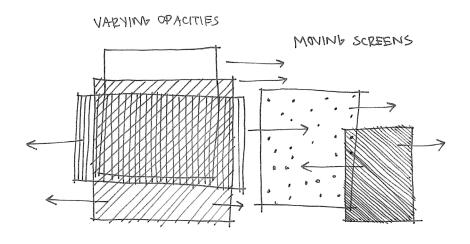


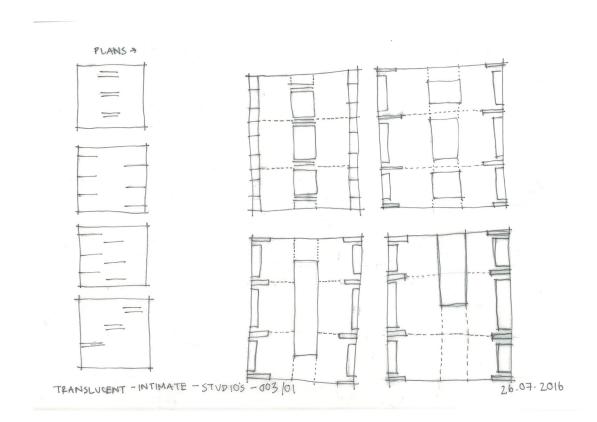


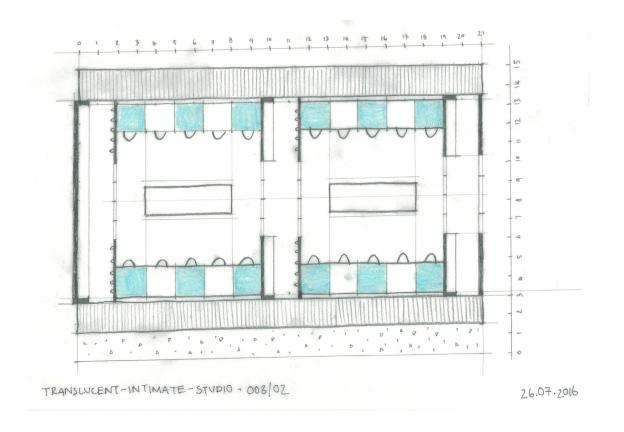
Maquette: Translucent 003

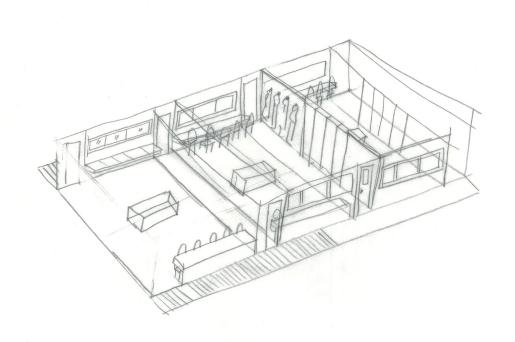
~

Translucent vertical elements directly translated into architectural surfaces. The investigation into screens for the accommodation were applied in a similar way. Translucency offers a way to separate spaces or objects without disconnecting the parts entirely. For students working in the studio environment, they need a space to connect, discuss and work together, but also the option for more independent study. Sliding screens allow the space to expand its volume without having to design two independent rooms.



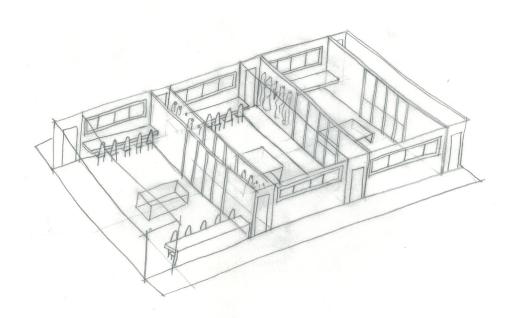






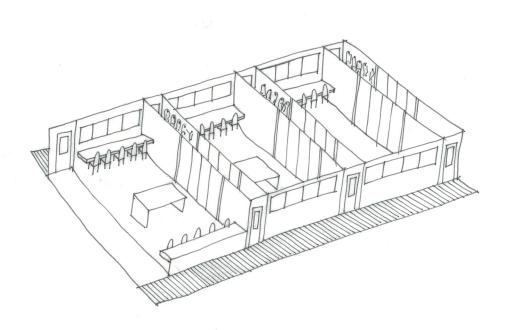
TRANSLUCENT - INTIMATE - STUDIO - 003/03

10.08.2016



TRANSLUCENT-INTIMATE - STUDIO - 003/04

10.08.2016



TRANSLUCENT-INTIMATE-STUDIO -003/05

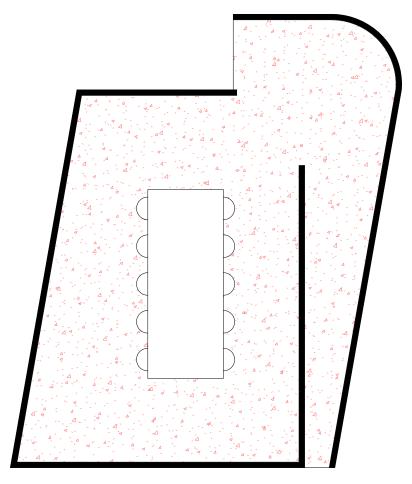


Figure. 5.04. 1:100 Studios.

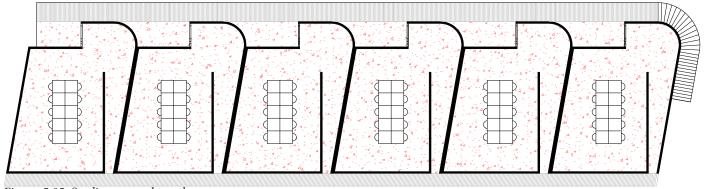
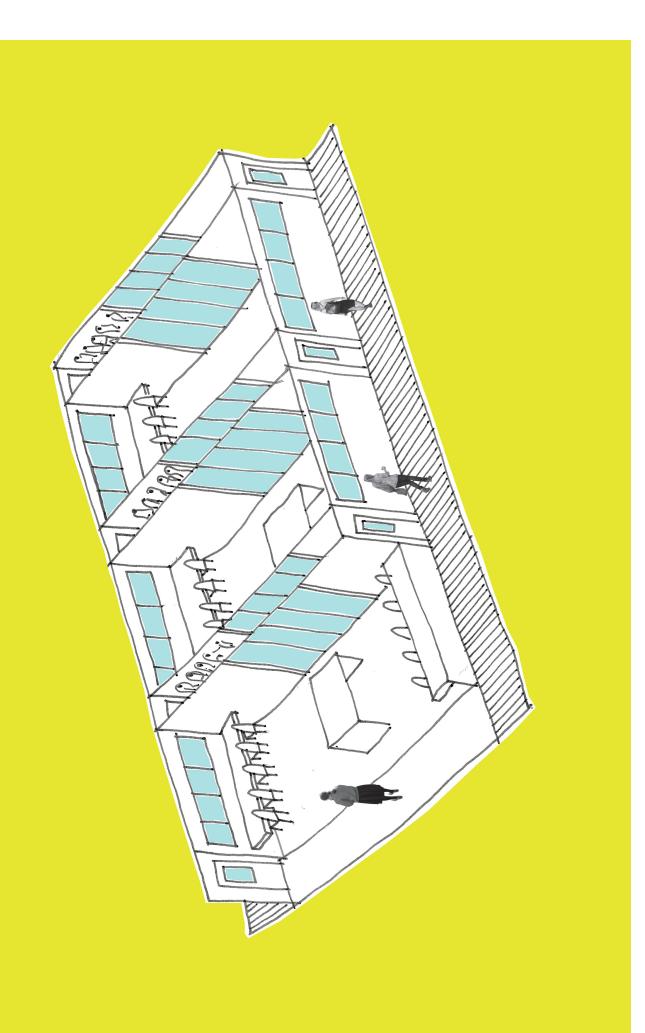
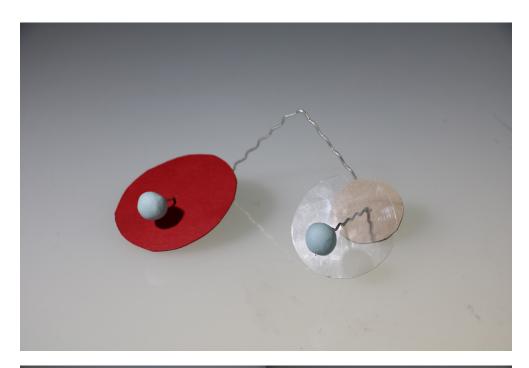


Figure. 5.05. Studios grouped together.



5.03 GALLERY

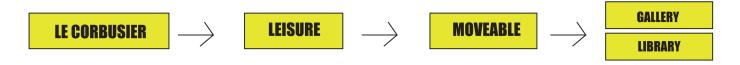


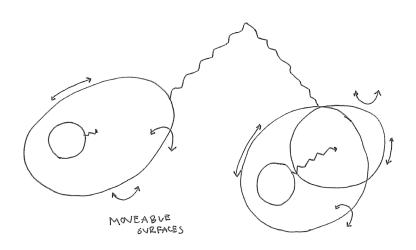


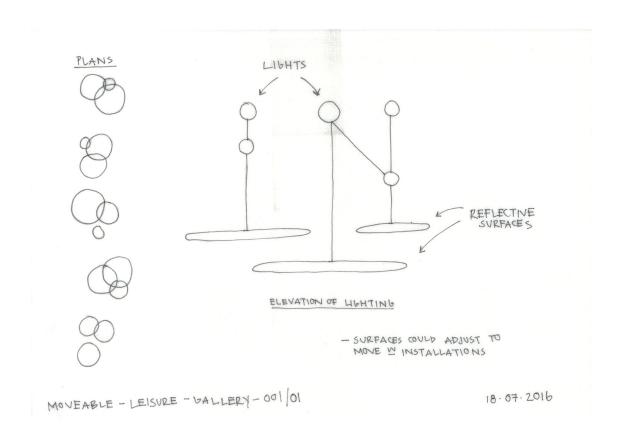
Maquette: Moveable 001

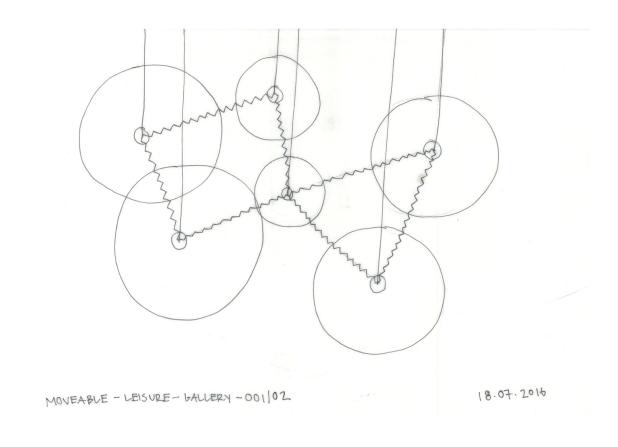
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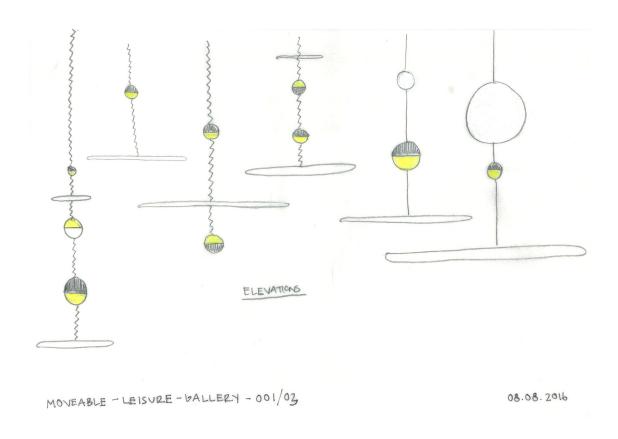
The maquettes have no scale, meaning they have the potential to inform an entire plan or a minute detail. The gallery where students will present their work requires an adaptable space with plenty of room on the walls. Therefore, it made sense to work with a maquette that could inform a detail on a smaller scale, such as the lighting fixture. Movable parts ensure flexibility with directional illumination, while the central fixing ensure general soft illumination at all times.

