

H o u s e
a s
Autobiography:
A n
Architectural
(mis)translation
o f
my kitchen.

A 120 point thesis submitted to the Victoria
University of Wellington in partial fulfillment of
the requirements for the degree of Masters of
Architecture (Professional).

Victoria University of Wellington
School of Architecture, 2021.

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Emma Rea

Supervisor: Dr Peter Wood

[2021]

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guidance and support of many.*

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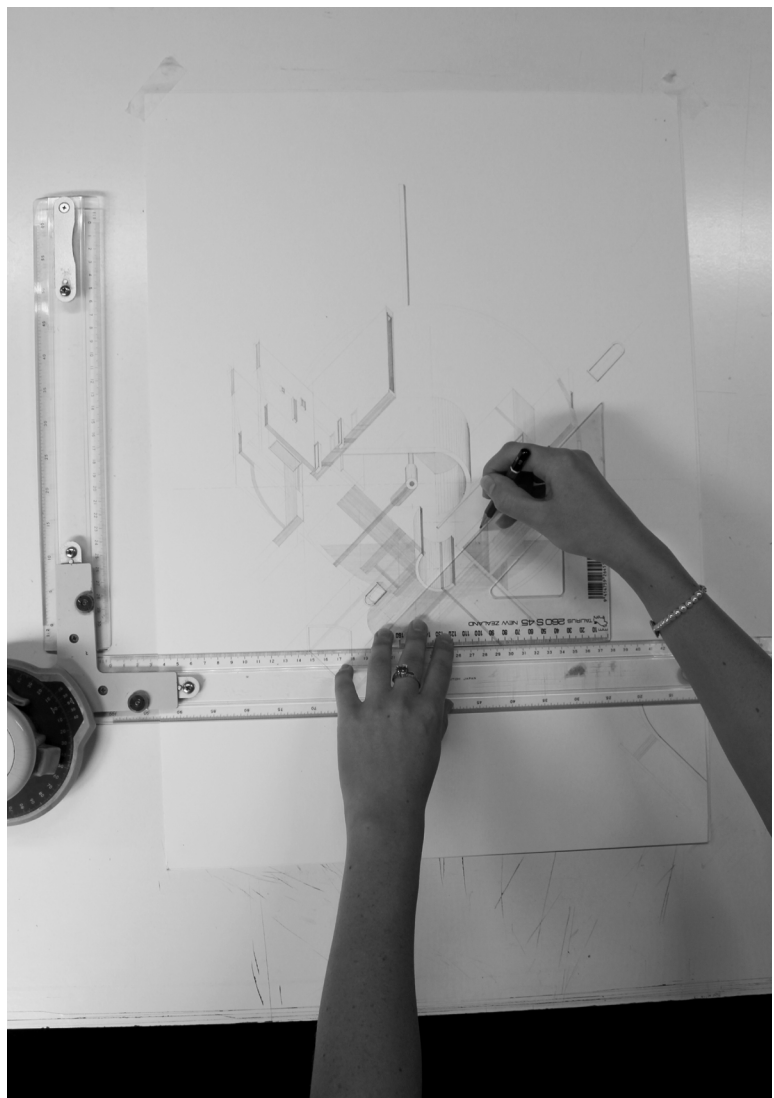


Figure 1 Drawing.

PREFACE

The year in which this thesis took place was as turbulent and as unpredictable, as it was abundant with opportunity. It is commonly known that if we lose one of our senses, our others grow stronger out of compensation. Undertaking this research in and out of lockdown, has proven how physical and social constraints (much like the loss of a sense) enhanced my ability to think and reflect critically; and act creatively.

Like many who choose to study architecture, my love for drawing and making had its part to play. Over my five years of study, I have witnessed the tragic phasing-out of analog design practices; pushed aside in favour of paperless desks, Revit, and Twin-motion. I can't help but feel the pace at which students are expected to work has increased as a result, since digital tools are generally regarded as faster and less labour intensive, at least in theory. Marco Frascari proposes that we return to hand drawing, a comparatively slow architectural practice, to counteract what he calls "the problem of architectural hastiness."

It wasn't until my fourth year in a studio paper I was presented with the opportunity (and challenge) to interrogate an architectural project through drawing. What I wasn't fully aware of at the time, was that I wasn't just interrogating the project through drawing, I was interrogating drawing itself, and its architectural implications. I owe the genesis of this thesis to that project.

The past twelve months have been fundamental to shaping my ever-evolving architectural mind and eye. This project has shown me the power of resilience and optimism. It is the culmination of some of my greatest joys and fascinations.

ABSTRACT

This research unravels and reconstructs the all-enveloping, surreal-slowness of my kitchen during Level-4 lockdown; through the intimate familiarity of the line, and the tactility of paper. In a time and place defined by the assimilation of our public and private lives, physical boundaries that ordinarily served to separate and structure, were dissolved. Within this physically smaller world, the kitchen felt relatively larger.

Architecture and the kitchen (and equally, food and cooking) have long since existed within one another, both physically (in space) and etymologically. Isodore of Saville postulated that architecture first emerged in the dining hall, where the first building was made for eating.¹ Equally, cooking and eating rely on a more-or-less solid and spatial framework.

Within the "pseudo-fastness" of the architectural industry, drawing is a comparatively slow and contemplative practice,² cultivating an attention to detail, and embodying the capacity to enhance social and historic values.³ Equally, the generative capacity of drawing makes it uniquely capable of creating something new, from something else.

Just as lockdown was a recluse from the pace of everyday life, drawing is a recluse from the pace of normative architectural practice. The outcome of the research is a series of autobiographic houses, equally symptoms of the introspective experience of lockdown, and the introspective practice of drawing.

1 Barney et. al., *The Etymologies of Isodore of Saville*. 308.

2 Frascari, *Eleven Exercises in the Art of Architectural Drawing*, 29.

3 Frascari, *Eleven Exercises in the Art of Architectural Drawing*. 30.

By exploiting the subtle parallels that transcend architectural practice, language, and the kitchen (and cooking); this research makes a sensitive proposition for a design practice deeply implicated by the composition of temporal and spatial conditions from which it is conceived.

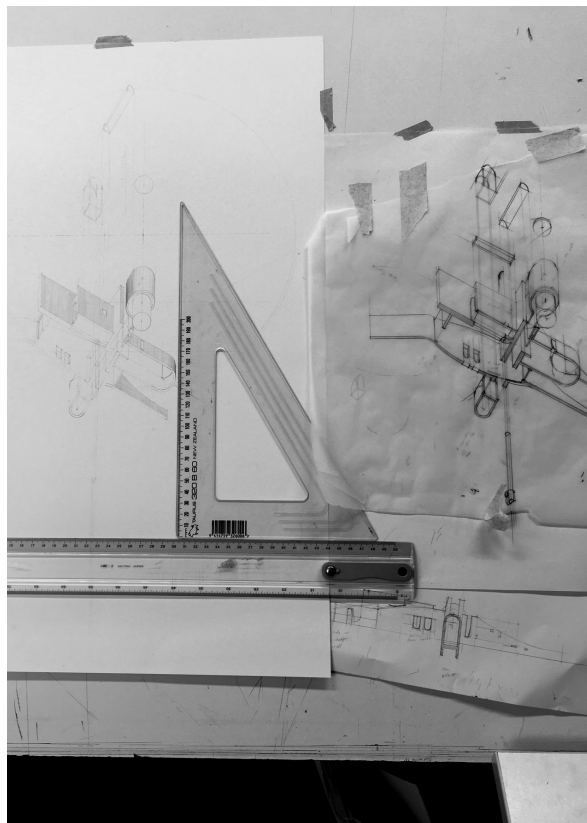


Figure 2 At my drawing board.

An ode to my kitchen.



Figure 3 Photograph of a final model.

TABLE OF CONTENTS

PART ONE

Acknowledgements

iii

Preface

vi

Abstract

vii

1.0

Introduction

_4

2.0

Methodology

2.1

Thesis Structure,

Methodology Diagram

2.2

Phases of Creative Application

_8

3.0

Translation,
(Mis)translation

_14

4.0

Reading Drawing

4.1

A note on materials

4.2

Drawing as a generator

4.3

The notational mode

4.4

The imaginative mode

4.5

Proposing an approach

_19

5.0

Slow Food,
Slow Architecture

_29

6.0

Architecture and
Cooking

_32

7.0

Table Manners

_36

PART TWO

8.0

The Beginning

A personal narrative

_44

9.0

Drawing

My Kitchen

_50

10.0

Drawing on

Plans of Drawings

_66

11.0

Drawing out

Parallel Projections

_82

11.5

Drawing out

A scale shift

_96

12.0

Drawing on

House Plans

_111

13.0

Drawing in

House Sections

_126

14.0

Drawing on

Roof Plans

_140

15.0

Drawing out, Drawing
together

Parallel Projection

_154

16.0

Drawing with

Paper

_186

17.0

Drawing together

From drawings to models

_190

18.0

Conclusion

_220

19.0

Bibliography

_222

20.0

List of Figures

_226

1 . 0

P A R T
O N E

1.0

INTRODUCTION

The kitchen is the site of application for both sentimental and disciplinary reasons.

Contrary to a popular narrative that architecture originated from the primitive hut,¹ Spanish scholar Isidore of Seville (560-636) postulated its origin as being in the dining hall.² He notes that the Latin term for building *aedes*, took its name from eating, *edere*. Hence, the term edifice *aedificium*, because the building was first made for eating.³ Italian author, architect and linguist Leon Battista Alberti (1401-1472), revealed that the Latin notion of *concinnitas* (referring to harmonious architecture), was derived from the transposition of harmony in taste, evident in a well-cooked dish.⁴ Marco Frascari frequently adopts cooking-related metaphors to describe architectural practices, referring to architectural drawings as food, which are visually 'chewed on' and 'eaten'.⁵ Frascari insists that these associations are more than just a matter of language, and that principles pertaining to cooking "shape how the architect conducts their graphic conceiving of architecture."⁶ Similarly, Stan Allen likens the work of an architect constructing drawings, to that of a cook constructing a recipe, where both "effect a transformation of reality at a distance from the author."⁷

The kitchen is equally important for sentimental reasons. As someone who loves to cook, it is symbolic of the intersection between my life at home, and my life as a student of architecture; a place to cook and eat, contained within the architecture of the kitchen.

1 Virtruvius, "Building Materials," 34.

2 Frascari. *Marco Frascari's Dream House. A Theory of Imagination*. 26.

3 Barney et. al., *The Etymologies of Isidore of Saville*. 308.

4 Frascari. *Marco Frascari's Dream House. A Theory of Imagination*. 27.

5 Frascari. *Eleven Exercises in the Art of Architectural Drawing: Slow Food for the Architect's Imagination*. 16.

6 Frascari. *Eleven Exercises in the Art of Architectural Drawing: Slow Food for the Architect's Imagination*. 16.

7 Allen, *Practice: Architecture Technique + Representation*, 41.

Cooking and eating rely on a more-or-less solid and spatial framework, according to Fritz Neumeyer. He says that such rituals always take place in an architectural setting, afforded by "the domesticity of our own or someone else's four walls,"⁸ namely, the kitchen or dining room. During lockdown, when the size of our physical worlds became smaller, the kitchen felt comparatively larger. Without obligation to people, places or routine beyond the home, it was the rituals in and around my kitchen that upheld my sense of normality. I found similar pleasure and comfort in the familiar ritual of drawing, as I did in the preparation a meal, making a coffee, or washing dishes. The intimate ritual of drawing, then became an important medium through which to navigate and record, a new normal that revolved around the intersection between my public and private lives. Drawing serves as both as a recording device, and a tool through which the architecture embedded in my kitchen becomes unraveled and reconstructed. Just as lockdown was a recluse from the normality of daily life, the slow, contemplative acts of drawing and making are a recluse from the pace of normative architectural practice.

Part One establishes the theoretical context of the research. The work of Robin Evans and Marco Frascari (among others) is used to establish a background in drawing (in terms of both its making and its reading). This assists to form an understanding of the generative capacity of drawing within a discipline contingent on the distance between action and object. Then, using drawing as the subject of inquiry, the notion of translation is introduced and applied. The original definition of translation is to "move something without altering it."⁹ However, drawing inherently conforms to both material tendencies and drawing conventions, therefore, alteration is inevitable.

8 Neumeyer, "The Homely Hearth," 51.

9 Evans, "Translations from Drawing to Building," 3.

On this premise, the term *(mis)translation* is used to more accurately describe the nature of moving between, implying that drawing is used not out of mere technical necessity, but as an architectural strategy and, as such, a medium for knowledge production.

Part one includes and develops several secondary themes. The first of these discusses parallels between slow food and architecture, their shared etymologies, and the relevance of analogue media in an increasingly digitized world. The second discusses, (with specific reference to the book 'Salt, Fat, Acid, Heat'), methodological parallels between cooking and architecture. The third interrogates Sarah Wigglesworth's project Table Manners to understand the implications of a methodology that similarly uses drawing as a strategy to develop an architectural project at the intersection of her work and home lives. Following Wigglesworth's project, the complexities between the home and architecture is explored to and suggest how such conditions transcend drawing practices.

Part Two comprises the creative application of the research. This section begins by describing the spatial and temporal context of this projects inception; level 4 lockdown during the Covid-19 pandemic. The introspective, and intimate nature of this experience is interrogated, then unraveled through the familiarity of the line and the tactility of paper. Part Two continues by outlining the project methodology, alongside relevant drawings and makings. Diagrams are used to describe the *(mis)translations* between each phase, describing how one drawing is unraveled to construct another.

The outcome of the research is a set of three autobiographical houses, as architectural *(mis)translations* of my kitchen. Each is symptomatic of the uniquely introspective experience of being contained within the home, and the careful and contemplative drawing process.

This project demonstrates the value of analogue methods as a strategy for architectural thinking, conception and production; addressing complex, often subtle intersections between cooking, my kitchen, architecture and drawing. It shows how an architectural practice might respond to the complex spatial and temporal conditions composed by restriction and isolation, by engaging with media that are similarly introspective, contemplative and slow. This process, results in architectural outcomes that are carefully composed, with an emphasis on craft, form, and balance. Finally, it exploits the entanglement between architecture and language, through liberating the architectural process from the suppressive boundaries of translation.

2.0

METHODOLOGY

This research is heavily method-driven, therefore, the following diagram describes the methodology of this research and the thesis structure simultaneously. The diagram as a whole represents the scope of the research, where each aspect of the project is contained within it. Each 'rung' contained within its outer circle, represents a different research phase. Beginning on the outer edge, each rung incrementally closes in toward the centre of the circle, as the outcomes gain specificity. Through the rigorous, cyclic, methodology; the project is refined, through drawing and critical reflection, increasingly gaining clarity. The inner-most circle represents the conclusions drawn.

The thesis is structured in two distinct, but mutually dependent parts; One and Two (Part One in black, Part Two in red). Part One begins in my kitchen, where a personal narrative is located within a broader intellectual context, comprised of several intersecting themes. As well as contextualizing the design research that follows, Part One also serves to inform the methodological phases of creative application, while equally acting as a point of reference for critical commentaries that occur throughout.

Part Two, the creative application of the project, departs from a series of sketches that illustrate the personal narrative, depicting moments in my kitchen. A sequence of drawings and makings; (mis)translations), then comprise a poetic strategy, through which my kitchen becomes unraveled and reconstructed. An example of one strand is represented on page 11 where the stages of creative application are diagrammed.

The circular lines that represent each phase cross over into other segments of the diagram (thus, the research). For example, (with reference to Part Two, Section 11.5) the black arrow indicates that this phase is directly concerned with parallel projection drawing, while the continuous circular line connects this phase to every other aspect of

this research. Although these connections may not be explicit or be visually evident in the parallel projection drawings, this line implies that no aspect of this research exists in isolation.

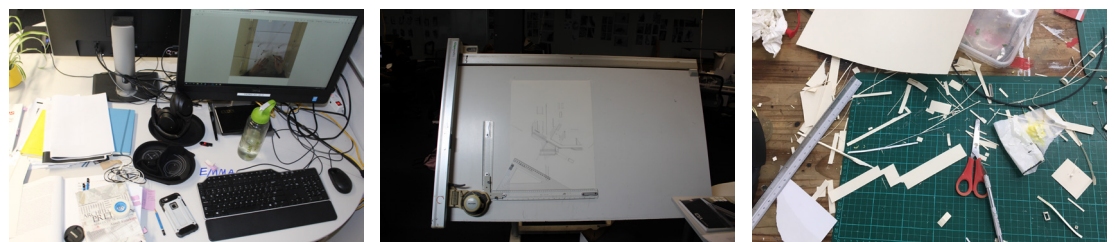
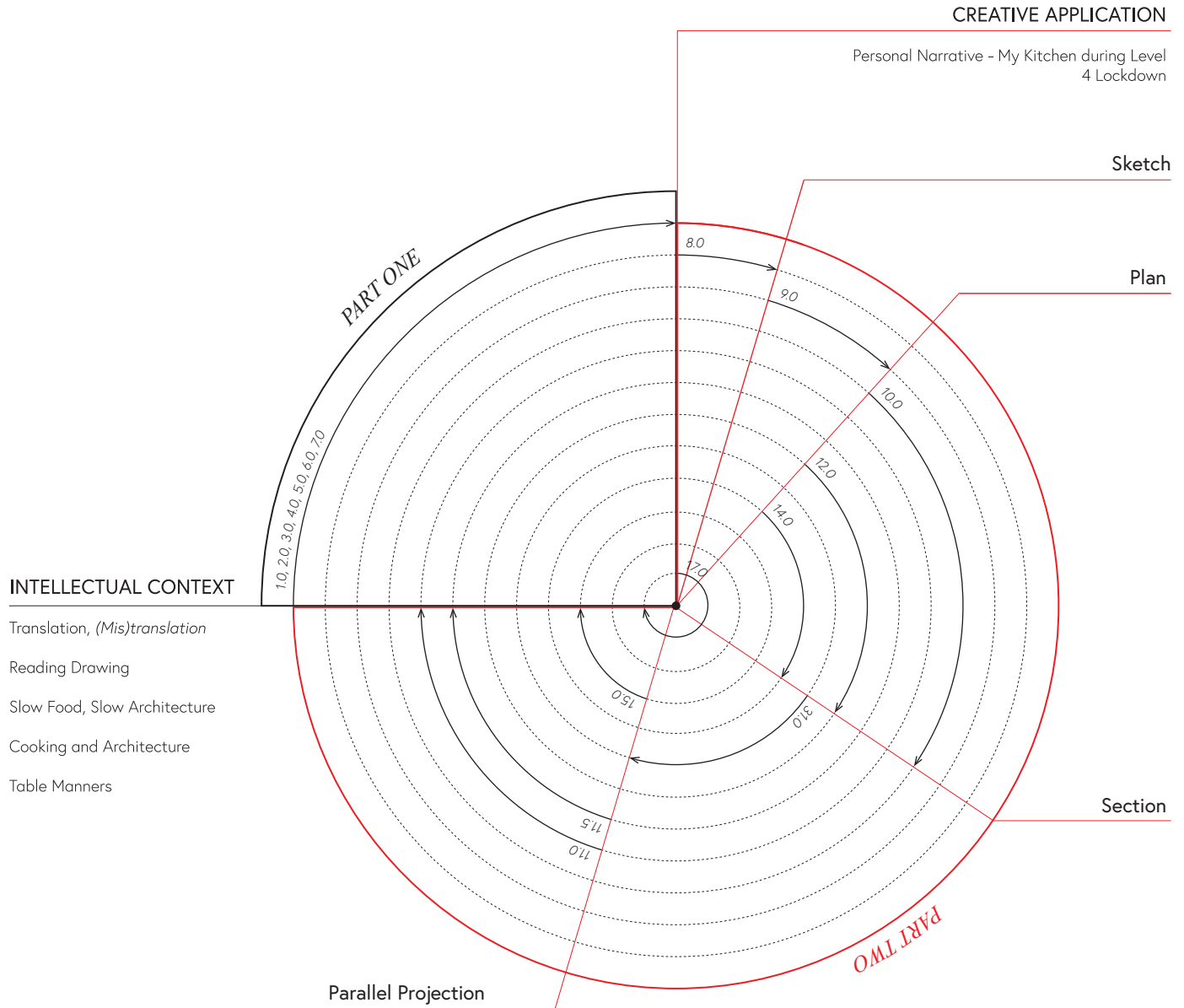


Figure 4 Work spaces reflecting the nature of the research itself which oscillates between drawing, making, and writing.

2.1

THESIS STRUCTURE AND METHODOLOGY DIAGRAM



PHASES OF CREATIVE APPLICATION

- 9.0 Drawing - My Kitchen
- 10.0 Drawing on - Plans of Drawings
- 11.0 Drawing out - Parallel Projections
- 11.5 Drawing out - A Scale Shift
- 12.0 Drawing on - House Plans
- 13.0 Drawing in - House Plans
- 14.0 Drawing over - Roof Plans
- 15.0 Drawing out, drawing together - Houses in Parallel Projection
- 16.0 Drawing with - Paper
- 17.0 Drawing together - From Drawings to Models

2.2

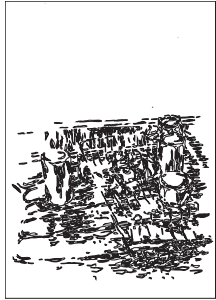
PHASES OF CREATIVE APPLICATION

Sketch

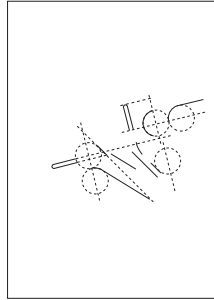
Plan

Section

Parallel Projection

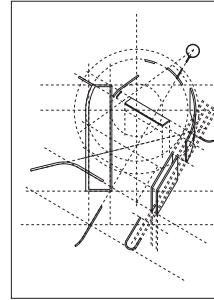
*Drawing***_50**

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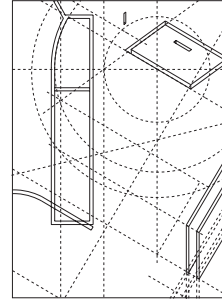
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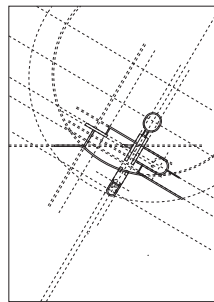
Section

_82

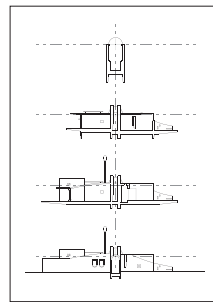
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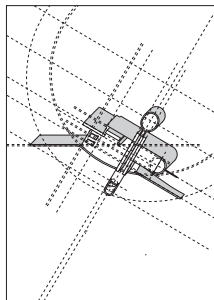
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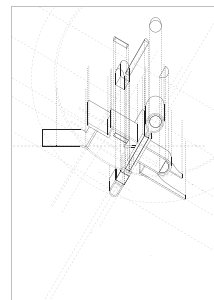
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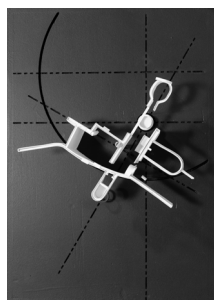
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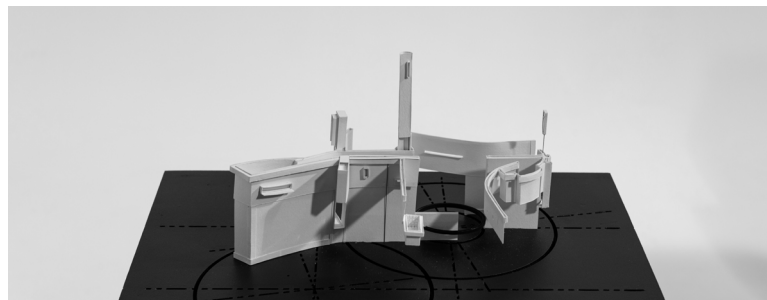
14.0

_154

15.0

_190

17.0

*Making*

*INTELLECTUAL
C O N T E X T*

Translation, *(Mis)Translation*

Reading Drawing

Slow Food, Slow Architecture

Architecture and Cooking

Table Manners

3.0

TRANSLATION, (MIS)TRANSLATION

Architecture dwells in the in-between; between idea and execution, between sketch and working drawing, between drawing and building. It is the act of moving between, in translation, that contains the nature of architectural practice. As Robin Evans repeats throughout his academic writings, the great majority of architects do not build buildings, but merely draw them.¹ Since drawing is the primary activity of the architect, it also incidentally bears the burden of retaining and communicating architectural thought across the distances between action and object.

My most memorable encounters with translation occurred outside of architecture; through cooking, and in language (through Haruki Murakami's novels, translated from Japanese to English). After reading one of Murakami's books which had a distinctly different tone to those I had previously enjoyed, I realised that it was translated by a different person. It seemed that "co-author" would be a more appropriate description for the English translators. In cooking, I remember the first time I tried to replicate mum's focaccia bread. Despite following the same recipe carefully, her hands were clearly, far more practiced in bread-making. I recall feeling particularly frustrated by the dimpling on top of the focaccia, which I had done slightly differently to her. This had a surprisingly significant effect on the density of the crumb -sadly, to its detriment. Similarly, my perception of cabbage was completely transformed, when at a restaurant I once ate a wedge of it cooked over a charcoal grill, sitting on mushroom XO sauce. Sauce aside, it seemed incredible that cutting cabbage into a huge wedge (as opposed to finely slicing it), and lightly steaming it before grilling it over charcoal (rather than serving it raw), could transform the vegetable beyond cabbage as I knew it. It was scented with a wonderfully smoky flavour, and was both al dente, and crispy; almost chip-like in parts.

1 Evans, "Translations from Drawing to Building," 2.

Historically, both language and cooking have been used, through etymology and by analogy, to understand or describe architectural practices and processes. For example, through etymology, contrary to a popular narrative that architecture originated from the primitive hut,² Spanish Scholar Isodore of Saville (560-636) postulated its origin as being in the dining hall.³ He notes that the Latin term for building *aedes*, took its name from eating, *edere*. Hence, the term *edifice*, *aedificium*, since a building was first made for eating.⁴ Through analogy, Stan Allen likens the architectural drawing to a recipe, defined by its own spatial and material notations, and interpreted through shared conventions, effecting "a transformation of reality at a distance from the author."⁵ In contemporary teaching, Margaret Mulcahy, says that the use of familiar media such as food or cooking to describe design issues and processes makes such issues more accessible, tangible, and engaging.⁶ I will argue that translation, in cause and effect, as evidenced by my observations outside architecture, exists within architecture too, though with greater complexity, and material differences.

In the essay 'Translations from Drawing to Building', Evans suggests that the drawing is a distinguishing characteristic of architecture, its role distinctly different from that of the drawing in the context of art. Unlike artists, for whom the drawing is their object of thought (the drawing is the art), in architecture the drawing is instead an intervening medium⁷ through which the architecture is conceived and conveyed; created and interpreted. With the rare exception of the architect-maker, the vast majority of architectural work is consumed by the creation and construction of drawings, then passed out of

2 Virtruvius, "Building Materials," 34.

3 Frascari. Marco Frascari's *Dream House. A Theory of Imagination*. 26.

4 Barney et. al., *The Etymologies of Isodore of Saville*. 308.

5 Allen, *Practice: Architecture Technique + Representation*, 41.

6 Mulcahy, "Teaching a Taste for Architecture," 55.

7 Evans, "Translations from Drawing to Building," 4.

hand to be constructed as a building; the 'final artifact.' It is based on this recognition that Francisci describes the role of the architect as a "graphic translator."⁸

Robin Evans cites the original meaning of translation as being "to move something without altering it"⁹ which implies that in the process of becoming a building, the integrity of the original drawing remains completely unaffected. If this were true then surely a building couldn't be a building, it would be merely a piece of marked paper, confined by the definition of translation, insisting that the drawing never change.

Returning briefly to the analogy of language, the nature of translation is particularly evident. Poet David Shapiro writes on translation in poetry, and argues that "that which must be translated, must be mistranslated."¹⁰ If translation means to move something without altering it, then a mistranslation implies alteration. In other words, there is no such thing as translation, since the very act of moving something, will always alter it. Literary scholar and theorist Frederich Kittler expands on this point by insisting that translation "always involves reshaping to conform to new standards and materials."¹¹

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Figure 5 Preparatory drawing for James Turrell's project Afrum (1967). Source: Preparatory drawing by James Turrell. *Afrum*, in Robin Evans "Translations from Drawing to Building." fig. 3.

This content has been redacted due to copyright. Please refer to figure list for further details..

Figure 6 Photograph of James Turrell's project Afrum (1967). Source: Photograph of *Afrum*, in Guggenheim "James Turrell. Afrum I."

8 Francisci, "Line as Architectural Thinking," 205.

9 Evans, "Translations from Drawing to Building," 3.

10 Shapiro, "Poetry and Architecture: Translation and Collaboration," 82.

11 Kittler, "Discourse Networks 1800/1900," 265.

This is particularly true of architectural drawing which inherently conforms to both material tendencies,¹² and drawing conventions.¹³ Evans himself illustrates the difference between drawing and its built artifact through the work of James Turrell.

By comparing a preparatory drawing (Figure 5) with a photograph of James Turrell's project, Afrum (1967) (Figure 6), it is clear that the two share similar formal and compositional characteristics, but are not the same. The photograph privileges light and material and is closer, in resemblance to the built artifact. By contrast, while the drawing resembles the built artifact, its physical properties are suppressed, rather, revealing the lines, and thus the thinking that precedes it.¹⁴

To better reflect the true nature of translation in architectural practice, this research proposes an alternative term; *(mis)translation* to describe this movement between. It does not pretend to retain one drawing perfectly as it is transferred from one state to another (for example, from plan to section to axonometric), but rather welcomes the inevitable slippages; "bends, breaks and losses"¹⁵ (differences) as natural -even desirable- products of architectural design. Aarati Kanekar notes that in the act of translation, it is inevitable that differences are accentuated, and slippages in perception occur.¹⁶ Neil Spiller, whose research is anchored in speculative architectural drawing, exploits such moments, using drawing as an architectural strategy and, as such; a medium for knowledge production. Through the immediate act of making drawings, and the retrospective act of reading them, Spiller describes drawing as "a laboratory for researching architectural space and objects."¹⁷ Following Evans' line of thinking, Simon Twose, whose work traverses the space between drawing and building, describes the two conditions as existing within a continuous "draw/build loop",¹⁸ in which each affects the other.

18 Twose, "Drawing/Building/Cloud," 82.

To investigate the relationship between the drawing and building is beyond the scope of this research. However, this project will instead investigate other movements between; those that occur before building, and located broadly within Twose's notion of 'draw.' Use of the term 'draw,' a verb, as opposed to 'drawing,' a noun; suggests that this space is comprised of multiple drawings, markings, and makings. Within this explorative field of creative and critical inquiry, (mis) translations occur frequently; between ideas and drawings, between various modes of architectural drawing (projections), and between models and drawings. It is within this field, that this research is located.

4.0

READING DRAWING

If drawings facilitate translation in architecture, between action and object, then it is important to understand the implications of the marks made, or at least be aware of the weight they carry. Frascari writes, "there is no meaningless mark in a genetic architectural representation—even accidental marks play a major role in coming about of a construction."¹ In other words, every iteration on the drawn surface; straight lines, wobbly lines, smudges, blurs, or remnants of erasures, have different, but nonetheless real architectural implications.

4.1

A NOTE ON MATERIALS

Inseparable from the marks, are the materials used to inscribe them. According to Evans, the materials from which a drawing is constructed, are fundamental constituents of the drawing itself. Simon Twose describes drawing as a series of material engagements, which "impress themselves on the process" visibly affecting it.² This suggests that materials deployed in the drawing process have their own characteristics, potentials, and limitations which visibly affect the drawings' development. This also implies that certain materials are better suited to particular purposes than others. For example, the crumbly texture of charcoal and its tendency to smudge, make it ill-suited to the crisp precision necessary of a construction drawing. Similarly, Stan Allen writes that techniques of representation are never neutral, leaving traces on the work itself.³ For example, "pencil offers soft, subtle tones; ink the possibility of faint opaque lines; highly textured paper creates a grain; smoother paper lets a tool glide across."⁴

1 Frascari, "Line as Architectural Thinking," 204.

2 Twose, "Concrete Drawing: Intra-active potentials in drawing, objects and urbanity," 2.

3 Allen, *Practice: Architecture Technique and Representation*, xvii.

4 Fraser, Henmi, *Envisioning Architecture*, viii.

While drawing (in a material sense) is often thought to consist of the contact between mark and surface privileging the form of the mark(s), it is equally important to consider how they operate together. Ray Lucas notes that the significance of surface is particularly evident in the practice of tracing, since "transparent paper allows lines from the drawing beneath to be selectively re-used in subsequent inscriptions." In this case, the physical properties of the paper (its transparency) significantly influence the form and composition of the subsequent drawing. There is often a relationship between the intent of a drawing, and the materials used to realise it, just as materials applied to a building seek to enhance the conceptual intent of its design. If materials effect the process, they must equally affect the way a drawing is read or interpreted, since drawing is primarily consumed visually.

4.2

DRAWING AS A GENERATOR

To make matters more complicated, within a discipline contingent on translation, the drawing itself is transitive, according to Stan Allen. He says that architectural drawings are "neither an end in themselves (artifacts, like paintings), nor simply transparent technical instruments;"⁵ neither solely a product, nor solely a process. This statement suggests firstly, that architectural drawings have the capacity to affect beyond themselves. Secondly, it suggests that drawing techniques (like materials) are never neutral, and will always condition the result (albeit, to varying extents).

Robin Evans dedicated much of his academic career to uncovering and articulating the generative capacity of drawing, arguing that the drawing possesses immense "transitive, commutative properties,"⁶

5 Allen, *Practice: Architecture Technique and Representation*, 48.

6 Evans, "Translations from Drawing to Building", 16.

that should be used to better effect. Understanding the transitive and commutative properties requires that the method (the drawing type and materials used), and the way it is interpreted, be mutually understood. Allen argues that since drawing is (in most cases) perceived visually, where its "meaningfulness is understood to reside in information inscribed through the process;"⁷ there is an implied corresponding theory of interpretation.⁸ In other words, the way a drawing is read or understood, goes hand in hand with what the drawing is; materially and aesthetically. Similarly, Frascari declares that great architecture must contain "multiple conversions within itself," which result from the institution of interpretation. Architectural theorist Sonit Bafna says the interpretive aspects of drawing operate in terms of two opposing, but not mutually exclusive modes; notational, and imaginative.

4.3

THE NOTATIONAL MODE

The most direct use of architectural drawing, according to Bafna, is to specify its subject matter (often, a building), where the intention of the drawing is reconstruction. Here, necessarily abstract symbols and markers (notations) help facilitate a translation between the drawing, and its subsequent artefacts, by removing ambiguity. In other words, "pre-specified elements are matched to their pre-specified referents."⁹ Stan Allen defines notation similarly, as "shared conventions of interpretation"¹⁰ which "effect a transformation of reality at a distance from the author."¹¹

7 Frascari, *The Virtue of Architecture*, 41.

8 Allen, *Practice: Architecture Technique and Representation*, 49.

9 Bafna, "How architectural drawings work – and what this implies for the role of representation in architecture," 159.

10 Allen, *Practice: Architecture Technique and Representation*, 50.

11 Allen, *Practice: Architecture Technique and Representation*, 41.

Construction drawings are a primary example of this, in which text, symbols, labels, measurements, and other graphical characters (pre-specified elements), are used to correspond to a subsequent building (an assemblage of pre-specified referents). Such elements include arrows, numerical measurements, written annotations, and other graphic symbols such as line weights and line fills. Universally understood, notation seeks to remove ambiguity, to retain as much of the original drawing, in its subsequent translations, as possible.

According to Bafna, a curious phenomenon occurs when the drawing becomes so saturated in notational references (ie. construction drawings) that the drawing itself becomes seemingly incidental.¹² By shifting the translatory responsibility of the drawing to its notational elements, (arrows, numerical measurements, and other graphic symbols); all the other marks that comprise it, become secondary. In addition, since such drawings are conceived with the intention of being translated out of hand, (most often into a building), the drawings are interpreted and evaluated based on the thing they represent, neglecting entirely, the drawing itself.¹³ In these cases, the drawing is treated as transparent and neutral. Allen says that notation "short-circuits the retrospective gaze, and shifts attention to the performance of a building in the world, necessarily cut off from its author."¹⁴ According to Frascari, digital tools in their ever-increasing prevalence, have a similar effect. He is concerned that their capacity to describe future-built artifacts with a level of precision superior to that which can be achieved by hand,¹⁵ means the drawings are falsely perceived as neutral instruments. He is cautious of digital drawings which

12 Bafna, "How architectural drawings work – and what this implies for the role of representation in architecture," 537.

13 Bafna, "How architectural drawings work – and what this implies for the role of representation in architecture," 541.

14 Allan, *Practice: Architecture Technique and Representation*, 49.

15 Frascari, *From Models to Drawings*, 2. Frascari argues that the level of precision achieved through digital mediums is redundant so long as buildings are built by hand, since the same level of accuracy cannot be achieved in the built artefact.

Perez-Gomez says aspire to be "absolutely unambiguous to avoid possible misinterpretations."¹⁶ It would seem, that these practices, of drawing *(and as a result, interpreting), limit the generative capacity of drawing, since absolute, mechanical clarity, undermines their expressive capabilities.¹⁷

4.4

THE IMAGINATIVE MODE

How then, are drawings to be read within the context of this research, where they either; aren't passed out of hand, aren't intended solely to be used in the construction of a building, or aren't heavily (or at all) notational? Such drawings, as Bafna points out, demand another, less instrumental mode of interpretation, which he calls the imaginative mode. Since this mode relies less on universal notation, it is comparatively elusive, categorically broad and inherently more difficult to define. Drawings of this nature, according to Bafna, can only be defined by their tendency to elicit a reading that oscillates the drawing itself, and the building it represents. For example, in Colin Rowe's commentary of Mies Van de Rohe's Brick House drawings, he says;

*"In Capella Sforza, Michaelangelo, working in the tradition of the centralized building, establishes an apparently centralized space; but within its limits, every effort is made to destroy the focus which this space demands. ... And in the Brick Country House, there are analogous developments to be observed. This house is without either conclusion or focus."*¹⁸

Colin Rowe.

16 Perez-Gomez, "Questions of Representation. The poetic origin of architecture," 12.

17 Bafna, "How architectural drawings work – and what this implies for the role of representation in architecture," 553.

18 Rohe, quoted in "How architectural drawings work – and what this implies for the role of representation in architecture," 542.

Bafna notes that this commentary appears to blur the distinction between building and drawing, firstly by making a comparison to the Sforza Chapel (an existing building), and secondly, by describing the composition of the drawing, as the composition of the building it represents, as though they are the same thing.¹⁹ Such a reading is seemingly enabled by its slightly ambiguous character; devoid of scale, dimensions, orientation, and which in places, appears incomplete.

Marco Frascari describes drawings of this nature as "non-trivial." He says an approach as one which "controverts the presence of the entity in the drawing yet to elaborate it further." To controvert, is to "dispute or oppose, "or to "engage in controversy."²⁰ Therefore, his definition suggests a deliberate ambiguity forged through contradiction within the drawing. Frascari continues to describe the authority of such a construction as "a matter of apprehending a reference system between what is internal to the drawing frame, and what is external to it." Therefore, a non-trivial drawing could be understood to elicit what Bafna refers to as an imaginative mode of interpretation; slipping between a drawing and an architectural artefact, existing both inside and outside the paper.

4.5

A NOTE ON TECHNIQUE

According to architect Michael Young, orthographic projections and perspectives are what distinguish architectural drawings from other, non-architectural types of drawing. He says the techniques "discipline an architect towards thinking three-dimensionally through two-dimensions."²¹

19 Bafna, "How architectural drawings work – and what this implies for the role of representation in architecture," 542.

20 Merriam-Webster, "Controvert."

21 Young, "Stop Projecting."

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for further details..

Figure 7 Evans' illustration of the permeation of projection. Source: Robin Evans, *Projection and its analogues: The Arrested Image*, in *The Projective Cast*, 367, fig. 197.

According to Evans, architecture, (and so, architectural drawing) always has a projective cast, since drawings reconcile the distance between things; namely, between thinking and imagination, imagination and drawing, and drawing and building (as his diagram describes). Within this diagram, he outlines the various fields of projective transmission (Figure 7); illustrating relationships between the designed object, orthographic projection, perspective, and the observer (via perception and imagination). According to this diagram, architectural drawing is comprised of perspective and orthographic drawing. Their location at different points within implies that each structure a distinctly unique architectural view, and therefore, plays a unique, and active role in the process of architectural conception.²² Similarly, Bafna argues that the format of a drawing, is not merely a mode of presentation, but a working medium; an intellectual construct.²³

22 Lucas, "Traced Drawings as Knowledge Production," 8.

23 Bafna, "How architectural drawings work – and what this implies for the role of representation in architecture," 554.

Orthographic projection refers to several two-dimensional views of a subject,²⁴ including the plan, section, and elevation. Since orthographic drawings exclude information from the third dimension, the drawings lack depth²⁵ and instead emphasise formal and compositional relations of its constituent geometries in two dimensions.

According to Iain Fraser and Rod Henmi, orthographic projections, though seemingly simple, are conceptually sophisticated (compared to their three-dimensional counterparts). They argue that eliminating information in the third dimension, "increases clarity and focus" in the other two.²⁶ For example, in section, vertical relationships are emphasised in the absence of horizontal relationships. Evans also argues that the transitive space labeled 3, works in both directions; meaning that orthographic drawings and the designed object can be derived from one another. This interchangeability is significant, and emphasises the generative power of orthographic drawing. Through parallel lines which Evans calls "the conservers of true measure,"²⁷ orthographic drawings serve as tools to both conceive architecture and to retrospectively understand it.

Orthographic projection is also exceedingly abstract, since it is unreplicable by our own optic mechanisms. When would we ever be hovering mid-air, (as to not skew our vision), while a building or object is momentarily cut (vertically), so we can view it in perfect section? I suspect, probably never. The orthographic projection will always vanish in the subsequent artifact.²⁸

24 Evans, *The Projective Cast*, 368.

25 Evans, *The Projective Cast*, 107.

26 Fraser, Henmi, *Envisioning Architecture*, 25.

27 Evans, *The Projective Cast*, 108.

28 Allen, *Practice: Architecture Technique and Representation*, 46.

Also depicted in Evans' diagram is the perspective (refer to transitive space labeled 4, Figure 7).²⁹ Defined by the convergence of parallel lines at a vanishing point(s), perspective drawing mimics the way we see. To do so, objects further from the foreground, exponentially recede in scale. Evans indicates that perspective drawings can be constructed directly from orthographic drawings, and "independent of the designed object's existence or realizability,"³⁰ implying that orthographic drawings, rather than perspective drawings contain the genesis of architectural thought, and possess the capacity to retain it across a distance between subsequent drawings or built objects.

While Evans says it is possible to reverse the direction of transitive space labelled 4 (to create orthographic projections from perspective drawing), it is complex and tedious, since dimensions are distorted. It is interesting that a mode of drawing, so closely allied with the way we see, is less helpful to architectural thinking, than comparatively abstract drawings (such as orthographic projection). This notion of helpfulness refers to the ease with which one drawing can be used to construct another, and is therefore largely concerned with axial dimensions; heights, widths, and lengths.

Therefore, the perspective tends to be relegated to presentation drawing, often elaborate, conceived after the design process, intended to engage and persuade.³¹ It is this difficulty which Henmi and Fraser attribute to the inception of the third type of projection; parallel.

Where perspective drawing is constructed via fixed vanishing points in which projected lines converge (Figure 8) the axonometric is constructed via three axes of measurement, which extend the apex of the visual cone to infinity³² (Figure 9).

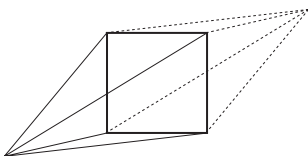


Figure 8 Perspective projection. Source: El Lissitzky, in *Art and Pangeometry*, 1925. Redrawn by author.

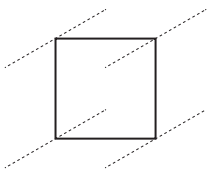


Figure 9 Parallel projection (axonometric). Source: El Lissitzky, in *Art and Pangeometry*, 1925. Redrawn by author

29 This research will also encounter transitive space 5 in the first phase of the creative application of this research. This space is concerned with the distance between the object and its derived pictures, in this case as photographs of my kitchen, of which I draw from. Evans says that here, the "viewpoint is undetermined and its choice involves what we call judgement, creativity or imagination." 369.

30 Evans, *The Projective Cast*, 368.

31 Fraser, Henmi. *Envisioning Architecture*, 131.

32 Lissitzky, "Art and Pangeometry." 354.

If perspective drawing conveys a fixed viewpoint, the axonometric does the opposite; suggesting "a continuous space in which elements are in constant motion."³³ Similarly, perspective drawing locates the viewer within what is drawn, whereas axonometric places the viewer above or below it, equally as abstract as its orthographic derivatives. Stan Allen says that such a drawing lends itself to the "multiplication of views, describing the complex totality of the object."³⁴ In addition, since the dimensions of the orthographic drawings are retained, it is possible to achieve a uniform level of detail throughout the drawing.

4.6

PROPOSING AN APPROACH

By Bafna and Frascari, it is evident that the less 'clear' the drawings are notationally, the more communicative, and thus, generative they become. Evans notes that although drawing often exists in a fixed state as marks on a surface; "information can be mobilized by the imagination of the observer." Inconsistencies and contradictions can be drawn (and drawn out) through "apprehending" what is internal to the drawing and what is external to it. The practical application of this research will borrow a similarly "non-trivial" approach, operating within multiple, sequential parallel drawings.

This approach conforms to what Evans describes as to "take advantage of the situation,"³⁵ (the situation being the in-between nature of architecture). He suggests that by extending the drawings' journey, while maintaining sufficient control (in this case, through applying appropriate technical and material limitations), then "more remote destinations may be reached."³⁶

33 Allen, *Practice: Architecture Technique and Representation*, 19.

34 Allen, *Practice: Architecture Technique and Representation*, 19.

35 Evans, "Translations from Drawing to Building," 15.

36 Evans, "Translations from Drawing to Building," 15.

5.0

SLOW FOOD, SLOW ARCHITECTURE

"We are enslaved by speed and have all succumbed to the same insidious virus: Fast Life, which disrupts our habits, pervades the privacy of our homes and forces us to eat Fast Foods...A firm defense of quiet material pleasure is the only way to oppose the universal folly of Fast life."

*Folco Portinari*¹

The accessibility and prevalence of sophisticated digital tools, has meant that drawing (in contemporary practice) is often regarded as unsophisticated or archaic.² Michael Graves goes further to suggest that it has become fashionable to declare the "death of drawing."³ He argues that drawing is a fundamental aspect of architectural practice, and that despite technological developments, "architecture cannot divorce itself from drawing."⁴ It should be clarified that this project does not attempt to argue against digital tools; but rather chooses hand drawing and making specifically to exploit the direct, intimate and tactile material engagements they enable. Drawing and making comprise a poetic strategy, where the process itself labours over subtle details, in the same manner that seemingly insignificant moments and objects during lockdown became magnified. To borrow Portinari's phrase, it is a project that deals in "quiet material pleasure."⁵ This project is a recluse from the pace of normative architectural practice (just as lockdown was a recluse from the pace of daily life).

There is something to be said on the sentiment of pleasure in drawing. Distinguished from the fulfillment of a need (according to Jean-Luc Nancy, in his book "The Pleasure in Drawing"), pleasure "comprises

1 Portinari, quoted in *The Slow Food Manifesto*. xxiii.

2 Scheer, *The Death of Drawing. Architecture in the Age of Simulation*, 118.

3 Graves, "Architecture and the Lost Art of Drawing."

4 Graves, "Architecture and the Lost Art of Drawing."

5 Portinari, quoted in *The Slow Food Manifesto*. xxiii.

a renewed dynamic, revived by the desire to which it responds;"⁶ a dynamic that could be likened, I will argue, to the joy I found in modest domestic rituals during lockdown. Nancy implies that pleasure is an essential constituent of drawing (and by extension, architectural drawing); capable of combining the value of charm and that of anticipation with extreme delicacy.⁷ Both cooking and architecture evolve from, and sustain culture. Ian Ritchie describes culture as "raising our horizons above survival."⁸ Therefore both invoke, (beyond healthiness, or as Nancy writes, the "fulfillment of a need"⁹); pleasure and delight;¹⁰ both in their conception, and their use.¹¹ Frascari describes pleasure as being concerned with both aesthetics and a tactility. In other words, pleasure is cultivated and perceived through both the eyes and the hands, our sense of vision and of touch.

Marco Frascari draws parallels between drawing in architecture, and slow food; a movement primarily concerned with quality and integrity; "smallness of scale, human dimensions, dialogue, commitment and quality of things."¹² According to the movement's founder Carlo Petrini, it is an understanding of these concerns that assists in ones acquisition of "good taste"¹³ – a point of contention in both architecture and cooking.¹⁴

In his book 'Eleven Exercises in the Art of Architectural Drawing', Frascari dedicates an entire chapter to the notion of *Festina Lente*, which is "to make haste slowly: to proceed expeditiously but prudently"¹⁵. Put simply, it means to work efficiently, but with care; a slow architectural practice

6 Nancy, Armstrong. *The Pleasure in Drawing*. 17.

7 Nancy, Armstrong. *The Pleasure in Drawing*. 17.

8 Ritchie, "The Cuisine of Making Shelter," 147.

9 Nancy, Armstrong. *The Pleasure in Drawing*. 17.

10 Ritchie, "The Cuisine of Making Shelter," 147.

11 Frascari, "Taste in Architecture," 3. In the case of architectural drawing, this means

12 Petrini, "Slow Food," 140.

13 Petrini, "Slow Food," 140.

14 Hogson, *The Architect, The Cook, and Good Taste*. 8.

15 Merriam-Webster, "Festina Lente."

that opposes the "universal folly of fast life."¹⁶ He is critical of the prevalence of autonomous digital media in architecture, which he says tend to propel a project ahead of its time, resulting in a "disconnection from time and place."¹⁷ Frascari criticises modernist architecture in a similar manner. "While they may look the real thing, they have been designed to be gulped down. They are a feast for the eyes, but there is no possibility, no reason to take the time and the pleasure to taste them."¹⁸ They address the need for architecture to invoke pleasure in only an aesthetic sense. However, without the sustenance of tactility, this architecture lacks pleasure in its experience, merely fulfilling a need. Fast food, (and by Frascari's analogy, fast architecture), fails to address issues of context, and so often (like fast food) look and taste the same.

This research does not seek to address issues concerning particular architectural styles, nor does it attempt to argue against digital practices. However, Frascari's observations and analogies do indicate the value of quality and integrity in architectural thinking, conception and production. We might then consider how a slow analogue approach, might have the ability to contemplate, resulting in architecture that is entrenched in time and place; drawings that invite us to chew, rather than mindlessly gulp down. Following Frascari, this approach (when utilised with skill and care), might transcend mere functional efficiency, to enhance historic and cultural values.¹⁹ Since both cooking and architectural drawing are cultural activities, (despite their varying temporalities), both have the ability to "report precisely on a culture, region, or person."²⁰ If this is the case, then drawing and making are the most appropriate media through which to unravel and reconstruct the introspective and isolated experience of being contained within the home.

16 Portinari, quoted in *The Slow Food Manifesto*. xxiii.

17 Frascari, *Eleven Exercises in the art of architectural drawing*. 30.

18 Frascari, "Semiotica Ab Edendo, Taste in Architecture." 3.

19 Frascari, *Eleven Exercises in the art of architectural drawing*. 30.

20 Hagen Hodgson, *The Architect, The Cook, and Good Taste*. 9.

6.0

ARCHITECTURE AND COOKING

One of the most empowering books I've read over the past couple of years is 'Salt, Fat, Acid, Heat: Mastering the Elements of Good Cooking', by Samin Nosrat. As well as being formative on the way I cook, the book's principles-based approach to cooking struck me as one that is highly architectural. Nosrat writes that while recipes; in their carefully articulated measurements and methods, will often produce a flavourful and balanced meal; you will never really know how to cook without understanding the principles that underlie the recipe.¹ Similarly, the drawing in architecture contains measurements and methods for the construction of the built artefact to follow. Architecture is a practice that relies on principles, and their carefully balanced application, if it is to be done well. For Frascari, one of the more significant concepts in architectural theory as developed by Alberti, was the concept of *concinnitas* in the production of harmonious architecture. The ontological origin of the term "records the figurative transposition of the harmony of taste present in a well-cooked dish, where the dosing of components is properly calibrated."² According to Robert Tavernor, 'proper calibration' describes a general beauty, in which all components are necessary, and any further addition or subtraction would compromise the whole. *Concinnitas* in the context of drawing, therefore describes a beauty in which all components serve the drawing, to the betterment of its whole.

It is important to make this cross-disciplinary connection, since architecture itself spans a multitude of tangential fields. In *Architecture in an Expanded Field* [edited by Sarah Treadwell and Lucy Treep], Treep writes that "interdisciplinary activity seems intrinsic to the field of architectural practice."³

1 Nosrat. *Salt, Fat, Acid, Heat: Mastering the Elements of Good Cooking*, 11.

2 Frascari, Marco Frascari's *Dream House. A Theory of Imagination*, 27.

3 Treadwell, Treep. *Architecture in an Expanded Field*. 3



Figure 10 My cooking.

Here, the crossings of boundaries between interdisciplinary fields of thought or practice (namely, architecture and cooking) might "lead to the creation of a new species" or at least cultivate sites of creativity and growth.⁴ Perhaps there is more to learn, of architecture and of cooking (or the kitchen), by examining them in terms of one another.

Stan Allen likens the work of an architect constructing drawings to that of a cook constructing a recipe, since both "effect a transformation of reality at a distance from the author."⁵ Both are contingent on translation, and (among other things) the taste of the architect or cook who created it. Forever immortalised on paper, the recipe will always outlive the meal; and it is the passing on of the recipe that sustains culture. I suggest that the drawing behaves in a similar manner. Often always outliving their architect,⁶ (and in many cases, the built artefact too), the drawing sustains cultures of architectural practice; ways of thinking and seeing.

The notion of taste is something present in both cooking and architecture, as Frascari and elsewhere, Hagen Hodgson points out. In these contexts, Hodgson attributes our perception of taste to two categories; both of which are 'measured' by our values, collective cultural experiences, and social rituals.⁷ The first is aesthetic and refers to proportion, harmony and composition. The second refers to materials, (or ingredients as in the context of cooking). In other words, taste is both individual and collective. Taste, I suggest, could be linked to the notion of *concinnitas* since both imply a 'proper' calibration of components.

Dave Hickey writes that architecture is a practice unlike science, which aspires to "universal application."⁸

4 Treadwell and Treep. *Architecture in an Expanded Field*. 3.

5 Allen, *Practice: Architecture Technique + Representation*, 41.

6 Frascari, "Line as Architectural Thinking," 201.

7 Hagen Hodgson, *The Architect, The Cook, and Good Taste*. 8.

8 Hickey, in *Practice: Architecture Technique + Representation*, xxiii.

It is, instead, specific and contextual. A drawing, like a recipe, responds to specific aspects of culture and context.

Practitioner Stephen Foley describes architectural practice as the "dynamic relationship between the architect and the social and economic structures within which they work"⁹; where the application of components, through various methods and techniques, are tested to unique scenarios. Similarly, Chef Raymond Blanc says cooking is not an art, but equally not a science: "it is a mixture of experience, intuition, and creativity."¹⁰

Michael Linzey refers to the Myers-Briggs type indicator test (by D.W. MacKinnon), to show the significant correlation between creative architects and intuitive thinking. As Linzey describes it, intuition and other creative processes of design are complex, and "fuzzy," by nature¹¹. In cooking, proportion, composition and balance are tested through our literal sense of taste, supplemented by visual 'taste'. Nosrat strongly insists that we constantly taste our food throughout the cooking process, to assess whether or not more salt is required. Similarly, drawing allows us to test proportion, composition, and balance, only now tasting occurs with the eye and the hand, rather than the tongue. Frascari calls this the "rule of taste."¹² Visually, we can add, subtract, retrace, or begin new drawings entirely. Equally, the density and texture of paper, and the tactile sense of graphite against it, allow us to determine (like salt in a meal) if more or less is required. It is the visual and tactile aspects of drawing that enable architects to resolve complex and inherently "fuzzy"¹³ problems. This also emphasises the effectiveness of drawing as an architectural strategy.

9 Foley, "Mapping the Design Process: From Charles Eames to Enric Miralles," 33.

10 Blanc, in *The Architect, The Cook and Good Taste*, 144.

11 Linzey, "Architect's Intuition," 31.

12 Frascari, "Semiotica Ab Edendo. Taste in Architecture," 6.

13 Linzey, "Architect's Intuition," 31.

7.0

TABLE MANNERS

*"At regular intervals it becomes the site for gathering, over time the marks of the food and drink spilled on its surface. At other times it is the venue for office meetings. At such times it is to be found scattered with pieces of paper, models, drawings, pens and other evidence of office life."*¹

Sarah Wigglesworth, on the dining table.

In her project 'Table Manners,' architect and Professor Sarah Wigglesworth, examines the intersection between architecture and home life, through drawing; specifically through the practice of tracing. Tracing, according to Ray Lucas, is fundamental to architectural thinking. He describes it as a practice that "relies upon transparent paper, allowing lines from one drawing to be selectively re-used in subsequent inscriptions."² As the site at which her home and work lives collide, the dining table is the point of departure, and the basis for these "subsequent inscriptions"³ (to borrow Lucas' phrase). Often, Wigglesworth writes, the separation between office and dining table (work and home life) becomes blurred; the dining table scattered with a collection of coffee cups and plates, among drawings and models.

Wigglesworth documents her dining table across three phases, as she observes them (see Figure 11, Figure 12, and Figure 13). The series departs from the ordered 'lay of the table,' which Wigglesworth describes as an architectural ordering of "place, status, and function."⁴

This is followed by the chaotic unruliness of 'the meal' depicting the messiness of domestic activity. The remnants of the meal are later depicted in 'the trace,' which Wigglesworth likens to the palimpsest; an architectural term that refers to the residue of something that came before, caught between time and space.⁵

1 Wigglesworth, "Table Manners," 31.

2 Lucas, "The Discipline of Tracing in Architectural Drawing," 2.

3 Lucas, "The Discipline of Tracing in Architectural Drawing," 2.

4 Wigglesworth, "Table Manners," 32.

5 Wigglesworth, "Table Manners," 32.

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Figure 11 The Lay of the Table, static and orderly. Source: Wigglesworth, Sarah. In "Table Manners," Architectural Design 68, 1998. (Same reference for Figures 11-15).

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Figure 12 The Meal. Movement is indicated with dashed lines.

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Figure 13 The Trace

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Figure 14 The Lay of the Plan

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Figure 15 Ground Floor Plan

Wigglesworth uses the dining table as a metaphor for architectural order, with 'the meal' representing the domestic condition.

Beyond what is seemingly a straightforward description of time and place, when read in terms of this metaphoric association, the drawings describe the relationship between architecture and the domestic; a reciprocal relationship, where each affects the other. To read Wigglesworth's drawings in this manner implies that architecture does not only establish the framework for domestic life (i.e., the dining table supports the ritual of sharing a meal) but that domestic life equally shapes the architecture. In this case, the meal literally shapes the form of the subsequent house plan.

The series also implicitly describes the cyclic nature of domestic life, as I later come to experience. A similar three-part drawing could be used to describe other domestic scenarios; the making of the bed, or the preparation of the meal, for example. When cooking a meal, ingredients and utensils are found neatly concealed in the pantry, in cupboards, drawers, the in the fridge; neatly ordered. During the cooking process, utensils become dirtied; vegetables are sliced, diced, blanched, and sautéed. The components of the meal are spread across kitchen surfaces; chaotic and unruly. Rather than choosing to close and complete this cycle of domestic life (returning to the lay of the table), Wigglesworth takes 'the trace' of her dining table, and through the act of tracing, selectively reuses and reconfigures lines to resemble something closer to an architectural plan, and (in doing so), further from her dining table.

The difference between the two drawings (the trace and the lay of the plan), demonstrates how 'the trace' through the act of tracing, establishes (what Ray calls) "grounds for invention."⁶

Through the act of tracing, which introduces and allows variation and inaccuracies, new architectural knowledge is cultivated. This

6 Lucas, "The Discipline of Tracing in Architectural Drawing," 2.

demonstrates the unique capability of drawing to generate something new, from something else;⁷ a potential that this research seeks to exploit.

During Wigglesworth's tracing, lines are straightened and smoothed over as approximations of the messy dining table (see Figure 14). A rolled up napkin (as seen in Figure 13), now exists as straight lines, populated with finer, perpendicular lines (Figure 14). A chair is pulled out from beneath the table, the trace of someone who has got up to leave after their meal, without pushing it back in. In its tracing, the chair reemerges as several curved lines which jut out beyond the rectangular frame of the dining table. Wine spilled on the tablecloth becomes parallel curved lines that trace the outlines of the spillage.

'The Lay of the Plan' is an example of a drawing that, (in the absence of notation), evokes a less straightforward reading. Instead, the drawing is more propositional asking what the architecture might be, rather than describing what it is. Finally, it reaffirms earlier discussion around the nature of architectural practice as being contingent on the movement between. In this case, Wigglesworth is concerned with the space between home and work life, between architecture and the domestic, and between the dining table and the house, and therefore, what happens at their respective intersections. Drawing is deployed as an architectural strategy.

Methodologically, 'Table Manners' models an approach that similarly addresses the intersection between a domestic condition or scenario, and architecture, through drawing.

However, Wigglesworth's project is formally and compositionally predictable; borrowing forms from the trace fairly directly in the lay of the plan, and later in the ground floor plan.

7 Allen, *Practice: Architecture Technique + Representation*, 45.

To exploit the generative capacity of drawing, this project will instead, extend the space between the domestic scenario (within my kitchen) and the drawings that follow. Firstly; through including more (mis) translatory steps (drawings and makings), based on Evans' notion that extending the journey between subsequent drawings, creates the possibility for "more remote destinations" to be reached.⁸ Secondly, through extending the imaginative capacity of drawing through re-appropriating, and combining, and conventional drawing methods, to deliberately enhance their ambiguity.

We might then agree with Marco Frascari, that such drawings become 'non-trivial.'⁹

8 Evans, "Translations from Drawing to Building," 15.

9 Frascari, *Eleven Exercises in the Art of Architectural Drawing*, 9.



Figure 16 Drawing

2 . 0

P A R T
T W O

8.0

THE BEGINNING

The inception of this research coincided with the Covid-19 Pandemic; a new normal in which our freedoms were measured on a scale of 1 to 4, 4 being the most restrictive and the level within which this research departs. I spent most of this time alone or in the quiet company of my one flat mates who decided to endure level 4 with me in our uninsulated, central Wellington flat. I became immersed into an almost-surreal slowness; of thoughts, of actions. It occurred to me that our pre-pandemic lives relied strongly upon the fast-paced economic-driven systems that govern our world. I realised that in order to live a fulfilling and prosperous life by these standards, the chance to 'opt-out' might not come again. Without obligation to the outside world, it was a time of deep introspection and reflection.

I like to visualise my life in plan view, as a series of interconnected lines, crossings over, interconnected shapes that trace the paths of activity, movement and interaction (Figure 17). During lockdown this imagined diagram of my life became much smaller in size and much, much emptier. Lines were severed, cut short. Some shapes disappeared entirely or lost their form. Those that did remain now floated in isolation, with gaping holes between them (Figure 16). My own body was now larger by comparison. The smallness of this new normal abruptly shoving into focus, the more intricate entanglements within its web, those there all along but never big enough to warrant my devoted attention.

Within this smaller world, the kitchen became larger, figuratively speaking. I love to cook, so for me the kitchen really is the heart of the home; the nucleus in and around which home life unfolds.

It is the place where life, in the form of food and water is contained; hidden within its pipes and concealed neatly within its pantry. It bears witness to sleepy mornings and pots of coffee; cold nights and ug-boots.

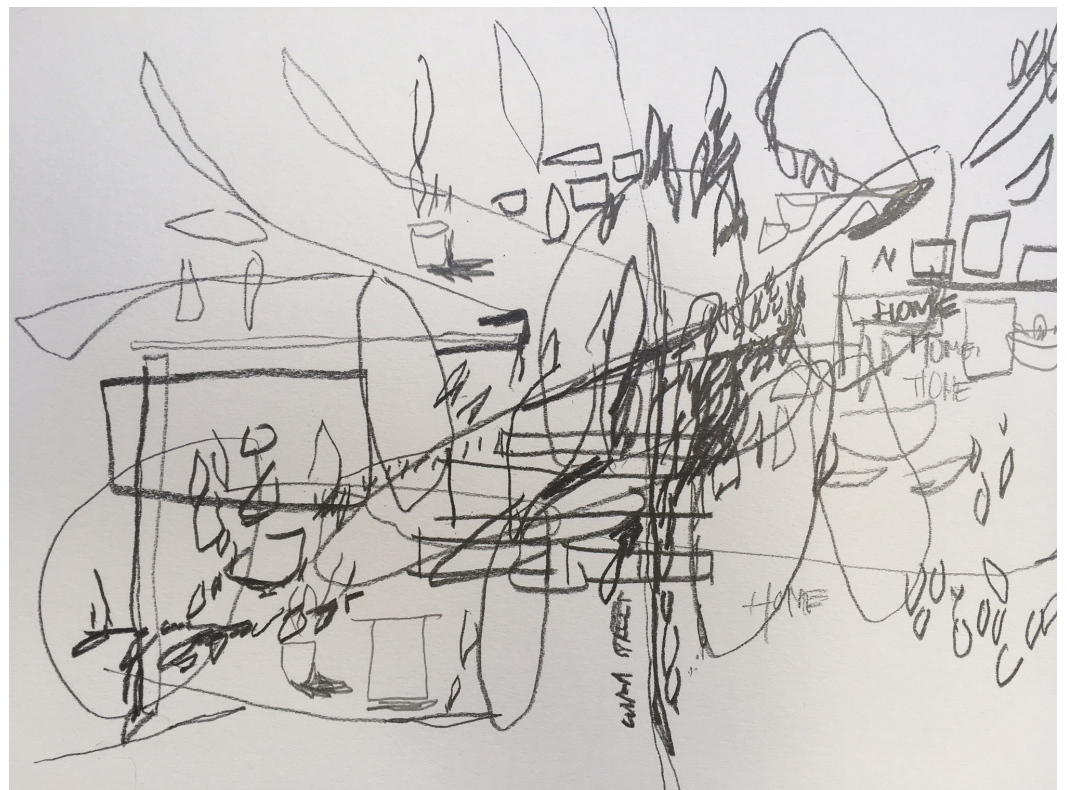


Figure 17 A
drawing of my life
in plan view.

