ARCHITECTURE AND TYPOGRAPHY: THE SPACE BEYOND THE TEXT

by

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Contents

Abstract

This thesis considers the design of a combined industrial printing and publishing house as a semi-public institution. The site is in Halifax, Nova Scotia. The institution includes a bookstore, archive, studio, book conservation facility, and guest rooms, in addition to printing and publishing. Research included relevant literature, an applied course in typography, and a working visit to Gaspereau Press. The way program elements are brought together and overlap relates to the formal strategies of spatial organization in typography. The design as a setting for human activity relates to the relationship between text and content in the activity of reading. The simultaneous presence of the practical and the creative in the practice of architectural design is also explored in relation to typographic practice. The intention is to clarify both the object of design and the practice of design in comparison to both aspects in typography. This then further clarifies the relation of the program to the built work.

Acknowledgements

Chapter 1: Introduction

Thesis Question

How can a study of the practice of typography inform the practice of architecture?

Definitions

TYPOGRAPHY

Underlying the study of typography are broader questions related to drawing, the line and the scribe, as well as questions of language and meaning. However, when drawing lessons from typographic practice, emphasis is on the making of books and other material designed for continuous reading.

> Typefaces for continuous text are subject to different criteria than typefaces for headlines on posters and in advertisements, for book jackets or for decorative purposes.[1]

We can refer to this as typography as a vessel for something else, a content beyond its form, so that the typography itself can be described as invisible typography.

ARCHITECTURE

In architecture the emphasis is on places designed and built to serve as settings for the activities and practices of daily life. The unexplored implication is that architecture understood in this way can inform the practice and study of architecture in a more general sense, though different or additional conditions clearly exist in the design of iconic buildings and monuments.

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1 Jost Hochuli, *Detail in Typography: Letters, Letterspacing, Words, Wordspacing, Lines, Linespacing, Columns* (London: Hyphen Press, 2008), 10.

PROPOSAL

The proposed design is meant to conflate distinctions by placing the industrial activity of printing, with the activities of publishing, in the center of the city, and to treat the entire enterprise as a civic institution. The presence of the industrial building in a commercial district is not meant to provoke contrast. Instead, much like the overlap of the printing and publishing activities inside the building, it is meant to suggest continuity, to give built form to the possibility that work and play, commerce and industry, all of these are part of the every day, part of how we live, and part of the whole identity of the city as a human proposal.

Architecture and Typography

SOLID AND VOID

Inscription by Leon Battista Alberti, on the frieze of Santa Maria Novella, c. 1460, similar to letters on the Tempio Malatestiano, Rimini. From Paul Stiff, 'Brunelleschi's epitaph,' in *Typography papers 6.*

From Stroke to Outline

On the façade of the Tempio Malatestiano in Rimini, begun in 1450, we see the carefully constructed Roman letters of Leon Battista Alberti.[2] According to Mardersteig, the effort to revive the Roman inscription letters began here on this renovation of the Gothic church of San Francesco with the efforts of Matteo de' Pasti of Verona and Agostino d'Antonio di Duccio of Florence.[3] Alberti, coming from Rome, made a design for the exterior of the church which was the most classical element of the renovation. He was one of many antiquarians who attempted to rediscover the perfect geometries and proportions that were thought to underlie the balance and form of Roman monuments and inscriptions. 'At the beginning of the fifteenth century

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2   Nicolete Gray, "The Newberry alphabet and the revival of the roman capital in fifteenth-century Italy." In *Typography Papers 6*, ed. Paul Stiff (London: Hyphen, 2005), 10.

3   Giovanni Mardersteig, Felice Feliciano Veronese, *Alphabetum Romanum* (Verona: Editiones Officinae Bodoni, 1960), 12.
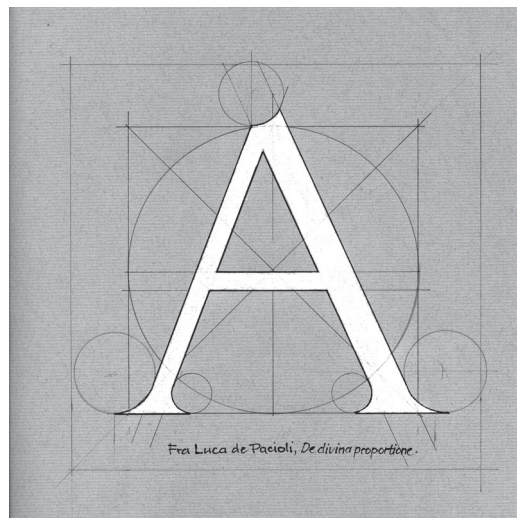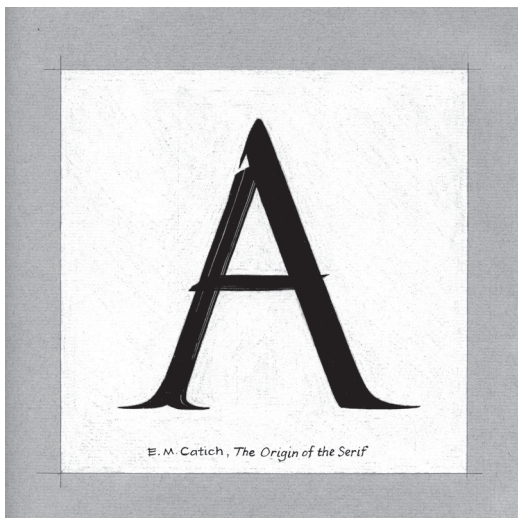
A brush capital of Catich and Carolingian capitals from Stan Knight, *Historical Scripts,* emphasizing the stroke.

Capitals of Fra Luca de Pacioli and Felice Feliciano, from Mardersteig, *Alphabetum Romanum,* emphasizing the outline.

the roman letter was revived; its revival was a significant part of the Italian renaissance.'[4] In the inscriptions of Leon Battista Alberti we have, possibly for the first time, both a renaissance Roman letter and a substantial work of architecture.[5]

One version of a capital D in the Gothic way, with emphasis on the shape of the counter.

From a study of inscriptions in the baptistry at Siena, the Campo Santo in Pisa, and the floor of Santa Croce in Florence, Nicolete Gray is able to identify an abrupt transition around 1420 from a Gothic style to rough improvisations of Roman capitals.[6] These capitals were distinct from Gothic capitals in that they were constructed along lines rather

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4 Gray, 'Newberry alphabet,' 5*.*

5 'Classicism is the great break in the western civilization. Its propaganda may have claimed a return to the roots of civilization, but it did so by cutting off the 3000 years old trunk.' Gerrit Noordzij, *Letterletter: An Inconsistent Collection of Tentative Theories that do Not Claim any Other Authority than that of Common Sense* (Point Roberts: Hartley & Marks, 2000), 7.
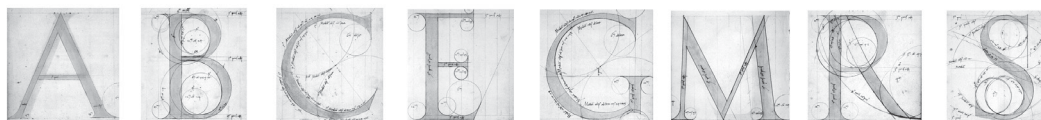
6 Gray, 'Newberry alphabet,' 6 - 7.

ABCEGMRS

Inscription letters of Leon Battista Alberti, c. 1450, from Giovanni Mardersteig, Felice Feliciano, *Alphabetum Romanum.*

ABCEGMRS

Inscription letters of Felice Feliciano, 1464, from Giovanni Mardersteig, Felice Feliciano, *Alphabetum Romanum.*

ABCEGMRS

Inscription letters of Damiano da Moyle, 1483, from Giovanni Mardersteig, Felice Feliciano, *Alphabetum Romanum.*

ABCEGMRS

Inscription letters of the 'Newberry alphabet,' c. 1500, from Nicolete Gray, 'The Newberry alphabet,' in *Typography papers 6.*

ABCEGMRS

Inscription letters of Fra Luca de Pacioli, 1509, from Giovanni Mardersteig, Felice Feliciano, *Alphabetum Romanum.*

than around the interior form of the letter, as had been the custom. This takes away the freedom of movement that had existed outside the enclosed space, or 'counter', of the Gothic letter.[7]

The first alphabet of Roman letters constructed strictly according to a circle and square and related geometries, was produced by Felice Feliciano in 1464. His work, so far as we know, was followed by Damiano da Moyle in 1483 and what appears to be a copy of another's work by Hartmann Schedel in around 1500. Numerous other alphabets were produced in subsequent years. The existence of the

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7   'The basis is the counter or interior shape of the letter, … The outside contour can then be varied at will.' Gary, 'Newberry alphabet,' 11.
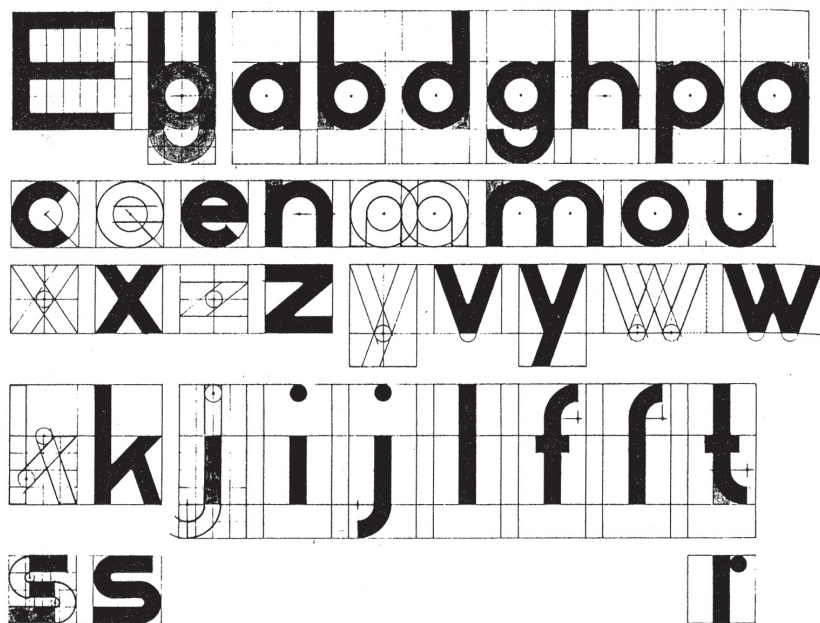
Joost Schmidt's geometrically constructed typeface from 1925. From Robin Kinross, *Unjustified Texts.*

long forgotten Newberry alphabet, arguably the model for the alphabet in Fra Luca de Pacioli's book *De divina proportione* published in 1509, as well as the traced quality of Hartmann's letters, hints at a wider trend.[8] Like the other alphabets of the time, Fra Luca's alphabet is constructed of geometries and proportions that are his own inventions. These antiquarians share a conviction that the Romans derived the perfect forms of their letters from geometry and mathematics. This search proved 'elusive', though certain attractive letterforms were produced and used as guides for inscriptions.[9] This search for a geometrically determined letterform was continued by the modernists in the 1920s, with efforts by Paul Renner, Joost Schmidt, Herbert Bayer, Kurt Schwitter and Jan Tschichold, among others. Most of these were unsuccessful.

> The same fate as befell the romantic, individualistic artists' types of the turn of the century also befell the ap-

8   Gray, 'Newberry alphabet,' 13.
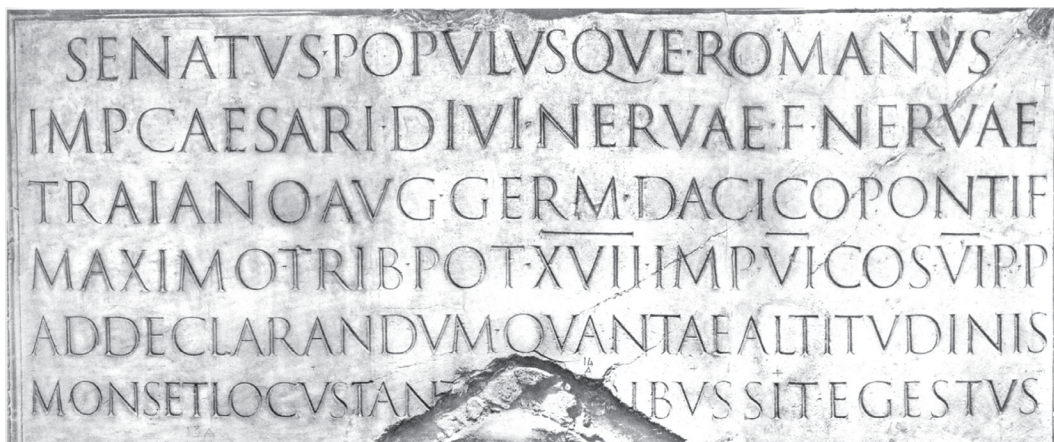
9   Gray, 'Newberry alphabet,' 14.

Photo of the inscription on Trajan's column, from Edward Tufte, *Visual Explanations.*

ABCEGMRS

The Roman capitals of Trajan's column drawn with a brush by E.M. Catich, from his book *The Origin of the Serif.*

parently objective types from the Bauhaus and its adherents, and for the same reason. Here too, form came first – form as such, and not with regard to optimum readability; simplicity of letterform was the ultimate ambition. Furthermore, the type designers focused principally on the isolated individual letters, and less so on letters integrated into words.[10]

The search for divine proportions differs from the scribal practice of embellishment. This search considers an ideal form for each letter that is explored in isolation. 'The courage and ambiguity of renaissance thought.'[11] The attempt to derive the perfect geometrical constructions takes the letters out of context, so that they appear to stand alone. Even now strings of capital letters in a word or title are letter-spaced to make the whole more legible.[12]

The inscription at the base of Trajan's column in Rome was used by the antiquarians as a model in the 15th cen-

10 Hochuli, *Detail in Typography*, 11.

11 Gray, 'Newberry alphabet,' 15.

12 Letter spacing is the practice of inserting a space between the letters. It is a technique that can be used for various purposes in detail typography, but is contentious when used in running text.
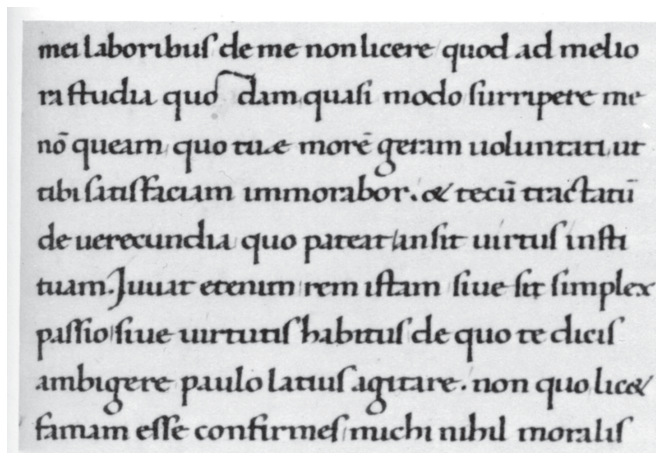
Scribal work by Poggio, 1402, from Donald M. Anderson, *The Art of Written Forms.*

tury, and has continued to serve as a standard set of Roman letters of the highest order for the past 500 years. Over-laying the existing forms of the letters on this inscription, Edward M. Catich demonstrated that the these letters were not consistent, arguing that they were not formed of clear geometries or stencils, but drawn by a brush before being cut in stone. These were a 'craftsman's' letter.[13]

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In northern Italy at the beginning of the 15th century, the antiquarian Coluccio Salutati and the younger scholars, Poggio Bracciolini and the patron Niccolò Nicoli of Florence, developed the humanist style of script that would inform some of the earliest typefaces by Jenson and Griffo.[14] In-

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13 'It is possible to hold that a letter such as Trajan is perfect in the sense that the craftsman's hand and tool have, after constant experiment, created forms which are as balanced and satisfying as possible. This is a craftsman's, not a mathematician's, conception.' Gray, 'Newberry alphabet,' 14 - 15. 'Whether the craftsman used a brush or a chisel to define his work is not a question which we need to discuss here — the same man may well have done the layout and carved the letters. The vital point is that for him it is the eye and the tool, not geometry, which are the final arbiters of shape. Gray, 'Newberry alphabet,' 8.

14 The earliest known example is Poggio's manuscript of *De Verecundia*, written c. 1402 - 1403. Stan Knight, *Historical Scripts: From Classical Times to the Renaissance* (New Castle: Oak Knoll Press, 1998), 89.

fluenced by the *litera antiqua*, the 12th century Caroline miniscules found in Italian manuscripts, these scholars made an attempt to revive an appropriate antique letter-form for book work.

The work of Coluccio, Niccolò and Poggio does not support the idea that writing existed unselfconsciously in the minds of the scribes. The view that the first typographic letterforms were taken from standard scribal work of its day does not account for the ongoing and active search for aesthetic excellence carried on by the scribes themselves. It is not so much one technology taking over from another; excellence was pursued simultaneously in all the different forms of graphic work. By the time Felice Feliciano produced his roman alphabet in 1464, it is only a few years until the first books of Johannes de Spira and Nicolaus Jenson are printed in 1469 and 1470.[15]

Script, constructed capitals and type design were all in the works simultaneously. Writing did not develop accidentally without intention from the time of its discovery or invention. According to Noordzij, even the word-space — a technique that creates the possibility of reading — was invented in Ireland in the 7th century[16] while the precursor to our modern lowercase letters, the *litera antiqua* so beloved of Poggio and Niccolò, was developed explicitly during the reign of Charlemagne in the 8th century.[17]

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15 Pierpont Morgan Library and Joseph Blumenthal, *Art of the Printed Book, 1455-1955; Masterpieces of Typography through Five Centuries from the Collections of the Pierpont Morgan Library* (New York: 1973), plates 8, 10.

16 'In my middle ages the most important moments of western civilization – the invention of reading and the invention of typography – come into their own. And for me the western style of reading differs so sharply from the spelling of the ancients that I see the mediaeval invention of the word as, if not the invention of western civilization, then at least its beginning.' Gerrit Noordzij and Peter Enneson, *The Stroke: Theory of Writing* (London: Hyphen Press, 2005), 50.

17 Donald M. Anderson, *The Art of Written Forms: The Theory and*
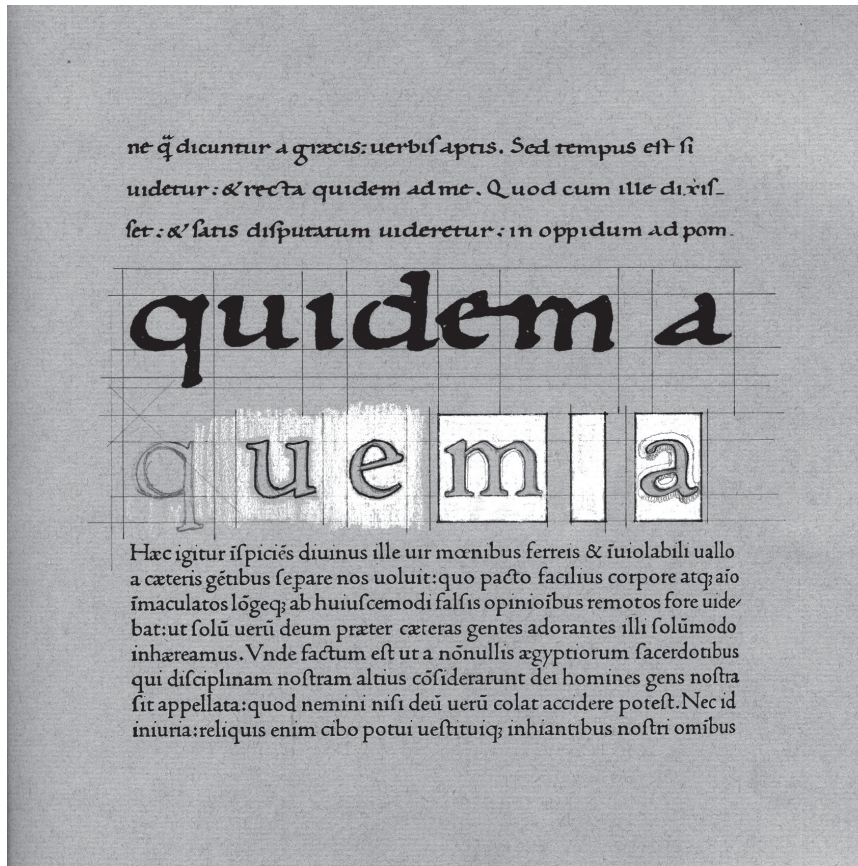
Roman type by Jenson, from Pierpont Morgan Library, *Art of the Printed Book,* compared with a line of the kind of scribal work on which it was based above, the writing of Poggio in the Cicero manuscript of 1406, from Donald M. Anderson, *The Art of Written Forms.*

While many scribes simply worked according to the established methods, scribal work did not proceeded without any aesthetic reflection. At any time there can be a measure of attention paid to a craft as a visible or graphic form, without necessarily reverting to a post-mannerist attachment to the image of that form.

The difficulty in cutting letters out of metal is the reversal, or interchange, of positive and negative space. If you have every written white letters by filling in black ink around them, you will have some sense of the thinking involved, almost like looking in a mirror, in carving a metal

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Practice of Calligraphy (New York: Holt, Rinehart and Winston, 1969), 78.
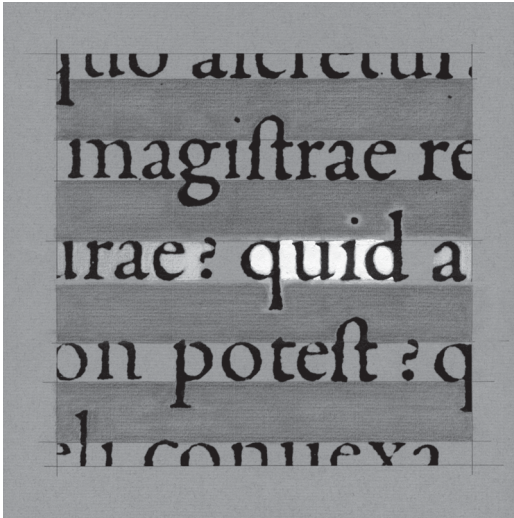
White of the word. From a page of Jenson reproduced in Pierpont Morgan Library, *Art of the printed book; 1455-1955.*

The space between the uprights of the capital H is divided in half and applied to either side, and so on, roughly.

Examples of free brush strokes suggestive of letters. From E.M. Catich, *The Origin of the Serif.*
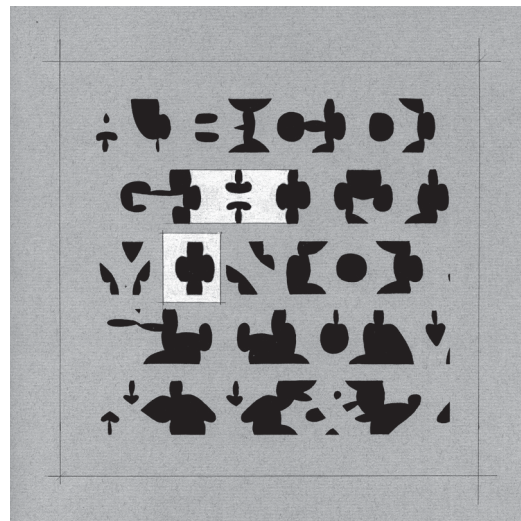
Based on an illustration of negative space by Rod McDonald.

punch or letter. The great use of positive and negative space in the wooden display types of 19th century America Rod McDonald attributes to their makers' experience as carpenters. They were evidently accustomed to the interaction of positive and negative space in cutting dovetails and other joinery. The fact of carving out, with relative freedom compared to punch cutting, might also influence the design of these types. Helvetica, derived from forms like those of

Everything is going to be fine.

Helvetica

Everything is going to be fine.

Akzidenz-Grotesk

Akzidenz-Grotesk, and in turn the inspiration for Arial and many others, is itself based on these 19th century display types. This goes some distance to explain its famous clarity of positive and negative space.

<div align="center">*</div>

A strange thing about this is that letters do not mean anything in and of themselves. When we see the capital A, we do not think of a bull. If we consider letters as building blocks and compare them to bricks in the construction of a house, we are playing with metaphors; a brick is still a brick. The brick does not stand for something. Even the clay is something, on the same order as the brick, but crumbled. The ink and the paper are a different plane of significance from the abstraction of the letter.[18]

> We cannot but conclude that there does not exist something like the meaning of letters.[19]

Nicolete Gray proposes that the letter is a mental concept and cannot be taken as contained within the development of writing. This would consider the letter an available concept in our minds, an identity based on 'essential characteristics', which she uses to help explain our ability to perceive an enormous number of varying type designs,[20]

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18 Though the two collapse onto each other as they are taken up and take place in human culture and affairs.

19 Noordzij, *Letterletter,* 8.

20 Noordzij, *Letterletter*, 21.

but that mental concept is just the symbolic rather than the formal element that Noordzij is referring to:

> When writing is my subject a letter is not a sound, a number or a morphologic identifier but only a complex of shapes. My concern, writing, is the making and the perception of these shapes.[21]

Both Gray and Noordzij agree that the letter is not phonetic, and that there are rules, syntactic or spacial, that govern our perception and understanding.[22] Bringhurst clarifies the situation by distinguishing between scripts and language:

> A script in itself is not a language; it is a system of representation. ... human scripts are quintessentially *invented*, and languages are quintessentially not. The world of manuscript and print requires artificial sustenance - organized training of the young: in other words, a school.[23]

In some respects it is suggested that the selection of a typeface is in many respects arbitrary, largely because good typography is related to how that type is used.[24] If our conception of architecture can be reduced to this level of essentials, we can see that no formal strategy will produce predictable results, but at the same time we know

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21 Noordzij, *Letterletter*, 28.

