

# In parallel: Developing an interwoven visual and spatial identity

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AUT School of Art and Design

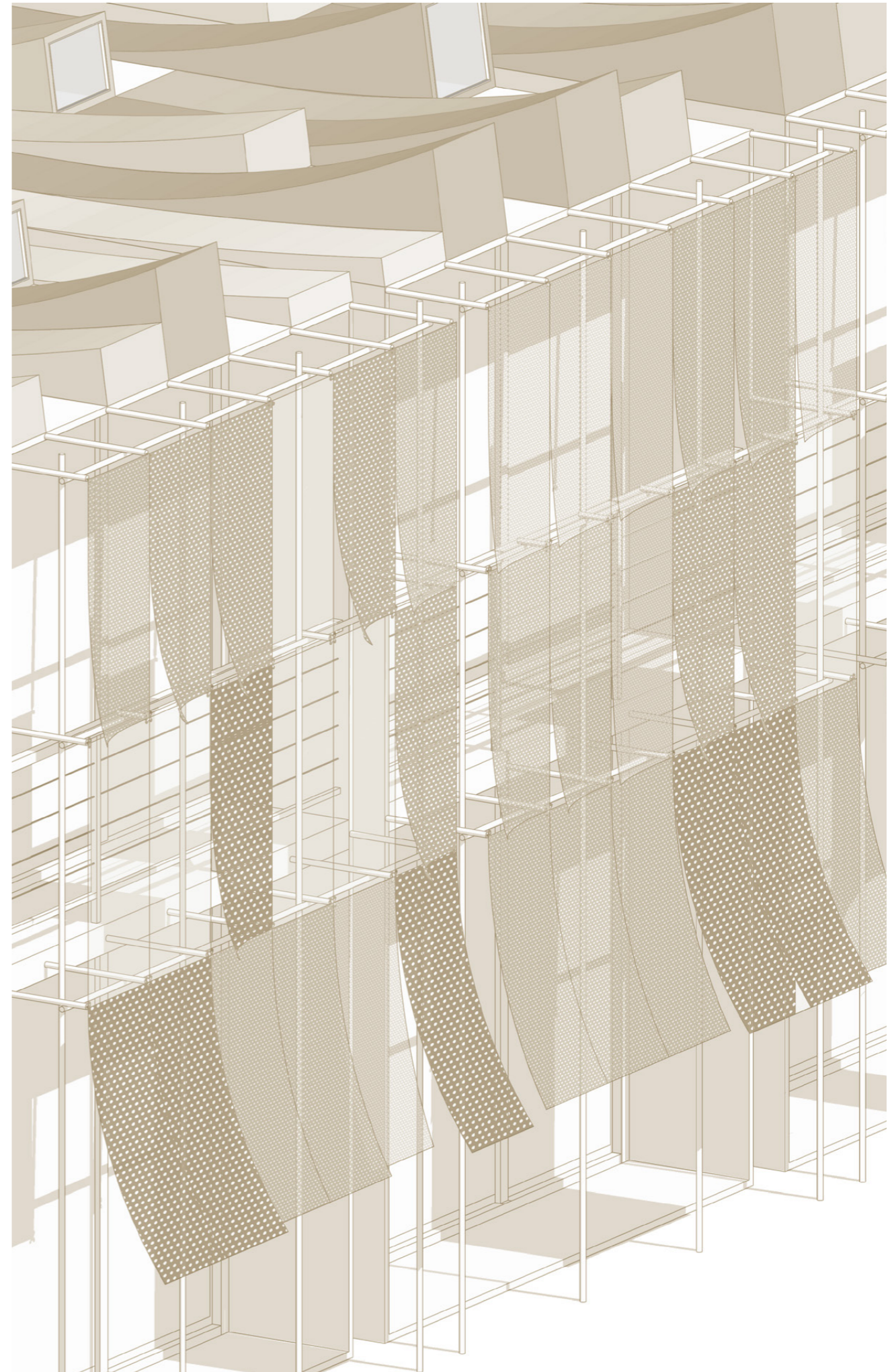
# Abstract

Architectural and graphic design have long been in dialogue with each other, often through their disciplinary intersection of environmental graphic design. Architects and spatial designers alike use architectural visualisations, drawings and other mediums to communicate their design concepts and ideas. On the other hand, the existence of a visual identity within an architectural context is never used to communicate the design of a built environment, rather to communicate a brand entity that exists within the space.