It radiates warmth; heat from its gas oven, and via the kettle as cups of tea. It emits the smell of bread toasting (occasionally burning), and of rice left a minute too long, now caramelized on the bottom of a stainless steel pot. It accumulates, in and on its surfaces; residues of a previous day. Chocolate birthday cake crumbs squashed into the lino floor, turmeric stained melamine, and water stained wood. The dining table, a quiet facilitator of conversation, bears witness to exchanges of laughter (sometime crying), and polite reminders to not use the dryer on a sunny day. Its surface, intermittently littered with sheets of paper, house keys and garden flowers. The gentle rhythm of life entangled within the four walls of my kitchen.

During lockdown, places and people that would normally occupy the time and space between breakfast and dinner were removed; socially distanced. Work became synonymous with relaxation, house synonymous with home. Normally separate conditions now forcefully assimilated, at times indistinguishable from one another. In the absence of the outside world, it was the rituals in and around the kitchen that were left to uphold my sense of normality, time, and joy; a way to make sense of this new and unfamiliar world. It is in the recording of these moments, through drawing, that this project departs.



Figure 18 The first meal I cooked for our flat post-Level 4.

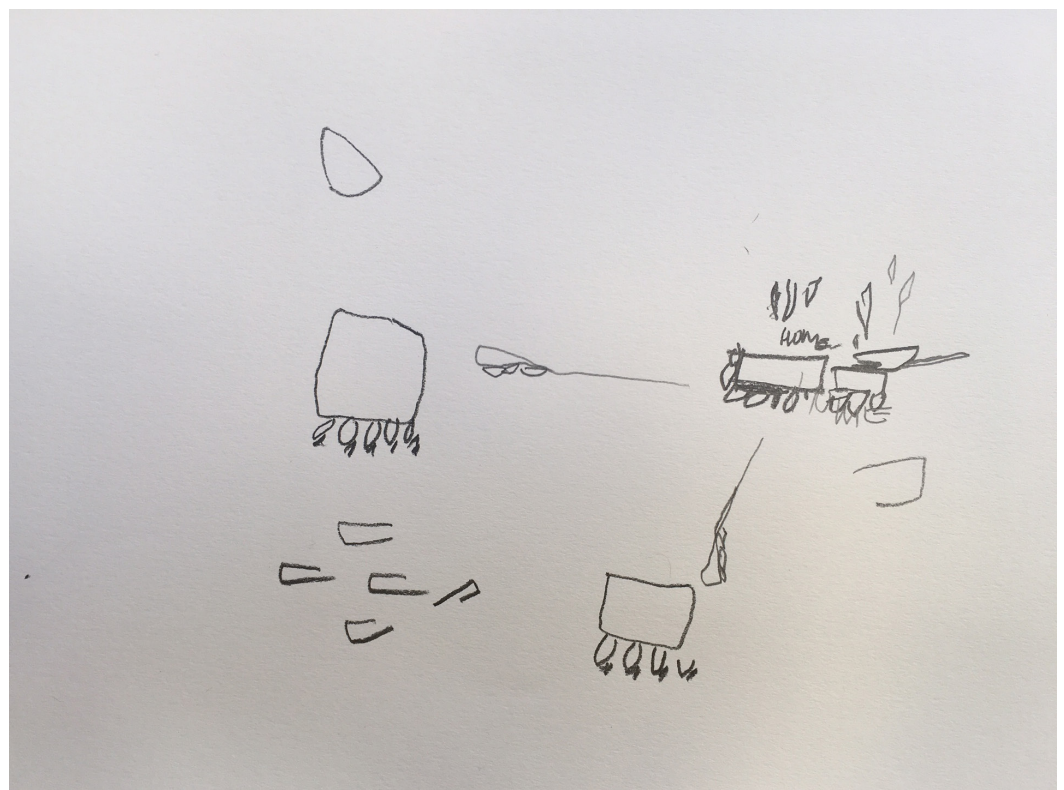


Figure 19 A
drawing of my life
in plan view during
Level-4 lockdown.

C R E A T I V E A P P L I C A T I O N

Drawing - My Kitchen

Drawing *on* - Plans of Drawings

Drawing *out* - Parallel Projections

Drawing *out* - A scale shift

Drawing *on* - House Plans

Drawing *in* - House Sections

Drawing *over* - Roof Plans

Drawing *out*, drawing *together* - Houses in parallel projection

Drawing *with* - Paper

Drawing *together* - From drawings to models

9.0

DRAWING — MY KITCHEN

The following drawings are symptomatic of my experience of lockdown. They bring into focus, (and make permanent), small, unassuming domestic rituals that are ordinarily overlooked. Michael Graves notes that the physical act of drawing establishes a visceral connection to the subject(s), assisting to solidify the idea or experience both mentally (in reflection), and literally on paper.¹ Similarly, Scheer writes that the "tactile experience of drawing gives the architect a greater understanding of an experience."² Choosing to record these specific moments on paper, suggests their importance, and reinforces how the home, establishes a framework for enabling and supporting domestic life.³ Just as the notion of introspection denotes inward-looking and self-examination⁴ the intimate act of drawing is used as a medium to look inward on, and examine my home.

Treadwell's essay, *Engendering Architecture*, discusses how the 'wildness' of domesticity is suppressed in architectural publications; perceived to undermine the clean perfection of the architectural object.⁵ Just as the domestic interior "spills out of the house,"⁶ wobbly lines are used to record it, similarly spilling out across the surface of the paper. It is isn't until subsequent drawings that these moments are solidified within the realms of architectural drawing, literally, as hard lines.

The drawings take place on a Mutoh stand-alone drafting table. The surface measures 1500 x 920mm, so the A4 sheets of paper, fixed to the centre with small strips of masking tape, felt comparatively

1 Graves, "Architecture and the Lost Art of Drawing."

2 Scheer, "The Death of Drawing. Architecture in the Age of Simulation." 6.

3 It is interesting to note that within this series of six drawings, two depict bowls of fruit. In retrospect, it doesn't seem surprising that in a time where we were deprived of many of life's ordinarily simple pleasures that I turned to other, smaller moments of abundance and colour, like bowls of fruit.

4 Merriam-Webster, "Introspection."

5 Treadwell, "Engendering Architecture," 2.

6 Treadwell, "Engendering Architecture," 1.

small. The drawings were made on thick textural paper, inscribed with rich coloured marks from the slightly-oily, soft lead of coloured pencils. The heavy application of the pencil was enabled by the weight and absorbency of the paper, providing adequate friction without compromising the integrity of the surface.

Some marks have more depth than others, creating subtle impressions on the papers' surface. The domestic subjects are drawn smaller in scale to their real-life counterparts. The marks made in these drawing were determined through the delicate dynamic between the pencil and my mind, eyes, and hands.⁷ If the marks were made larger, they would appear too hollow and loose relative to the thinness of the lead. If the marks were any smaller, they would lose their linearity and instead appear as an accumulation of solid shapes. Equally, a sense of control would be lost if the marks were larger, since my arm would first have to divorce itself from my drawing board, losing a sense of stability. This demonstrates how drawing is an inherently intimate act, contingent on the drawing materials, the hand of its maker, and the dynamic between them.⁸

Placing a photograph of the original scene from my kitchen, against the drawing, reveals the changes (differences) that occur in (mis) translation, between photograph and drawing. Most obvious, is the omission of certain objects entirely from the photograph, in the drawing. For example, the upside down mug and cleaning sponge shown in Figure 21, are omitted from the drawing 'Coffee plunger and percolator drying on the dish rack' (Figure 22).

7 Graves, "Architecture and the Lost Art of Drawing."

8 According to Richard Sennett, who writes on the craft of drawing being as a prelude to the craft of building, the encounters with drawing materials can be seen as prelude to later encounters with building materials. While building is beyond the scope of this project, as outlined in part one, it is interesting to consider how a drawing is shaped with respect to the scale of the body. Based on Sennett's writing, this relationship between the crafting of a drawing and body could be likened to the craft of a building in relation to the body, both in its conception and its use.

The ability to add to subtract, to or from drawing, is what distinguishes drawing from photography, and what make it similar to a cooking. In cooking, literally tasting throughout the processes is a way to test the balance between its elements. A similar process occurs in drawing, though tasting occurs through the eye and the hand. Marks are added and subtracted according to our tastes; in proportion, composition and balance. This also demonstrates, how drawing has the ability to extend what we already know to exist; "uniquely capable of producing new from something else."⁹

9 Allen, *Practice: Architecture Technique + Representation*, 45.



Figure 20 Remnants of the drawings from my kitchen - coloured pencil shavings.



Figure 21 Coffee plunger, percolator, a mug and a tomato knife drying. The cleaning sponge.

Figure 22 Coffee plunger and percolator drying on the dish rack.

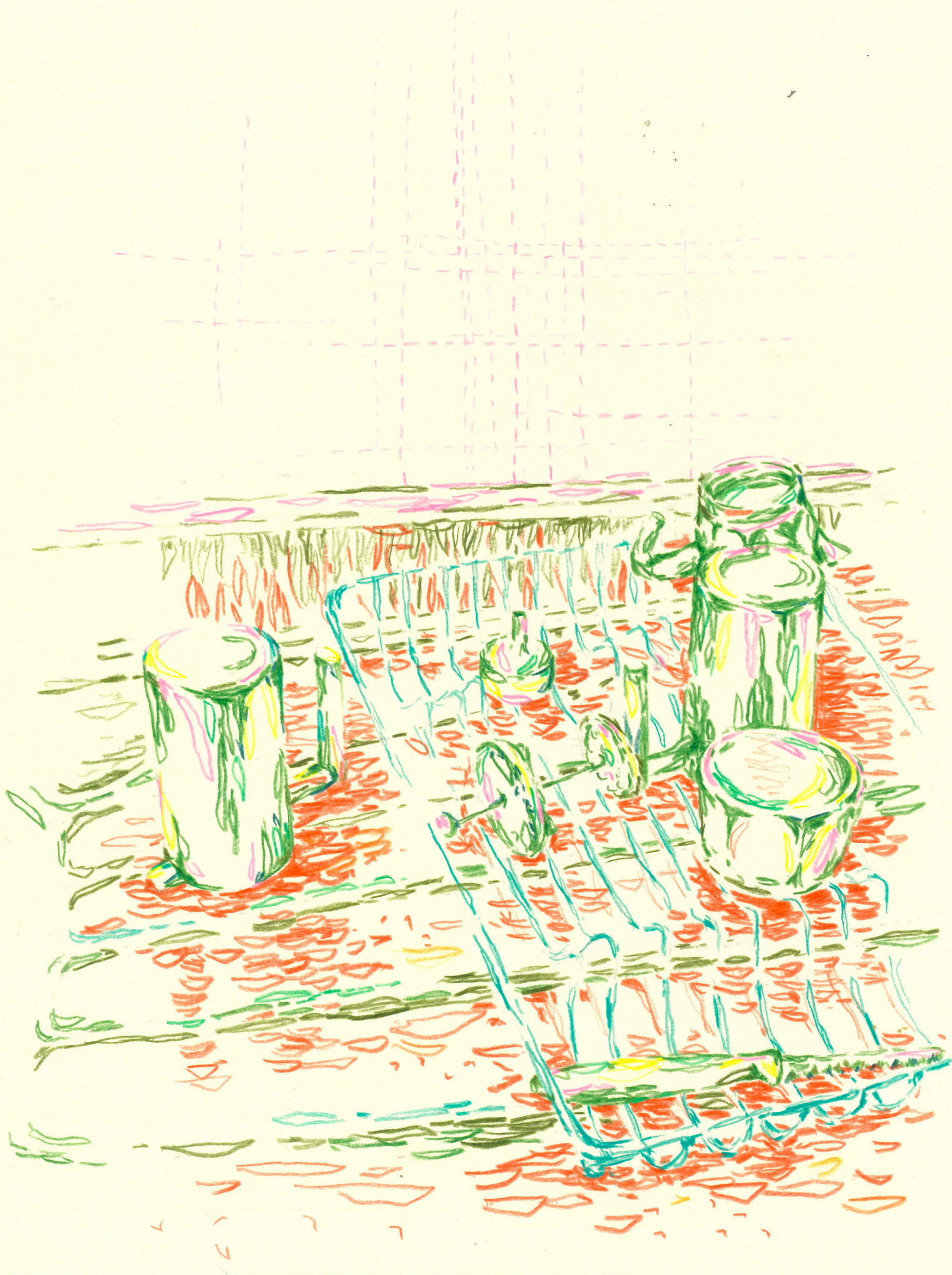




Figure 23 Proteas from the garden, my favourite bowl, a pepper grinder, an old candle, and a tiny jug with a floret of broccoli.

Figure 24 Proteas from the garden and my favourite bowl on the dining room table





Figure 25 My fruit bowl, bottles of olive oil, salt, pepper, and wooden spoons.

Figure 26 Fruit bowl, salt, pepper and wooden spoons.

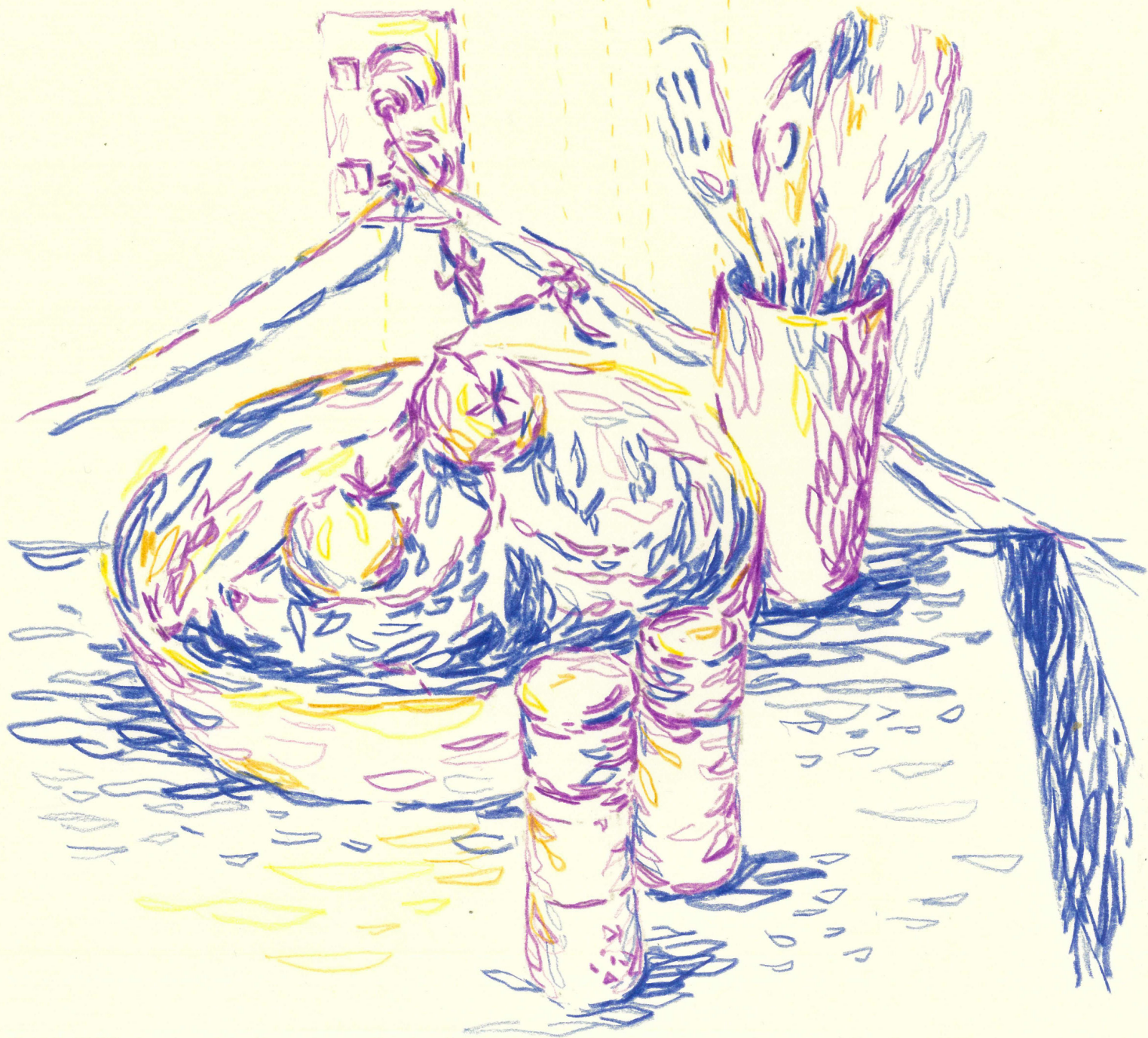




Figure 27 Fruit bowls and bottles of olive oil.

Figure 28 The second fruit bowl.

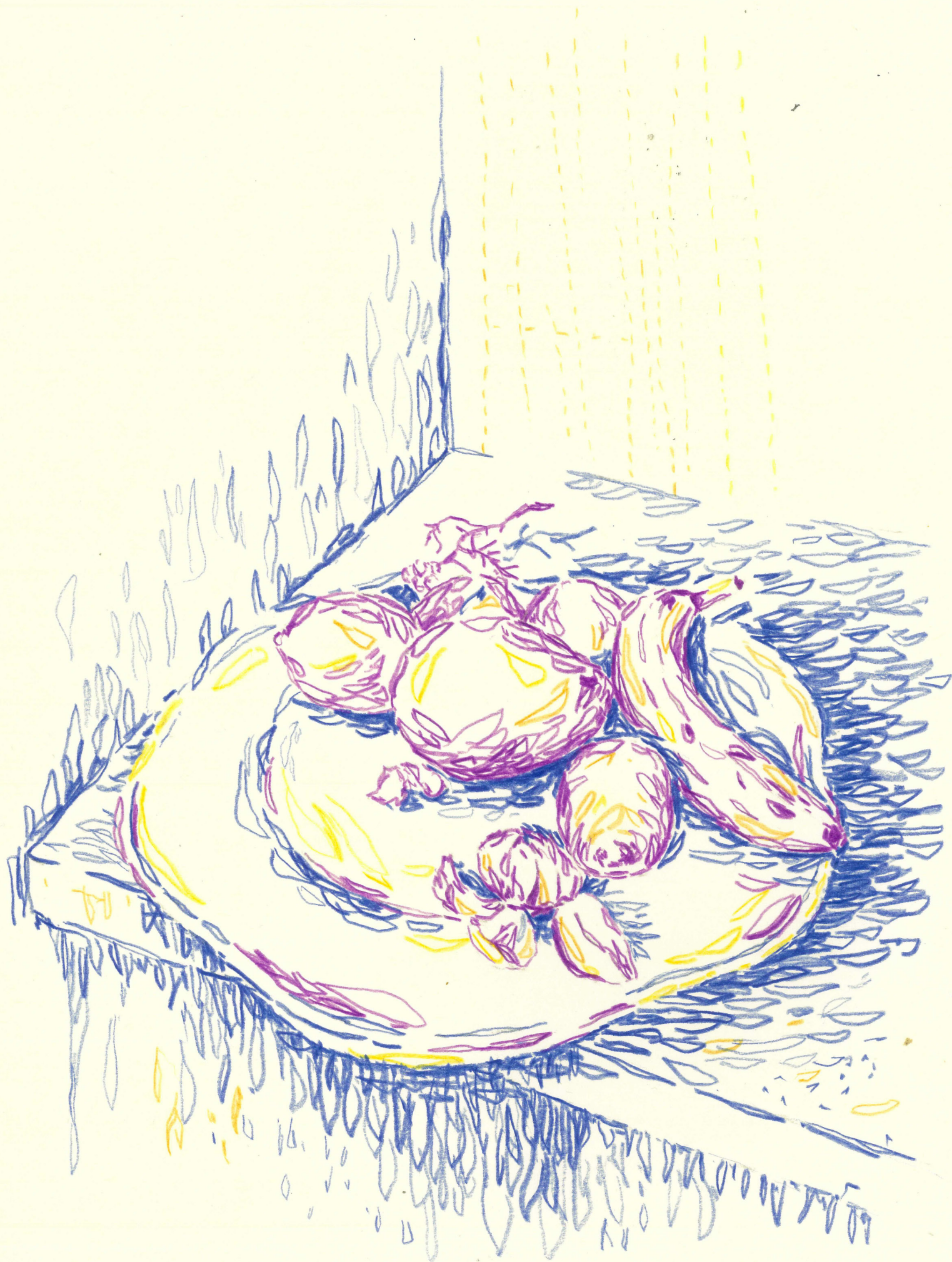




Figure 29 A coffee plunger, a mug, an empty breakfast bowl, and a dying basil plant.

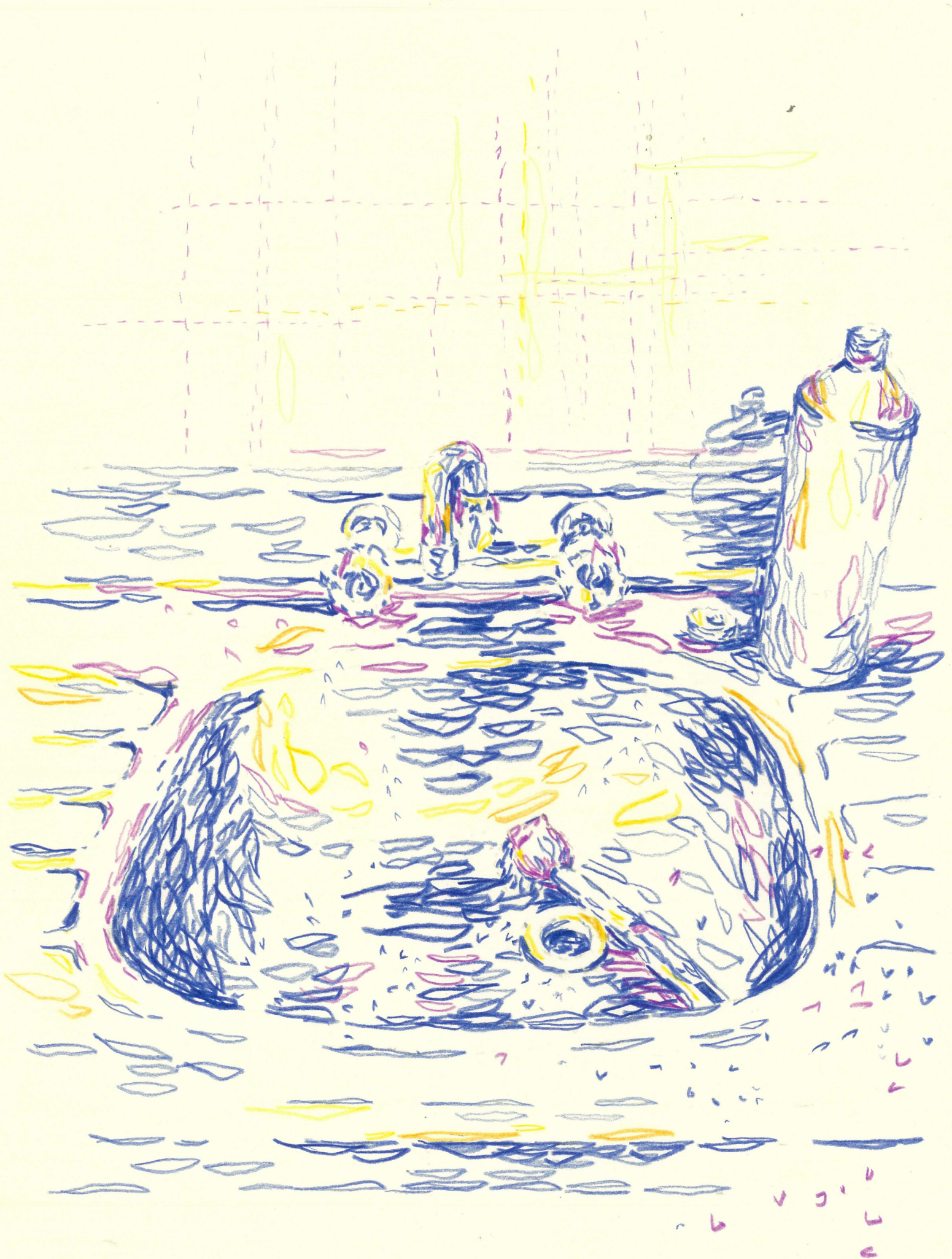
Figure 30 Coffee plunger, breakfast bowl and a dying basil plant.





Figure 31 My kitchen sink.

Figure 32 A drawing of the kitchen sink.



10.0

DRAWING ON — PLANS OF DRAWINGS

10.1

A NOTE ON MATERIALS

Before delving into the drawings themselves, it is important to firstly discuss the change in materials, since drawing is comprised of a series of material impressions.¹ These drawings (and all drawings that follow), use a combination of graphite pencils, ranging from 4H to HB. The drawings were first attempted in coloured pencil (refer to Figure 33), but since coloured pencils are only available in one level of hardness, it was exceedingly difficult to maintain the clarity of a crisp, delicate architectural line. This fact in itself implies that coloured pencils do not belong to the world of architectural drawing. Perhaps they are better suited to drawing in art, or presentation drawings that are less concerned with precision, than with persuasion.²

Despite their hardness, the graphite pencils didn't present as crisp as their labels promised without a complimentary sheet of paper, reaffirming Lucas' argument that the surface plays an equal part in the conception of a drawing,³ to the marks themselves. The richly textured, slightly yellow paper used for the first drawings (refer to Figure 34), didn't bode well with the graphite pencils. Their carefully sharpened leads bled into the page, like an inky pen line drawn on the skin of a hand. Like the coloured pencils, this implies that this kind of paper doesn't belong in architectural drawing. Instead, a harder, less porous paper was used, maintaining the crisp delicacy of the graphite lines with utter precision.

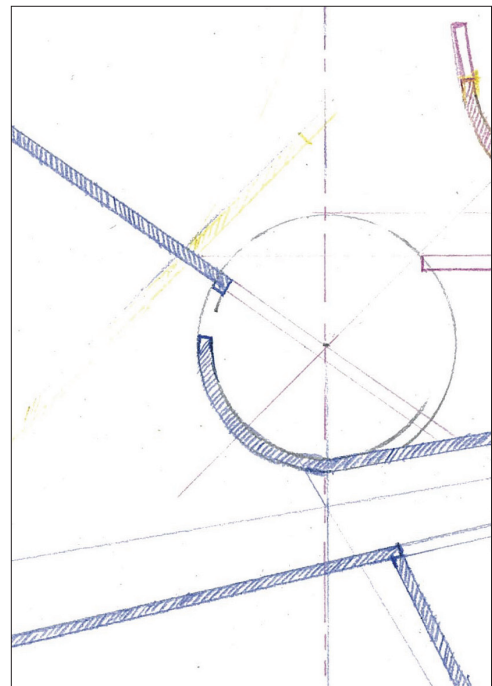


Figure 33 A small section of a drawing attempted in coloured pencils. The variation in thickness is particularly apparent in the dark blue pencil.

- 1 Twose. "Concrete Drawing: Intra-active potentials in drawing, objects and urbanity," 2.
- 2 Fraser, Henmi, *Envisioning Architecture*, 131.
- 3 Lucas, "The Discipline of Tracing in Architectural Drawing," 2.

Some attempts were also made on similarly hard, dense paper from a cheap A3 pad (refer to Figure 36), which made the drawing process slightly quicker and less self-conscious. Similarly, higher quality, slightly more expensive paper made the drawing process slower, and more careful (refer to Figure 35).

To revisit the cooking and food analogy, if a drawing (as Stan Allen suggests), is like a recipe, then we could compare paper in drawing, to the ingredients in a recipe; since both constitute the physical properties of their respective artefacts. In cooking, since high-quality ingredients possess naturally superior flavours and textures, (as compared to their lower grade counterparts), it is important to take extra care in their preparation, to enhance their natural properties, while equally avoiding waste. The same is true of higher quality paper in drawing. We tend to be more frivolous when there is less at stake.

Figure 34 Segment of the yellowy, textured paper used for the drawings of my kitchen.

Figure 35 Higher quality A3 paper, which affected the drawing process by making it slower and more careful.

Figure 36 Hard, smooth, thin paper from a cheap A3 pad.



10.2

THE PLANS

To solidify the unravelling and reconstructing of this project within architecture (where the previous drawings might be more closely allied with art), wobbly lines are *(mis)translated* as hard lines, regulated by the frequent sharpening of my pencil, and the straight edge of a set-square. For Corbusier, the hard line is characteristic of an architectural drawing illustrates; "even if only for a moment, that this is the design."⁴ Hard lines, in architecture, are affiliated with stability and accuracy.

Preceding other types of architectural drawing, (since plans are necessary in order to construct other three-dimensional drawings), plans are thought to contain the genesis of architectural thought⁵ thus making it an appropriate drawing to mark the departure of the creative application of this research. For prominent architects like Corbusier, the plan is "the generator" which he describes as containing "an enormous quantity of ideas and the impulse of intention."⁶ Similarly, these architectural plans collapse and concentrate the experience of rituals within my kitchen within them.

The way this concentration, or (mis)translation occurs, is revealed through a series of diagrams, (descriptive devices), drawn retrospectively. Intended to demonstrate how one drawing became another, they also, incidentally, exhibit how drawings, by nature, privilege form and composition.⁷ Various formal elements from my kitchen, are extracted (as lines) and recomposed, based on their

4 Le Corbusier, *Towards a New Architecture*, 16.

5 Fraser, Henmi. *Envisioning Architecture*, 25.

6 Le Corbusier, *Towards a New Architecture*, 179.

7 Scheer, *The Death of Drawing*, 4.

original configuration (from my kitchen).

The last drawing in each case, presented across a full page, is the product of repetition and refinement.

Unlike the drawings of my kitchen, that clearly depict familiar objects and settings, these drawings are abstract, by nature, since the view they depict is unlike anything we experience optically. There is enough 'information' included for them to be recognised, (and therefore, read) as a plan. Equally, there is enough information omitted, (deliberately open-ended) to invite imaginative possibilities, and liberate potentiality for subsequent drawings. By drawing a plan complete with dimensions, site details and a north arrow, would be to inadvertently insulate it from what the drawing could become. Two parallel lines could be a wall, a frame, a hole or a rail. What they are, without a label to say so, is a matter of interpretation.

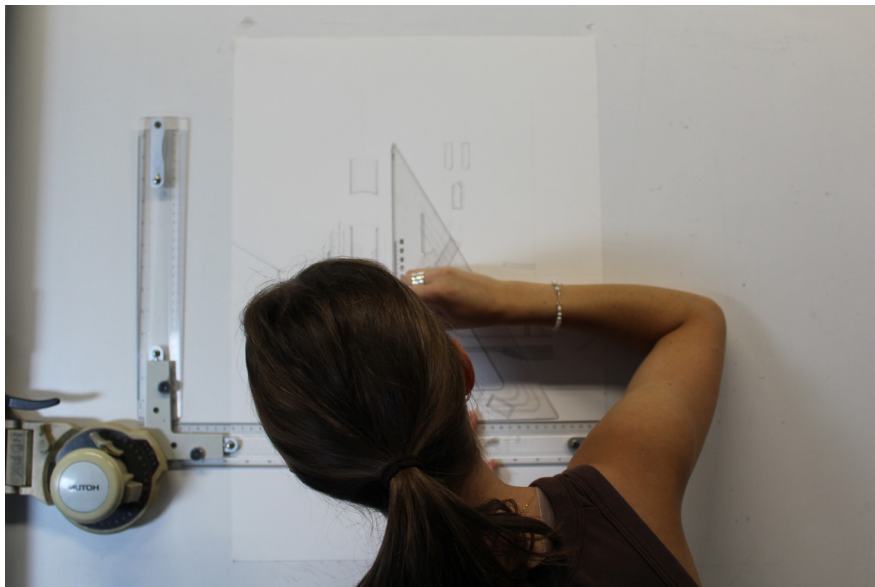


Figure 37 Drawing.

Figure 38 A drawing of my kitchen; coffee plunger and percolator drying on the dish rack. A morning ritual. [A4, coloured pencil on paper]

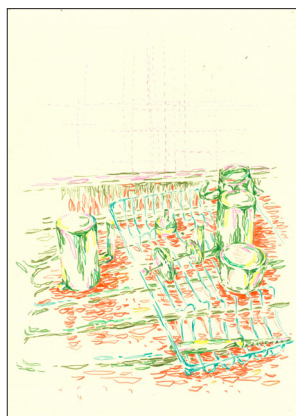


Figure 39 Initial diagram showing key formal and compositional elements extracted from original drawing.

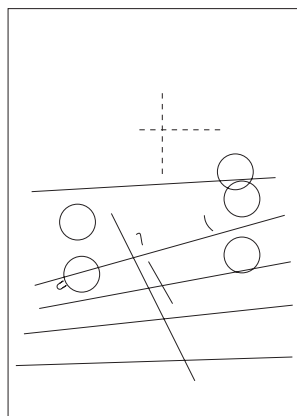


Figure 40 Secondary diagram showing the formal and compositional elements in black which I chose to keep. The red lines show how they have been manipulated to enhance the form and composition of the drawing as a whole.

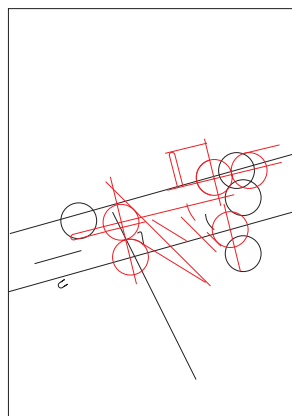


Figure 41 Diagram showing the first iteration of this *(mis)translation*. Reference lines exist for both reference, and as formal and compositional elements of the drawing. Here, the reference lines play an integral part in the composition of the drawing, and are physically connected to the plan. It is difficult to distinguish between the architecture and the drawing, demonstrating their entanglement.

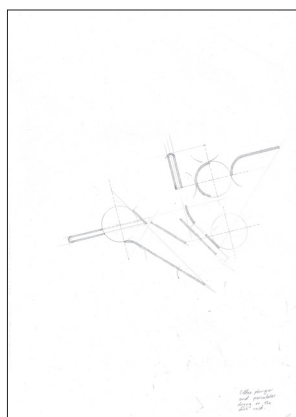
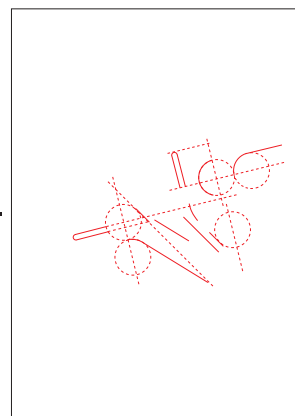


Figure 42 The first drawn iteration. The title of the original drawing is inscribed onto the surface of this new drawing. This helps to maintain a connection to the drawing of my kitchen; a reminder of the time and place within which this was constructed.

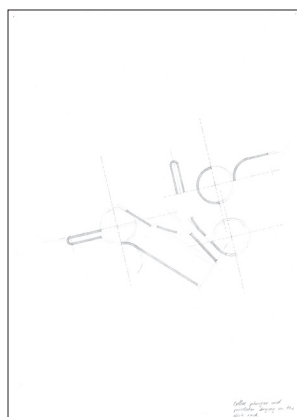


Figure 43 The second drawn iteration with minor compositional changes.

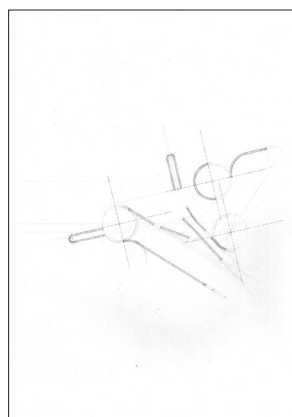


Figure 44 The final drawn iteration. A point of conclusion was reached through recognition of harmony between its constituent parts. No element could be added or taken away without disrupting harmony of the whole.

Figure 45 (Right) Figure 44 reproduced at a larger scale. [Original is A3, graphite on paper].

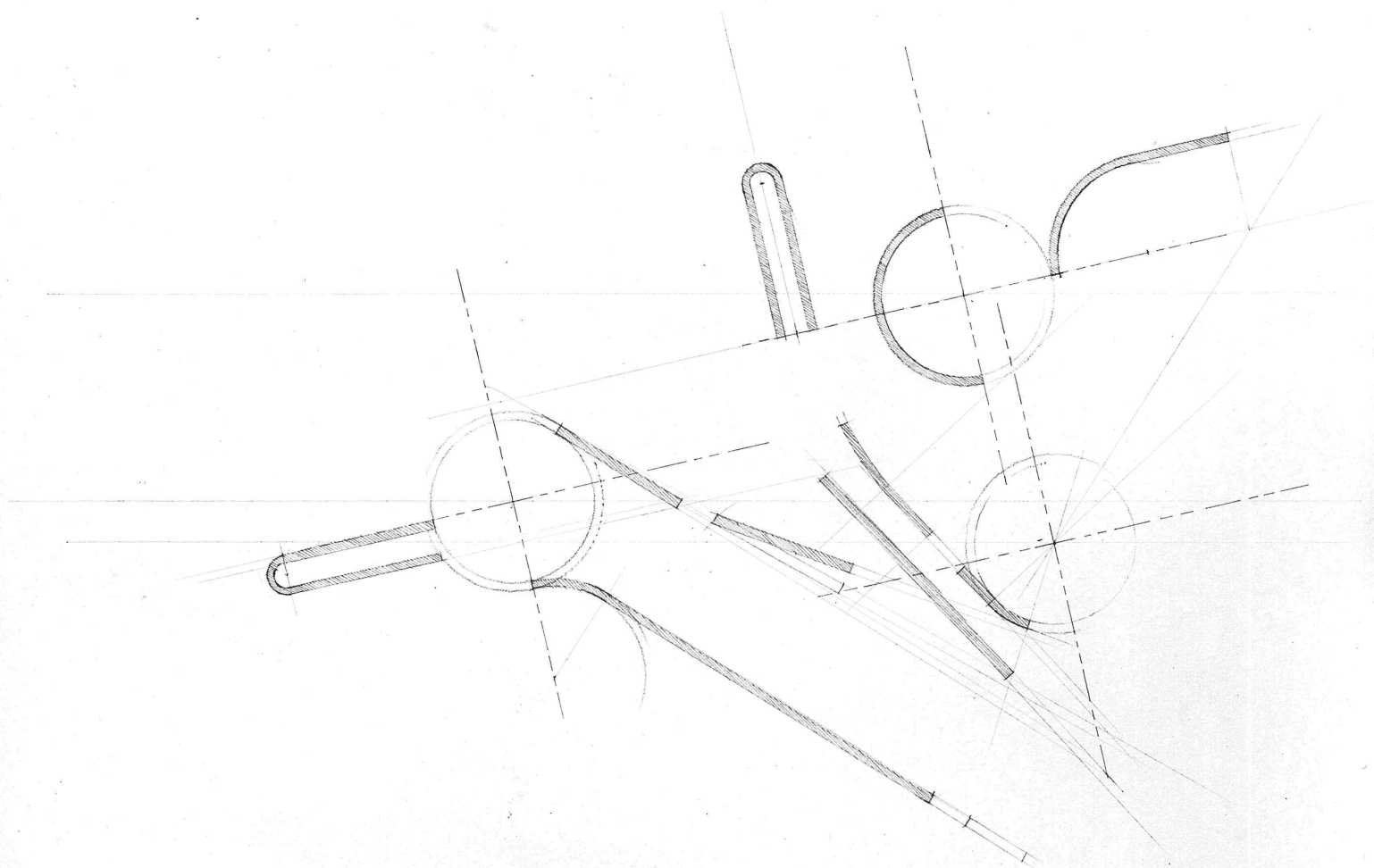


Figure 46 A drawing from my kitchen; proteas from the garden and my favourite bowl. [A4, coloured pencil on paper]



Figure 47 Initial diagram showing key formal and compositional elements extracted from original drawing.

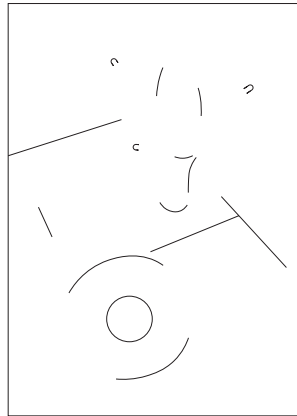


Figure 48 Secondary diagram showing how formal and compositional elements have been manipulated to enhance the form and composition of the drawing. Black lines show formal and compositional elements extracted from the original drawing (compare with Figure 47). Red lines show how these elements have been reappropriated to enhance the form and composition of the drawing.

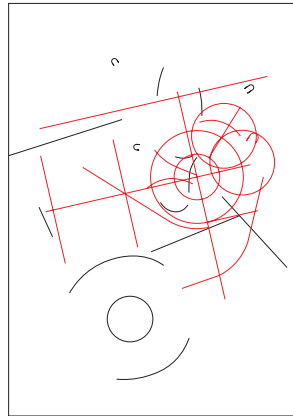


Figure 49 Refining form and composition.

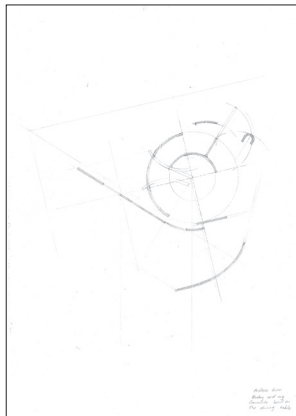
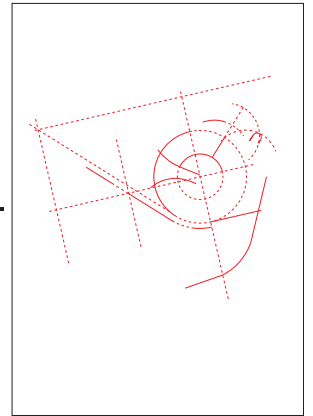


Figure 50 The first drawn iteration.

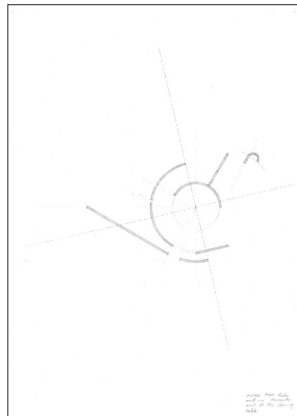


Figure 51 The second drawn iteration with minor compositional changes.

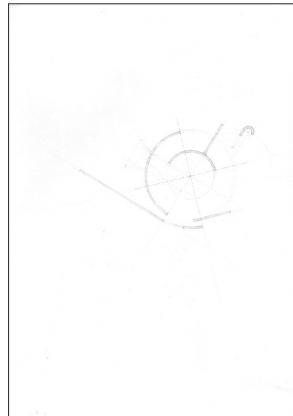


Figure 52 The final drawn iteration.

Figure 53 (Right) Figure 52 reproduced at a larger scale. [Original is A3, graphite on paper].

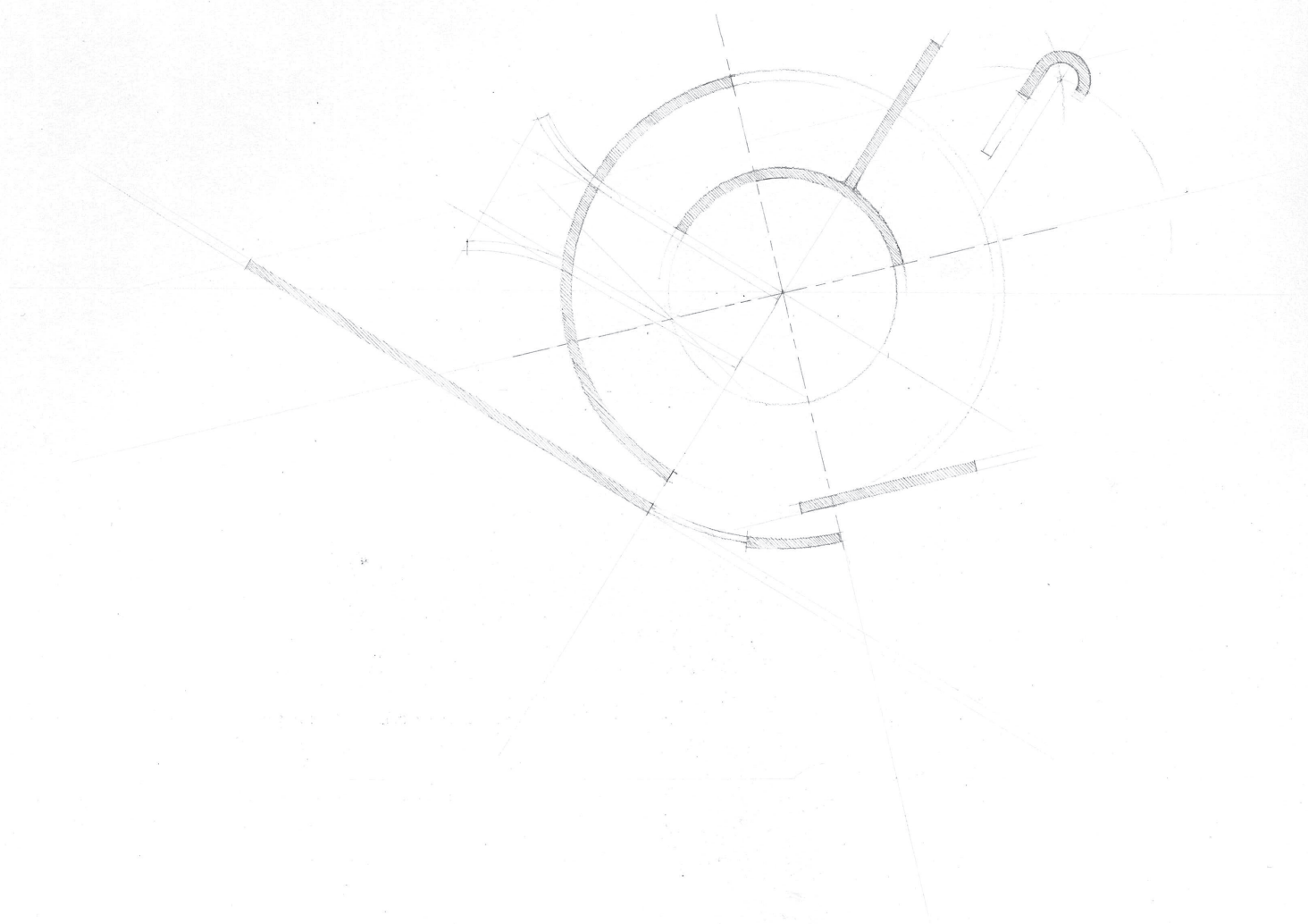


Figure 54 A drawing of my kitchen; coffee plunger and percolator drying on the dish rack. [A4, coloured pencil on paper]



Figure 55 Initial diagram showing key formal and compositional elements extracted from original drawing.

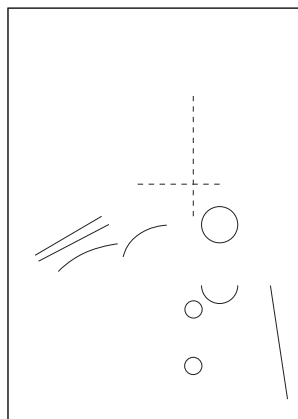


Figure 56 Secondary diagram showing how formal and compositional elements have been manipulated to enhance the form and composition of the drawing.

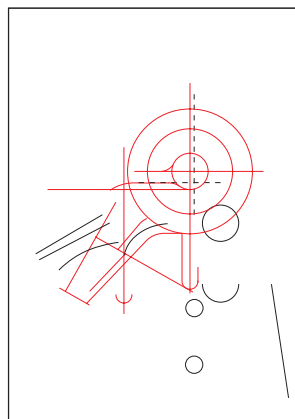


Figure 57 Refining form and composition.

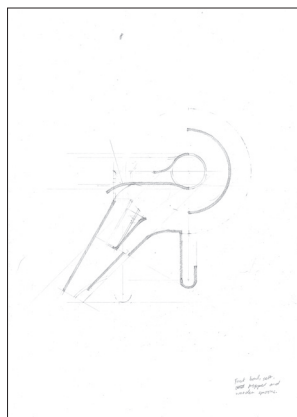
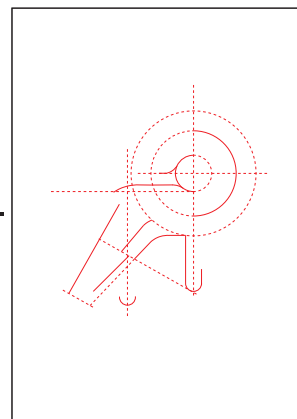


Figure 58 The first drawn iteration.

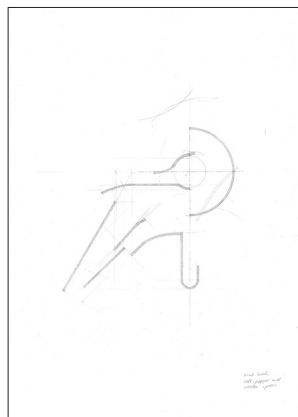


Figure 59 The second drawn iteration with minor compositional changes.

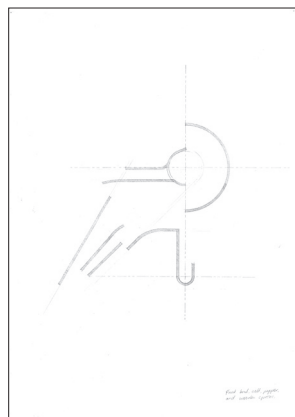


Figure 60 The third drawn iteration.

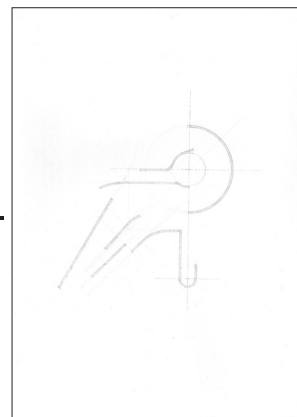


Figure 61 The final drawn iteration. A point of conclusion was reached through recognition of harmony between its constituent parts. No element could be added or taken away without disrupting harmony of the whole.

Figure 62 (Right) Figure 61 reproduced at a larger scale. [Original is A3, graphite on paper].

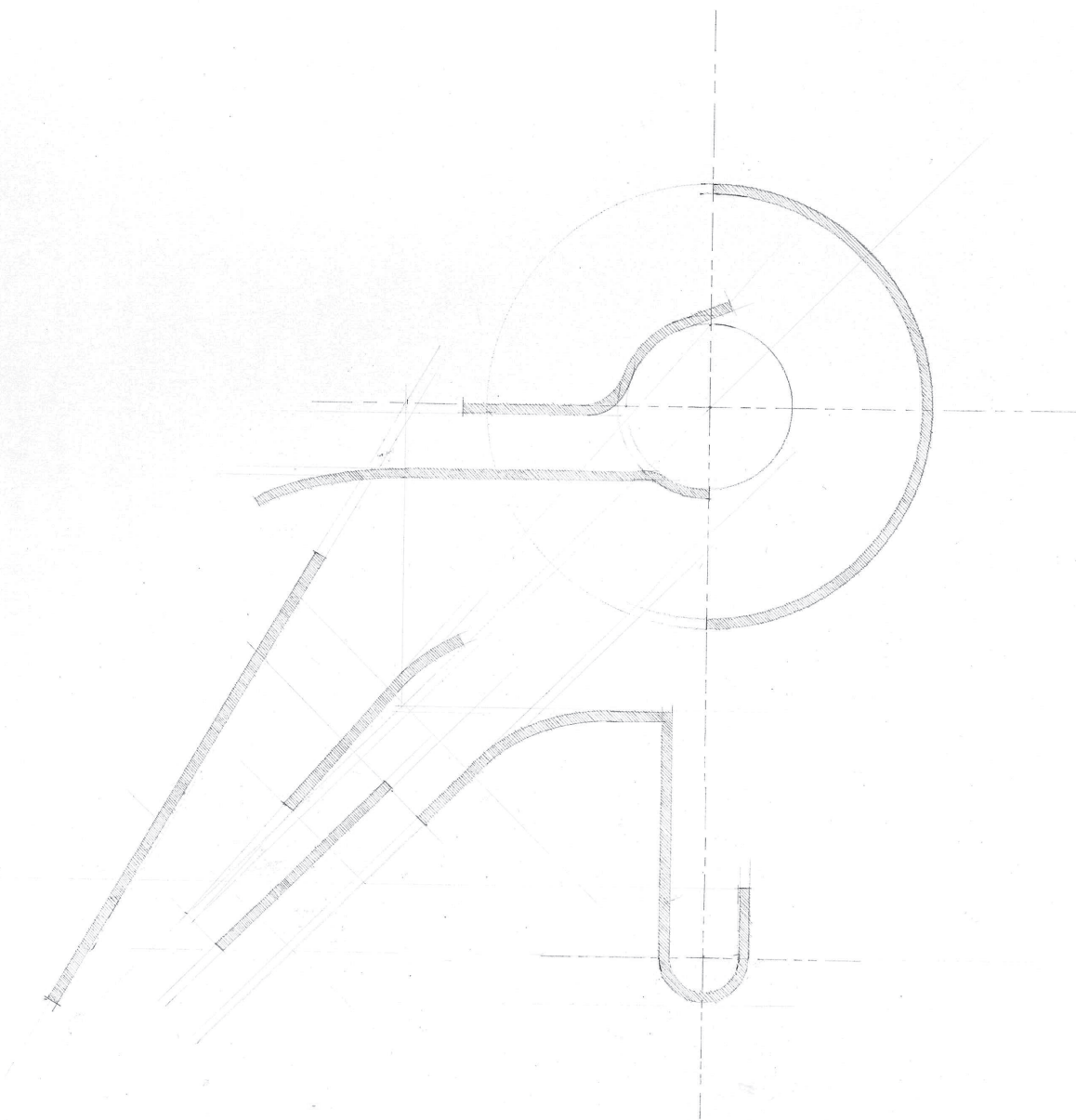


Figure 63 A drawing of my kitchen; the second fruit bowl. [A4, coloured pencil on paper]

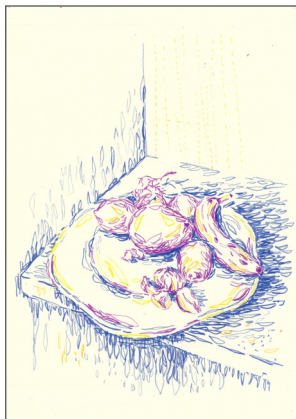


Figure 64 Initial diagram showing key formal and compositional elements extracted from original drawing.

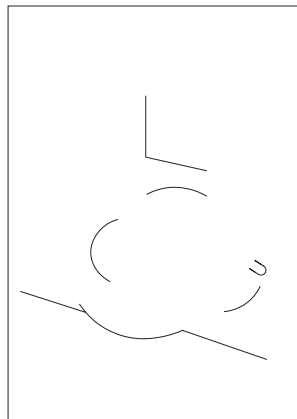


Figure 65 Secondary diagram showing how formal and compositional elements have been manipulated to enhance the form and composition of the drawing.

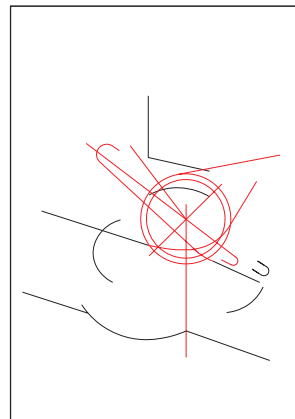


Figure 66 Refining form and composition.

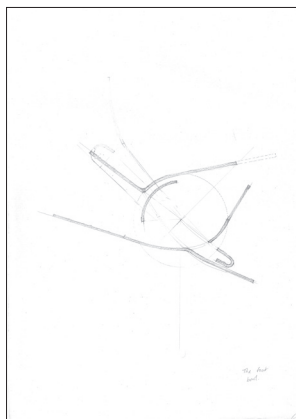
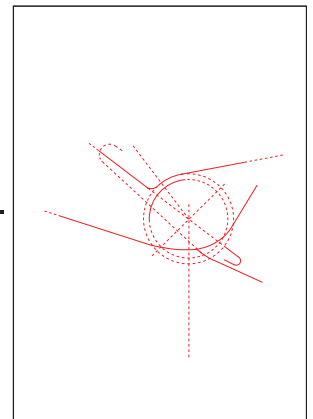


Figure 67 The first drawn iteration.



Figure 68 The second drawn iteration with minor compositional changes.

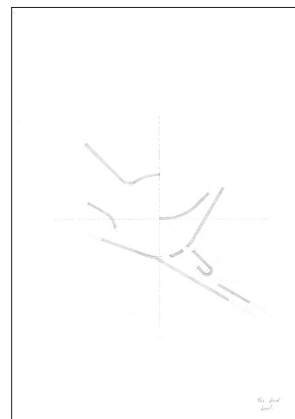


Figure 69 The third drawn iteration.

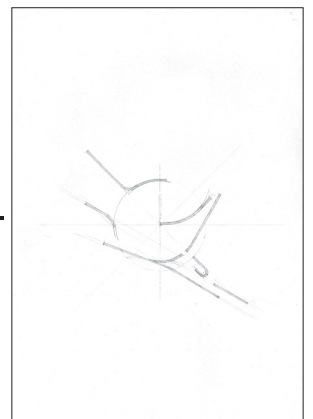


Figure 70 The final drawn iteration.

Figure 71 (Right) Figure 70 reproduced at a larger scale. [Original is A3, graphite on paper].

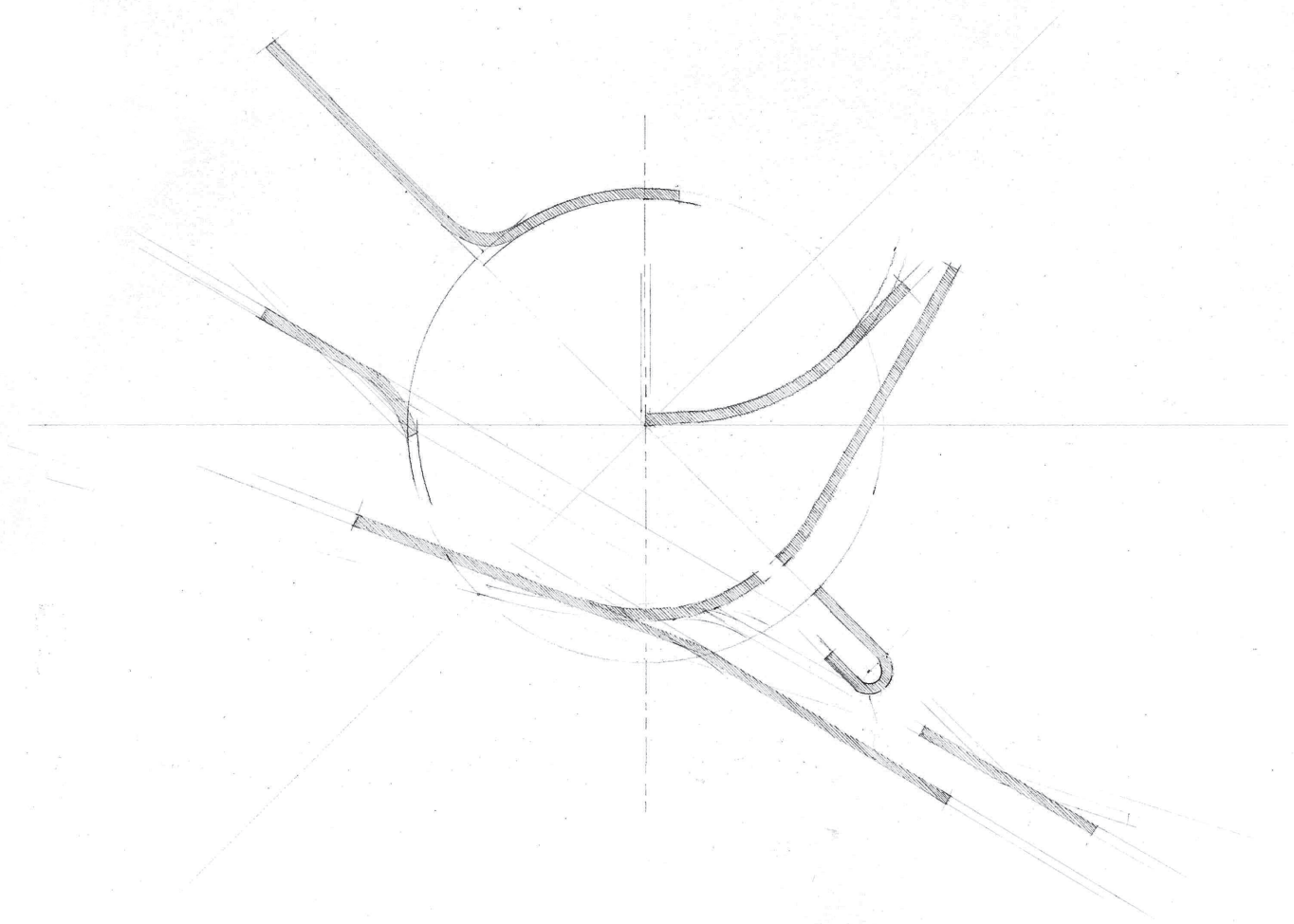


Figure 72 A drawing of my kitchen; coffee plunger an empty breakfast bowl, and a dying basil plant. [A4, coloured pencil on paper]



Figure 73 Initial diagram showing key formal and compositional elements extracted from original drawing.

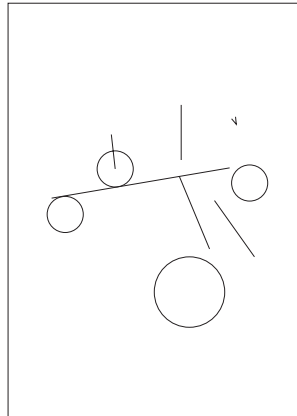


Figure 74 Secondary diagram showing how formal and compositional elements have been manipulated to enhance the form and composition of the drawing as a whole. In this case, the form and composition from the original drawing in my kitchen, remains largely unchanged.

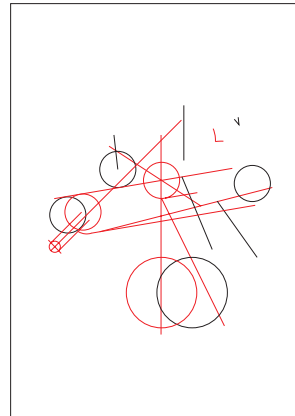


Figure 75 Refining form and composition.

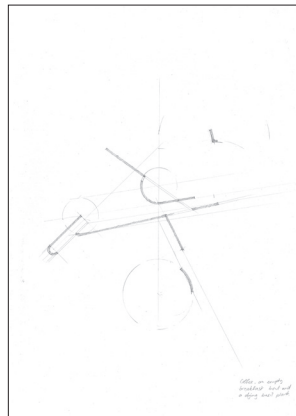
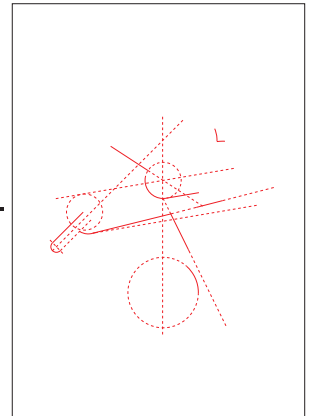


Figure 76 The first drawn iteration.

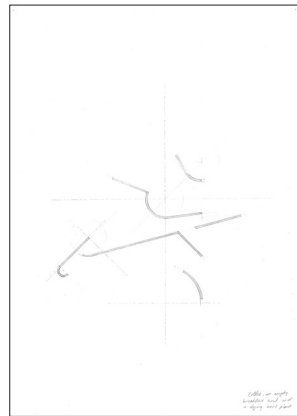


Figure 77 The second drawn iteration with minor compositional changes.



Figure 78 The third drawn iteration.

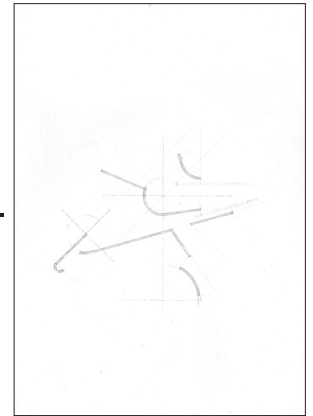


Figure 79 The final drawn iteration.