22 To contrast the position of these two consider this excerpt from Chappell, *A Short History of the Printed Word*: 'The symbols that compose our alphabet are phonograms; they are phonetic rather than pictorial; they stand for sounds rather than objects. In fact, they have reached an advanced stage of simplification, where they represent elementary sounds in a progressive change from signs as syllables and previously, signs as words. Before phonograms, there were ideograms, a more primitive alphabet, with symbols standing for either objects or concepts.' Warren Chappell, *A Short History of the Printed Word (*New York: Knopf, 1970), 20.

23 Robert Bringhurst, *The Solid Form of Language: An Essay on Writing and Meaning* (Kentville: Gaspereau Press, 2004), 12-13.

24 'For this reason, and because typefaces have to meet various demands and fulfil various functions, a particular typeface cannot be described as good or bad, useful or useless. … Which typefaces to use, and how to use them for the multitude of advertising tasks that arise, are questions that designers have to answer on a case-by-case basis.' Hochuli, *Detail in Typography,* 10.

that a strict adherence to traditional methods in a dogmatic sense is impossible.

Noordzij provides a clearer illustration of the ambiguity of meaning associated with letters:

a. sign　　　　　　　　In this list **a** is a sign symbolizing a number.
b. symbol
c. reality

a sign　　　　　　　　In this list **a** is a sign symbolizing a word.
a word
a thought

abcdefghijklmnopqrstuvwxyz　　　In this row **a** is a sign symbolizing **a**.

25

A simple way to understand this is to put it in pairs. Writing has both graphic (visible) and symbolic meaning. The graphic quality relates to perception, and this in turn relates to its beauty. The symbolic quality relates to, or is governed by, orthographic rules, which in turn relates to its legibility.

> All the well-known and frequently used typefaces are equally legible. And much the same is true of their semibold versions; sanserifs too are more or less equally legible. Tinker, who, among others, reached this conclusion, does however mention that his respondents found the sanserif he used (Kabel Light) to be unattractive. Once again, we encounter the phenomenon that typefaces — regardless of their optical legibility — trigger particular feelings on the part of the readers simply through their appearance, and can have a positive or negative impact. This seems to be pragmatic evidence to show that, over and above their primary and essential task of acting as a visual means of transport for language, typefaces are also able to communicate atmosphere.[26]

If we are operating under the assumption that letters are just letters and mean what they mean, it is very easy to suggest that a beautiful letter is easy to read. However,

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25　Noordzij, *Letterletter,* 120-121.

26　Hochuli, *Detail in Typography*, 54.

once we begin to recognize the profound subtleties and implications of the orthographic rules, we see that the way the writing or typographic construction works in a given social structure is as much a question for legibility or function as beauty or atmosphere. So despite the invented and arbitrary nature of writing in the orthographic sense of being legible, letters retain their ability to resonate with us in an aesthetic or emotional sense. In practice it is recognized that certain typefaces lend enormous credibility to what is printed.

The text caries a version of the speaking voice or the thinking mind inscribed. Different typefaces can be described as having a certain voice, like a radio show with its different voices standing for characters whom we can almost see. A bold face like Helvetica Neue Condensed Black in a large size can be described as shouting at the reader, while a light American Typewriter might be described as informal and offhand. The range of associations is enormous.

In this way letters are aural, in the sense that a certain typeface might have a certain ring to it. The choice of typeface does matter. The coded form of language, the physical form of language, holds the human voice, the thinking mind, in its graphic space. In this way the author of a piece of literature can transmit to the reader the story of her voice, the narrative of her mind. The poet can share his poem with us in the structures of coded language. In architecture the poetry is the body itself, living through the movements of human experience, a sensually present human element in a shared space of physical existence in the structures of the ordered place.
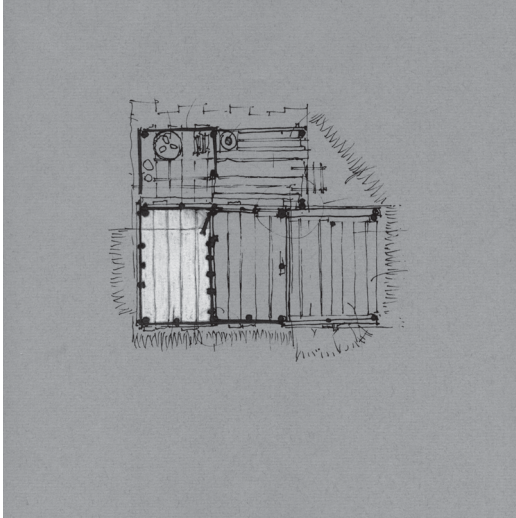
m

The 'm' from Adobe Caslon Pro, a typeface with serifs

m

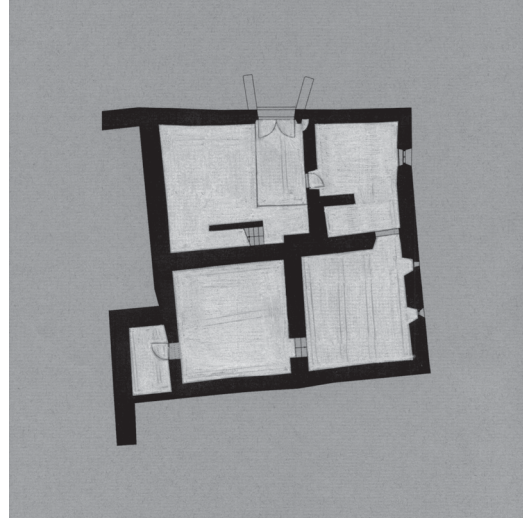The 'm' from Futura medium, a sans-serif typeface

m

The 'm' from Optima another sans-serif typeface

m

The 'm' from Helvetica Neue Condensed Black

m

The 'm' from American Typewriter Light

Hang naa, Bo Phak, Thailand.

Chesa Albertini, Zuoz, Switzerland, redrawn from Hans-Jörg Ruch and Filippo Simonetti, *Historic houses in the Engadin.*

From Building to Drawing

A simple parallel to the implications of shifting from stroke to outline in the shaping of letters exists in a general sense in architecture. This is the sift from building to drawing. When building a small house out of stone, the volumes of the rooms are implicitly understood, but the effort that shapes the subtle articulation of those volumes follows the setting of material during the making of the wall. In the Chesa Albertini, a small house in Zuoz, Switzerland, this process is evident in the irregularity of the walls. This effort to physically describe the shape of the walls does describe a relatively simple and clear organization of rooms, but the process and knowledge of the builders hands determine the subtleties of that effort.

The small house or *hang naa* from Northern Thailand follows a similar logic.[27] Though based on the proportions

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27 The idea of a unit of space the size of the human body, that is so explicit in the Japanese tatami mat, exist implicitly in the dimensions used to describe the interior spaces of these *hang naa*, though I did not encounter an actual equivalent to the tatami mat as a unit of space. The length of the longer walls are meant to be the height of a person plus a little bit, and the shorter walls the width of one or two persons, plus a little bit.
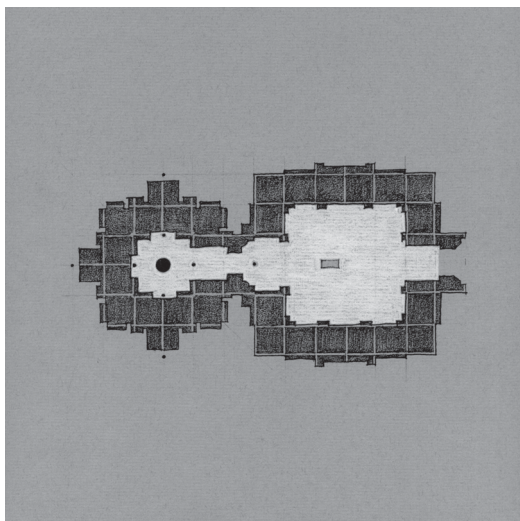
Brahmeshwar Temple, at Bhubaneswar, Orissa, India. From Andreas Volwahsen, *Living architecture: Indian.*
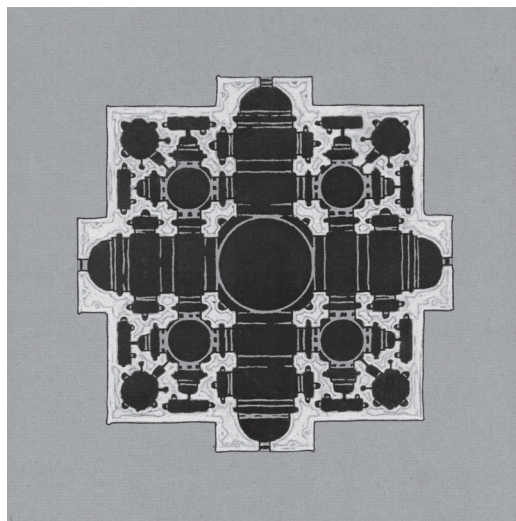
Bramante's drawing for St. Peter's, from Frank Ching, *A Global History of Architecture.*

of the human body that describe the dimensions of the enclosed space, the form itself emerges from a more explicit ordering and assembly of bamboo, wood, and thatch, each in certain dimensions and with various relations explicit to the material itself. In both, the hand and the qualities intrinsic to the material play a decisive role in the range of possible forms.

In the Brahmeshwar Temple at Bhubaneswar, Orissa, India, an ordering of the grid is used to describe with precision the assembly of material in the walls. In this case the interior volumes appear to follow more clearly from the assembly of the walls.

In Bramante's drawing for St. Peter's the positive and negative spaces have, in a sense, reversed. He is using the line in a drawing. In this drawing the volumes are explicitly described and articulated, while the solid of the walls fill in the space between the clear articulation of these volumes. One might argue that since Bramante's design was not built that the drawing, as an idea, is similar to the unbuilt ideal of the *hang naa*. The difference comes in preserving that

The space between the uprights of the capital H is divided in half and applied to either side, and so on down from there.
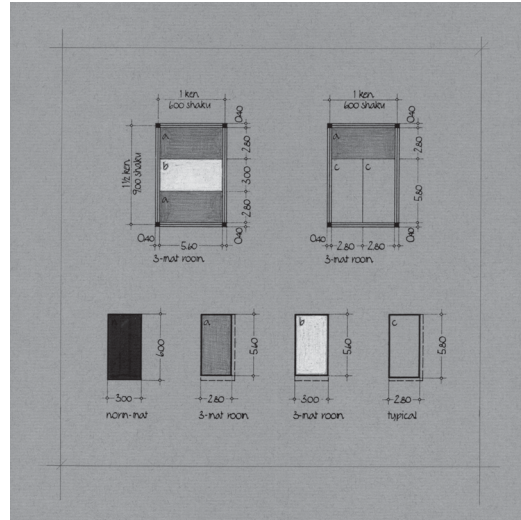

The tatami mat was not a single dimension, but rather contained a certain range of subtle variation, much like kerning in a font. From Heino Engel, *Measure and Construction of the Japanese House.*

idea as the form to which the activity of building must conform. Building the wall back from the edges of the volumes rather than from within the properties of the material itself and the characteristics of the builder's skill creates a shift similar to what we see in the shift from the stroke of the pen to the outline of the typographical letter.

Whether the focus is on the shape of the void or the shape of the solid, the inevitable codependency of the two can be understood. What we see in type design is that the subtle interdependence of this solid and void is structured more explicitly once attention shifts. In Bramante's architectural proposition the attention has shifted from the material and process of making and assembly to the edges of the space — the shape of the space, the edge between solid and void. A drawing of a building can be changed and refined more easily than a stone wall already assembled, much as the space between two pieces of type being prepared for printing can be more easily changed than the space between two strokes in a completed manuscript. In-

Letters as separate but assembled units of space, in relation to the word, ligatures, and word spaces. From a page of Jenson reproduced in Pierpont Morgan Library, *Art of the Printed Book; 1455-1955.*
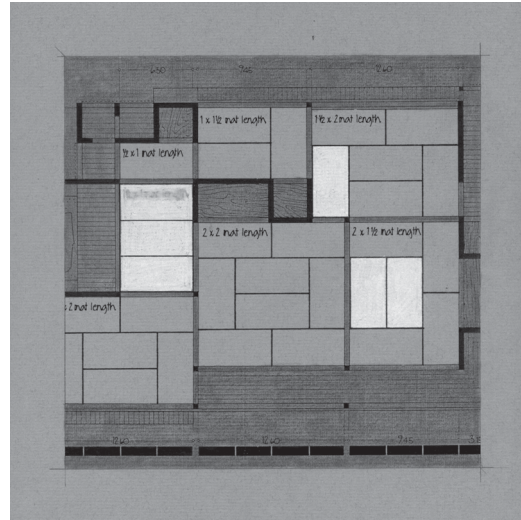
Rooms in a traditional Japanese house according to the logic of the tatami mat. Redrawn from Heino Engel, *Measure and Construction of the Japanese House.*

gold refers to this difference more generally as the distinction between a 'work', in the case of the stone wall, and the 'specification of a work' in the case of Bramante's drawing.[28]

COMPOSITION

Units of Space

Cutting up roman writing into separate pieces of moveable type creates units of a pattern that are assembled to create the word, the line and the text block. The pattern set up by these moveable parts creates a wide range of formal possibilities that are nonetheless restrained. We can see a parallel in the organization and articulation of rooms in a traditional Japanese house made according to the possibilities and limitations of tatami mats.

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28 'This question was addressed by the philosopher Nelson Goodman in his lectures on 'Languages of Art' (Goodman 1969). … the issue seems to him to hinge upon where we would locate that essence of a composition or text that allows us to regard it as a 'work'.' Tim Ingold, *Lines: A Brief History* (New York: Routledge, 2007), 10.
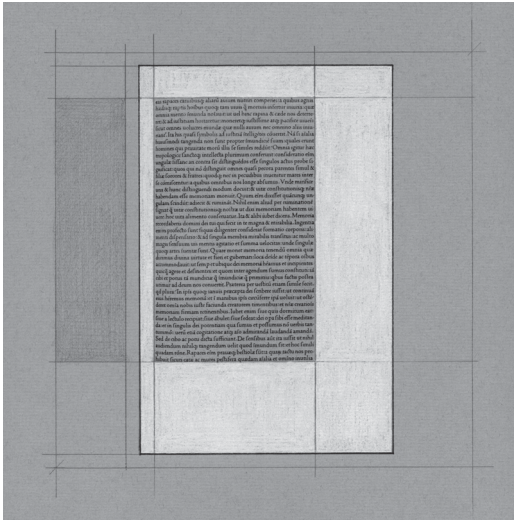
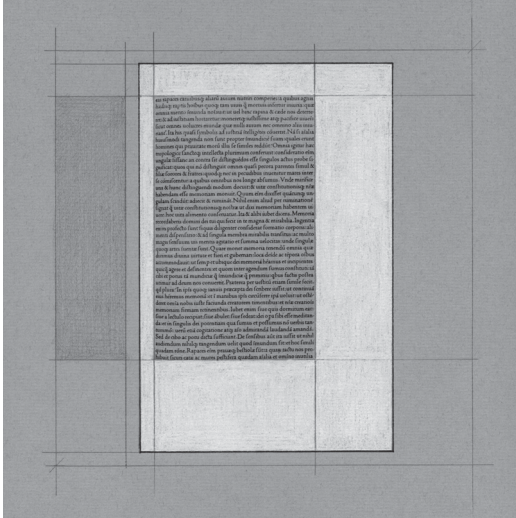Page printed by Nicolas Jenson in 1470. From Pierpont Morgan Library, *Art of the Printed Book; 1455-1955.*
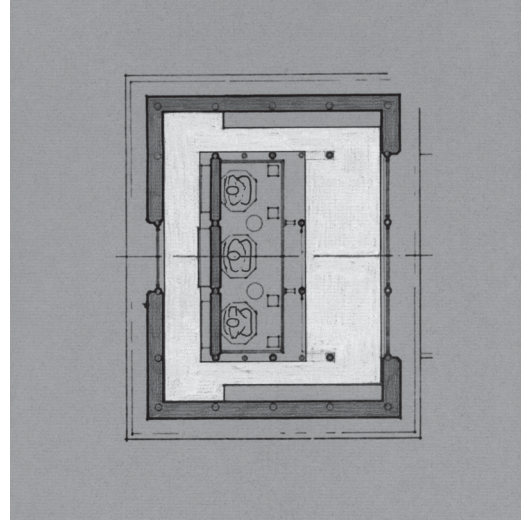
Main Hall of the San Da Shi Temple in Guangji Si, Baodi, Hebei, China. From Liang Sicheng, *A Pictorial History of Chinese Architecture.*

Proportion

When considering the text block from an archetypal book, in this case a page printed by Nicolas Jenson in 1470, we can draw looser parallels to certain architectural situations. The page itself consists here of nothing more than the text block and the margin. If we consider the text block as the content of the page, the human element, floating within the white 'space' of the page, or the empty margin, we can draw an analogy with the plan of the Main Hall of the San Da Shi Temple. In the temple, this white space is the open floor, the open area around the room, while the equivalent of the text block, the content of the room, is the platform on which the sculptural images rest. We can then consider the architectural structure itself as analogous with the structure of the book, the physical form of binding and cover.

The analogy is loose, and it can be taken quite differently. If we consider the text block to be the space that

Page printed by Nicolas Jenson in 1470. From Pierpont Morgan Library, *Art of the Printed Book; 1455-1955.*
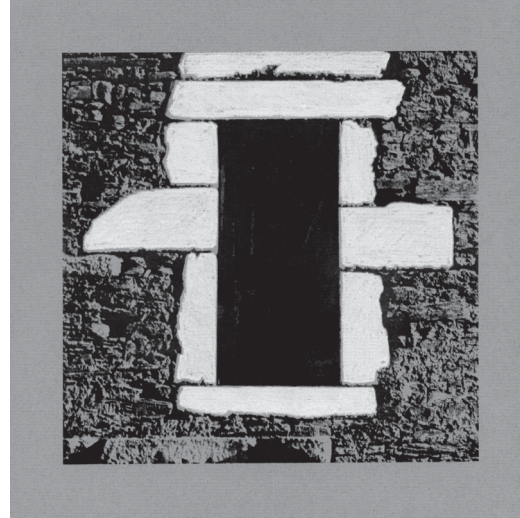
Window in Monsanto, Northern Iberia, Portugal. From Norman F. Carver, *Iberian Villages.*

we engaged with and pass through during the process of reading the text, if we can say that we occupy the space of the text block itself, then the margin becomes the structure that holds this opening up and free from obstacle. The window from the stone wall in Monsanto can be understood in this light. The critical observation is that in both cases the material of the page or the building is understood to carry human content in some form relative to the structure itself.

Recognized as masters of typography, the two examples of pages taken from Jan Tschichold and Karl Martens show
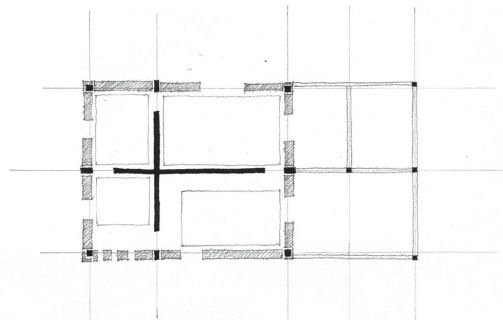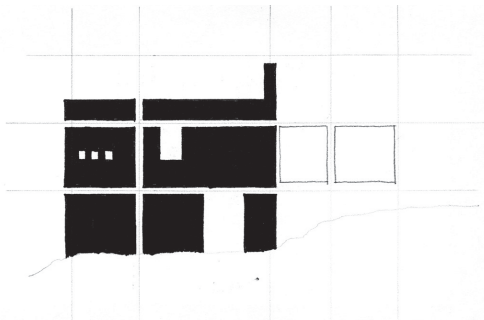
The stone house by Herzog and de Meuron emphasizing the exchange of positive and negative forms in the clear, straightforward composition of the plan and elevation. From Wilfried Wang, *Herzog & de Meuron: projects and buildings, 1982-1990.*
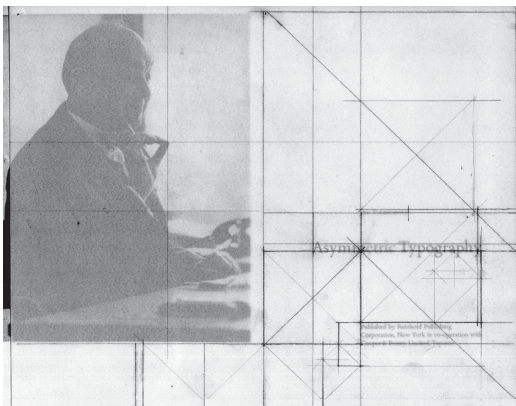
Lines showing the squares and diagonals of the golden section.

Title page spread to Jan Tschichold, *Asymmetric Typography*, an extraordinary example of geometry and clarity.

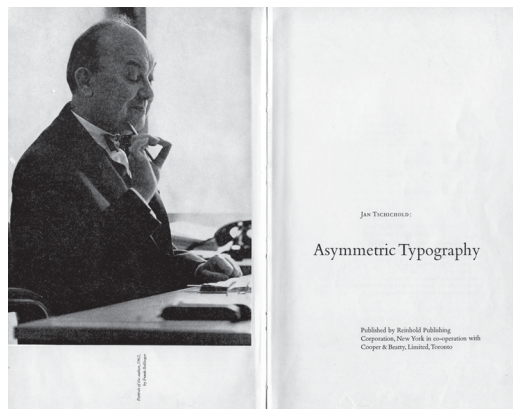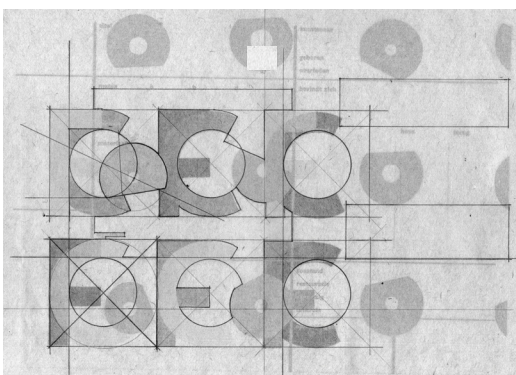Lines showing the repeating square of the F inscribed by the C. The use of space is different from Tschichold, focusing more on objects themselves.
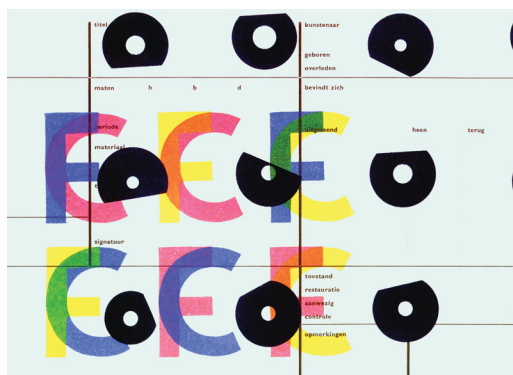
A page from Karl Martens *Counterprint.*

a clear understanding of, and attention to, geometry and proportion. The title page to Tschichold's *Asymmetric Typography*[29] is organized around the white space of the page, white space as squares set precisely within the series of a golden section.

The example from Karl Martens is more experimental, but the structures of the composition again follow the very precise geometry of repeated squares and circles, very classical in a sense.[30] The round black shapes of the found

29 Jan Tschichold, *Asymmetric Typography* (New York: Reinhold Pub. Corp. 1967), title page.

30 Karel Martens and Carel Kuitenbrouwer, *Karel Martens: Counterprint* (London: Hyphen Press, 2004)

objects he has incorporated into the design seem to fit the cutout counters of the letters. It is worth noting in this example that the letterforms he has used are pure geometrical constructions and thus fit into the pure geometries of the composition. In the example of Tschichold, by way of contrast, the letterforms are descendants of the stroke and are therefore used in the composition as the rectangular units of words or phrases, rather than as single letters.

<div align="center">*</div>

One final, direct, parallel between the composition of paragraphs and shopfront design is the indent in both. From the margin of the page and from the street, a setback break marks the entrance to the text and to the shop, consecutively, thus saving the eye from having to work at finding its way.case studies

The Hilltribe building, the first shop south of the site along Barrington Street, with its main entrance recessed 3 m from the street

creation is — airbrushed exterior paintwork, cup holders... there's even electric windows.

It took two guys eight months of eight-hour days to massage and modify the glass fibre bodyshell. It's been stretched 12in and widened 4in at the rear in the name of stability.

"The front end gets dicey over 200," explains Rod, flicking aviation-style toggle switches overhead. Within seconds the 'vette fires into life and Rod wrestles with the non-assisted steering as we shudder out of the garage.

As with all sports, there are denominations within the drag-racing religion. One of these caters to fully road-legal cars such as Rod's. Before the race, these cars must complete a 20-mile street cruise to prove they can cope in the real world. Street-legal drag racing is ultimately about achieving a balance between grip, power, safety and reliability.

Out on the neighbourhood roads, it feels properly hoodlum. Rod glances at the instrument panel. The car is up to working temperature. We're on a quiet stretch of rural road. He turns and bellows, "If it was easy to build a street-legal, six-second car then more people would do it, right?"