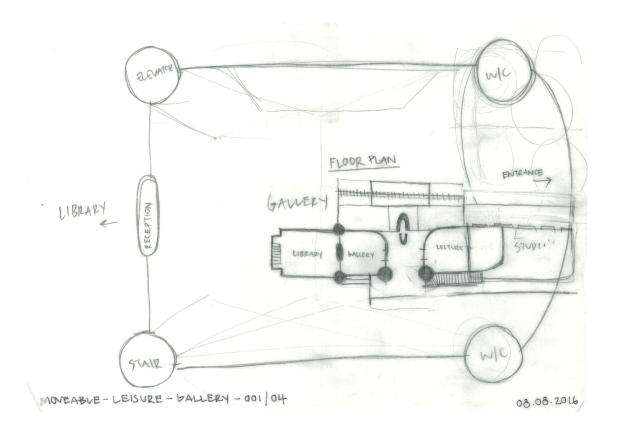


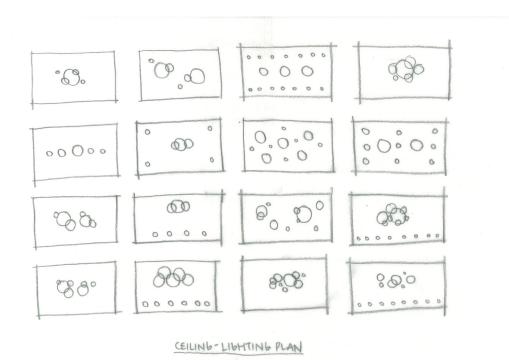






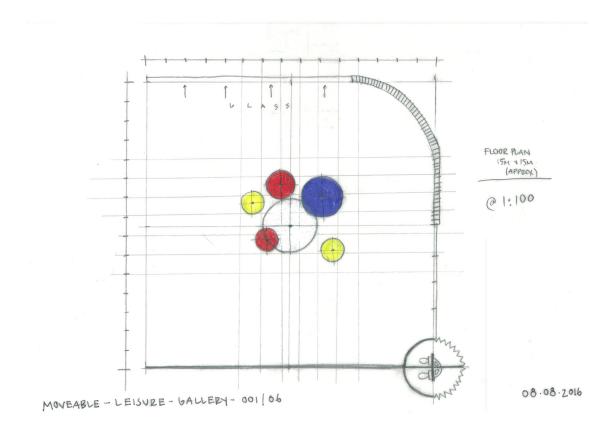


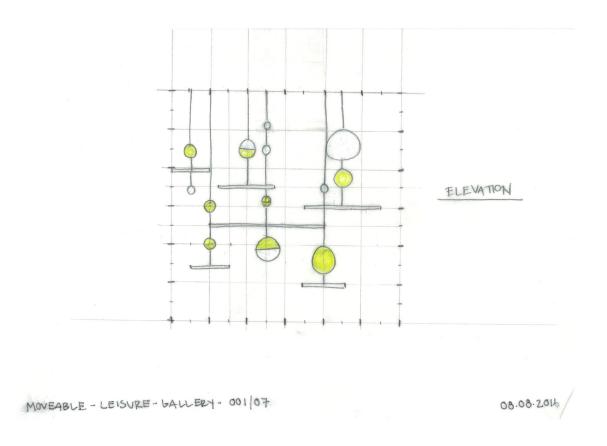


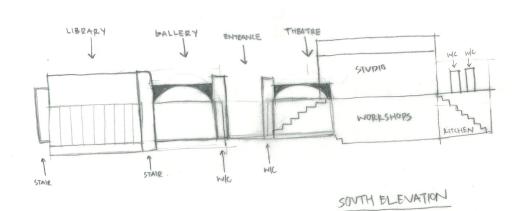


MOVEABLE - LEISURE- GALLERY - 001/05

08.08.2016

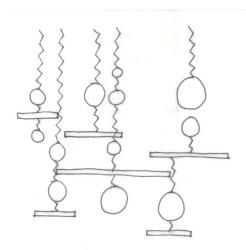






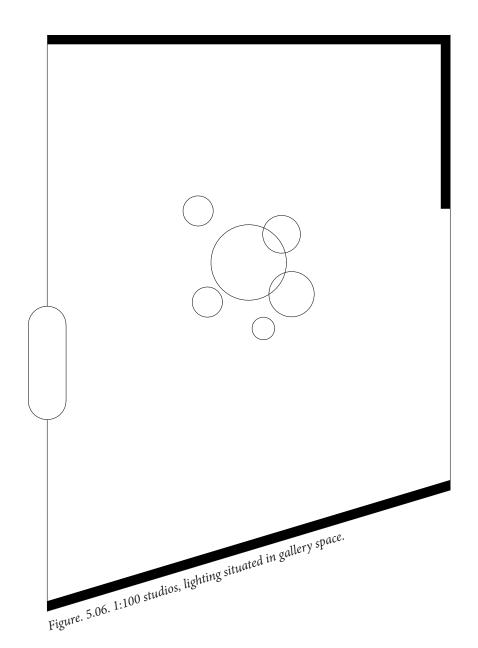
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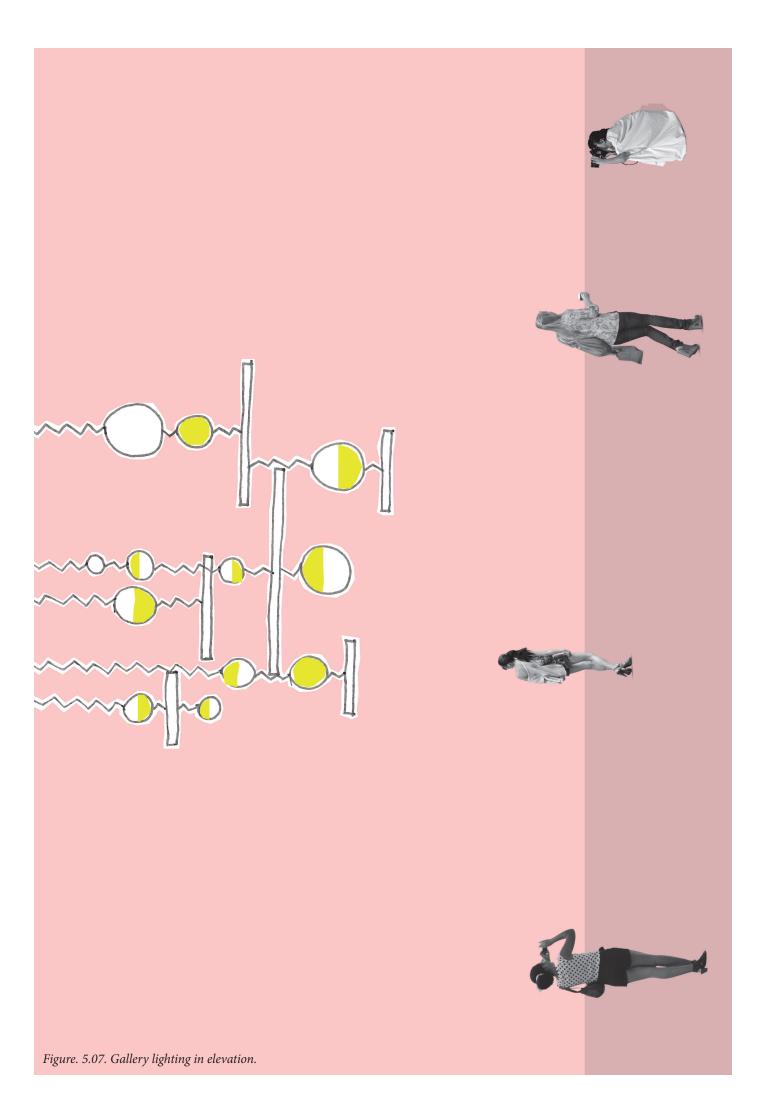
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5.04 LIBRARY

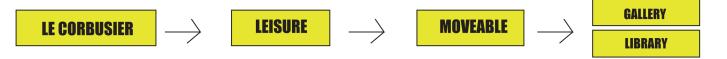


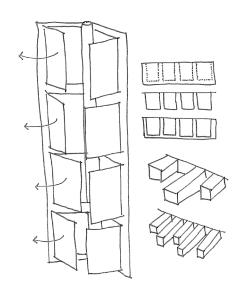


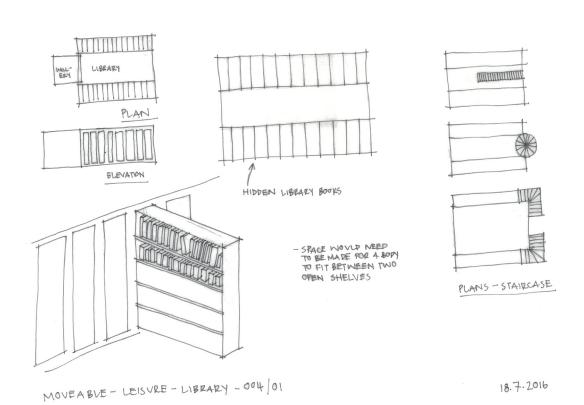
Moveable 004

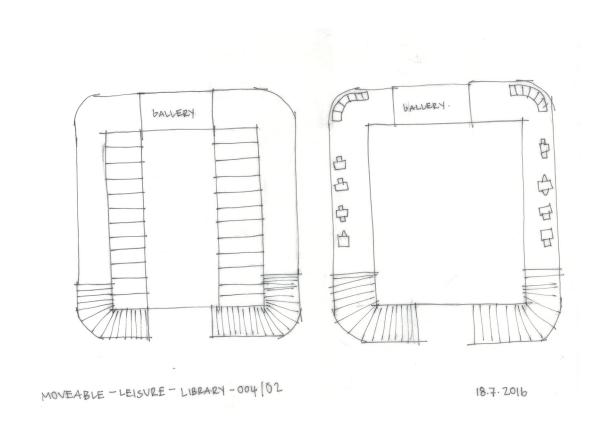
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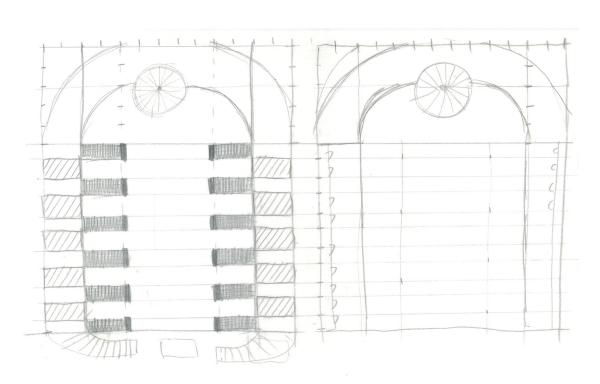
Throughout E1027 there are multiple surfaces that expand and contract with the opening and closing of doors, windows, mirrors, drawers, and cupboards. These moveable parts are activated through the engagement of the user and contribute to the flexibility of the spaces they are built into. The library will operate as a secondary presentation space to the lecture theatre, where more informal discussions and talks can take place. It will also be connected to the gallery to ensure that not all spaces are considered as islands and there is a physical connection with the designs.





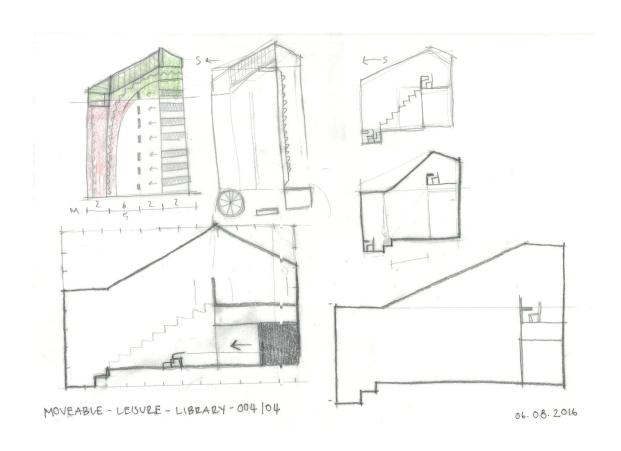


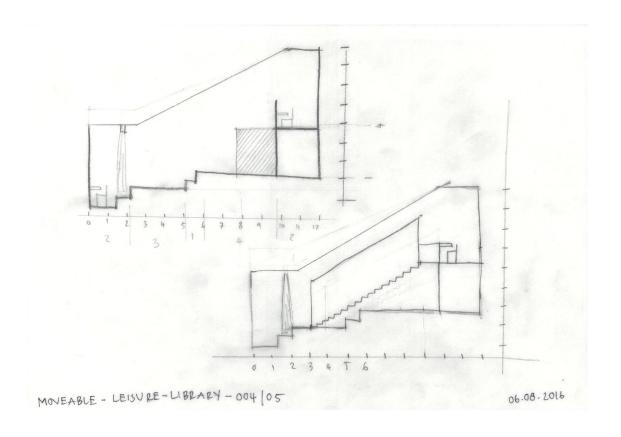


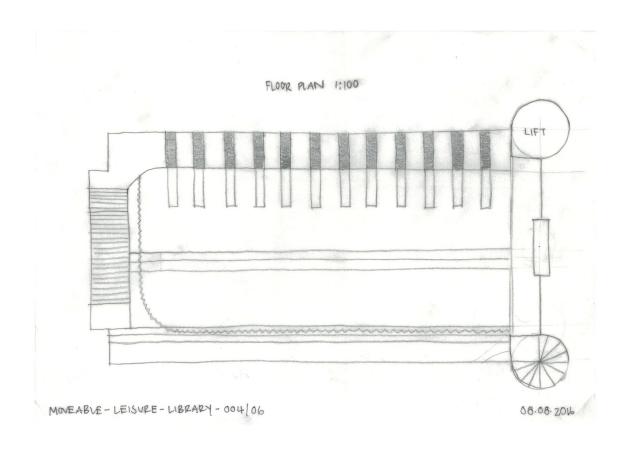


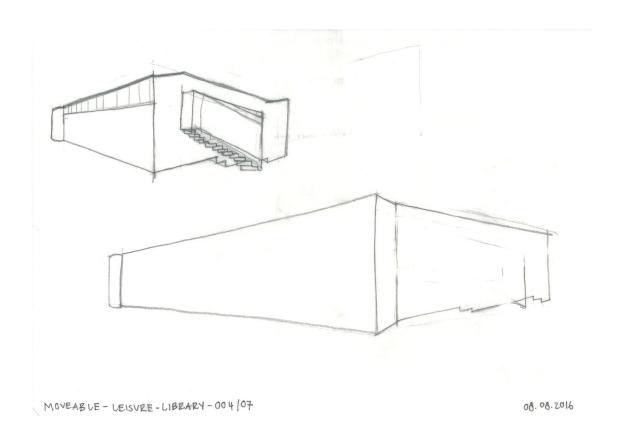
MOVEABLE - LEISURE - LIBRARY - 004 103

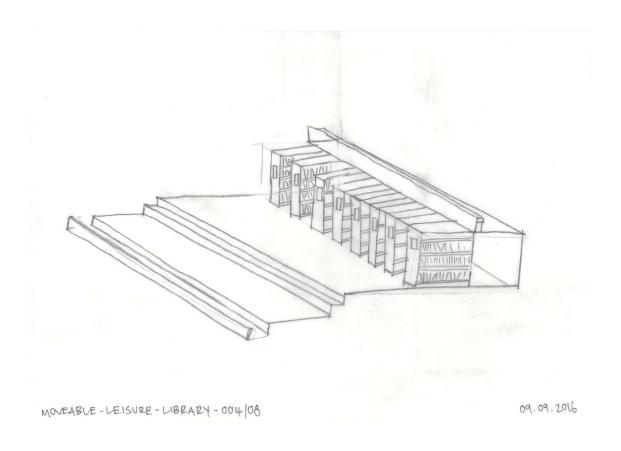
02-08-2016

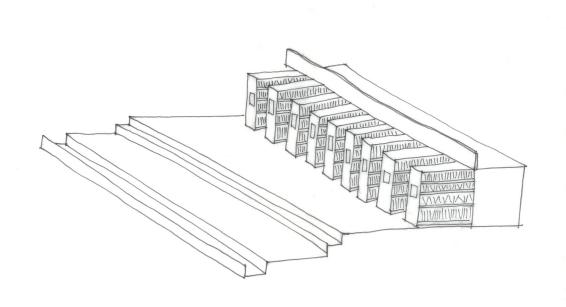












MOVEABLE - LEWURE - LIBRARY - 004 109

09.09.2016

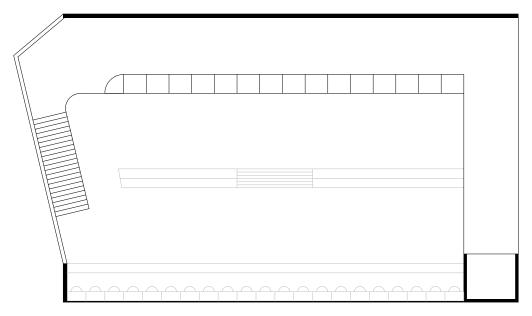


Figure. 5.08. 1:100, Library Mezzanine.