This research explored methods and strategies to developing a visual identity that authentically communicates the intent of the architectural design, with the goal of creating a rich and nuanced interdisciplinary dialogue. This research adopts a systems-thinking approach that simultaneously considers various design components, the design brief, and final outcome; developing both the architectural design and the visual identity conjointly, allowing ideas to interlink and cross-pollinate.

This research concludes that for a rich and nuanced visual identity to occur, the design concept needs to contain a systematic approach that can apply to both disciplines from the beginning, rather than developing the visual identity after a singular architectural design concept, as the latter limits the extent to which the two disciplines can interact and communicate. The findings serve as an encouragement for multi-disciplinary engagement between spatial designers and graphic designers, both of whom can benefit from incorporating the other discipline into their design processes.

**Keywords**  
Interdisciplinary design, design concept, communication design, visual language, architectural design, design systems, visual identity, environmental graphic design, design process



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## Contextual review

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### Attestation of authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.



Zach Tso  
Signed 4th May 2025

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# Introduction

Architectural and graphic design have long been in dialogue with each other, often through their disciplinary middle-ground of environmental graphic design. Architects and spatial designers alike use architectural visualisation, drawings, and other graphic mediums to communicate their design concepts and ideas. On the other hand, the existence of a visual identity within an architectural context is never used to communicate the design of a built environment, rather it is a commercial brand entity that exists within. Recognising that graphic design can be a powerful tool in communicating spatial and architectural design, this research aims to explore methods and strategies for developing a visual identity that authentically communicates the intent of the architectural design, with the goal of creating a rich and nuanced interdisciplinary dialogue.

Within this practice-led research, a self-directed design brief is used to approach the design, and to examine and evaluate strategies within a traditional design context; I respond to the brief by designing components of architecture and graphic design conjointly. These components are examined, compared, and combined to form new ideas.

This research adopts a systems-thinking approach to design, which views different design components as interconnected and interdependent parts of a whole, and that the sum of those parts is more impactful than their whole in communicating and expressing their design. I approach design by simultaneously considering spatial and graphic messaging, the original design concept, and the final architectural image.

This project is communicated through this exegesis and an exhibition of the finalised designs, consisting of a combination of cross-disciplinary formats. This exegesis can be viewed in two parts, the first part discussing my aims, contextual positioning, literature discussion and my design methodology; the second part consists of the documentation of my practice-led research, in which I critically review my design work, evaluating, synthesising, and developing my final outputs for the accompanying exhibition.

## Research question:

# How can the development of a visual identity in parallel with an architectural design enrich conceptual expression and foster cross-disciplinary dialogue?

## Objectives:

The objectives of this research are to:

1. Establish an overall strategy for how a visual identity can be developed from the conceptualisation and early design stages of architecture.
2. Produce multi-disciplinary design work that exhibits an interconnected and interdependent relationship.
3. Demonstrate that the cross-disciplinary and systems-thinking design approach can be beneficial for conceptual expression.

## Evaluative criteria:

The practice-led research section of this project involves a large array of design components and ideas; these components each need to communicate a multitude of conceptual messages and are combined to create a singular cohesive experience. These developed components are examined, removed, or combined according to:

1. Their individual messaging.
2. Their messaging when combined with each other.
3. Their ability to influence and inspire other ideas.
4. Their ability to communicate multiple ideas.
5. Their overall aesthetic.

# Positioning statement

This interdisciplinary research question stemmed from an initially unconscious observation about graphic design during my undergraduate practice in spatial design; it was evident to me that the presentation of our designs is as important as the designs themselves, that graphics play a pivotal role in communicating and shaping three-dimensional spatial designs via a two-dimensional format.