Indents in storefronts compared to indents in a magazine. From *Esquire,* vol 154. no 3.

Storefronts along Barrington street, showing the recessed doors.

CASE STUDIES

These plans have been drawn in shades of grey according to content and levels of enclosure implied or explicitly described by the structure. The purpose has been to foreground the composition and articulation of the spaces themselves, by contrasting divergent volumes and rooms as solid and void. This forces the normally dominant impression of walls and rooms to the background. More of a means to consider certain aspects of these designs than an argument for any one reading, this kind of drawing can be suggestive. The introduction into the patterns of light and dark of walls and openings can be subtle rather than explicit.
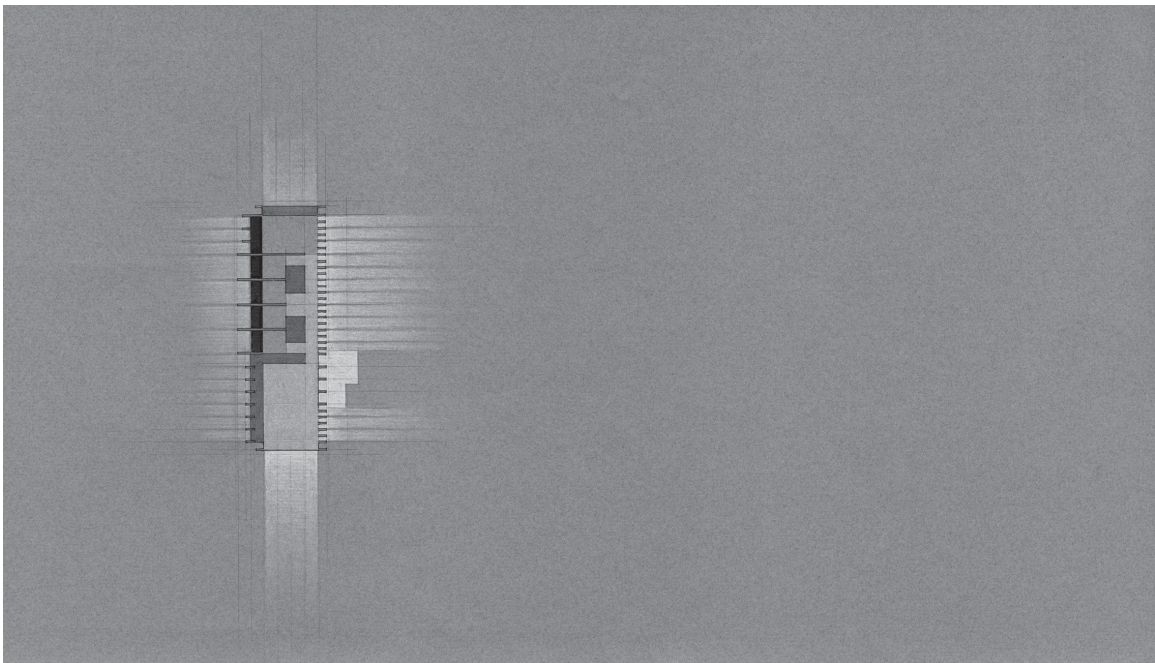

Marika-Alderton House, redrawn from Glenn Murcutt, *Thinking Drawing/Working Drawing.*

Marika-Alderton House

Black in this drawing represents the sleeping platforms with the bedrooms, while white represents limited or infinite outdoor space. The way white and black touch at

the beds is indicative of the bedside windows — open but separate — while the light area of the main rooms forms an open threshold with the white outside.
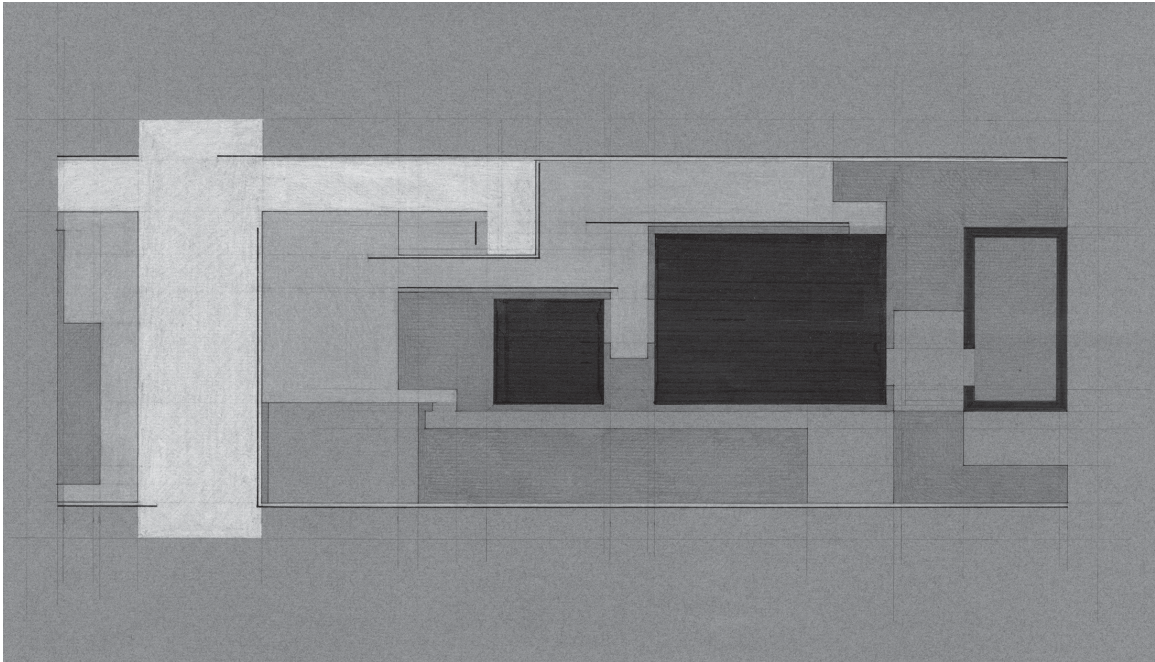
Hiroshige Museum, redrawn from Kengo Kuma, *GA Architect 19: Kengo Kuma.*

Hiroshige Museum

Showing the main exhibition rooms in black sets up a high contrast with the glazed circulation areas. The white again represents open-air portions of the plan, but only those portions that fall within the shadow of the roof. On the actual site of the museum, the white across the left side representing an enclosed 'street' continues in both directions as the approaches to the museum. The black walls around the vault suggest a foregrounding of enclos-ure, clearly distinguishing this space from the exhibition halls, where the emphasis is instead on the volumes that are enclosed.
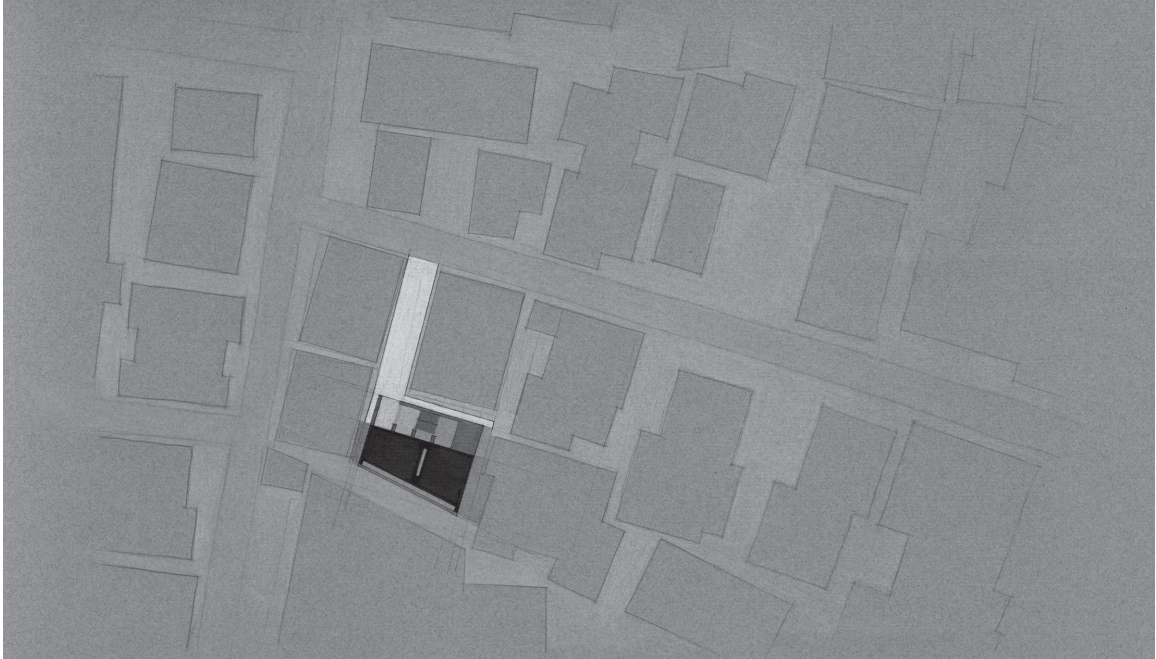
Atelier, redrawn from Atelier Bow-Wow, *Bow-Wow From Post Bubble City.*

Atelier Bow-Wow

The office and house for Atelier Bow-Wow in Tokyo has three distinct areas. The first is the lane, part of, but distinct from, the negative space of the surrounding roads and the gaps between houses. The second is the entry, circulation and bathroom, a space running up one side. The third, shown in black, contains the spaces proper to the house — or at the level shown, the studio — the rooms themselves. This design is shown in context because it is so profoundly conditioned by its location. The success of the design can be suggested by the clarity of a form that was arrived to fit within the constraints offered by the site.

Chapter 2: Design

Program and Site

PROGRAM

Printing and Publishing

The first consideration in this design is the integration of publishing and printing. In the act of publishing, which can be said to include the typographic design, we have the primarily intellectual activity connected to bookmaking. The act of printing, by contrast, produces the physical artefact. The printer, possibly in Singapore for a publisher in London and New Haven,[31] usually remains anonymous. Following the lead of Coach House Press and Porcupine's Quill in Ontario, and now Gaspereau Press in Nova Scotia, the program of this press brings the shop for the production of books, and the office for the design of books, under one roof.

A Public Institution

The role of a printing and publishing house is of critical importance in situating the design within the fabric of the city. The institution is perceived as a place where the entire process, from author to reader, in both thought and production, are meant to come together and interact, with the aim of strengthening the relationship between them. The presses mentioned above already are already supported

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31 The book, *On Alberti and the Art of Building,* by Robert Tavernor, published in New Haven and London by Yale University Press in 1998, is printed in Singapore, though by whom is undisclosed. *Detail in Typography*, by Hochuli, a book dealing directly with book design and making, and published by Hyphen Press, does however include the names of the printer; Heer Druck AG, Sulgen, and the binder; Buchbinderei Brukhardt AG, Mönchaltorf.

by the Canadian Council of the Arts, and by other public funds, thus suggesting a tacit acceptance of the need to support such activities as a civic concern.

Whether we produce millions of books or none at all, we will still wait to know if knowledge and wisdom survive. It has been questioned whether true knowledge, wisdom itself, can be preserved in written form. Language is a living substance, and the static dead nature of the book dismantles and stifles its subtleties. The active reader keeps the text alive. For the community of the printing shop, the first concern may be with knowledge rather than with books. We can think of the printing publishing house as a place in which questions of finding our way emerge. The assembly of all written material ever produced is, on its own, meaningless. The means to navigate such a mass of material is the real question.

The suggestion is that the book is an object that archives a set pattern of language. Walter Benjamin gathered books, assembled them. We cannot sell off the books in a single collection without losing the subtle articulations of relations established within the fabric of the library. In a sense this is the same possibility for a city when it can be seen and lived as a collection. Whether we assemble material in printed or digital form, the question of assembling and ordering remains.

CITY

The Flat City

We can think of Halifax as a fiction. It is the grid laid down, with little knowledge and arguably less wisdom, on a landscape whose very contours were of tertiary relevance.

Detail of the 1804 map of Halifax, drawn as if the city were sitting on flat ground.

This comes from the activity of navigation, of laying down a particular ordering of space that gives us the means to proceed in a predictable and orderly manner.

This is a city on a slope, but the 1804 map of the city depicts the streets as if it is a flat landscape. In the drawing, all the buildings along sloped streets appear to sit on level ground. In reality, only large public buildings – the Town Hall, Province House, Saint Paul's Church and the old post office – rest on a solid base of a different material or colour so that the building proper can be set down as if on this imagined flat ground. In the case of Province House, the ground itself is flattened by cutting down into the hill.

The idea of the city is even clearer than the notion of a flat landscape. The city was established in violent times as

a military post. The grid of the streets bears the stamp of this action. While we might propose to undermine the grid, offer alternatives or counterpoint, break it apart, liberate the ground it is stretched over, this project follows a different logic. The logic of the grid is just that all societies will require some sense of order. While we can worry about what that order should be, we can also discover what order there is already implicit in the place in question. We do not propose to solve the city's problems, or make it a better place. We will leave it to the people who live in it to continue developing the city as they collectively see fit. We can, however, build in accordance with a clear idea.

The Idea of the City

The underlying shape of Halifax is the grid laid down by Military surveyors when the city was established. This provides for the Grand Parade in the centre, the public institutions of church and state at opposite ends, Province House with a block to itself, and the rest a series of identical rectangular blocks. Each block is further divided into sixteen lots of equal size.

This grid remains the dominant structural pattern to the downtown of Halifax, though it remains more as a default, or remainder, than an explicit commitment. Construction in the last 50 years has begun to erode the integrity of this original ordering.

Located between the public institutions on the map, the site for this project is at the location in the city most likely to retain the structural ordering of the original grid.
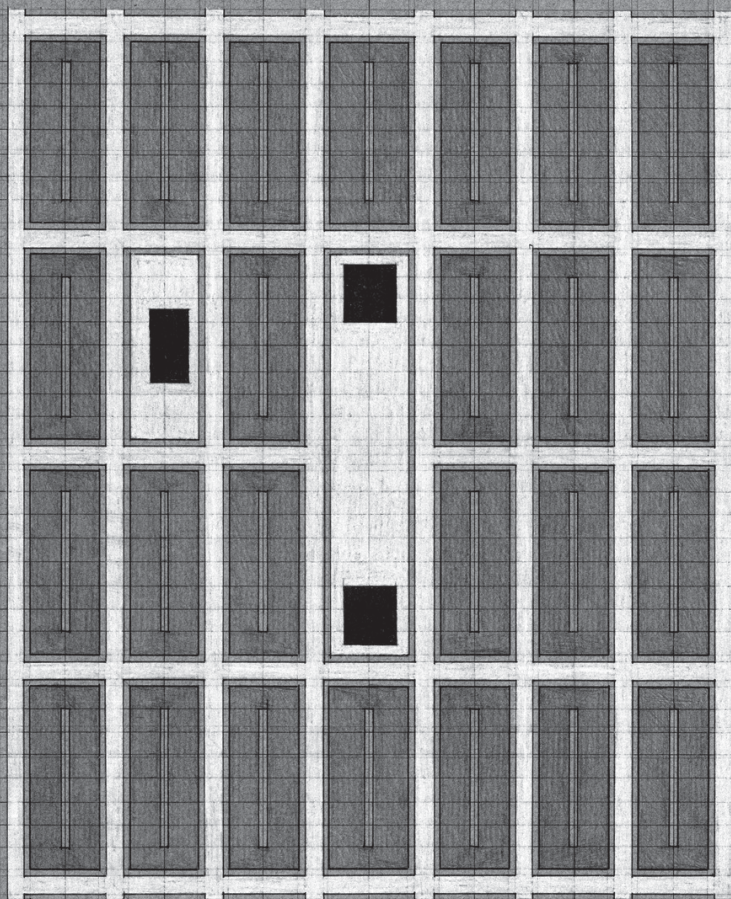
THE IDEA OF HALIFAX 1750

HALIFAX 2011
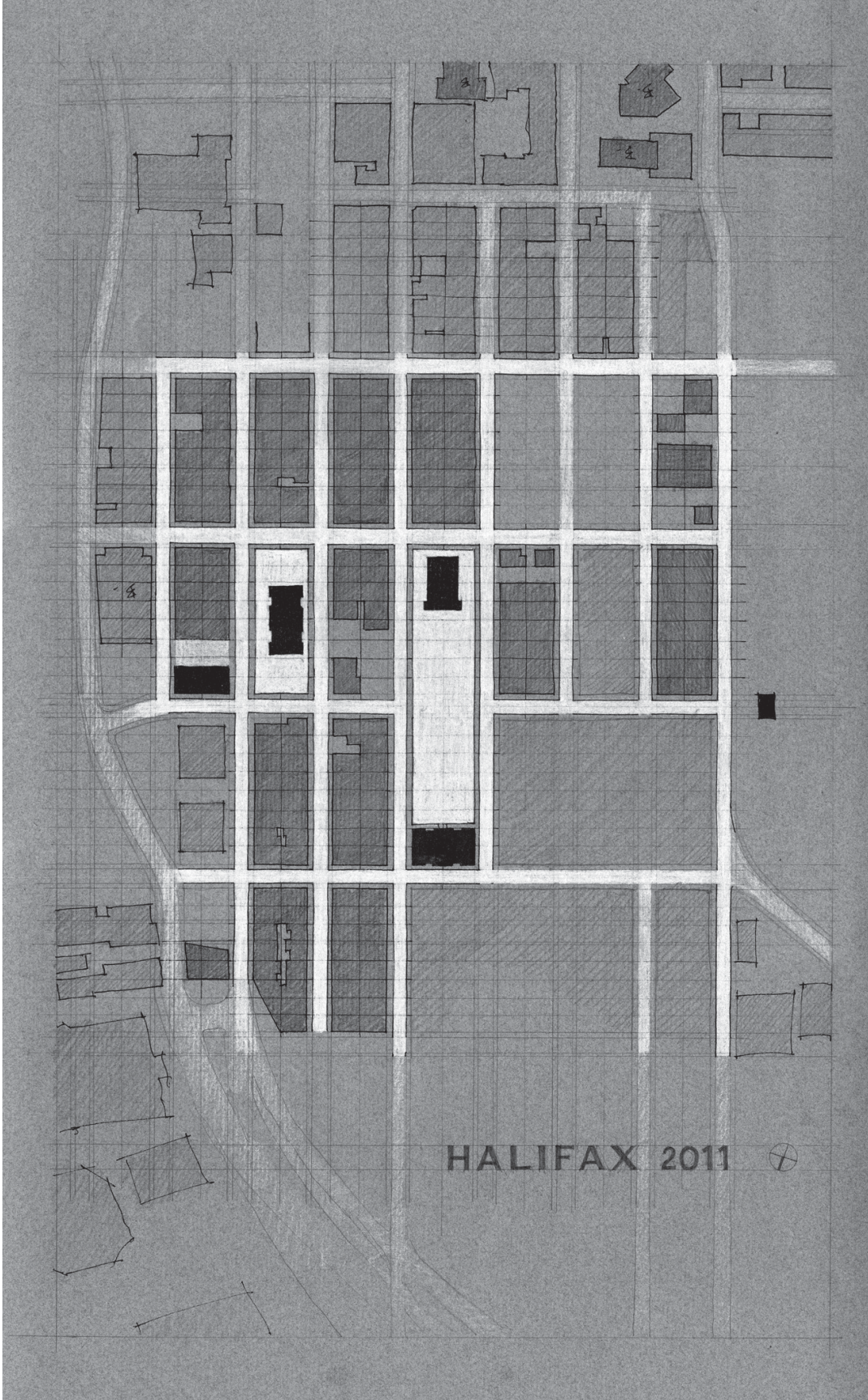
The site between the Grand Parade above, and Province House below. From Bing Maps.
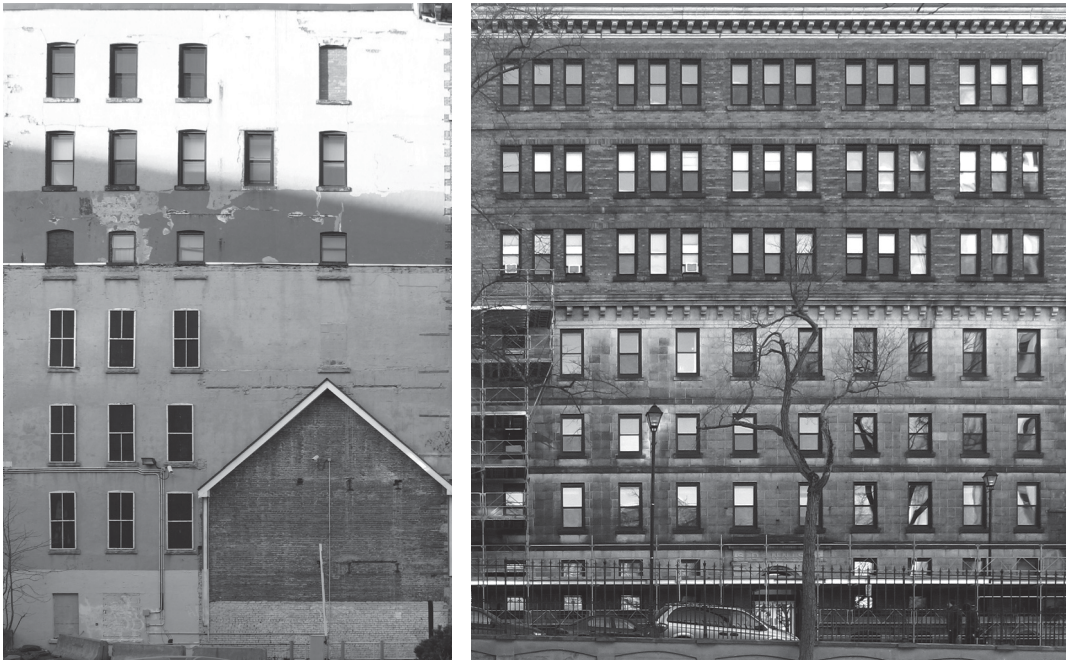
SITE

The Site

Except for the Dennis building, the site forms much of the northern half of one block. It sits on the corner where George Street and Barrington Street cross, a decidedly public location in the city. It looks out on St. Paul's Church uphill to the west, and Province House and the old Post Office down closer to the water in the east. The site also slopes from west to east, dropping 4.8 m from the highest to the lowest point. The section must make sense in two directions, because the slope of the ground does wrap around along George Street, creating a very difficult slope.

We can see from the aerial photo how the site sits in

the city, facing in both directions onto public land. This fact informs the decision to open both ends of the major space, allowing a view across to Province house from the side facing the Grand Parade. In the photo, which looks towards the west, the Grand Parade is beyond the site, while Province house sits just below to the east.

The Dennis Building

This massive granite and brick building sits on the northeast corner of the block and describes the site. It lines up exactly with the original lot divisions of the city bocks. The façade has clear horizontal banding that translates into the treatment of the facade of the new building. Both the south and west walls of the Dennis building will be largely exposed in the main areas. Of most importance will be the exposure, in the space for visitors, of the original stone building on top of which the Dennis building was built.

South and east façades of the Dennis Building. The south façade will be cleaned up and exposed within the main space of the press.
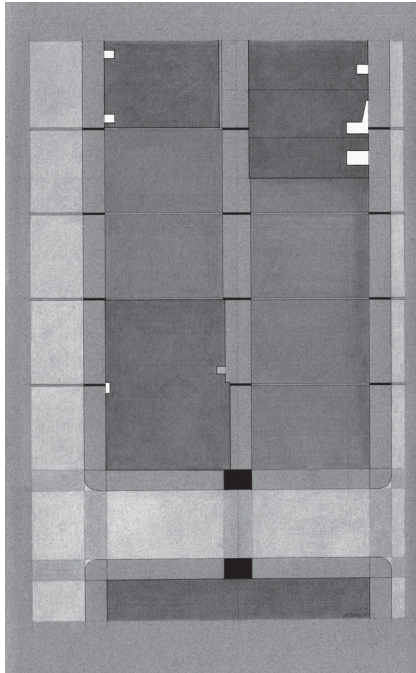
View of the site showing the five empty lots, with the Dennis Building in the bottom left, and white marking the indents.
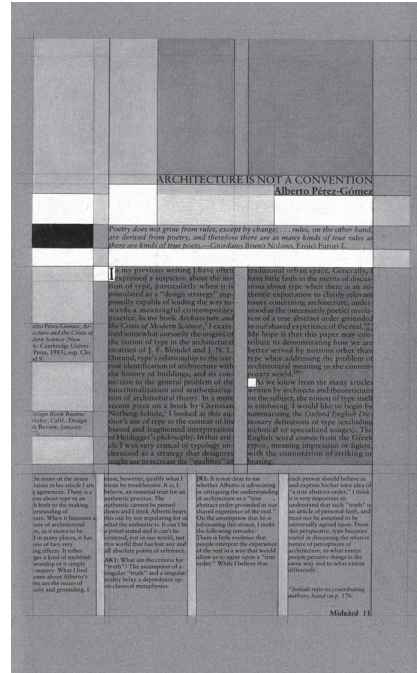
First page in Pérez-Gómez 'Architecture is not Typology,' showing organization and composition of space and text.