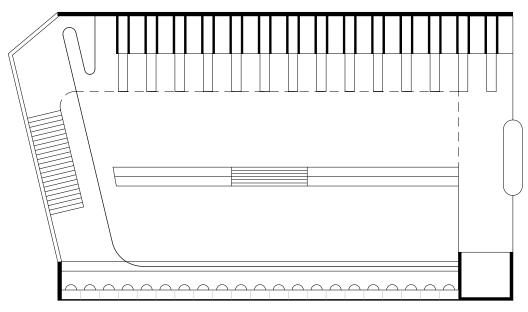


Figure. 5.09. 1:100, Library Ground Floor.

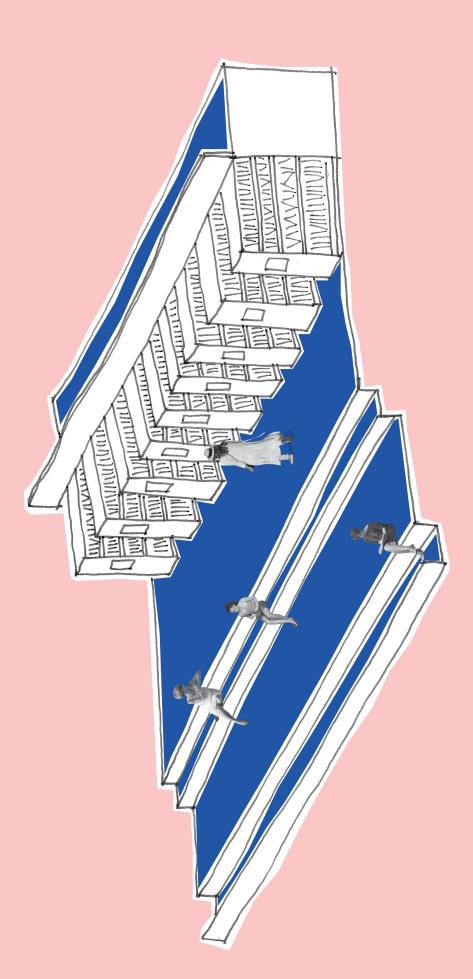


Figure. 5.07. Library ground floor axonmetric.

5.05 ENTRANCE

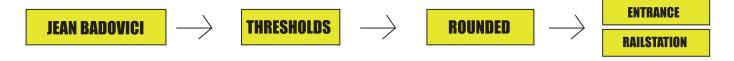


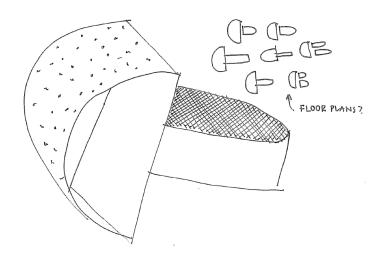


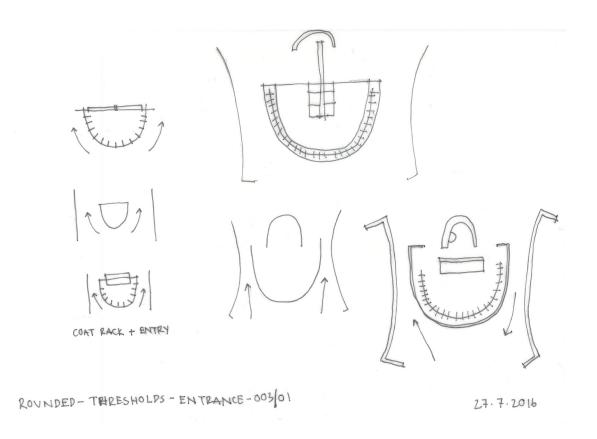
Maquette: Rounded 003

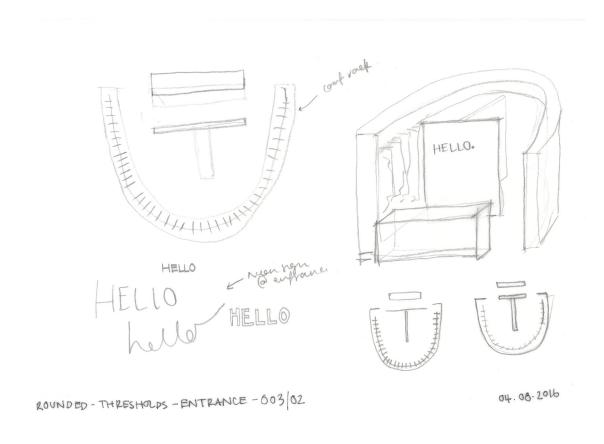
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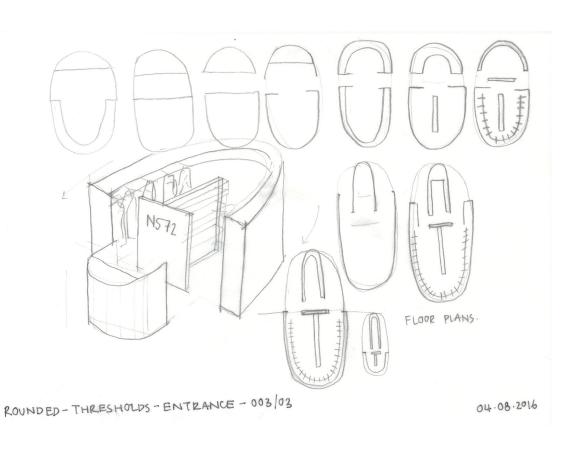
The main access to the school will be made possible by the integration of a trainstation. Foot access will still be possible, but traffic will be lead to the train station as the main point of arrival. The design of the entrance therefore must be integrated into the train station. It should also be noted that there are several spaces within the school that could be used for the public as well, such as the lecture theatre and library. An entrance central to these services would ensure the potential for secondary groups to use these spaces.

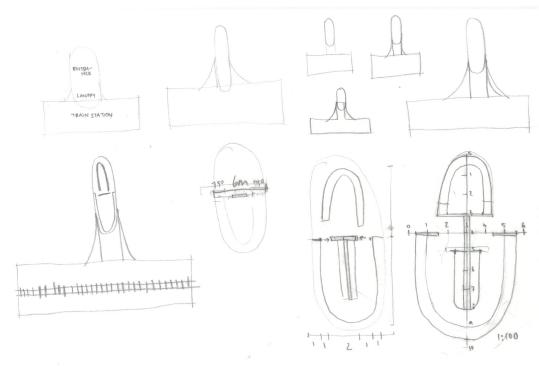






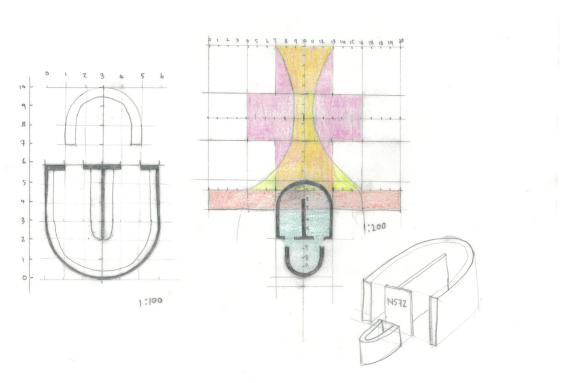






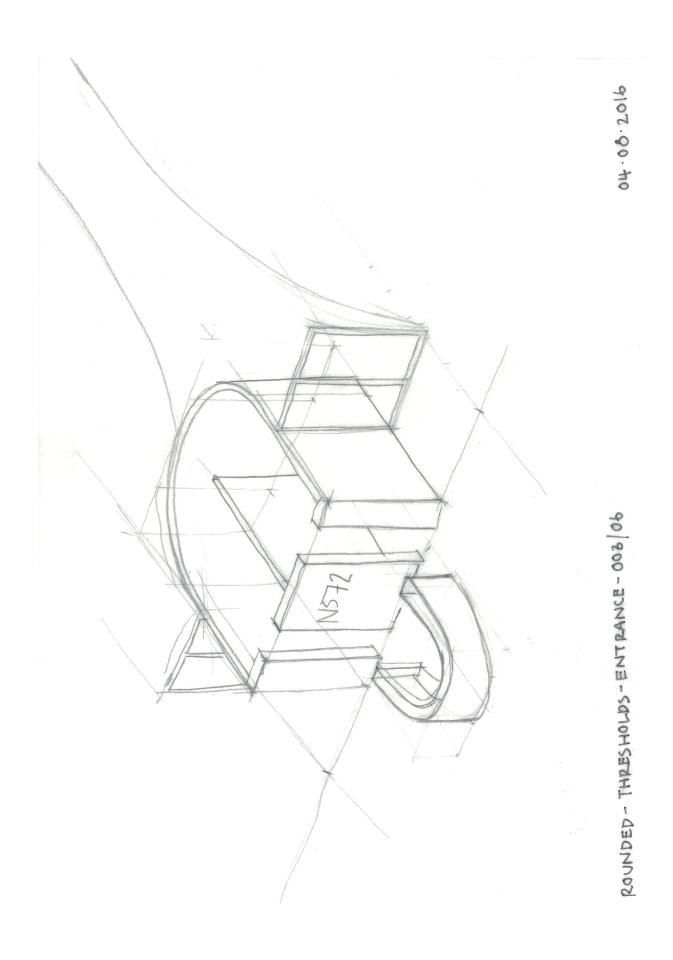
ROUNDED - THRESHOLDS - ENTRANCE - 003/04

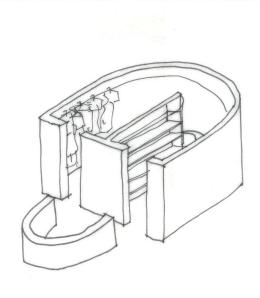
04 08 2016



ROUNDED-THRESHOLDS-ENTRANCE-003/05

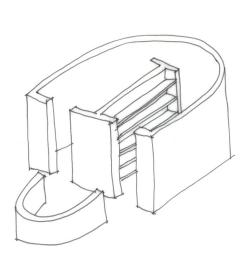
04.08.2016





ROUNDED - THRESHOLDS - ENTRANCE - 003 07

04.08.2016



ROUNDED-THRESHOLDS-ENTRANCE-003/08

05.08.2016

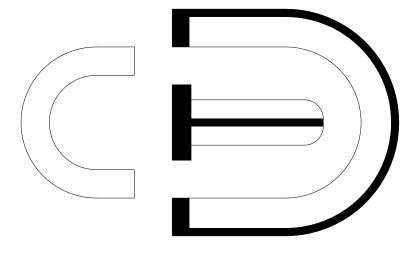
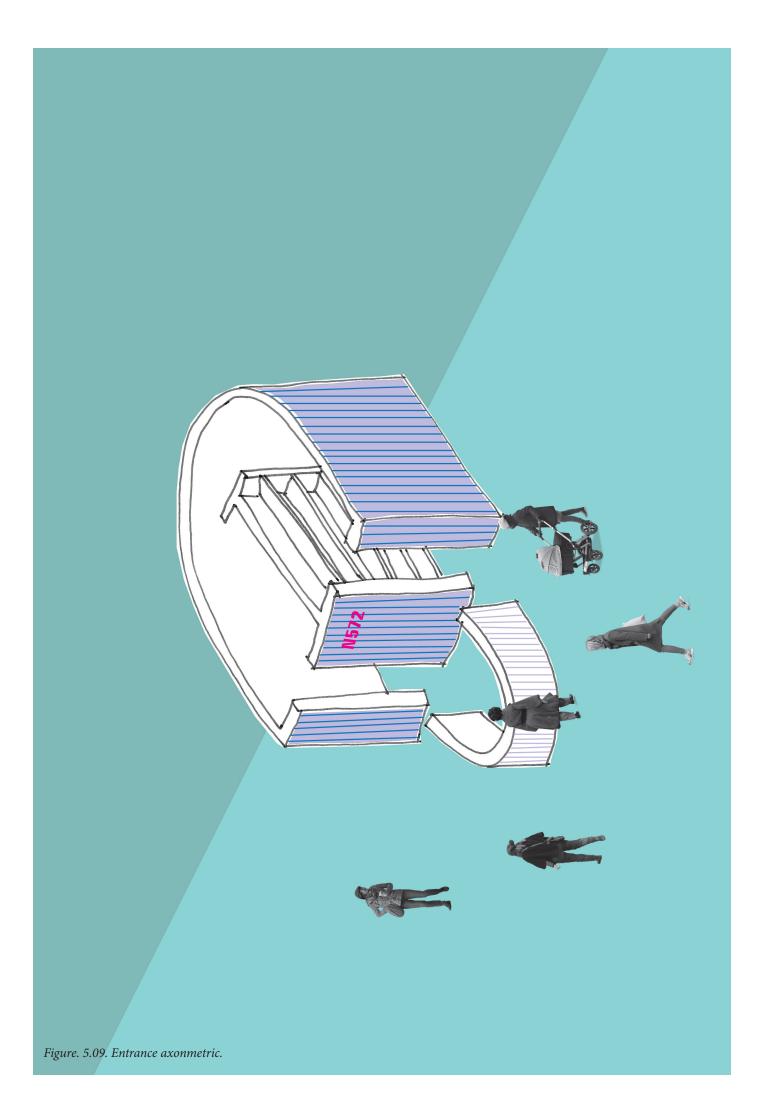
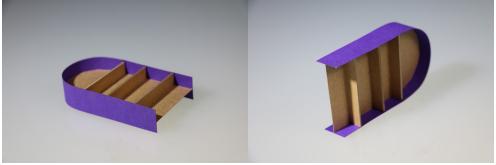


Figure. 5.08. 1:100 Entrance.