It was common to notice among my peers a complete lack of attention to graphic design, which resulted in a misalignment between the visual language used in presentations and the architectural language it aimed to communicate. Using typefaces of a completely different style from the design or using colours in their presentation that would otherwise have never appeared in the space – the list of oxymoronic and counter-intuitive practices goes on. However, it was a common occurrence throughout my undergraduate years.

As a method of practice and a way to further enrich and express my spatial design work, I began designing logos for the spaces I was working on – not to communicate the brands the space was intended for – but to communicate the essence of the design concept.

Unknown to me at the time, I was creating an architectural identity; by conveying the impression of the architecture via a different format, I was expanding on how the built environment should physically look and feel on a conceptual level. It became a practice to articulate my spatial-design concepts better; if I could capture the experience of a sizeable space through a small logo, then I had refined and grasped the essence of the design concept. It was a nebulous concept to grasp at first, but I was driven by the idea of two things possessing the same ‘energy’ or ‘idea’.

This practice has expanded into a more extensive focus on graphic design for architecture in general. Equal amounts of time were dedicated to developing both areas of design – to me, they are equally important and deserve equal attention in building an overall experience.

It became evident to me that graphic design and architectural design are interlinked, that graphic design, when ignored or done poorly, can misconstrue and poorly communicate architectural experiences – but when done well, it can clearly communicate and even amplify the three-dimensional design via two-dimensional formats.

*Maison De  
Lartigue*

PROJECT  
IGOR

微家 +

micro  
residence

Figure 1.01:  
Various project logos from my undergrad  
practice.



During the beginning of this research, I experimented with type, which diverged into interpreting typefaces as chairs, capturing the essence of a glyph through a chair by drawing specific formal and stylistic characteristics, creating visual and stylistic parallels and connections. That led to pairing typefaces with architecture: to observe architecture and capture that impression as a letter.

I was familiar with environmental graphic design as a practice; elements like supergraphics and wayfinding design were taught during my undergraduate years, but little emphasis was placed on their importance and their ability to communicate architectural style, and even less so towards specific graphic-design elements – the emphasis was placed on the materials for a number plate, rather than the typeface used.

The idea that two different things can

communicate the same thing, this oneness in ‘narrative’ and ‘impression’, is a phenomenon we begin to observe across different areas of design – for example, fashion houses dedicate more and more effort into not just their clothes, but building an immersive world around them to form an experience and brand ‘story’ – their advertising, merchandising, marketing, and runway shows; the same practice is also present in the making of video games and fictional media, commonly referred to as ‘worldbuilding’ – the practice of creating cohesive and immersive fictional worlds that contain consistent rules, lore, and history, which is reflected across all components of the video game – stories, game assets, music, and visual styles all reflect the same story in which the player can be fully immersed (Reid, n.d.; Wolf, 2014).

My past works and the aforementioned industry practices all try to cohesively impart an overarching design narrative and experience – this overarching pursuit has led me to this research project: How do we do the same for architecture and graphic design? How do we deepen the dialogue between graphic design and architecture?

Figure 1.02:  
Architecture as typefaces

# Contextual review

# Contextual review

## 2.1 Brand and architectural visual identity

This project explores how a visual identity system can be developed from the architectural conceptualisation and design process, and how it can communicate a larger design narrative, which is not primarily concerned with marketability and audience appeal. Therefore, clarifying the following keywords that helped inform the project is important.

### Brand identity

Defining metaphysical and physical qualities of a brand, encompassing language use, colours, textures, shapes, forms, or sounds. A defining impression and brand narrative that distinguishes itself from other brands (Nandan, 2004; Wheeler, 2013).

### Brand visual identity

A brand's visual characteristics, logos, colours, wordmark, and textures that carry the established values, qualities, and traits (van Nes, 2012; Wheeler, 2013).