The Lot

The original lot in downtown Halifax was exactly 40 ft. wide and 60 ft. deep, making up a block of back-to-back lots 120 ft. across and eight lots in a row totalling 320 ft. long. Though the subdivisions of the blocks have gone through many distortions, empty lots falling on these original lines are surprisingly frequent. The site for the press falls precisely on five complete lots, three along Barrington Street to the west and two along Granville Street to the east, with an additional portion of a block shared with the Hilltribe building in the south-west. The actual length of the block, when measured, was greater than 320 ft. by roughly 56 in., while the width was exactly 120 ft. Divided by 7, this would provide a spacing of roughly 8 in. (the width of two wythes of brick) between each lot. The Dennis Building, meanwhile, is exactly 80 ft. wide along Granville Street,

View of the site, clockwise from top left: looking west, looking south, looking east, and looking north.

encouraging a commitment to this original ordering of the city that has been taken up in the design of the press.

The opportunity to build on back-to-back lots, and therefor to cross an entire block, is taken up elsewhere in the city at various times. This crossing of the block allows the design for the press to approach the qualities of a public building in its scale and double aspect, while simultaneously situating it within the structural limitations affecting the non-civic buildings in the downtown. Within the floor plan of the design, these structural limitations form an underlying pattern to the grid, creating both division between spaces but also continuity. This continuity then continues outside with other buildings along the street. This overlap of continuity and distinction is critical to the program of the printing and publishing house.
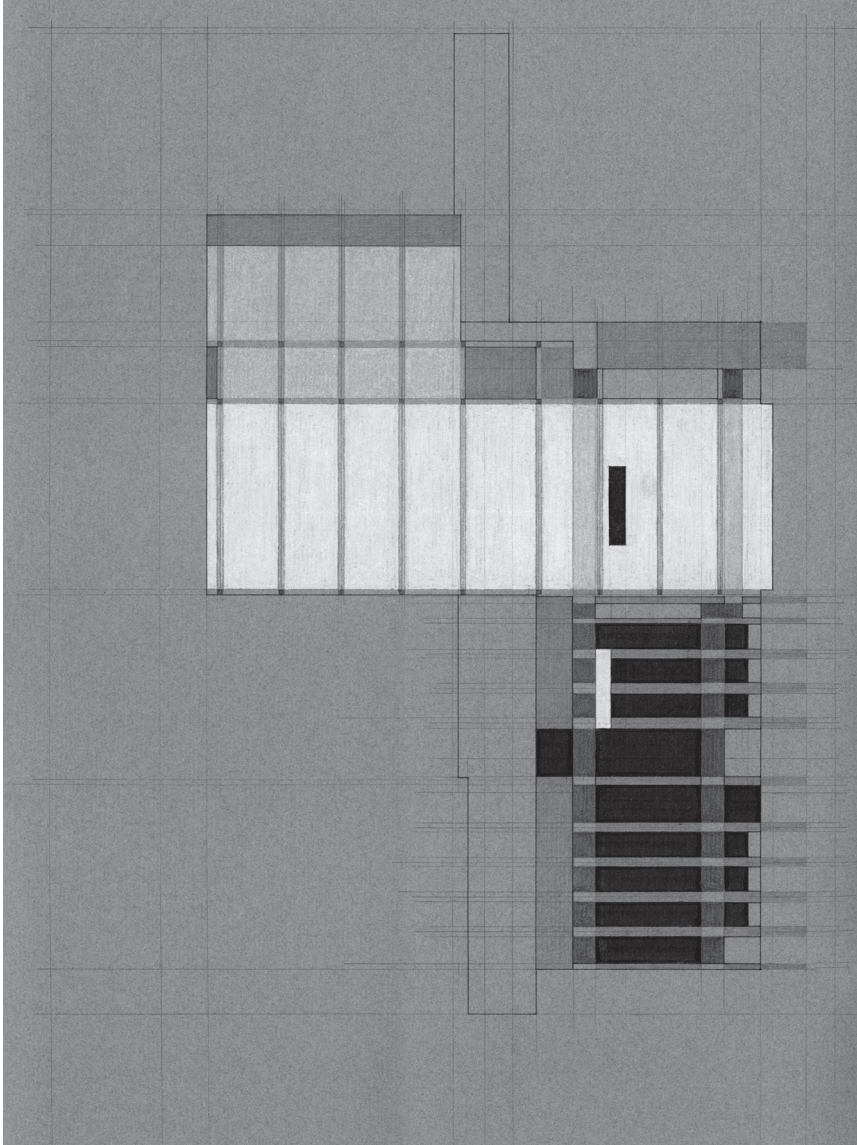
Plan and program. The white area is the shop while the black area is the offices and bookstore. The entry can be seen where the black bar is shifted to the left, grey denotes secondary spaces, and the two tables are the smaller black and white rectangles.

Design

PROGRAM TARTAN

The Grid

The grid of the building is established much the way a grid in a magazine layout is established, to facilitate the organization of major elements, to create clear sequences
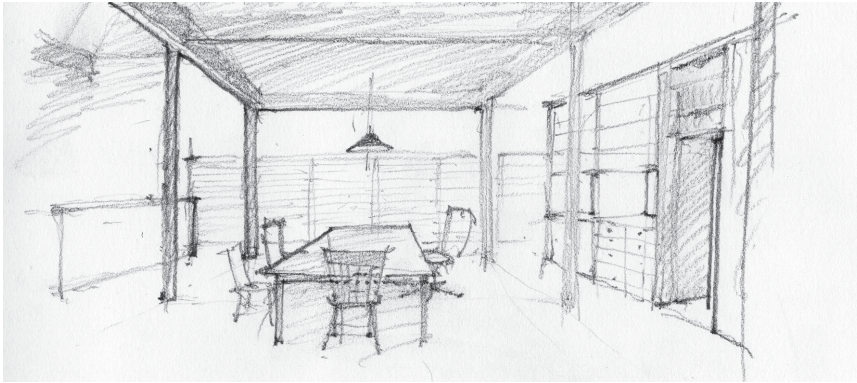
Early sketch for the area around the table.

that can still be easily navigated when the space becomes more congested, and to give guidance to quick decisions related to spacial organization required at different times, such as when a shipment of paper arrives, or when new machinery is delivered. The grid also becomes columns in a sense, where the public realm of the street overlaps with the more public spaces inside the building.

The Table

The table is the key element at the overlap of programs within the design. The table is split in two, represented by the black and white rectangles in the plan on page 38. The representation of the black rectangle within the main space of the printing shop is a place-holder as much as an explicit design suggestion. It represents itself, but also represents the work surfaces of the printing shop's finishing facilities, as well as the desks and workspaces of the graphics de-partment housed at the west end of the space.

The location of the 'black' table is articulated further by the low bridges crossing the main space one level above the shop floor. These bridges help define a place distinct from the shop floor yet within the same volume of space.
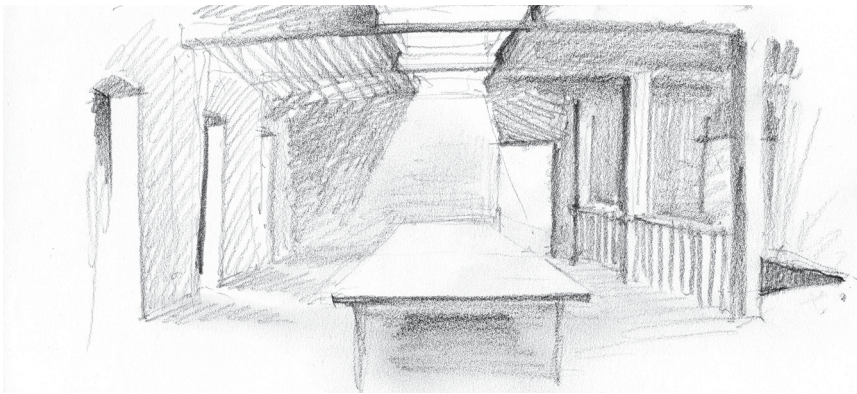
Later sketch for the table, showing the timber frame and the light well above.

The central table at Gaspereau Press, used constantly for both work and breaks.
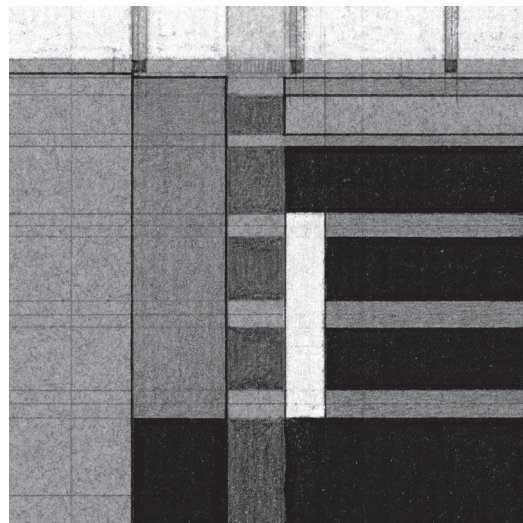
Detail view of the table under the light of the light well, with bookshelves to the right and circulation passing to the left.

From this open space occupied by the 'black' table, access leads directly to the archives and studios on the second floor, the storage and shops in the basement, and to the library, bookstore and offices on the same level.

The 'white' table, located within the bookstore between the offices and the shop, is a much more explicit design decision. While the 'black' table is at the intersection of the public and the shop, while also lying at the crossing of the primary circulation routes. By lying perpendicular to the rows of books, the table suggests a threshold, a place

to engage with, but not cross over to, the activities of the press. To accentuate a quality of focus and as counterpoint to the openness of the main space, the table is lit from above by skylight coming through openings in the floors above, while it is surrounded by the relative darkness of the stone walls, books, and wooden timbers surrounding the table.

Grain

The lines of text suggest a grain, but equally important the paper in the book itself has a grain whose orientation is critical. In the layout of the floor plan the grain of the main space runs perpendicular to its axis, which runs across the block. In the rest of the building the grain runs in the other direction, continuing the direction of the axis in the main space, but progressing down the block through the various layers of program.

The grain of this 'tartan' grid shows the integration of the programmatic structure within the physical structure of the building. The articulation of space around the two tables can be seen. The shelves set up lines that are taken up by the metal plates that define the street edge around the main entrance. The main circulation paths can be clearly seen running north-south across the many horizontal bands of black and white. The offset of the widest black band that articulates the main entrance can also be clearly seen, as can the projection towards the street of the black square marking the waiting area. Servant spaces and the grain of the primary structure are also visible in levels of grey.
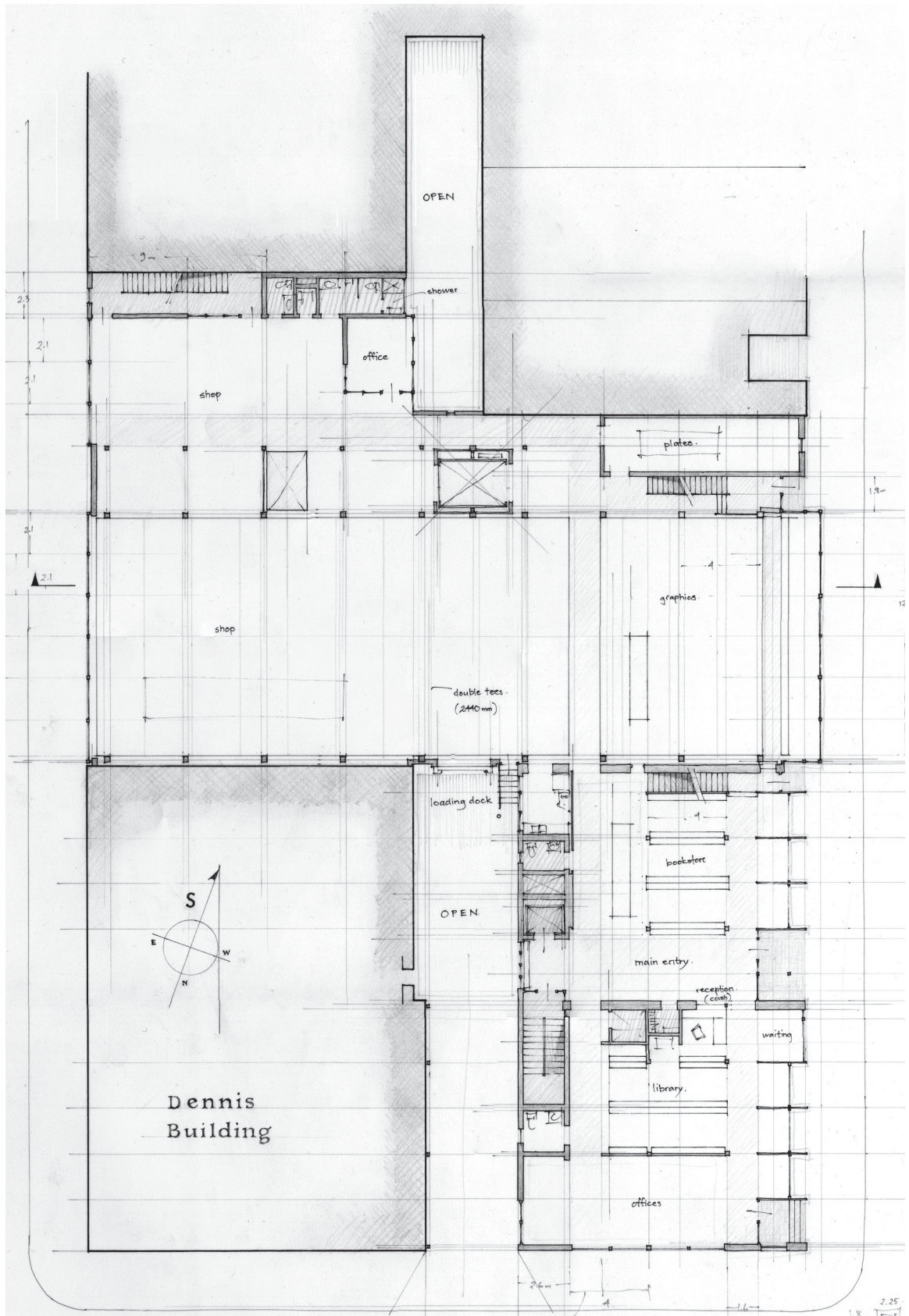
DRAWINGS

First Floor

The street front along Barrington has been considered in relation to the commercial buildings further along. [see elevation] The exterior is meant to suggest a public welcome, while the interior beyond the main entrance is meant to articulate a gradual division between entry spaces, more intimate public spaces, and private spaces off limits to visitors. The table functions in this arrangement, as do questions of wayfinding, signage, indents and spacial orderings that draw from the comparison with typography.

The most difficult problem in the design is the location of the loading bay, which has enormous implications. Conversation with those who operate printing shops suggested using an elevator was a bad idea. The constant use of such an elevator would have allowed a truck to unload on the lower level. The possibility of putting the main printing shop floor at the lower level appeared quite promising. This would have created an interesting view in looking down and across from Barrington Street, and would have allowed direct access to a truck. However, the implications this would have for the possible separation of publishing and printing activities made it seem unwise. The final solution was, in the end, to bring the truck in off George Street. Because Barrington Street drops slightly towards the corner, the floor-plate can still emerge flush with the street if the main entrance is somewhat towards the corner. All of this was refined in very large part because of the challenge of getting the shop and the design on the same floor.

The primary concern is with circulation. Paper and other material will be dropped off at the loading dock, and final

OPEN

shower

office

shop

plates

shop

graphics

double tees
(2440 mm)

loading dock

bookstore

OPEN

main entry

reception
(cash)

waiting

library

S

E

W

N

Dennis
Building

offices

First floor plan

printed material will in the end be pick up at the same place. When stock is dropped off it will find storage at not to great a distance, and there will likewise be a certain area set aside for finished work. For this reason the loading dock and freight elevator have been placed across from each other, almost as in a traditional wheat barn of Ontario, concentrating the most movement in one place. The elevator gives access to storage in the basement as well as the archives above. From here the production on the shop floor can proceed almost in a circle, returning once again to the loading dock area. The finishing work, which will require the venting of glue fumes, is located at the further end of this loop to facilitate these demands.

A major concern with the overlap of printing and publishing activities are the problems of fumes and noise. Part of the underlying intention of the overlap is to begin bringing the intellectual work back into a visceral contact with the nature of the printing activities, but there could be explicit problems. The presence of the walkway across the main space provides the possibility of a glass wall to be built as an acoustic buffer. Above the main floor, the bookbinding and conservation studio has visible access to the shop but is completely separated acoustically. The problem of fumes is one that is fast being resolved at the level of the machines themselves, since the toxicity of printing has had negative health implications. Nonetheless certain machinery will still require venting and isolation. For this reason the printing shop expands under the archives area. The overhead here, like the shops below, provides the possibility of separation and simplifies the running of ducts venting from fume hoods.
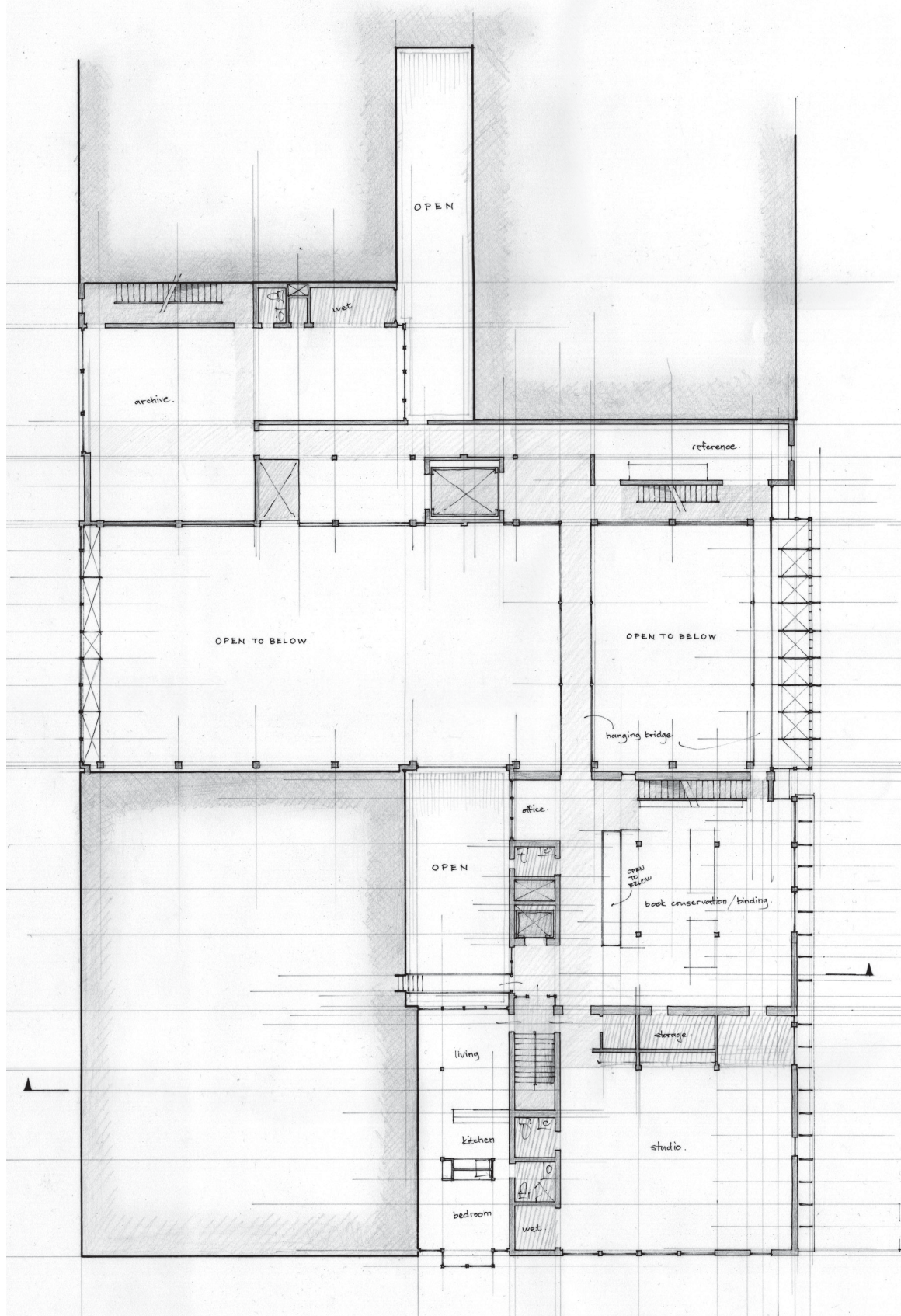
Second Floor

From the beginning, the place for visitors to stay was meant to have qualities of a house. It is meant to be distinct from the rest of the building, and more explicitly separated physically. Yet at the same time it is meant to access directly to the most ambiguous studio space so that a closer link between the visitors place to stay and place to work can be clear, if in fact this studio functions as such a place. Another concern with the place to stay was a question of south light and thermal gain, the only place where direct sun would be desirable. A view of some kind, a sense of being above and opening out, were also considerations.

The secondary activities are not dealt with explicitly, but would be expected to grow into the space over time aft.er the establishment of the press. The spaces above the publishing and bookselling wing are designed with a focus on daylighting and openness that nonetheless has direct access to support services like the elevator, the stairs, and water. These spaces could quite easily be adapted to various purposes other than a studio and a bookbinding and conservation shop, though this arrangement is suggested. The direct access to circulation also allows these spaces to be occupied by a legally separate group, or to be leased out as studio or workshop space.
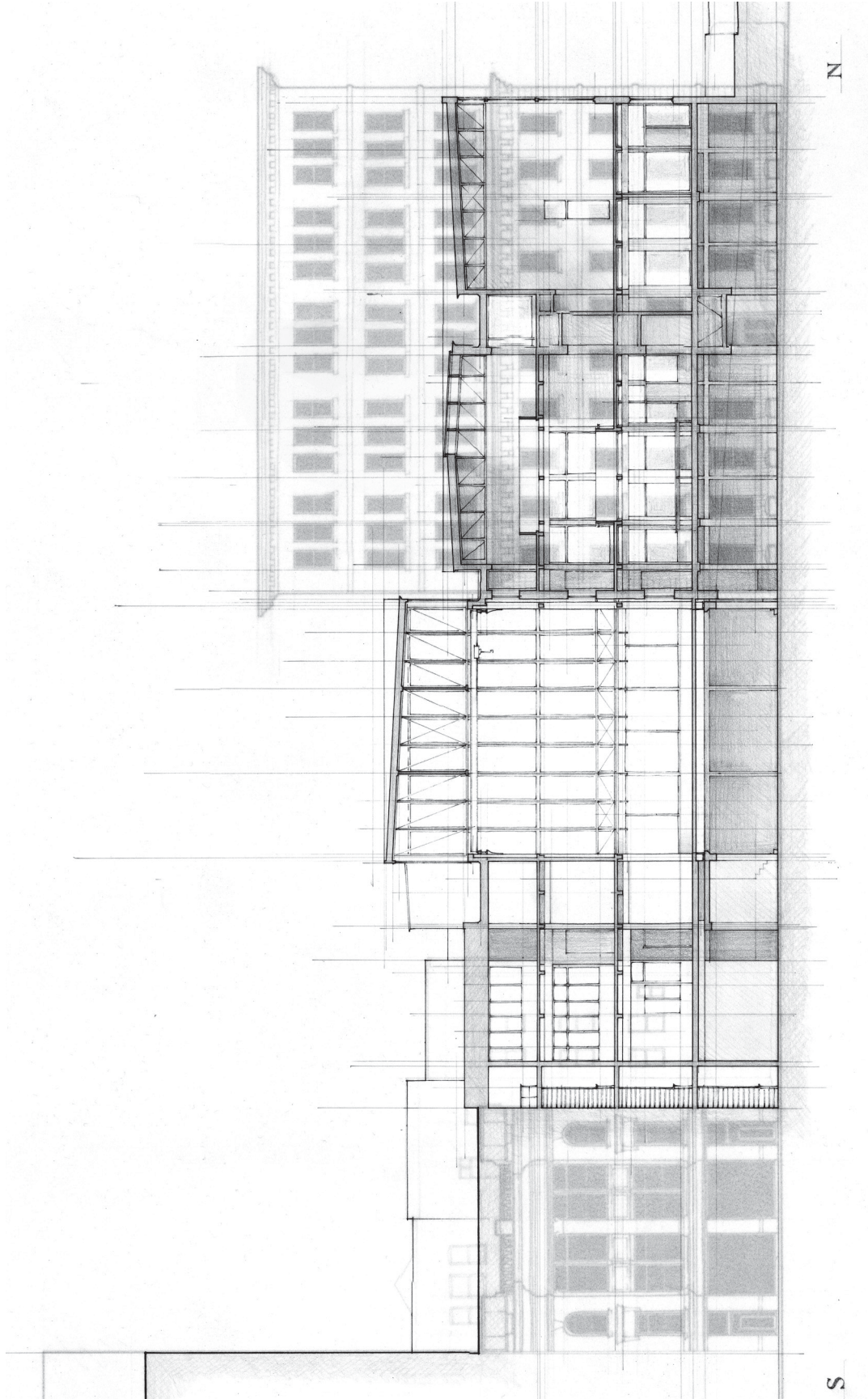
Long Section

The lower level along Granville street is occupied by the wood and metal shops. The actual layouts of these spaces has not been considered but their placement in the overall design has been carefully considered. The east facing wall will allow early morning sun, but otherwise a soft.er daylighting through the day. The location at ground level on a

OPEN

wet

archive.

reference.

OPEN TO BELOW

OPEN TO BELOW

hanging bridge.

office.