5.06 TRAINSTATION



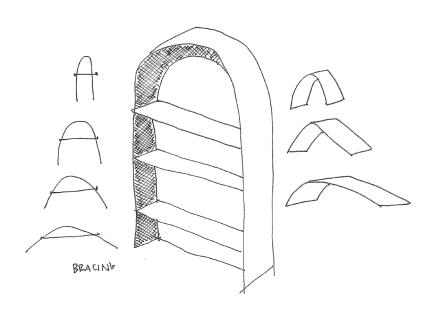


Maquette: Rounded 001

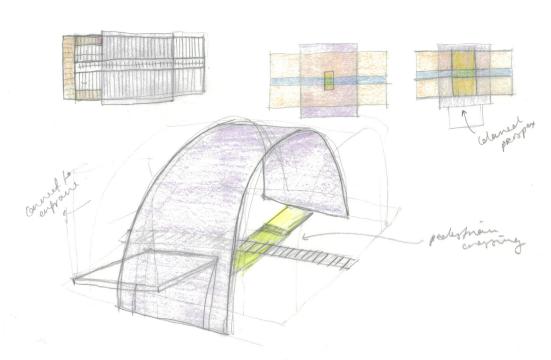
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Access to the school will be made by two main channels. The Massolin track, an existing route accessible by foot, as well as a new trainstation that will be best suited for those visiting from out of town, or for the delivery of goods. The track marks the northern edge of the site, and separates the school from the overhead residential properties. Vehicle access will not be considered an integral part of the building, as all the students will live on site, leaving those who teach and visit to participate in public transport.

JEAN BADOVICI — THRESHOLDS — ROUNDED — ENTRANCE RAILSTATION

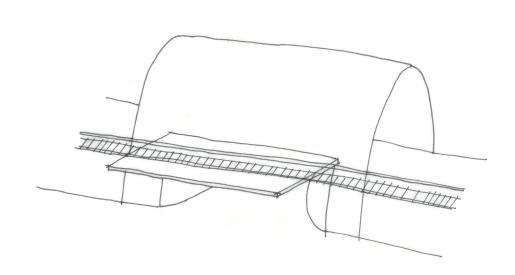






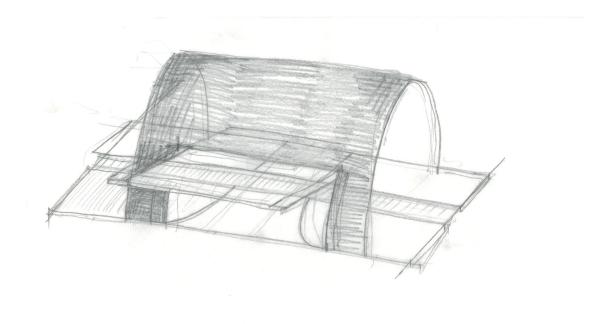
ROUNDED - THRESHOLDS - RAIL STATION - 001/02

03.08.2016



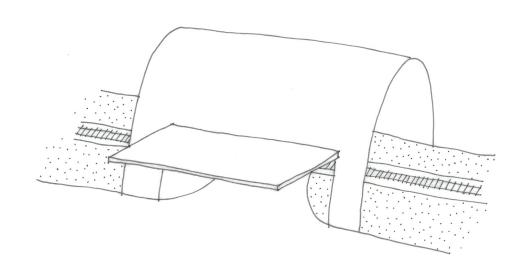
ROUMDED THRESHOLDS - PAILSTATION - ON OU

03.08.2016



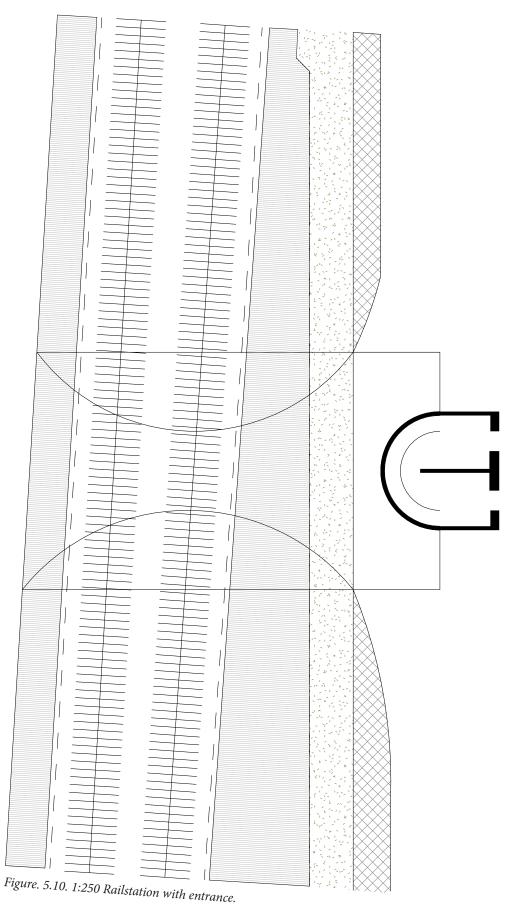
ROUNDED - THRESHOLDS - RAIL STATION -001 05

03.08.2016



ROUNDED-THRESHOLDS- RAILSTATION-001/03

03-08.2016



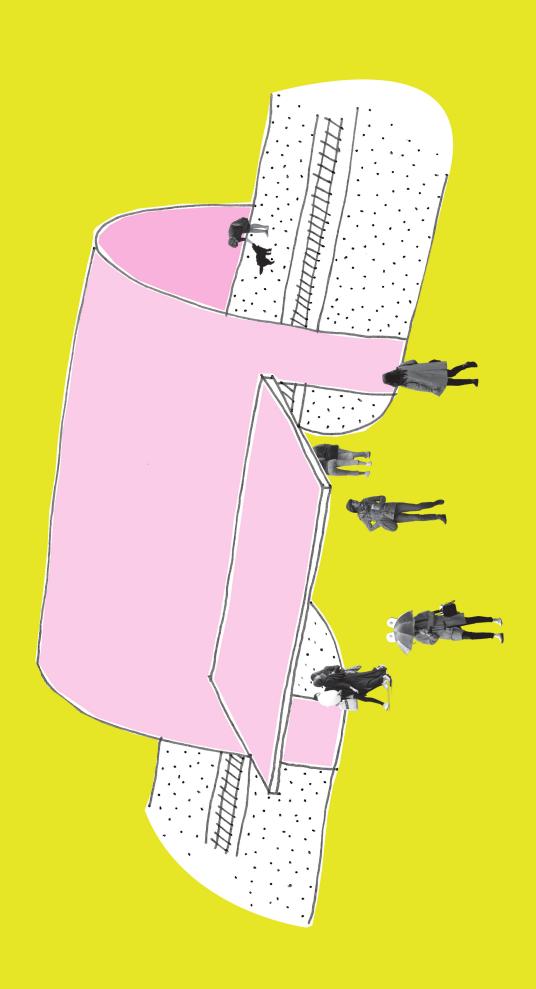
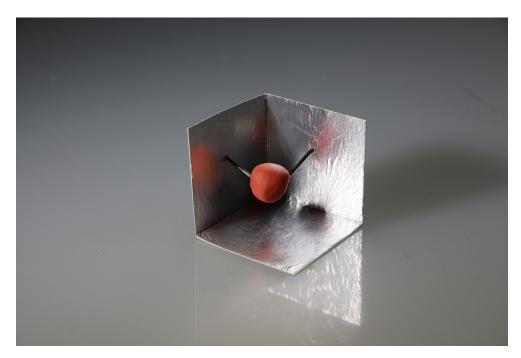
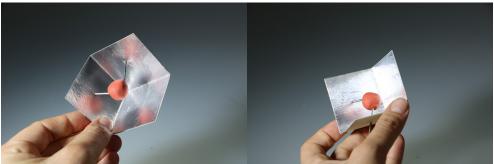


Figure. 5.11. Trainstation axonmetric.

5.07 BATHROOMS

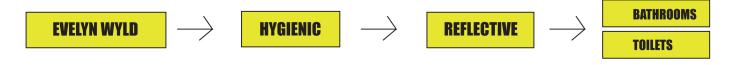


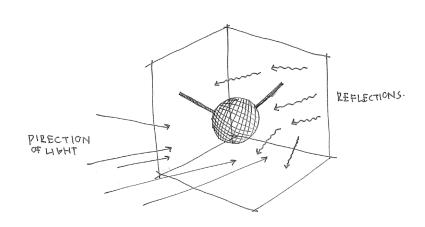


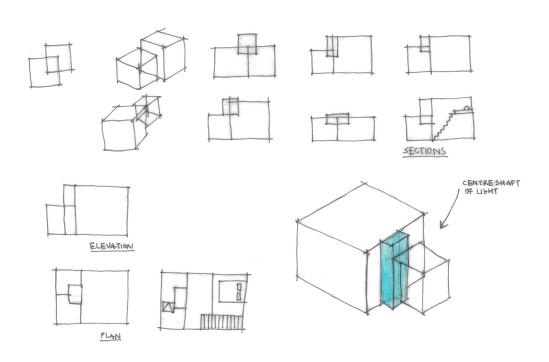
Maquette: Reflective 002

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Bathrooms and toilets have been separated into two categories, as the two were often situated in different rooms throughout E1027. The separation may have derived from the sewerage system on the site, as the site operates with a septic tank that possibly requires the separation of grey and black water. Reflective surfaces were commonly used in bathrooms, as their lacquered, glazed, hard surfaces are easy to clean and maintain. This maquette investigation looks at how using reflective surfaces as a tool can be utilised in ways that cater to more than cleanliness.

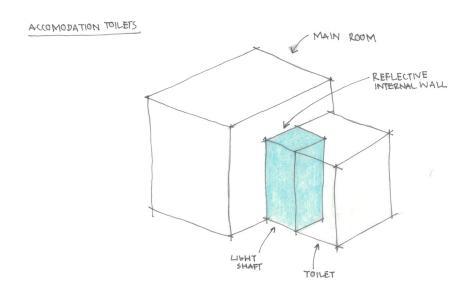






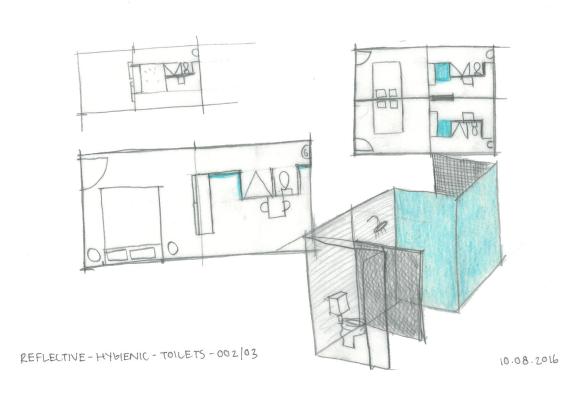
REFLECTIVE - HYBIENIC - TOILETS -002 01

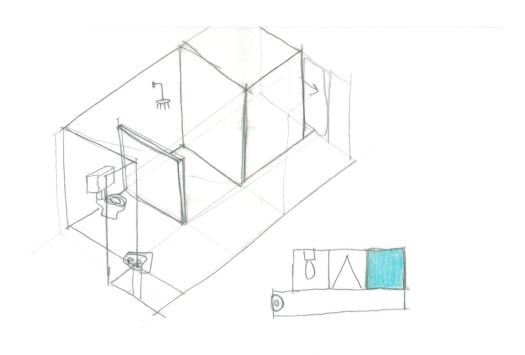
19.07.2016



REFLECTIVE - HYDIENIC - TOILETS - 002 02

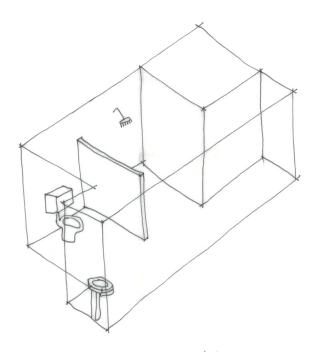
19.07.2016





REFLECTIVE - HYGIENIC - TOILETS BATHROOMS - 002/04

10.08.2016



REFLECTIVE - HYDIENIC - TOILETS / BATHROOMS - 002/06

10.08.2016

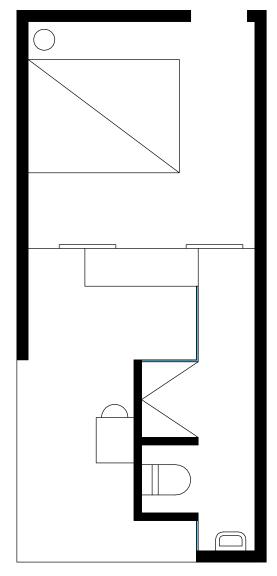
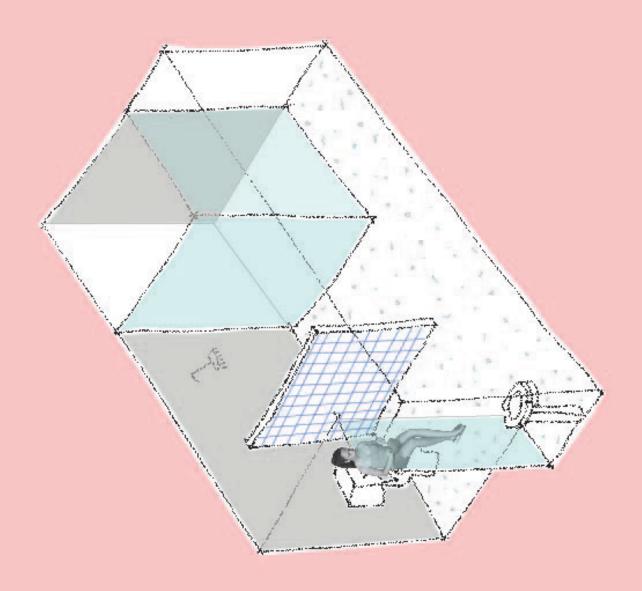
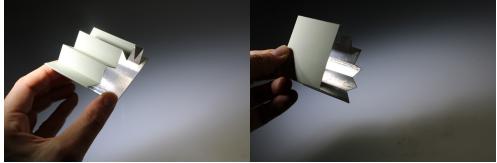


Figure. 5.10. 1:50 Bathroom in accommodation unit.