### Architectural (brand) identity

A built environment's defining qualities; the set of values, history, qualities, and traits that comprise the architecture. The architecture's identity, role, and contextual positioning within its surroundings. Scholars have used both 'architectural identity' and 'architectural brand identity' to refer to the same idea (Tran, 2017); for clarity within this research, the former will be used (Bonenberg, 2014).

### Architectural visual identity

By extrapolating and applying the meaning of brand visual identity to an architectural entity, we can apply the idea of visual identity to an architectural context. A visual identity for architecture refers to the visual qualities and characteristics, such as textures, construction, colours, and forms that create an overall impression of the built environment. In this case, the developed visual identity aims to communicate that via a graphic format.

Architecture and graphic design have long shared the same physical space whilst operating in vastly different mediums. It has long been documented that there is a dialogue between the two.

When observing classical monuments such as the Pantheon, we can observe an overarching style defined by a strong set of design rules that prioritise symmetry, balance, and geometry, shared by Roman architecture as a whole and the typography of the period. Originally designed as a Roman temple, the Pantheon is a historic monument today.

However, the design of the Pantheon, its murals, and typefaces work together to form a specific multidisciplinary visual language that communicates its own architectural identity, contributing to our experience of the space.



Figure 2.01: Marcus Agrippa. (128CE). The Pantheon.



Figure 2.02: Marcus Agrippa. (128CE). The Pantheon's entablature.

This shared visual language can also be observed in art and design movements such as Art Nouveau and De Stijl, each offering a unique and distinctive visual language that was used across a wide variety of design disciplines – such as fashion, furniture, and lighting design, especially dominating the disciplines of graphic design and architecture – such that we can link multiple objects together through their shared visual and artistic expressions, forming a larger narrative.

If we observe architecture on its own, it will have its own architectural identity, but when we connect that with a graphic of the same style, it introduces another component into the narrative.



Figure 2.03: Alphonse Mucha. (1897). Au Quartier Latin.



Figure 2.04: Sauvage H, Et al. (1902). Louis Majorelle Residence.

## 2.2 The intersection: environmental graphic design

Between the two disciplines of architecture and graphic design exists a middle ground: environmental graphic design. Architecture can further communicate its design by applying the same design language to elements like wayfinding, signages, and supergraphics, with the potential to create a unified conceptual narrative. The approach to both design processes may vary based on project scope and size. In larger projects, the architectural design tends to precede graphics, given the scale and hierarchical importance of the former.

For example, the wayfinding system for the Lakeside office complex, designed by the Polish architectural firm Grupa 5 Architekci, was created as a response to the architecture. The design team was tasked with designing a wayfinding system for the architecture after the design of the building was finalised.

A project adjacent to the Służewiecki Stream, located in Warsaw, Poland, its design concept aims to complement its natural surroundings while contrasting them through boxy forms and vertical lines, forming a unique combination of forms and materials. The use of architectural materials is meant to complement and blend in with the surrounding nature, all of which have been considered by the graphic-design team. The team wanted the wayfinding system to harmonise with the architecture, using vertical lines that “allude to the distinctive rhythms seen especially on the façade” (Grupa 5 Architekci, 2023).

Distinct across two buildings, the resulting colour scheme was selectively limited and ‘natural’ – black, white, and grey – to create a calm and user-friendly space. The line quality and shapes employed within the wayfinding system suggest playfulness and approachability, while the muted colour-scheme suggests a calmness that aligns with the architecture.

While the design of the wayfinding system is very successful in creating a specific mood and working with the architecture, it should be noted that the design of this system came after the architectural design. While there is a conscious effort to relate to the architecture, it is clear that the wayfinding design has a different language than the architecture, rather than communicating the same thing. The design concept was implemented into the architecture, and observed by the graphic design team, who then devised their own graphic language for the wayfinding system.

The result is two different languages that complement and coexist with each other while differing in their design thinking; the two combine to form the final architectural identity that the user then perceives. While there is a delay or misalignment in how the built environment and graphics are designed, this illustrates a strong case for how adding another design discipline can affect the expression of the architecture.