OPEN

OPEN
TO
BELOW

book conservation / binding.

storage.

living

kitchen

studio.

bedroom

wet

Second floor plan

secondary street provides flexibility when the scale of the activities being pursued in the shops wants to spill onto the side-walk or road. The continuous floor-plate between the lower shops and the printing floor above offers separation of acoustics, dust and fumes. The low ceiling is the one major drawback for the shops, though the ability to open sideways to the street is meant to compensate for this. The low ceiling does make it easier to build the required walls between the different shops.
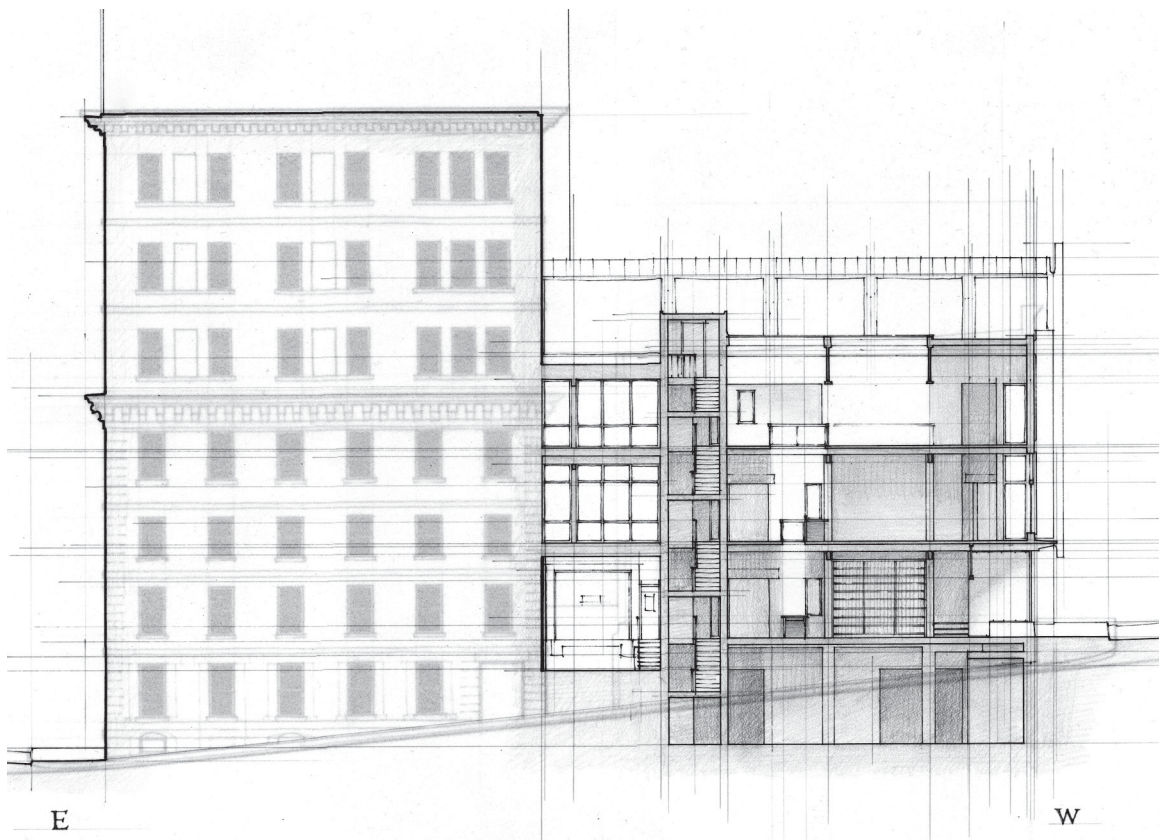
N

S

Long section

FREAK LUNCHBOX
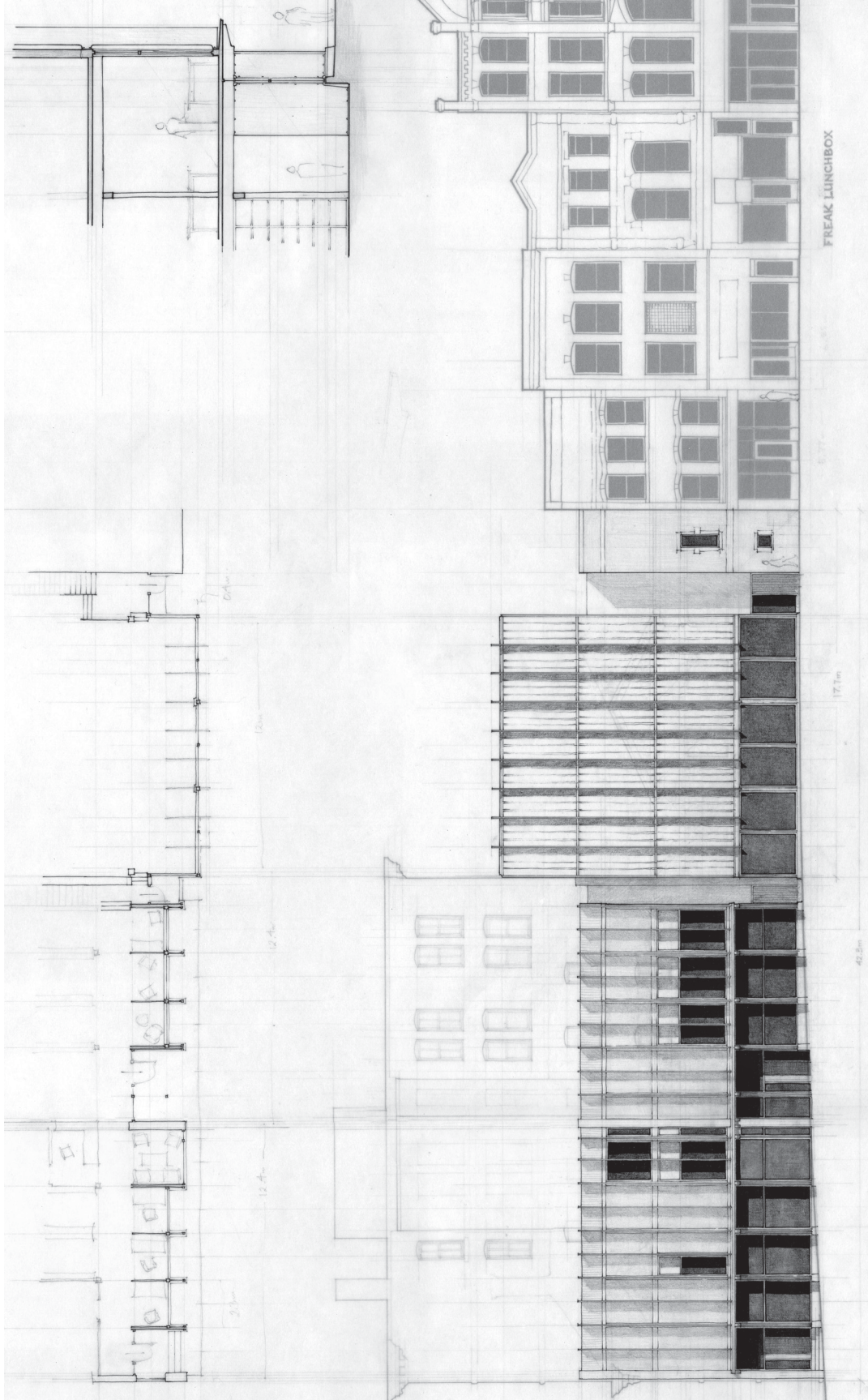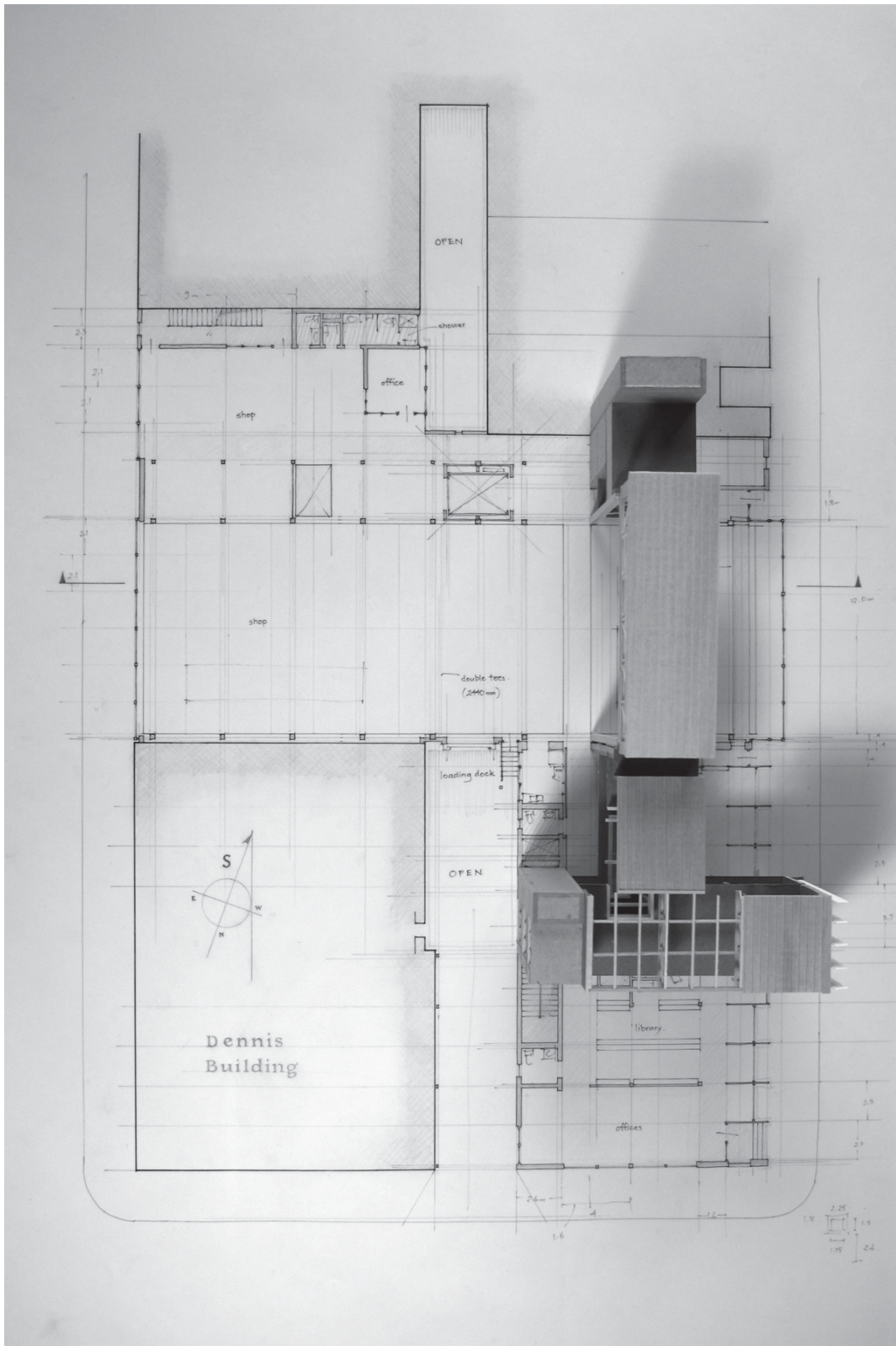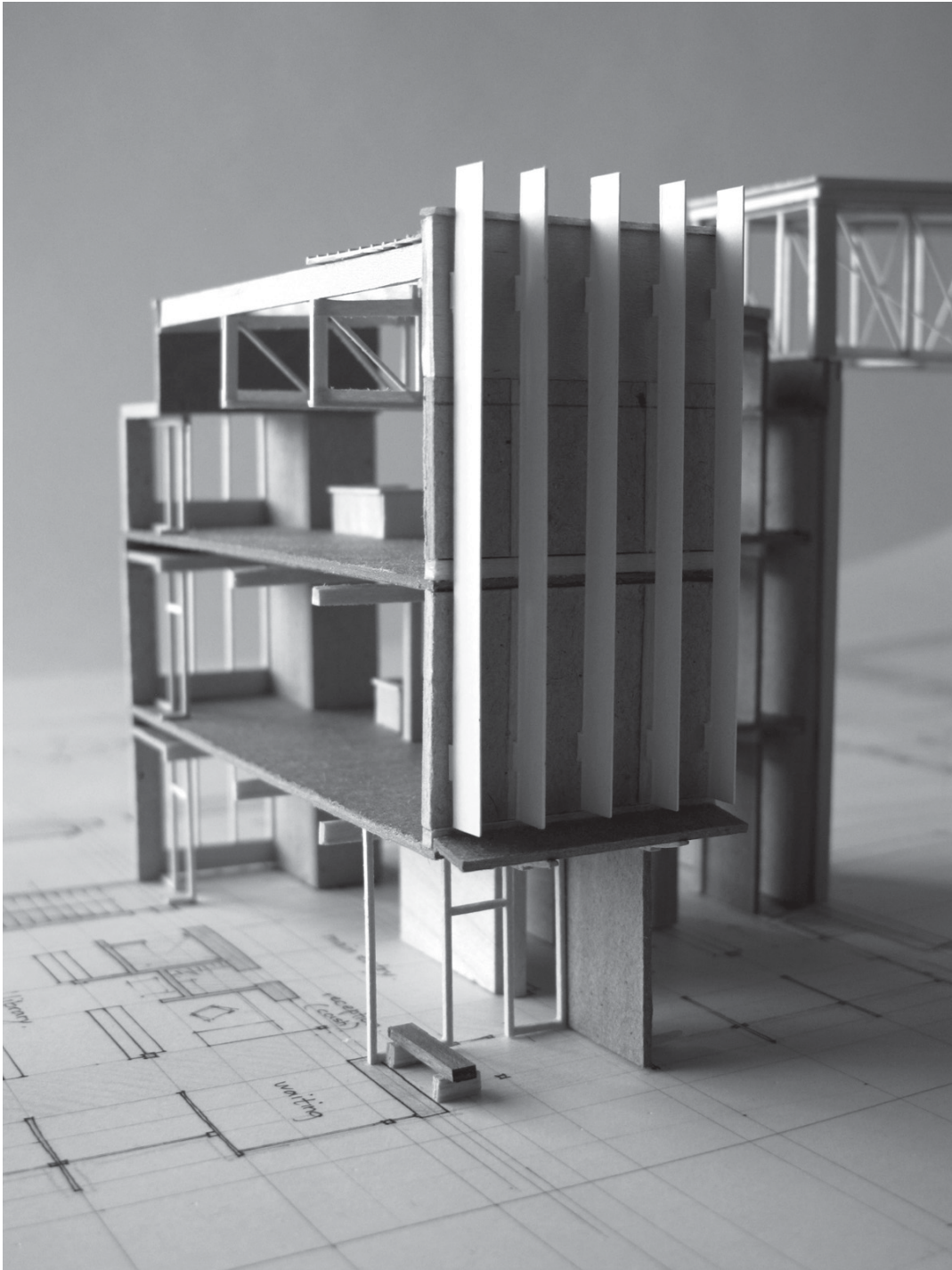
Elevation along Barrington Street

E   W
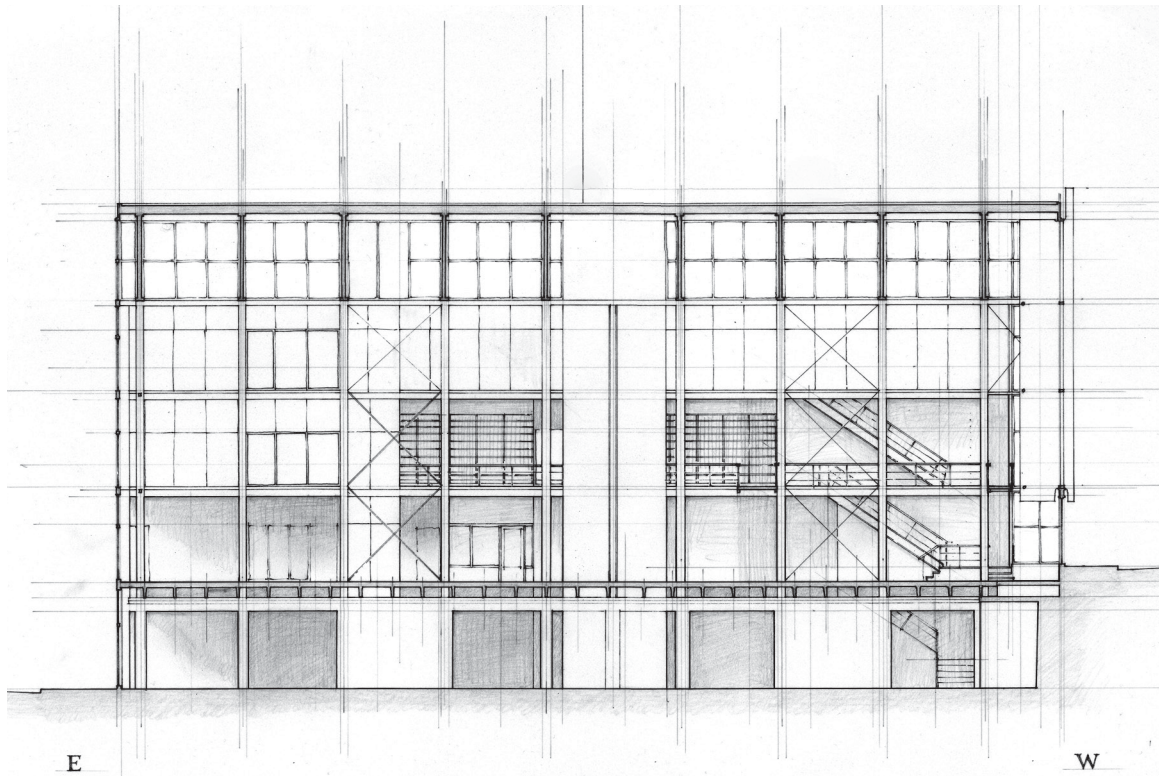
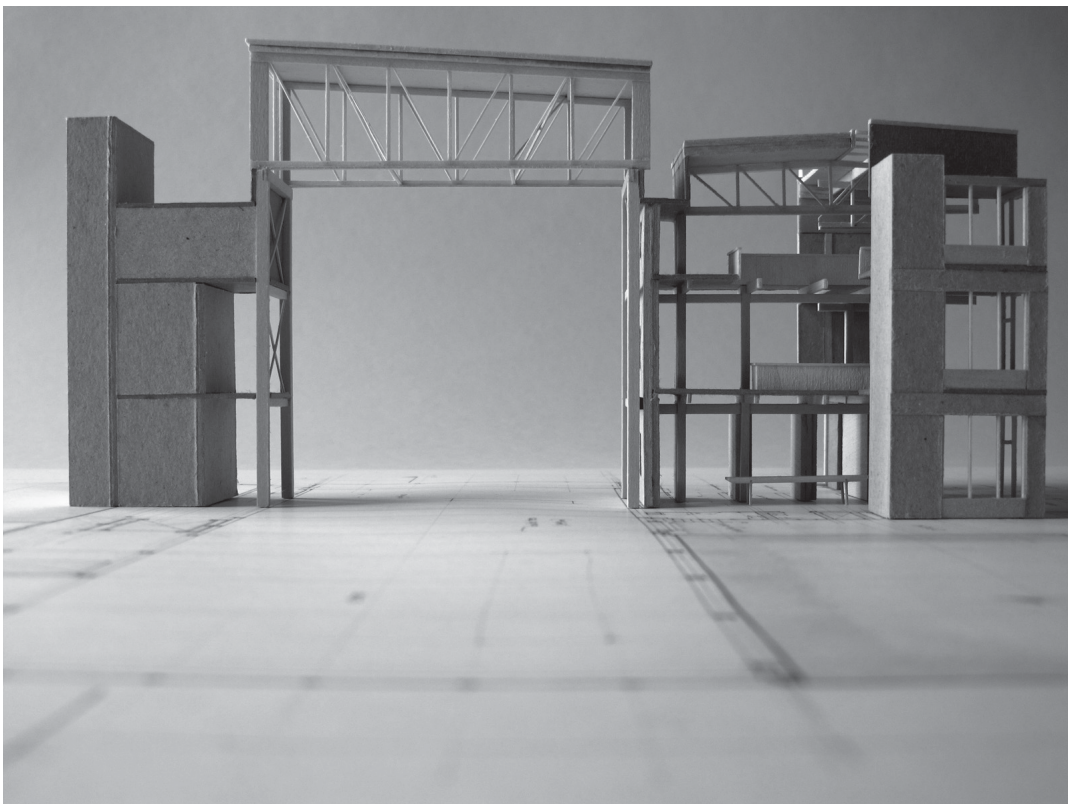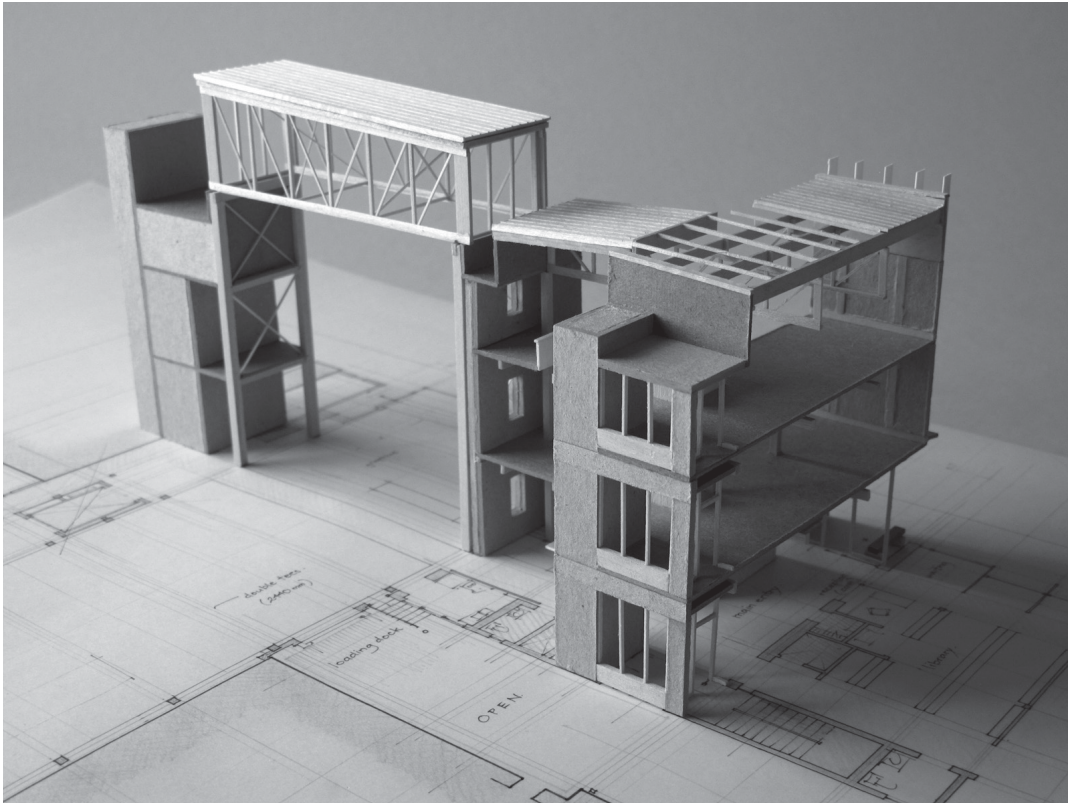Short section through the main space of the shop, see 'First floor plan'

E   W

Short section between the Dennis building and Barrington street, see 'Second floor plan'

MODEL
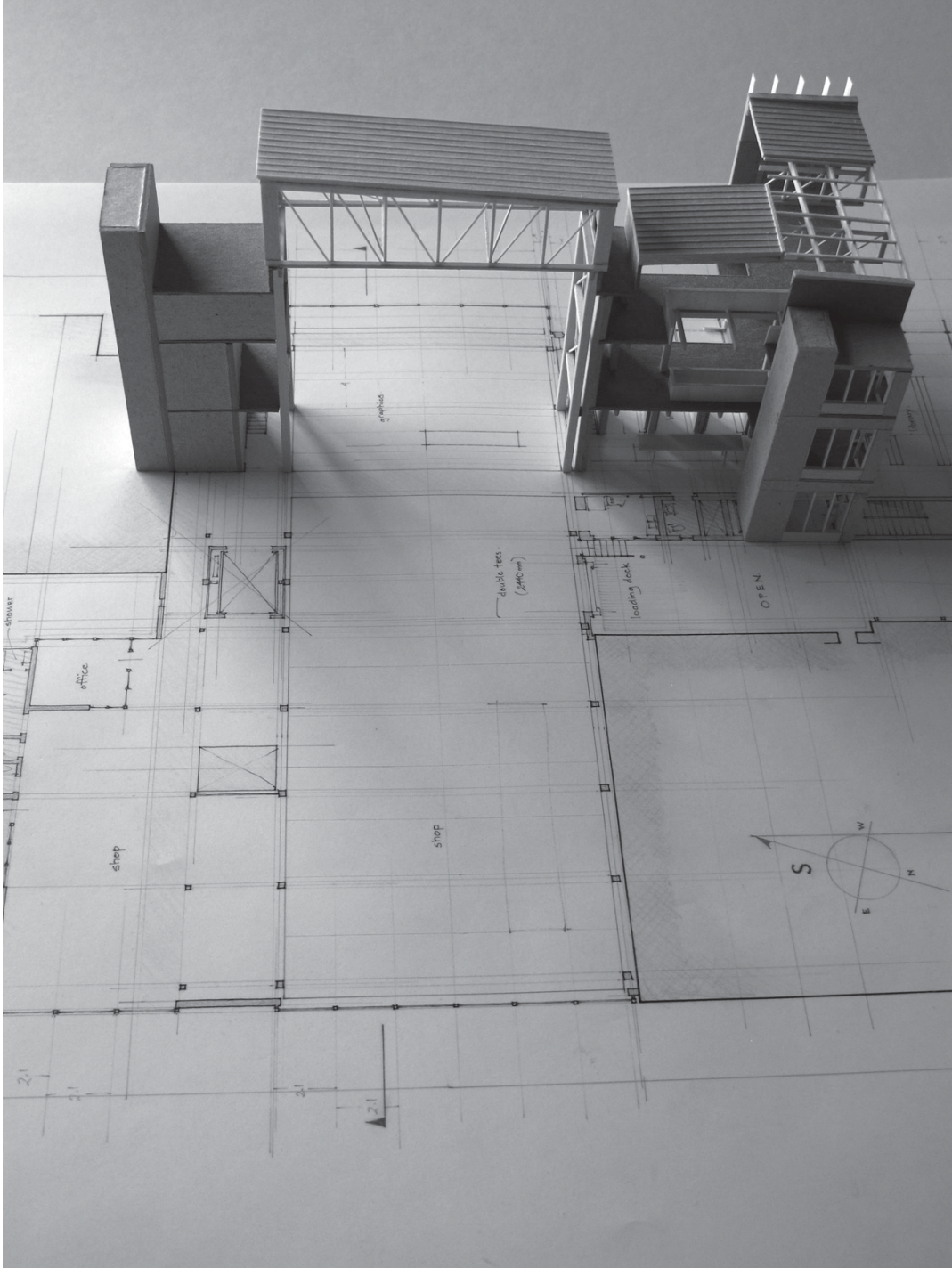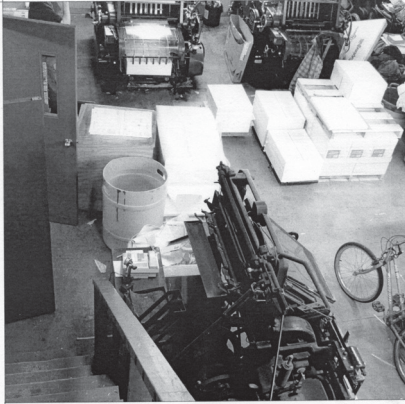
View of press floor at Gaspereau Press
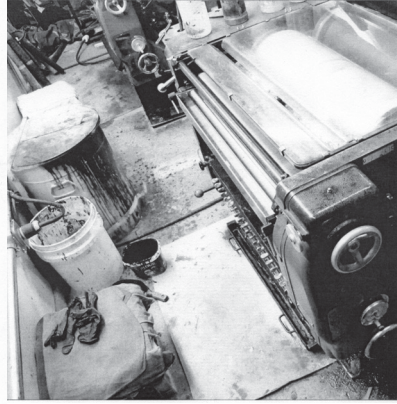
Space around the Heidelberg offset press at Gaspereau Press

Interior of the press room at Gaspereau Press, with contents removed
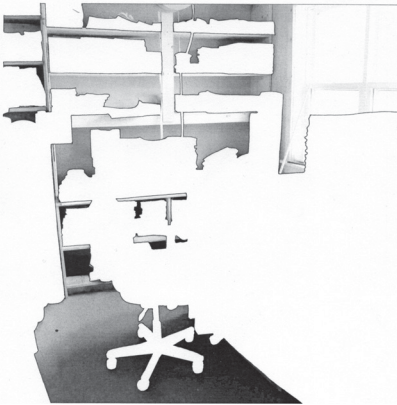
Interior of office space at Gaspereau Press, with contents removed.