5.08 TOILETS

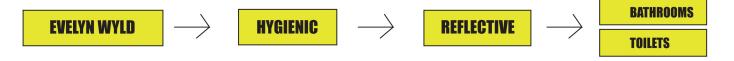


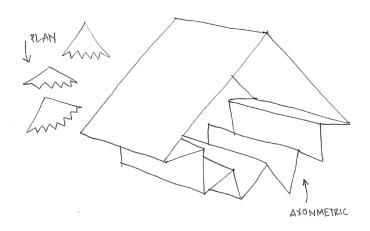


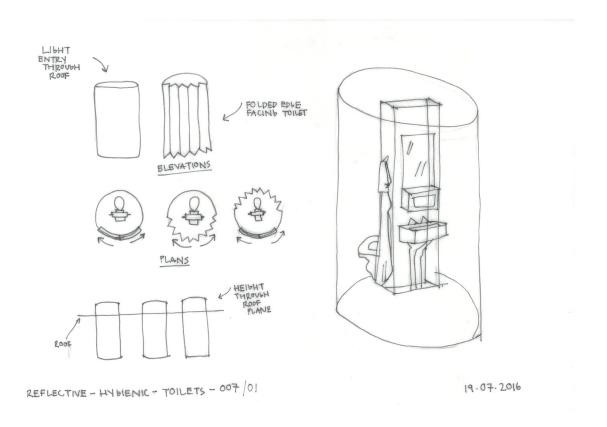
Maquette: Reflective 007

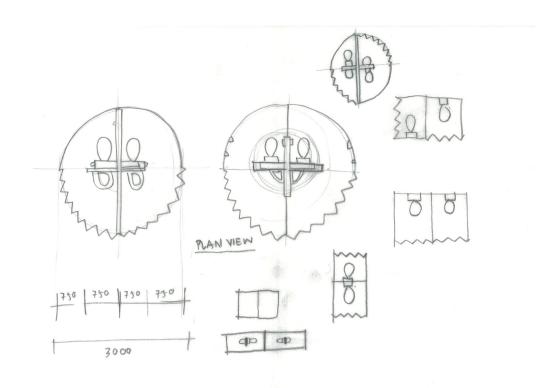
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Separating the toilets from bathrooms means that not every accommodation unit requires their own toilet. Having separate blocks allows for a tighter living plan, and will reduce the overall number of toilets required. With this strategy in place, the same units can be applied to both the accommodation and the school. The reflective tool will be applied in the toilets to generate an overall interior quality. The folded edges of the maquette adapt easily into an architectural language, by upscaling the cardboard to the dimension of a wall.



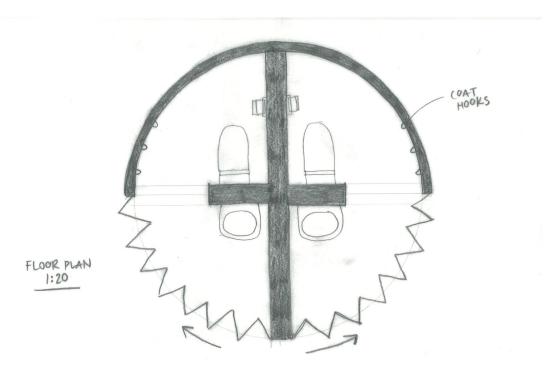






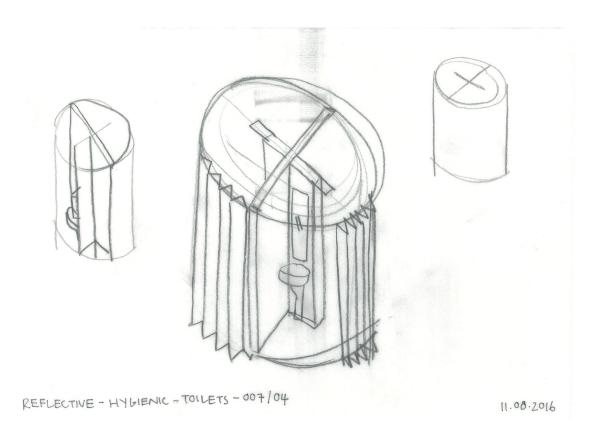
REFLECTIVE - HYGIENIC-TOILETS - 007/02

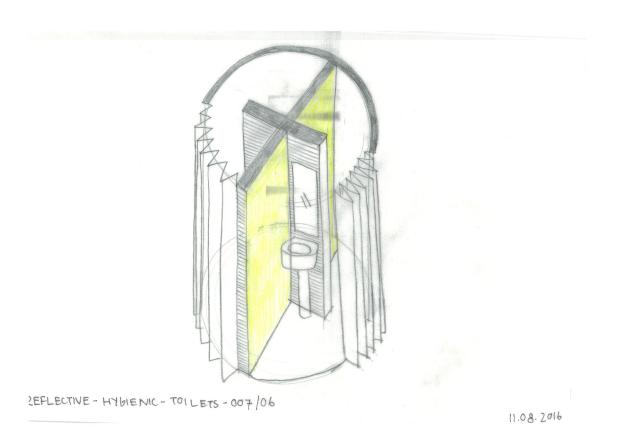
11.08.2016



REFLECTIVE - HYLIENIC - TOILETS -007/0\$3

11.08.2016





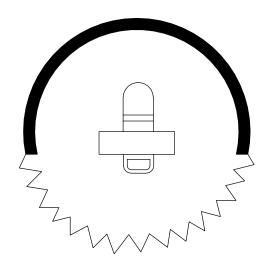
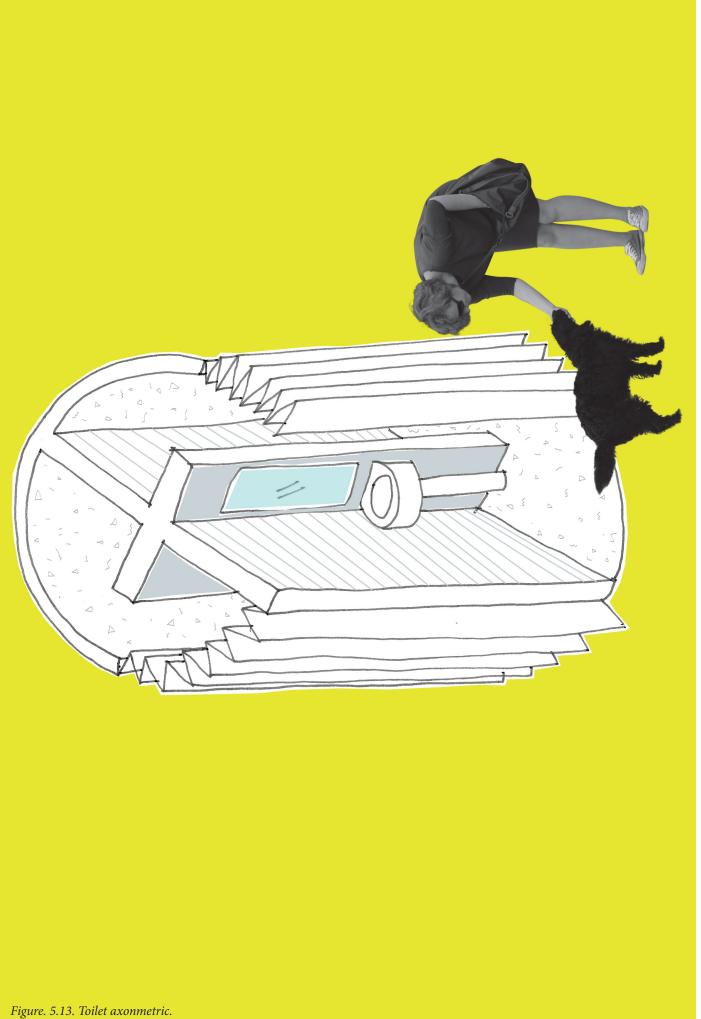
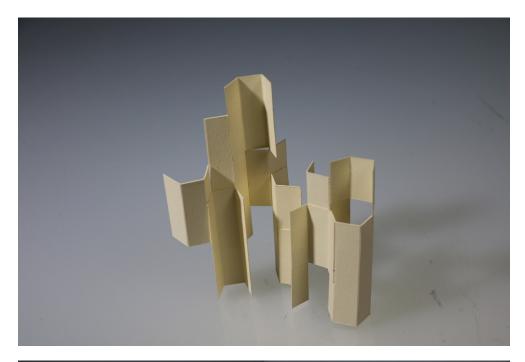
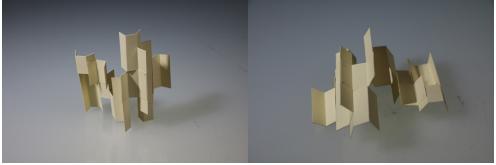


Figure. 5.12. 1:50 Toilet.



5.09 LECTURE THEATRE



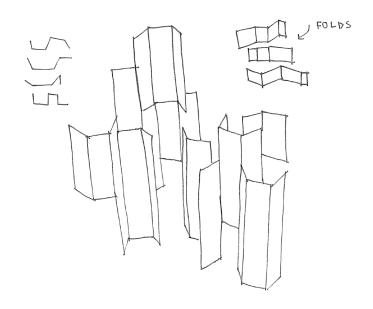


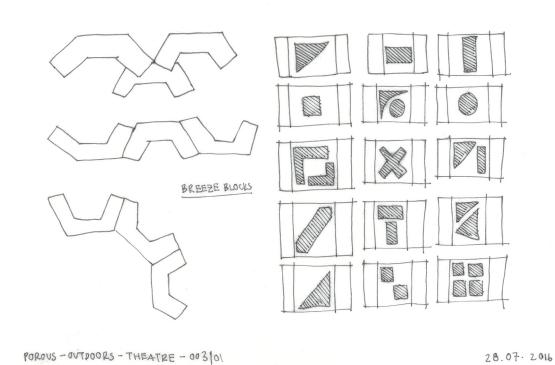
Maquette: Porous 003

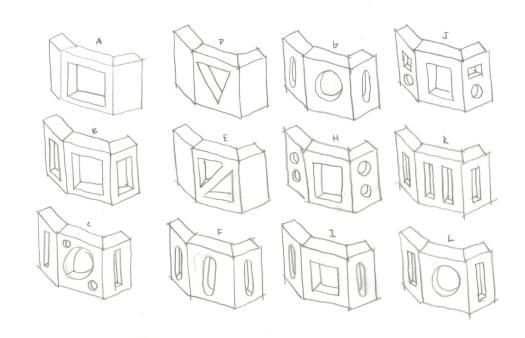
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Categorising the lecture theatre into the outdoor (porous) category was derivative of the traditional amphitheatre setting. The practicalities of this pairing however, if applied to achieve a total interior, would impair the required functionality of a presentation space, where a dark enclosed room is often necessary. However, there is room to develop an element that contributes to either the facade, or entrance way, that can considerably improve the experience. This element, if simple in form, could be arranged in various ways to ensure perforations or an overall porous quality.