Figure 80 (Right) Figure 79 reproduced at a larger scale. [Original is A3, graphite on paper]

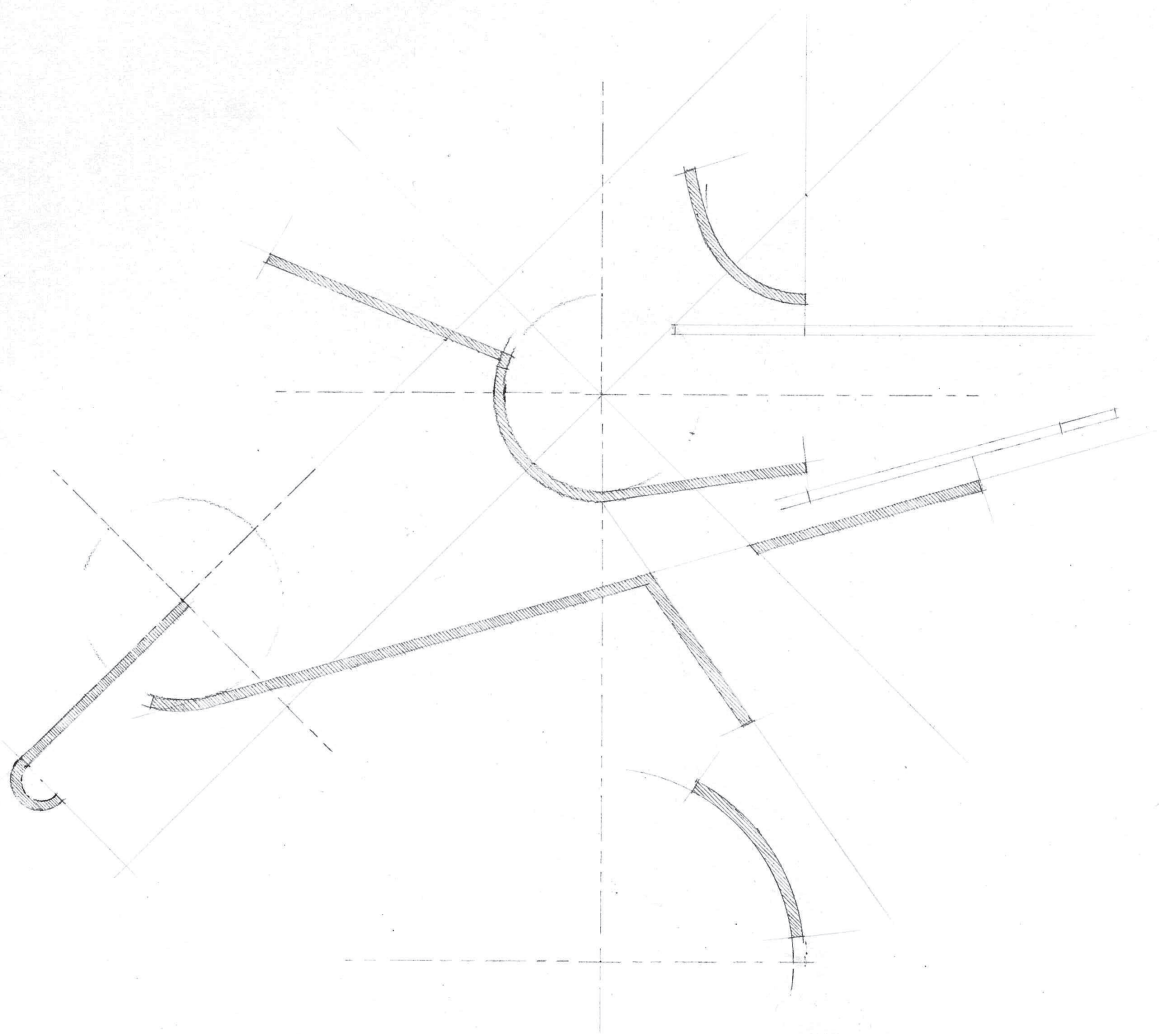


Figure 81 A drawing of my kitchen; the kitchen sink.
[A4, coloured pencil on paper]

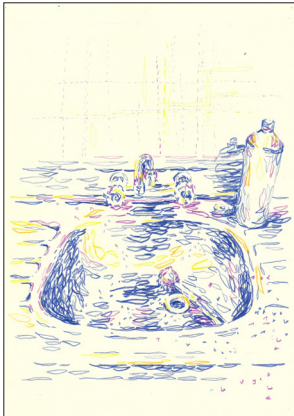


Figure 82 Initial diagram showing key formal and compositional elements extracted from original drawing.

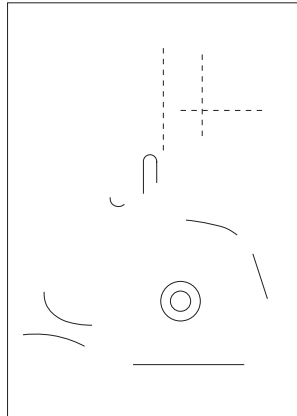


Figure 83 Secondary diagram showing how formal and compositional elements have been manipulated to enhance the form and composition of the drawing.

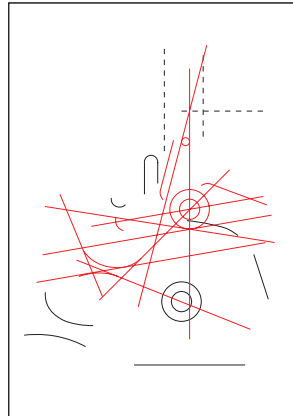


Figure 84 Refining form and composition.

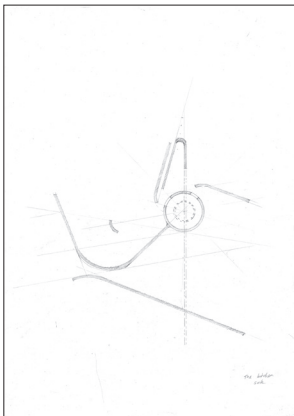
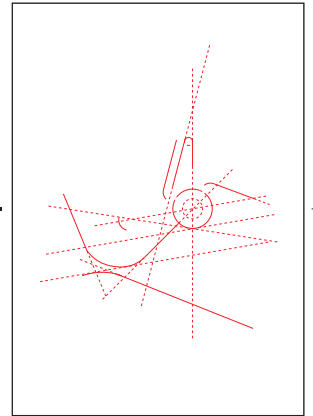


Figure 85 The first drawn iteration.

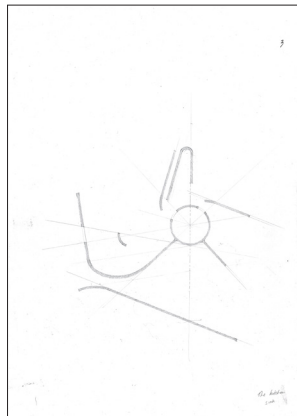


Figure 86 The second drawn iteration with minor compositional changes.

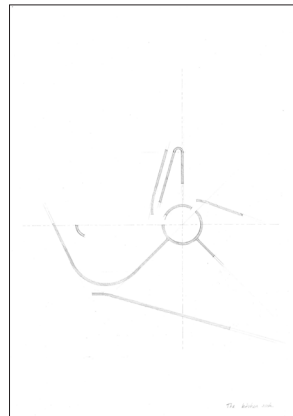
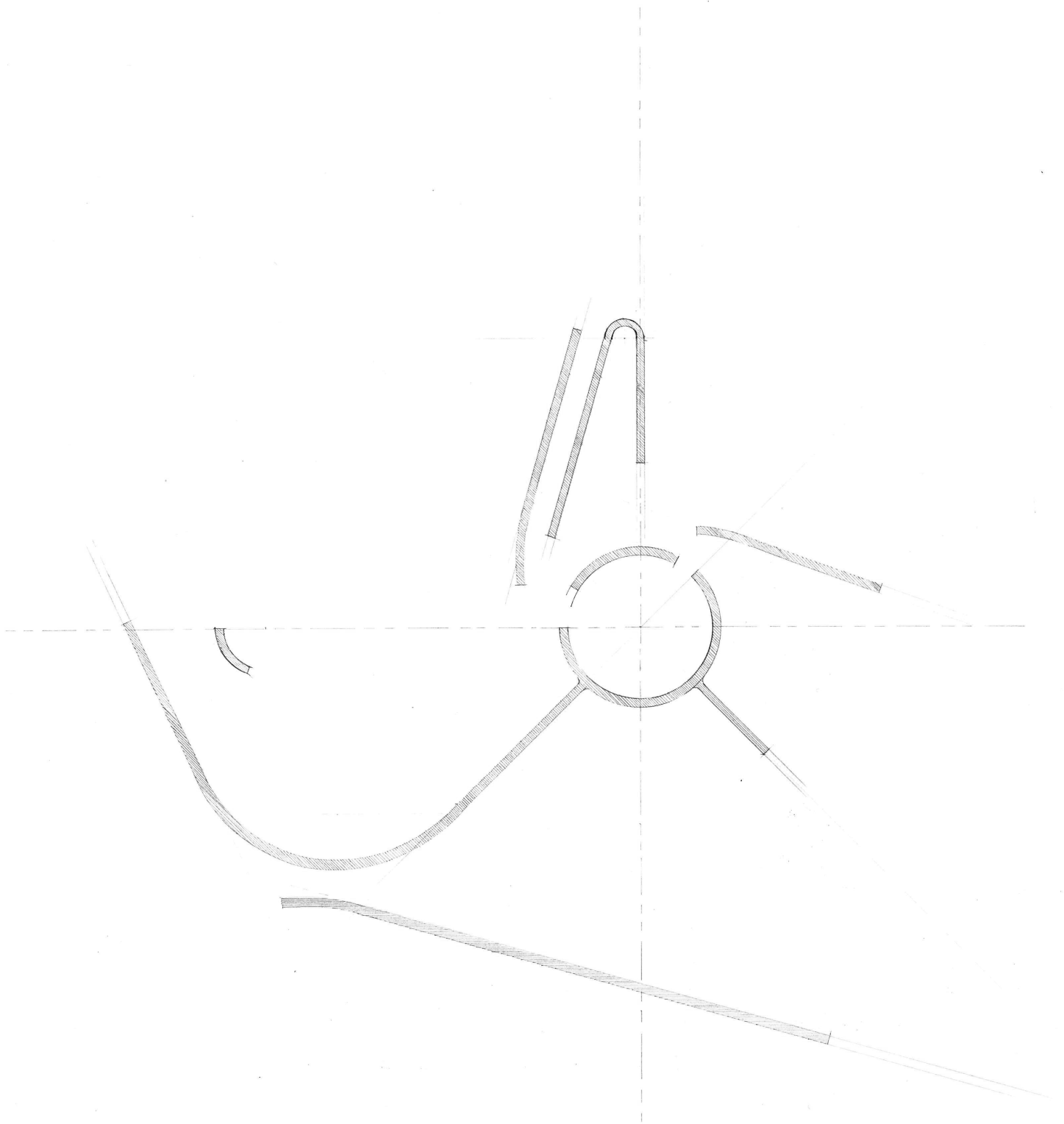


Figure 87 The final drawn iteration.

Figure 88 (Right) Figure 87 reproduced at a larger scale. [Original is A3,



The kitchen sink.

11.0

DRAWING OUT — PARALLEL PROJECTIONS

The following drawings re-appropriate axonometric drawings, combining them with aspects of other two-dimensional projections; plans, sections, and elevations. Inherently abstract on their own, combining them makes this only more pronounced. Unlike a perspective drawing which correlates directly to our familiar sense of vision, this multi-modal drawing approach invites a collection of imagined architectural possibilities.

The drawings are constructed similarly to the plan drawings that preceded; using the inbuilt horizontal and vertical rulers, a compass, tee square, and set squares. Drawn on the same type of A3-sized paper, the line quality and scale of drawn elements and marks, remain consistent with the previous drawings, indicating that they are part of the same line of thought. Figure 91, Figure 92, and Figure 93 (and similar diagrams used to describe the translation process of each drawing), illustrate how a new set of reference lines are established through lines projected in, on, and around the original plan, thus establishing a visual framework for new elements to emerge. It is as though shapes that lie dormant in the plan drawings, are extracted, pulled apart, and sliced through. Permeated with contractions, seemingly three-dimensional elements are juxtaposed with two-dimensional shapes, tied together with reference lines that span between them. Shadows, drawn as accumulations of parallel lines, vary in direction from element to element, further enhancing the inconsistencies in the drawing and thus, in the architecture. In the absence of notation, scale, dimensions, and location, these drawings deliberately provoke contemplation.

According to Stan Allen, while projection results in geometric transformation, (mis)translation from one to another, they also have the capacity to preserve the structure of the original sketch throughout.

Placing an original drawing, alongside its derived projection, a relationship to the original sketch's compositional structure is evident. The composition of my kitchen permeates the composition of the drawing, and equally, the architecture within it.

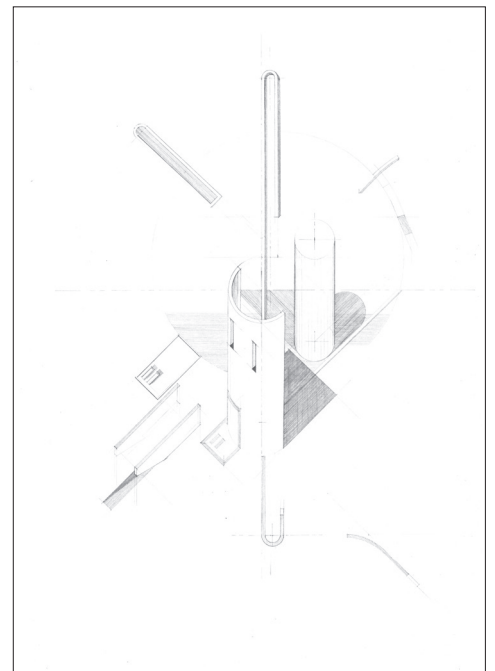


Figure 89 Placing a parallel projection drawing (right) alongside the original drawing from my kitchen (left), demonstrates how the structure of the original sketch permeates subsequent projections. The projection drawing is similarly composed around a dense configuration of central elements, as the original sketch.

Figure 90 Plan drawing, derived from a drawing in my kitchen. [Original is A3, graphite pencil on paper].

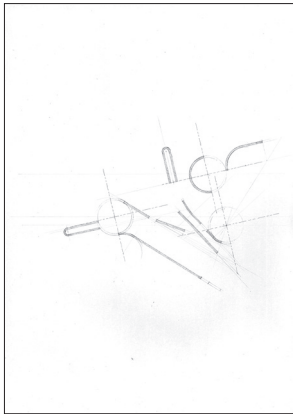


Figure 91 Initial diagram showing how the plan drawing (in form and composition) establishes an additional set of axes. Black dots indicate where new projections are made.

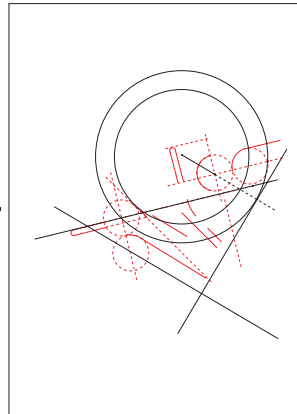


Figure 92 Secondary diagram showing how the projected lines begin to establish axonometric forms. Many of the red lines (elements of the previous drawing) are omitted, instead building from newly conceived lines.

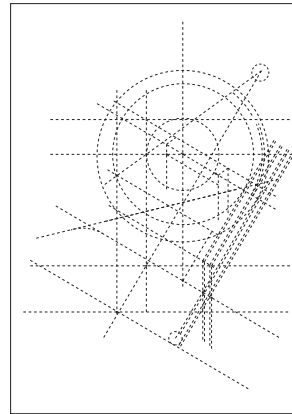


Figure 93 Diagram showing how the lines become solidified as architectural objects within the composition. The reference lines reveal their geometric relationships with one another.

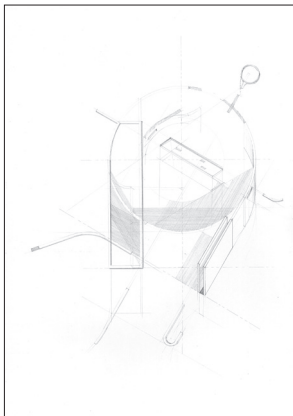
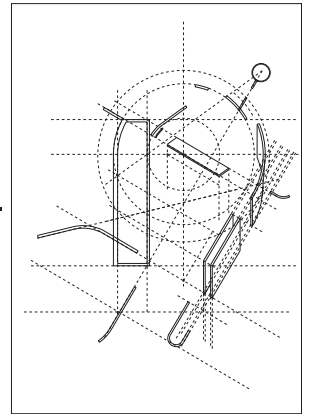


Figure 94 The first drawn iteration extends the line drawing to include dense arrays of parallel lines that create the impression of shading or shadow.

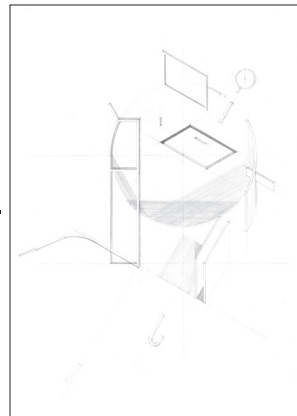


Figure 95 The second drawn iteration with minor compositional changes.

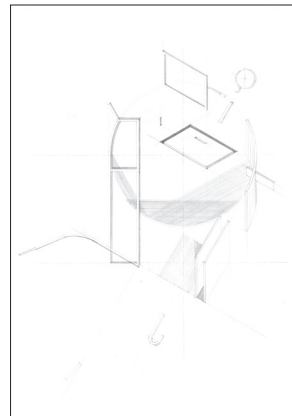


Figure 96 The third drawn iteration with minor compositional changes.

Figure 97 (Right) Figure 96 reproduced at a larger scale. The location of the viewer within the drawing is ambiguous, due to the contradictory shadows, and the nature of parallel projection where elements appear to exist on the same plane (unlike perspectival drawing in which images further from the foreground recede). [Original is A3, graphite on paper].

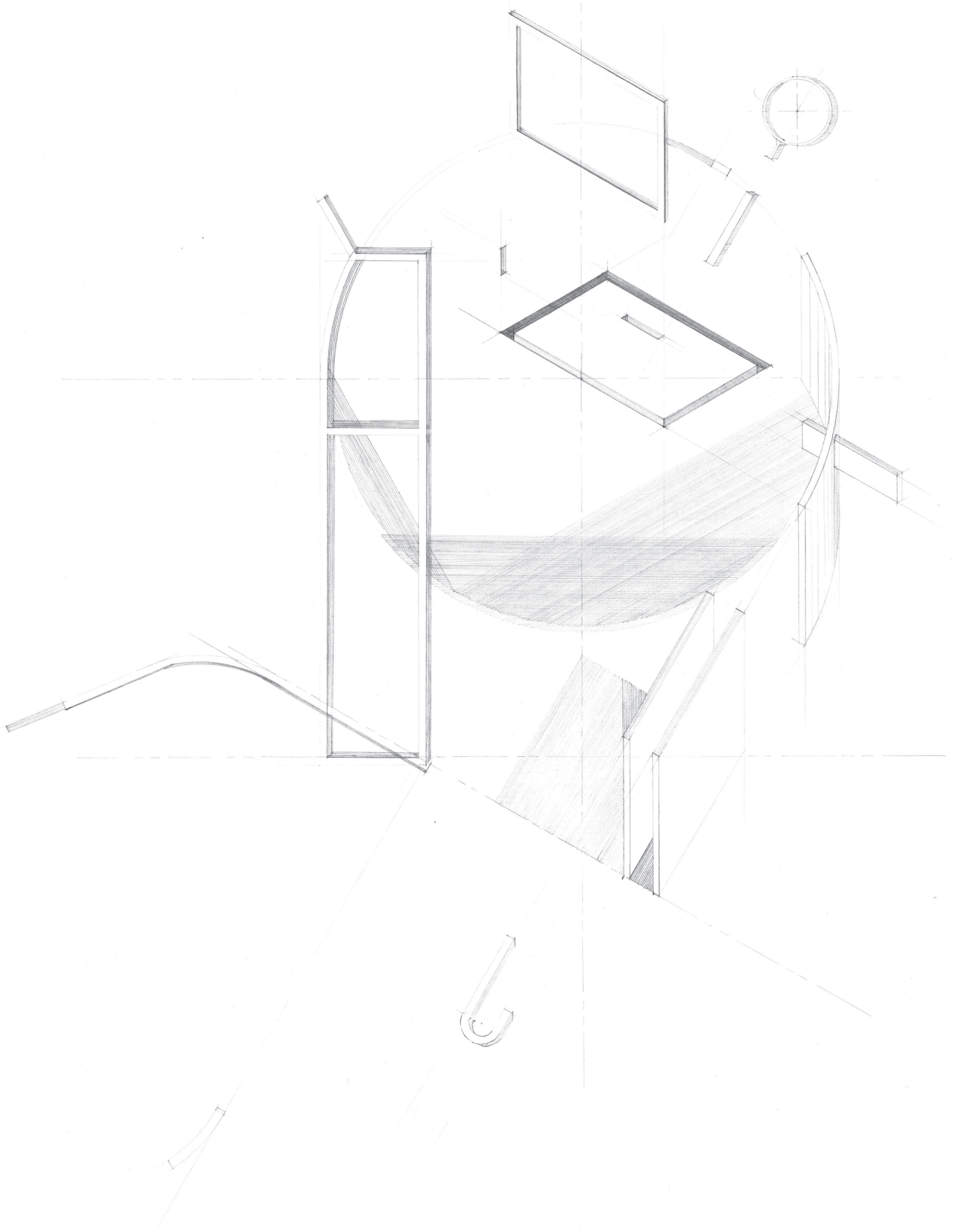


Figure 98 Plan drawing, derived from a drawing in my kitchen. [Original is A3, graphite pencil on paper].

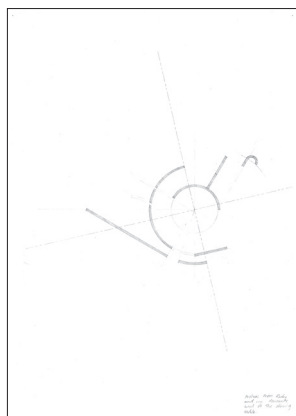


Figure 99 Initial diagram showing how the plan drawing establishes an additional set of axes. Black dots indicate where new projections are made.

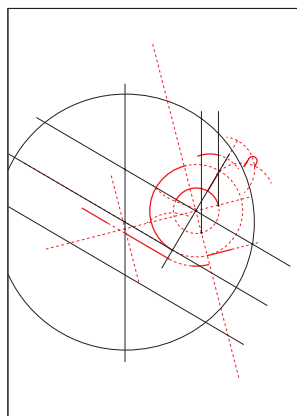


Figure 100 Secondary diagram showing how the projected lines begin to generate new forms within its compositional axes.

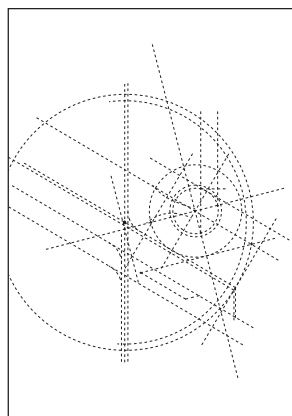


Figure 101 Diagram showing how the lines become solidified as architectural objects within the composition. The reference lines reveal their geometric relationships with one another.

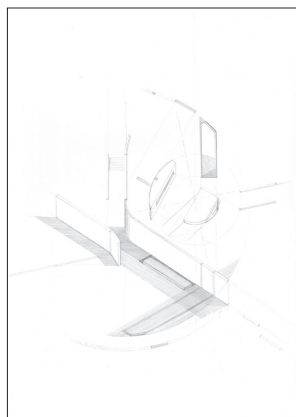
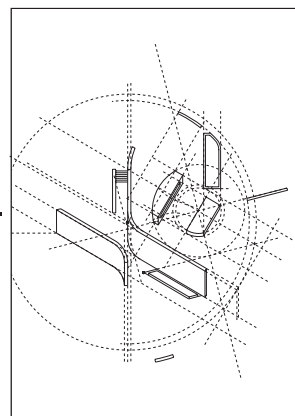


Figure 102 The first drawn iteration extends the line drawing to include dense arrays of parallel lines that create the impression of shading or shadow, enhancing its ambiguous, and imaginatively evocative qualities.

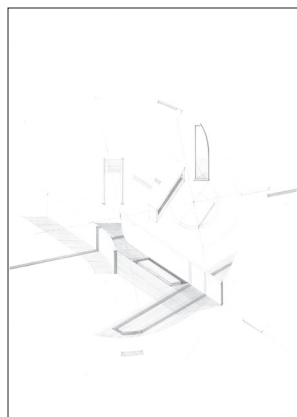


Figure 103 The second drawn iteration with minor refinements.

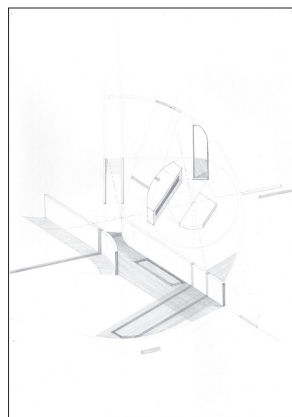


Figure 104 The final drawn iteration. Through a process of repetition, the drawing is refined.

Figure 105 (Right) Figure 104 reproduced at a larger scale. Elements can be interpreted as shapes drawn on the surface of the paper, or as architectural elements. [Original is A3, graphite on paper]

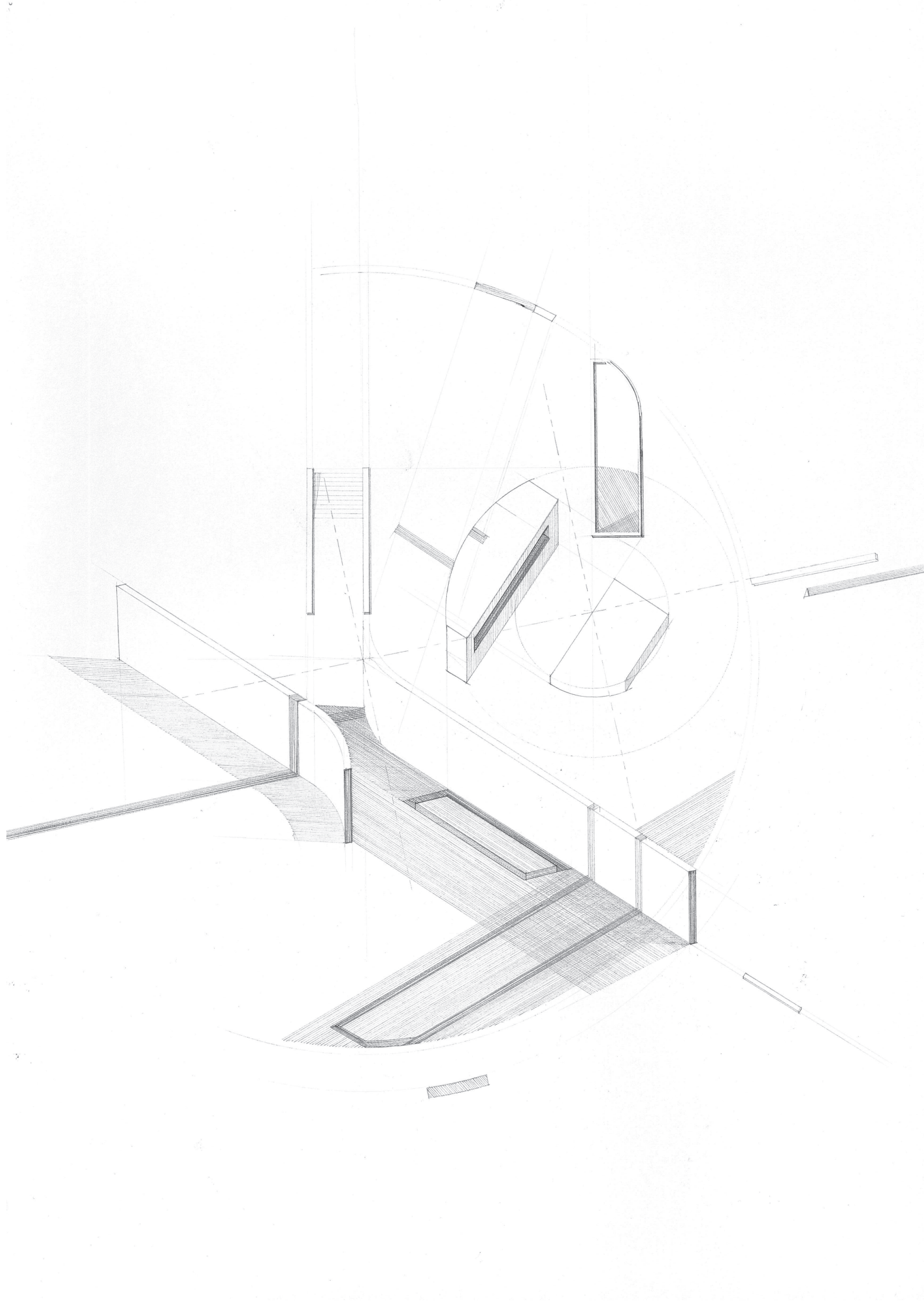


Figure 106 Plan drawing, derived from a drawing in my kitchen. [Original is A3, graphite pencil on paper].



Figure 107 Initial diagram showing how the plan drawing establishes an additional set of axes. Black dots indicate where new projections are made.

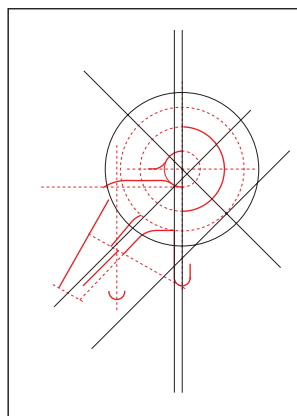


Figure 108 Secondary diagram showing how the projected lines begin to generate new forms within it. Some lines from the original plan become dissolved.

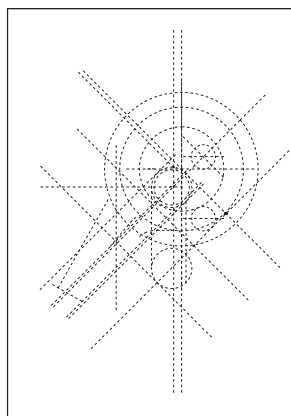


Figure 109 Diagram showing how the lines become solidified as drawn/architectural objects within the composition. The reference lines reveal their geometric relationships with one another.

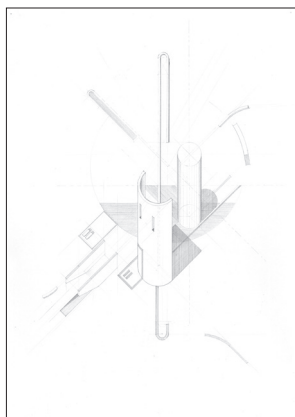
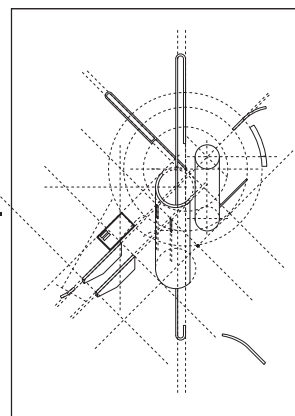


Figure 110 First drawn iteration.

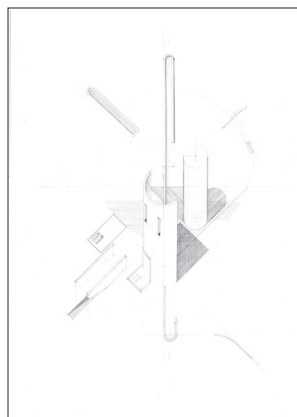


Figure 111 Final drawn iteration.

Figure 112 (Right) Figure 111 reproduced at a larger scale. Permeated with contradictions, seemingly two-dimensional shapes appear three-dimensional due to accumulations of lines that appear to cast shadows. [Original is A3, graphite on paper].

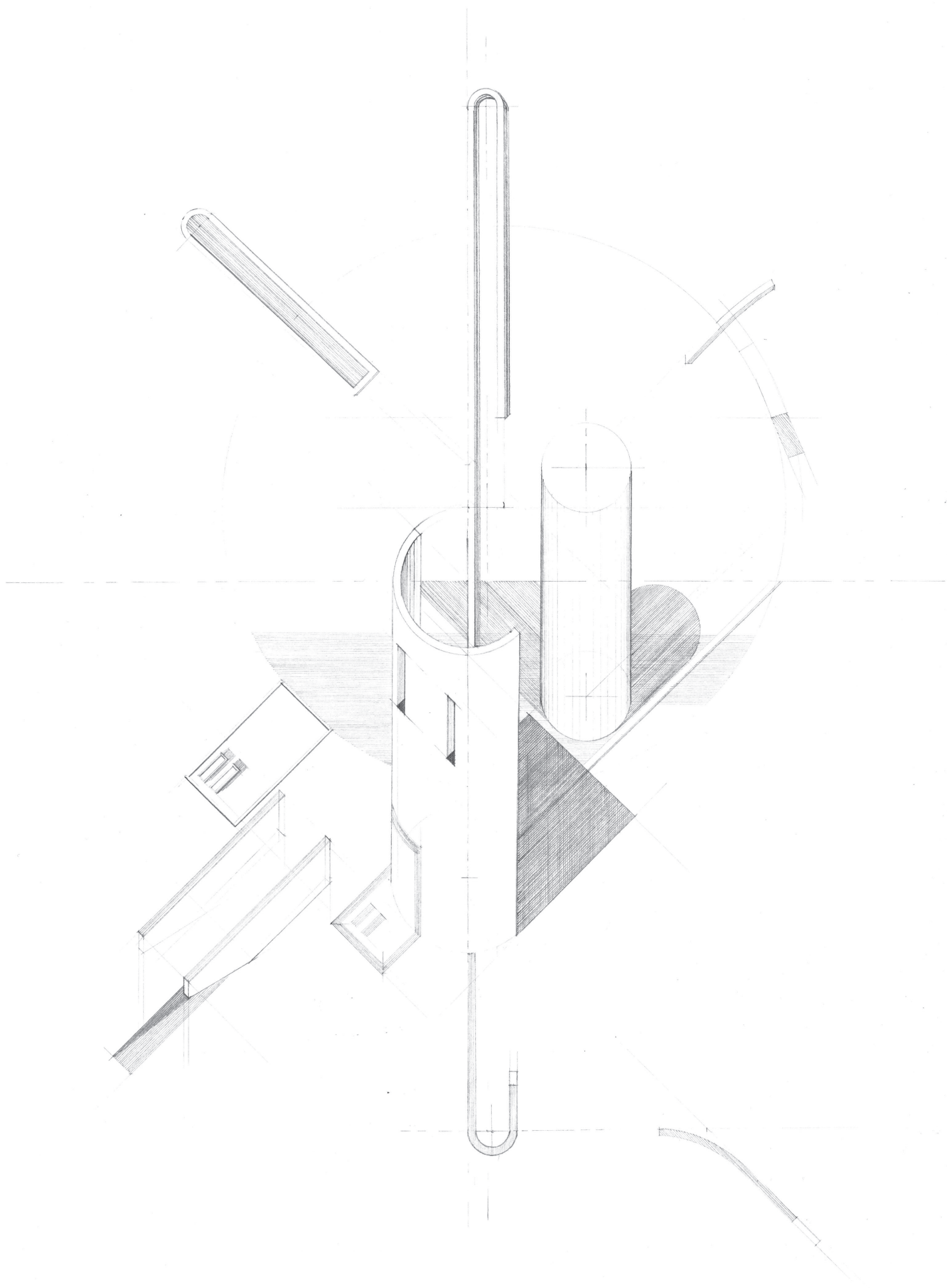


Figure 113 Plan drawing, derived from a drawing in my kitchen. *[Original is A3, graphite pencil on paper].*

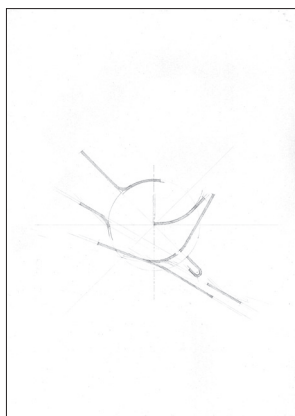


Figure 114 Initial diagram showing how the plan drawing establishes an additional set of axes. Small black dots indicate where new projections are made.

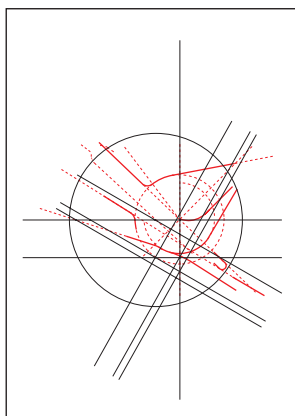


Figure 115 Secondary diagram showing how the projected lines begin to generate new forms within it. Some lines from the original plan disappear entirely.

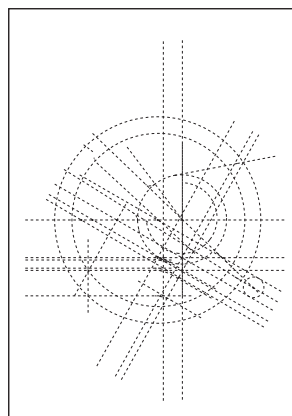


Figure 116 Diagram showing how the lines become solidified as drawn/ architectural objects within the composition. Reference lines reveal their geometric relationships with one another.

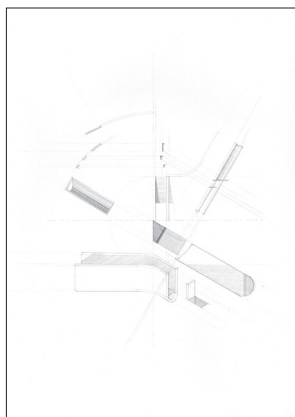
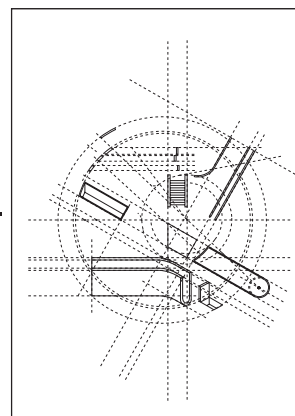


Figure 117 First drawn iteration.



Figure 118 Second drawn iteration.

Figure 119 (Right) Figure 118 reproduced at a larger scale. *[Original is A3, graphite on paper].*

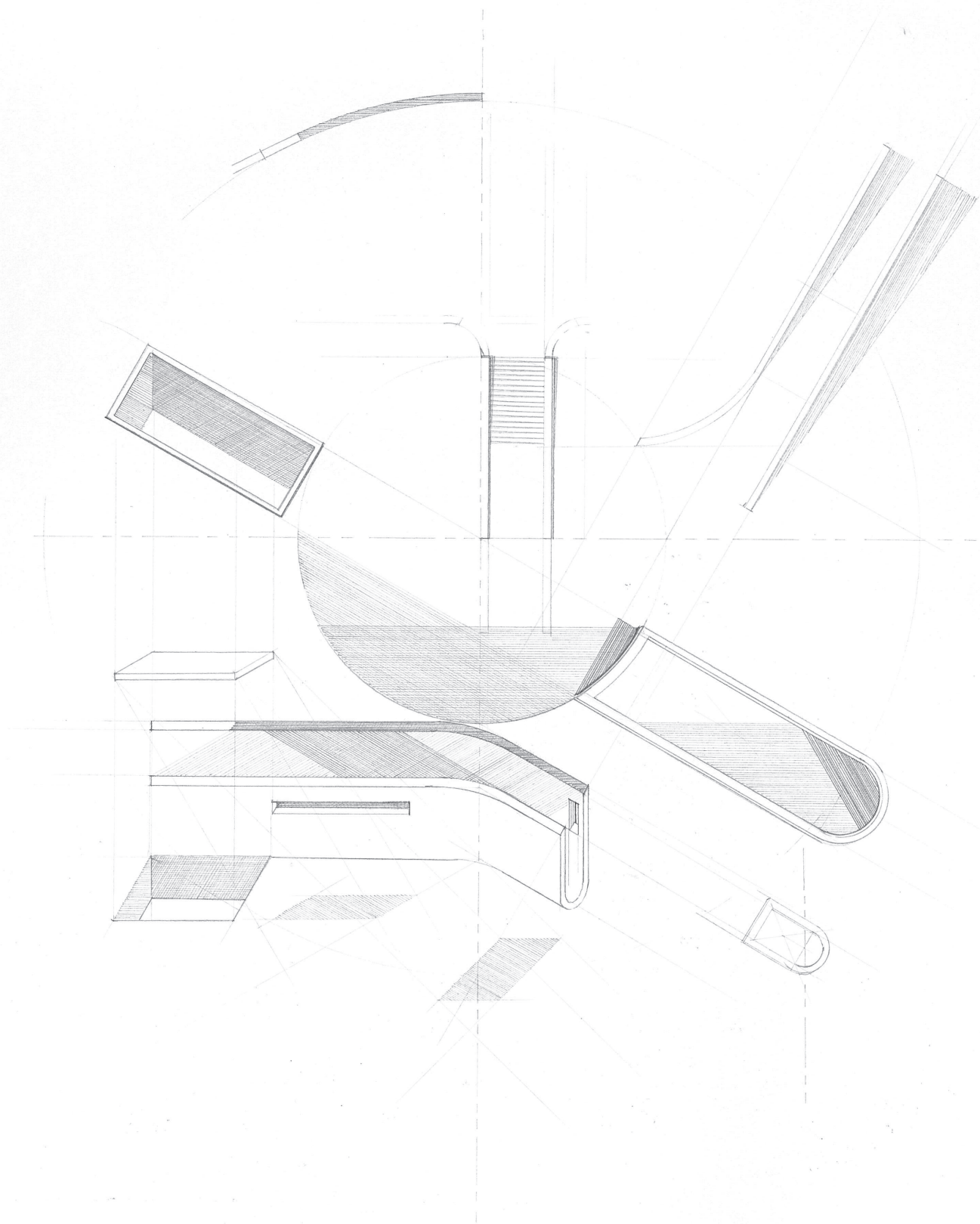


Figure 120 Plan drawing, derived from a drawing in my kitchen. *[Original is A3, graphite pencil on paper].*

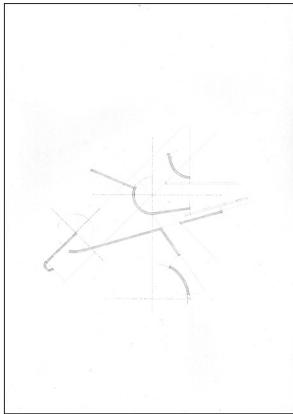


Figure 121 Initial diagram showing how the plan drawing establishes an additional set of axes. Small black dots indicate where new projections are made.

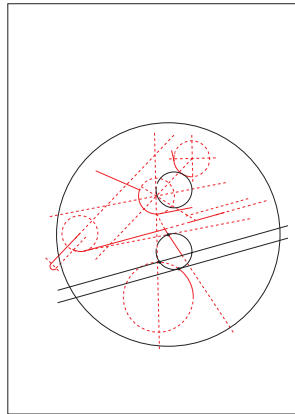


Figure 122 Secondary diagram showing how the projected lines begin to generate new forms within it.

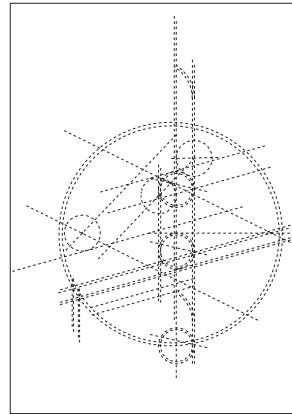


Figure 123 Diagram showing how the lines become solidified as drawn/architectural objects within the composition. Reference lines reveal their geometric relationships with one another.

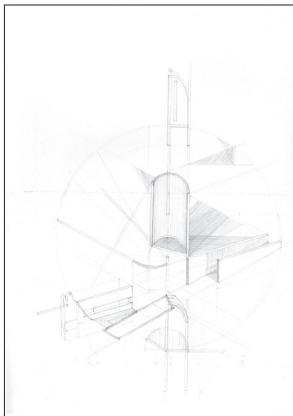
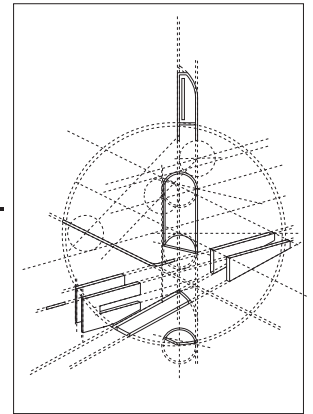


Figure 124 First drawn iteration.

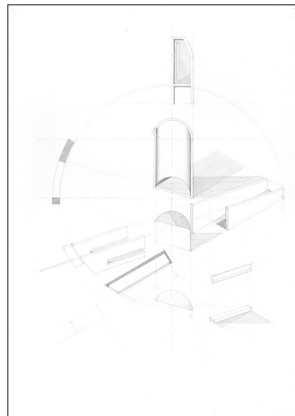


Figure 125 Final drawn iteration.

Figure 126 (Right) Figure 125 reproduced at a larger scale. *[Original is A3, graphite on paper].*

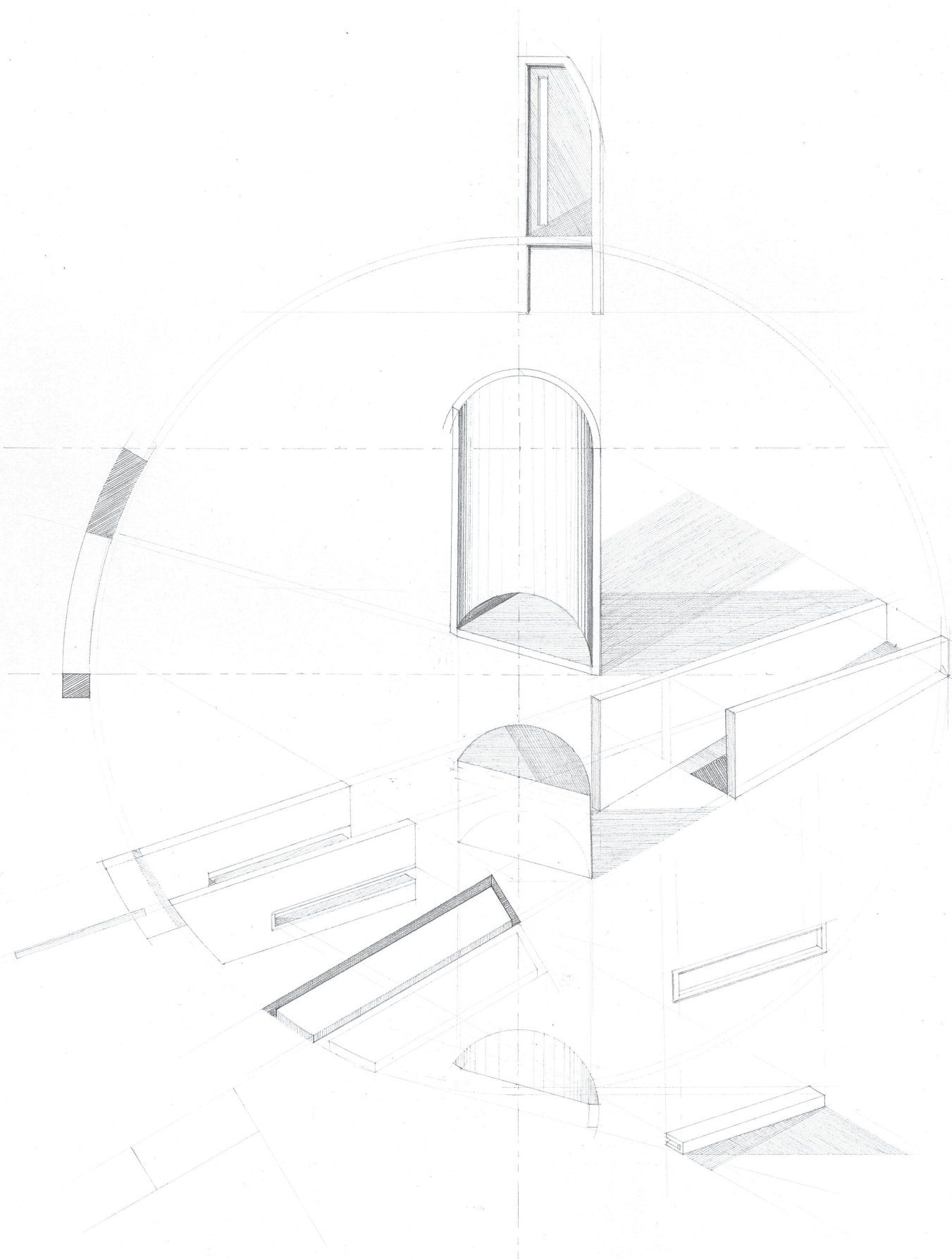


Figure 127 Plan drawing, derived from a drawing in my kitchen. [Original is A3, graphite pencil on paper].

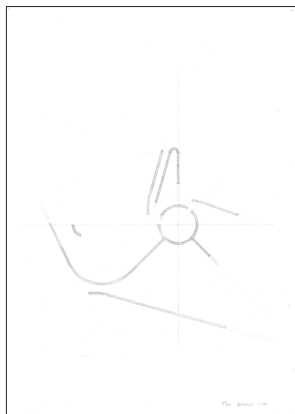


Figure 128 Initial diagram showing how the plan drawing establishes an additional set of axes. Small black dots indicate where new projections are made.

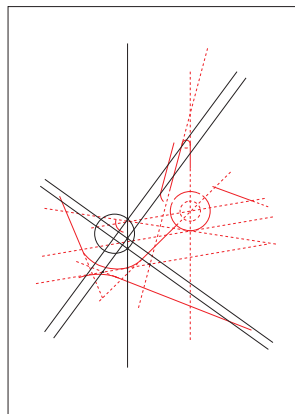


Figure 129 Secondary diagram showing how the projected lines begin to generate new forms within it.

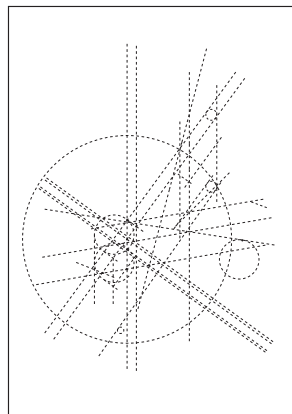


Figure 130 Diagram showing how the lines become solidified as drawn/architectural objects within the composition. Reference lines reveal their geometric relationships with one another.

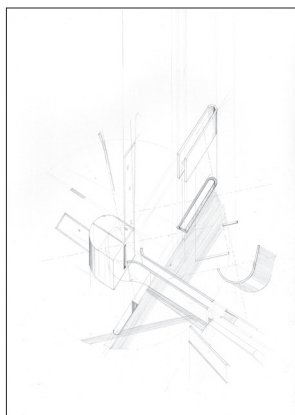
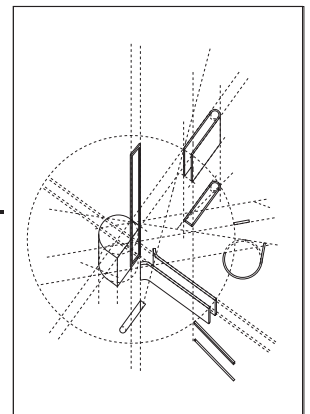


Figure 131 First drawn iteration.

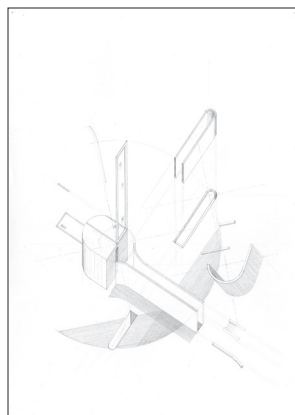
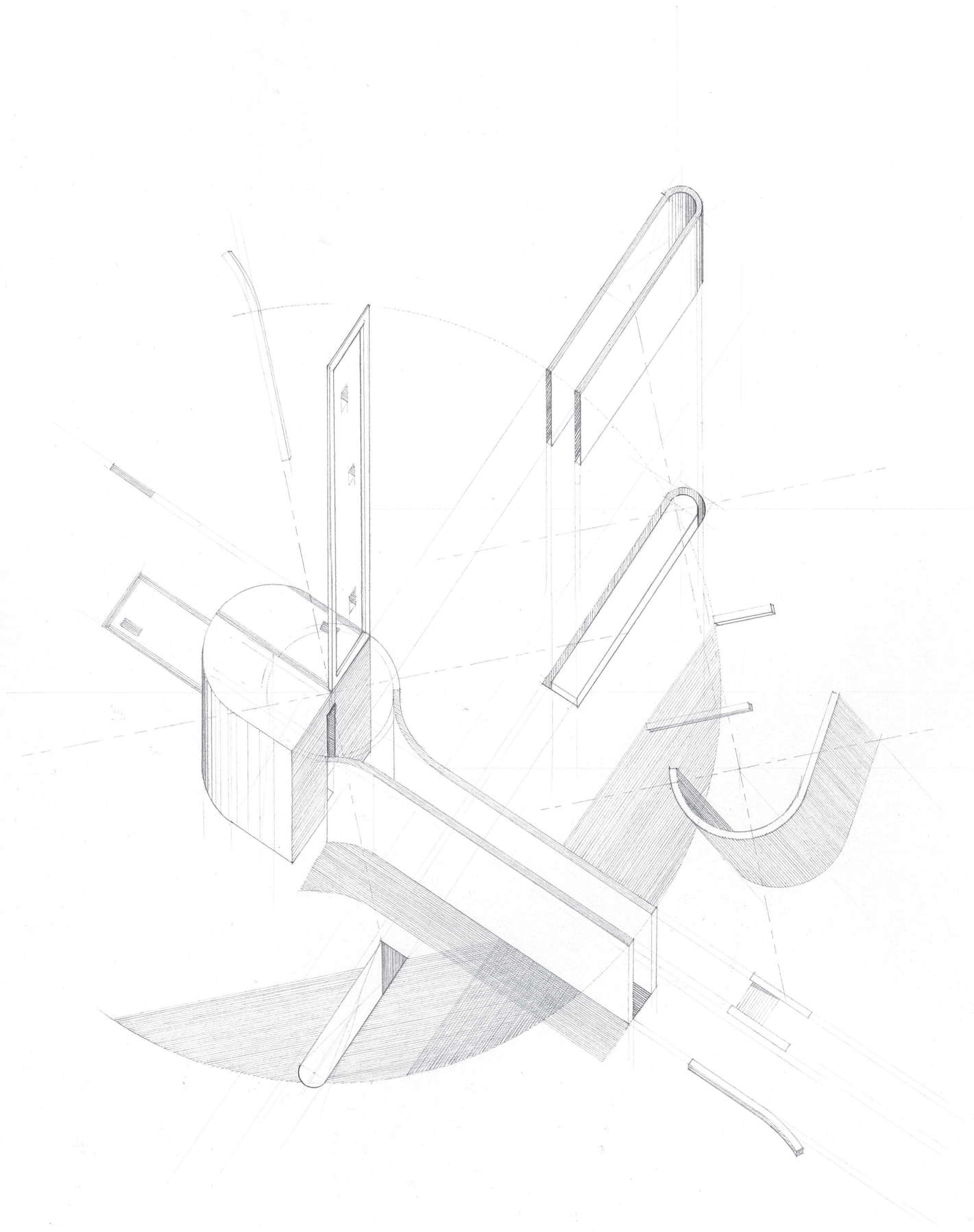


Figure 132 Second drawn iteration.

Figure 133 (Right) Figure 132 reproduced at a larger scale. [Original is A3, graphite on paper].



11.5

DRAWING OUT — A SCALE SHIFT

To further exploit the abstract qualities inherent in parallel drawing, the centre-most section of each drawing was enlarged by 200%. These drawings sought to expand (literally) the geometric logic that comprised previous drawings, and create a greater variation in the level of detail.

A conventional scale, such as 1:100 is never made explicit, only implied or rather, suggested by the nature of the drawn elements. The scale of the drawn elements in the parallel projection drawings, (like all drawings in this research) was the result of the delicate dynamic between hand, pencil, and paper. Objects remain of a certain size due to the interactions between these three aspects, and their inherent limitations. For example, since the paper was A3, reference circles remained of a certain size as to not spill over the edge of the sheet. Similarly, the compass used could only extend to a certain radius, limiting the size of circles it could construct. My hand equally imposes technical imitations. Since my hands are relatively small, the marks I make on paper tend to be proportionally small, and incidentally, delicate. Enlarging the central section of the drawing was a way to challenge the limitations imposed by the interactions between hand, pencil, and paper.

As a result, smaller drawn elements are overlaid with larger ones; a variation that enhances ambivalence around the elements themselves, and their physical relationship to one another, as represented architectural elements in space. Increasingly, objects slip out and spill over the edge of the sheet of paper (and skate across the drawing board). Since its centre (or at least central geometries) are less legible, (unlike previous drawings), the process of construction is concealed. As such, elements appear to be less 'fixed' to the paper, floating across its surface.

Figure 134 Original parallel projection. Red box indicates the section of the drawing, enlarged by 200%.

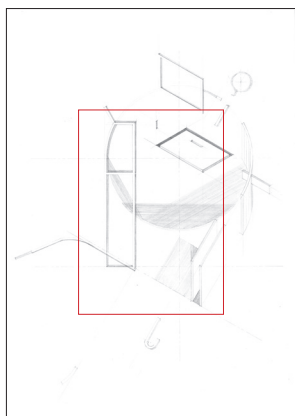


Figure 135 Initial diagram showing how the drawing is enlarged, and forms the basis of the subsequent drawing.

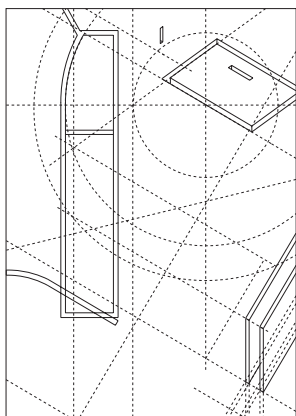


Figure 136 First drawn iteration showing how the base geometry has been added to.

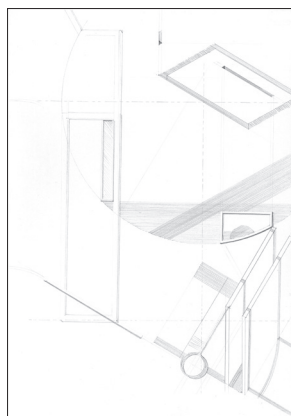


Figure 137 Second, refined iteration.

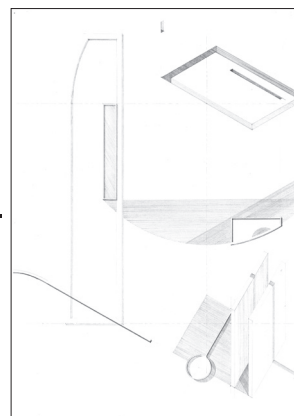


Figure 138 (Right) Figure 137 reproduced at a larger scale. The composition is less central, compared its previous drawing. Element slips beyond the frame of the A3 paper, suggesting the drawing continues beyond this sheet. [Original is A3, graphite on paper].

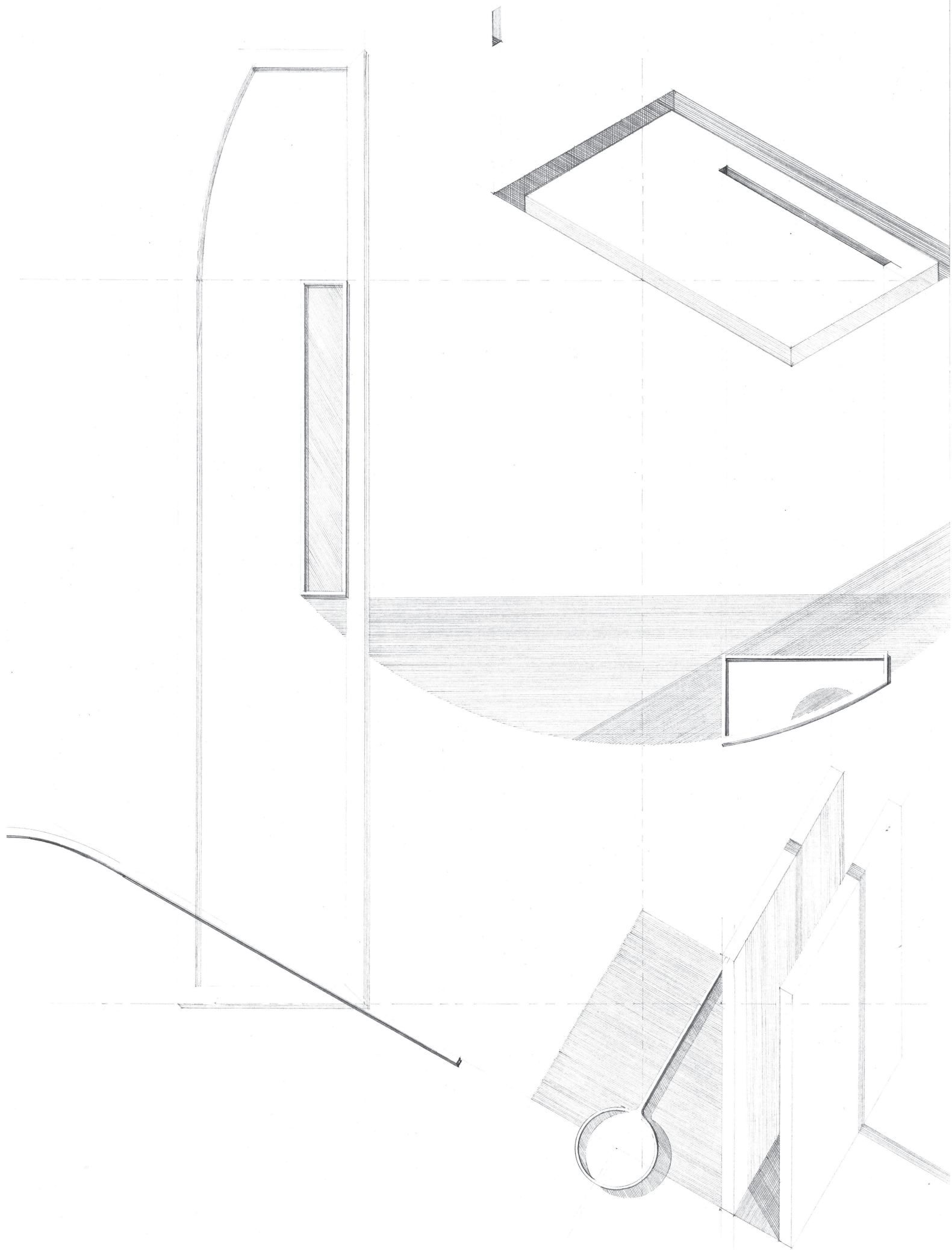


Figure 139 Original parallel projection drawing. Red box indicates the section of the drawing, enlarged by 200%.

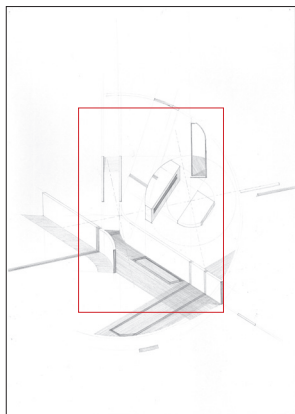


Figure 140 Initial diagram showing how the drawing is enlarged, and forms the basis of the subsequent drawing.

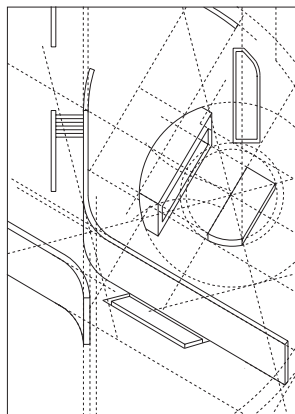


Figure 141 Final drawing.

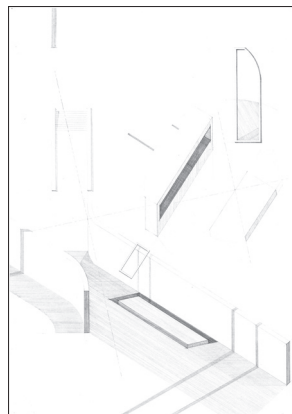


Figure 142 (Right) Figure 141 reproduced at a larger scale. Elements slip between orthographic planes. For example, a vertical accumulation of lines forming a narrow rectangle (towards the lower left of the composition), could, for example, represent the vertical end of a wall, or a wall (or other element), in plan. *[Original is A3, graphite on paper].*

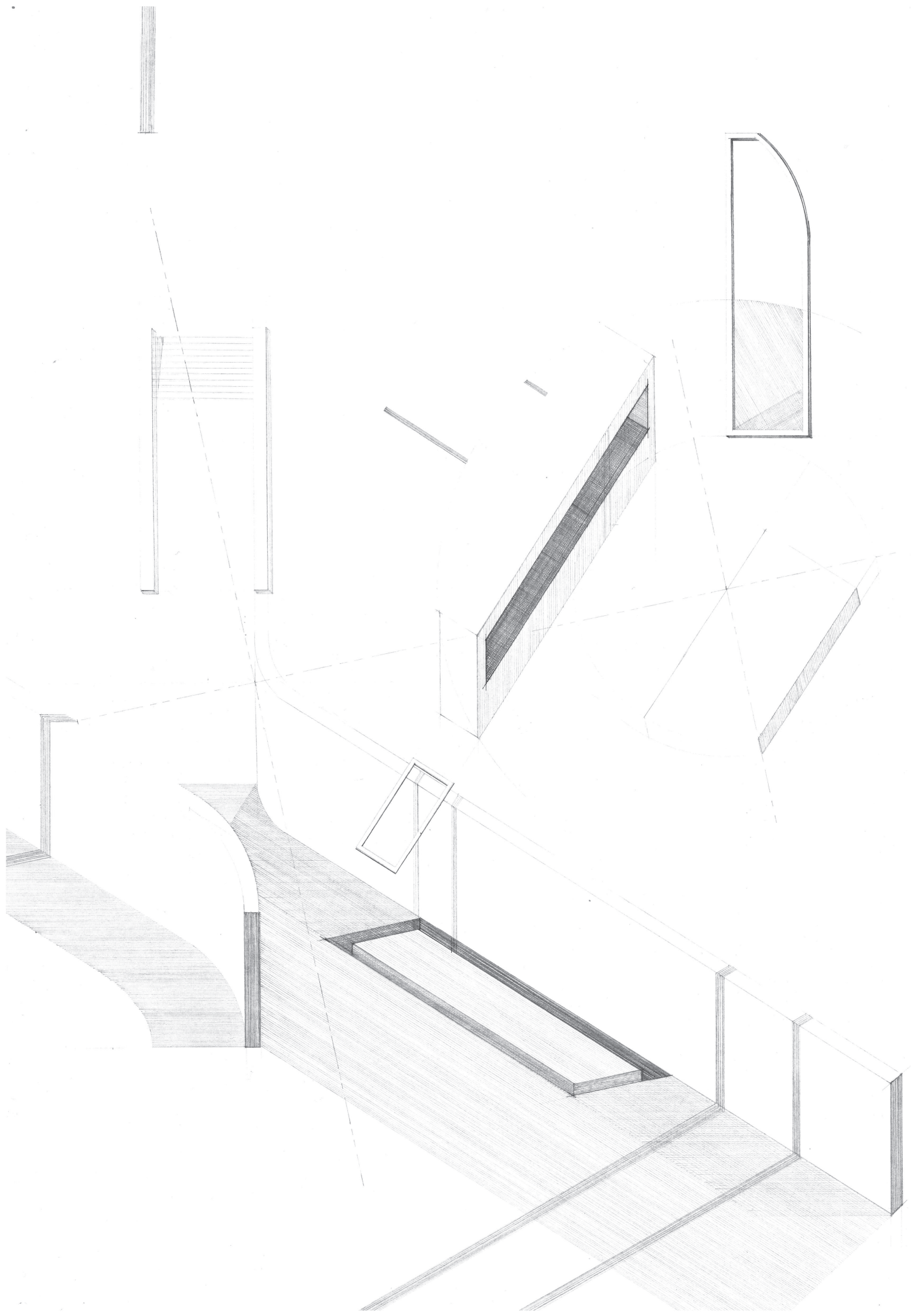


Figure 143 Original parallel projection drawing. Red box indicates the section of the drawing, enlarged by 200%.