INTERIOR

Contents

In these photos of the printing shop floor we see the accumulation and organization of material and machines used in the shop. As we shift. our focus from the stuff contained within the space of the shop to the surfaces of the shop itself, the material of the floor or wall, the material of the architecture itself — in a general sense — become more apparent. The structure begins to appear as a setting, a background for the activity of the shop, a background even for the accumulation of tools and material that support that human activity. Applying the same reduction to
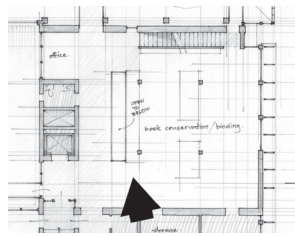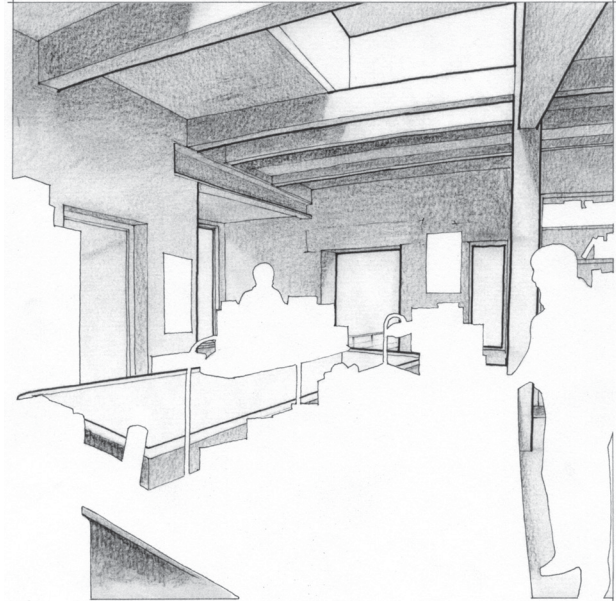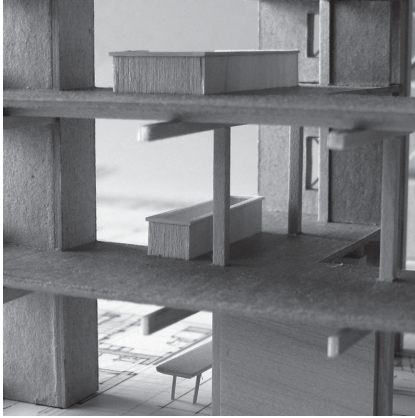
Second floor by the light well, implying the absence of the human presence

the shelves, desk and chair of the office space, we begin to perceive the simple surfaces of a wall and a floor that sit behind the accumulation and activity.

The first of the drawings illustrating the interior of the proposed design shows the same absent-presence of the activity and material of the conservation studio. This hints at the absence in the interior drawings that follow, thus helping us consider them as settings for people and activity, yet to perceive them as empty, to see the spaces for what they are, for what they can only promise.

Settings

The street front of the press along Barrington Street is treated primarily in two ways. In the northern (lower in plan) portion, a series of metal fins perpendicular to the sidewalk take up and repeat the pattern of the recessed storefronts along Barrington, directing our attention to the space within the press. In the souther portion the large
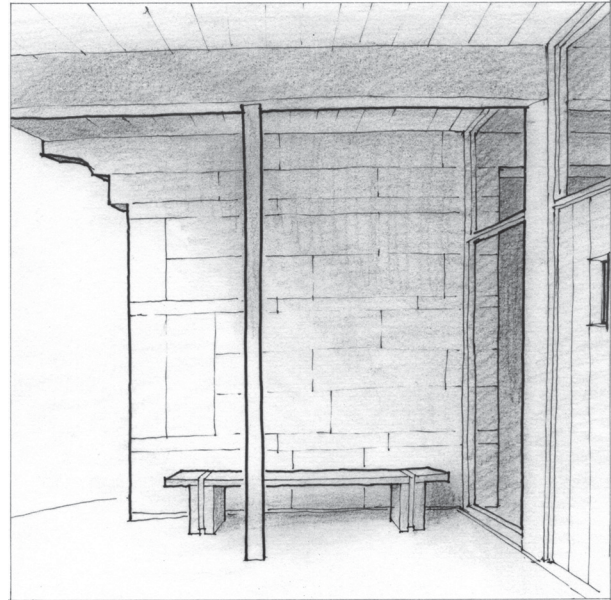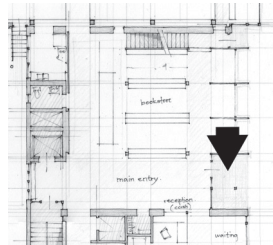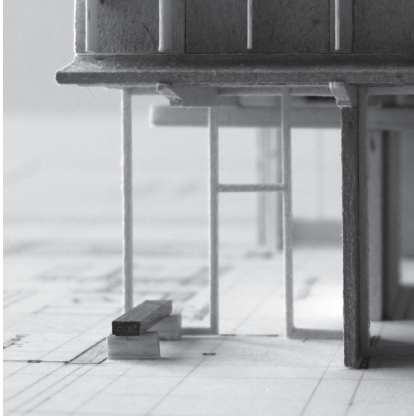
Stone wall at the main entrance to the press, with bench, post, and the inscription surface

windows of the shop itself, what is the main space within the press, form an elongated or enlarged version of the shopfront display window. As with display windows, this provides an open view across the shop floor and to Province House beyond, but without direct access into the building from this point.

When approaching the centre of the northern portion of the street front, the metal fin is replaced, as shown in Fig, by the stone of the wall behind. This stone surface carries the inscribed name of the press and also marks the deepest recess in the façade that accommodates the entrance. The deepest recess, the entrance, is also articulated by a larger gap in the pattern of openings. The gap beyond the stone wall actually disappears since the glass is set right out at the sidewalk. Thus, just beyond the bench shown in the picture, the offset of the glass wall between the fins creates the waiting room visible in the first floor plan and the tartan grid.

In addition to providing the surface on which to inscribe
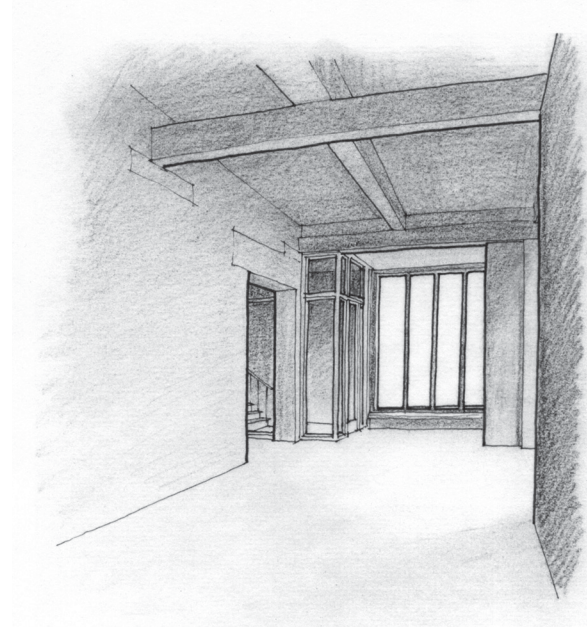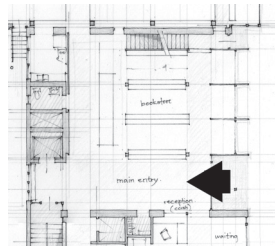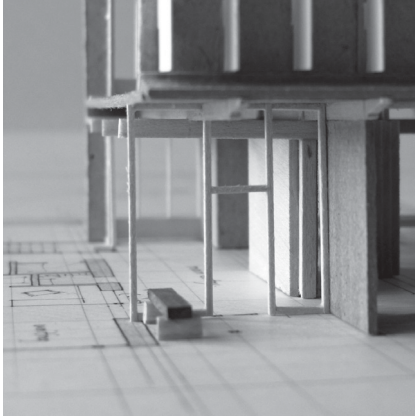
View towards the stairs and elevator inside the main entrance

the name of the press and marking the entrance, the set back by the stone wall provides the opportunity for a bench. The post in front of this bench, offset from the left. in the drawing, allows someone at the left. end of the bench to turn towards the sidewalk. One or two people on the right of the bench would turn naturally towards the main door, thus suggesting some connection with the workings inside. The waiting room itself, for visitors, is then only just around the corner inside.

*

The overall structure of the design is meant to offer an intuitive sense to the inhabitants of how the entire building is laid out. The visitor is meant to develop an immediate sense of how to navigate the more public parts of the building, from the entry through the rows of books, ending at the table and at the glass wall of the stair. The clear line of the passage to the back stair, and the glass wall of the stair, are both meant to simplify the challenge of get-
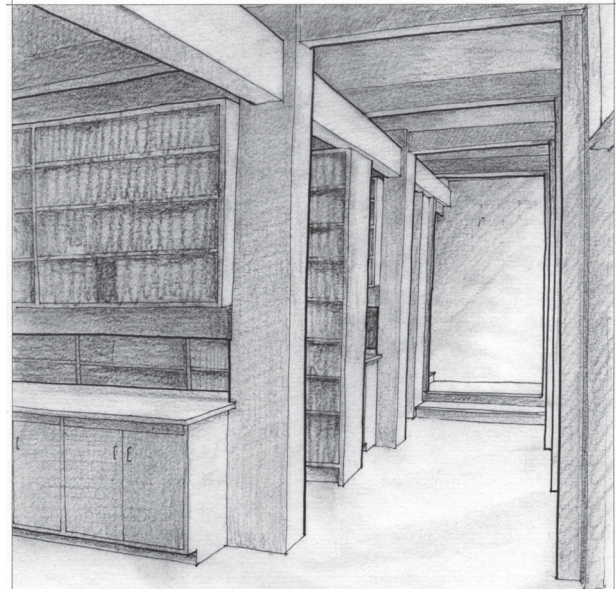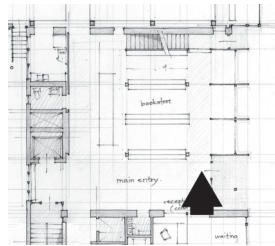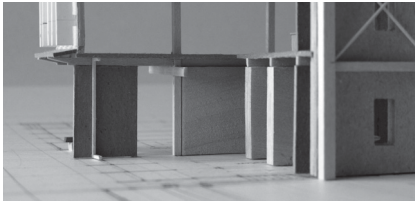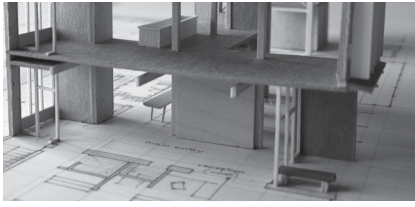
View down the rows of book shelves, to the right inside the main entrance

ting new people to the upstairs studios and particularly the visitors' place to stay. This axis also lines up with the back door to the Dennis building, so if in future the buildings were combined, this navigational logic would remain intact.

<p style="text-align:center">*</p>

The bookshelves are visible as soon as you come through the main entrance. This passage, a result of the break between the rows of shelves and the rows of metal fins off the street, leads towards the set of stairs between the bookstore and shop, and also leads back out onto the street or around the wall into the shop. To the right, turning back out towards the street, a series of alcoves established by the fins provide spaces to sit and read. Walking forward but then turning down the rows of books would lead you through the relative dark of the books into the top-lit space of the table discussed above.
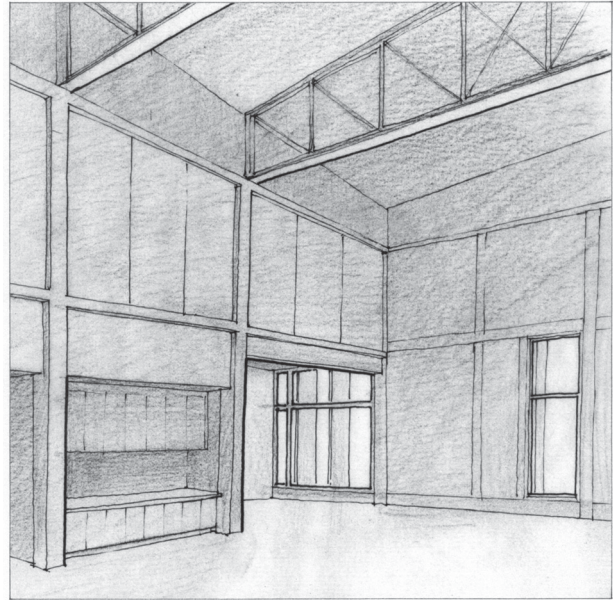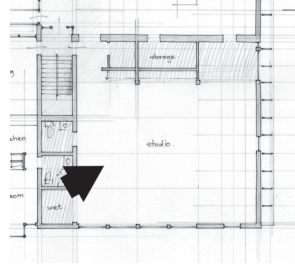
Second floor studio space
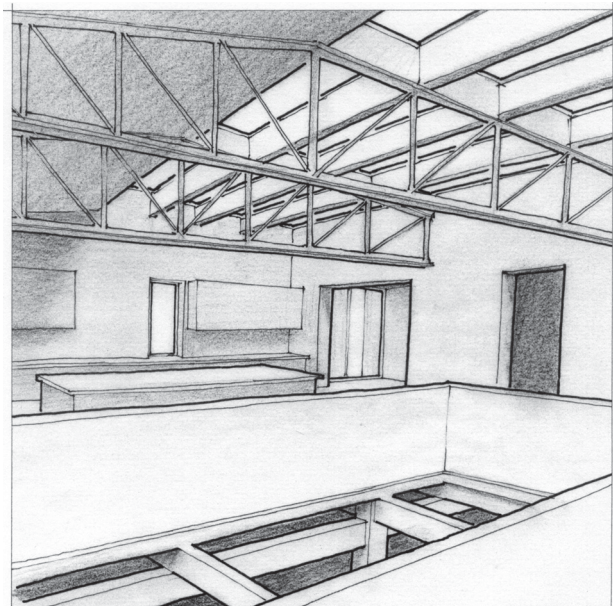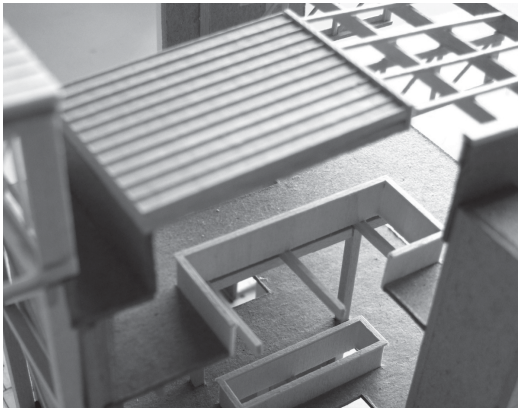
View of the skylights and light well on the third floor
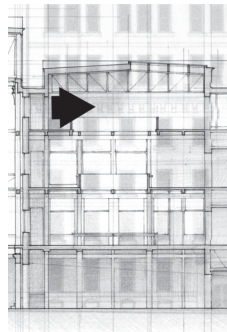
The Rooms

The final three drawings, empty of people, material and machinery, are some of the main spaces in the building. The studio is at the northern end of the second floor, open to the reflected light from the glass building across the street. The workspace on the third floor is flooded with
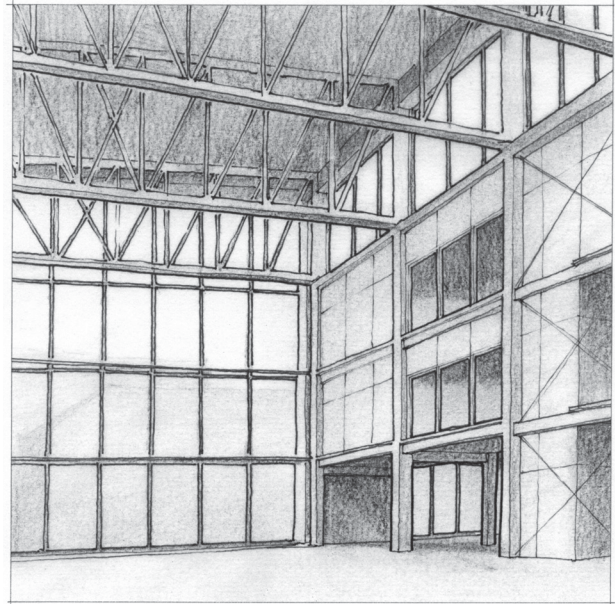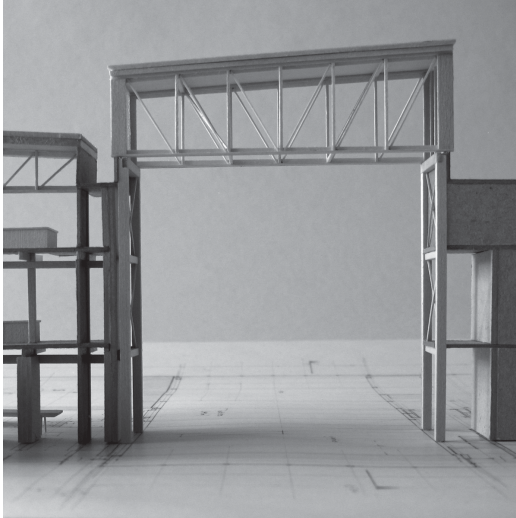
The main space looking towards the east
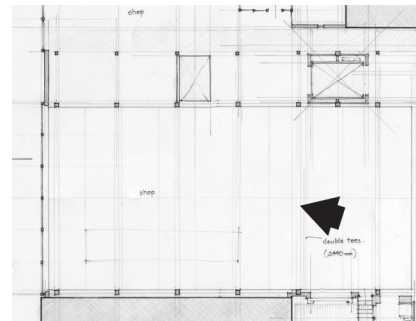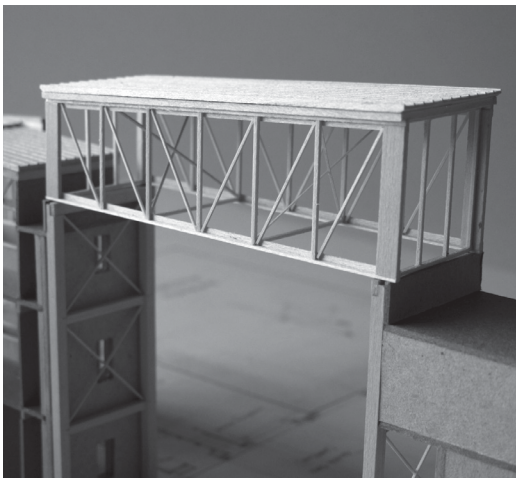
toplight, but shielded from direct southern sun for most of the space by the offset of the skylights. The roof trusses here are only 2.5 m. above the floor, but are quite deep, and so they define volumes of space within. The use of the space is further limited by the opening to the floors below. The final interior drawings shows the shop floor of the main space. The windows looking down onto the shop from the archive are visible above, and the additional space of the shop can be seen under the archives to the right. Province House would be in view out the windows at the end of the space, while the clerestory between the roof trusses is high enough that only blue sky would be visible from the floor.

Chapter 3: Conclusion

Typography, when considered in the context of language, human culture, and the making and carrying of meaning, has been a subject too vast for this thesis. Architecture, instead of being seen as a profession with distinct boundaries, knowledge and responsibilities, can likewise be considered as the totality of the trace of human dwelling on earth; this again has been a subject too vast for this thesis. It is worth noting, however, that when considered in their broadest sense, the roots of these two subjects can be traced back into the deepest recesses of human life such that the distinction between them finally disappears.

The danger of going back so far into the depths of these subjects is that we come up against the darker implications of what we are about, no longer safe within the superficial perpetuation of our inherited patterns and assumptions. Typography, in its broadest sense, can be tied to the violence of cutting up the world through the use of language:

> Language simplifies the designated thing, reducing it to a single feature. It dismembers the thing, destroying its organic unity, treating its parts and properties as autonomous. It inserts the thing into a field of meaning which is ultimately external to it.[32]

Architecture, in this broadest sense, can be tied to the violence of cutting up the fabric of the world in making a place for ourselves. It might therefor be possible to suggest that typography and architecture diverge at the point where each takes responsibility for one part of this cutting up, of our total, structured presence in the world. Can typography be described as the practice of structuring the

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32 Slavoj Žižek, *Violence: Six Sideways Reflections* (New York: Picador, 2008), 61.

space occupied by the mind, while architecture is the practice of structuring the space occupied by our bodies? Are these the two halves of a total human culture?

This quick and unqualified reading may appear to forget literature, music, food and love, yet these are not means of expression but human expression itself. Perhaps this simple view forgets the tool. Perhaps it is the tool that makes both typography and architecture possible, that we use in expressing music or making food. Yet in some way, the tool is implicit in both, implicit in the moment at which things take shape according to human intention.

This thesis has attempted to make some sense of making in typography and architecture by considering solid and void, or positive and negative space. This has provided a starting point for understanding the complex shift that happens in both. In typography, the shift from writing to moveable type is actually the condition for typography as such to exist. In this way it is easier to speak concisely about typography. In architecture, the shift from building to drawing is much less explicit, yet the implications of the difference have been suggested. The move from scribal work to typography happened during the same time that Alberti was inventing the idea of the modern architect, so it may be that the shift in both is closer than we typically assume in discussions of architecture.

We could describe Vitruvius, Palladio and Tadao Ando as figures in the history of building, with Alberti as the first architect, but I have only heard them discussed as part of a single, continuous tradition. In contrast to this single tradition of architecture, the history of building must be something else, a subset of architecture. In typography, the desire to create a single tradition can only go the other way,

as Noordzij tries to argue, by making all of typography part of a continuous tradition of writing. Writing cannot be made a subset of typography, because the latter can only trace its etymological roots to its invention in the 15th century. Many typographers are, I suspect, unwilling to accept that typography is an offshoot of writing, in the same way that most architects are unwilling to accept that architecture is an offshoot of building. The difference is that typographers are inevitably humbled by the fact of type's invention in the 15th century. If typographers want to trace their profession back to the deepest darkest roots of human culture, it is difficult to do so without making recourse to the history of writing. Architects have no such constraint. Though architecture may well have been invented at the same time as moveable type, I would have to go to great lengths to explain exactly how I am defining the term to so limit it to the last 500 years. Architects can much more freely trace the history of architecture back into the deepest darkest depths of human culture without having to make recourse to the history of building.