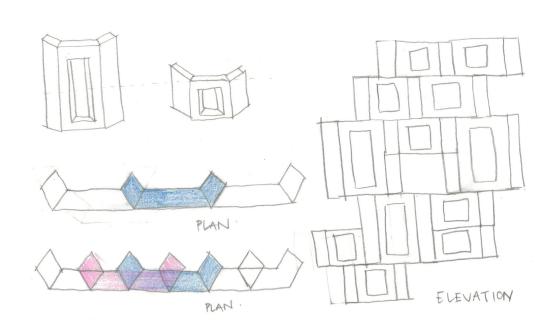






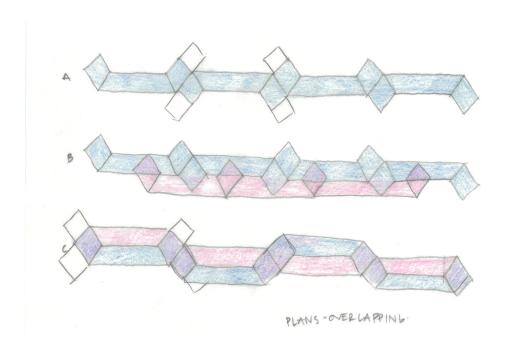
POROUS-OUTDOORS-THEATRE-003/02

15.08.2016



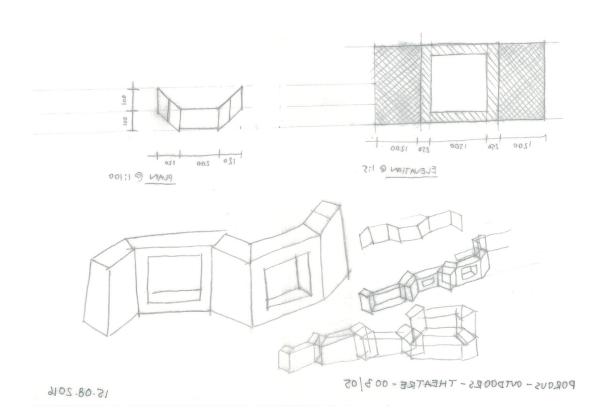
POROUS - OVTDOORS - THEATRE - 003 03

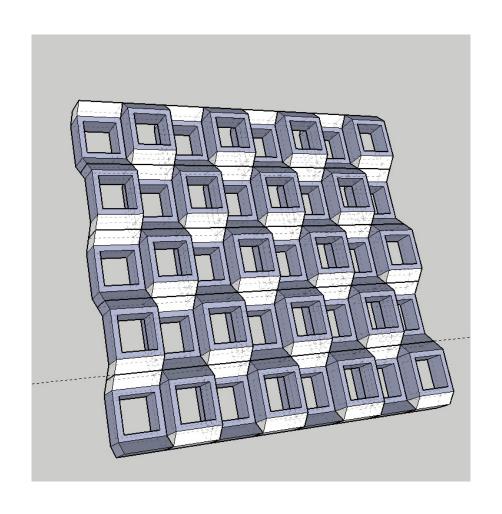
15.08.2016



POROUS-OUTDOORS-THEATRE - 003/04

15.08.2016





POROUS - ONTDOORS - THEATRE -003/100 06

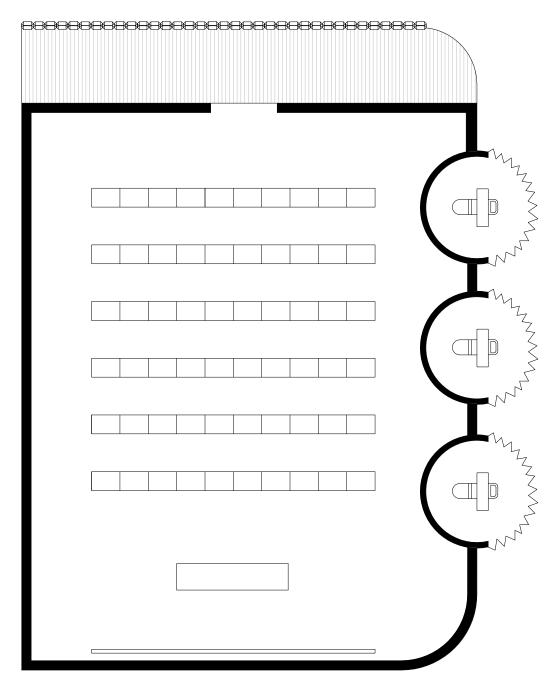
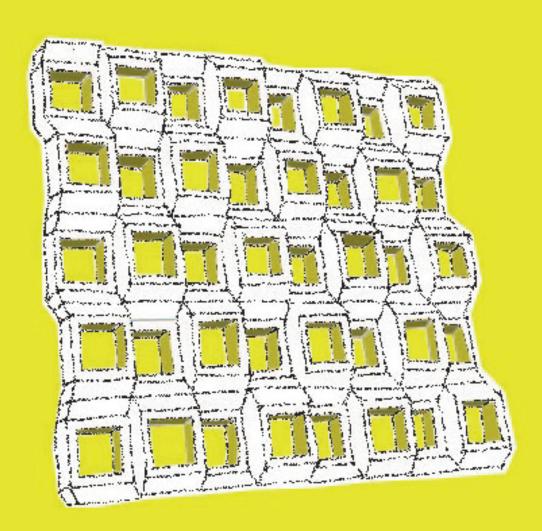
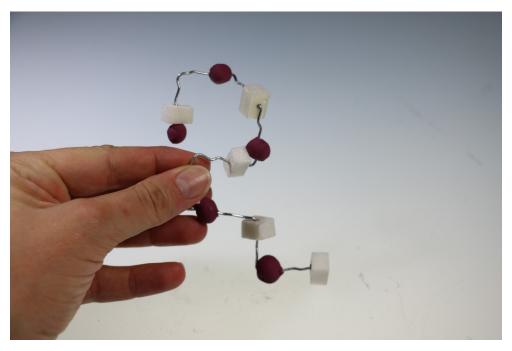


Figure. 5.14. 1:100 Lecture Theatre with breeze block wall.



5.10 COASTAL ACCESS

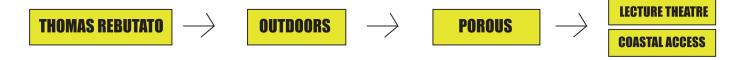


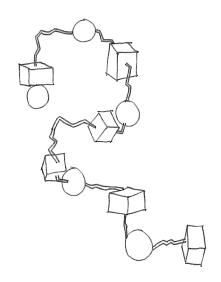


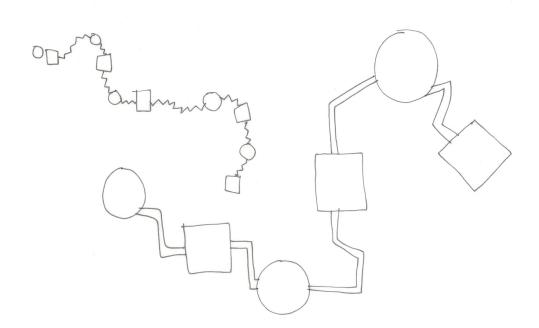
Maquette: Porous 001

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The site has had little influence over the design of the school. Generating a design for the coastal access strays from this consistency, as the access in itself depends how it integrates into the land. It was therefore necessary to integrate the site with the design and because of this, the scale of this design exceeds that of the others considerably.

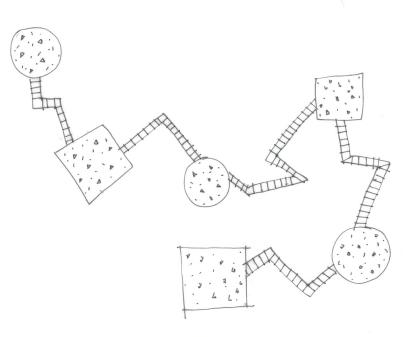






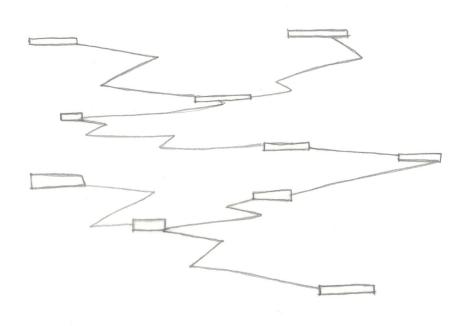
POROUS - OUTPOORS - COAST ACCESS - 001/01

28.07.2016



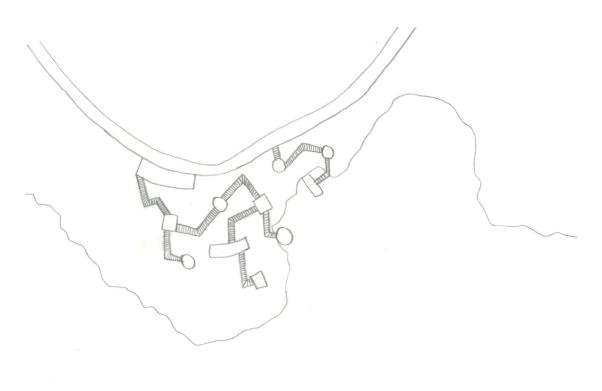
POROVS - OUTDOORS - COAST ACCESS - OO! [02

28.07.2016



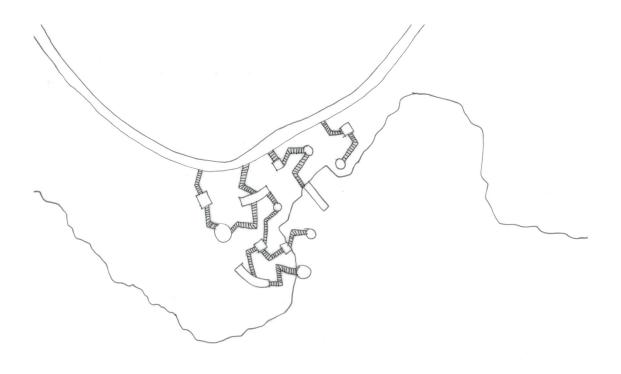
POROVS - OUT POORS - COAST ACCESS - 001 03

17.08.2016



POROVS - OVTDOORS - COAST ACCESS - OOI /04

17.08.2016



POROUS - ONT POORS - COAST ACCESS - OOI 14405

17.08.2016

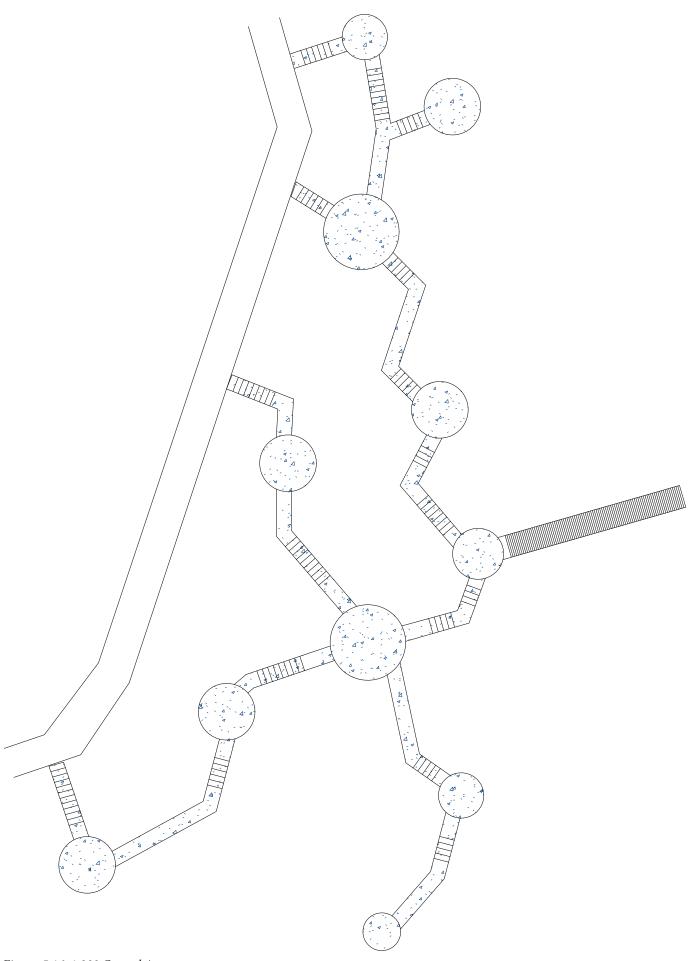
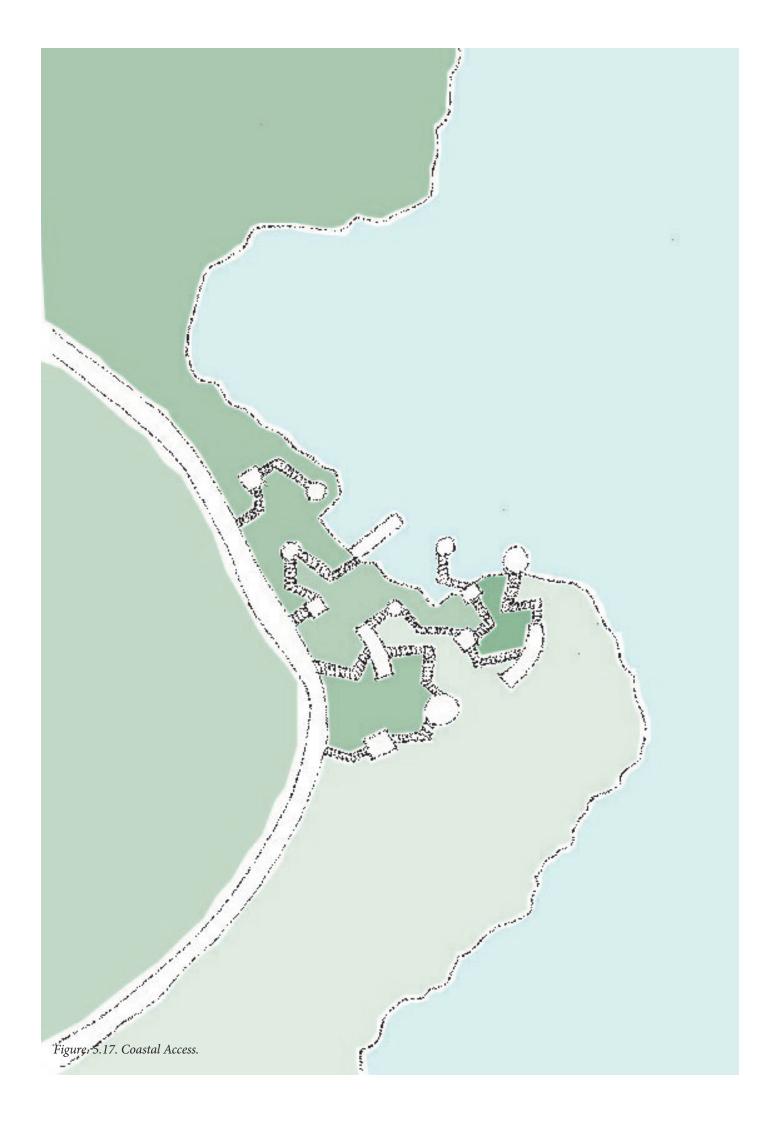
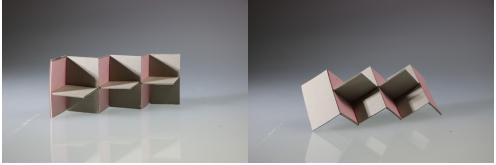


Figure. 5.16. 1:200 Coastal Access.