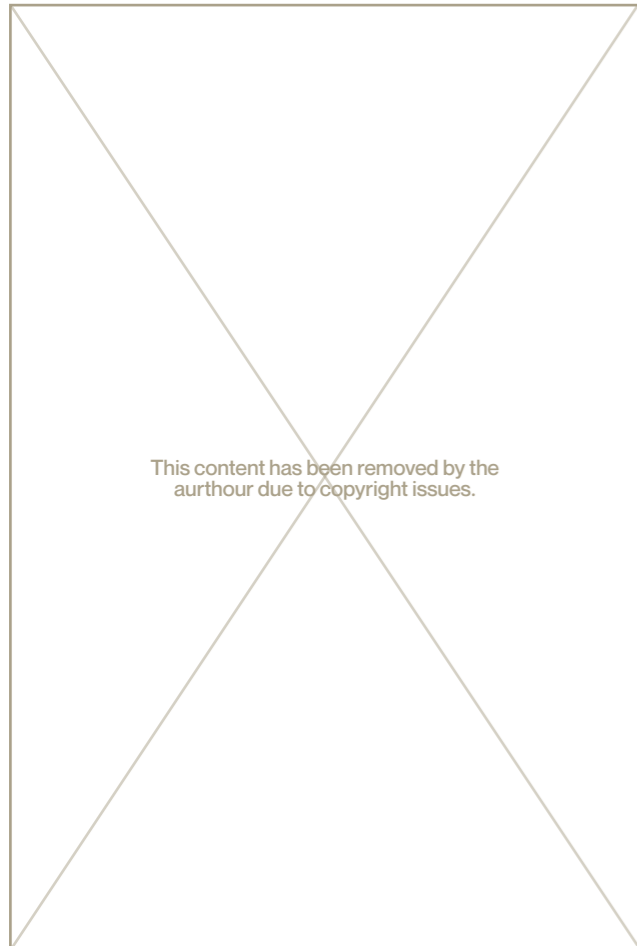


Figure 2.05: Wayfinding system, Adam Grzesik, ArchDaily, 2023.

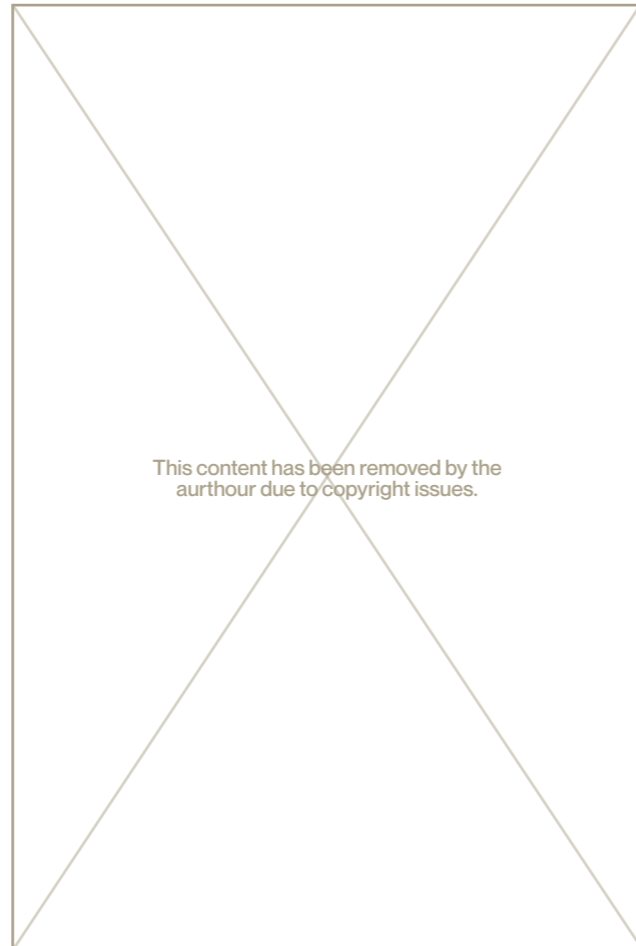


Figure 2.06: Singage, Adam Grzesik, ArchDaily, 2023.