In the 15th century, by a shift from stroke to outline, writing begets typography. The implications for solid and void appear significant. The way positive and negative space are perceived appears to change. A similar shift has been shown to occur in the shift from building in material to designing with lines. Whether this shift has, or could ever be total, and the exact date of such a shift, are less of a concern to this discussion than the implications of such a shift. It is the implications of designing with lines, this difference between designing and making, that has been considered in the design for this thesis. The program of printer/publisher tackles a similar problem in the making of

books. In both the program of the building, and the design itself, the challenge has been to bring these two together, without giving up design in favor of building, and without growing fearful and abandoning the line altogether.

Appendix

Sketches
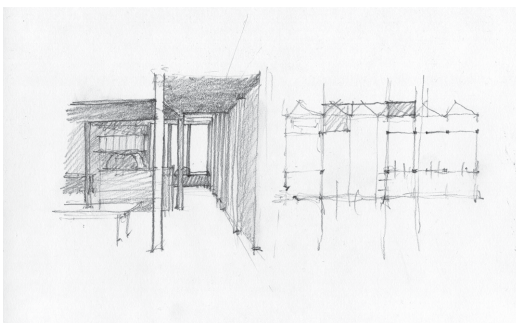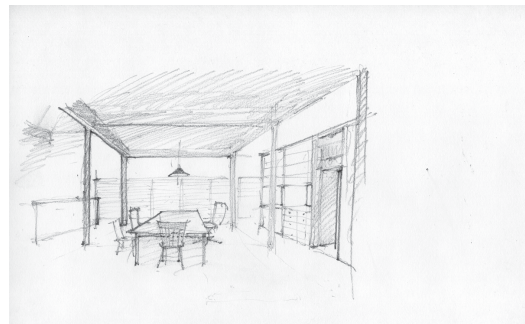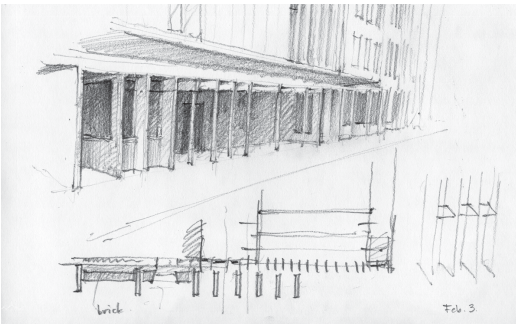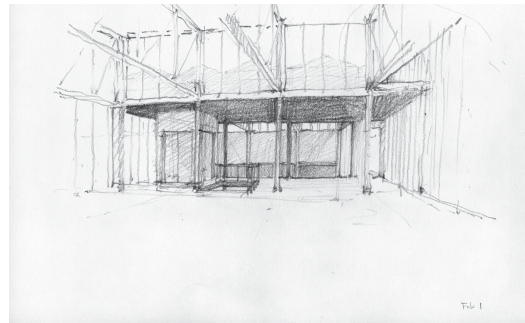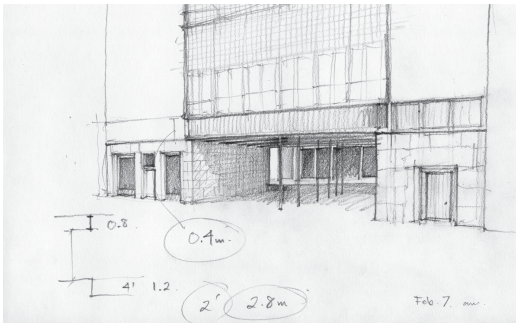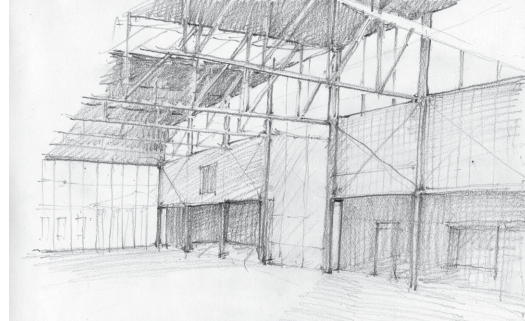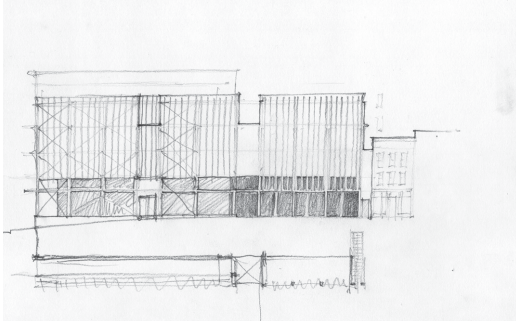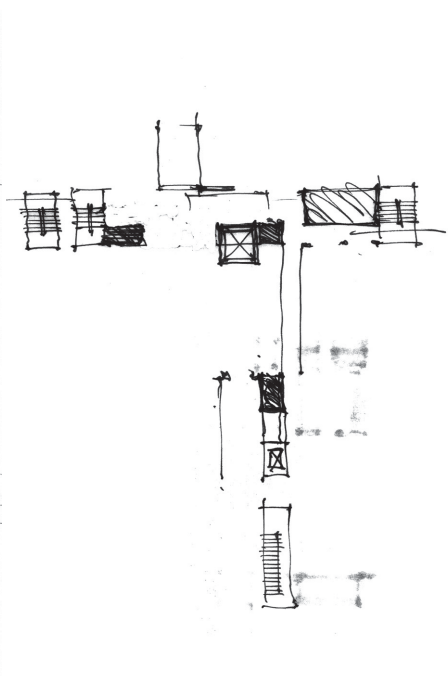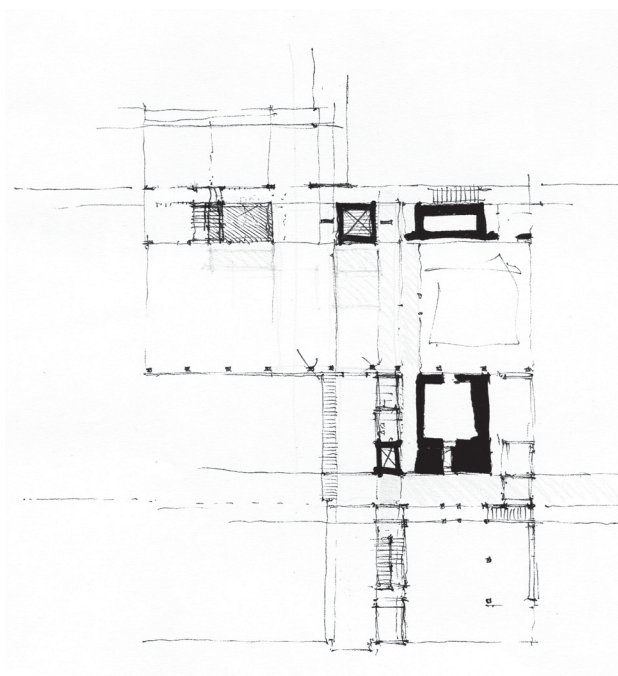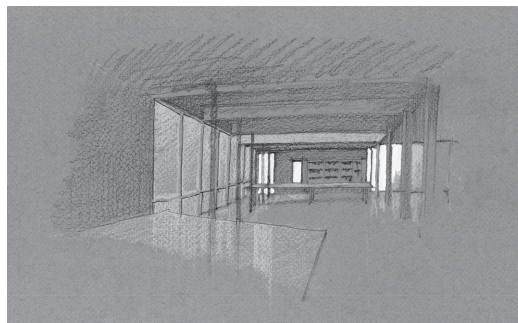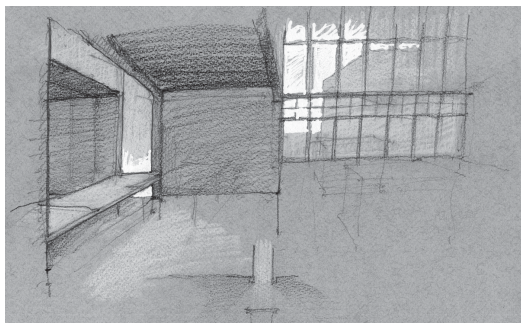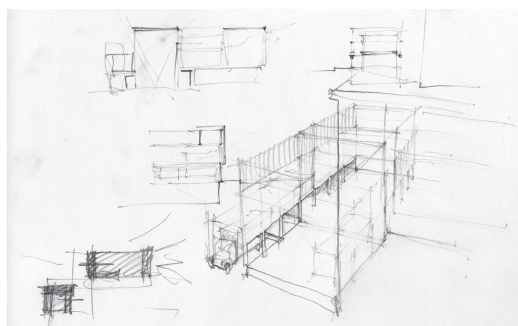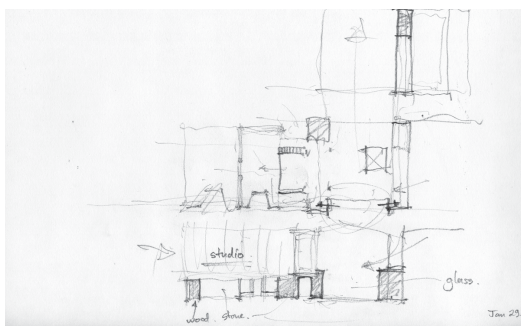
Final Presentation

Book

    The following images show the book that was designed, printed and bound as an exercise in typography at the intersection of design and making, and that formed part of the defence. The contents of the book are an earlier versions of the more abstract sections of the thesis document. These sections were never resolved as they began to deal with questions beyond the scope of the project. However, since these sections were used as the copy for the typographical design exercise of putting together the book, it has been included as a unit.

The book, page size 8.5 by 5.5 inches, flat spine, hardcover in paper
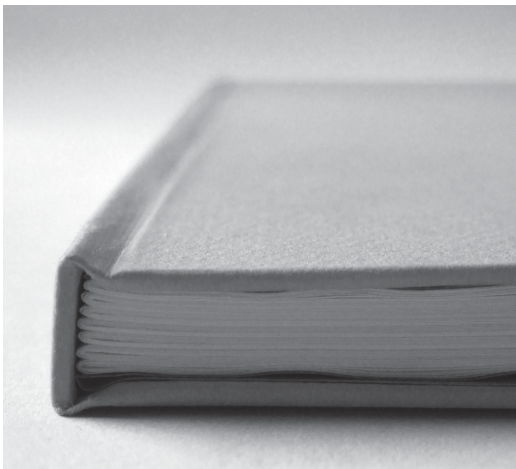
Printed in seven signatures, the binding is hand sewn over paper straps

Larger sheets of paper, cut down to 8.5 by 11 inches and folded in half, were used to obtain the correct grain direction

Architecture and Typography

Invisible forms and the practice of design

Adam Mackenzie Smith

THESIS DEFENCE

22.03.2011

A metaphor sets one thing beside another and says, 'See, they have the same form.' Which is to say: they make the same gesture; they mean in the same way.

The implied 'is not' in a metaphor points to a gap in language through which we glimpse the world. That which we glimpse is what the 'is' in a metaphor points to.[1]

There is something in architecture, that is not architecture, that we are trying to understand.

1   Jan Zwicky. *Wisdom & Metaphor.* Kentville: Gaspereau Press, 2008, §8, 10

3

TYPOGRAPHY
a short introduction

If architecture begins with a handful of clay, does writing begin with the trace of that gesture, the mark left on the ground?

'In simple terms, what drives the typographer is the existence of something to *say*.'[1]

'The book will kill the edifice.'[2]

The typographer

The typographer is responsible for the art and technology of the graphic forms of language.[3] The work of typographers is typically situated between the publisher and the printer. The author provides a text. The publisher then takes responsibility for financially supporting the work of the author through production and dissemination of the work in a form that can be consumed. The publisher places the text in a specific category – textbook, novel, a series of philosophical works, essays, etc.[4] – maintains re-

1   Robert Bringhurst. *The Typographic Mind*
2   Victor Hugo. *The Hunchback of Notre-Dame*
3   Graphic design itself emerged from the practice of typography with the work of Bruce Rogers who, in 1896, began working on design separate from the shop floor while working at the Riverside Press in Cambridge Massachusetts. From Joseph Blumenthal. *Bruce Rogers: A Life in Letters, 1870–1957*. Austin: W. Thomas Taylor, 1989
4   We can decide how thick a book is based on the thickness of the paper, rather than the length of the text. We are led to believe that a long book is short or vice versa, if we would be confused to see a great piece of literature in a slim volume, or a book of poetry the size of a brick. These things are often adjusted to suite what we expect at times more so than what they are. When this gap

5
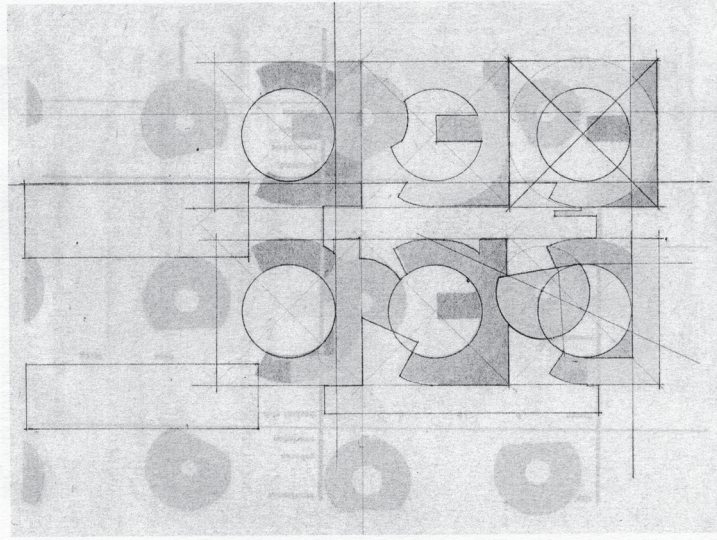
Carl Martens, from *Counterprint*. London: Hyphen Press, 2004, traced by the author

4

Bembo

Bembo is a quiet Aldine roman matched with an italic by Ludovico degli Arrighi (c.1526). It was one of the early, and most popular, book types revived and issued by Monotype.

Poliphilus & Blado

An early Monotype revival of a roman by Francesco Griffo and an italic by Arrighi. It takes a 'warts and all' approach, reproducing the ink swell and imperfections of the printed page.

From the broadside, *Gaspereau Press Book Types*. Kentville: Gaspereau Press, September, 2005

From lettering to typography

One can trace the history of typography back through the work of Bodoni and Baskerville in the 17th and 18th centuries to the early printers like Jensen, Griffo and Gutenberg in the 15th and 16th centuries, but it was during the late 19th and early 20th century that typography as a distinct profession emerged. If we trace the history of typography back through the work of the scribes to the origins of writing and gesture, we are no longer talking about typography per se but rather the history of writing and letters and language itself. Before the emergence of a typographic profession distinct from printing, in the late 19th century projects such as Geoffrey Chaucer's *Works* from the Kelmscott Press and *The English Bible* by the Doves Press were self-conscious efforts to return to printing an attention to material integrity and graphic quality. These qualities had been lost in the technological advancements of the industrial revolution. The typographer's

lationships with distributors and booksellers, and so on. The typographer enters the process when the printed material requires a physical form. Typography requires a sensitivity to content as well as the material and processes of production. The typographer will need to understand the material qualities of paper and ink, but also how the activity of reading functions in relation to place, lighting, age, time, distance, patience, and so on. In essence the typographer comes between the writer and the reader, attempting to give physical form to the words of the author, thus making visible the voice of the text.

For all its subtle articulation of human qualities, the profession grew as a specialty in part because of rapid and profound transformations in technology. In the past year the programming of digital fonts has progressed to where it is no longer necessary for fonts to be installed on the host computer's system before they can be used. The kind of programing required, the subtleties of the new technology that allow for the creation and use of legible and attractive fonts, has again moved the design and use of type beyond the reach of the amateur.

The expertise that typographers bring to a project were the responsibility of the printer until the 20th century.[5] The clarity of printing was the responsibility of the printer who either was the publisher, or was approached by the publisher with a completed text, or copy.

grows too large, and we find in our hands a low grade atlas, the affront can feel almost offensive. 'Size, therefore, is the most manifest difference between the categories of books.' Stanley Morison. *First Principles of Typography*. London: Cambridge University Press, 1936, pg 31

[5] The printer/publisher has persisted during the 20th century at places like the Officina Bodoni in Italy, and more recently the Porcupine's Quill and Coach House Press in Ontario and Gaspereau Press in Nova Scotia, but this has not been the common practice.

Joost Schmidt's alphabet from the Bauhaus in 1925, reproduced in "Universal faces, ideal characters" by Robin Kinross, from his collection of essays, *Unjustified texts*. London: Hyphen Press, 2002, pg. 236

awareness of this history in practice emerged largely with the Monotype Corporation's recutting of earlier typefaces. This history was not reintroduced verbatim in an academic or rote sense, but according to the vagaries of commerce. The need for contemporary recuttings of these historic forms is evidenced by the commercial failure of Monotype Poliphilus, a type issued in 1923 as a reproduction of Francesco Griffo's type from 1499. In 1929, a recutting of the same basic forms produced Monotype Bembo, which was a huge success.[6] Whatever the form of this historical reintroduction (and Poliphilus is still available, now in digital form), up until the twenties, trade work had been carried out more or less with what was available and current.

During the early part of the 20th century there also emerged a renewed interest in the work of the scribes, the work from which type design traces its development. The foremost proponent of this renaissance was Edward Johnston. His effort to think about the appearance of letters as an activity of the hand differs from the efforts at the Bauhaus to derive a geometrically constructed (and by specious implication technologically and legibly superi-

6 Conversation with Rod McDonald, and reference in Robert Bringhurst. *The Elements of Typographic Style.* Vancouver: Hartley & Marks, 2004, pg. 241

9
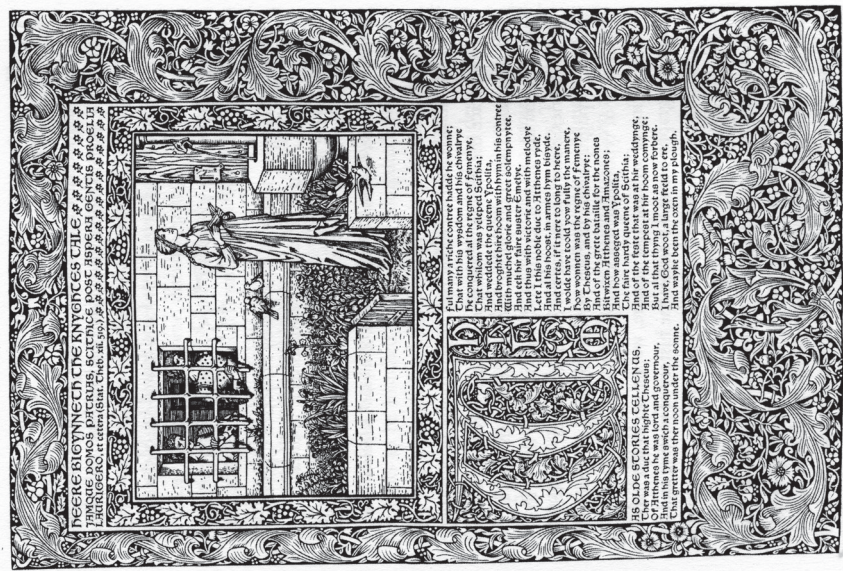
Chaucer's *Works* from William Morris's Kelmscott Press, 1896

8

THE

HOLY BIBLE

Containing the Old and New
Testaments : Translated out
of the Original Tongues and
with the former Translations
diligently compared and re-
vised by His Majesty's special
Command

or) typeface.[7] Despite their differences, both Johnston and the Modern designers demonstrated an active desire to rejuvenate the shapes of letters by considering their underlying structure, be it geometrical or gestural, and both expressed frustration at the existing state of affairs:

A generation of compositors who had lost their integrity as craftsmen and degenerated into mere labourers or apes of artists. What was badly needed was a new typography which would not depend on ready-made layouts and would express the spirit, the life and the visual sensibility of its day.[8]

Gradually the role of the letter designer becomes firmly established along with the typographer and the graphic designer.

One of the key figures responsible for the revolution in the production of typefaces for book work was the scholar Stanley Morison, director of typographic development at the Monotype Corporation. He was central to a large movement in Europe and North America that was attempting to reinvent typographic excellence, frequently by reviving the letterforms of the early printers, and was responsible for both Pholiphilus and Bembo mentioned above.[9] The beautiful letterforms of the early print-

[7] Though in a strange twist of fate Johnston was responsible for the first typeface of the London Underground, a very modern sans-serif form that takes its place as the first corporate typeface.

[8] Jan Tschichold. *Asymmetric Typography*. New York: Reinhold Publishing Corporation, 1967, pg. 19. Trans. of *Typographische Gestaltung* Basle, 1935

[9] 'Two separate companies – one based in England, one in America – rose up around the Monotype machine and followed two quite separate development programs.... Lanston Monotype, as the American company was called, made some historical recuttings of its own and issued many new and historically based faces designed by its own advisor, Frederic Goudy. A third campaign to recreate typographic history in marketable form was mounted by Linotype, under the direction of the English master printer George William Jones.' Robert Bringhurst. *The Elements of Typographic Style*, pg. 140

13

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nicolas jenson
a nõnullis ægyptiorum

adobe jenson
a nonullis ægyptiorum

ruit
ecce hereditas Domini

CANTICVM GRADVVM SALOMONIS
Nisi Dominus aedificaverit domum
in vanum laboraverunt qui aedificant eam.
Nisi Dominus custodierit civitatem
frustra vigilavit qui costodit.

centaur mt
ecce hereditas Domini

Nisi Dominus aedificaverit domum
in vanum laboraverunt qui aedificant eam.
Nisi Dominus custodierit civitatem
frustra vigilavit qui costodit.

itc legacy serif
ecce hereditas Domini

Nisi Dominus aedificaverit domum
in vanum laboraverunt qui aedificant eam.
Nisi Dominus custodierit civitatem
frustra vigilavit qui costodit.

itc legacy sans
ecce hereditas Domini

Nisi Dominus aedificaverit domum
in vanum laboraverunt qui aedificant eam.
Nisi Dominus custodierit civitatem
frustra vigilavit qui costodit.

12

consider these two halves as the serif faces and the sans serif faces, but even if useful that might be misleading, considering productions like Legacy Sans, a humanist sans-serif.[11] Anyhow, up to today:

... traditional and new typography have continued to be practiced alongside each other, and have even been mixed – ..."[12]

Today, when I look in my drop-down menu of typefaces available in Adobe InDesign, I find versions of Centaur and Futura side by side.

The simultaneous evolution of futura and centaur is to my mind astounding. On our computers today we have living professional versions of typefaces from Jensen to Verdana, and usable typographic adaptations of earlier black letter, Carolingian, Etruscan and Roman letterforms, covering more than 2000 years of alphabet lettering and a serious chunk of the history of Latin type faces from the birth of printing to the present. This ability to shift so quickly through centuries, and even the simple notion that Univers, designed by Adrian Frutiger in 1957, is a usable and relatively recent design, is inconceivable to most architects working today. To my mind this is the unselfconscious quality of the living vernacular, the sort of hidden order that Christopher Alexander was searching for in his *Timeless Way of Building*.

11 'Admittedly the serif is a minor part of a letter, certainly not an essential.' E.M. Catich. *The Origin of the Serif*. Davenport: The Catfish Press, 1968, pg. 3
12 Gerard Unger. *While You're Reading*. New York: Mark Batty Publisher, 2007, pg. 29

15

The existence of intangible content in architectonic form
centaur mt bold 24pt.

The existence of intangible content in architectonic form
futura medium 20pt.