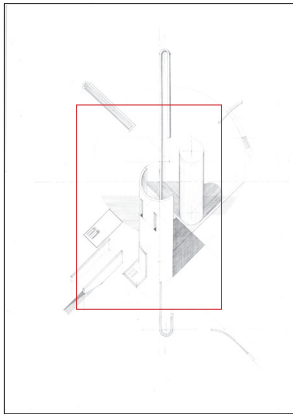


Figure 144 Initial diagram showing how the drawing is enlarged, and forms the basis of the subsequent drawing.

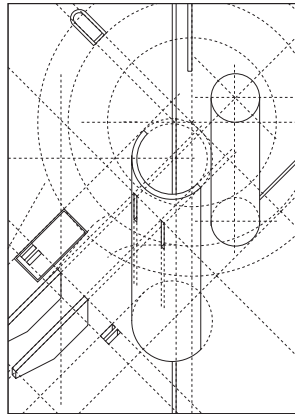


Figure 145 Final drawing.

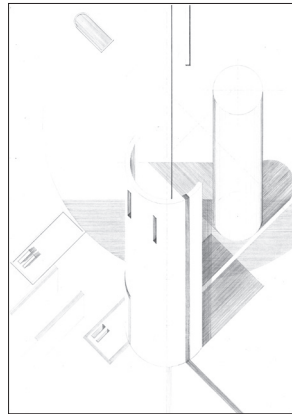


Figure 146 (Right) Figure 145 reproduced at a larger scale.
[Original is A3, graphite on paper].

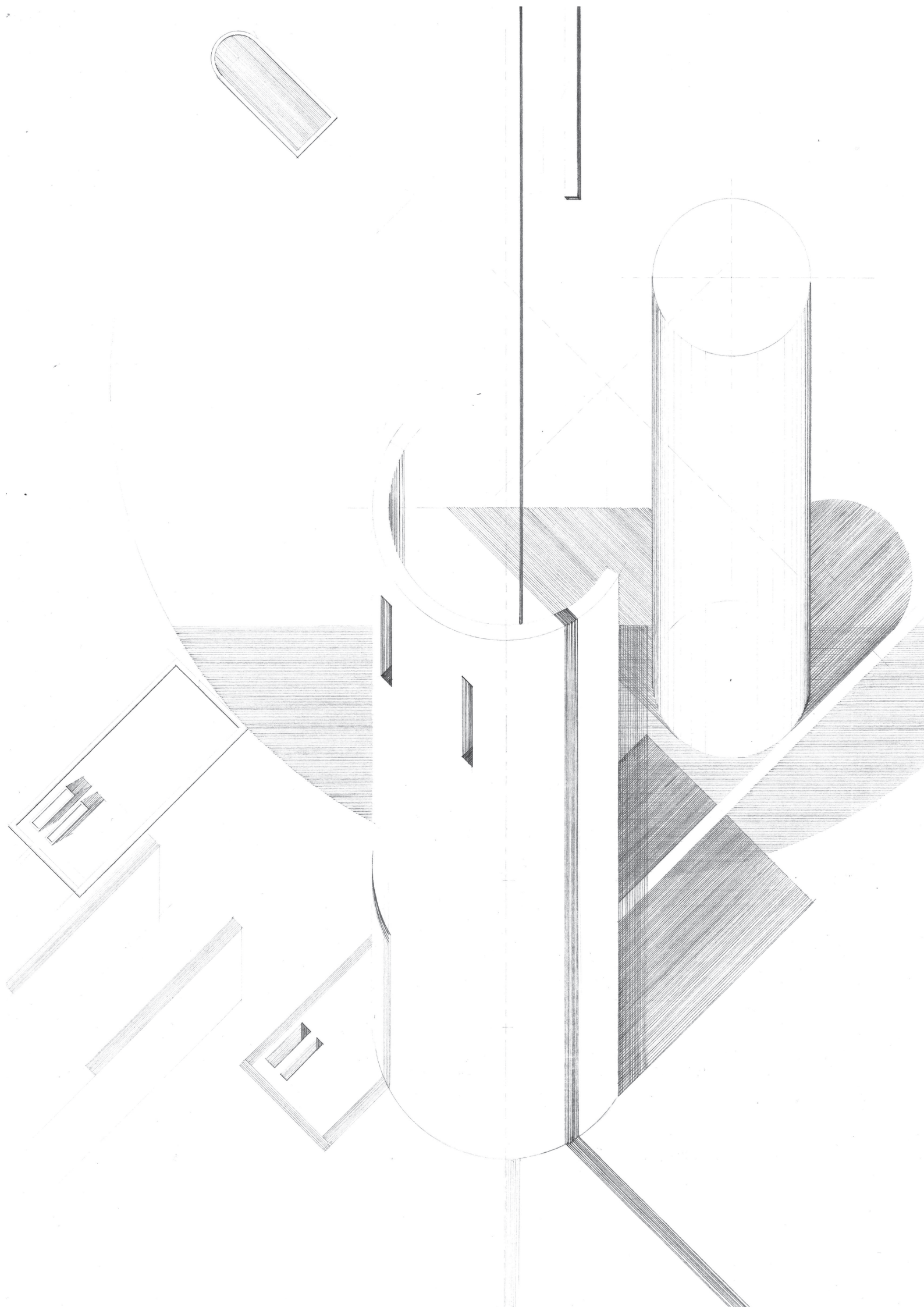


Figure 147 Original parallel projection drawing. Red box indicates the section of the drawing, enlarged by 200%.

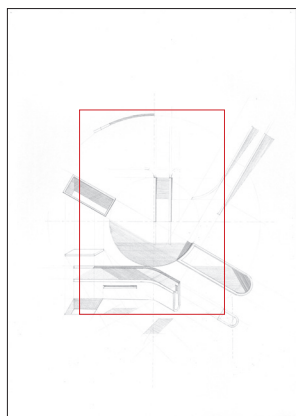


Figure 148 Initial diagram showing how the drawing is enlarged, and forms the basis of the subsequent drawing.

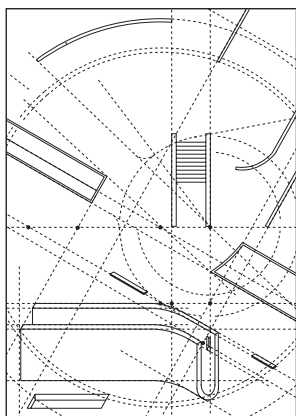


Figure 149 Final Drawing.

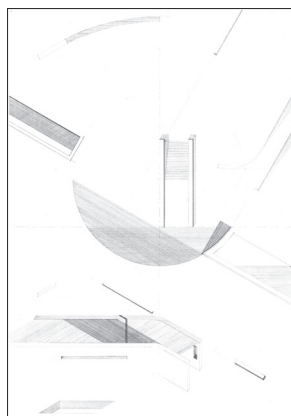


Figure 150 Figure 149 reproduced at a larger scale. [Original is A3, graphite on paper].

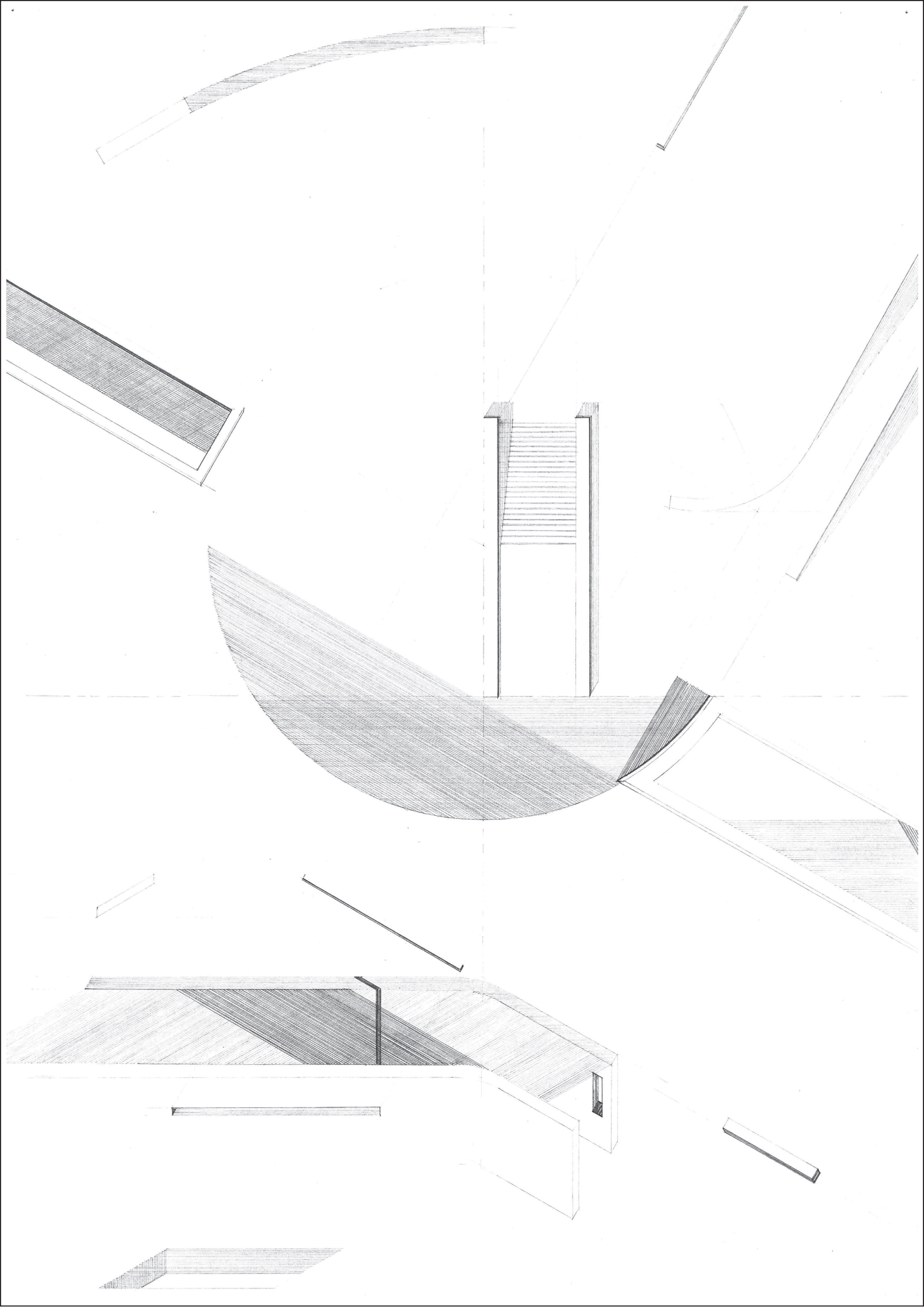


Figure 151 Original parallel projection drawing. Red box indicates the section of the drawing, enlarged by 200%.

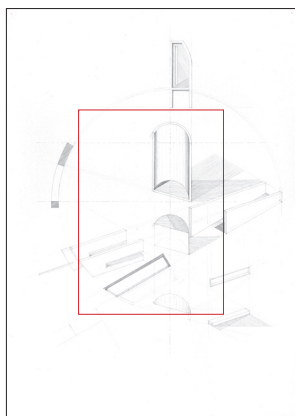


Figure 152 Initial diagram showing how the drawing is enlarged, and forms the basis of the subsequent drawing.

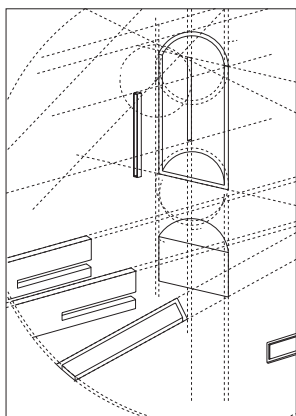


Figure 153 First drawn iteration.

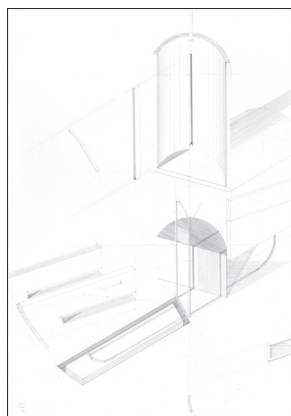


Figure 154 Final drawing

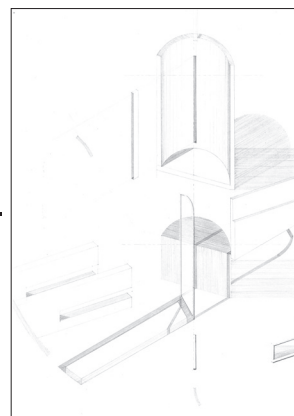


Figure 155 (Right) Figure 154 reproduced at a larger scale.
[Original is A3, graphite on paper].

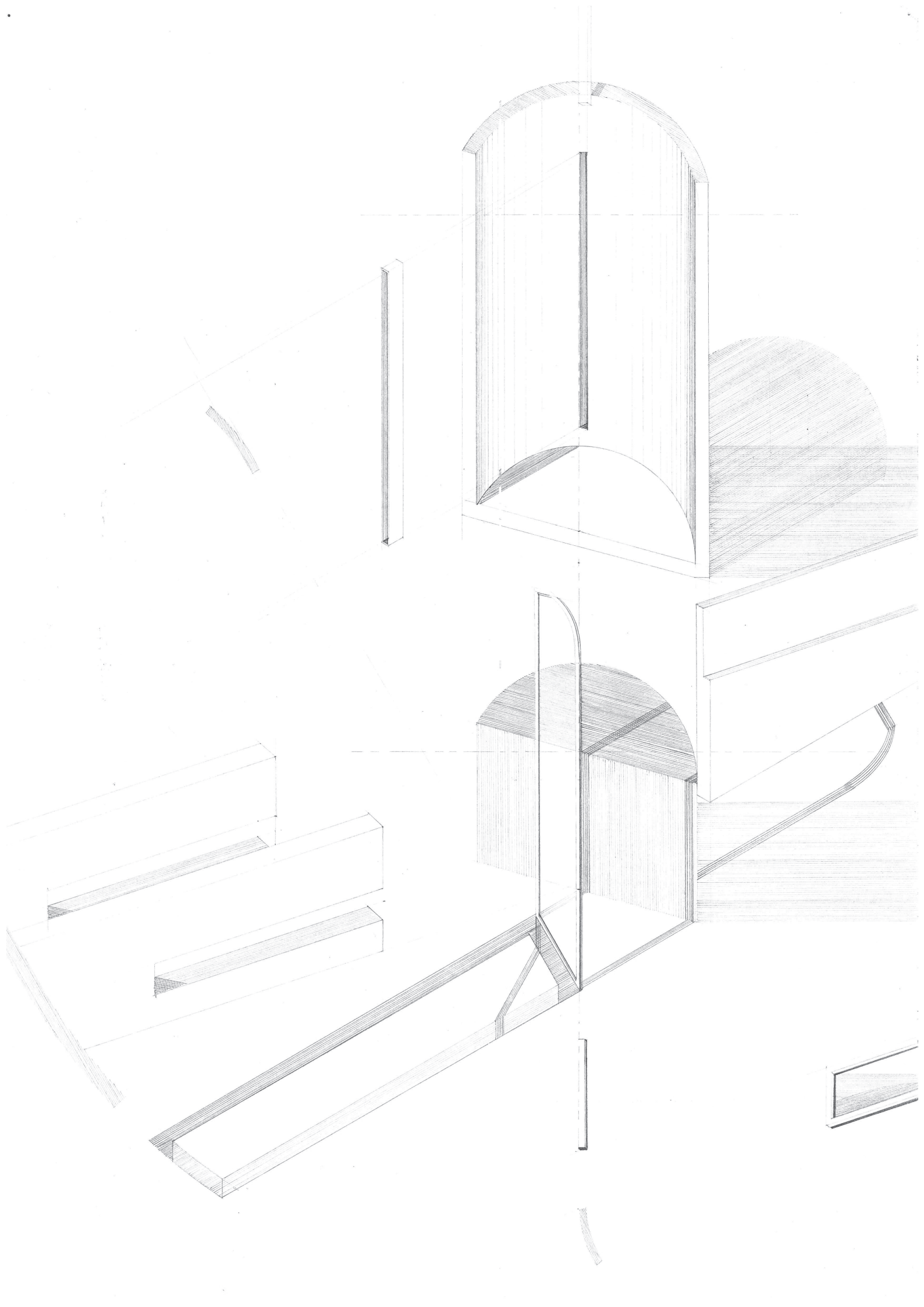


Figure 156 Original parallel projection drawing. Red box indicates the section of the drawing, enlarged by 200%.

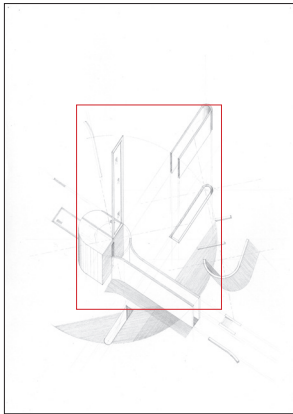


Figure 157 Initial diagram showing how the drawing is enlarged, and forms the basis of the subsequent drawing.

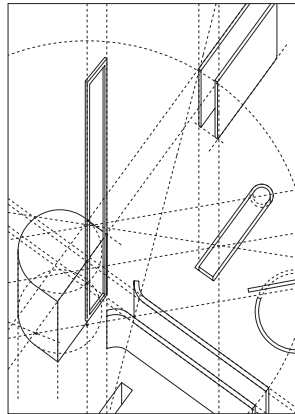


Figure 158 Final drawing.

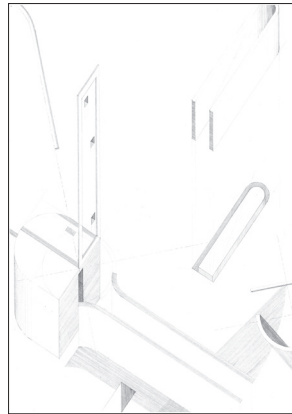
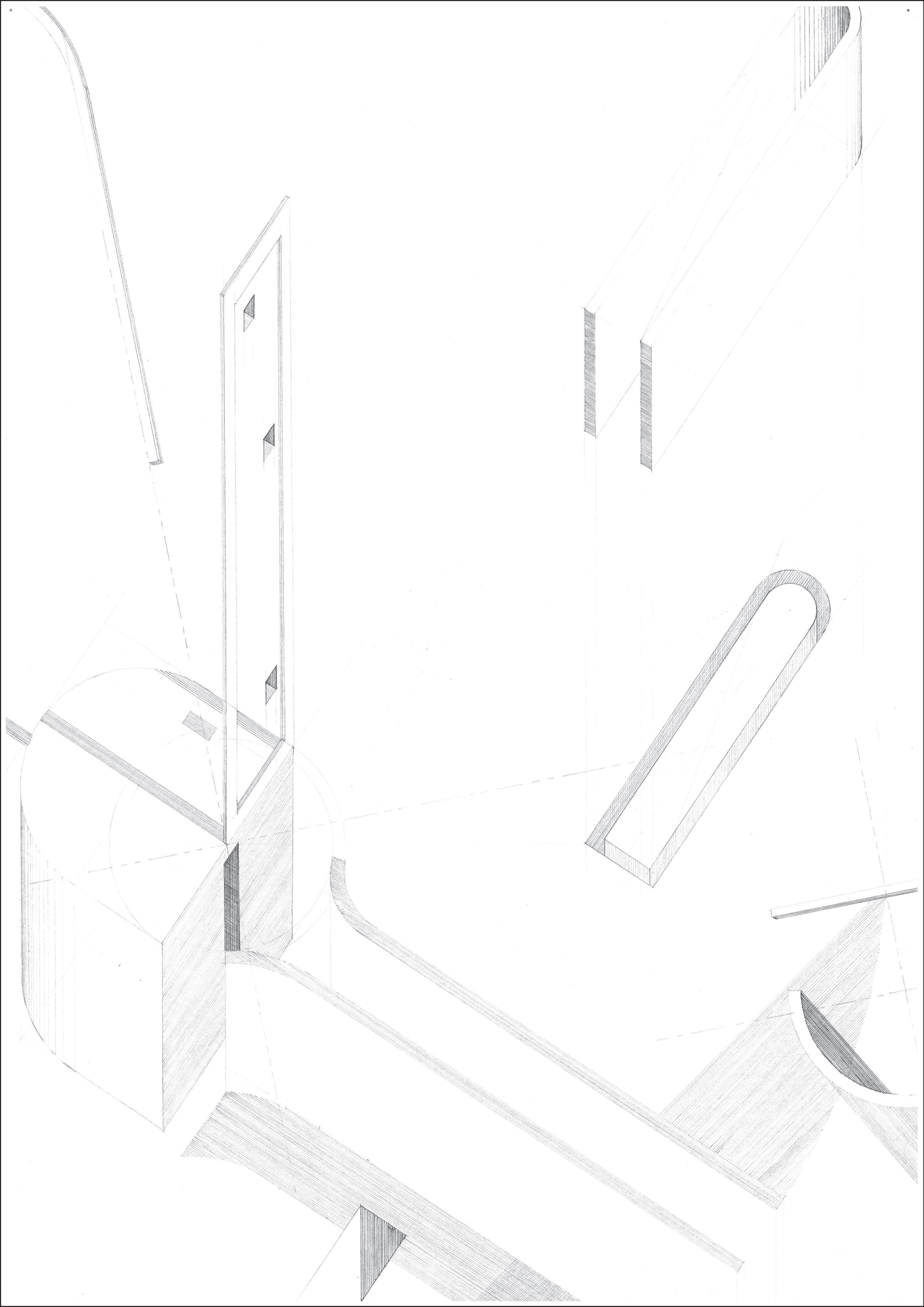


Figure 159 (Right) Figure 158 reproduced at a larger scale.
[Original is A3, graphite on paper].



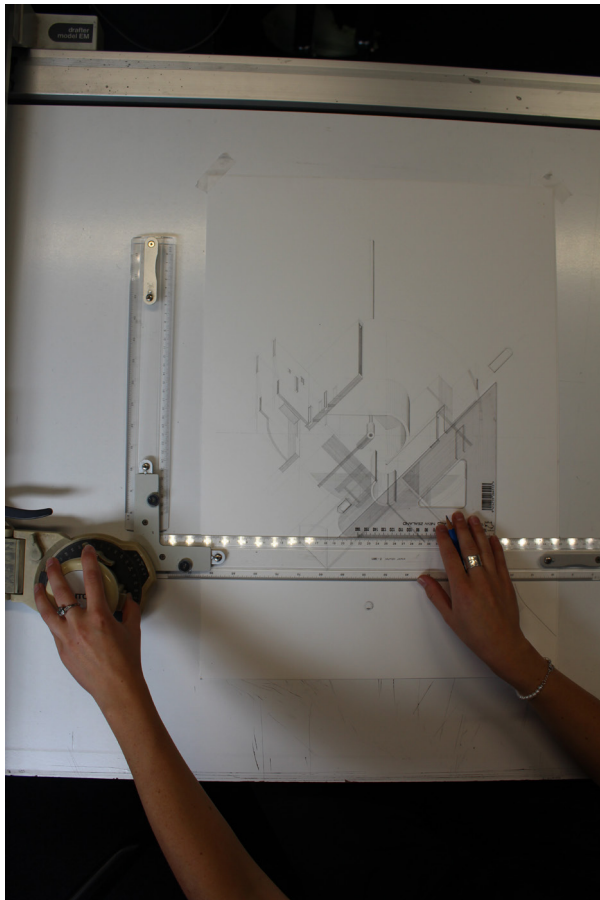


Figure 160 Drawing process.

12.0

DRAWING ON — HOUSE PLANS

"If anything is described by the architectural plan, it is the nature of human relationships, since the elements whose trace it records – walls, doors, windows and stairs – are employed first to divide and then selectively to re-unite inhabited space."

Robin Evans ¹

The creative application of this research is grounded in the plan, and returns to it at several points throughout the project, as earlier illustrated by the methodology diagram (refer to page 10). In the manner of a circular rhetoric, the drawings, which began in my house (specifically, within my kitchen), now remerge as houses themselves. Here, the same logic is applied, (utilising projected lines as compositional tools), only now, with additional programmatic concerns pertaining to the house. These play an equally significant role in the formation and construction of successive drawings.

Although this research revolves primarily around the kitchen; the house consists of several other spaces imperative to its function as a domestic habitat. Reflecting on the experience of lockdown, the notion of home was then distilled into three distinctly different, but equally important rituals, fundamental to domestic life (refer to Figure 161).

a place to bathe,
a place to sleep,
and
a place to cook and eat.

1

Evans, "Translations from Drawing to Building," 56.

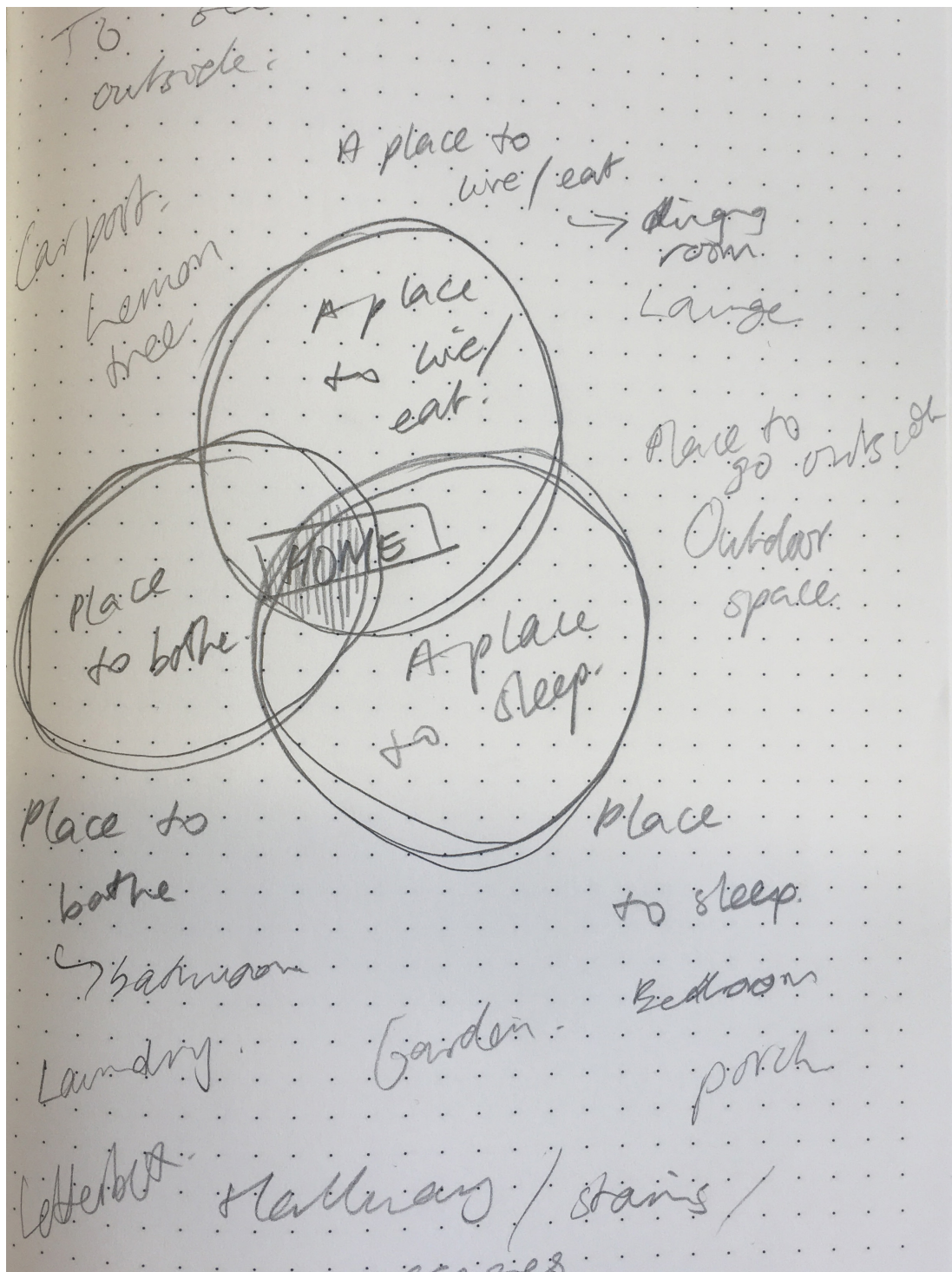


Figure 161 A page from my sketchbook describing the home in terms three fundamental rituals, where other, secondary rituals and spaces are located on the periphery.

Conceptualising the home in terms of the rituals it enables, (rather than naming a list of rooms), intends to remove the rigid structure that labels imply, in favour of a more sensitive architectural approach, that values relationships between things. For example, 'bedroom,' implies a rectangular room with a bed, whereas 'a place to sleep' is more poetic and less prescriptive; implying an accumulation of carefully articulated edges that, (in their composition), establish a place to sleep.

The drawings each include four architectural elements imperative to any architectural plan, according to Evans;² walls, doors, windows and stairs (and the spaces between them). Their form and composition is developed (like previous drawings), through the construction of linear axes. Only here, each main axis becomes synonymous with a fundamental domestic ritual; the axes in the drawing determine connections and separations between imagined spaces. We could liken the role of the axis in drawing, to that of the wall in architecture, which Evans says are first "employed to divide, then selectively to reunite inhabited space."³ The width of the parallel lines (walls) vary according to a desired level of separation, as well as according to the balance and composition of the drawing as a whole. Walls (parallel lines) are then penetrated with doors and windows, perpendicular to the line of the wall; selectively reuniting spaces.

2 Evans, "Translations from Drawing to Building," 56.

3 Evans, "Translations from Drawing to Building," 56.

*The House of the coffee plunger and percolator drying on
the dish rack*

The axes that underlie the geometry of this house, and those that follow, are determined (among other factors), by the projected lines within the previous drawing (refer to Figure 165 and Figure 166), and thus, the instruments used to construct them. In this case, a compass, horizontal and vertical rulers, and a 60/30 set square were used. The set square was used to establish a 60 degree angle, and was then flipped to create a right angle against it (see Figure 163).

Formally, the house unfolds from these two axes. In one direction (axes 2.0 and 3.0), is a place to sleep, and to cook and eat respectively (see Figure 167). Perpendicular, is a place to bathe along axis 1.0, where widely spaced parallel lines represent a corridor that descends toward a sunken bath, while simultaneously enclosing a place to sleep (see Figure 164).

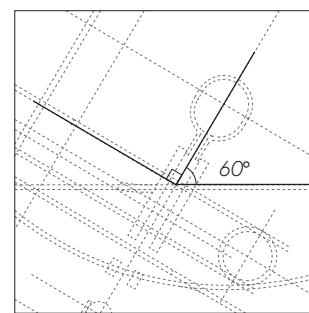


Figure 163 The primary axis at 60° constructed using a 60/30 set square. The corresponding 90° angle is constructed from flipping the set square

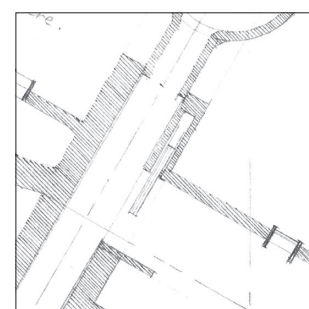
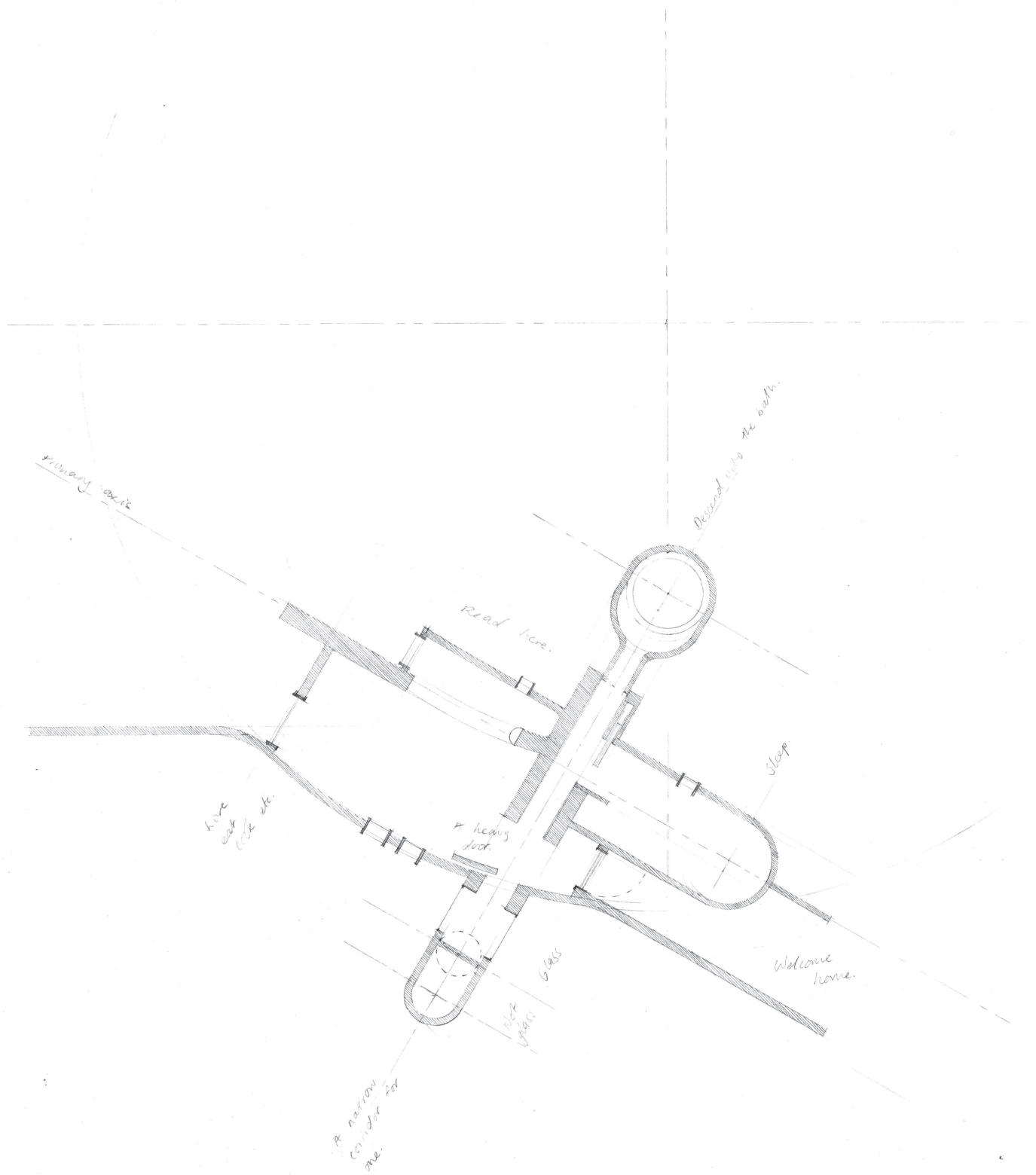


Figure 164 Evans describes the nature of the wall as firstly, to divide, then to connect. Here, the central axial line (1.0) divides and connects sleeping from bathing space simultaneously.

Figure 162 (Right) Plan drawing for the house of coffee plunger and percolator drying on the dish rack. [Original is A3, graphite on paper]



Drawing Process

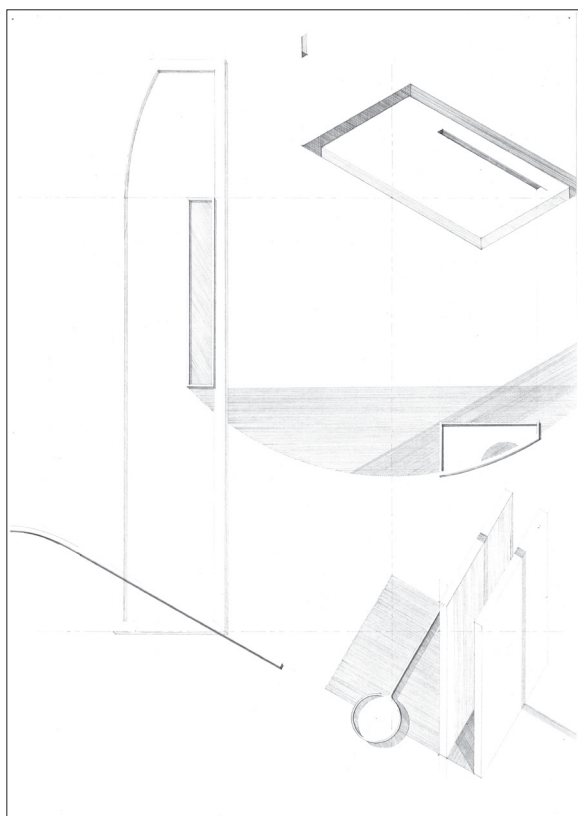


Figure 165 Discursive axonometric drawing, derived from a drawing of my kitchen, depicting a coffee plunger and percolator drying on the dish rack.

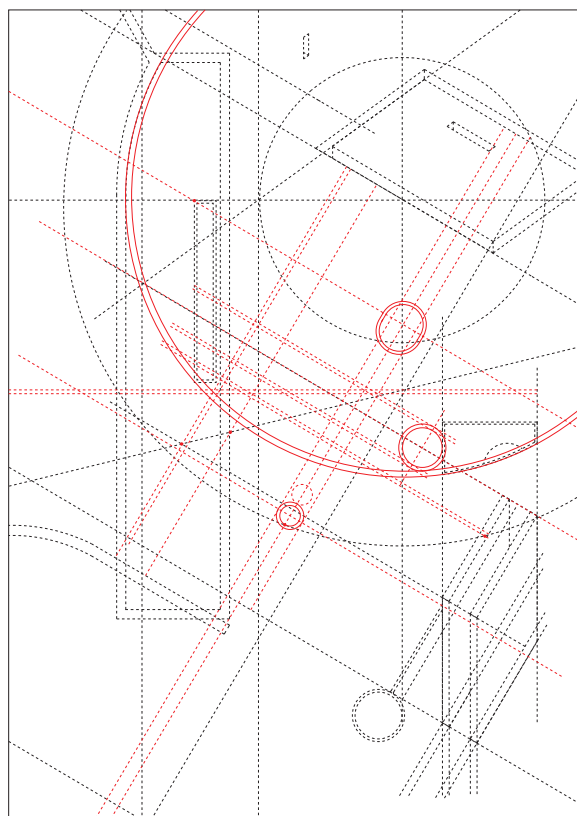


Figure 166 Existing geometries are illustrated via the black dashed lines. Dashed red lines depict new projections, based on lines extracted from the previous drawing.

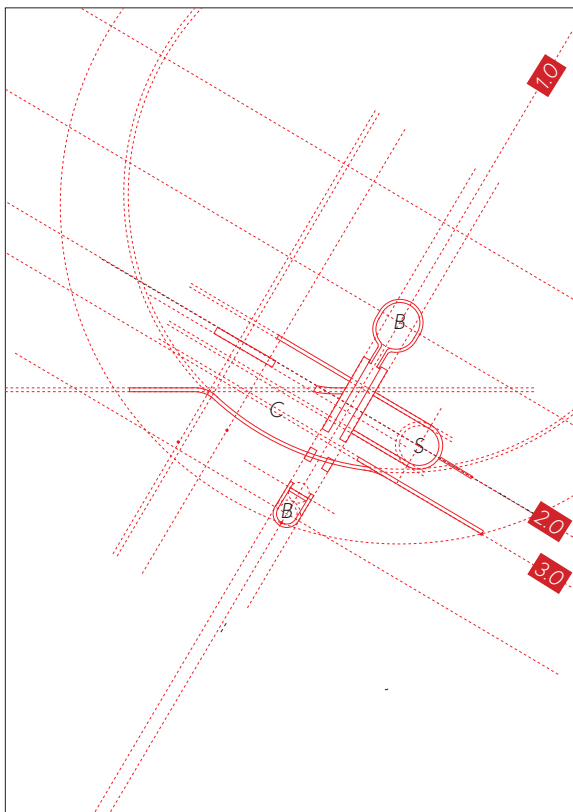
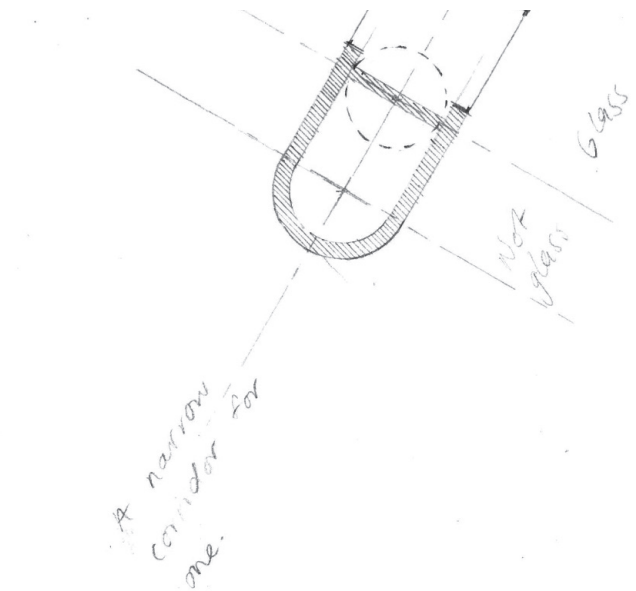


Figure 167 Diagram illustrates how the axial lines (both linear and circular) inform the form and composition of the drawing, and the house simultaneously. Compositionally, the house/drawing sits within a large reference circle, derived from Figure 165. Formal elements also reappear, such as the circular shape at the lower left hand corner of Figure 165. Here flipped, and comprises a place to bathe.

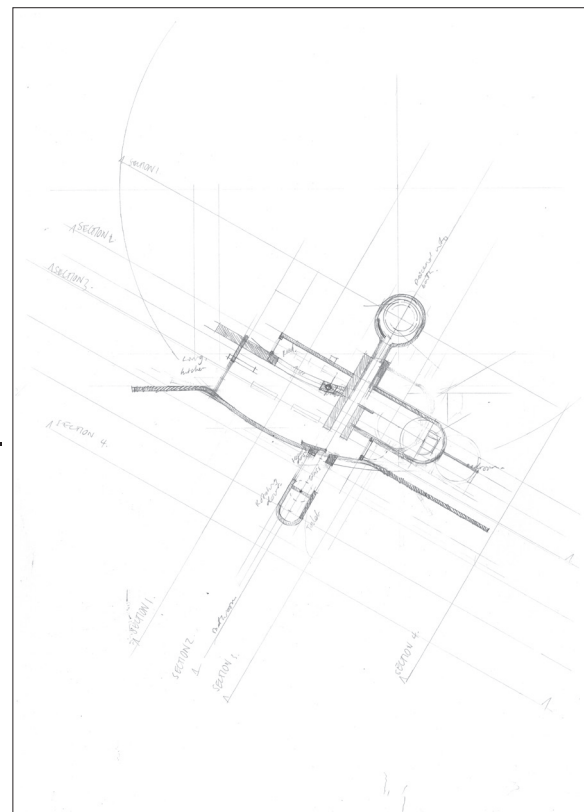


Figure 168 First iteration of the plan. Fainter lines in the background reveal how aspects of this plan have been tested through drawing lightly, and refined using darker marks. [Original is A3, graphite on paper].

- 1.0, **B** A place to **bathe**
- 2.0, **S** A place to **sleep**
- 3.0, **C** A place to **live, cook and eat**

The House of proteas from the garden and my favourite bowl

This house is configured in two parts, separated by a central axis (labelled 1.0) which divides public spaces (those to cook and eat in), from more private spaces (to sleep, and to bathe), as shown in Figure 174. A second axis (labelled 2.0) contains the place to bathe. At its junction, is a curved wall (parallel curved lines) behind which a toilet is tucked (see the lines highlighted in red, Figure 169). A bath is located at the tip of this second axis; following a passageway which descends towards it, via a sequence of deep stairs (generously spaced lines), perpendicular to its axis.

A place to sleep extends outwards via a horizontal axis (3.0), acquiring its curve from a circular reference line.

The separation between interior and exterior is demarcated with two widely spaced parallel lines, through which I imagine someone walking, feeling the weight of the heavy wall as they pass through it; experiencing the weight and density of the drawing (refer to Figure 170).

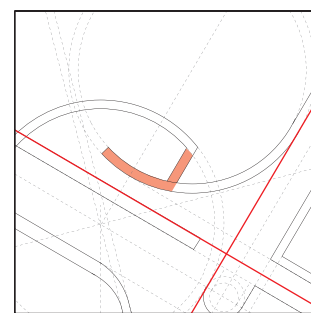


Figure 169 The primary axis at 60° constructed using a 60/30 set square. The corresponding 90° angle is constructed from flipping the set square

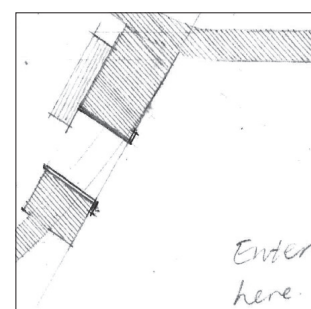
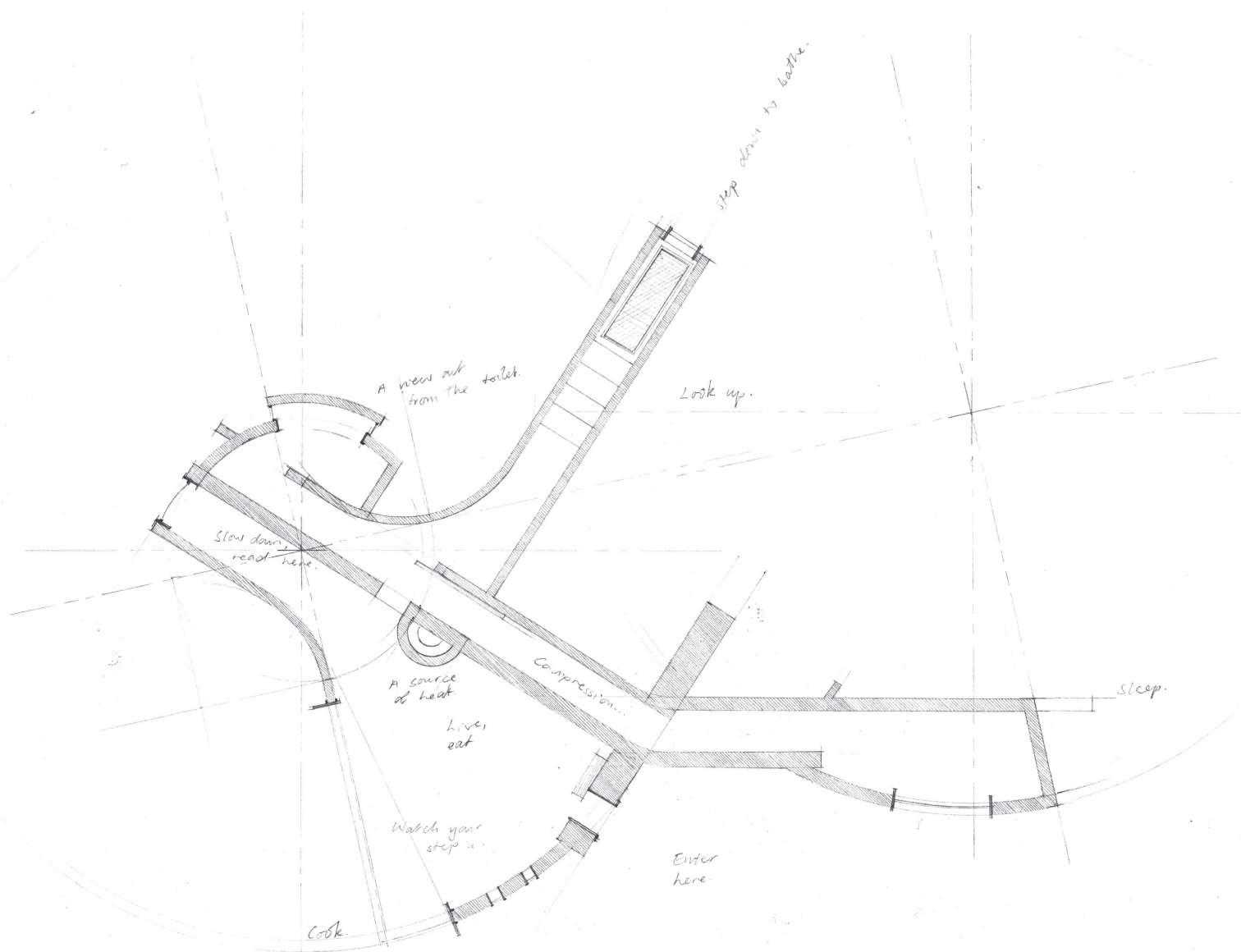


Figure 170 Evans describes the nature of the wall as firstly, to divide, then to connect. Here, the central axial line (1.0) divides and connects sleeping from bathing space simultaneously.

Figure 171 (Right) Plan drawing for The House of Proteas from the garden and my favourite bowl. [Original is A3, graphite on paper]



Drawing Process

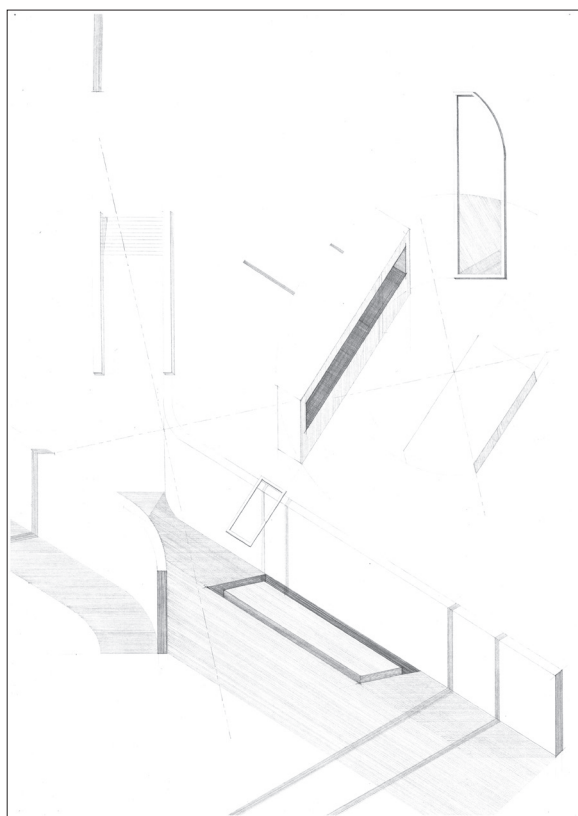


Figure 172 Discursive axonometric drawing as the genesis for this house plan. Derived from a drawing in my kitchen depicting proteas from the garden and my favourite bowl.

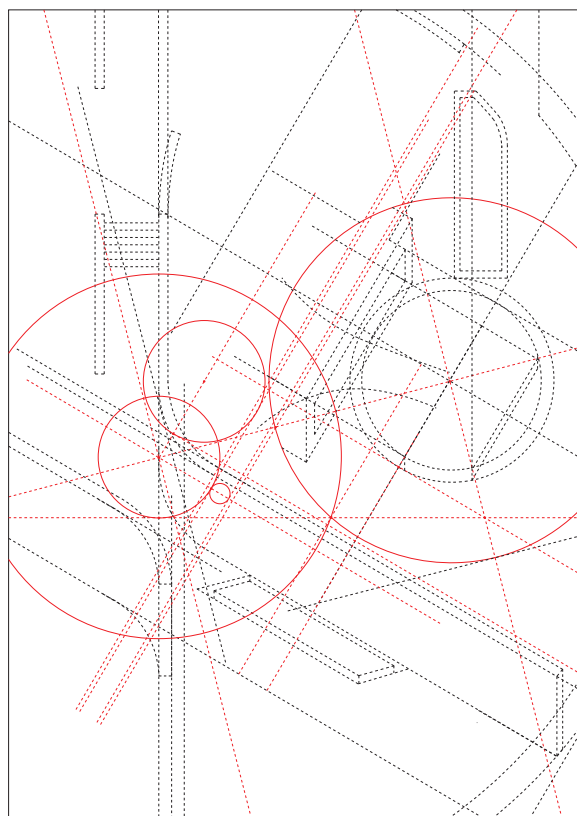


Figure 173 Existing geometries are illustrated via the black dashed lines. Dashed red lines depict new projections, based on lines extracted from the previous drawing.

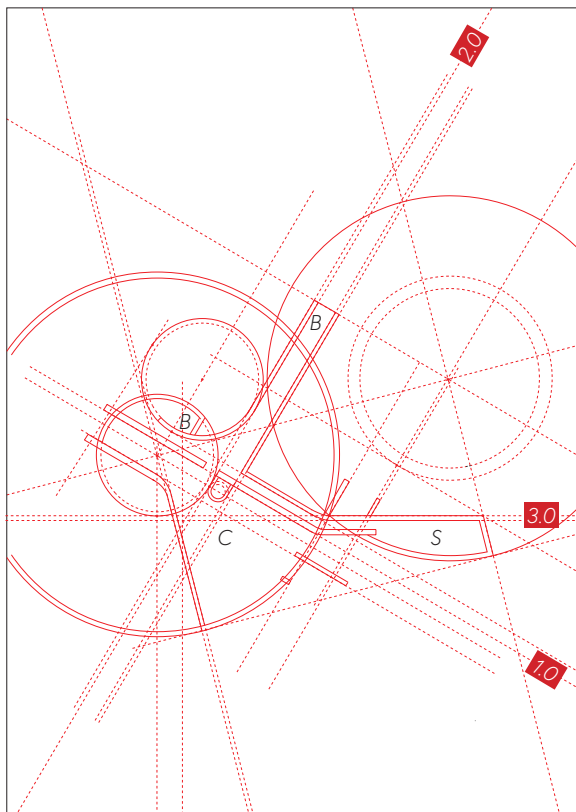
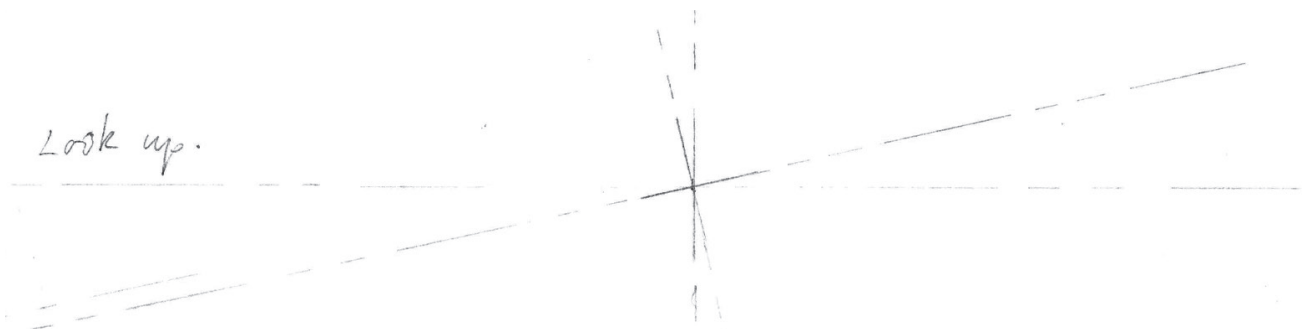


Figure 174 Diagram illustrates how the axial lines (both linear and circular) inform the form and composition of the drawing, and the house simultaneously.

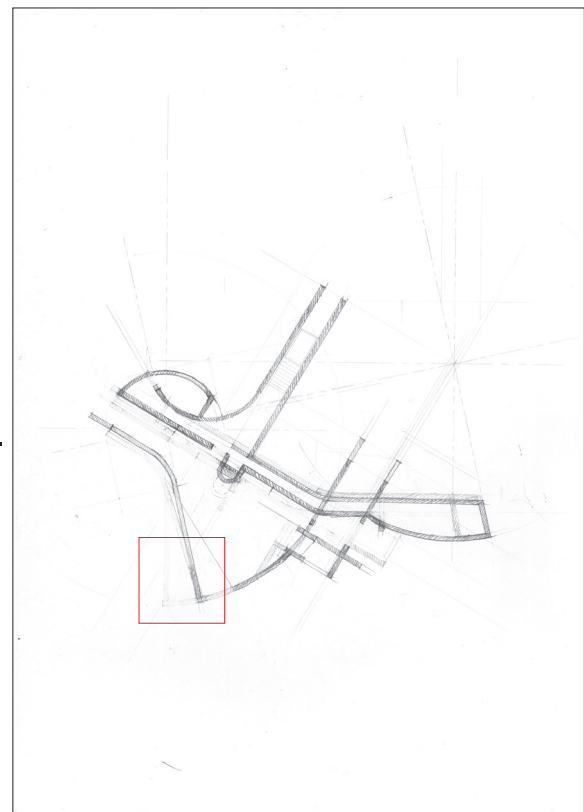
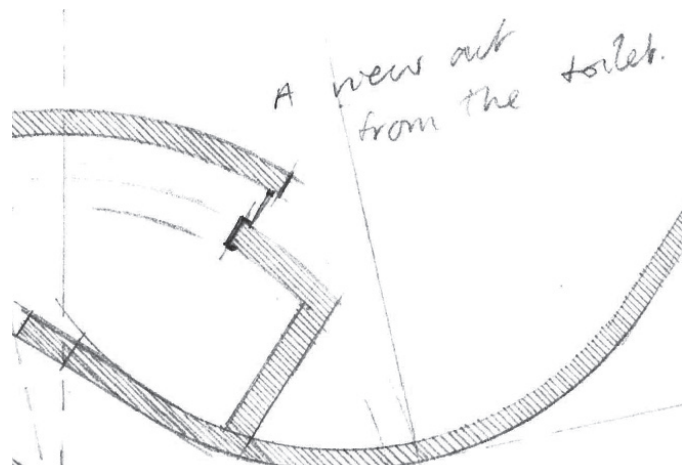


Figure 175 The first iteration of this house plan. The red box highlights one area where the nature of the drawing process, (ideas are tested through drawing and then erased), is evident in the drawing itself.

- 1.0, **C** A place to **live, cook and eat**
 2.0, **B** A place to **bathe**
 3.0, **S** A place to **sleep**



The House of the fruit bowl, salt, pepper and wooden spoons.

A transition between interior and exterior, between blank paper and pencil line, is demarcated by three steps (four lines), which converge at the tangent of a circle denoting the entrance way (shown in Figure 176). A central axis (axis 1.0, refer to Figure 181) joins the constituent spaces, while simultaneously separating them. A place to sleep is located perpendicular to the direction of entry (labelled axis 3.0), while a place to bathe located off the primary axis, at the far end of the house, or the upper right hand corner of the drawing.

Much like a house which typically revolves around the "heart of the home" (the kitchen or living space), the drawing revolves around central, circular geometry. Here, a place to cook and to eat is contained within a circular line; where its geometric origin (the circle) converge with the architectural form. A junction between living and bathroom, marks the centre of a second, larger reference circle used to contain the house, and control the composition of the drawing (refer to Figure 177); in much the same manner as the axonometric drawing which preceded it (refer to Figure 173 and Figure 172).

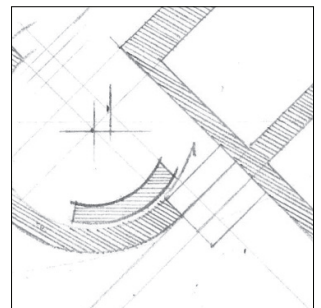


Figure 176 Four parallel lines representing steps, mark the entry to the house.

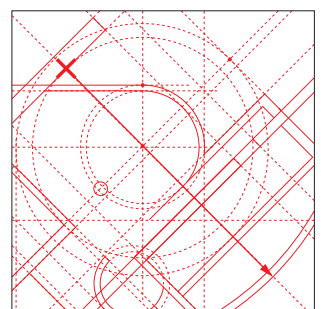
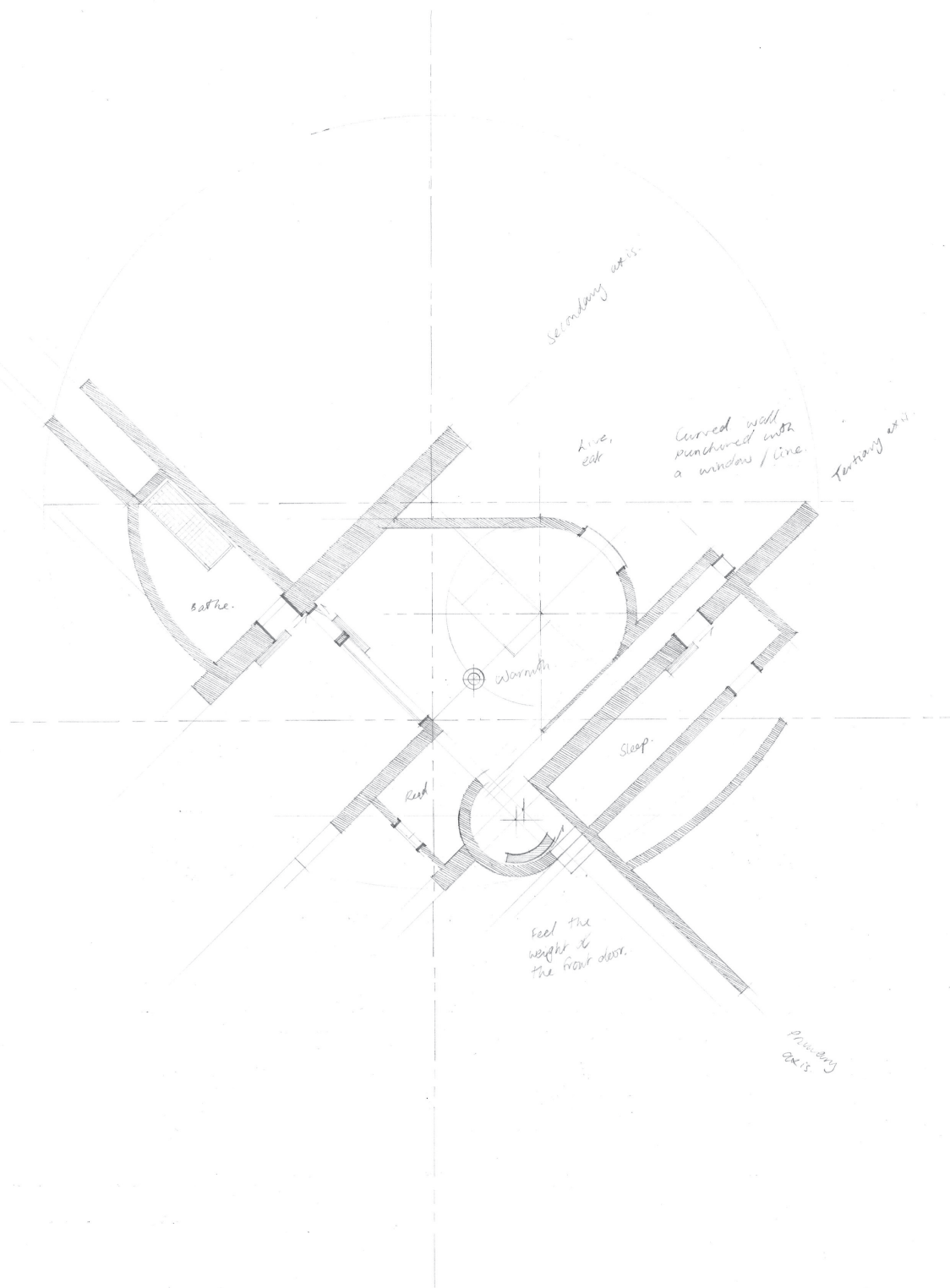


Figure 177 Near the convergence of two primary 'walls' marks the centre of a larger reference circle (radius indicated by red arrow). Centre shown by the red 'x'.

Figure 178 (Right) Plan drawing for The House of the fruit bowl, salt, pepper and wooden spoons [Original is A3, graphite on paper].



Drawing Process

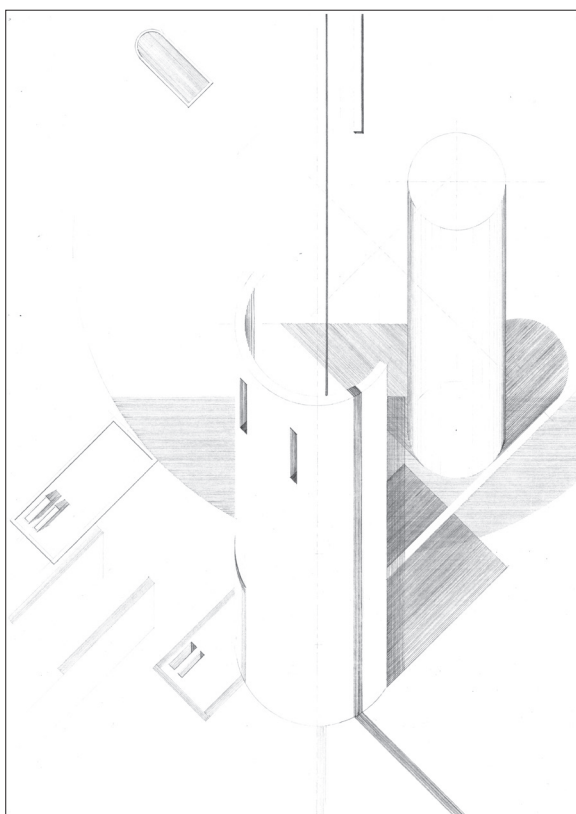


Figure 179 Discursive axonometric drawing as the genesis for this house plan. Derived from a drawing in my kitchen, depicting my fruit bowl, salt, pepper and wooden spoons.