5.11 CANTEEN





Maquette: Contrasting 002

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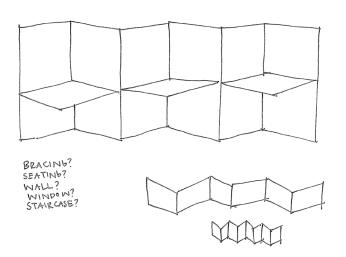
The canteen will service the students for three meals a day, as well as operating as a cafe. It is therefore necessary to ensure capacity for all students and staff to be seated at any given time, but also to offer smaller spaces for day-time cafe use. The cafe will operate between meal times, meaning one can have a coffee with friends, hold a meeting, or arrange to meet with those who are visiting from outside the campus. There is no other common space allocated, so it is vital that the design is flexible to accommodate these needs.

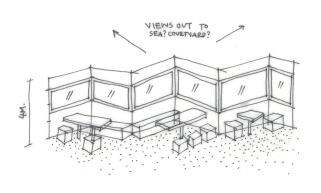
LOUISE DANY

SERVICE

CONTRASTING

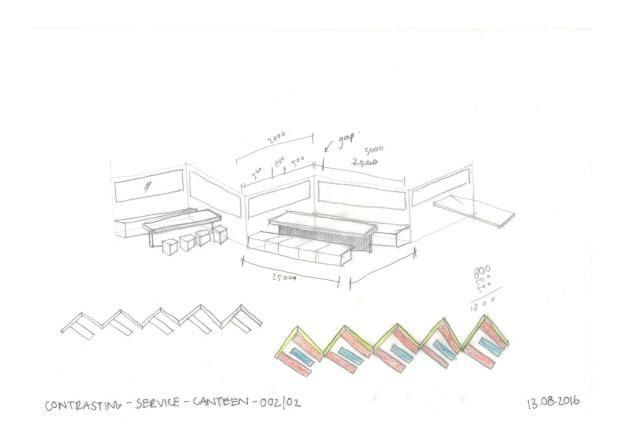
WORKSHOPS

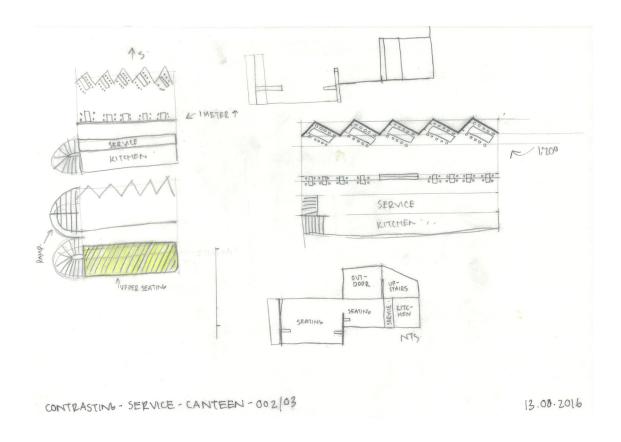


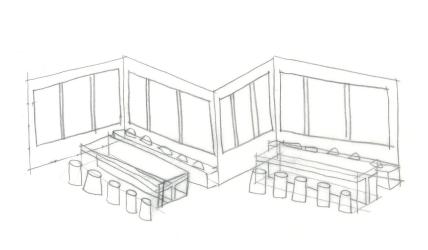


CONTRASTING - SERVICE - CAN TEEN - 002 01

15.07.201b

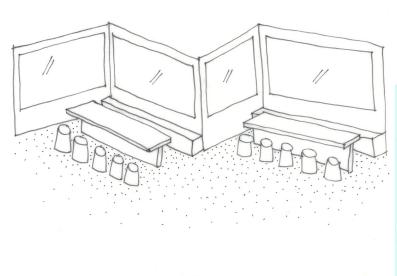






CONTRASTING-SERVICE-CANTEEN -002 04

13.08.2016



CONTRASTING - SERVICE - CANTEEN - 002/05

13.08.2016

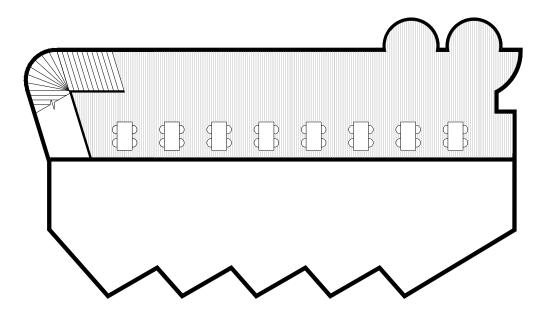


Figure. 5.18. 1:200 Canteen Mezzanine

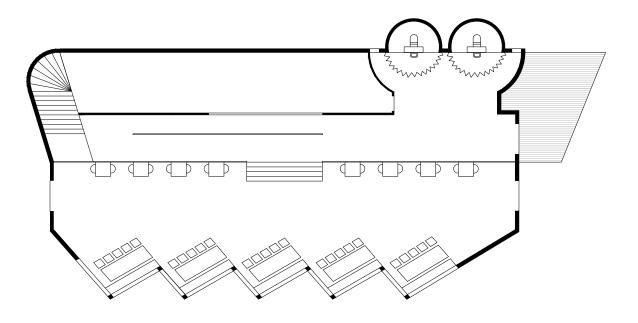
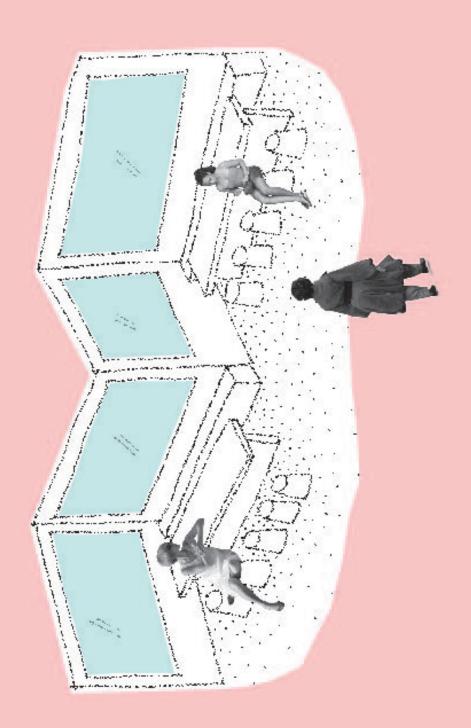
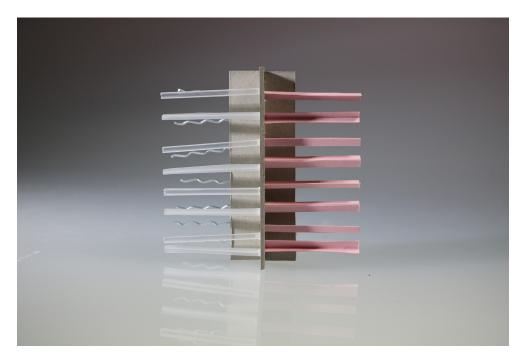
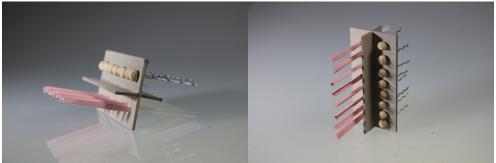


Figure. 5.19. 1:200 Canteen Ground Floor.



WORKSHOPS

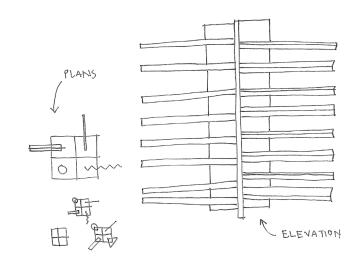


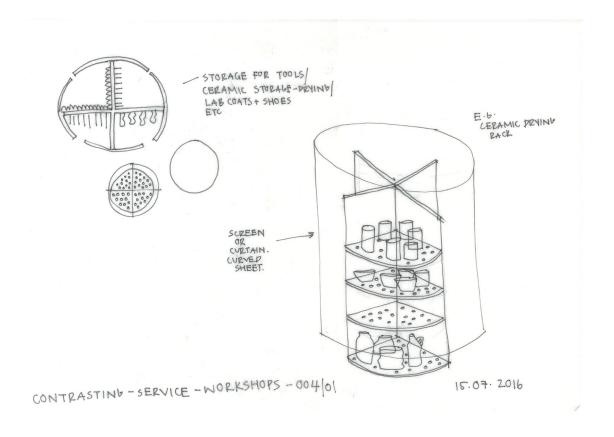


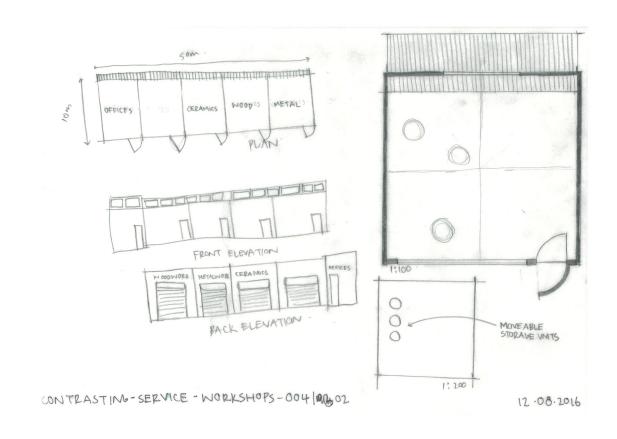
Maquette: Contrasting 004

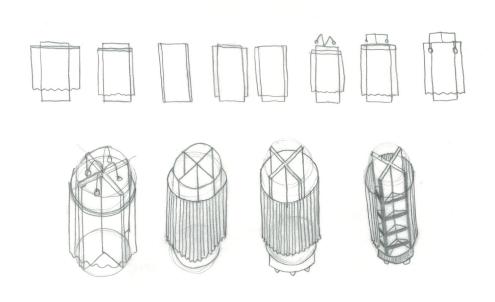
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There will be three main workshops required: Woodwork, Ceramics and Metal. To afford flexibility of space, there will be a fourth workshop added to cater to the students needs, whether this is used for plaster, soft furnishings, or painting. The main focus of the school is for the students to work with their hands and understand materials, so a digital workspace has not been included in the design.



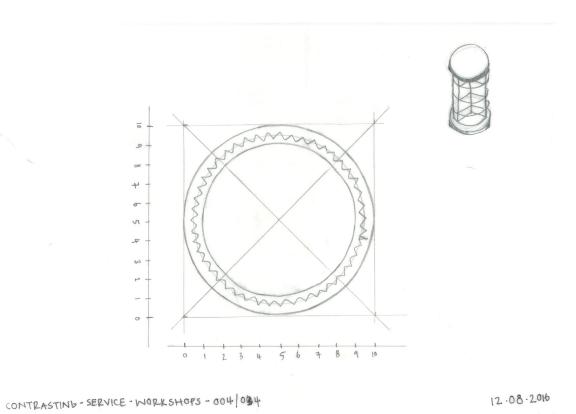


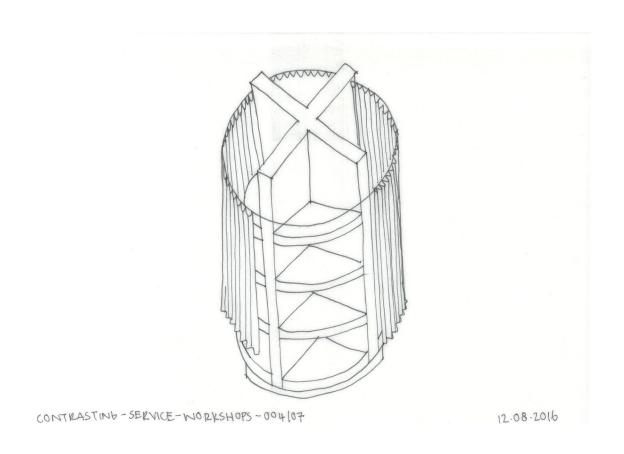




CONTRASTIMB-SERVICE-WORKSHOPS - 004 03

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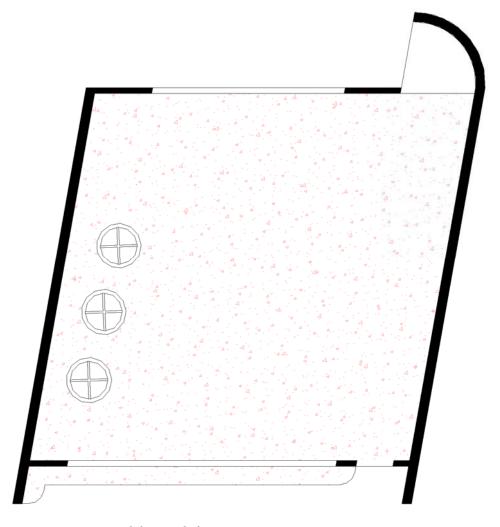


Figure. 5.21. 1:100 Workshops with three storage stations

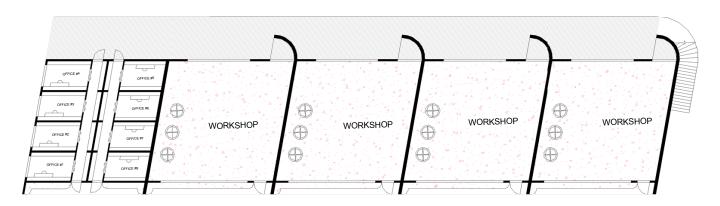
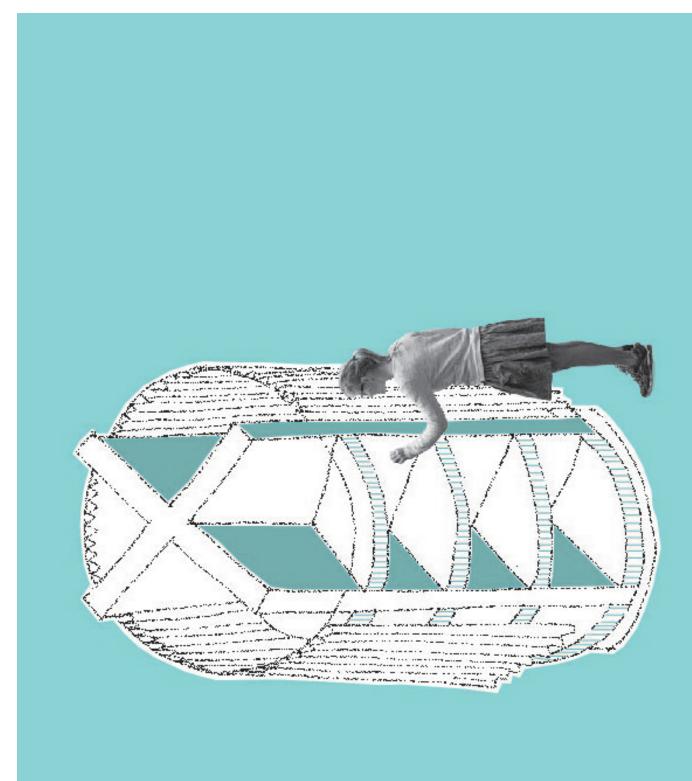


Figure. 5.22. 1:100 Workshops and offices as laid out in site plan.