The existence of intangible content in architectonic form
univers roman 20pt.

ers like Jensen , Griffo and Arrighi no longer existed in metal, so the production of 'old faces' had to begin again from scratch. This produced numerous readings and renditions of old forms. For example, the type of Nicolas Jensen from 1470, available in a new form as Adobe Jensen, was the model for Centaur, Cloister, Legacy, Legacy Sans and Noordzij's Ruit.[10]

Continuity

The line between the work of the traditionalists and the avant-garde began to blur, and eventually, if not almost immediately, the two halves of the typographic renaissance merged. I could

10 The image of Ruit is taken from Gerrit Noordzij. *Letterletter: An inconsistent collection of tentative theories that do not claim any other authority than that of common sense*. Vancouver: Hartley & Marks, 2000, pg. 100

14

INVISIBILITY AND THE OBJECT
content and form in typography and architecture

Invisible Typography

As a setting for human language, typography serves that which lies beyond its physical form. The visible beauty of the physical form becomes, in a functional sense, invisible. The architect Kengo Kuma uses the same metaphor to describe the ability of an architectural work to recede from conscious view and thus allow for participation. In both cases it is the strange paradox of a thing being so clear and easy to read that we no longer perceive that we are seeing it. In both cases it is not that we do not *see*, but that we do not *look at*, or are not *lead to look at* the object itself. In a simplistic sense, if it is noticeable we might say that the object is in conflict with our activity. The visible and the invisible have traded places. This view of typography is stated most explicitly in relation to the activity of continuous reading:

Typography may be defined as the craft of rightly disposing printing material in accordance with specific purpose; of so arranging the letters, distributing the space, and controlling the type as to aid to the maximum the reader's comprehension of the text.[1]

The position Stanley Morison takes is in some sense unassailable, grounded in the mechanisms of typographic design, though others express similar views. Noordzij, who will disagree with Morison on some counts, does agree to the basic premise of legibility as a law. 'Again, you do not need to respect the law. Feel

[1] Stanley Morison. *First Principles of Typography*. London: Cambridge University Press, 1936. pg. 7

17

16

free to make cluttering and useless typefaces.'² Beatrice Warde, one of the foremost writers on typography, interprets this quality of maximum comprehension metaphorically in her essay *The Crystal Goblet*:

> The book typographer has the job of erecting a window between the reader inside the room and that landscape which is the author's words. He may put up a stained-glass window of marvellous beauty, but a failure as a window; that is, he may use some rich, superb, type like text gothic that is something to be looked at, not through.³

It is essential to recognize that Warde is considering type as a medium of 'thought transference', that 'printing is meant to convey specific and coherent ideas,' a position that precludes the possibility that form and content collapse back onto each other. I have said that the visible and the invisible trade places, but I can also say that they are finally inseparable. Warde's extraordinary architectural metaphor is very useful for this very reason, because when taken literally it begins to expose very serious questions about the nature of the object itself, and the location of human meaning. But first let us consider the process of design. Gerrard Unger, a leading typographer and type designer, analyzes the subtle interplay of the visible and the invisible – in the space between type and the act of reading – thus clarifying the subtleties involved:

> It is almost impossible to read and look at the same time: they are different actions.⁴

2 Gerrit Noordzij. *Letterletter: An inconsistent collection of tentative theories that do not claim any other authority than that of common sense.* pg. 128
3 Beatrice Warde. *The Crystal Goblet: Sixteen Essays on Typography.* London: Sylvan Press, 1955
4 Gerard Unger. *While You're Reading.* pg. 38

When Unger refers to reading in this way, he has already demonstrated that no one can really define exactly what reading is, nor explain quite how it works, but typographers are still able to work practically to make reading possible and easier. A readable text can be contrasted with a legible text, where the latter can be understood but would prove difficult in a situation of continuous reading. It is in the service of continuous reading, as Morison makes clear, that the type must approach invisibility. The difference between legibility and readability has its parallel in architecture, where legibility might be the comprehension of what we *see*, while readability is the free participation in patterns of daily life. Public institutions, follies, didactic works and monuments might all have reason to be *looked at* rather than inhabited.

Invisible Architecture

Leatherbarrow and the problem of the object

The act of thinking about and working with the architectonic form of architecture creates a problem for those engaged in the act of thinking about and working with the architectonic form of architecture. This problem manifests itself as the foregrounding of the architectural object in the work and practice of architecture. This happens intentionally, but it can easily happen by accident as well. The reason the presence of the architectural object is a problem is that, within the field of vision of the person in society, this object can disrupt an unselfconscious participation in the patterns of human life.

Rod McDonald takes Unger's remark that 'it is almost impossible to read and look at the same time' and goes on to point out the difficulty or contradiction this presents for the practice of design: In attempting to create readable text, the designer necessarily spends all day looking at letters, the very thing that must

become imperceptible to the reader.

While typography provides a useful foil for considering the problem of object and participation in architecture, it is important to keep in mind that letters and building, reading and inhabiting, are different; architecture does not function within the relatively narrow and conservative restrictions of reading. 'Up to a point, the reasons why experiments [in typography] fail and familiar forms survive are inherent in the very mechanisms of reading.'[5] The absence of this restrictive force in architecture exacerbates the danger of architectural design contradicting its own intended purpose as 'setting':

Is it really the case that each building is seen as something 'in itself,' something that stands apart from its surroundings, noticeable because it is distinct? Does not the independence this assumes distort our typical experience of the cities and towns in which buildings find their place, assuming for each building the uniqueness we might otherwise reserve for special cases, such as monuments?[6]

The object can become a source of excitement and motivation and creativity, but the real problem emerges when the designer becomes trapped by this paradox. Because of the nature of the work, those struggling to design settings that accommodate the patterns of human life will spend the day looking at architectonic form, but will need to simultaneously maintain a focus on a purpose that lies beyond the very thing itself.

Alberto Pérez-Gómez, in his determination to trace 'the generation [making] of meaningful form'[7], falls into this trap. He

5   Gerrard Unger. *While You're Reading*, pg. 38
6   David Leatherbarrow. *Uncommon Ground: architecture, technology, and topography.* Cambridge: MIT Press, 2000, pg. 72
7   Alberto Pérez-Gómez, 'Architecture is not a Convention,' in: *Type and the (Im)Possibilities of Convention.* New York: Princeton Arch. Press, 1991, pg. 13

recognizes the visible and invisible dimensions of the architectural enterprise, stating accurately that 'Meaning depended on both.'[8] The problem is that he places the responsibility for the invisible dimension on society in the form of ritual, and then places the responsibility for the visible dimension on the architect. Of course the visible dimension is the responsibility of the architect, but that does not mean that the architect is therefor responsible for the meaning embodied in that form:

But the authentic ground is accessible only through the personal vision of the architect who, as we examine his or her role in the history of culture, is always concerned with authentic knowledge (wisdom) and, not surprisingly, always appears at the leading edge of science and philosophy.' pg.16.

This is like saying that typographers appear at the leading edge of science and philosophy because they are responsible for the visible, physical form of those philosophical and scientific texts. Typographers are responsible for the physical form of language, the formal setting of those linguistic works within the constantly shifting structures of human society. They will play an enormous part in articulating those structures [Noordzij considers the Bible in this light], but the actual responsibility for visible meaning is much harder to trace. Continuity is a necessary condition for presence; only a certain range is possible. We cannot formulate an entirely new architectural ordering of society without the rigid controls of a fascist regime, and even in that context it is difficult. The inherent meaninglessness of letters can be shown alongside the subtle interplay of visible and invisible qualities that they possess in relation to the human activity of reading. The inherent meaninglessness of architectural forms will be much more dif-

8   Alberto Pérez-Gómez, 'Architecture is not a Convention,' in: *Type and the (Im)Possibilities of Convention,* pg. 13

ficult to articulate since the function of those forms are so much more subtle. Architectural form may have no inherent meaninglessness, but the total absence of a restrictive force, of continuity, exacerbates the danger of architecture contradicting its own purpose as setting and thus restricting the presence of meaning.

The subtlety of architectonic form, so different from the much clearer syntax of print media, perpetuates the difficulty of maintaining a focus on a purpose that lies beyond the object of our attention. Even program driven design, or pure functionalism, suffers from the foregrounding of the architectural object by expecting the building, again in an almost fascist sense, to prescribe explicit patterns of human life. This can be so severe that the building begins to take on, in the mind of the designer, the qualities of an active agent, rather than providing a setting for action. More meaning exists than can be created, so an architecture that creates meaning is necessarily less.

Kengo Kuma and the anti-object

The second reason for the predominance of object thought is not an accident of process, but the very worship of the consumable object in 20th century life. 'The twentieth-century systems of communication sought objects and, as a result, architecture of the twentieth-century came to be dominated by objects.'⁹ Kengo Kuma tackles the problem of the object by proposing a general alternative that he calls the anti-object. This undermines the objectification of the architectural design, while preserving its built nature as a thing or noun, thus avoiding the danger of conceiving of it as an active agent or verb. 'Nevertheless, we are composed of matter and live in the midst of matter. Our objective should not be to renounce matter but rather to search for a form of matter

9 Kengo Kuma. *Anti-Object*. London: Architectural Association, 2008, pg. 104 - 5

other than objects.' This approach, irrespective of its philosophical solidity, is important for its subtlety in relation to the practice of architectural design. The activity of design deals with formal qualities and questions of material and construction. In typography too, letters are objects.¹⁰

Kengo Kuma further criticizes our preoccupation with objects saying, 'No particular skill or effort is required to turn something into an object. Preventing a thing from becoming an object is a far more difficult task.'¹¹ The challenge, therefore, is: 'How then can architecture be made to disappear?'¹² This question comes out of his desire for human participation in the material of architecture, an overcoming of the separation implicit in the aesthetic object.¹³ How do we make invisible architecture? Glass, or transparency, is unfortunately not the answer. 'Many glass buildings are in fact conspicuous objects that thoroughly dominate their environments.'¹⁴ The observations are critical when confronting the real possibility of inhabiting a place.

The window and the object

Beatrice Warde's metaphor of the window presents a difficulty.

10 Architectural works are also objects, but the difficulty of making them invisible is increased because the pattern of human inhabitation in the context of built form has lost the clarity of technique that exists in reading. The activity of inhabiting a place may be so much more complex and subtle that the articulation of it is more easily compromised. Whatever the case, it seems relatively clear that effort or wisdom is required to overcome this difficulty.

11 Kengo Kuma. *Anti-Object*, pg. 51

12 Botond Bognar. *Kengo Kuma: Selected Works*. New York: Princeton Architectural Press, 2005, introduction

13 'The danger for art and architecture is, indeed, irrelevancy through potential closure to participation implicit in instrumental (i.e. aesthetic) representation.' Alberto Pérez-Gómez, 'Architecture is not a Convention,' in: *Type and the (Im) Possibilities of Convention*. pg. 22

14 Kengo Kuma. *Anti-Object*, pg. 51

The window – the text – provides a clear view of the landscape beyond, but it does so by framing that view. The frame mediates our experience. The frame generates objects that can be perceived as separate and understood within our framework of perspectival space. This danger of the object separating us from participation in human culture therefor exists as much in printing as in architecture. Beatrice Warde is describing a condition in which the use of typography, the technology of the word, is used to create objects of thought, but she is celebrating this condition. The separation from the culture of oral knowledge implicit in this technology, as contrasted with oral traditions, has serious implications. Our experience is mediated, cut off from subjective participation, and the world comes to be experienced as a collection of separate nameable objects.

The creation of objects of thought through the frame of a text can be seen to cut us off from the culture of conversation the way objects of architecture cut us off from participation in the patterns of daily life, but this reading is too simple. We may say that the architect is the author of a work of architecture, as the writer is the author of a text, so that when architecture functions as a setting for human activity, as a place of participation, architecture becomes in a sense an oral culture of the body. But if form and intangible content are finally inseparable, the place of meaning within or beyond the object – be it an object of thought or building – will remain elusive. In the end the clear division between 'oral culture' and 'written culture', between authentic and mediated experience, may be impossible. It is enough to say that the story lies beyond the architect, as it lies beyond the writer and the story teller. The architect's task is to consider explicitly the mediating technologies of building so as to avoid the separation implicit in accidental forgrounding of the form. The forgrounding of the printed word makes reading impossible. Though language

and the body are treated as distinct, when architectural work is treated with the same delicacy as the printed word, the oral culture of the body becomes possible.

What is so curious about Warde's metaphor is her poetic use of the stained glass window as the decorative but opaque alternative to the functional invisibility of the clear window. From an architectural point of view, the magic of stained glass is as much the play of colored light on the surfaces of the room as it is the pictures on the glass itself. In this way, quite by accident, Warde has brought us back into the space of architecture, into the movement of our bodies, to the movement of colored light. This is the presence of our whole selves, body and mind, in the direct experience of place.

Rather than simply meaning 'something,' art and architecture allow meaning to present itself. ... Artistic meaning rests upon an interplay of showing and concealing.[15]

To access the 'landscape' beyond, one must circumvent the mediating window of the text and find the door, walk out of the cathedral into the fresh air and sunlight. For the person who cannot read the window is always opaque. This person is forced to enter into the space of conversation, of a living engagement.

The alternative Kengo Kuma offers to the window is the floor, the surface that allows for the inhabitant to access and thus participate in the landscape of the garden beyond. This is a clear formal approach. Later, other formal strategies emerge, following the chapters of the book: flowing out, erasing, minimizing, unraveling, reversing, substituting, and breaking down into particles.[16]

15 Alberto Pérez-Gómez, 'Architecture is not a Convention,' in: Type and the (Im)Possibilities of Convention, pg. 22
16 This last strategy, particalizing, allows Kengo Kuma to move beyond the garden to approach conditions evocative of wilderness. This is not wilderness

When typography is invisible we see clearly an *object of thought*. Architecture that becomes – or presents us with – *objects of thought*, threatens our time-based physical participation in the patterns of human life. Typography and architecture are clearly seen to articulate separate but not unrelated aspects of human culture. If it were possible to separate body and mind, then we could understand the body as occupying architecture while the mind finds refuge in the text.[17] However, if it is not possible to separate mind and body, two problems present themselves. The first, which we can describe as 'revealing and concealing' (after Alberto Pérez-Gómez), is the challenge of allowing the fullness of body and mind to exist in the work itself. The second, which we can describe as the way, or the practice of architecture, is the challenge of retaining a living sense of this paradox in the very activity of professional practice. The metaphor of the window draws attention both to the space beyond the text, and to the separation implicit in a mediated experience.

The problem of authorship

It is difficult to define architecture precisely because it is a shifting field of articulation; an articulation of the structures of human society. The role of the architect is equally difficult to define. The frequent habit of likening architecture to a fine art may be a serious inhibition to the production of good work because of

as untouched landscape beyond the reach of human occupation, but rather wilderness as a condition of fragmentation that nonetheless offers a certain coherence. We will return to the question of wilderness. This idea of wilderness provides a powerful alternative to order when we face our fear of disorder.

17 There is some relation here to space and time that I can only begin to glimpse. It may be that time gets extended through the collapse of the physical space of oral practice that exists in the text, while in architecture physical space gets extended through the collapse of time that has occurred in the patters of human life.

the difficulty of remaining focused on a purpose lying beyond the object of the architect's attention.

On a personal level, since the designer necessarily spends every day attending to the formal qualities of his or her work (the equivalent of 'looking at type'), it becomes essential that he or she develop an equally attentive understanding of the relations between these forms and society. The unselfconscious processes of the vernacular builder is no longer available to the self-conscious designer, but this does not preclude the possibility of freedom or delicacy in the practice of design. It may just be more difficult now to avoid getting in ones own way. The architect who does not develop some understanding for the practice itself risks falling into the trap of assuming that meaning is generated out of his or her own creative process, and thus creating, quite by accident, objects that separate us from the patterns of human life.

The problem of audience

The desire to build a structure that promotes participation by accommodating and representing patterns of human life also comes up against the habits of society. The patterns of human life are a collective, active performance, and yet much of our embodied presence in the world has become a fleeting thing. The patterns of human life in contemporary society are extraordinarily passive, mediated by technologies that consistently generate objects of analysis or desire or perception. As the space of the body, the embodied self, the physical space of architecture is marginalized.

The public perceives buildings to be objects, ... When one speaks of a beautiful work of architecture, one generally means the work in question is a beautiful object. By an excellent architect one generally means an architect with the ability to design beautiful objects.'[18]

18 Kengo Kuma. *Anti-Object*. pg. 5

Architects are not just up against their own hubris or the accidents of process. An architect's most invisible building is up against the projection onto his or her efforts the aesthetic object by a public accustomed to disembodied, passive consumption.

The challenge is to provide the possibility of embodied experience within the patterns of human life. This means giving form to the space of daily life without letting that form disrupt the possibility of participation.

Reading a poem can slow our reading down to the point at which it stops altogether, giving us the space to be moved or surprised.[19]

In this way typography, in concert with the text of the poem, has created a condition that can be described as a full body experience. In doing this the paper, the ink, the design of the letters themselves, may become visible, and yet they retain their position relative to poetry. The physical form does not have to become poetry for the poetry to take on physical form.

19 Gerard Unger. *While You're Reading*. pg. 67

28

THE PRACTICE OF ARCHITECTURE
reason and emotion

Revealing

It is hear, one might argue, that all the trouble starts. As Brian McKay-Lyons said in his lecture, 'This is not a painting.' But too often the graphic play is thought of as art. There is art to it, as there is art to growing orchids or to tending the sick, but it is not the art of galleries and museums, not the high kind but the lowly practice of the craft, the artisan. It is the movement of fingers and bow that make music of the violin, not the violin maker alone. We are concerned with the graphic quality that does not forget itself but also remains free.

If a work of architecture consists of forms and contents that combine to create a strong fundamental mood powerful enough to affect us, it may possess the qualities of a work of art. This are has, however, nothing to do with interesting configurations or originality. It is concerned with insights and understanding, and above all with truth. Perhaps poetry is unexpected truth. It lives in stillness. Architecture's artistic task is to give this still expectancy a form.[20]

We are seeking truth, rather than our own creative genius. Yet as our work it is from us that this truth must come. We are a part of the emergence of truth in our activity, activity situated in the world.

It seems to me that I have found what I wanted. When I try to put all into a phrase I say 'Man can embody the truth but he cannot know it.' I must embody it in the

20 Peter Zumthor. *Thinking Architecture*. Basel: Birkhäuser, 2006. pg. 19

29

completion of my life. The abstract is not life and every-where drags out its contradictions. You can refute Hegel but not the Saint or the Song of Sixpence.[21]

Knowledge of the truth is impossible, perhaps because the knowledge of *what something is* differs from the knowledge of *how to produce it*. Making is an embodied activity. How do we proceed towards making with so much knowledge of *what things are* that is separate from our activity, our practice of daily life? Method based on analysis and precision suggests iterations and gradual refinement:

This process cannot be accomplished in a single project, but is implemented across various projects. That is why our house designs are gradually changing.[22]

Even the cerebral, intellectual, academic, theoretical qualities of this approach, object-like in their analysis, suggest the need for a way, a method that allows for delicacy within the rational frames of reference. How do we avoid the trap of the object and remain focused on a purpose in architecture lying beyond the object of our attention?

[The inner image] helps us not to get lost in arid, abstract theoretical assumptions; it helps us not to lose track of the concrete qualities of architecture. It helps us not to fall in love with the graphic quality of our drawings and to confuse it with real architectural quality. ... It is part of thinking. Associative, wild, free, ordered, and systematic thinking in images, in architectural, spatial, colorful, and sensuous pictures—this is my favorite definition of design.

Zumthor deals more directly with this overview by referring, at

21 Yeats, from Richard Ellmann. *Yeats: The Man and the Mask.* Oxford: Oxford University Press, 1979. pg. 289
22 Atelier Bow-Wow. *Bow-Wow from Post Bubble City.* Tokyo: Inax Publishing, 2006, pg. 9

30

different times, to memory and emptiness:

When I work on a design I allow myself to be guided by images and moods that I remember and can relate to the kind of architecture I am looking for.[23]

For memory, finding one's way, writing, and typography, we turn to Ingold:

Commentators from the Middle Ages ... would time and again compare reading to wayfaring, and the surface of the page to an inhabited landscape. ... We have seen that, for the inhabitant, the line of his walking is a way of knowing. Likewise the line of writing is, for him, a way of remembering. In both cases, knowledge is integrated *along* a path of movement.[24]

Movement is the way, the activity of the body in its relation, as part of the world, as present. It is enough to recognize that our methods are not innocent and so we might take some responsibility for the way that we work and situate ourselves, for the

23 Peter Zumthor. *Thinking Architecture.* pg. 26
24 Commentators from the Middle Ages ... would time and again compare reading to wayfaring, and the surface of the page to an inhabited landscape. Just as to travel is to remember the path, or to tell a story is to remember how it goes, so to read, in this fashion, was to retrace a trail through the text. One remembered the text in much the same way as one would remember a story or a journey. The reader, in short, would *inhabit* the world of the page, proceeding from word to word as the storyteller proceeds from topic to topic, or the traveller from place to place. We have seen that, for the inhabitant, the line of his walking is a way of knowing. Likewise the line of writing is, for him, a way of remembering. In both cases, knowledge is integrated *along* a path of movement. And in this respect, there is no difference in speech or song. There is, however, ... a fundamental difference between the line that is written or voiced and that of a modern typed or printed composition. It is not, then, writing itself that makes the difference. It is rather what happens to writing when the flowing letter-line of the manuscript is replaced by the connecting lines of a pre-composed plot. Tim Ingold. *Lines: A Brief History.* Abingdon: Routledge, 2007, pg. 91

31

practice of architecture.

In asking about the practice itself we encounter what Christopher Alexander called 'the quality without a name,' that he searched for but that Peter Zumthor found:

On the search for the architecture that I envisage, I frequently experience stifling moments of emptiness. Nothing I can think of seems to tally with what I want and cannot yet envisage. At these moments, I try to shake off the academic knowledge of architecture I have acquired because it has suddenly started to hold me back. This helps. I find I can breathe more freely.[25]

The freshness of design that results from this process appears, particularly to a secular-rationalist world view, as something of a mystery. But the process he describes is no mystery. When we move out to a Buddhist forest monastery in the far east, we are perhaps less surprised by this line of thinking. Taken from a short introduction to Vipassana and Samatha, the Venerable Monk Chandako provides the following clarification:

The thinking mind is not wisdom. The intellect is incapable of directly experiencing reality. It has already been tainted by our basic views of the world. Because our thoughts, views and perception so fundamentally shape our reality, it requires a radically different experience to challenge them and shake the unenlightened mind awake. One of the challenges for the highly educated meditator is to renounce indulging in or identifying with fascinating thoughts. It requires a willingness to be simple-minded, as utterly still and quiet as a breezeless mountaintop with no one there.[26]

25 Peter Zumthor. *Thinking Architecture.* pg. 23
26 Ajahn Chandako. *A Honed and Heavy Axe: Samatha and Vipassana in Harmony.* Bangkok: Vibulkij Publishing Group, 2004. pg. 13

In approaching the practice of architectural design, we, the students of the schools of architecture, are precisely this highly educated meditator; for us, stillness has become almost impossible. The stillness is both knowledge and wisdom, or in the words of Ajahn Chandako, insight (*vipassana*) and serenity (*samatha*). We have all the insight we could want. It is for this reason I am trying to turn attention from the object to the space between. What we lack is serenity. We lack wisdom; this is the stillness. This is the way, the practice that leads towards clarity in how the world is perceived. This is *samatha*. 'The peace of mind it offers is a refined emotion.'[27] Zumthor refers to this shared presence of emotion and reason:

The strength of a good design lies in ourselves and in our ability to perceive the world with both emotion and reason.[28]

What I heard appeals to me: not to wish to stir up emotions with buildings, I think to myself, but to allow emotions to emerge, to be. And: to remain close to the thing itself, close to the essence of the thing I have to shape.[29]

This view is not academic, it is absolutely not theoretical or abstract. This approach is rooted in the material of things, but it is things that have ceased to be separate from us. Objects perceived in a subjective way. This is so important that the architectural drawing itself becomes a promise, an inadequate portrayal.[30]

The reality of architecture is the concrete body in which forms, volumes, and spaces come into being. There are

27 Ajahn Chandako. *A Honed and Heavy Axe: Samatha and Vipassana in Harmony.* pg. 2
28 Peter Zumthor. *Thinking Architecture.* pg. 65
29 Peter Zumthor. *Thinking Architecture.* pg. 29
30 Peter Zumthor. *Thinking Architecture.* pg. 12

no ideas except in things.[31]

By 'wilderness' I want to mean, not just a set of endangered spaces, but the capacity of all things to elude the mind's appropriations. ... in such defamiliarizations, often arranged by art, we encounter the momentary circumvention of the mind's categories to glimpse some thing's autonomy – its rawness, its *duende*, its alien being.[32]

The wilderness is then that which cannot be named and thus cannot be known in the object sense. The formal techniques of Kengo Kuma address the implications of cutting up the spaces of human habitation, in particular the threshold between that which lies beyond and that which lies within. The separation of everything into separate knowable parts has collapsed back into the space of the unnameable. Finally the cutting up of the world into fragments can cease as we discover the way in which we occupy the space set up between those nameable things, rather than persisting in crafting the world to be what we make it. We must slow down in order to arrive. We can arrive at the essential quality of a mind reunited with its body very quickly and in the simple practice of work.

'All that has black sounds has duende.' And there is no greater truth.

These 'black sounds' are the mystery, the roots fastened in the mire that we all know and all ignore, the fertile silt that gives us the very substance of art. 'Black sounds,' said the man of the Spanish people, concurring with Goethe, who defined the duende while speaking

31 Peter Zumthor. *Thinking Architecture*. pg. 37
32 Don McKay. *Vis à Vis: Field Notes on Poetry and Wilderness*. Kentville: Gaspereau Press, 2001, pg. 21

of Paganini: 'A mysterious power which everyone senses and no philosopher explains.'

The duende, then, is a power, not a work. It is a struggle, not a thought. I have heard an old maestro of the guitar say, 'The duende is not in the throat; the duende climbs up inside you, from the soles of the feet,' meaning this: it is not a question of ability, but of true, living style, of blood, of the most ancient culture, of spontaneous creation.

This 'mysterious power which everyone senses and no philosopher explains' is, in sum, the spirit of the earth, the same duende that scorched the heart of Nietzsche, who searched in vain for its external forms on the Rialto Bridge and in the music of Bizet, without knowing that the duende he was pursuing had leaped straight from the Greek mysteries to the dancers of Cádiz or the beheaded, Dionysian scream of Silverio's siguiriya.[33]

Why, I often wonder, is the obvious but difficult solution so rarely tried?[34]

33 Federico García Lorca. *In Search of Duende*. New York: New Directions, 1998, pg. 57
34 Peter Zumthor. *Thinking Architecture*. pg. 33

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