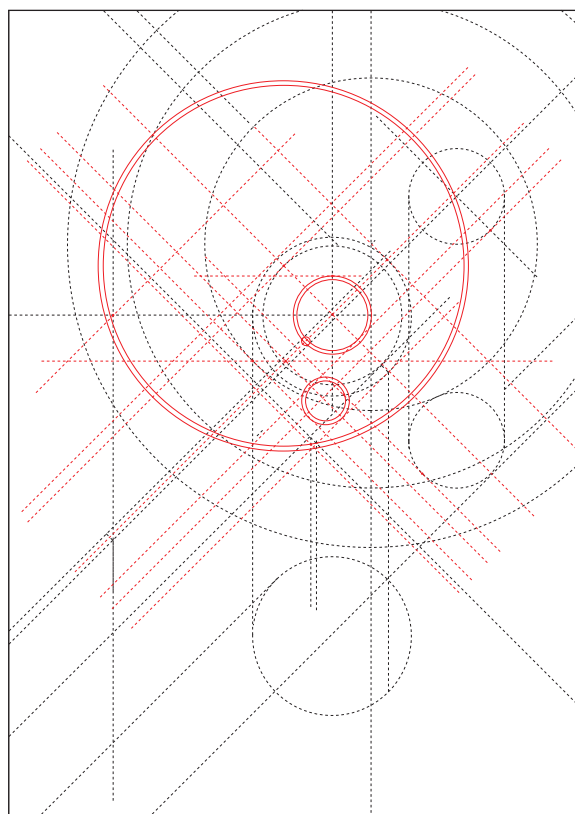


Figure 180 Existing geometries are illustrated via the black dashed lines. Dashed red lines depict new projections, based on lines extracted from the previous drawing.

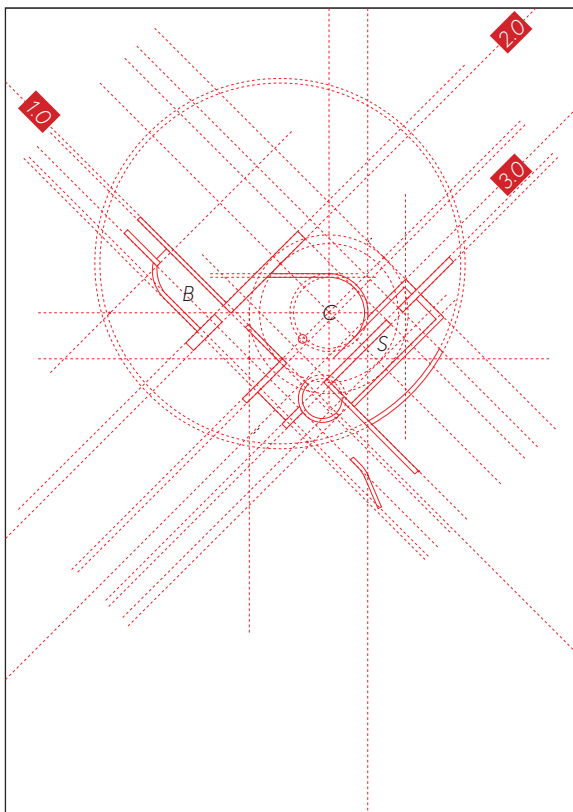


Figure 181 Diagram illustrates how the axial lines (both linear and circular) inform the form and composition of the drawing, and the house simultaneously.

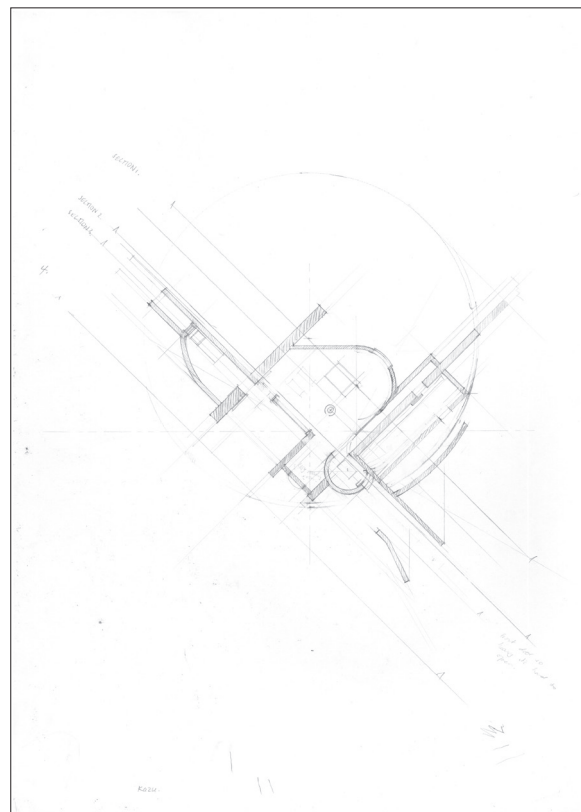


Figure 182 First iteration of house plan. Ideas are tested through a process of redrawing and erasing.

1.0, **C** A place to **live, cook and eat**
 2.0, **B** A place to **bathe**
 3.0, **S** A place to **sleep**

13.0

DRAWING IN — SECTIONS OF HOUSES

A sectional drawing operates similarly to a plan, though since the cut is vertical rather than horizontal, relationships between elements within the vertical plane are inevitably privileged. The sectional drawing literally draws out the lines and elements previously confined to a flat plane. Parallel lines as "the conservers of true measure,"¹ allow for dimensions to be easily transposed, via compass tip, from plan to section (and elevation). Within this mode of seeing and thinking, compositions of lines and their implied spaces drawn in plan, are extended vertically. Both as compositional elements of the drawing, and architectural elements comprising their respective theoretical houses; lines slip between the two conditions, entangled within one another.

In the same manner as the plan (and earlier drawings embodied by the plan), here there is an emphasis on the careful articulation of lines, shapes, and relationships between them. Each imagined 'space' is conceptualized by the domestic rituals they enable, rather than what they represent as rooms. For example (as described in the previous section) calling a bedroom "a place to sleep" broadens the notion of a bedroom to encompass the articulation of its edges.

Each sheet comprises a set of three sectional cuts and one elevation; with each set corresponding to a different autobiographical house. It should be noted that the surface upon which the drawings are made, does not only influence the quality of the graphite lines, but the composition of the drawing, shaped by the size and aspect ratio of an A3 sheet of paper. To include three sectional cuts and an elevation on each sheet intends equally, to reveal the architecture in the vertical plane, as well as to compose a well-balanced drawing; neither too cluttered nor too sparse.

1 Evans, *The Projective Cast*, 108.

*The House of the Coffee Plunger and Percolator drying
on the dish rack*

Section one is comprised of a bath, embedded within the ground plane, beneath a glass dome (a curved pencil line). The dome borrows its radius from that of the bath (Figure 183). Both exist simultaneously as architectural elements and drawn orthographic projections, indistinguishable from one another.

The following sectional cut (2.0) similarly uses the plan to derive its section, through transposition and rotation (refer to Figure 184). The two widely spaced parallel lines, populated with smaller ones (representative of thick walls) assert themselves as prominent elements within the plan, and are equally as prominent in section. The walls/lines ascend above other components within the drawing and pierce the ground plane beneath. The height of the lines makes their size and proximity more pronounced.

Similarly, the circular front edge of the house, defined by a larger reference circle, is flipped in section to create a bulbous roof form (refer to Figure 186 and Figure 187). Both an element of the drawing and of the architecture, this delicately curved element counterbalances the weight and density of the central two walls.

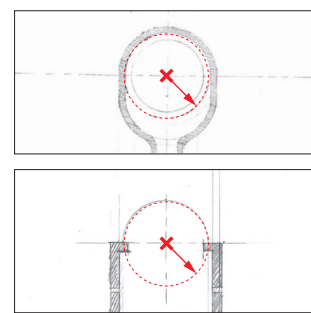


Figure 183 (Above) House Plan. (Below) Section. Red line indicates the radius borrowed from the plan, informing its section.

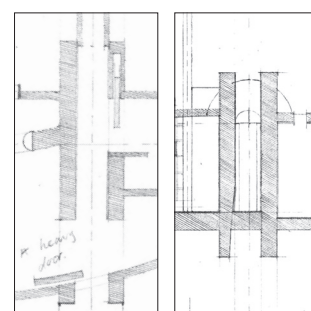
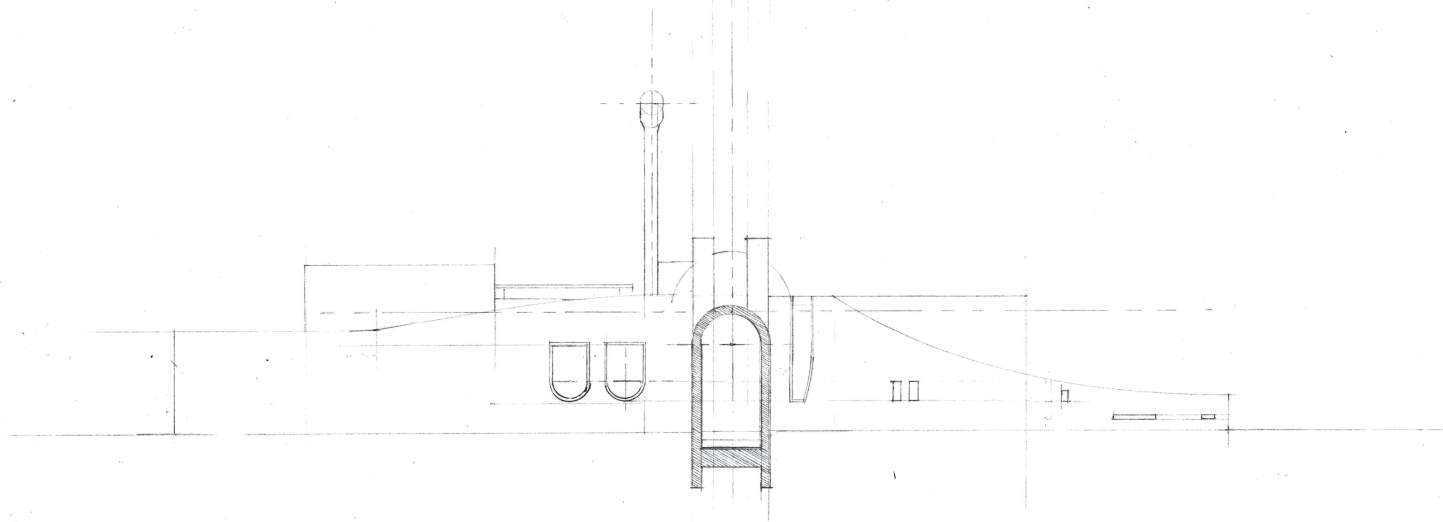
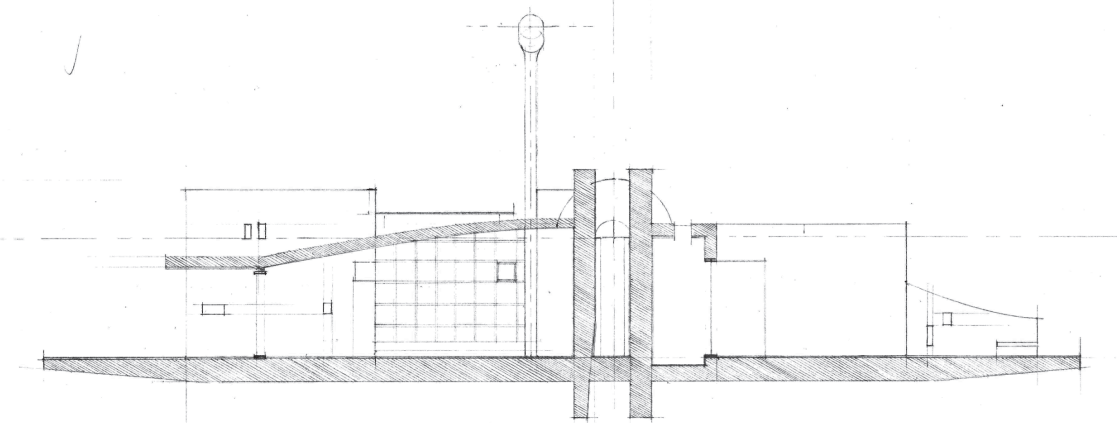
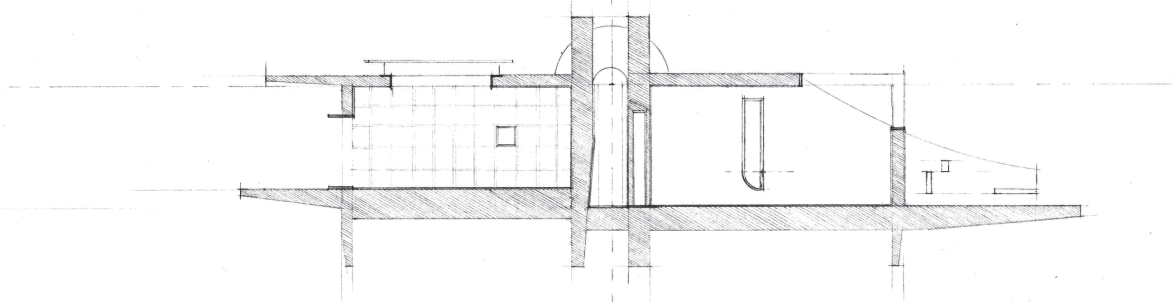
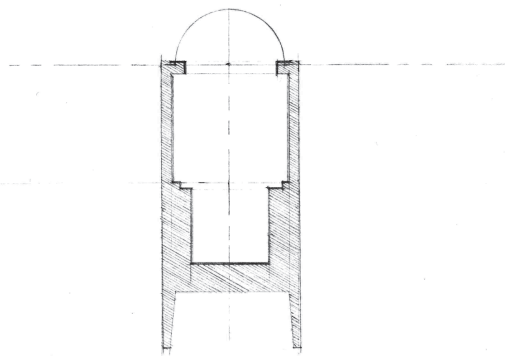


Figure 184 (Left) Central walls in plan. (Right) Central walls in section. Placed side by side, their formal and compositional relationship is evident.

Figure 185 (Right) Sections of The House of The House of the Coffee Plunger and dishes drying on the dish rack. [Original is A3, graphite on paper].



Drawing Process

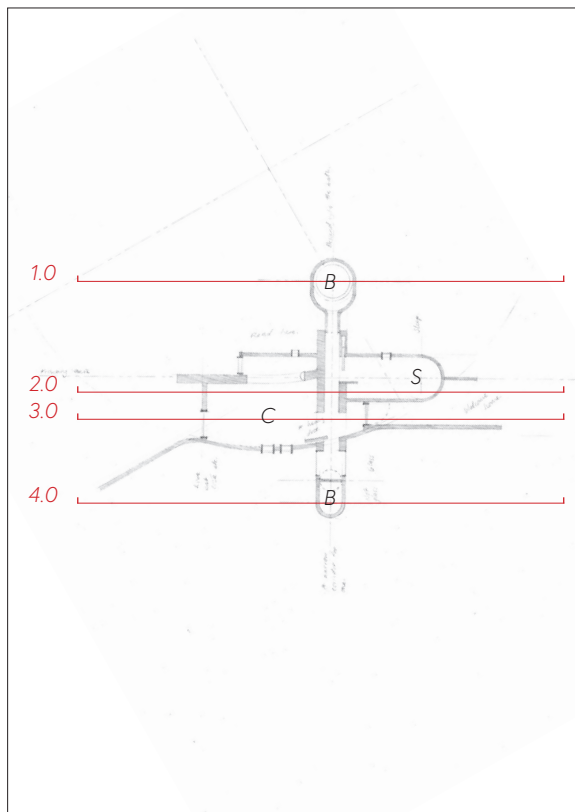


Figure 186 House Plan as the genesis of the section; establishing a basis from which to draw out. The location of each sectional cut was selected so that each significant domestic space would be visible, as well as significant lines/thresholds that unite and divide them.

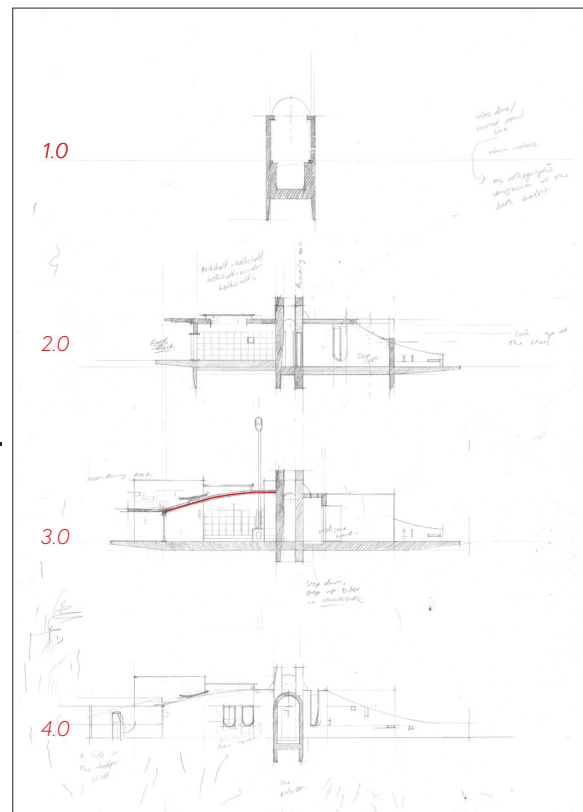


Figure 187 The first drawn iteration across each sectional line. Placing the section alongside its corresponding plan (left), reveals how shapes articulated in plan have been borrowed and reapplied here in section.

C A place to *live, cook and eat*
B A place to *bathe*
S A place to *sleep*

Glass dome/
curved pencil
line

Warm waters.

An orthographic
projection of the
bath below.

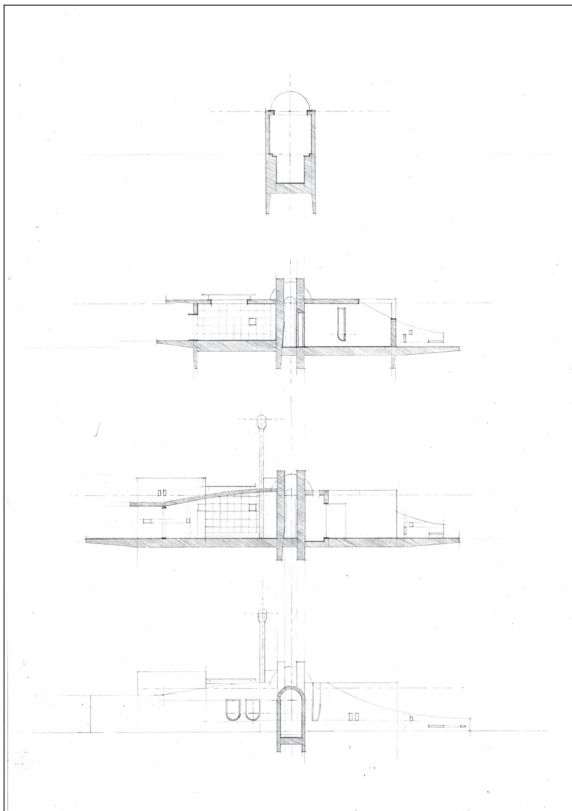
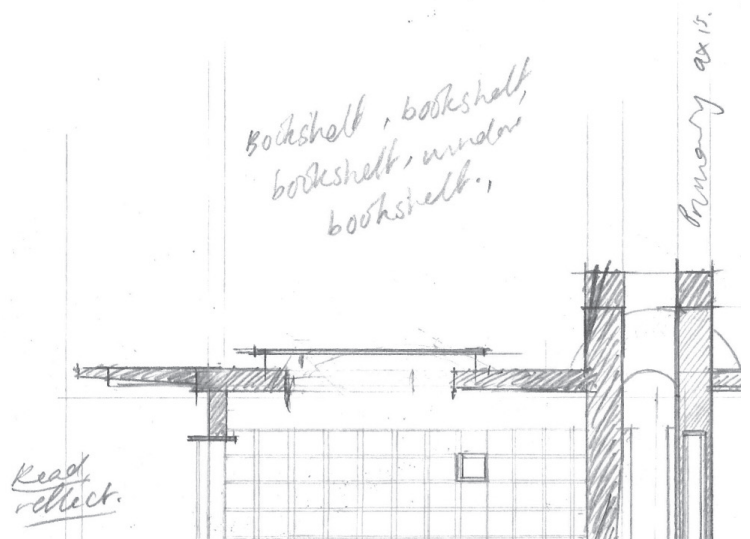


Figure 188 The final drawn iteration. The composition of the drawing and of the architecture is carefully articulated and resolved through a slow process of refinement.



The House of proteas from the garden and my favourite bowl

The first section illustrates where a place to cook and eat converges with a place to bathe, separated by a central hallway (vertical lines which equally serve to ground the composition). The weight of these walls and the density of their lines is offset by a subtle taper at each end (refer to Figure 191), and a curved line that pops out above; a curved glass ceiling. Its diameter is borrowed directly from the width of the hallway.

It is easy to imagine a person within its architecture, descending into the ground plane towards the bath, as the roof plane peels away in the opposite direction. At its apex, is a small curved glass window; a curved line. The curve of the roof repeated, at a smaller scale to compose two smaller skylights that puncture the roofline. The solid walls are perforated with tiny rectilinear windows; small rectangles.

In elevation (4.0), the junctions and intersections between lines in plan, are equally pronounced in the vertical plane. For example, the intersection between the curved wall/line containing the place to sleep meets the orthogonal wall defining the entry to the house, at an odd angle. This junction is expressed vertically, where one wall protrudes beyond the other (see Figure 192).

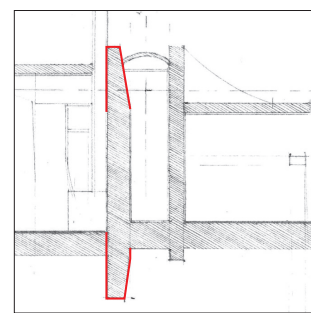


Figure 191 Weight of central walls is offset but a subtle taper at each end, highlighted in red.

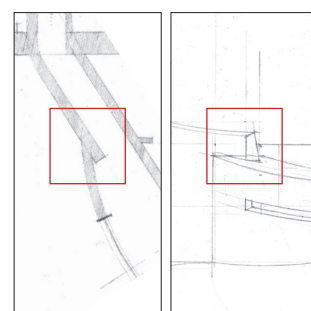
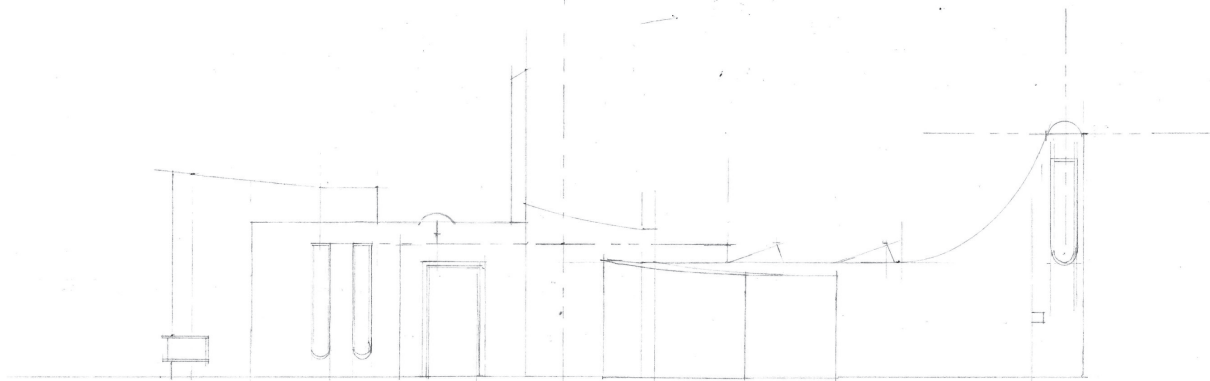
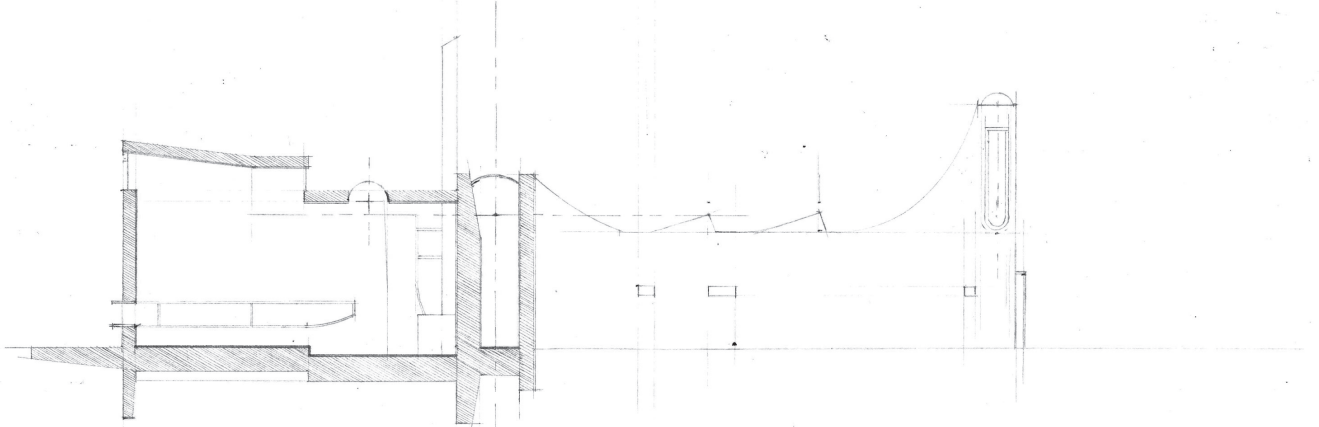
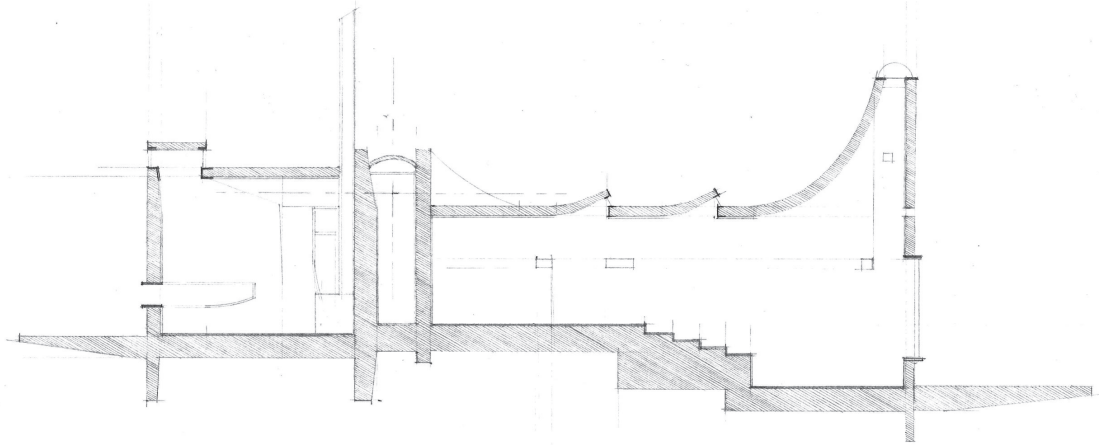
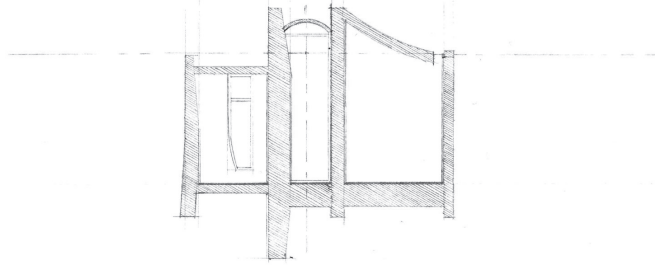


Figure 192 (Left) Plan, (Right) Section. Red boxes highlight how the junction in plan is expressed similarly in elevation.

Figure 193 (Right) Sections of The House of proteas from the garden and my favourite bowl [Original is A3, graphite on paper].



Drawing Process

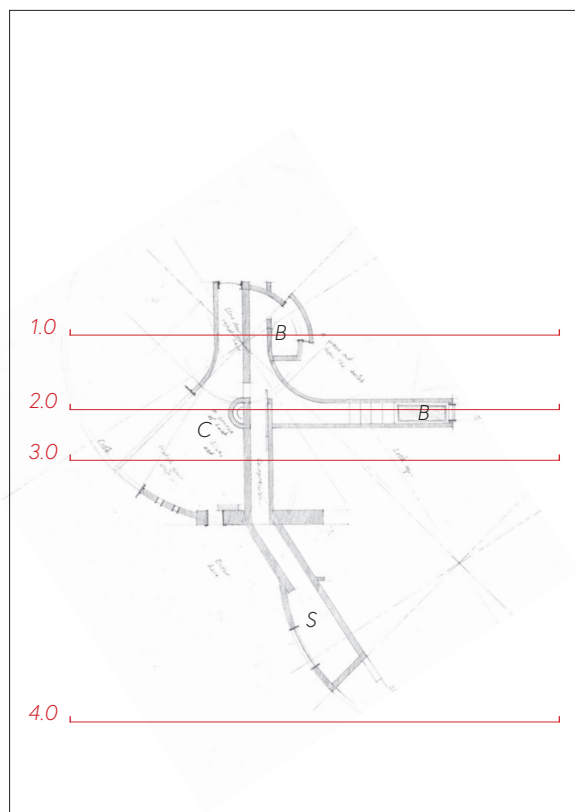


Figure 194 The house plan as the genesis for subsequent drawings.

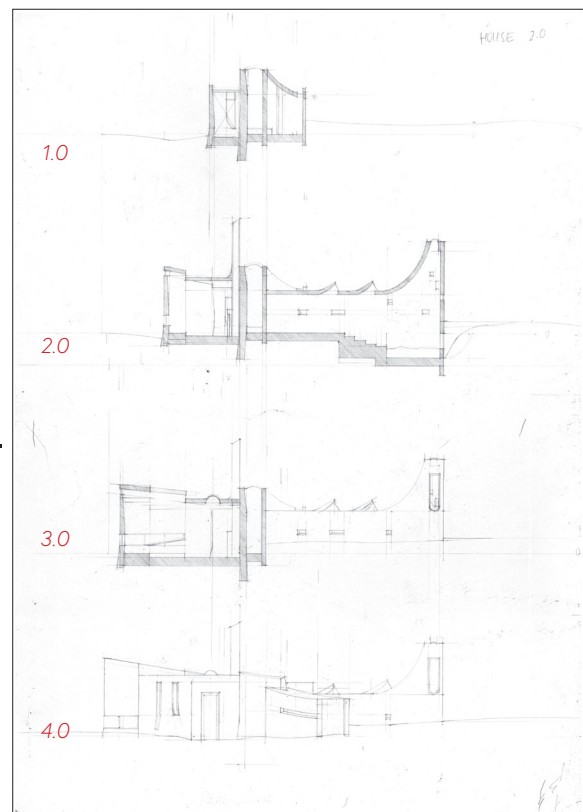


Figure 195 The first drawn iteration across each sectional line. Beginning at the first section which cuts through the centre-most elements of the house, the composition of the drawing, and the architectural elements are built incrementally outward.

C A place to *live, cook and eat*
B A place to *bathe*
S A place to *sleep*

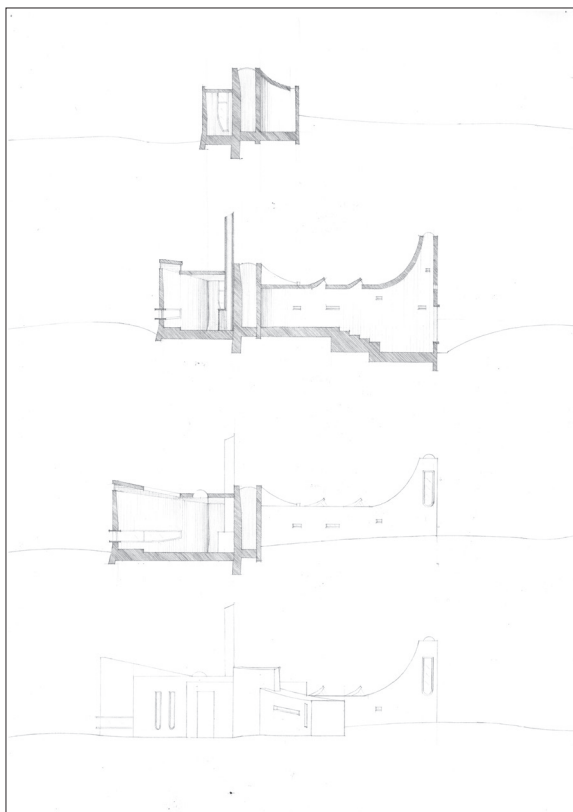


Figure 196 The second drawn iteration as elements gain clarity and refinement. Vertical lines have been added to explore light and form more explicitly.

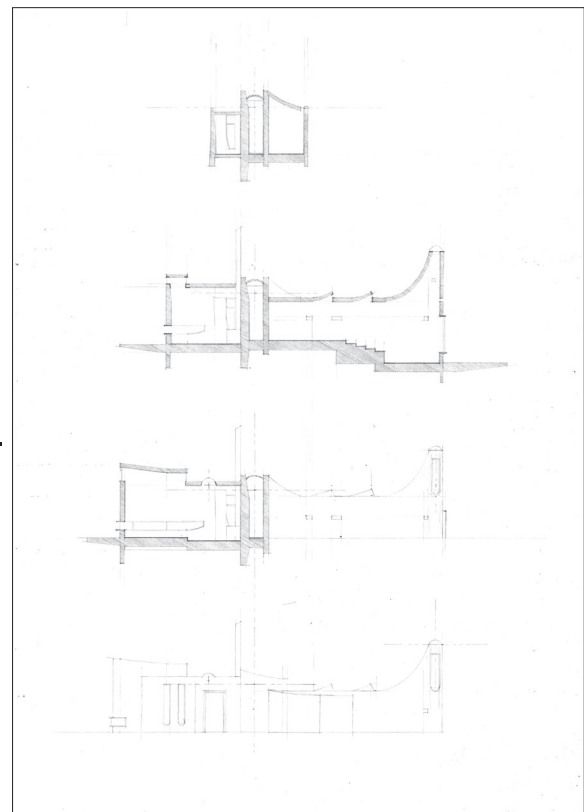


Figure 197 The final drawn iteration. Here, the imagined foundations are utilised as a compositional element in the same manner as wall and roof elements. Placed alongside the second iteration (left), the subtle refinements are made evident.

The House of the fruit bowl, salt, pepper, and wooden spoons

As with the plan, in section, a place to cook and eat is defined by the circular geometry of the drawing. The same radius used to define this space/shape in plan is used here in section; composing at once, a bright voluminous space and an elegant piece of geometry. The ceiling is pierced with a barrel vault; a rectilinear line.

In the third section (3.0) a small gap in a wall marks the threshold that defines the place to bathe. The bath itself is embedded in the ground plane, offset by the roof plane which ascends vertically in the opposite direction.

The composition of each section is grounded centrally by a circular line; a window that punctures the far wall of the living area.

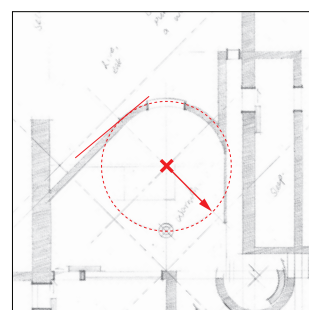


Figure 198 House plan. Red diagram illustrates how circular geometry constructs the its form.

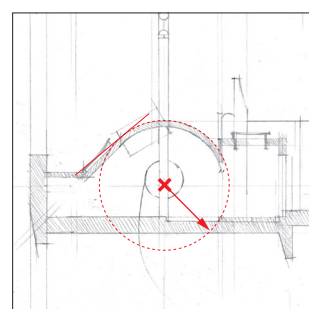
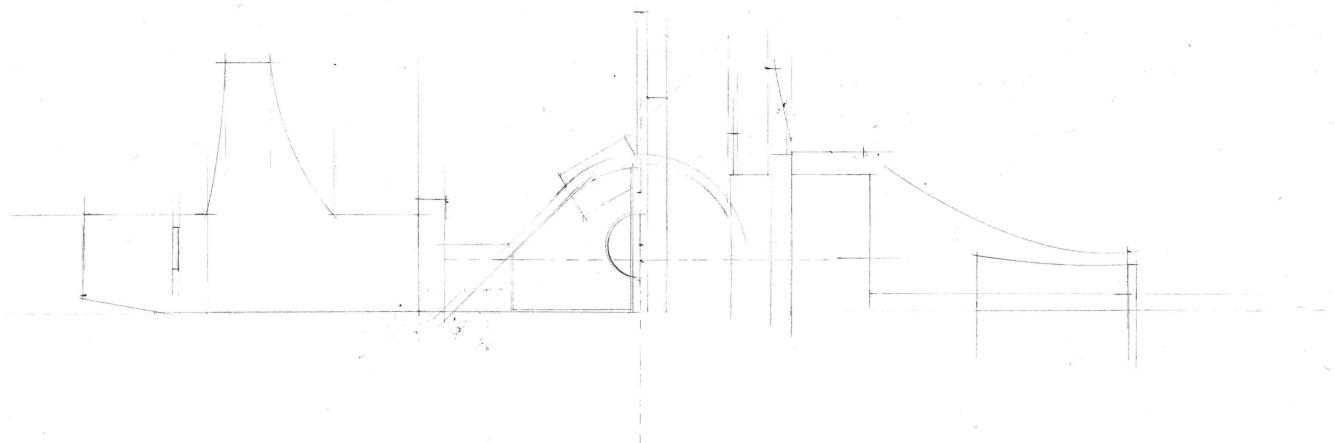
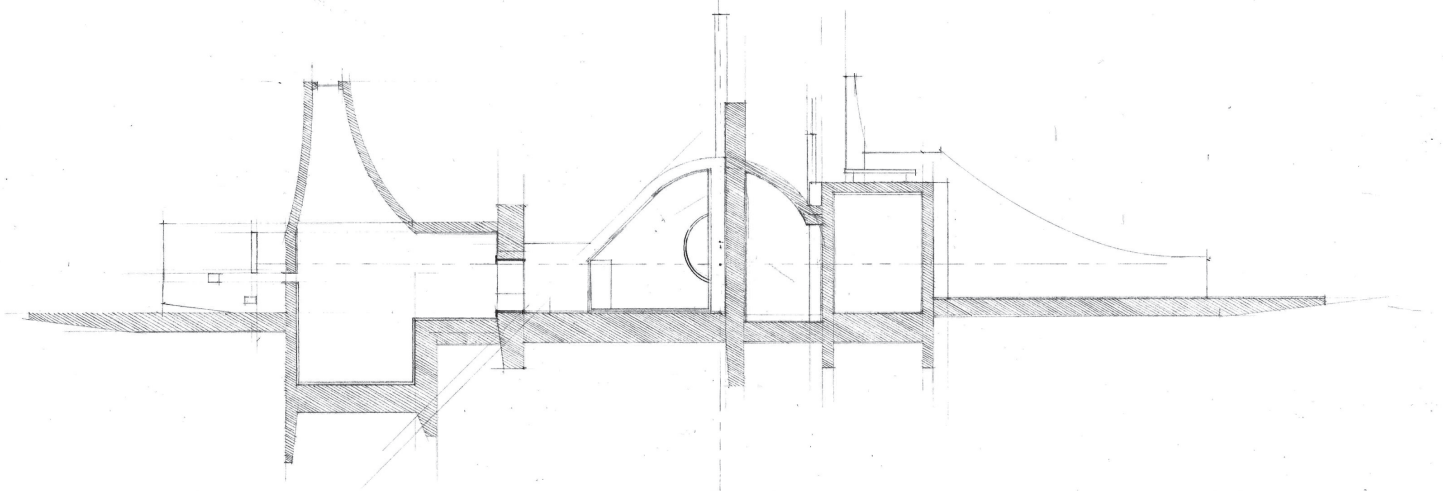
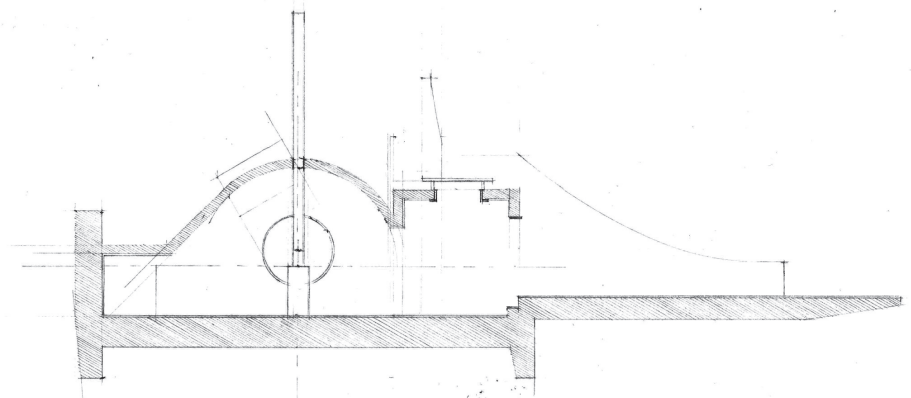
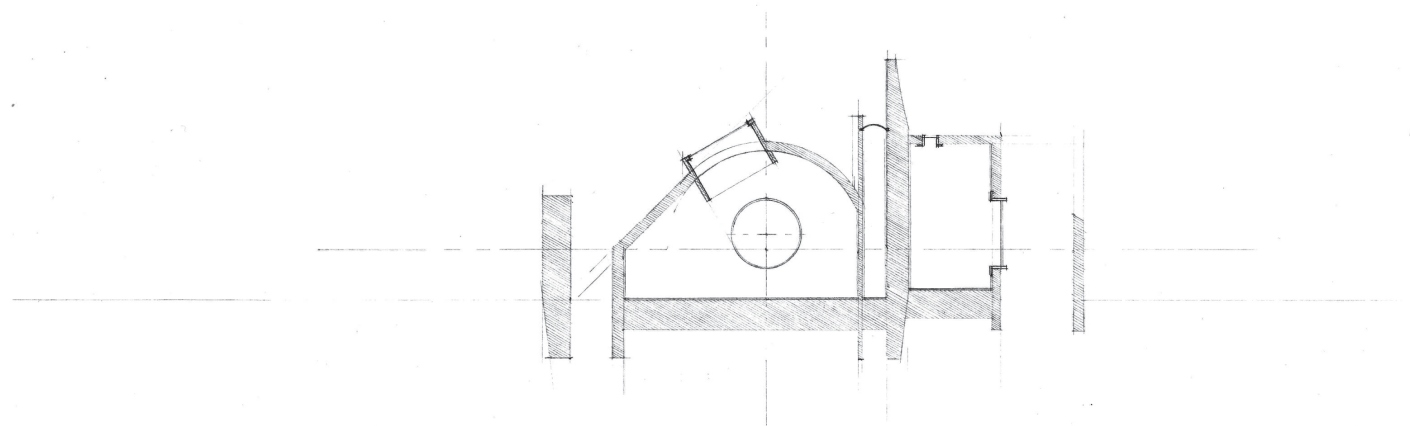


Figure 199 House section of the same space pictured above. Red diagram illustrates how the circular geometry used to inform the plan, has been used similarly to compose its section.

Figure 200 (Right) Sections of The House of the fruit bowl, salt, pepper, and wooden spoons [Original is A3, graphite on paper].



Drawing Process

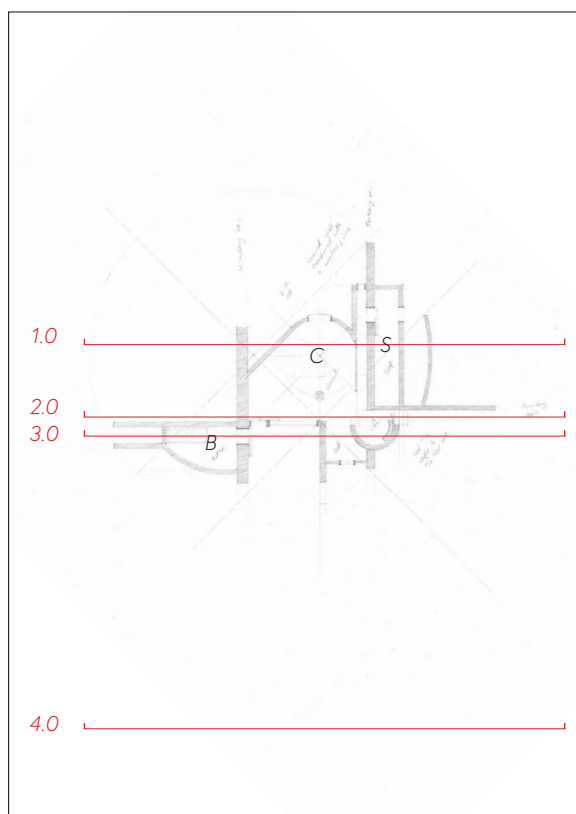


Figure 201 The house plan as the genesis for subsequent drawings. Section lines cut parallel, or perpendicular to key domestic spaces and axes, allowing their form to be interrogated in sections that follow.

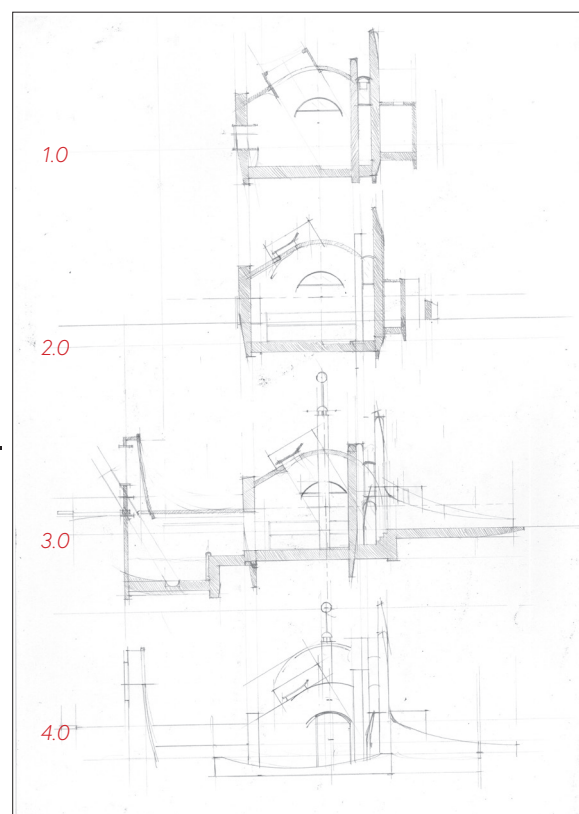


Figure 202 First drawing iteration. Lines are re drawn over one another as various compositions are interrogated through the line.

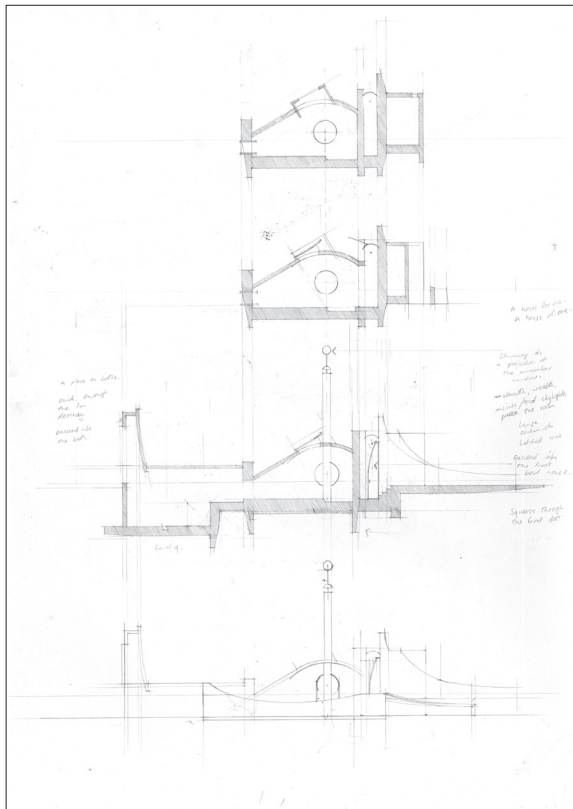
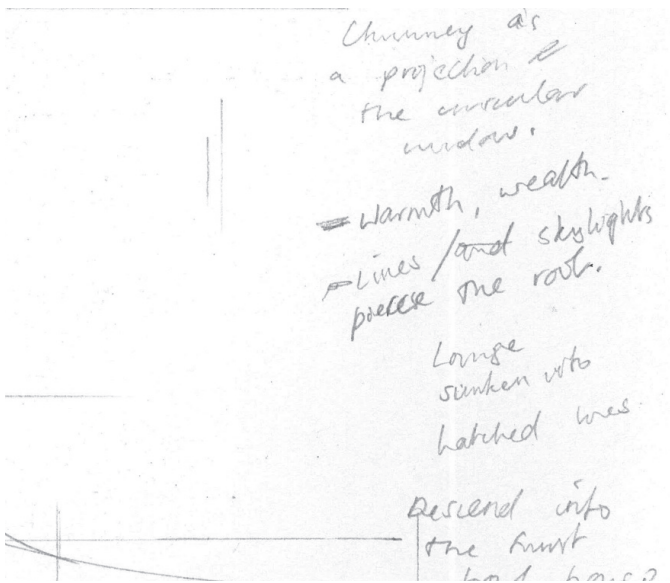


Figure 203 Second drawn iteration. The use of annotation reveals the way in which the compositions were conceived in relation to the architectural referent (the autobiographical house) - see enlarged, above and below.

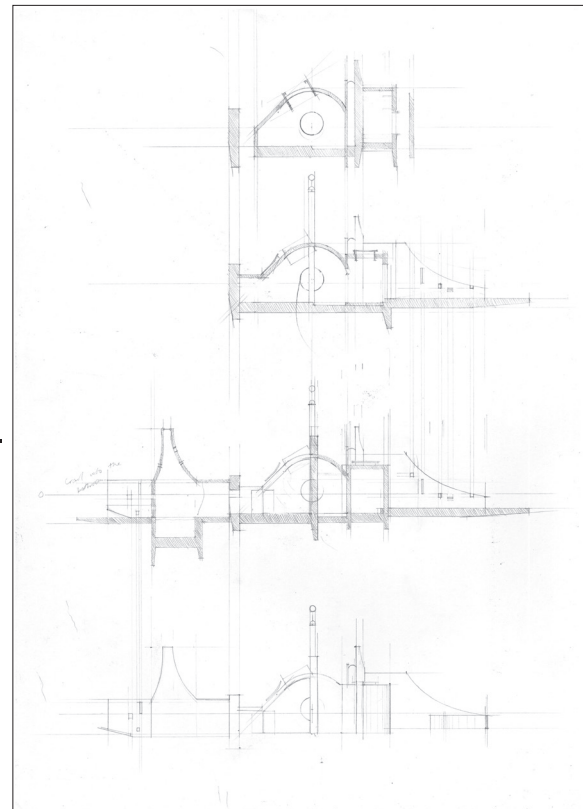
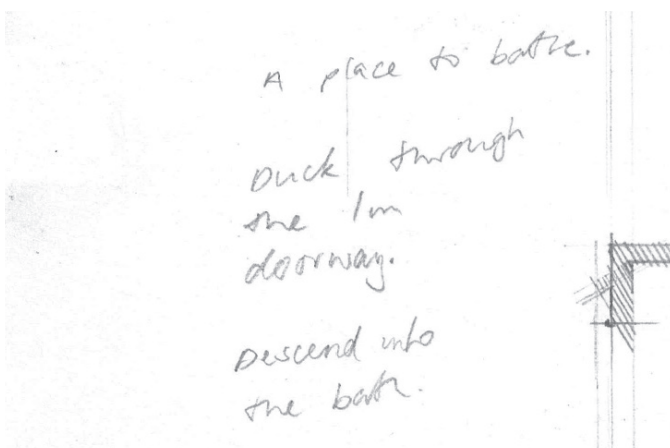


Figure 204 Final drawn iteration.



14.0

DRAWING OVER — ROOF PLANS

Here, the drawings again return to the plan, drawing over it, as roof elements from the sections are collated into a single drawing, a 'roof plan.' The presence of an architectural referent, (or at least the apparent representation of a three-dimensional object) is implied through the accumulation of closely spaced parallel lines, appearing to cast shadows across the paper. Not only do the shadow lines imply the form of the object whose shadow it casts (for example, cut-outs in a wall, or the height of a chimney), but also, of the object the shadow is cast on. If the shadow lines are distorted and curved, this indicates that the surface upon which they are cast isn't flat. The straight, parallel lines cast across the page beyond the walls of the house, imply that the surface upon which the theoretical houses sit is perfectly flat. The autobiographical houses/drawings are sited on paper, where the architecture is embedded in the drawing, and vice versa.

Just as a roof masks the inner workings and occupation of a house (when viewed from above), the roof plan drawing conceals the geometric construction of the plan beneath. By covering the construction lines with a 'roof', a greater emphasis is placed on the forms themselves, incidentally highlighting the contradictions and inconsistencies fixed within the drawing. In certain areas, it is difficult to reconcile the plan and section with the roof plan, where some elements don't completely match up, or seemingly contradict one other. This simultaneously (and paradoxically) casts into doubt the representational accuracy of the 'designed object' (the autobiographical houses), while equally exemplifying the generative capacity of drawing, highlighting several points established in Part One.

Firstly, that orthographic projection tends to be better suited to the depiction of similarly orthogonal shapes that are "frontal, symmetrical

and axial", like the instruments used to construct them.¹ Since these drawings/houses don't conform to these three views, complexities and contradictions within the drawing are perhaps an inevitability of the disjunction between what has been drawn, and the way they have been drawn. Secondly, these contradictions and slippages, which embody the notion of (mis)translation; exemplify the paradox earlier discussed by Bafna, which says that less geometric clarity, results in a more expressive drawing.² Though incidental, these slippages evoke unanticipated compositional possibilities (both of the architecture, and the drawing), that serve to liberate subsequent drawings (and makings).

1 Evans, *The Projective Cast*, 119.

2 Bafna. "How architectural drawings work – and what this implies for the role of representation in architecture," 554.

*The House of the coffee plunger and percolator drying on
the dish rack.*

Tiny white skewed rectangles to the upper-right corner, and lower-left corner of the 'shadow,' reveal the rectangular penetrations in the wall, concealed within is visibly two parallel lines. Here, plain white paper exists in the absence of architectural elements. Slightly further down the drawing, are two rectangles side by side. Unable to be located within the sectional drawings, these rectangles sit within what I will call an orthographic blind spot, where their appearance from one view renders it invisible from another. Perhaps peeling upward, a collection of curved lines are left to imply their form.

What is a seemingly straightforward drawing is thrown into contention in places illustrated in Figure 197. The convergence of shadow lines creates the impression of a void, contrary to information in its preceding plans and sections (lines are extracted in Figure 198). Challenging the exact relationships assumed of orthographic projections, this drawing illustrates the formative and generative capacity of drawing, conceiving an entirely new composition based on existing parts.

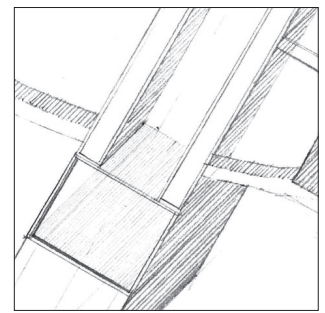


Figure 205 Shadow lines converge altering the perception of the existing lines and elements.

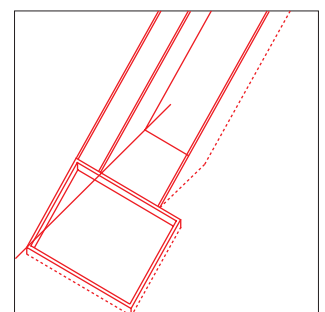


Figure 206 Lines extracted from the drawing above, depict how the roof plan generated new compositional elements.

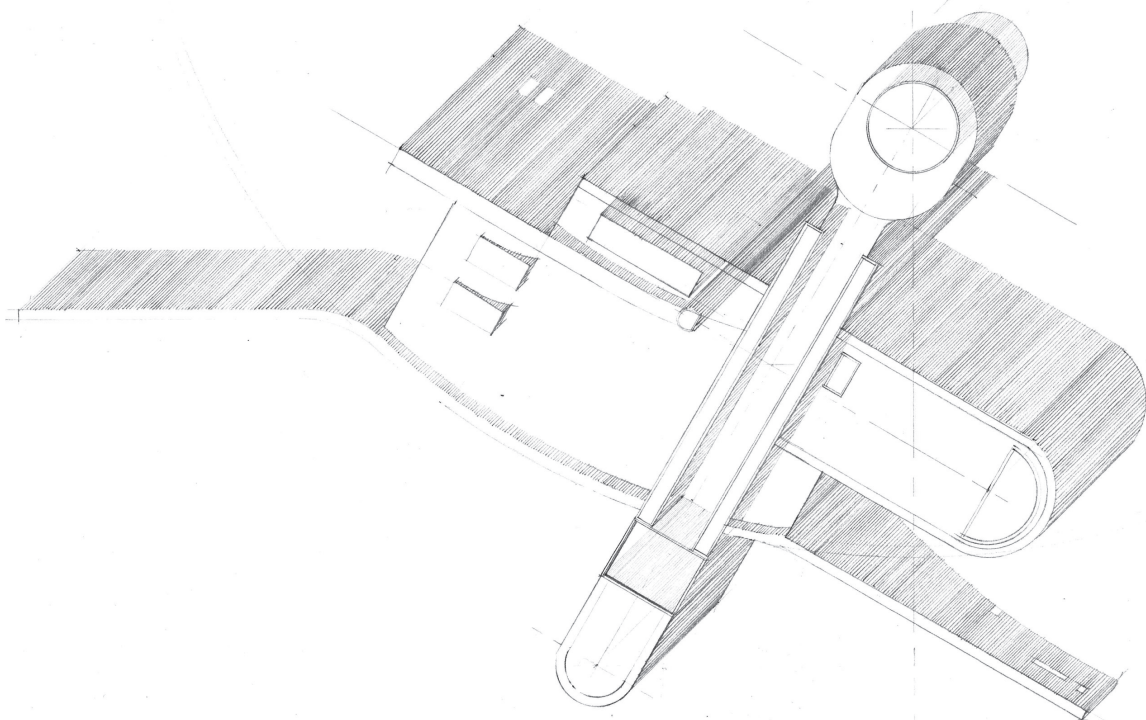


Figure 207 Roof Plan of The House of the coffee plunger and percolator drying on the dish rack [Original is A3, graphite on paper].

Drawing Process

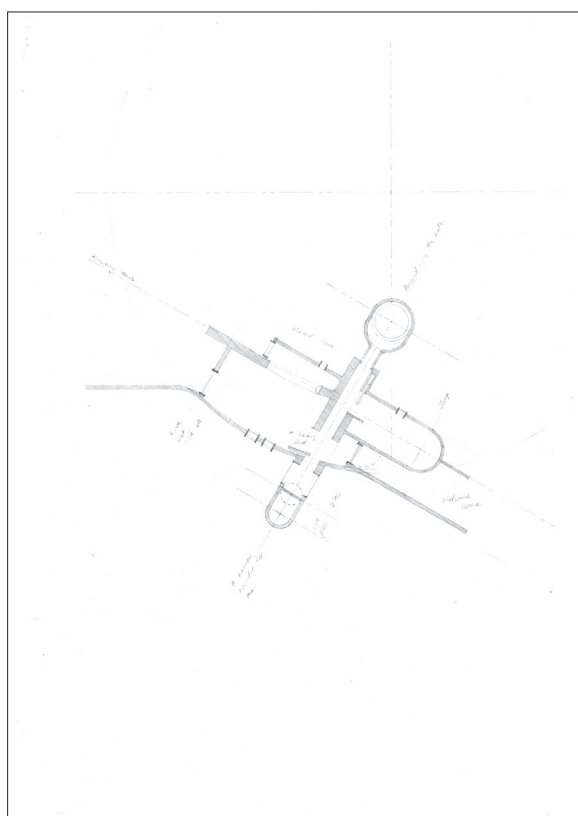


Figure 208 House plan establishes the basis for the roof plan, through a process of replication in light, delicate graphite lines.

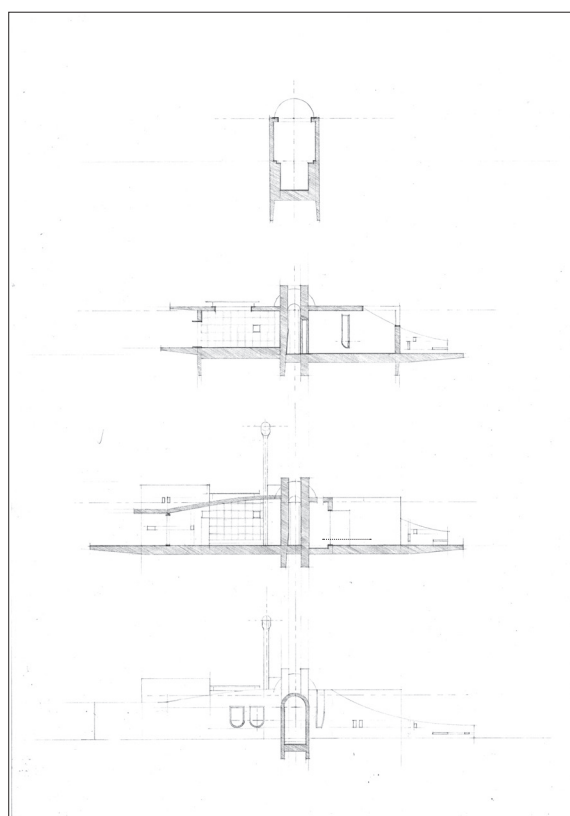


Figure 209 Forms and shapes of roof elements are transposed via compass tip from section to roof plan. Heights of lines and elements in section are also used to construct the projected shadow lines.

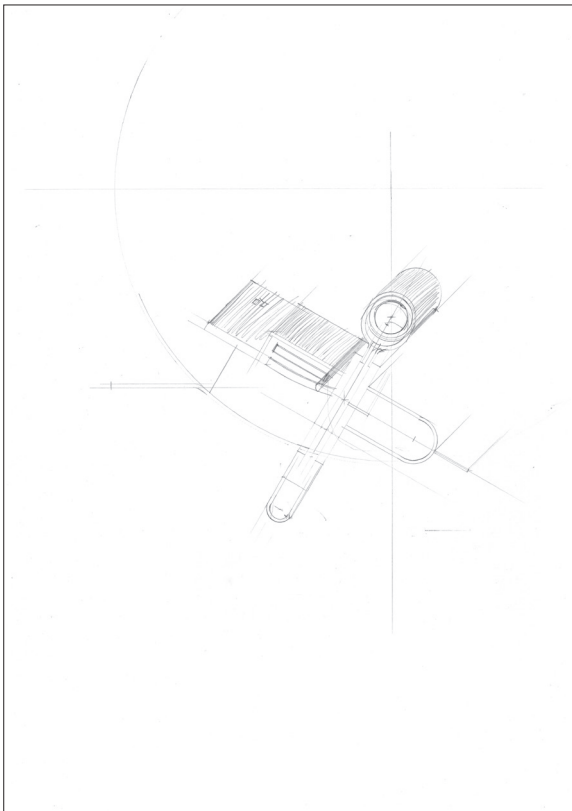


Figure 210 First drawn iteration.

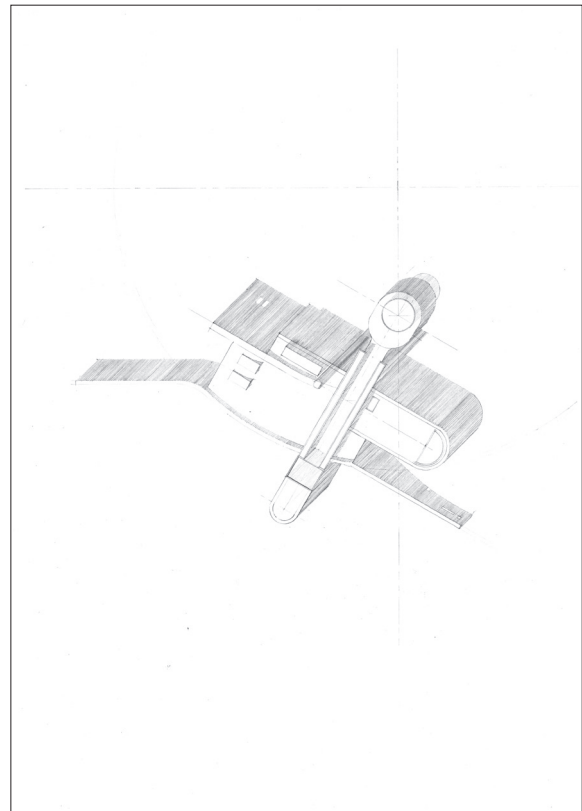


Figure 211 Final drawn iteration, composed through the careful application of graphite lines via set square, to paper.

The House of proteas from the garden and my favourite bowl

Particularly flat in appearance, at times the form of the house recedes into the paper where its shadows are left to imply its form. The most prominent formal 'wing' that contains a place to bathe, is curiously different from the shadow it projects. Without referring to the sections, there is a perceived gap between the form of the roof itself, and the accumulation of lines that comprise its shadow, and its implied form.