FORMAL EVALUATION

In designing the new spaces it quickly became apparent that several of Gray's architectural tools overlapped. Moveable walls became transparent, and reflective surfaces rounded. The way in which the rooms were initially organised into sets is partially responsible. While the most prominent tool was identified for each spatial category, there was no analysis or recognition for commonalities present outside this hierarchy. While there was a dominant use of a tool employed within each of the categories, it was often utilised in conjunction with another tool. An example of this is Gray's use of transparency in the main bedroom: the glass bedside table and the glass doors to the drawers, which both have moveable elements as well.

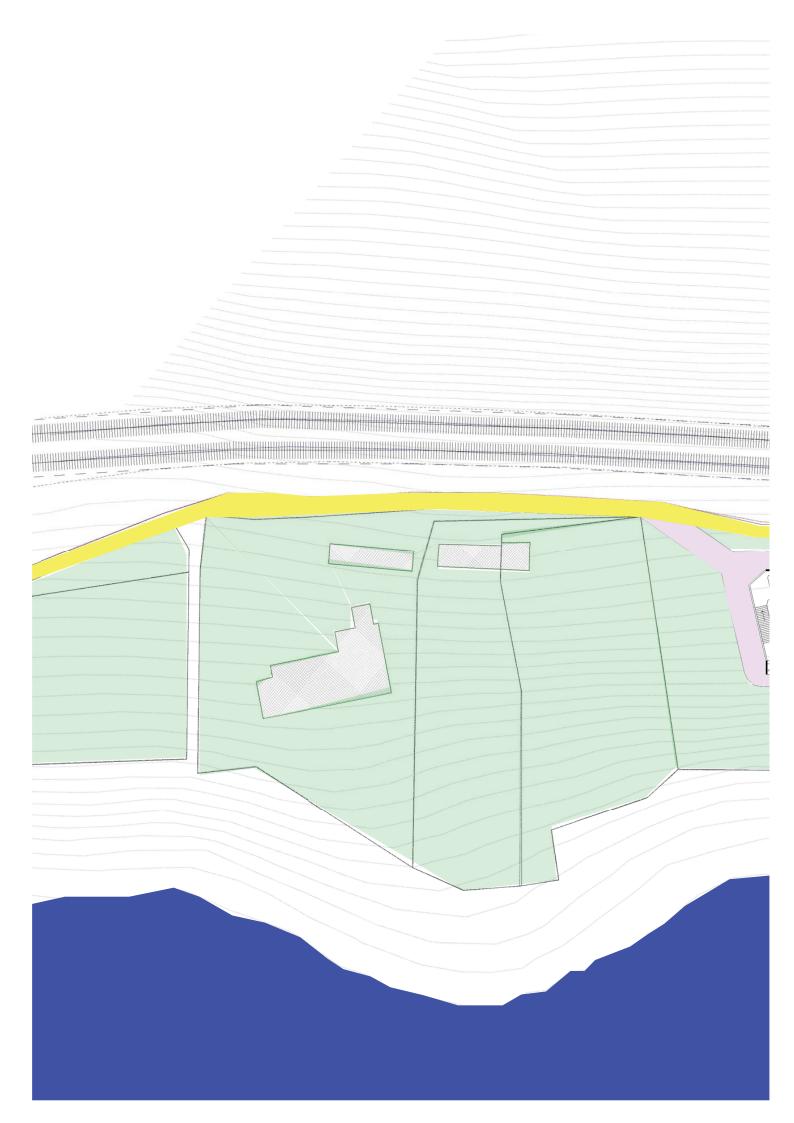
By working separately with the individual spaces, there was a risk in neglecting how the rooms would operate together as a school. So, while details were considered in isolation, various spaces were imagined as connected spaces before their design was manifested, such as the gallery and library. This contributed to an overall more cohesive proposal, one that did not require each space to stand alone. How these connections were determined depends on their use, their site, and the author's discretion.

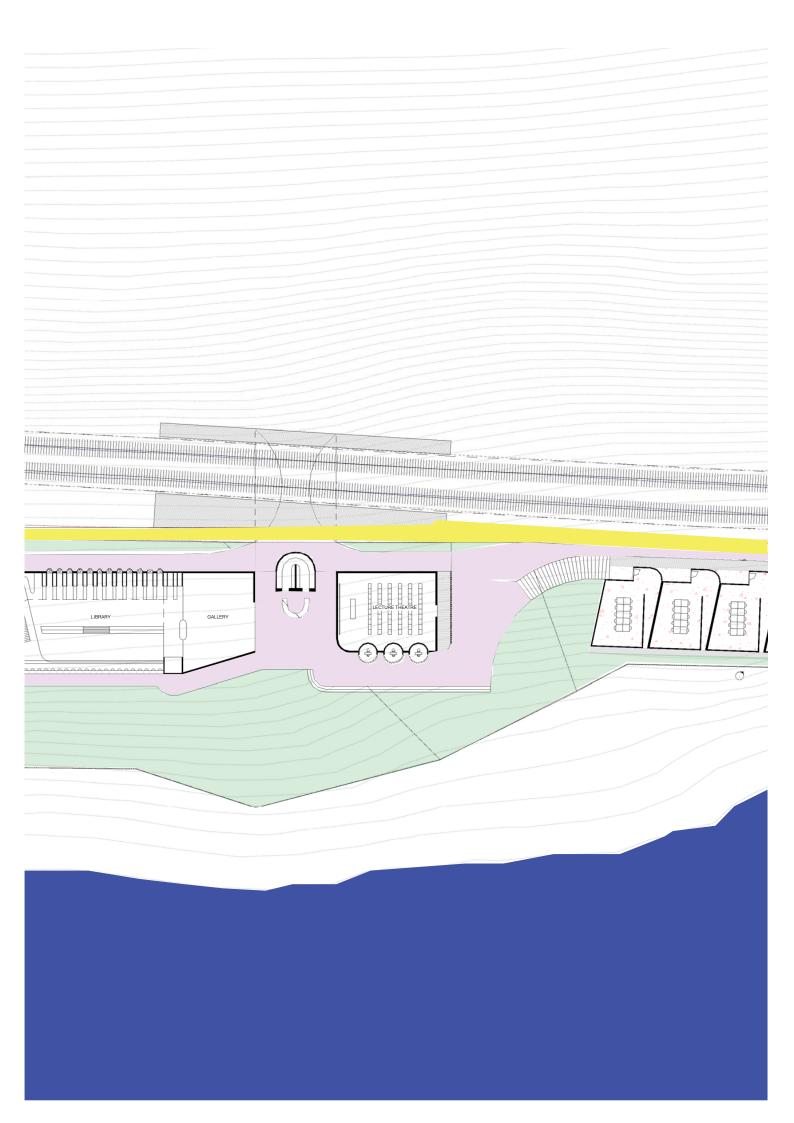
Documenting each drawing with dates and a numerical order connects it back to the original maquette. Through this cataloguing, the process that connects together all the parts emerges. Organising, dating and archiving became an integral part of the design as a way to maintain a thread to the origin of E1027.

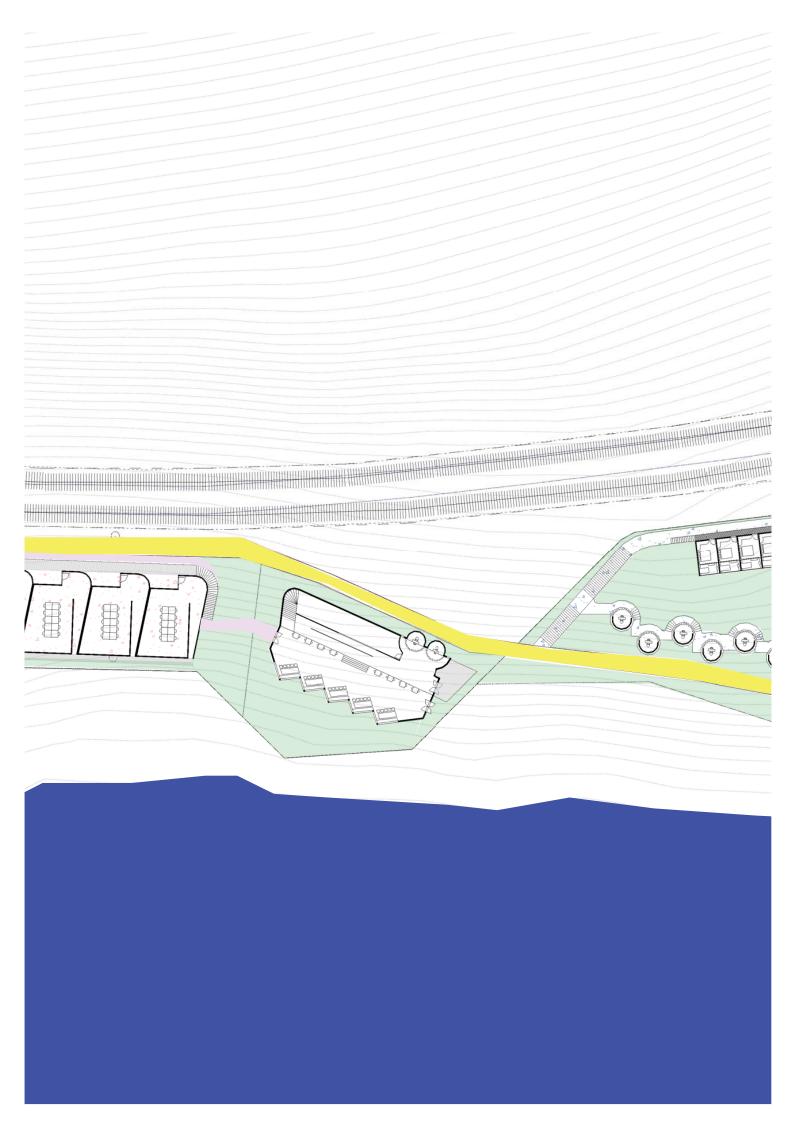
6.0 **CONCLUSION**

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6.01. SITE PLAN









6.02. DISCUSSION

This thesis looked at a way of designing. While the result produced an architecture school for women, the process in attaining the final design has varying results. Initially, the characters relating to Eileen Gray and E1027 were introduced with the intention to thread together a story throughout the thesis. However, their integration into the designed process dwindled as part one flowed into part two. The question of how the characters, who were no longer alive, could be a part of the new building was difficult and a resolution was not sufficiently met. On reflection, rather than serving as a continuous thread throughout the entire process, they were instead a provided an entry point to unfolding a process. Finding out 'Who Killed Eileen Gray' was a productive tool to establish how Gray's authorship was lost, as no one suspect was responsible for her erasure. Would it have been more useful then to exclude their participation? If the story was exclusively about the historical event, then possibly yes. But as a way to show the reader how the design methodology originated, it becomes advantageous to include their involvement.

If this design research were to be be replicated by others, the author suggests that there could be less focus on the style of a who-dunnit 'murder'. Adapting the tools discovered within this thesis could be applied without the integrated story, allowing for a stronger focus on the development of more technical and visual aspects of the project.

6.03. CONCLUSION

This thesis pursues a methodological process that investigates a 1929 villa designed by Eileen Gray. Constructed as a way to test how existing architectures can inform new methods of making, the process weaved together the architect and the author. Through the act of resuscitation, a re-reading of Gray's architecture significantly informed a new way of working.

Employing E1027 as the primary case study proved to be a productive method to uncover an intimate understanding of the way Gray worked as an architect. The analysis was driven by a meticulous examination of the details, arrangement of spaces and materials used. This research was then applied to a new architecture. Threads from E1027 were drawn out and tested on an architecture school for women, through rigorous methodological documentation. The analysis, making, recording, and archiving generated a set of tools that significantly contributed to the design of the architecture school for women.

This design process has revealed that there lies an opportunity to discover not only more about architecture, but also the architects behind them. The forensic act of recovering, dusting off, and piecing together the parts of a building allow a designer to embody the work of an architect. Through this project, the work of Eileen Gray is able to extend beyond the texts, photographs and drawings that document her projects. Through a deep, and thorough investigation into specific architectural works, it is possible to substantially contribute to new projects in meaningful and productive ways.

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6.05. FIGURE LIST

All figures not attributed are author's own.

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