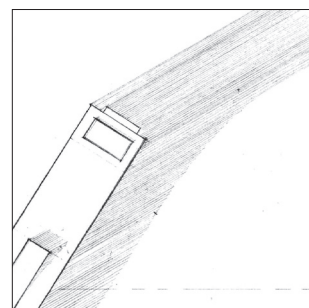
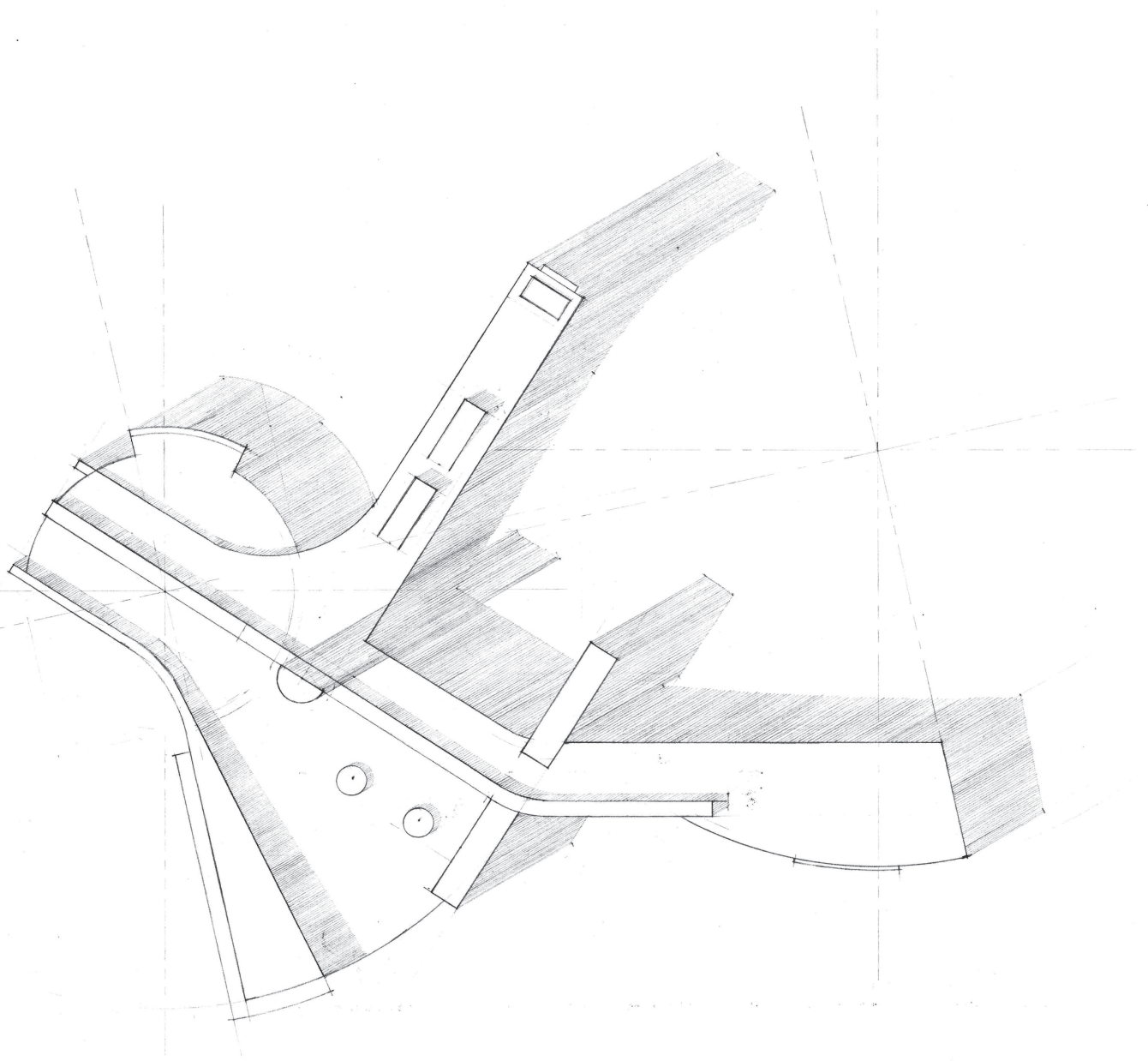


Figure 212 Although the accumulation of lines that comprise its shadow appear curved, the 'roof' appears flat.

Figure 213 Although the accumulation of lines that comprise its shadow appear curved, the 'roof' appears flat.



Drawing Process

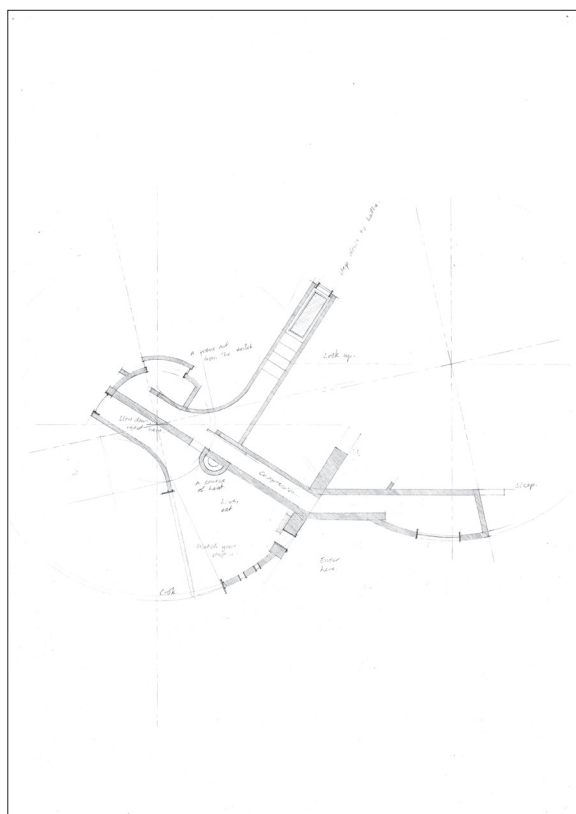


Figure 214 Plan; the base from which the roof plan is built.

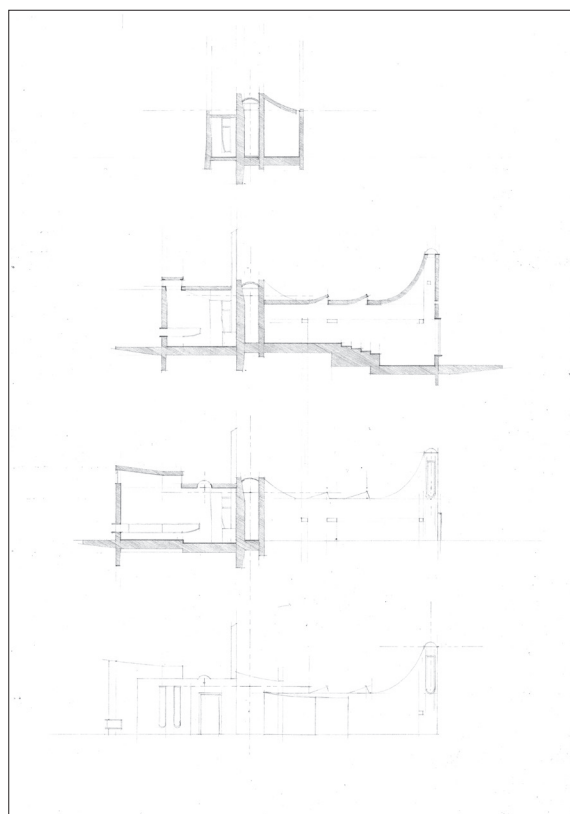


Figure 215 Forms and shapes of roof elements are transposed via compass tip from section to roof plan. Heights of lines and elements in section are also used to construct the projected shadow lines.

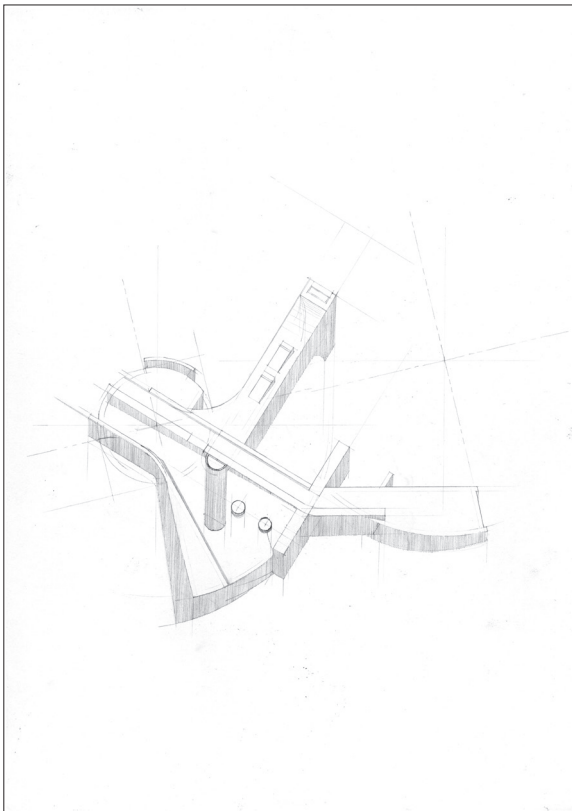


Figure 216 First drawn iteration. As the first of any of the roof plans to be drawn, the shadow angle was physically difficult to draw and compromised the quality of the drawing. A 30-degree set square was used for the following iterations.

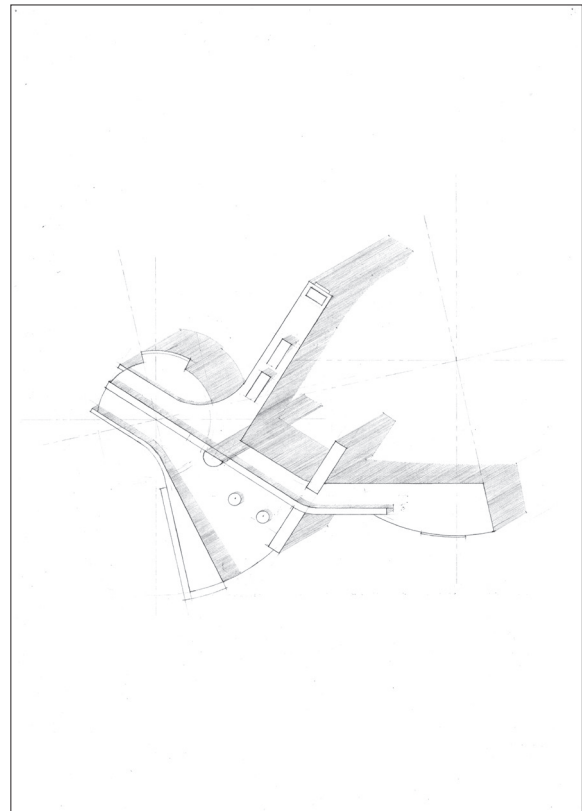


Figure 217 Final drawn iteration.

*The House of the fruit bowl, salt, pepper, and wooden
spoons*

Tiny white rectangles, a pause in the fine pencil lines, illustrate penetrations within a wall invisible from plan view. The long rectangular window that extends the length of the rectangular form (on the right of the drawing), appears both fixed to the roof and floating from it. Fixed to the roof by a strip of fine parallel lines (as shadow), its intersection with the circular line makes it appear as though it is detached from the house (Figure 218). This suggests how the drawing can extend and speculate about the architectural elements it seeks to describe.

Equally as elusive is the thin shadow that arcs across the main roof form, from a tiny circular shape; the chimney. Distorted by the shape of the roof, just shy of the outer line, the shadow slips out of sight completely, eliciting speculation around the nature of the peripheral wall, parallel lines.

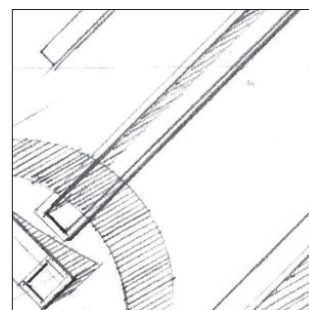


Figure 218 Rectilinear lines (window) appear to float above the surface of the drawing.

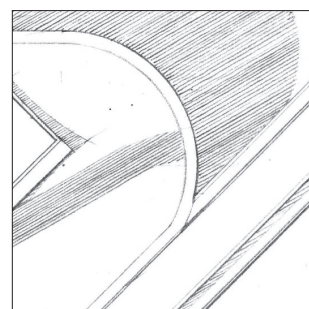


Figure 219 Shadow slips out of sight.

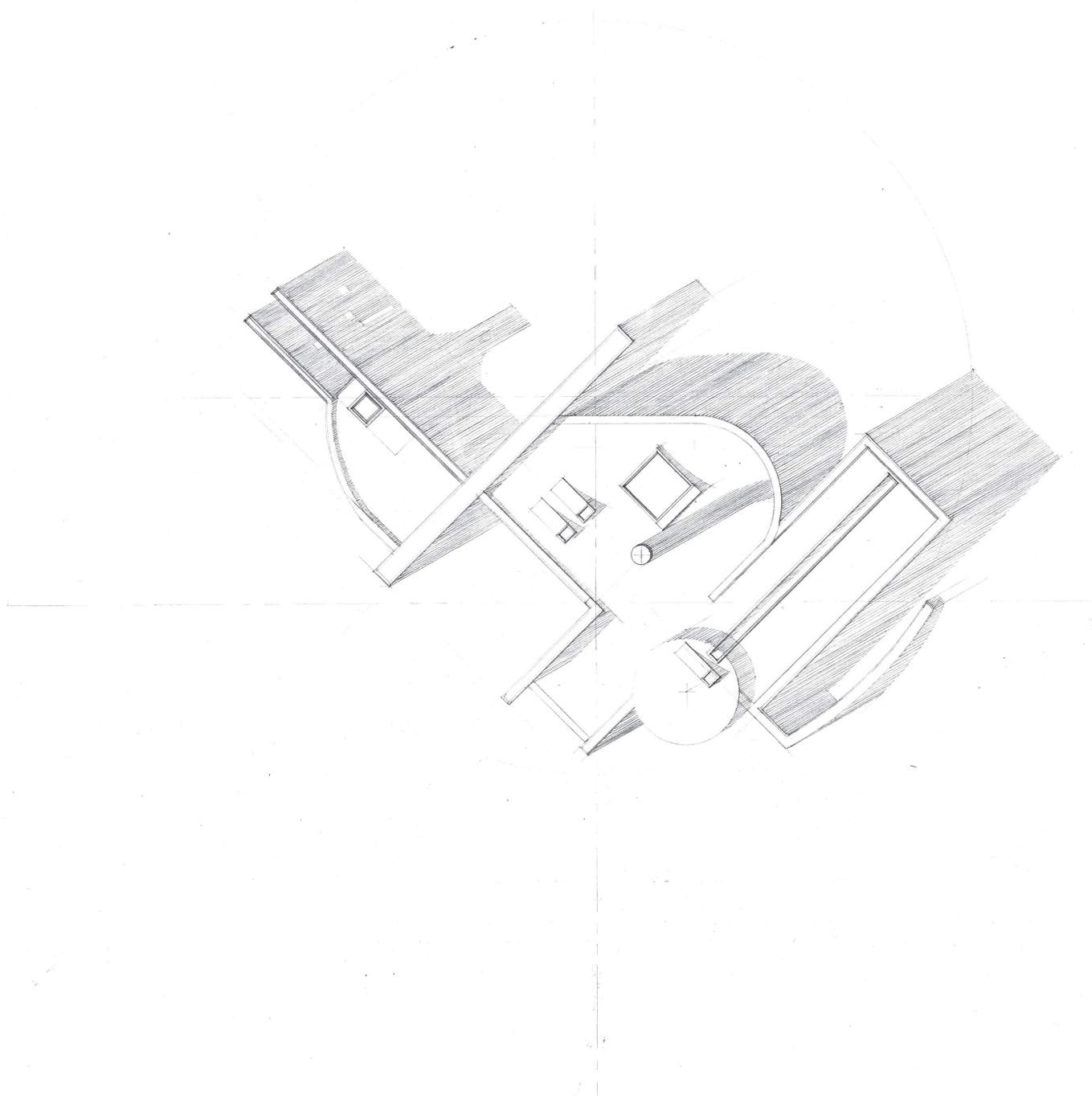


Figure 220 Roof Plan of The House of the fruit bowl, salt, pepper and wooden spoons [Original is A3, graphite on paper].

Drawing Process

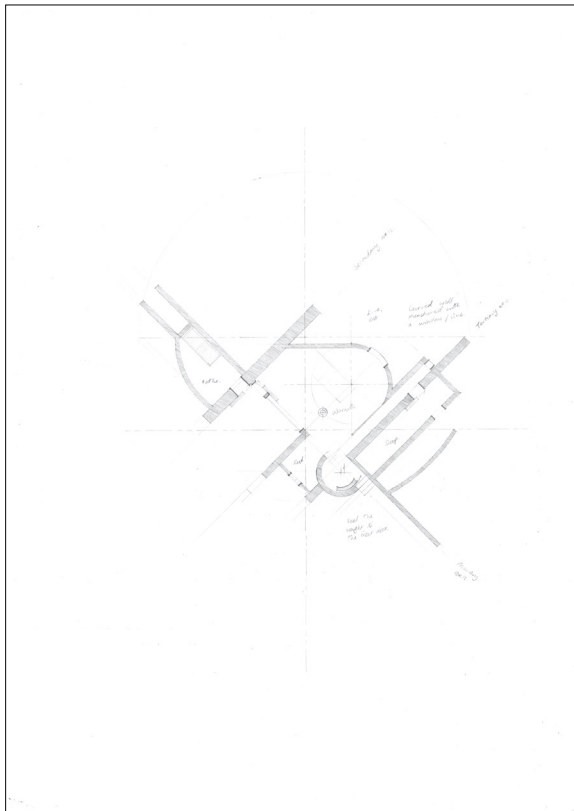


Figure 221 House plan as the genesis for the subsequent roof plan, where roof elements from the section are overlaid.

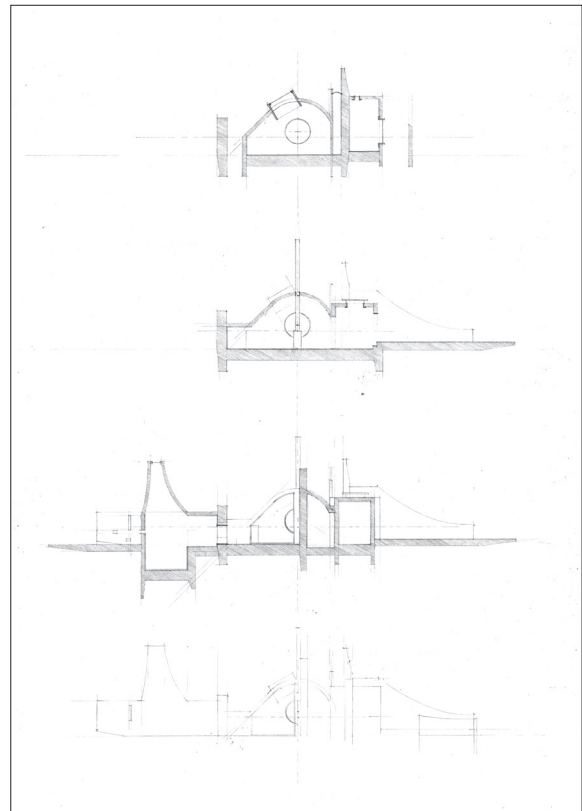


Figure 222 Forms and shapes of roof elements are transposed via compass tip from section to roof plan. Heights of lines and elements in section are also used to construct the projected shadow lines.

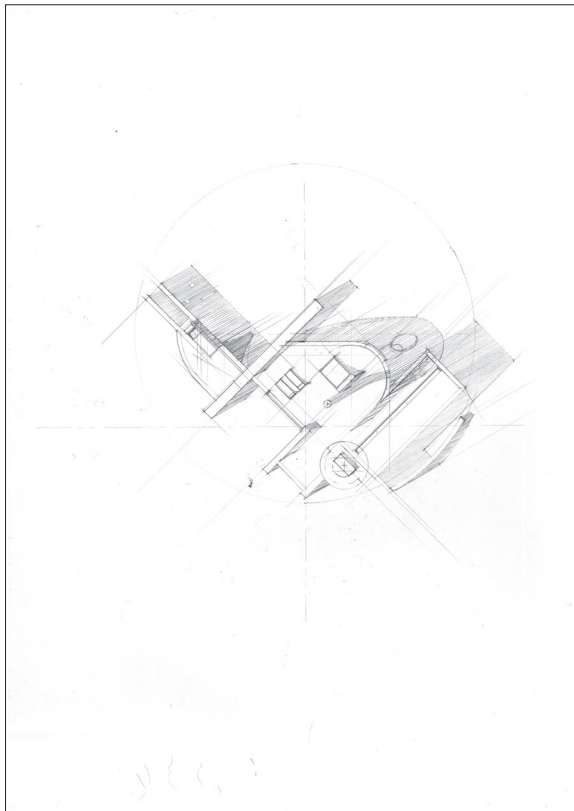


Figure 223 First drawn iteration exploring the overlaying of shadows, and how the composition of the shadow (the fine lines that comprise it), might reveal something else within the drawing, previously concealed.

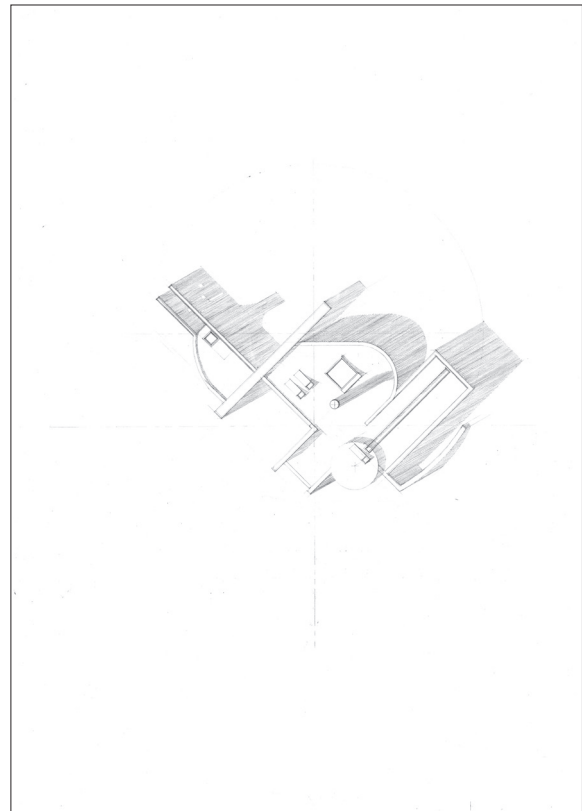


Figure 224 Final drawn iteration.

15.0

DRAWING OUT, DRAWING TOGETHER, — HOUSES IN PARALLEL PROJECTION

Processes throughout this research are repeated cyclically, to distill and refine. Here, parallel projection is again applied and re-appropriated, in a similar manner to sections 10 and 10.5, though here with a suitably refined approach. Here, the drawings serve to assimilate previous drawings (hence, draw together), drawing forth the architectural complexities embedded within, thus eliciting the possibility for the emergence of equally complex and refined architectures and drawings.

The drawings are made on A2 sheets of paper, larger than the A3-sized drawings that came before. This had the opposite effect to the parallel drawings in section 10.5, where there was a 'zooming in.' By retaining the scale of the drawn marks while doubling the paper size, the drawing is made relatively smaller, essentially zooming out by extending the physical scope of the drawing. Since drawing is contingent on the delicate dynamic between pencil, mind, and eye; a change in paper size had a significant effect on this dynamic. To use a cooking analogy, preparing a greater quantity of soup for more people requires a larger pot, the spoon to move in larger circles, and the arm of the cook to move a greater distance and a greater relative frequency. The same was true in this drawing, although here, the spoon is the built-in tee square, forced to slide greater distances across the board. The arm of the cook is my own arm, tracing greater distances across the paper.

The construction process for each drawing is depicted in a series of diagrams that accompany each. Beginning with the plan, then section and roof plan; information is extracted incrementally and overlaid; then rendered (through accumulations of fine pencil lines), in the same manner as earlier parallel projection drawings. In the manner of a circular rhetoric, (and in conjunction with the formulation of this research methodology), privileging the plan makes a subtle nod to the first plan-like drawings, and acts as an equally subtle, and gentle reminder of my

kitchen. This illustrates the power of drawing to constitute something anew, and at the same time, embody its origins.

With a strong sense of looking up into the architecture, the more prevalent axonometric drawing (which positions the viewer above the object looking down) is subverted. Architectural drawing constitutes as much a way of thinking and understanding (in its making), as a way of seeing (in its interpretation). By privileging the composition of the referent architecture from beneath, an emphasis is placed on the interior (also making a subtle reference to the origins of the project within the interior of my kitchen).

Despite the objective nature of axonometric drawing, their objectivity is destabilized by the multitude of contradictory shapes and lines. Within the drawings, the plans themselves, the grounding geometry, appears both fixed to the paper, and floating from it. Parallel lines or walls populated with accumulations of fine pencil lines define what we know to represent a wall in plan (based on previous drawings). Yet, within the same drawing, these parallel lines or walls are left unfilled as bare paper, empty rectangular lines. Just as some elements appear to detach themselves from the sheet of paper, others do the opposite and are embedded within it. Tiny rectilinear impressions pierce the surface of the paper; collisions of tiny parallel lines.

Shapes/architectural elements that appear initially to be projected vertically, are at the same time flattened by successions of fine lines, an implied shadow that fixes the shape to the paper. Such complexity pulls the lines and its architecture, between several views at once. The subtle complexities and contradictions that permeate the drawings occur with such frequency, that they are characteristic of the drawings and thus, the architecture. Their tendency to disorient evokes a level of contemplation that resembles the contemplative act of making the drawings themselves.

The House of the coffee plunger and percolator drying on the dish rack.

Drawing Process

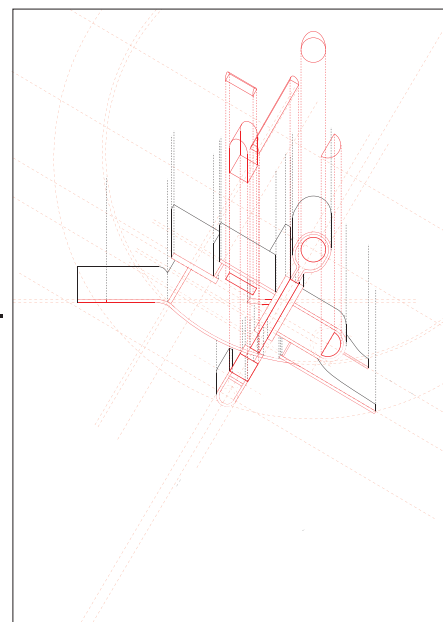
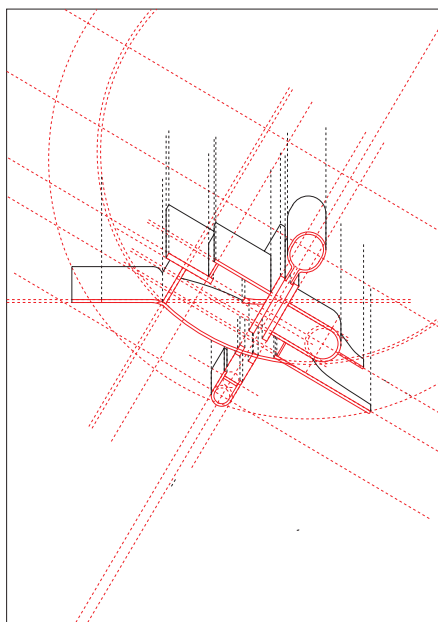
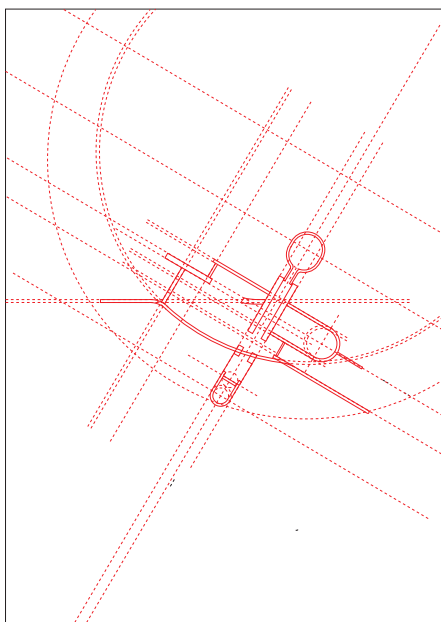
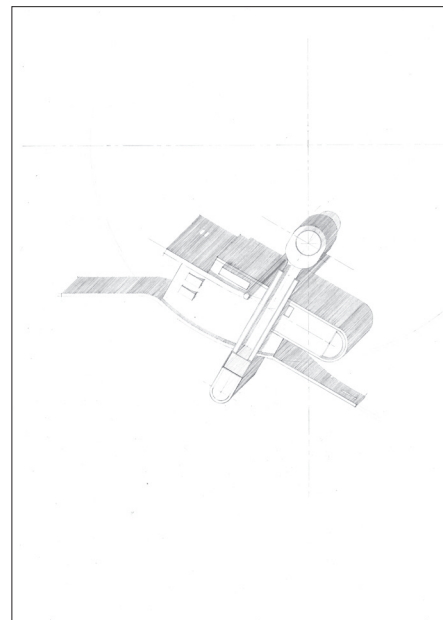
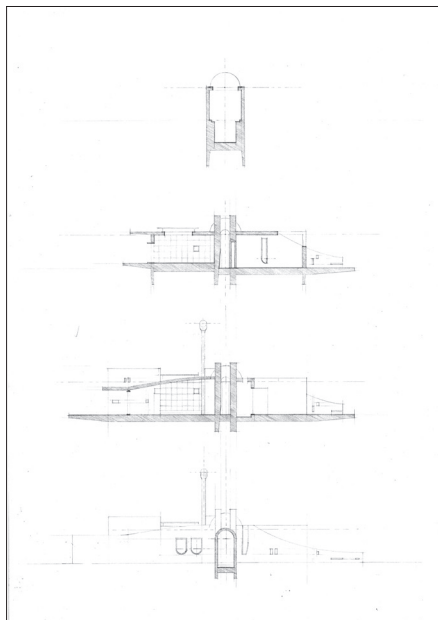
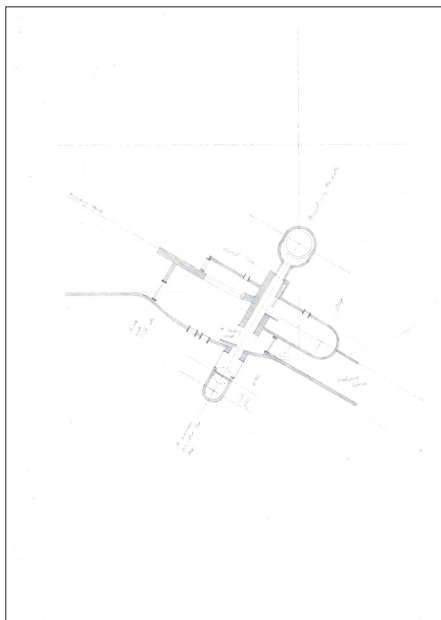


Figure 225 Plan is used to form the basis of the parallel projection drawing in worm's eye view.

Figure 226 Lines are projected vertically from the plan based on the sectional drawings.

Figure 227 Roof elements are extruded above the house, extracted from the roof plan (above). Just as the lines reveal the construction of the drawing, extruding and 'exploding' architectural elements reveals the composition of the architectural object the drawing describes.

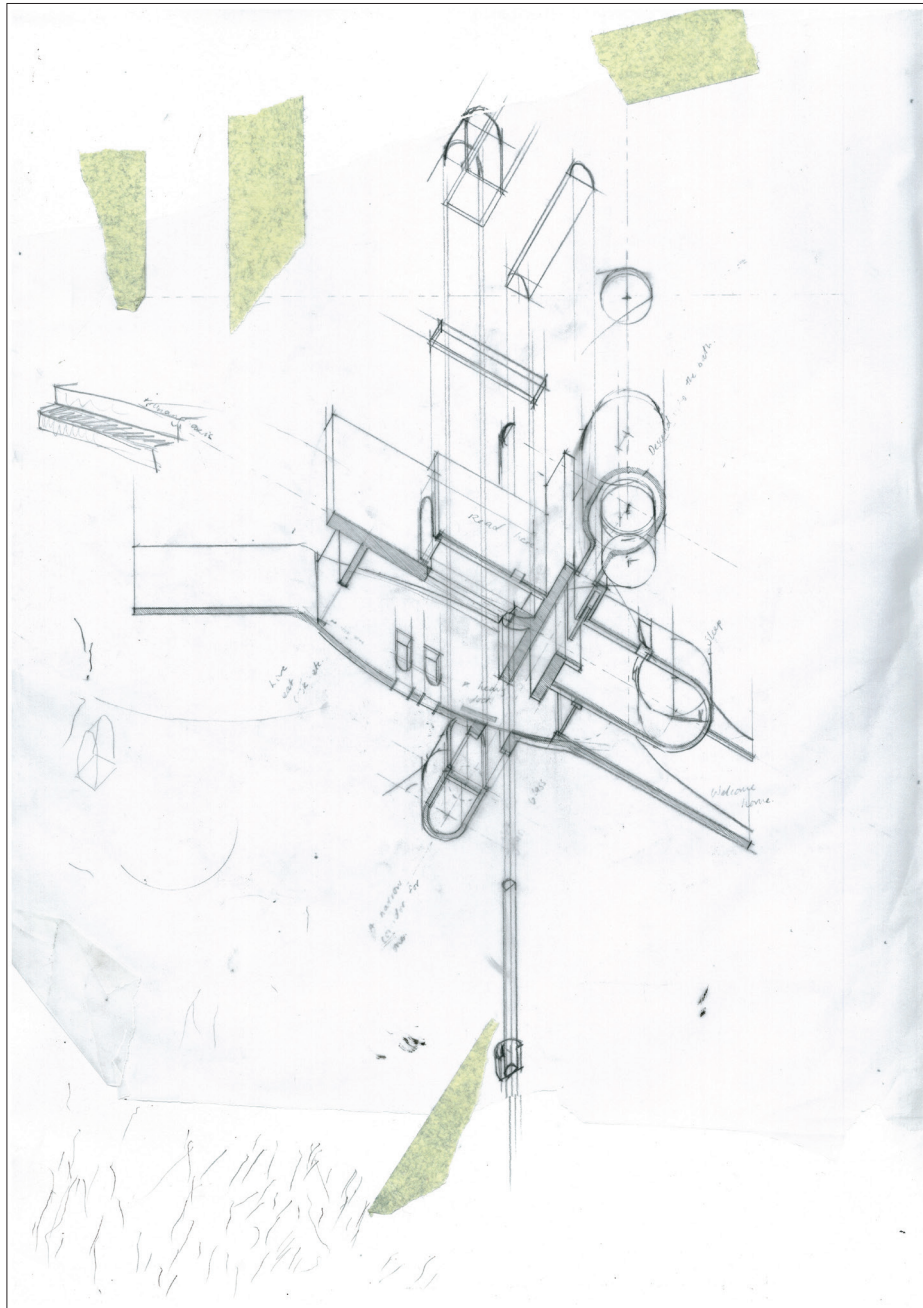
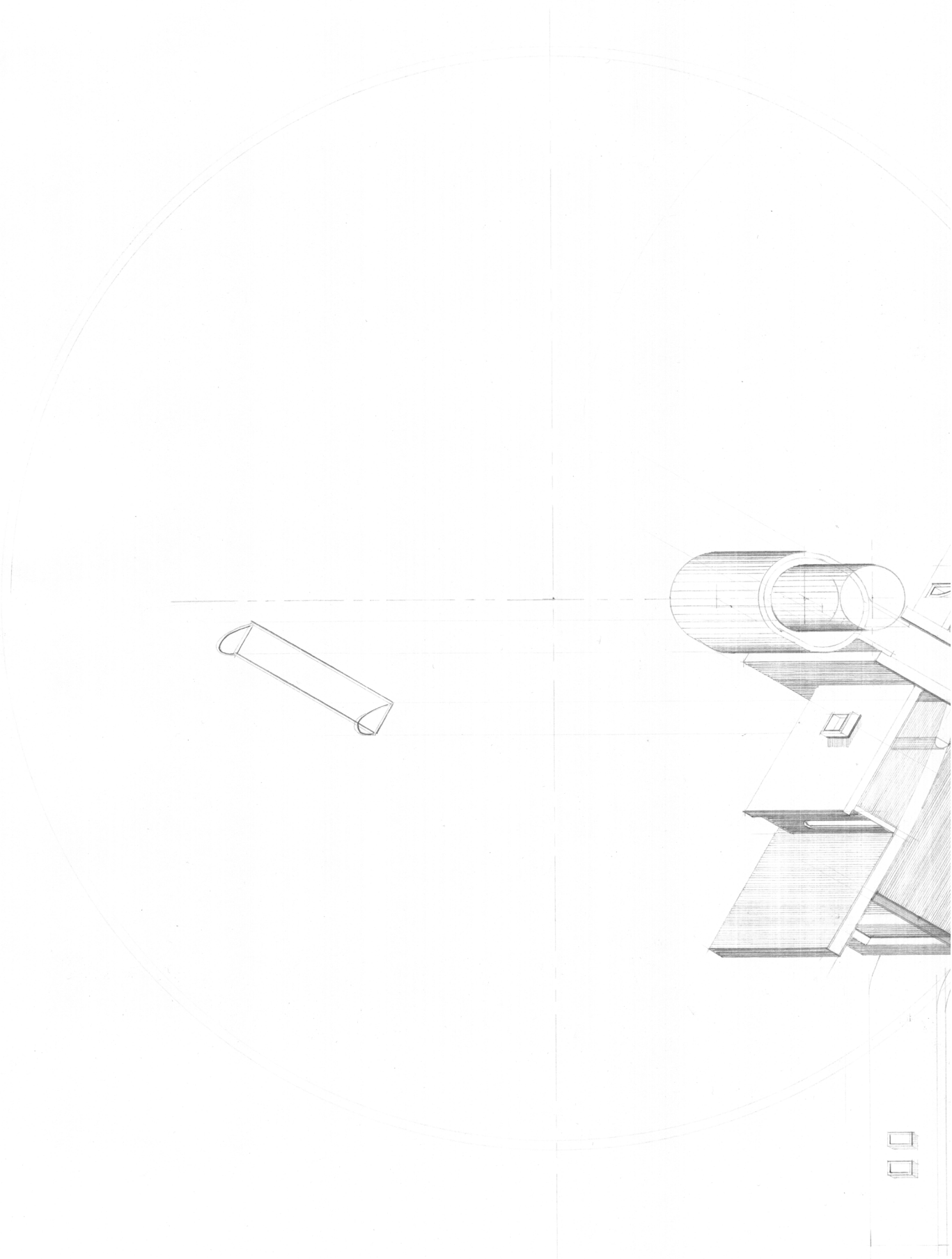
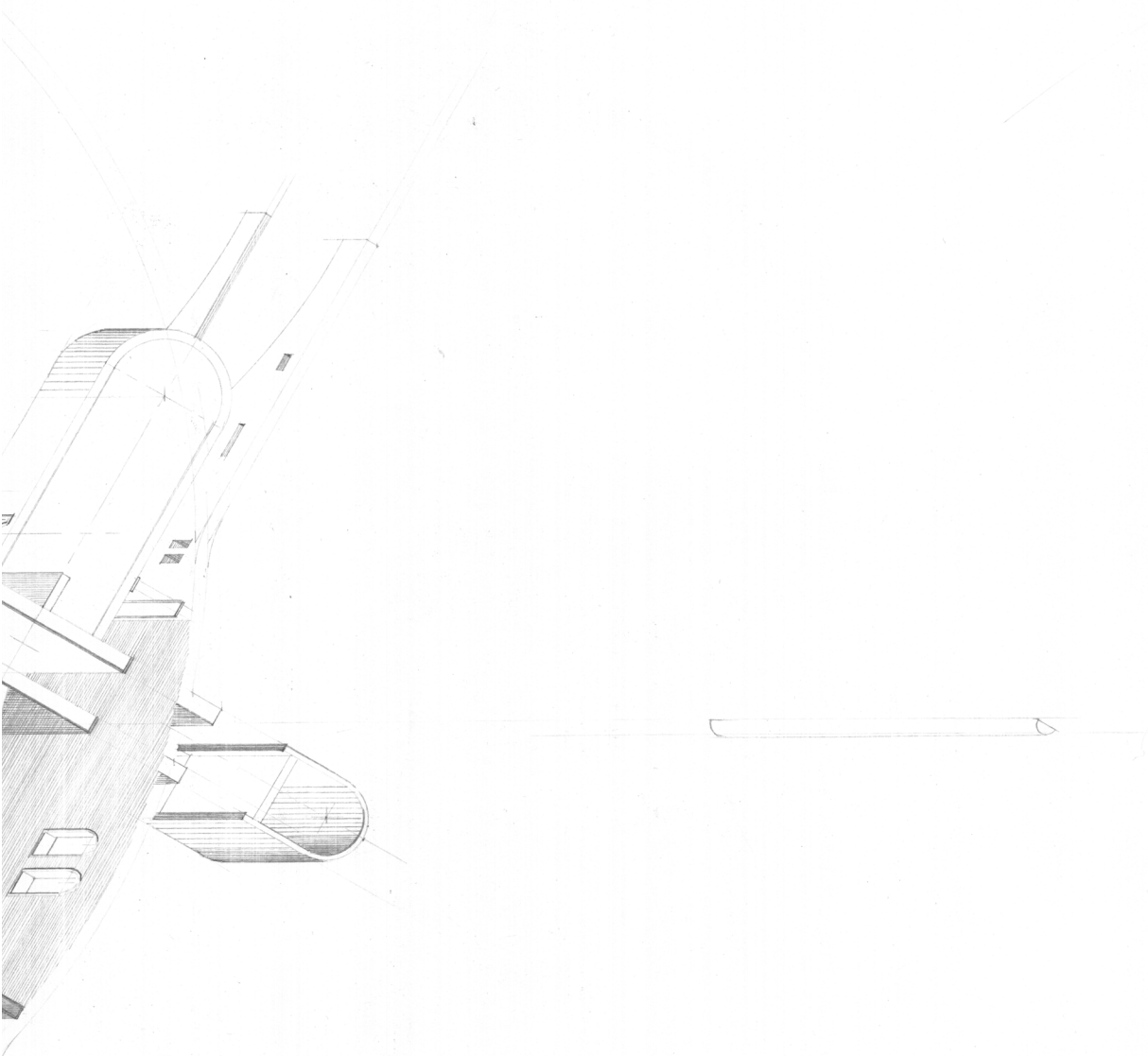
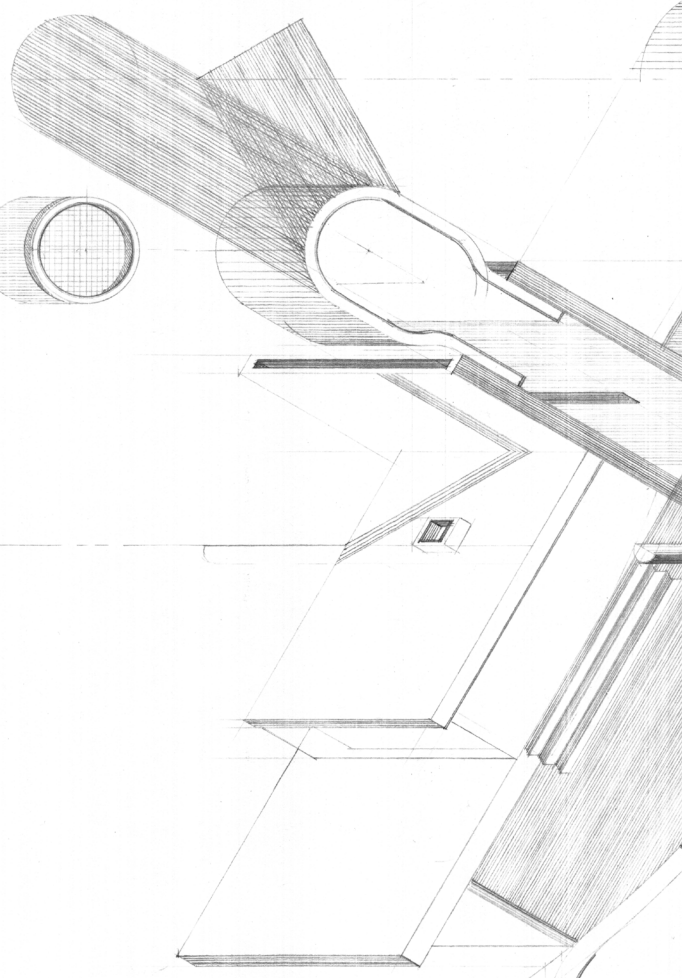
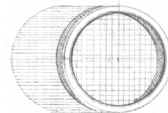
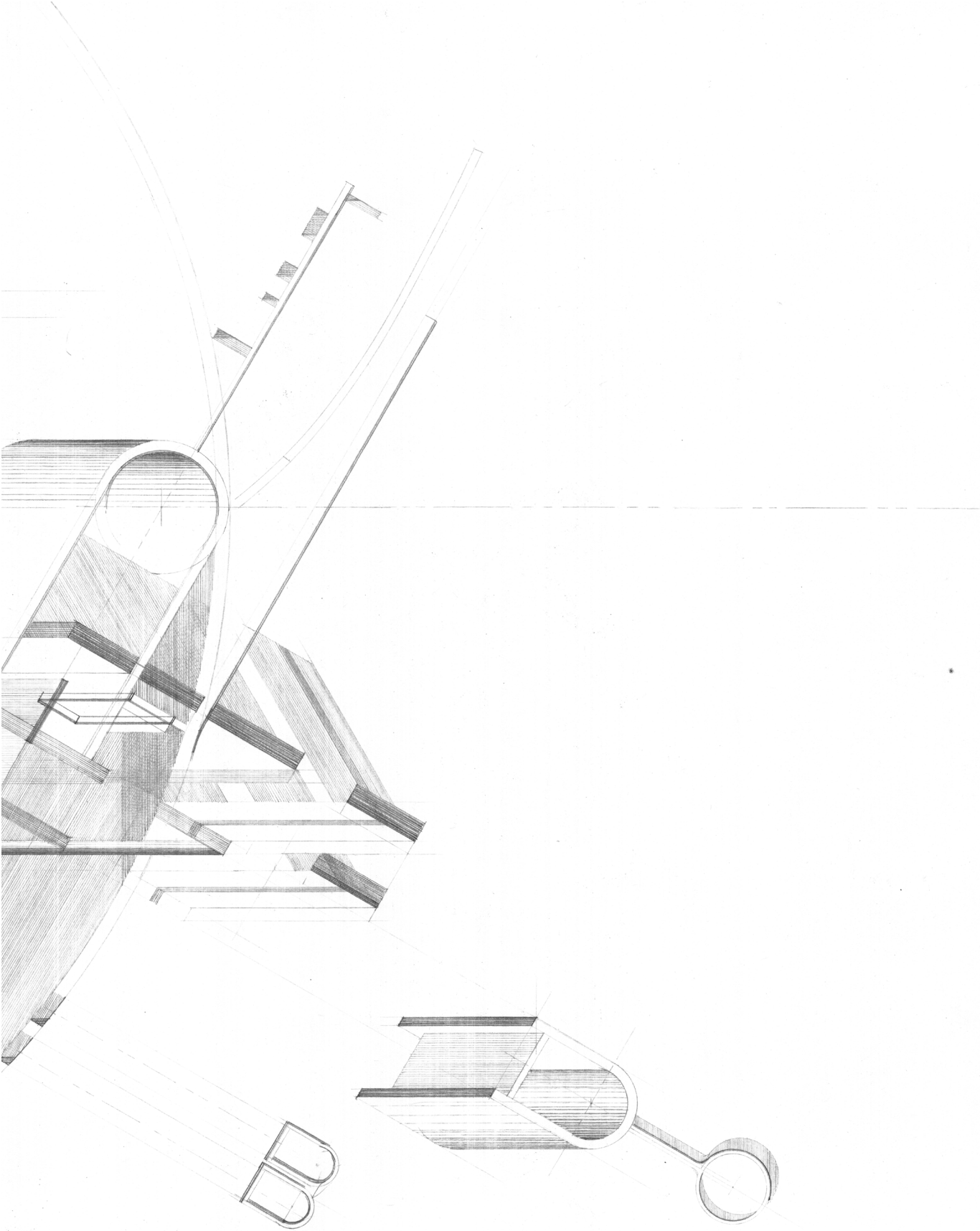


Figure 228 First drawn iteration applies the practice of tracing to construct the worm's eye view. A piece of butter paper is taped over the plan, as elements from the house plan, sections and roof plan are collated, and extended through the drawing process.









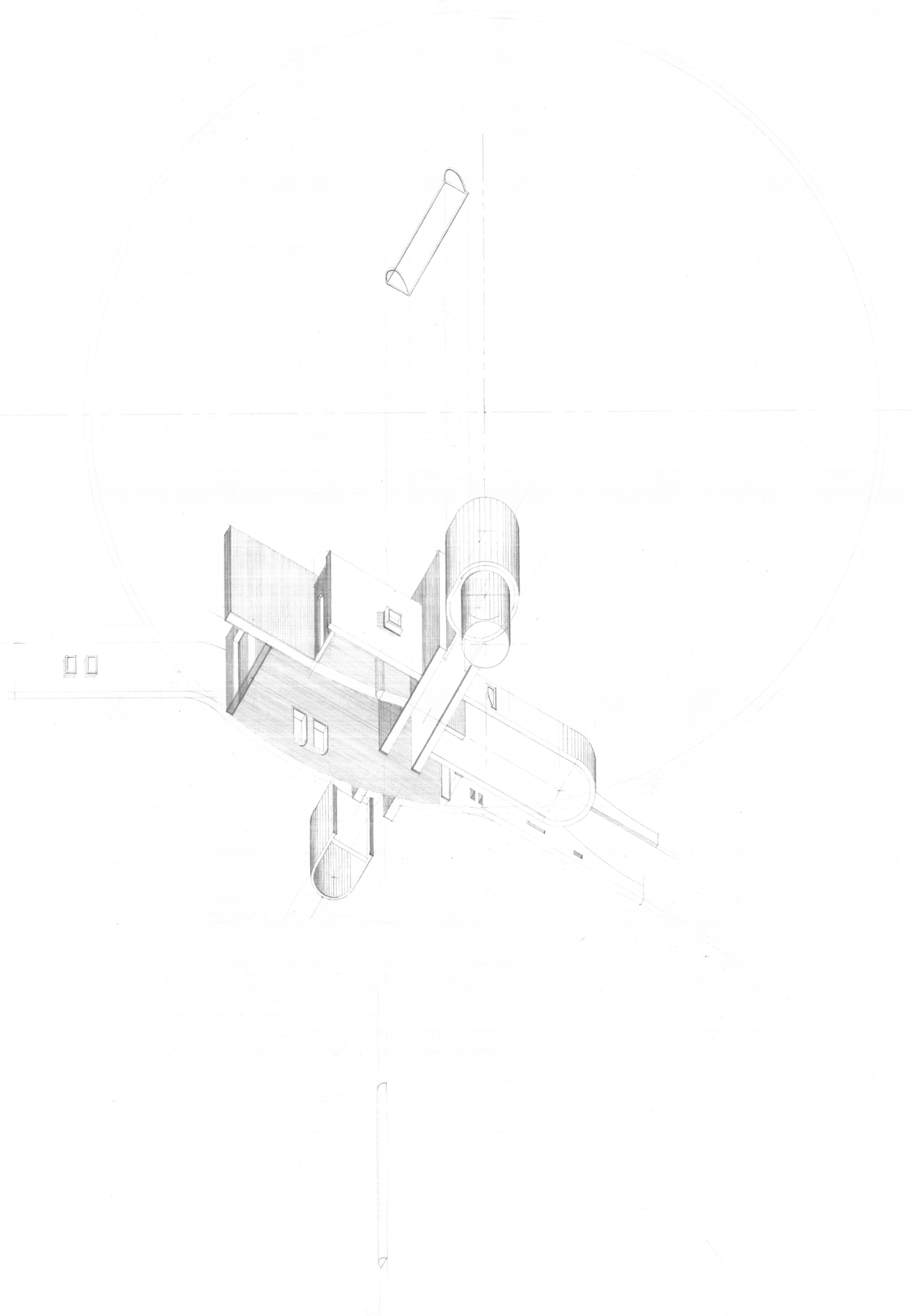


Figure 229 The House of the coffee plunger and percolator drying on the disk rack. [Original drawing is graphite on A2 paper].

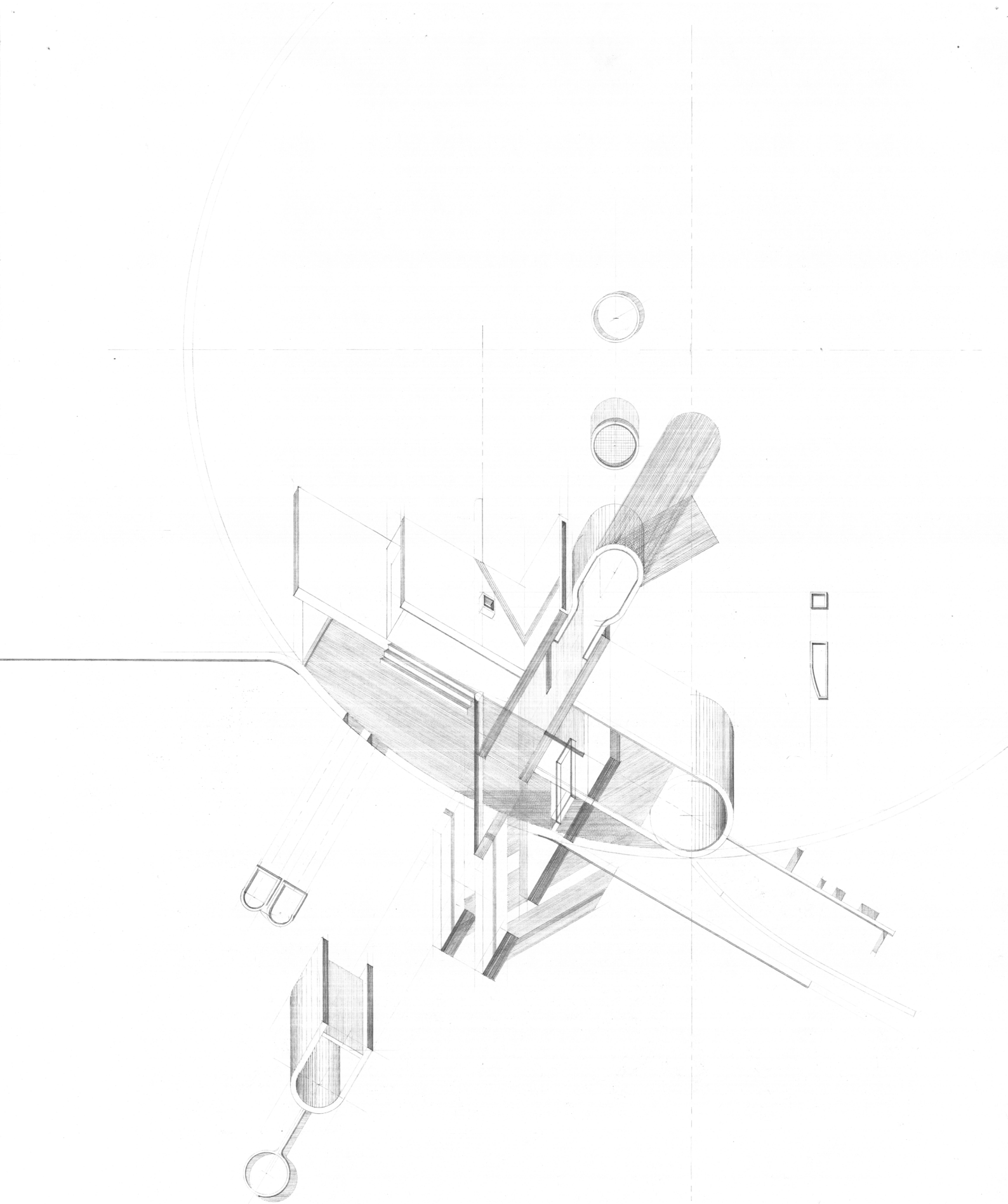


Figure 230 The House of the coffee
plunger and percolator drying on the disk
rack. [Original drawing is graphite on A2
paper].

The House of proteas from the garden and my favourite bowl.

Drawing Process

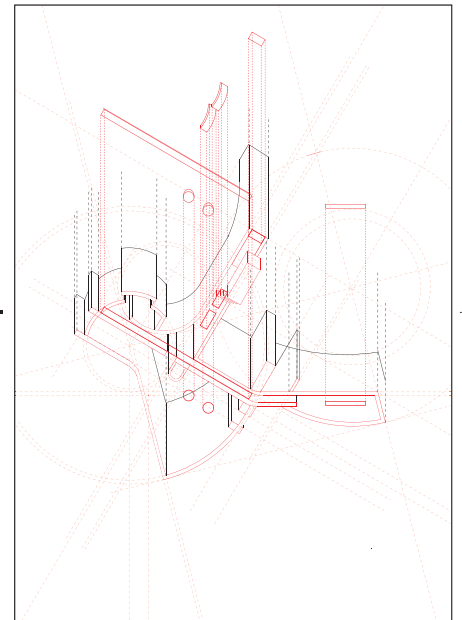
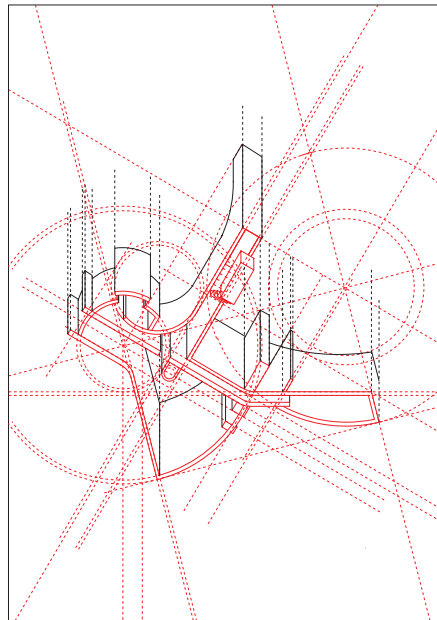
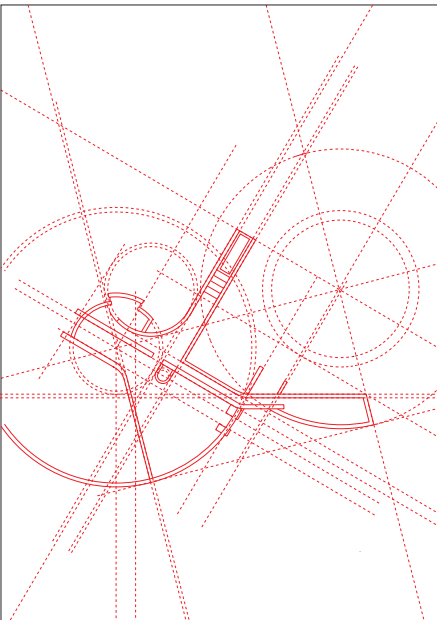
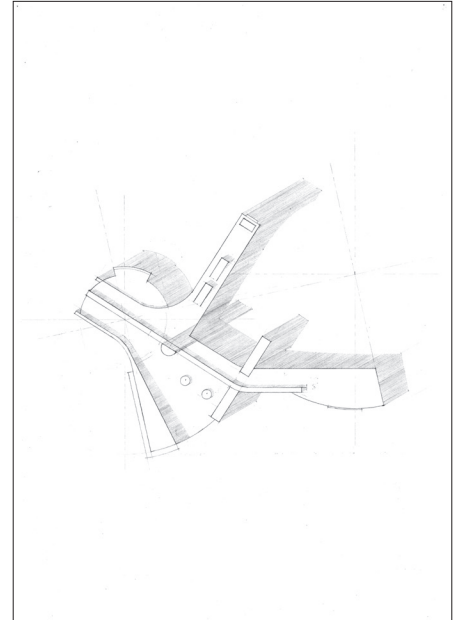
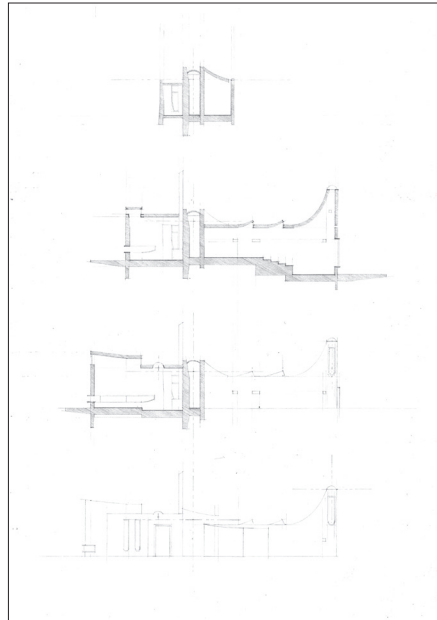
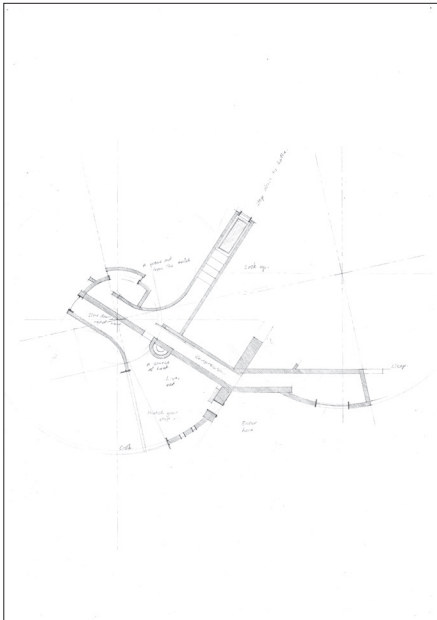


Figure 231 Plan forms the basis of the parallel projection drawing in 'worms eye' view.

Figure 232 Lines are projected vertically from the plan based on the sectional drawings.

Figure 233 Roof elements are extruded above the house, extracted from the roof plan (above). Just as the lines reveal the construction of the drawing, extruding and 'exploding' architectural elements reveal the composition of the architectural object the drawing describes.

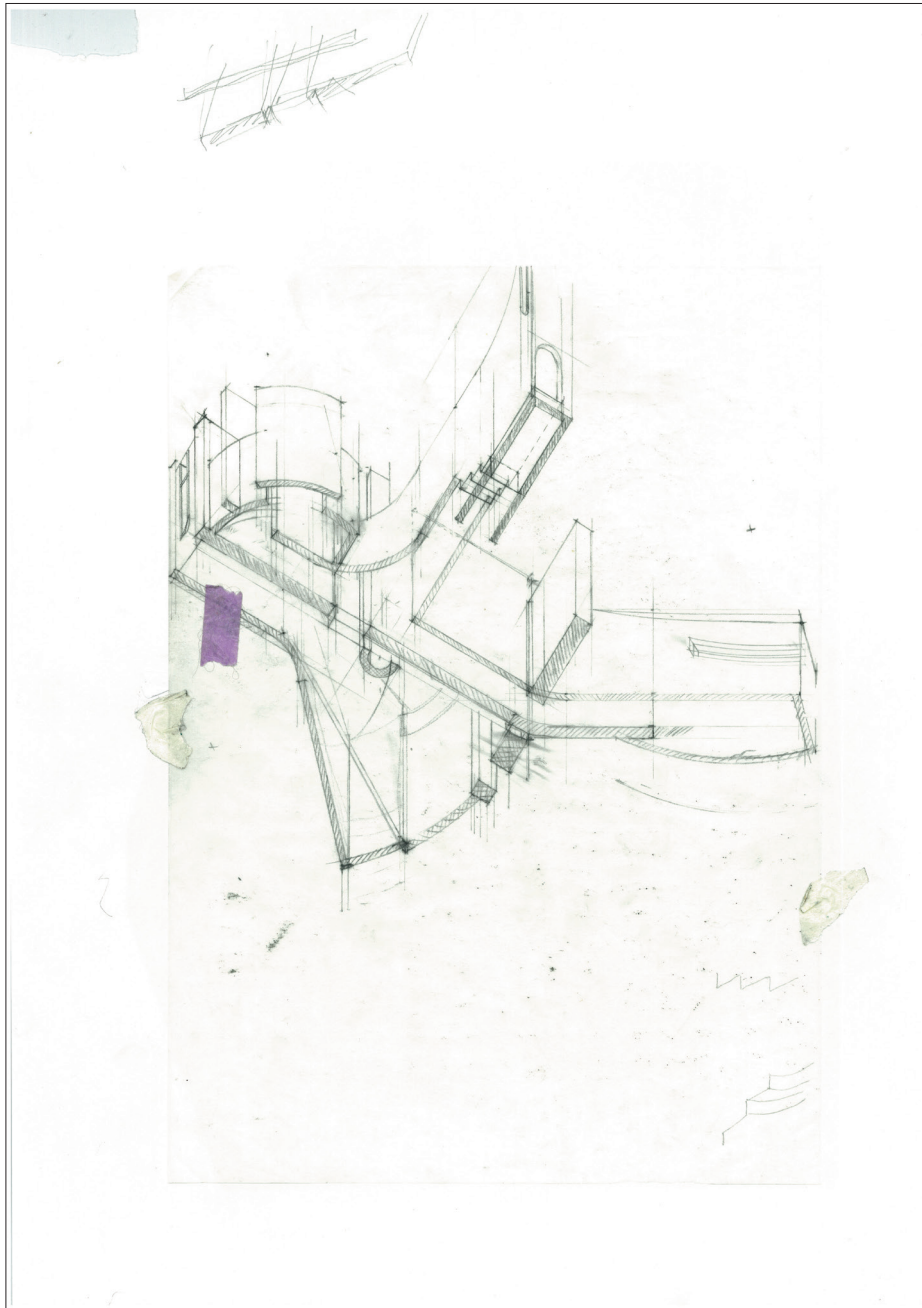


Figure 234 First drawn iteration using butter paper taped over a plan.

Drawing Process



Figure 235 By virtue of its process, axonometric drawings work by describing an object from either above or below. Since the plan (the genesis of this house) is concealed within this view, the drawing privileges the depiction of the architecture-as-object.

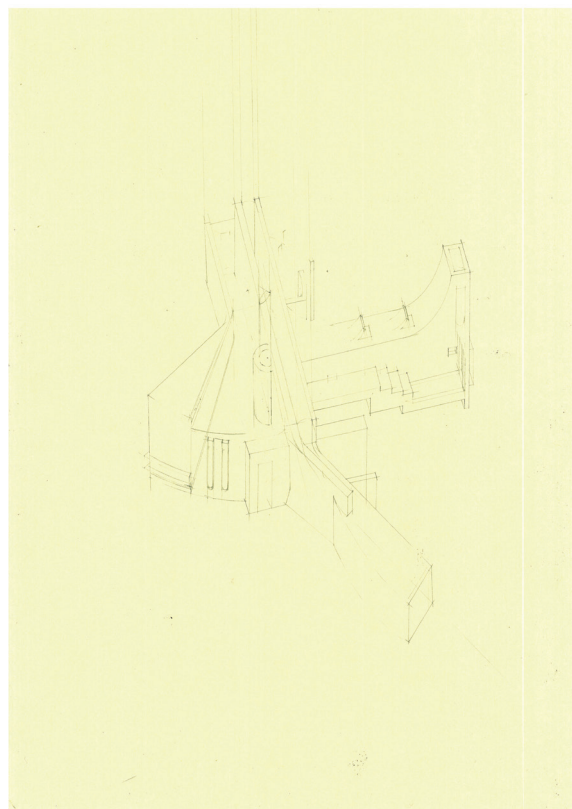


Figure 236 A second iteration using the same soft yellow paper that the original drawings [in my kitchen] were made on. This exploration emphasises earlier discussions concerning the relationship between mark and surface. Since the paper is thick and textured, the previously fine pencil lines bled out, losing their crisp edge, see below.



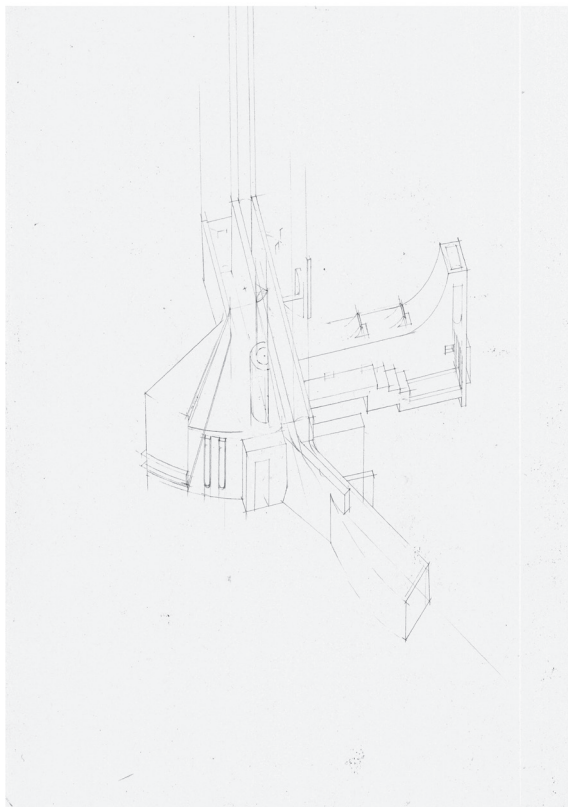


Figure 237 A third iteration of the axonometric view from above. This mode of seeing was abandoned since the effect of looking down over the object contradicts the nature of previous drawings that privilege the relationships between things; the construction of the plan and its relationship to the architectural objects, or the carefully articulated connections between implied spaces.

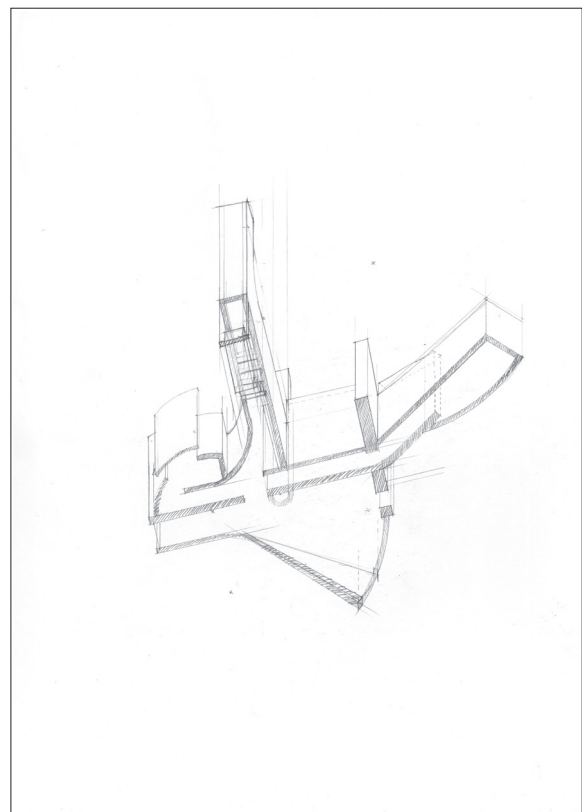


Figure 238 Revisiting the plan through the worm's eye view, illustrating the careful articulation of various forms/shapes and their relationship to each other.

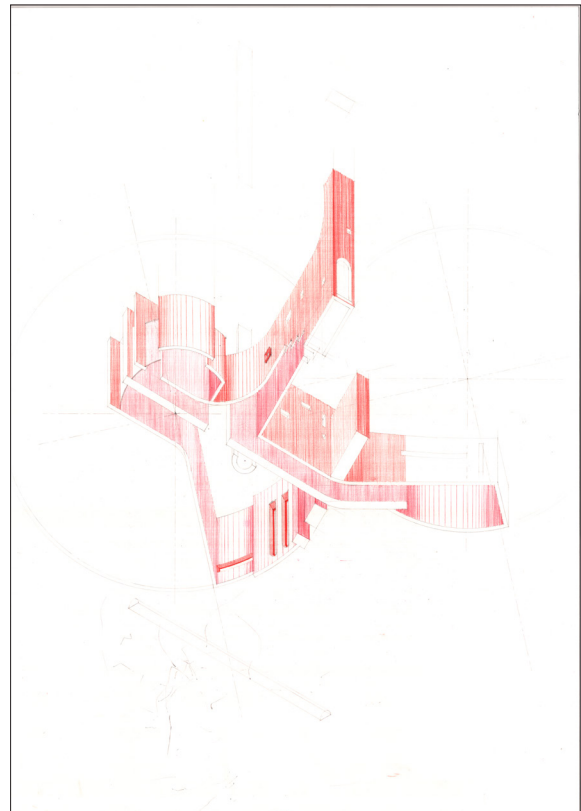
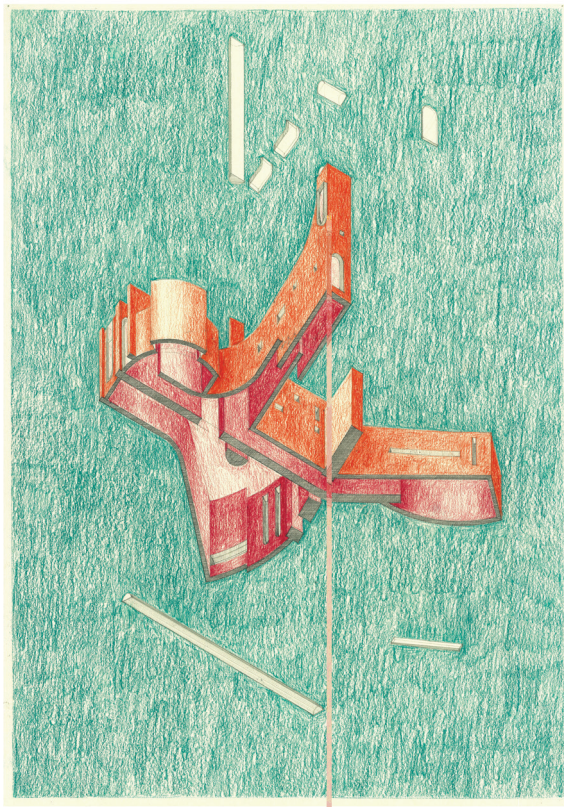
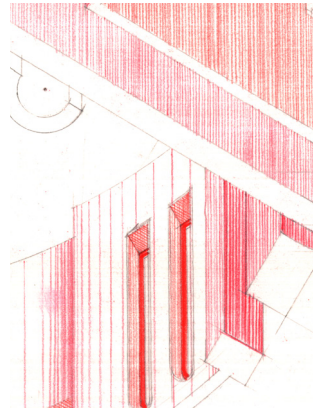
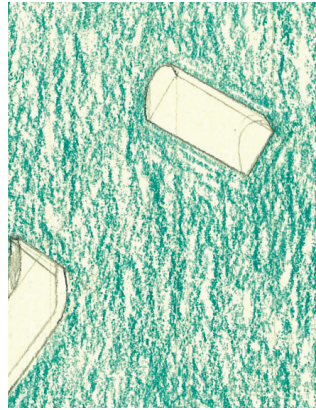


Figure 239 Colour was explored as a way to create an explicit visual connection to the earlier drawings. Since each drawing throughout this project is equally weighted (ie. preliminary drawings are not distinguished from final drawings), the use of colour inadvertently sets these draws apart and asserts them as being more important. In addition, the delicate nature of the drawing was lost due to the texture in the paper (see zoomed in section, above). The use of shaded in colour, within a founded upon the line seemed contradictory.

Figure 240 The use of line in coloured pencil was revisited, but was again abandoned due the difficulting in retaining a crisp line (see zoomed in section, above). The use of colour only within the drawn forms/ architectural elements isolates the them from the paper, removing the slippages in percpetion that were frequent in earlier drawings.

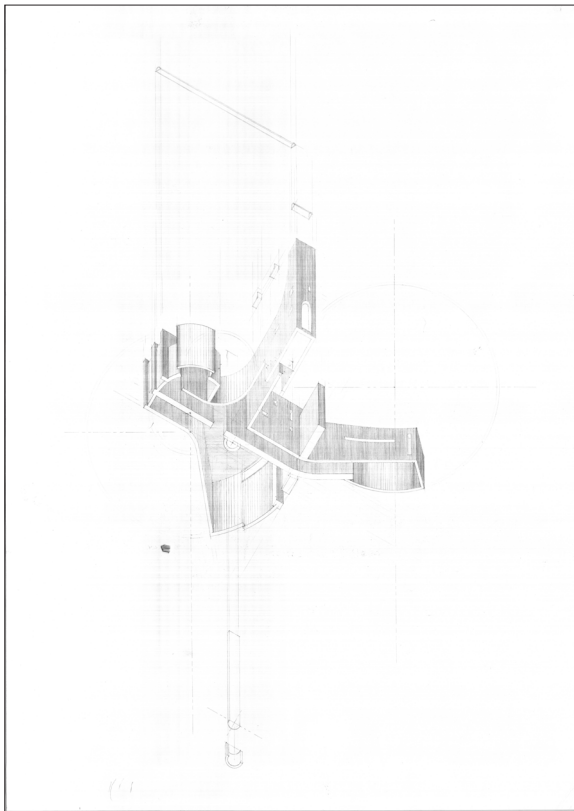


Figure 241 First iteration in graphite. Again, the distinction between architectural object and sheet of paper is too obvious, and lacking in contrast.

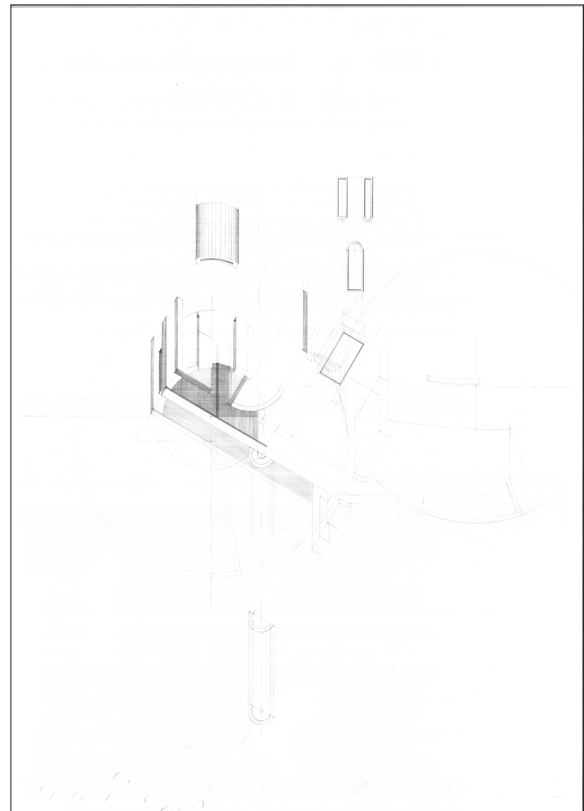
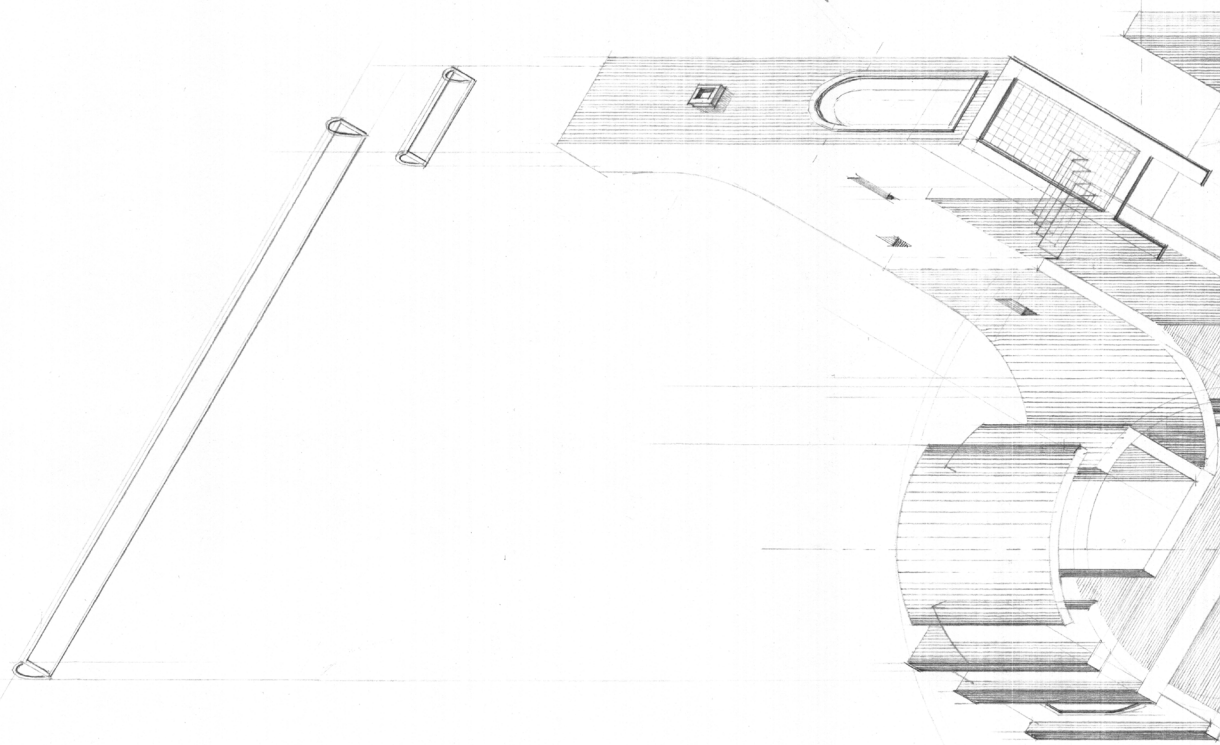
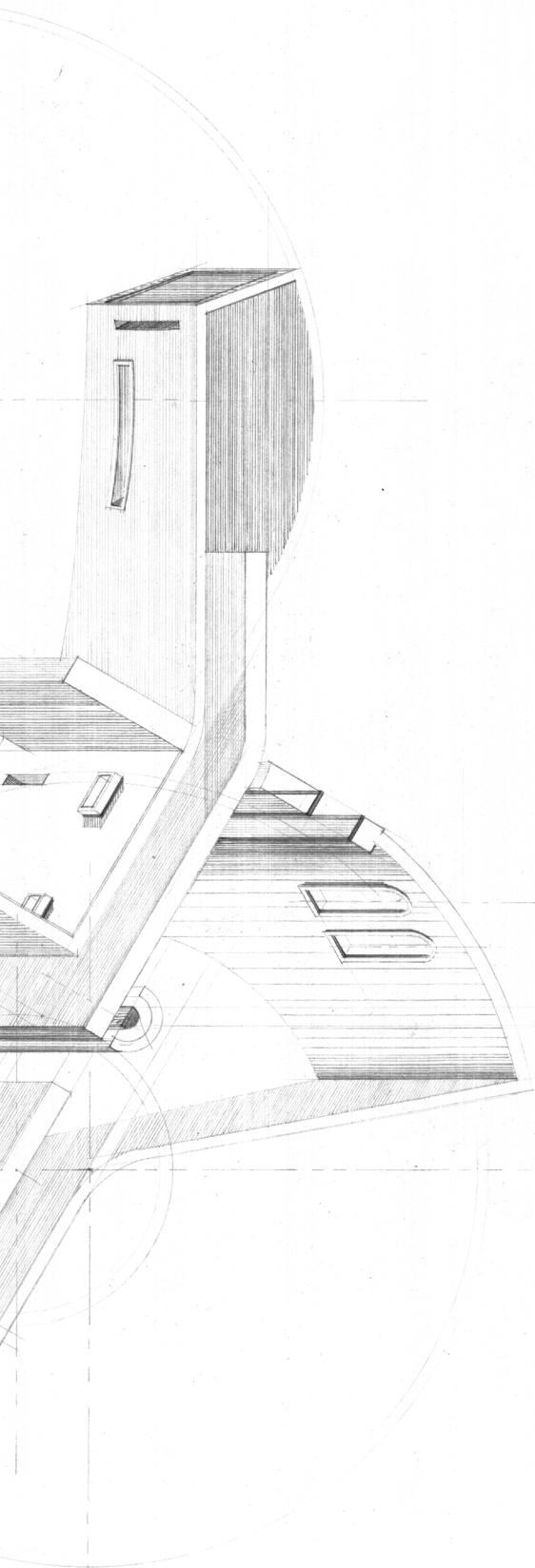
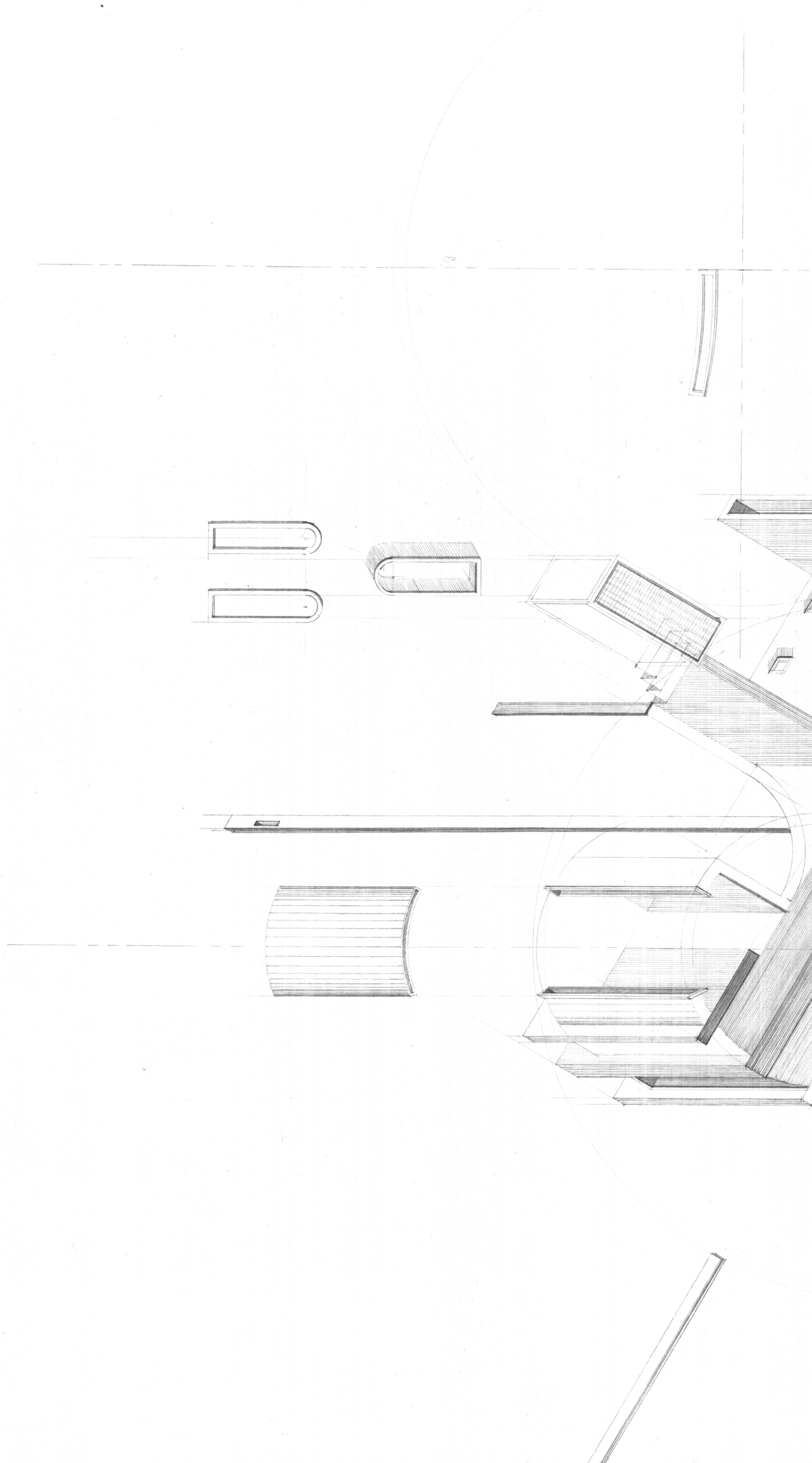
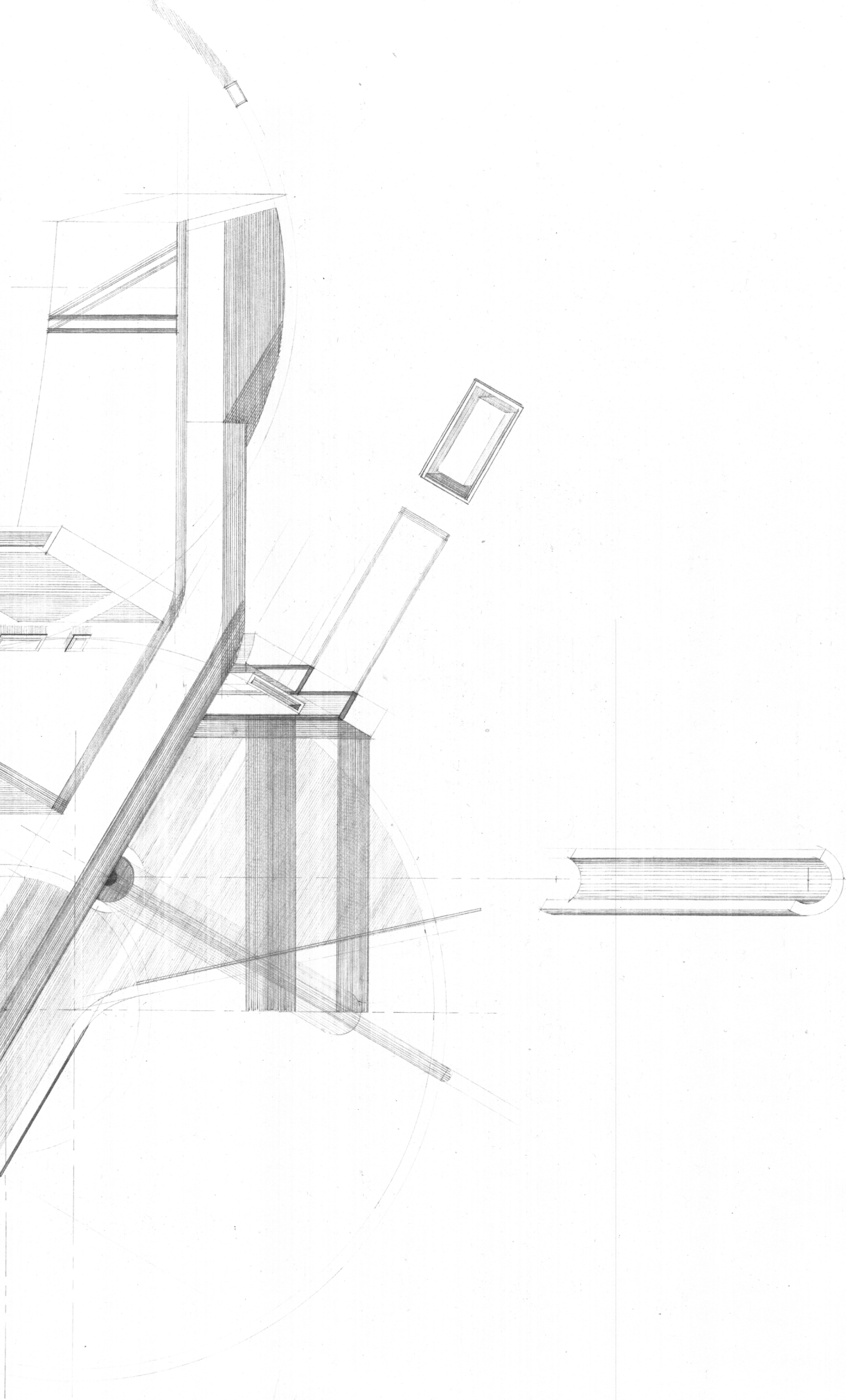


Figure 242 Second iteratio in graphite, reintroducing compositional strategies interrogated through previous parallel projection drawings. A distinction between the drawing and the architecture is difficult to discern, emphasising their entanglement.









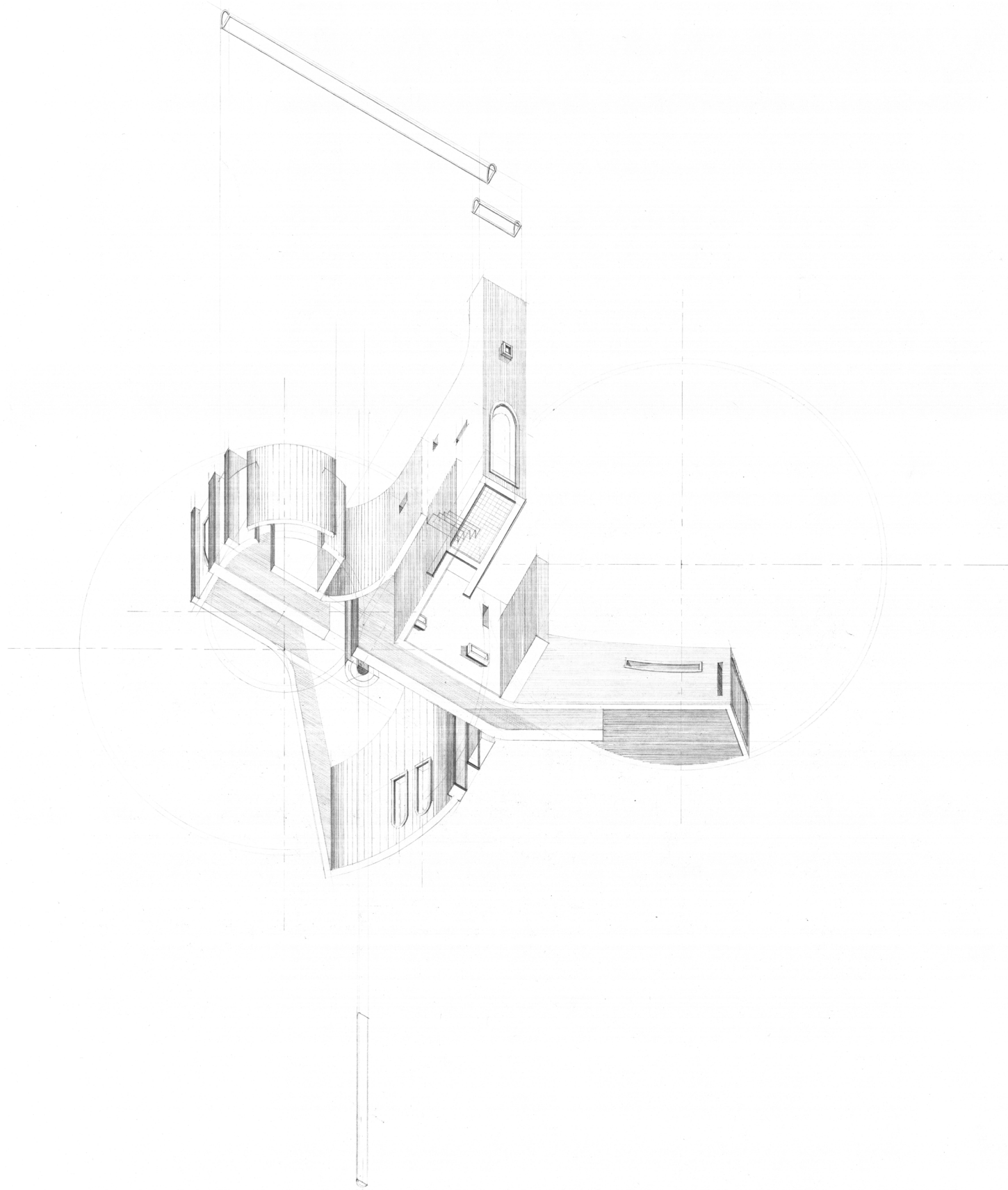
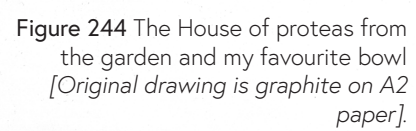


Figure 243 The House of proteas from the garden and my favourite bowl
[Original drawing is graphite on A2 paper].



The House of proteas from the garden and my favourite bowl.

Drawing Process

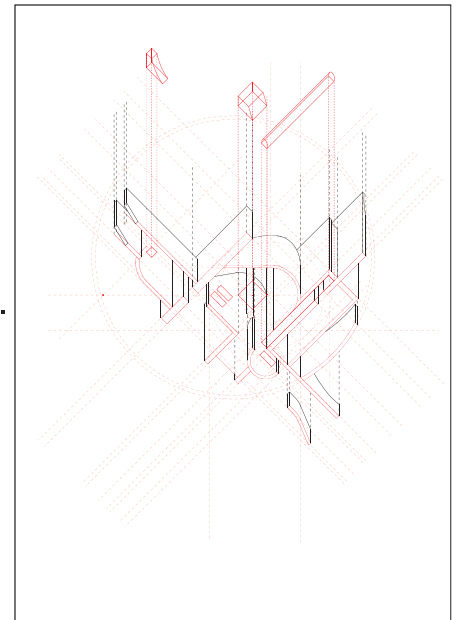
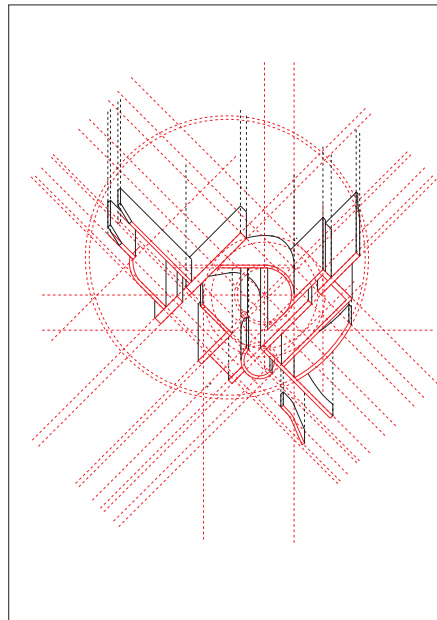
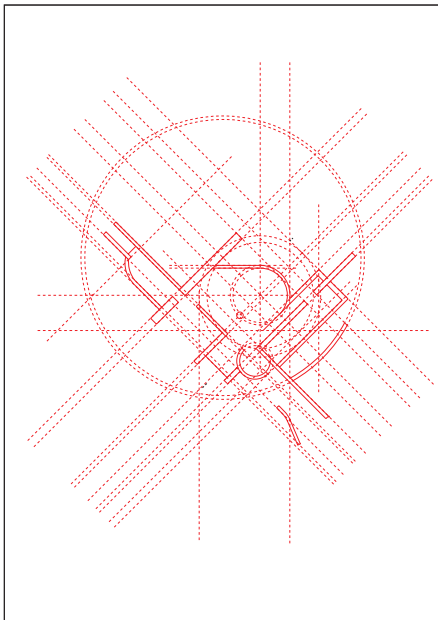
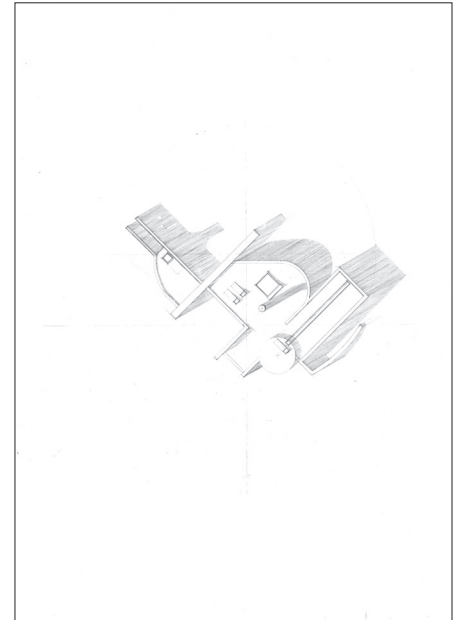
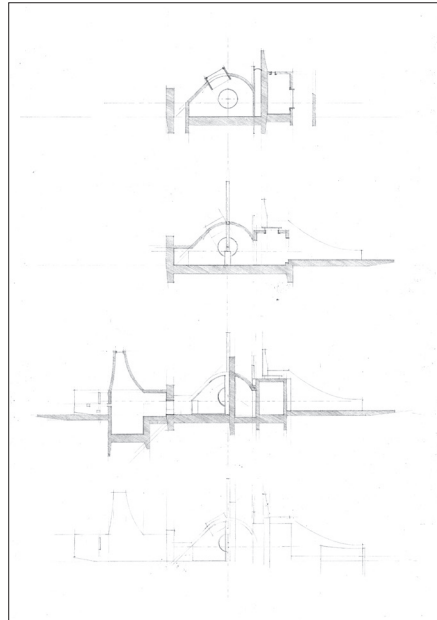
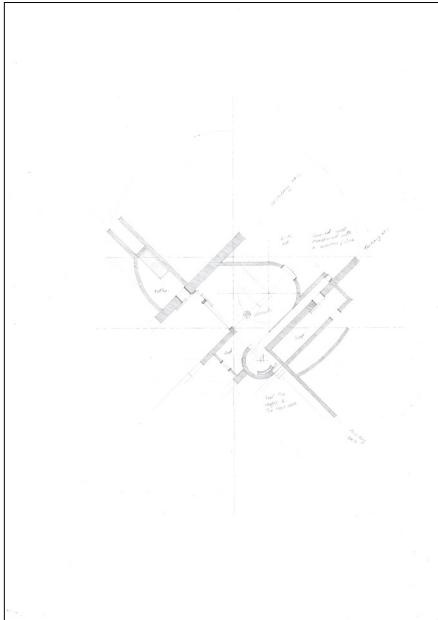


Figure 245 Plan forms the basis of the parallel projection drawing in 'worms eye' view.

Figure 246 Lines are projected vertically from the plan based on the sectional drawings.

Figure 247 Roof elements are extruded above the house, extracted from the roof plan (above). Just as the lines reveal the construction of the drawing, extruding and 'exploding' architectural elements reveal the composition of the architectural object the drawing describes.

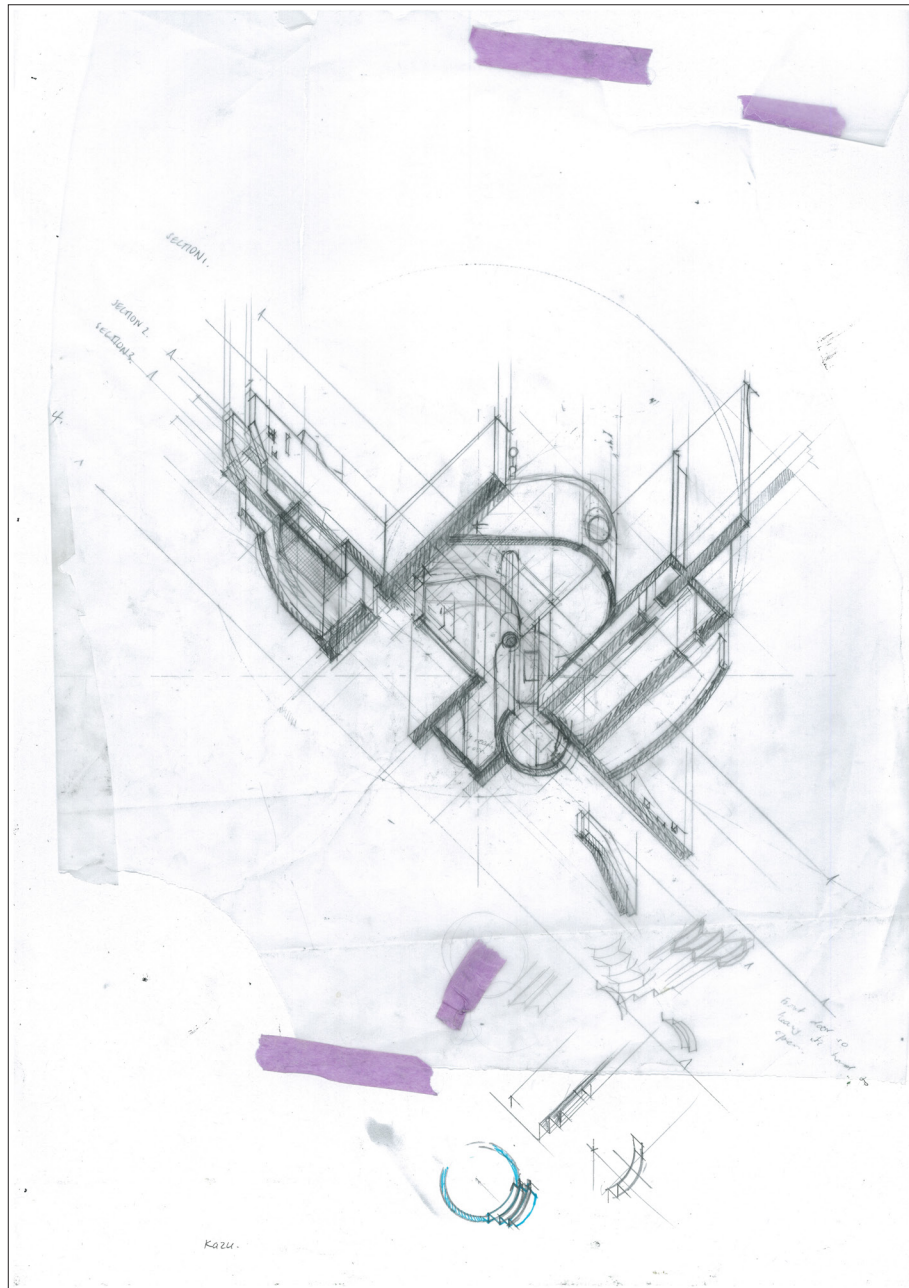


Figure 248 First drawn iteration using butter paper taped over a plan. Sketches towards the lower edge of the paper depict thinking through drawing; establishing how to draw stairs in worm's eye view.

Drawing Process

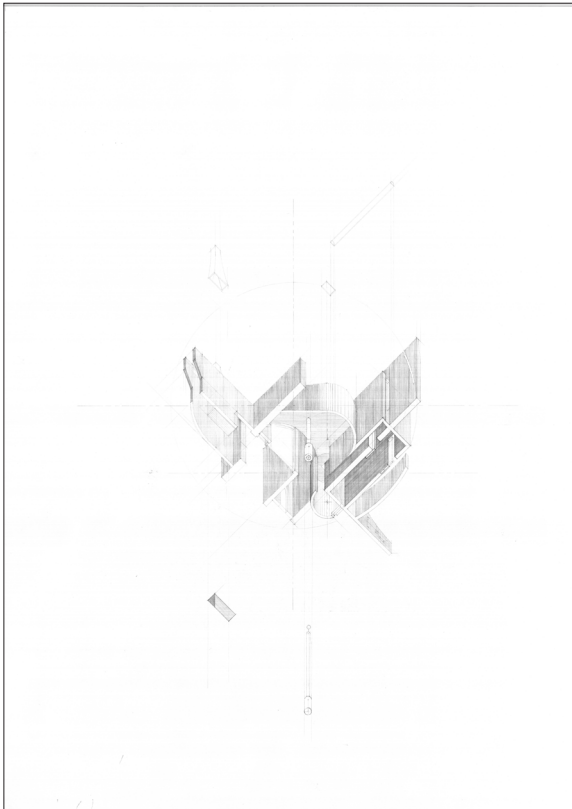


Figure 249 First drawn iteration.

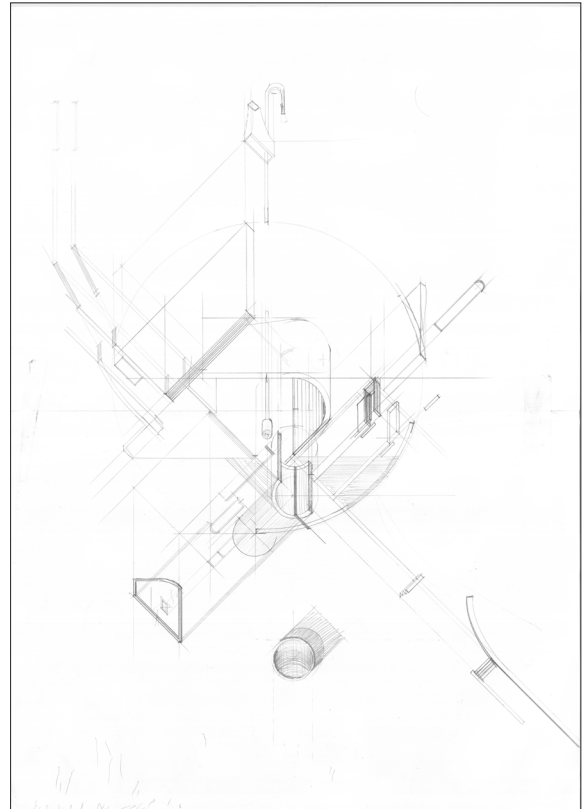


Figure 250 Second drawn iteration

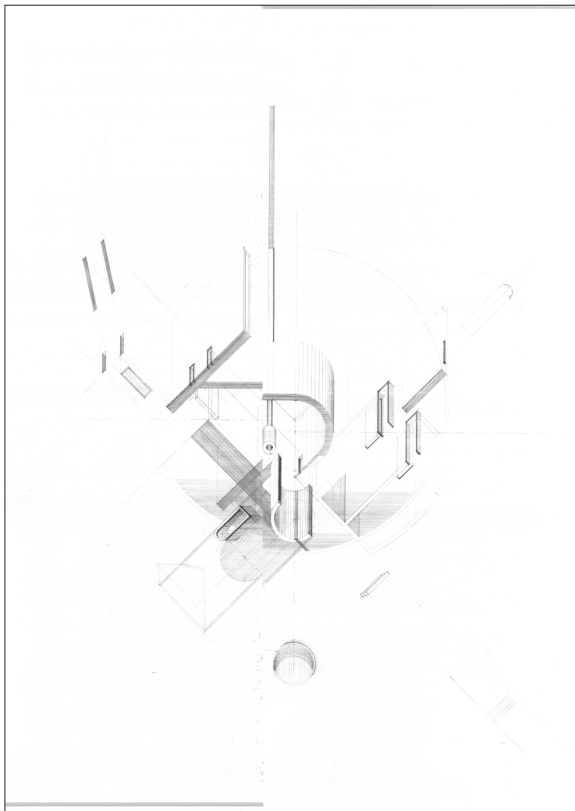
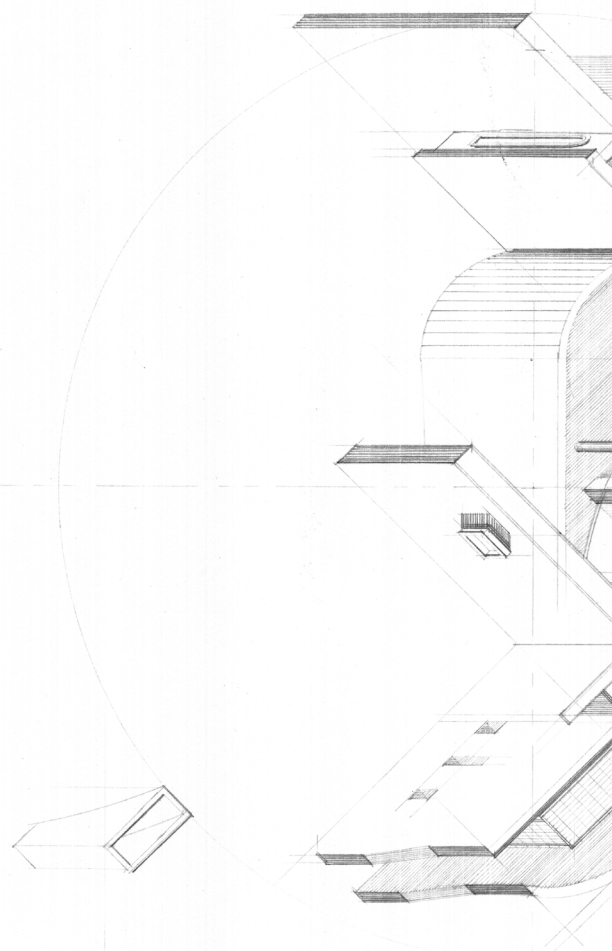
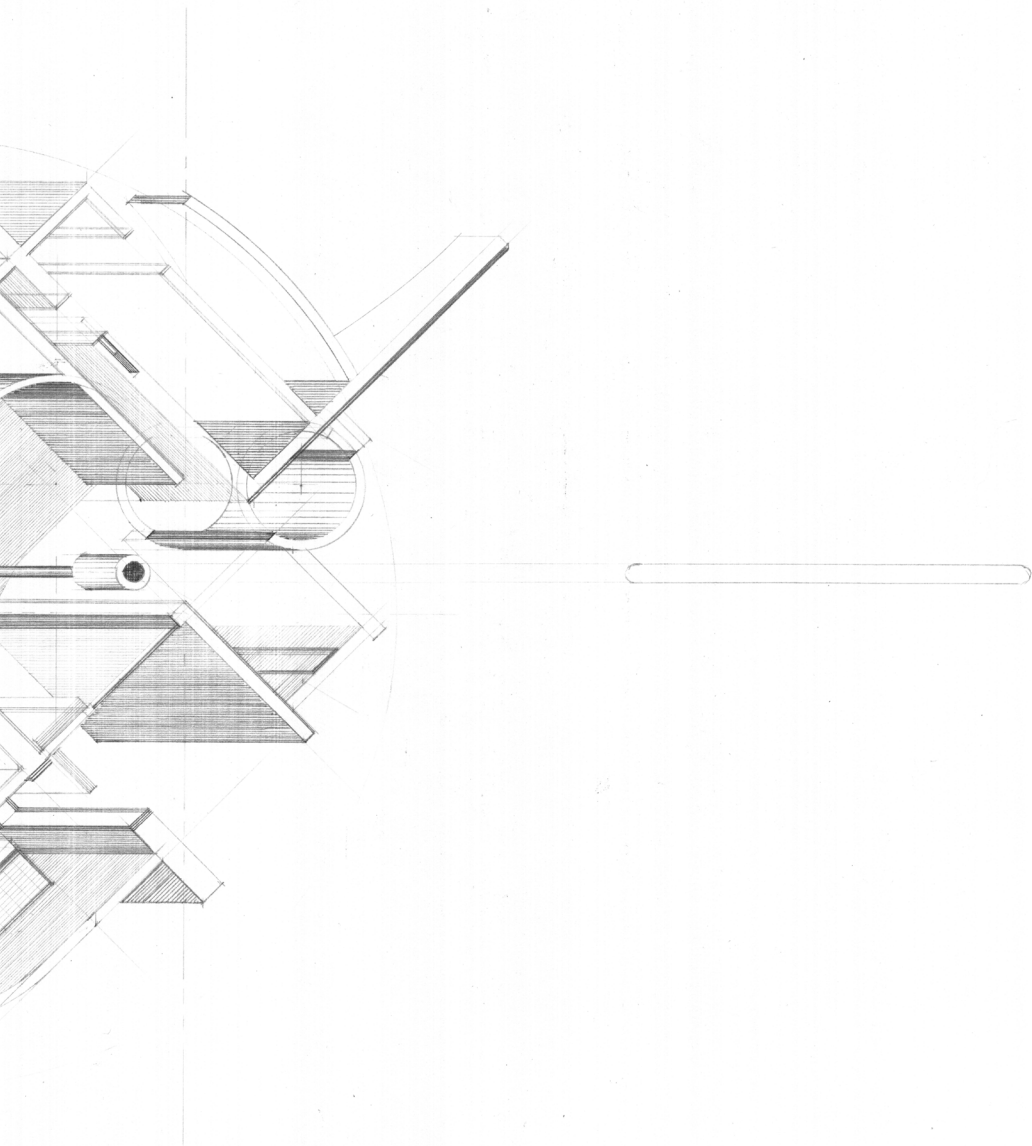
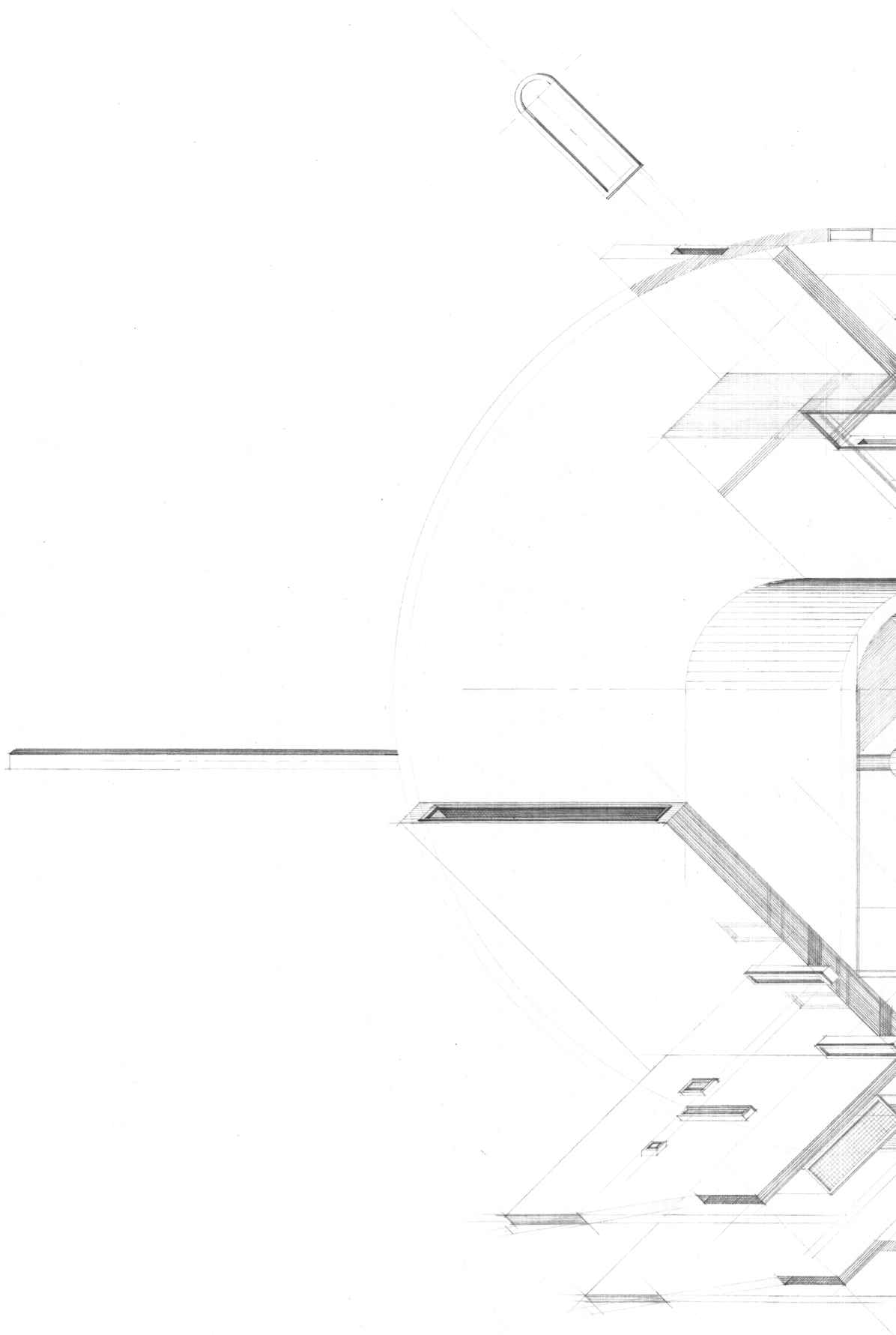
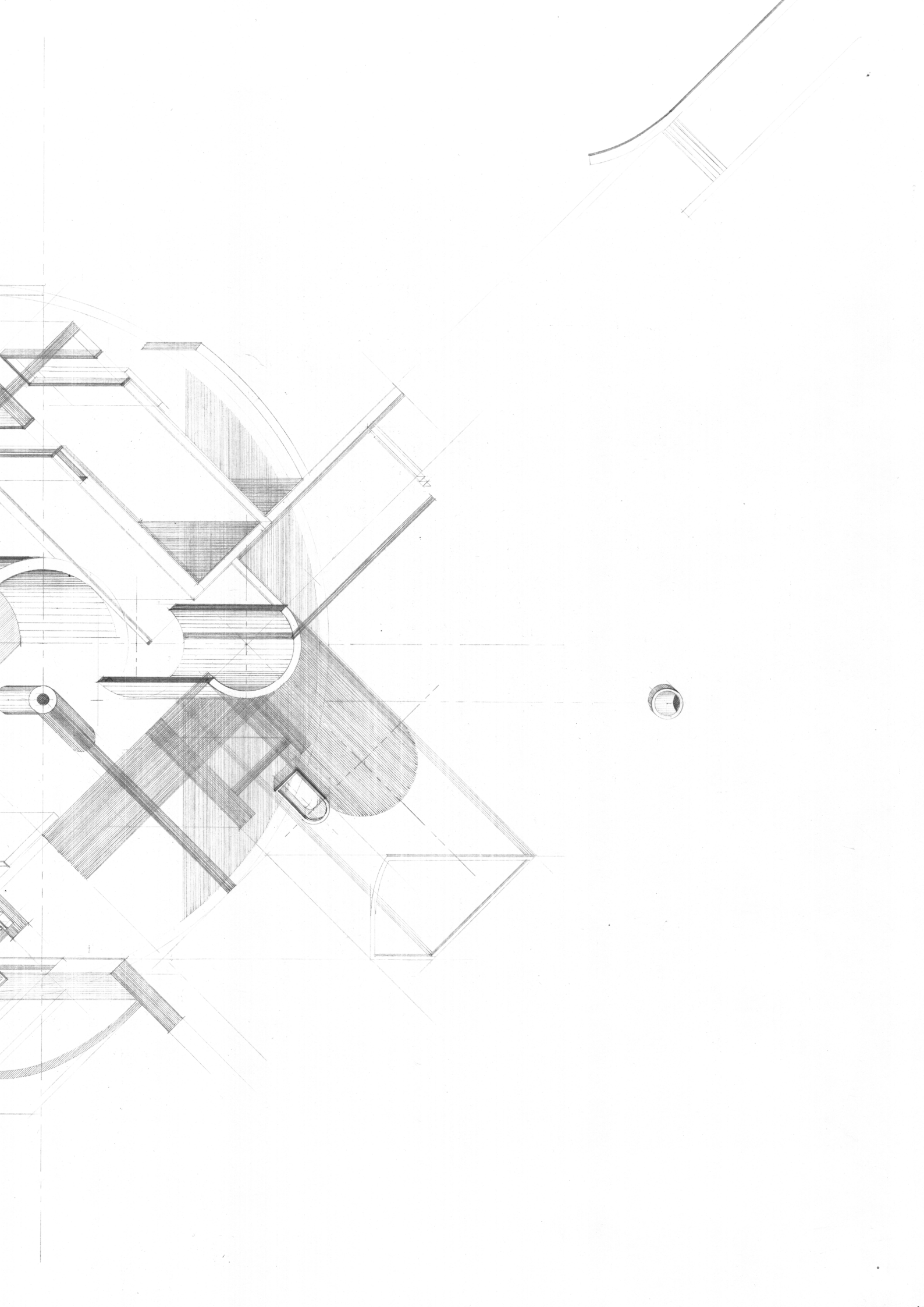


Figure 251 Third drawn iteration, using accumulations of parallel lines to blur the distinction between the architectural object and the drawing itself.









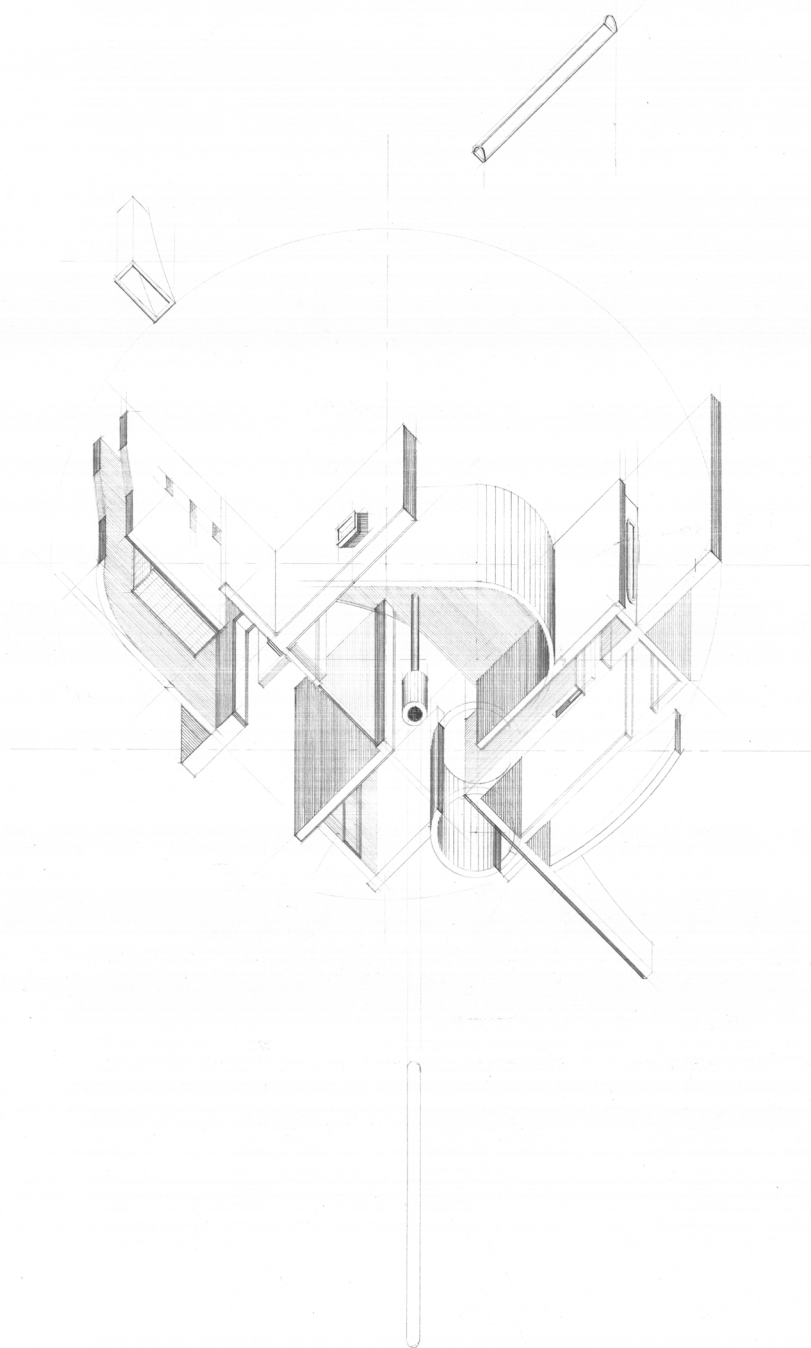
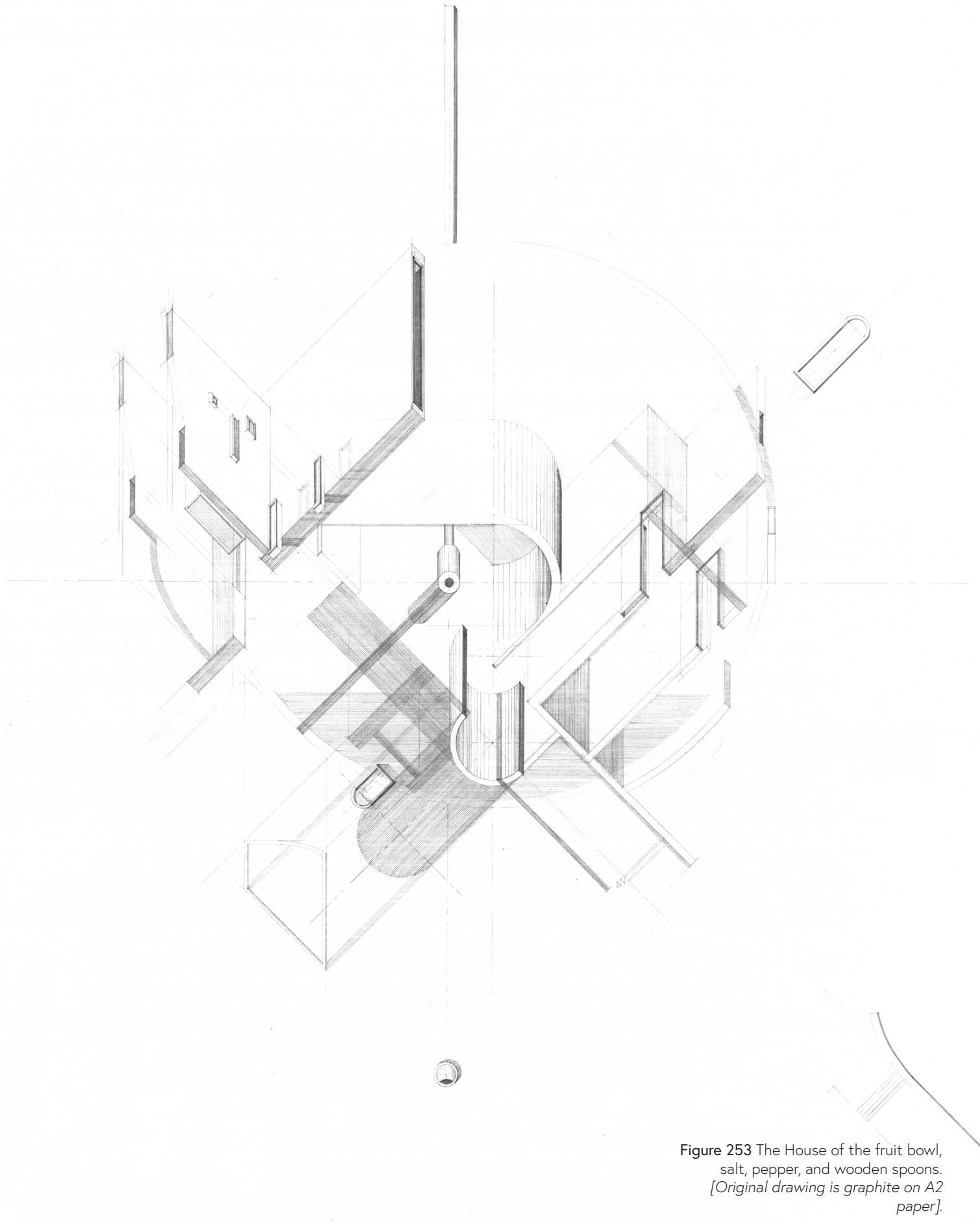


Figure 252 The House of the fruit
bowl, salt, pepper, and wooden spoons
[Original drawing is graphite on A2]



DRAWING WITH — PAPER

The following paper elements were made after the drawings, and before the models; to test how the lines might be *(mis)translated* into paper, three-dimensional objects. The objects are crafted from the same soft, buttery paper used for the original drawings that depict my kitchen. As well as creating a link back to the beginning of the project, this paper had enough bend in it to maintain crisp edges (sharp, curved lines in the drawings), while being strong enough to hold the shape of the carefully articulated forms.

This process is adapted and extended in the following section, from drawings to models.

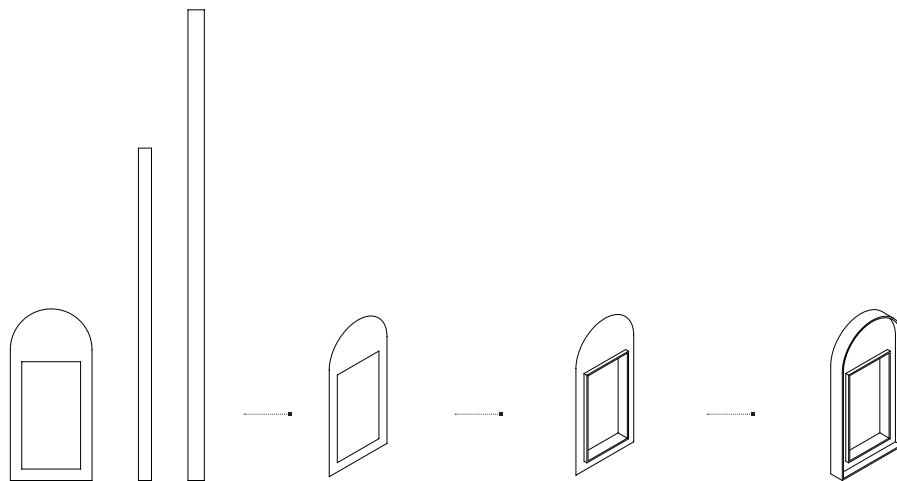
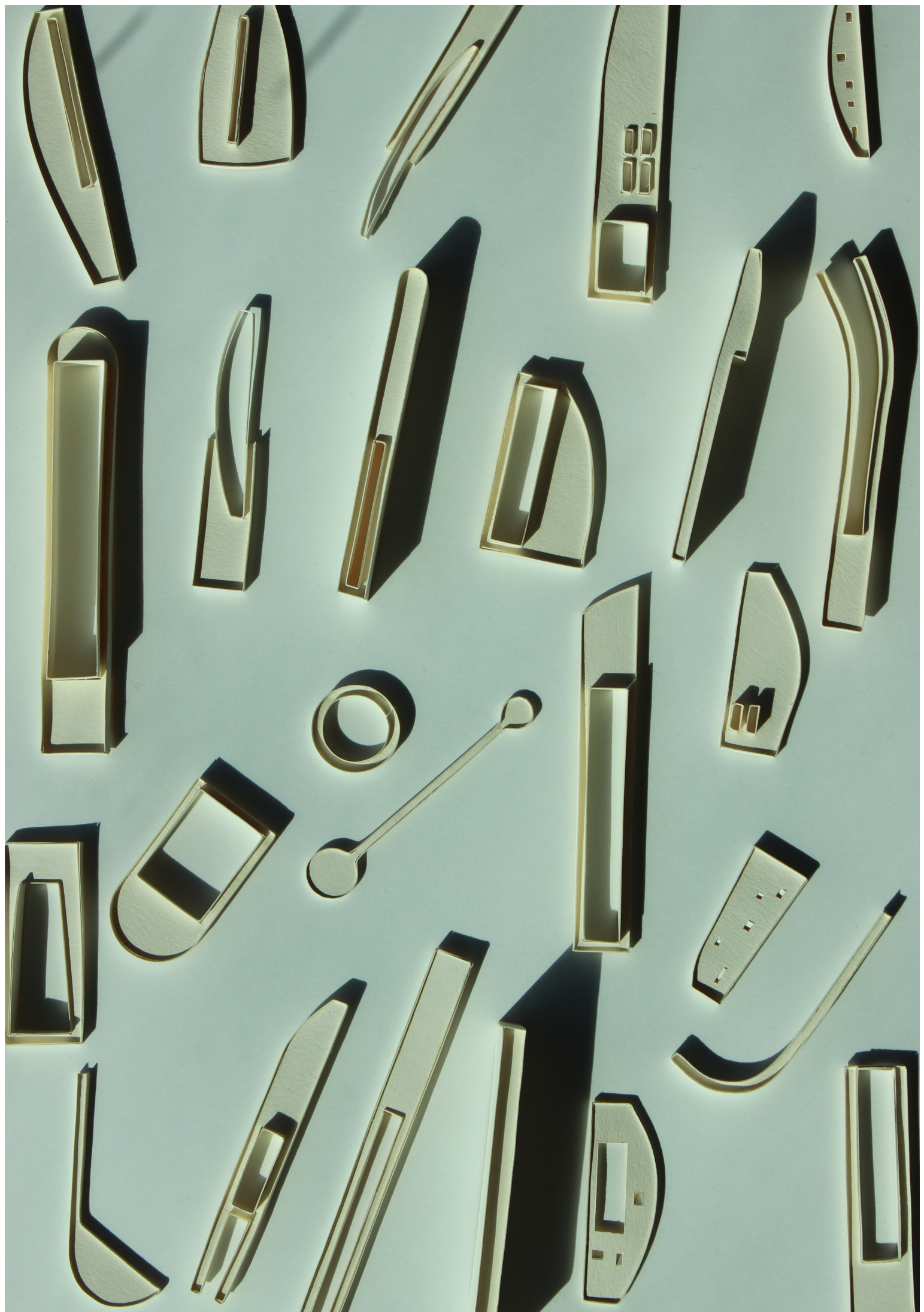


Figure 254 Diagram illustrating how the paper objects are constructed.



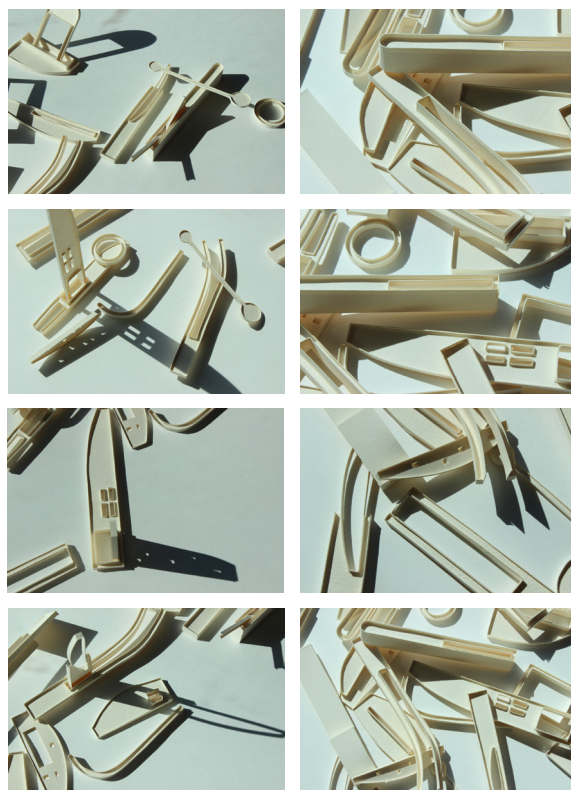


Figure 255 Various compositions of paper objects.

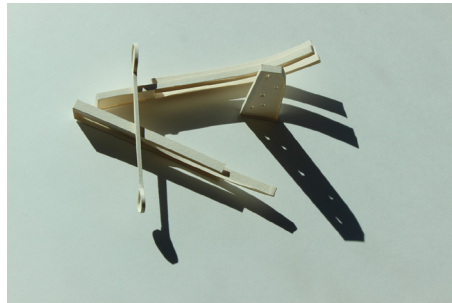
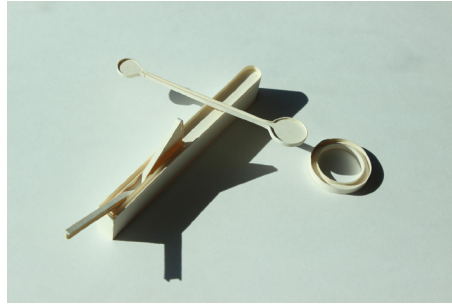


Figure 256 Various compositions of paper objects.

17.0

DRAWING *TOGETHER* — FROM DRAWINGS
TO MODELS

The models comprise the final step in the creative application of this research. In the manner of a circular rhetoric, and by this inherently cyclic design process, the models revisit several points explored previously in this process; the plan drawings, the original kitchen drawings, and (in their exhibited form) my kitchen itself. Like drawing, the process of model-making is slow, thoughtful, and intimate. This phase of the project epitomises the notion of dealing in "quiet material pleasure,"¹ a philosophy integral to the slow food movement, which emphasises quality and preservation, of processes and products. In the intimate tactility of cutting, scoring, folding, and gluing paper with my hands, I am concerned as much with the preservation of paper practices, and quality-of-craft, as I am with their architectural implications; based on the understanding that the process of making leaves its traces on the work itself.²

Of the many *(mis)translations* that occur throughout the creative application of this research, this phase, between drawing and model-making is one of the most significant, materially, due to the inherent implications of moving between two, and three dimensions. How are graphite lines understood and reconstructed in three dimensions; as paper, rather than on it? How is the role of the paper as the drawings' surface retained in three dimensions without the graphite that makes the paper a drawing? Through the model-making process, these questions are addressed.

1 Portinari, quoted in *The Slow Food Manifesto*. xxiii.

2 Allen, *Practice: Architecture Technique + Representation*, XVII.

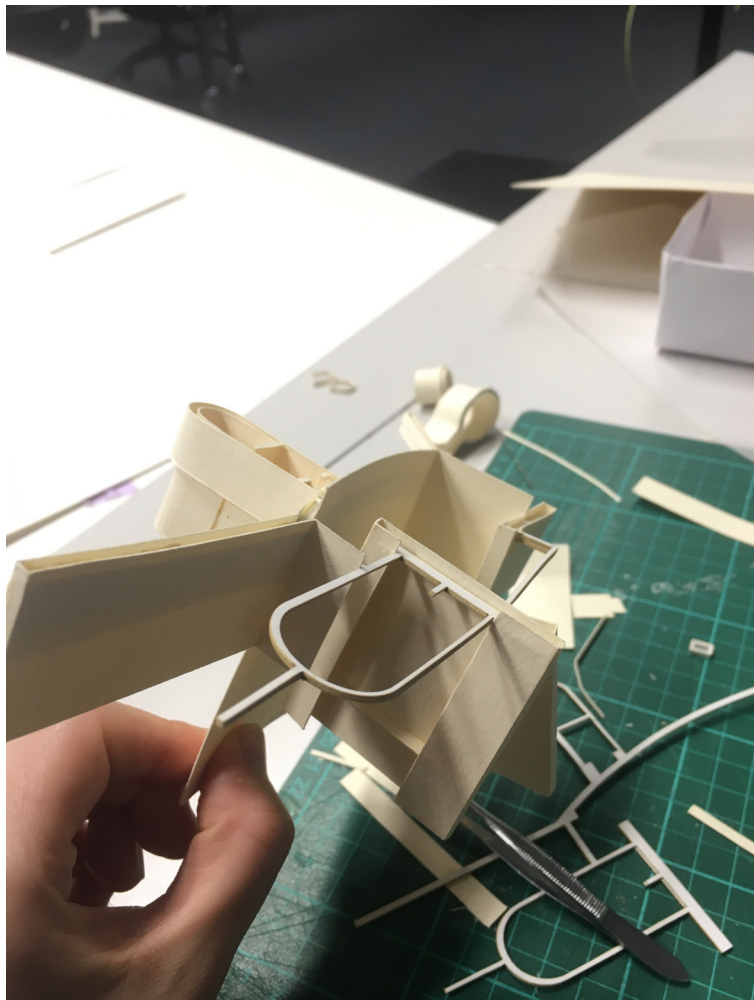
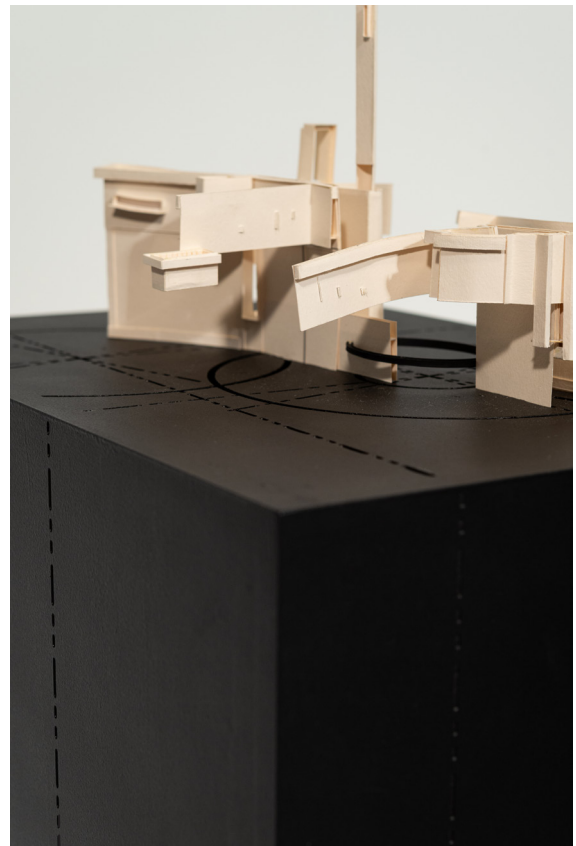


Figure 257 Constructing a model.
Like the previous drawings, the
models begin with the plan and
build outward.

Figure 258 Photographs of models showing reference lines engraved in the surface, and down the side of the plinths.



Figure 259 Reference lines engraved on the surface spill over the edges of the plinth.



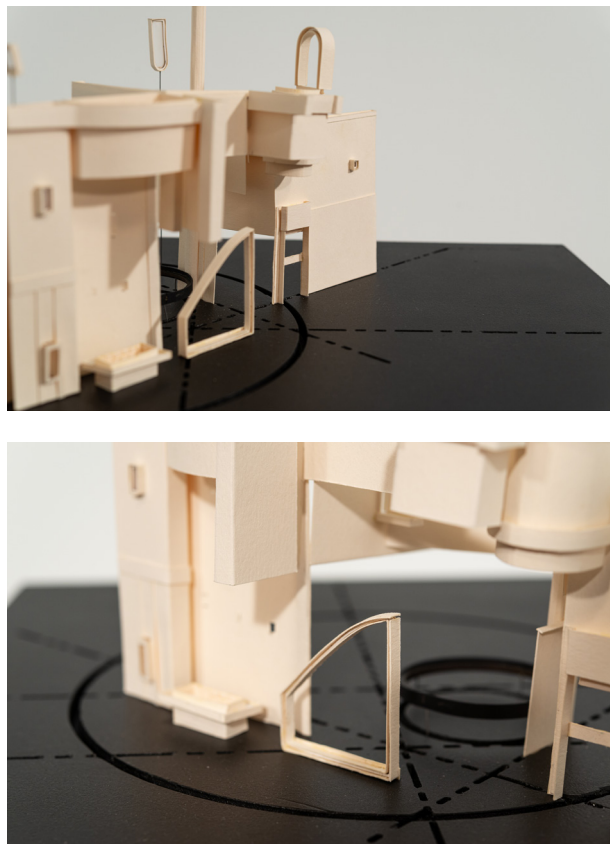


Figure 260 Details of models.

17.1

FROM PAPER TO PLINTHS

The paper is the physical material upon which the drawing is made, enabling the formation of graphite lines on its surface. In three dimensions then, it is the plinth that inherits the responsibility of establishing a platform for the model to exist, much like the paper in a drawing. In response to the similarities shared between the plinth and paper, the plinths (in plan) are A3, directly borrowing this dimension from the original plan drawing, establishing an explicit link between the two.

Among the graphite lines in the drawings, are reference lines that contain and reveal their underlying geometries. Like the paper, the foam surface of the plinths is engraved with reference lines; circles, dashed lines, and centerlines, revealing the geometric origins that underpin their making. In addition, and to address the three-dimensional nature of the models, the dashed reference lines cascade down the sides of the plinths, spilling out beyond the drawing surface (Figure 258 and Figure 259).

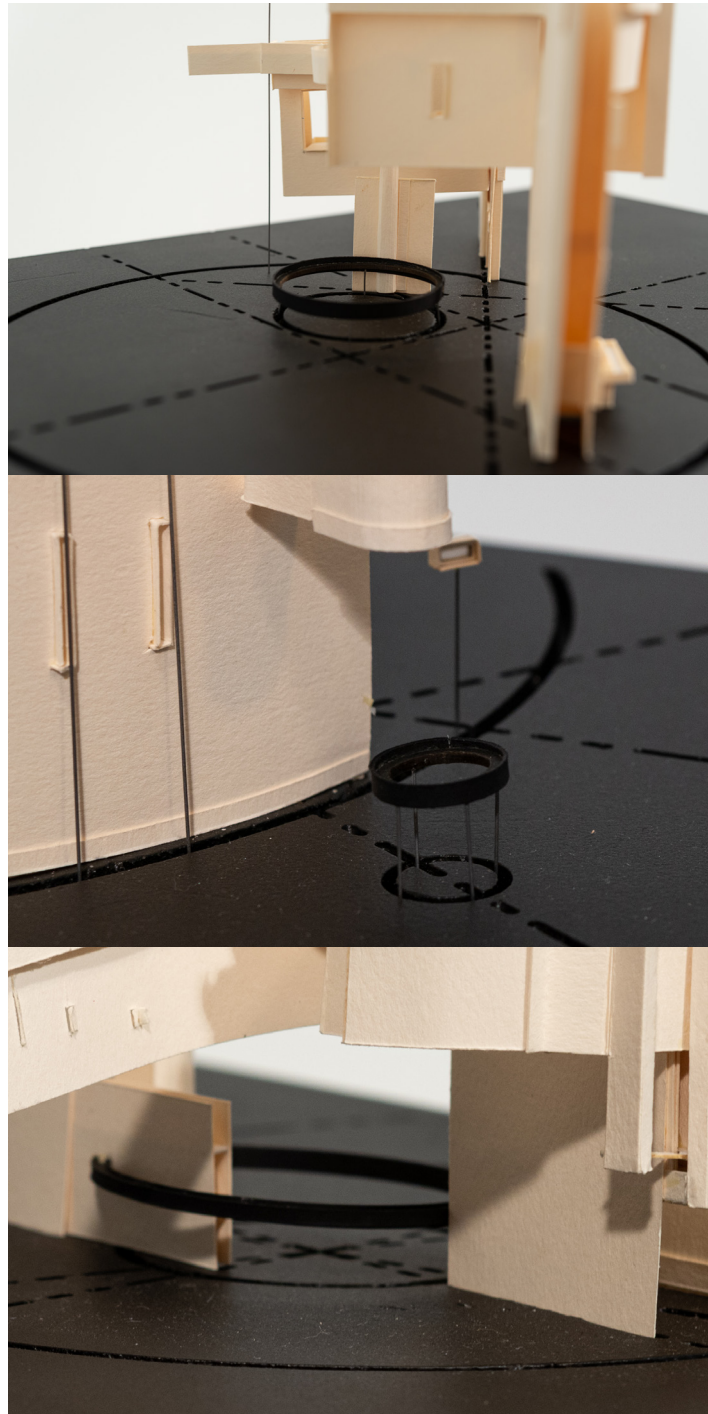


Figure 261 Photographs of models showing how reference lines become synonymous with the architecture, much like reference lines in the

Figure 262 House plan

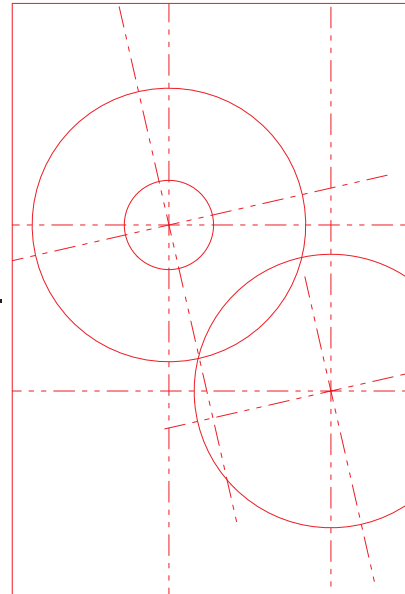
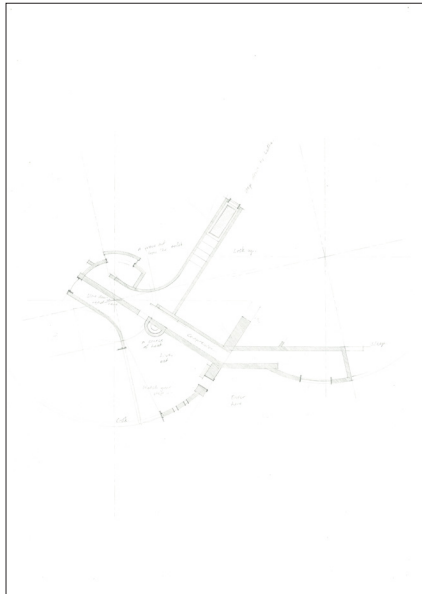


Figure 263
Reference lines
extracted to
engrave onto the
plinth.

Figure 264 House plan

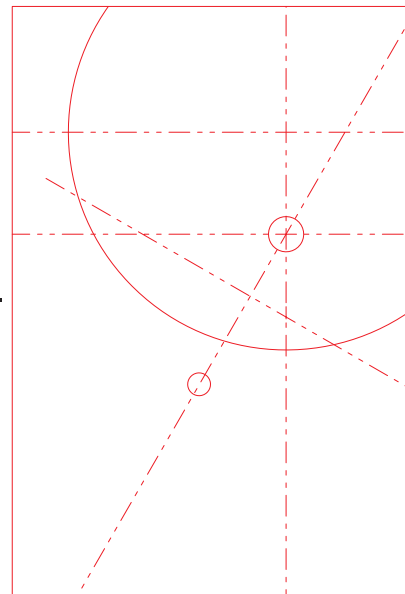
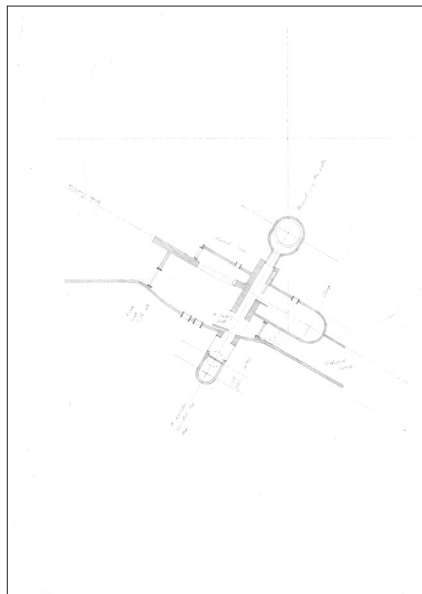


Figure 265
Reference lines
extracted to
engrave onto the
plinth.

Figure 266 House plan

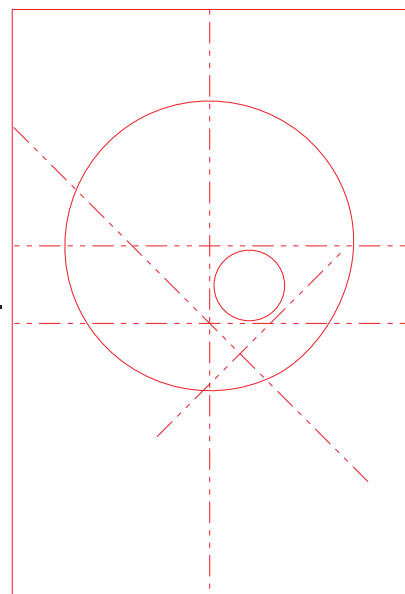
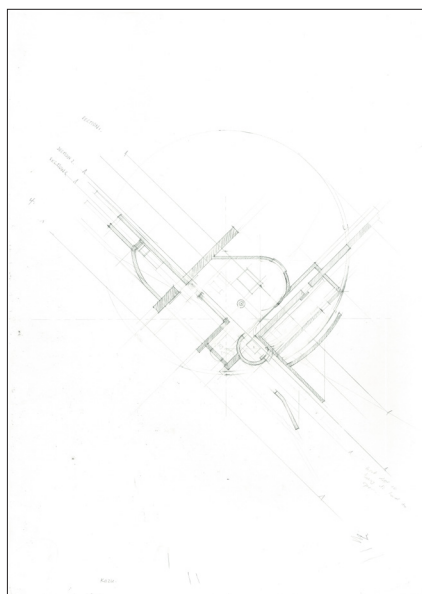


Figure 267
Reference lines
extracted to
engrave onto the
plinth.

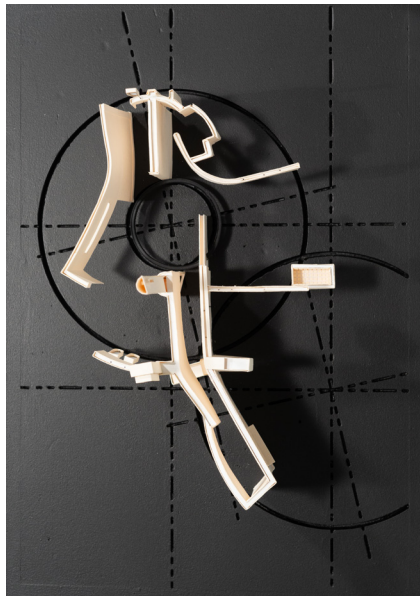


Figure 268 Photograph of a model depicting how the reference lines have been transferred to the plinth, and informed the model placement.

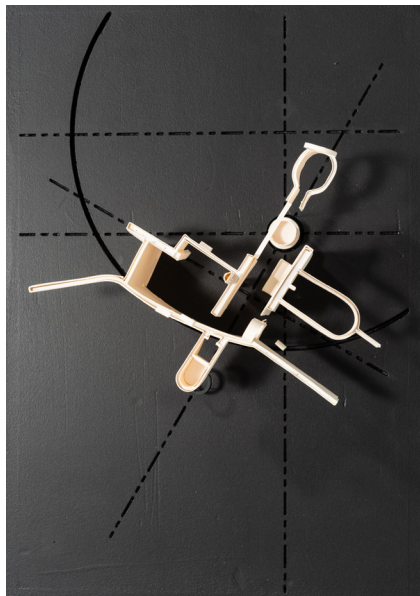


Figure 269 Just as reference lines and axes informed shapes in the drawings, reference lines engraved in the plinths locate the models themselves (as paper become plinths, and lines become paper.)

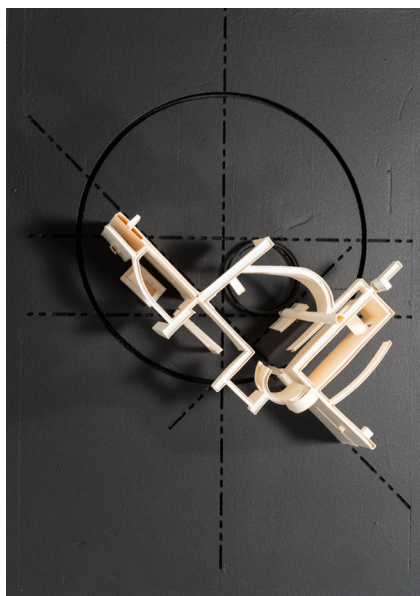


Figure 270 Sequence of images depicts how the drawings have informed the models and plinths in plan.

17.2

FROM LINES TO PAPER

The models themselves are constructed from a thick, buttery-yellow textured paper; the same paper used in the original kitchen drawings. Here, paper is used to draw with, rather than draw on; folded, cut, glued, scored, assembled. In much the same that drawings are constructed through the process of their making, the models are composed through the making process. While being grounded in the origin of their geometries, additions and subtractions are made according to the overall form and composition of the model, much like the drawing processes in earlier phases of this project.

In the drawings, the distinction between where the drawing ends and the architecture begins, is often ambiguous, emphasising how the two conditions are intertwined. In the drawings, reference lines are indistinguishable from the architecture, in a similar manner to how boundaries that separated home from work life during lockdown, became fuzzy and blurred. Perhaps this ambiguity is also evidence of the nature of architectural practice which is itself broad,¹ and fuzzy.² This apparent entanglement between architecture and drawing is equally prominent in the models, where some of the reference lines are three-dimensional components, rather than just etchings embedded in the plinth. Once circular graphite reference lines remerge here circular objects crafted from paper, floating above the etched plinth -sometimes physically touching the paper models. This also emphasises the entanglement between architecture and language. Liberating the design process from the rigid definition of 'translation' to call it (mis)translation, has allowed the reference lines to slip beyond the invisibility of reference, to become physical elements of the architecture. Equally, this demonstrates how every mark made on an architectural representation has architectural implications.³

1 Reynolds, "Establishing a Successful Niche in the Expanded Field", 8.

2 Linzey, "Architect's Intuition," 31.

3 Frascari, "Line as Architectural Thinking," 204.



Figure 271 Paper elements are constructed incrementally, derived from lines in the earlier drawings.

From Drawings to Models

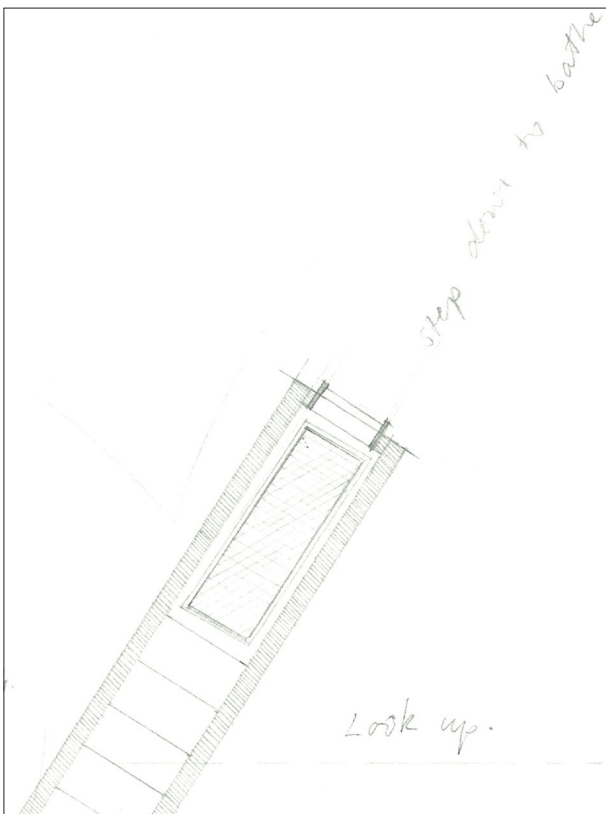


Figure 272 Segment of a plan from 'The House of proteas from the garden and my favourite bowl.'

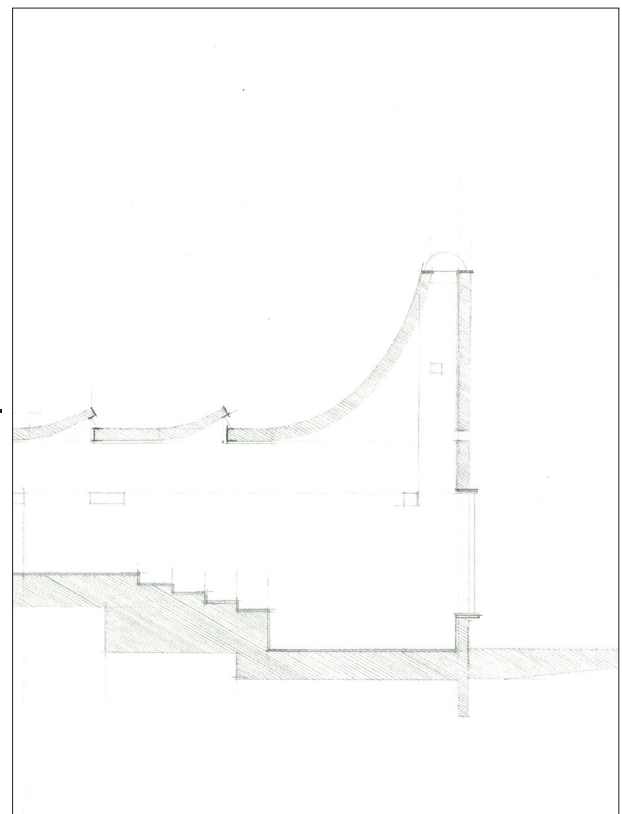


Figure 273 Segment of a section from 'The House of proteas from the garden and my favourite bowl.'

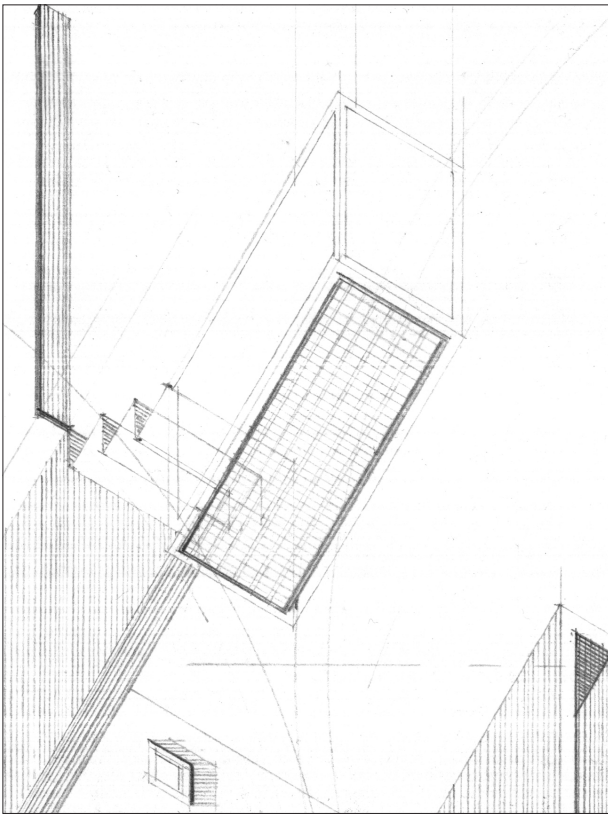


Figure 274 Segment of a parallel projection drawing from 'The House of proteas from the garden and my favourite bowl.'

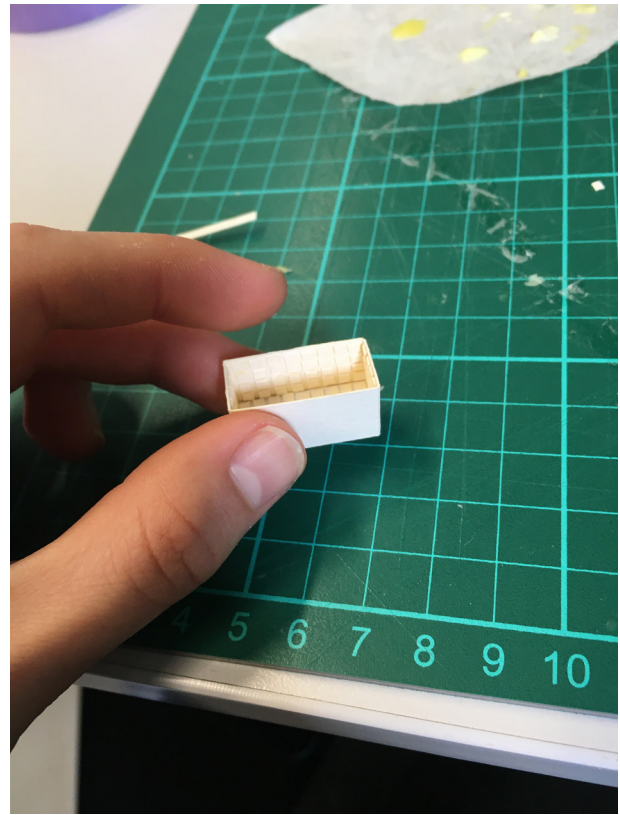


Figure 275 A paper bath derived from drawings.

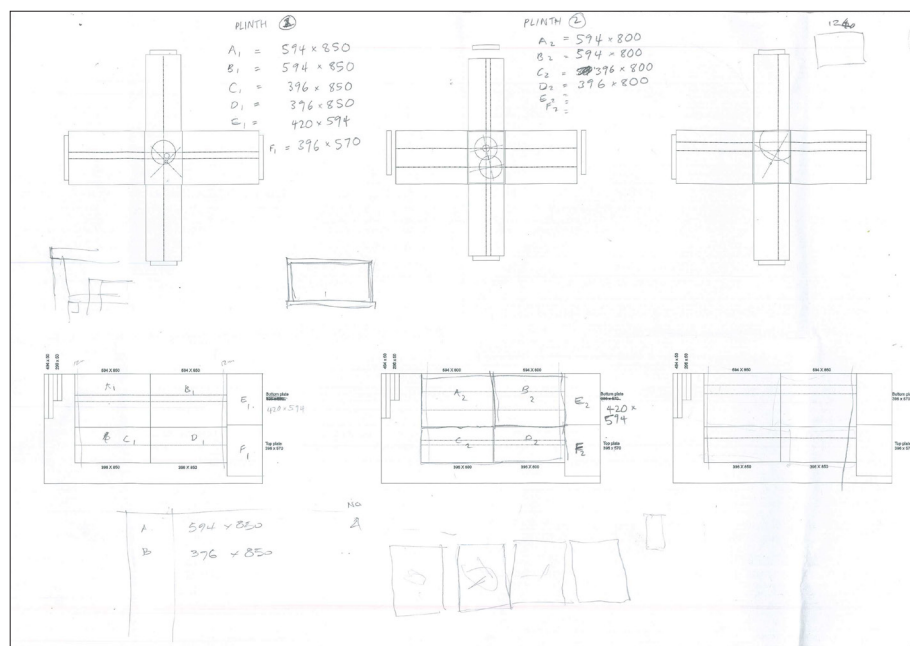
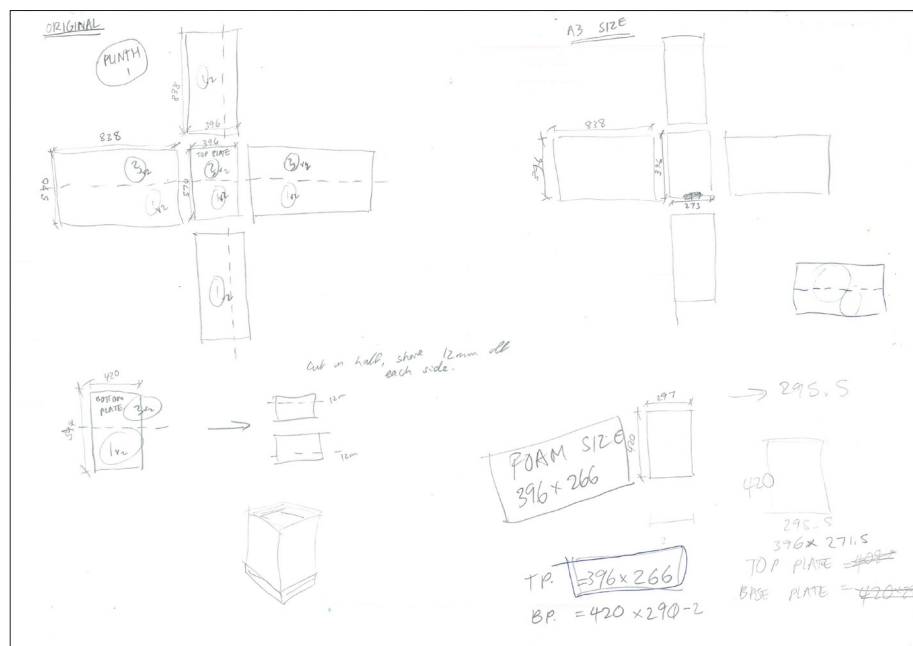


Figure 276 Sketches determining the dimensions of material required for the plinths, and how best to cut them from larger boards of MDF.



Figure 277 Plinths, pre-paint.



Figure 279 Exhibition in-situ at the NZIA Student Design Awards. Each plinth; in height, orientation and location, relates to the original moments in my kitchen that they were derived from.



Figure 280 Model detail from The House of the coffee plunger and percolator drying on the dish rack.

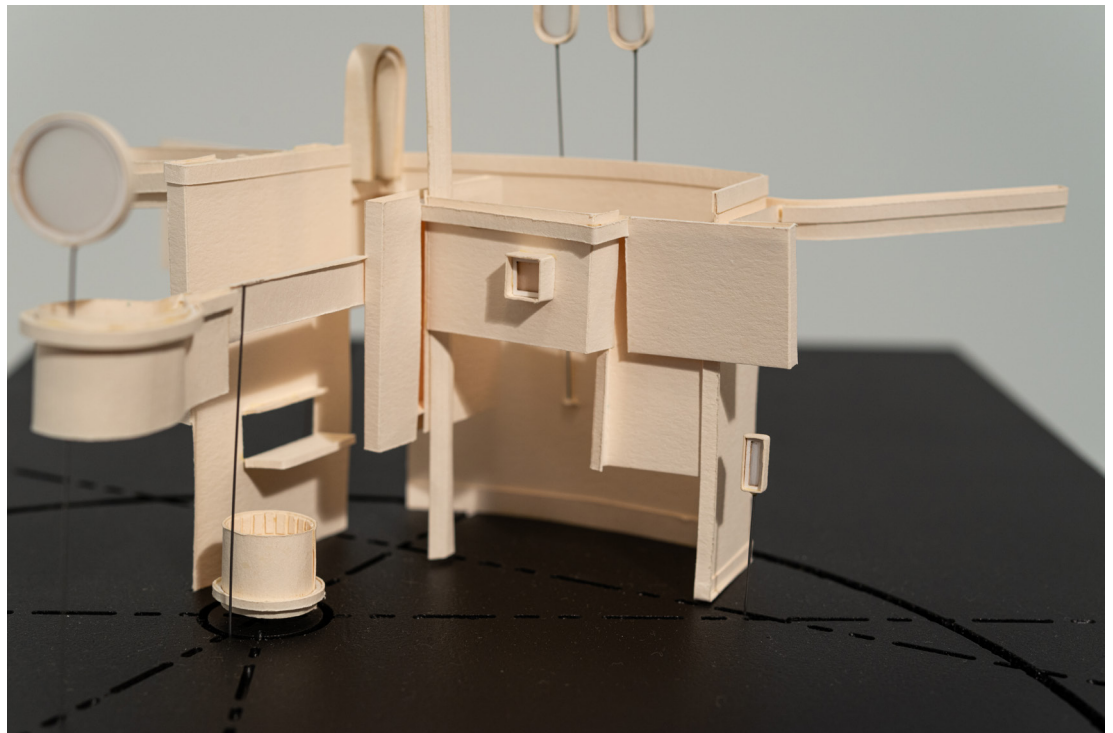
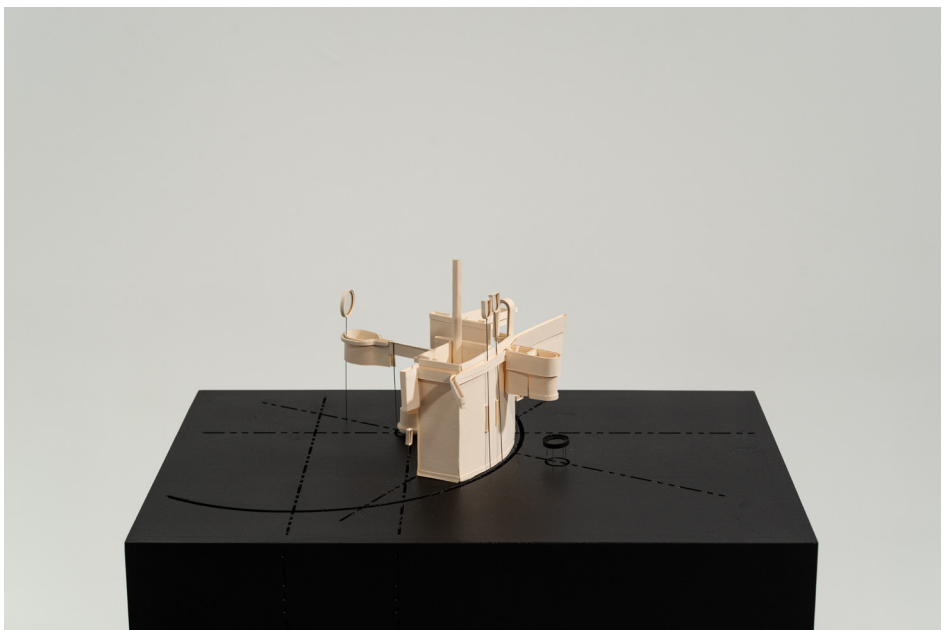


Figure 281 Model photograph from The House of the coffee plunger and percolator drying on the dish rack.

Figure 282 The House of the coffee plunger and percolator drying on the dish rack.



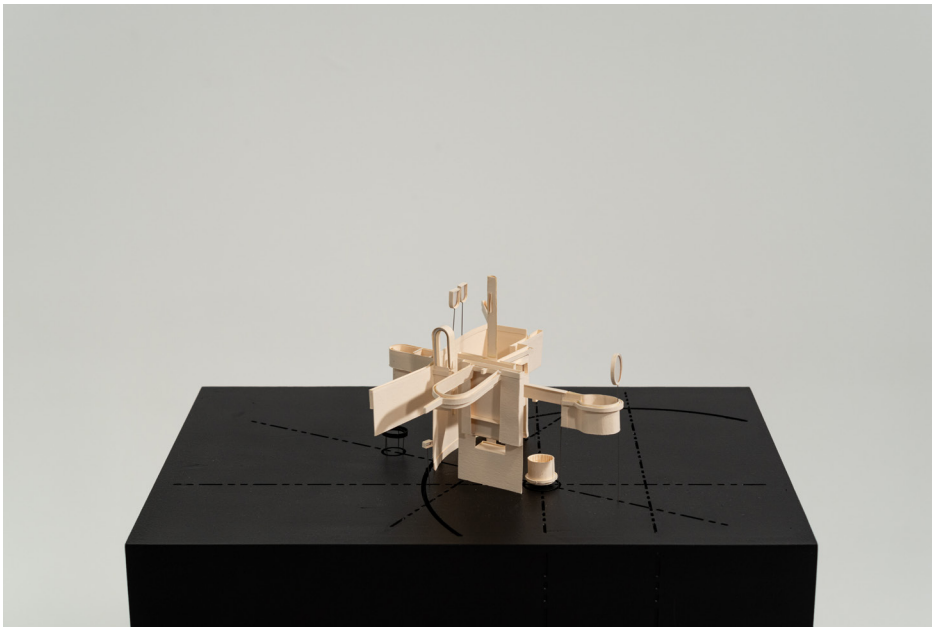


Figure 283 The House of the coffee plunger and percolator drying on the dish rack.

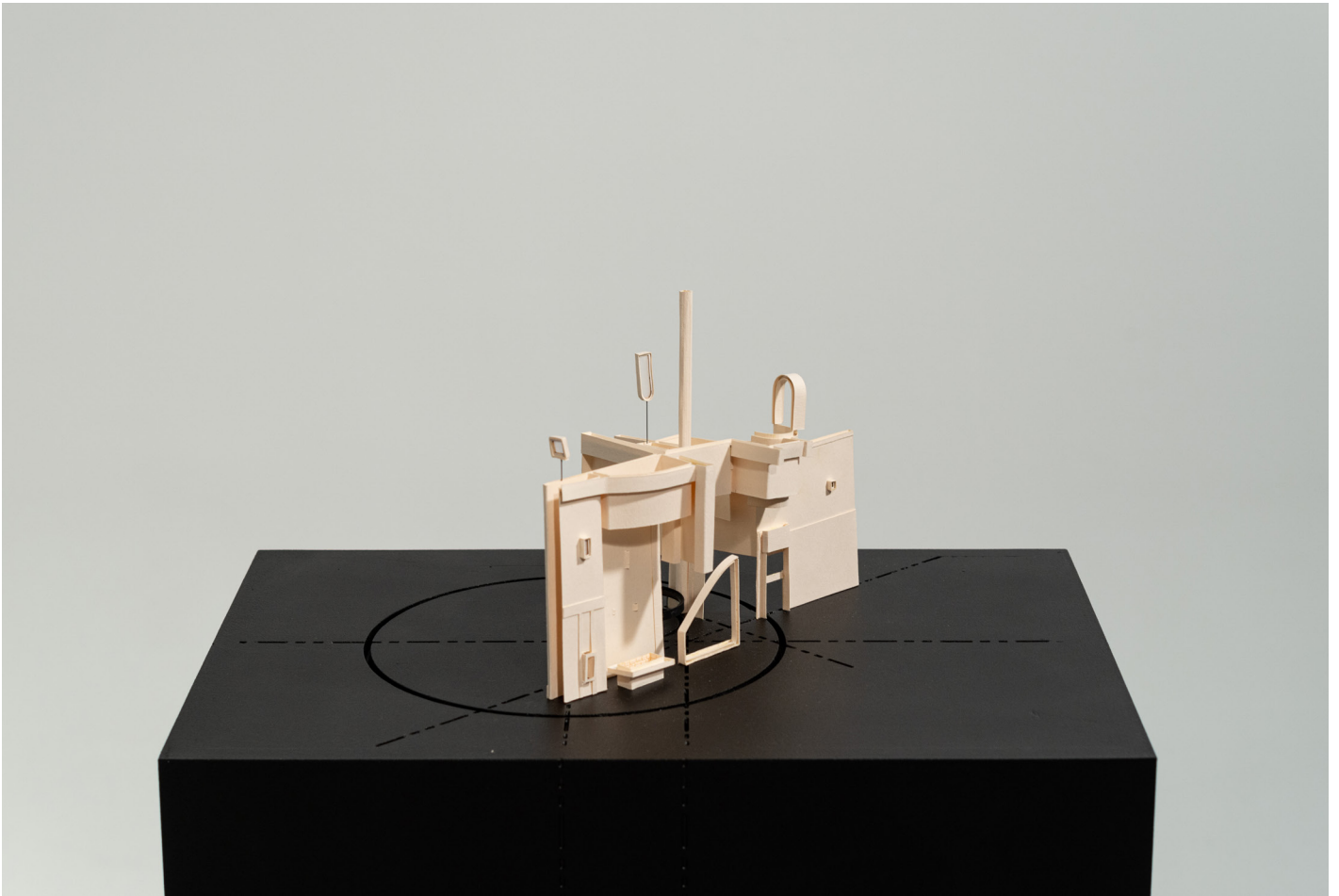


Figure 284 The House of the fruit bowl, salt, pepper, and wooden spoons.

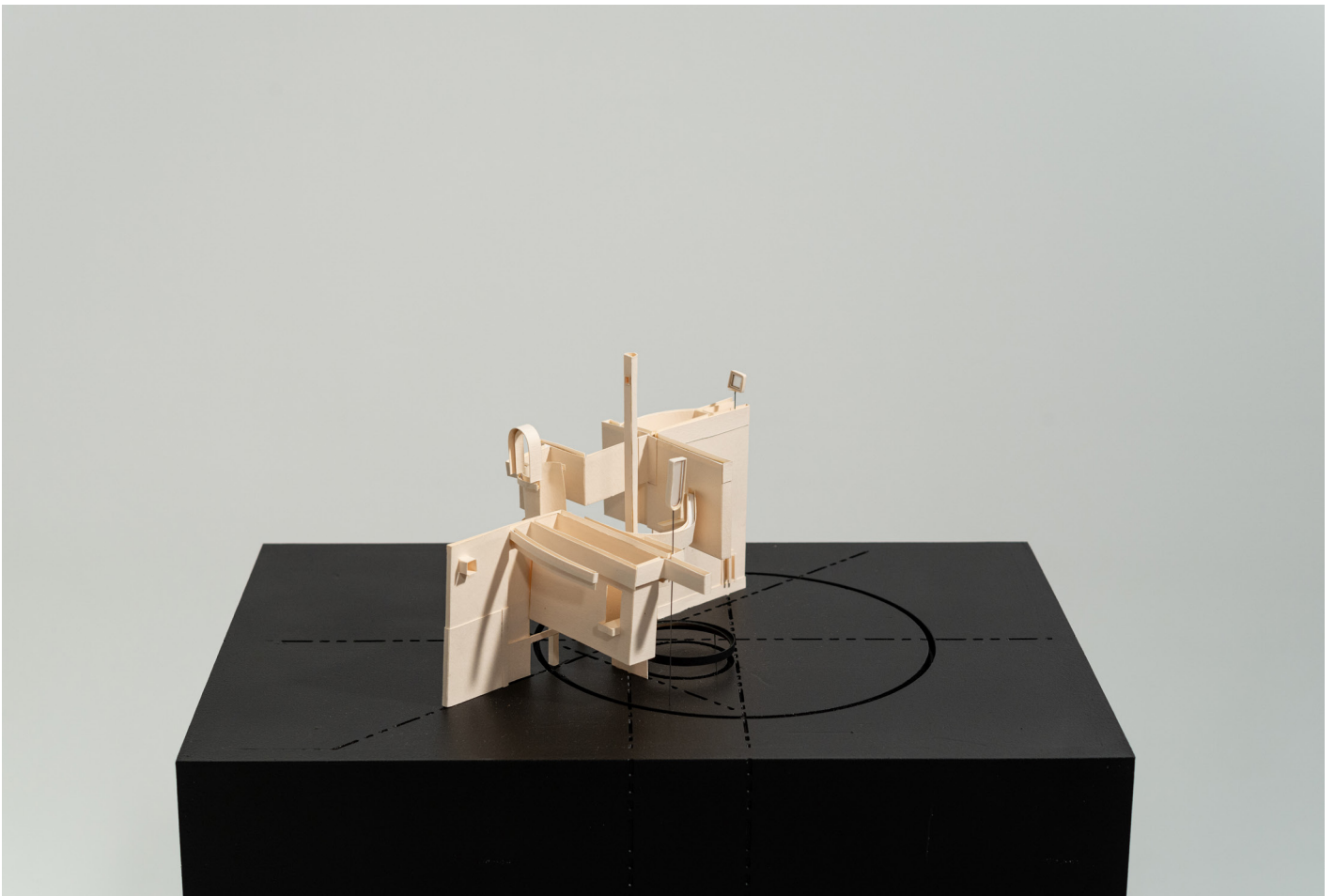


Figure 285 The House of the fruit bowl,
salt, pepper, and wooden spoons.

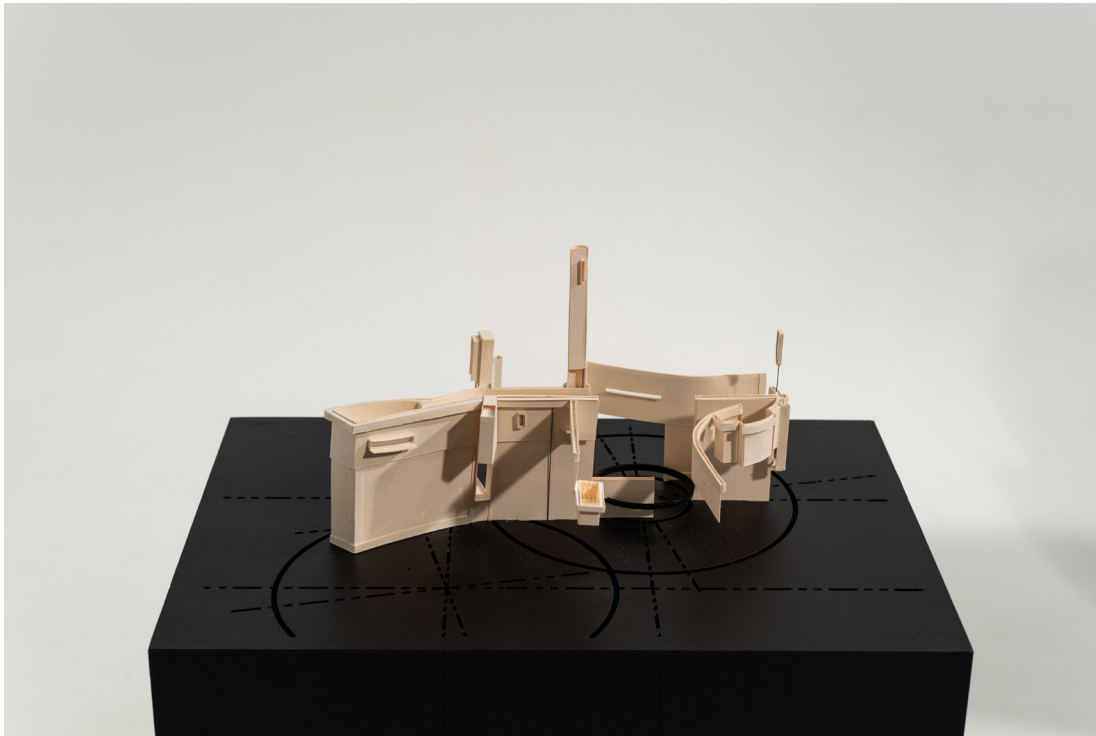


Figure 286 Model of the House of proteas from the garden and my favourite bowl.

Figure 287 Model of the House of proteas from the garden and my favourite bowl.

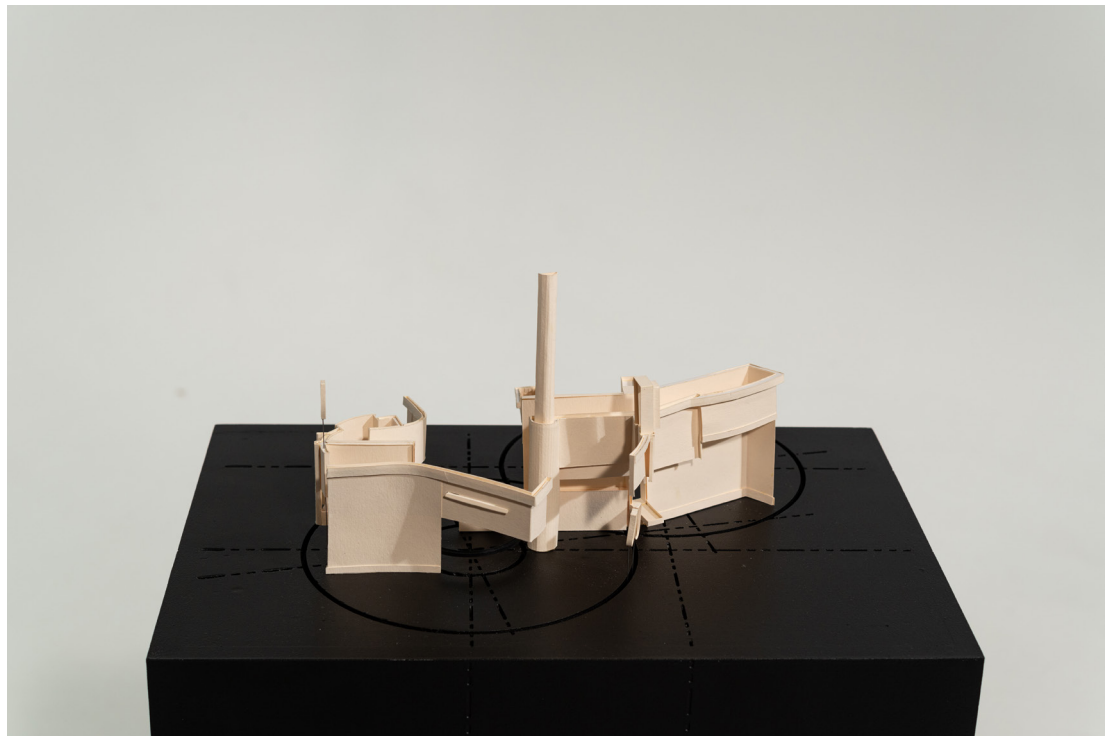




Figure 288 Models in the photography studio. Their configuration references their relative locations within my kitchen.

Figure 289 Models in the photography studio.





Figure 290 Model in the photography studio.

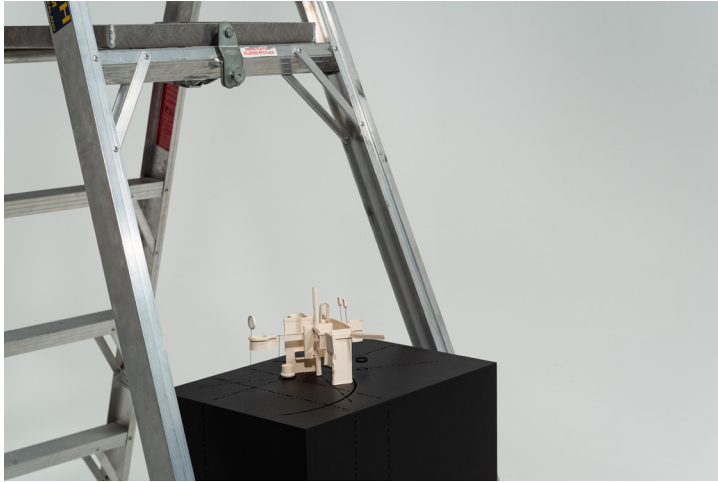


Figure 291 Model in the photography studio.



Figure 292 Model in the photography studio.

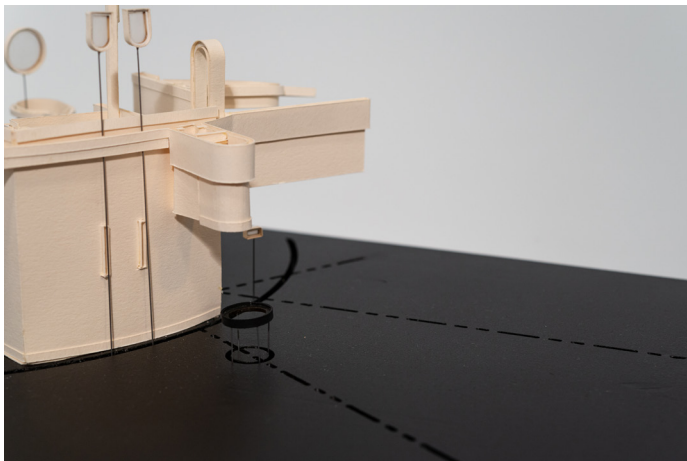


Figure 293 Model detail.

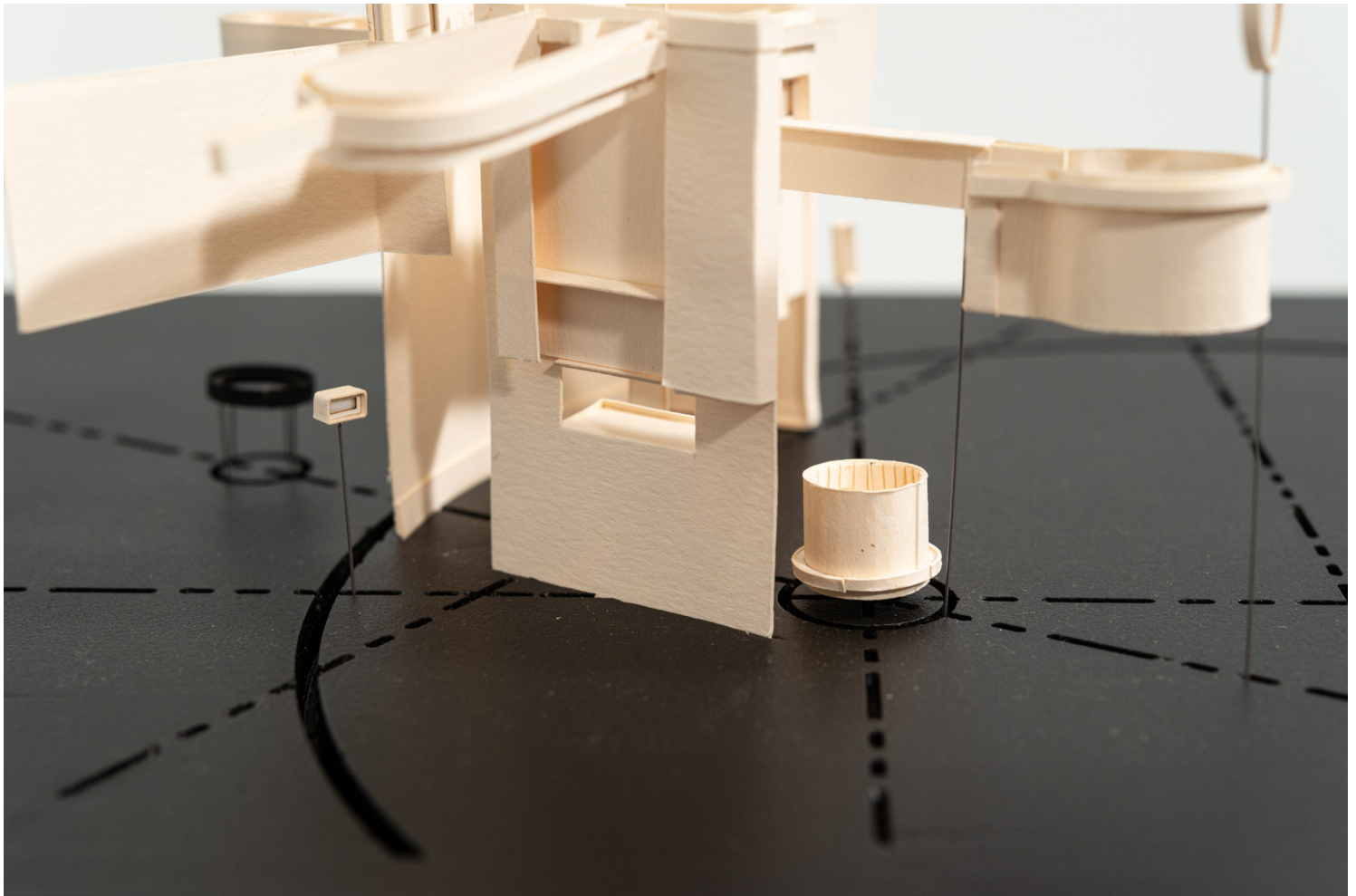


Figure 294 Model detail.

DRAWING — CONCLUSIONS

This thesis traces the unraveling and reconstruction of my kitchen during lockdown. Here, my kitchen reemerges as autobiographical houses; symptomatic of being contained within the home, and of the drawing process itself. Drawing on and with paper, comprises a poetic strategy through which to draw, and draw forth the architecture embedded within my kitchen. The process results in architectural outcomes-as-drawings that, by virtue of their slowness, are carefully composed, with an emphasis on craft, form, and balance.

Using the kitchen as the site of application, an understanding of personal and disciplinary intersections -between architecture and the kitchen- has proved beneficial (specifically, Frascari's connection between the slow food movement and drawing). This activated more meaningful consideration around the use of design media in architectural conception, and how they serve the context of a project more broadly. Like slow food, which is specific to a time and place, these drawings (and thus the architecture within them), are entrenched in the introspective experience of being contained within the home, and equally, constitute parallel realities.

This slow approach didn't only influence the composition of the architectural elements, but also permeated the way I thought about the architecture. As described through the creative application section, rather than labeling rooms by their common name (for example, bedroom) they were labeled 'a place to sleep,' or 'a place to bathe'. This seemingly simple shift in language sensitively emphasised the careful articulation of lines and shapes, and therefore, the connections between the architectural spaces they represent.

The entanglement between language and architectural practice is an undertone throughout this thesis and is explicitly exploited through the use of the term *(mis)translation*. Liberating the design process

from the rigid notion of translation which means "to move something without altering it," has allowed the agency of the drawing process to be exerted in the work. The agency of projection is one prominent example; where transformations in geometry can (and do) occur, while retaining some structure of the original sketch (my kitchen). An acute awareness of processes and their implications is critical in architectural practice, since architecture exists after the drawing, not before it. Therefore the processes and mediums used in drawing don't only affect the drawing, but the architecture, since both are entangled with one another.

Expanding on Frascari's notion of the "non-trivial" architectural drawing; drawings and makings here slip between existing within and beyond the frame of the paper. This challenges an easy assumption that architectural experiences can only occur through building. Equally, it emphasises the entanglement between drawing and building, demonstrating the potency of drawing as a medium for architectural inquiry.

As architecture moves exclusively into breakneck digital speeds it would be wise to reflect on the power of a slow architecture, conceived via the delicate dynamic between eye, mind, and hand. A slow architectural practice that utilises drawing as its primary technology, cultivates a level of sensitivity, delicacy, and attention to detail, that (by nature of drawing) transcends subsequent built artifacts. In a world defined by social distancing, and a discipline increasingly defined by the anonymity of digital tools, a return to the intimacy of the hand drawn is a return to connection; between the architect and their pencil, the architecture, and the people, whom will later occupy it.

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20.0

LIST OF FIGURES

Figure 5 *Translations from Drawing to Building and Other Essays*. London: Janet Evans Architectural Association, 1997.

p_16

Figure 6 Turrell, James. "James Turrell. Afrum I (White)." Guggenheim Collection Online. Accessed August 2020. <https://www.guggenheim.org/artwork/4084>

p_16

Figure 8 Lizzitsky, El. "Art and Pangeometry."

p_27

Figure 9 Lizzitsky, El. "Art and Pangeometry."

p_27

Figure 11 Wigglesworth, Sarah. "Table Manners." *Architectural Design* 68, no. 7/8 (July-August 1998): 31-35.

p_37

Figure 12 Wigglesworth, Sarah. "Table Manners." *Architectural Design* 68, no. 7/8 (July-August 1998): 31-35.

p_37

Figure 13 Wigglesworth, Sarah. "Table Manners." *Architectural Design* 68, no. 7/8 (July-August 1998): 31-35.

p_37

Figure 14 Wigglesworth, Sarah. "Table Manners." *Architectural Design* 68, no. 7/8 (July-August 1998): 31-35.

p_37

Figure 15 Wigglesworth, Sarah. "Table Manners." *Architectural Design* 68, no. 7/8 (July-August 1998): 31-35.

p_37