### 2.3 The role of architecture within brand identities

Environmental graphic design has a strong power to affect the architectural identity; the graphic language can communicate and affect architectural messages. However, such graphic languages with the purpose of spatial messaging are rarely developed to the extent of a visual identity. When a visual identity is used in conjunction with the two disciplines, it is typically used to communicate a brand, involving brand values, brand messages, and more. Visual identities tend to be purely commercial, as brands use them to create cohesive and unique identities that differentiate themselves from other brands.

The Noramoji Project is an archive documenting vernacular storefront typography designs from across Japan. Its main driving force is to document and celebrate the neglected yet nostalgic charm and character of old storefront typefaces.

We are interested in the texture of these typographies, which are accompanied with the buildings and (their) environments – their materials, characters, and feelings. (Sugita, 2019)

The project's co-founder, Shinya Wakaoka, explains that architecture and the built environment directly communicate how people live and use space. Similarly, people communicate and express their messages through texts. The design of the typographies offers visual clues and indications of the character of the space.

While it is unlikely that the small stores documented here have developed a fully realised brand identity or visual identity – the owner of one of the documented stores, Fujiya Toy Store, explains that he had never been conscious of the typeface of the signage until now – the selection of typefaces is the most immediate way for these stores to communicate their personalities, through colour, shapes, and materials. This is combined with other factors, such as the interior environment of the store (though it is arguable that a store of this size and age might have any design at all, let alone a design concept, the space plays a part nonetheless) and interactions with staff, forming our overall perception of the store.

The Noramoji Project serves as a great example of how typefaces can not only reflect the character of a space but also contribute to our experience of it.

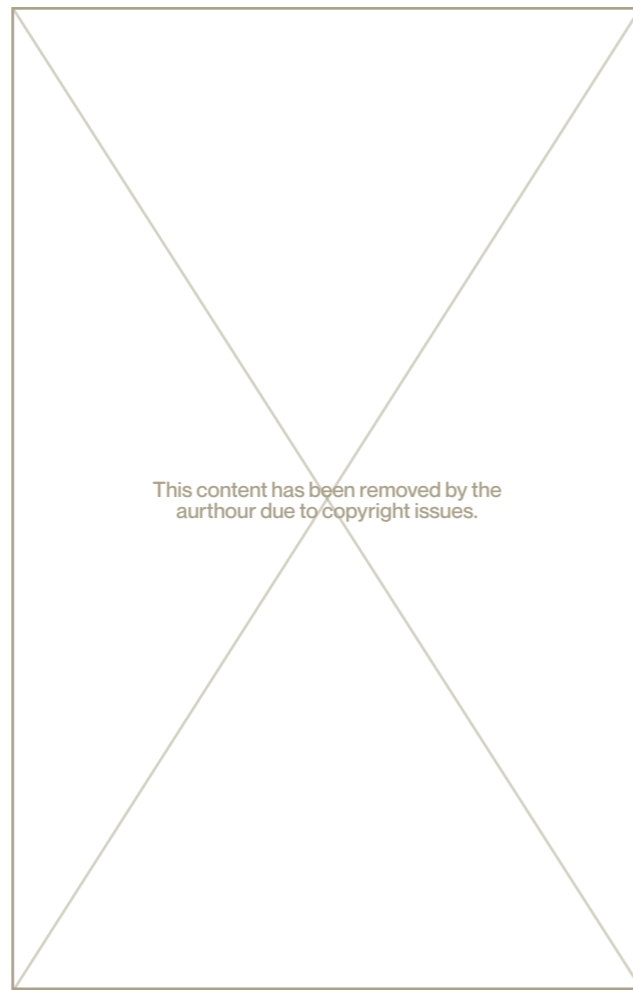


Figure 2.07: Fujiya typeface, Noramoji Project, 2013.



Figure 2.08: Noramoji Project (2013) Fujiya Toy Store

Brands whose focus is the experience of the built environment, or are oriented towards a space, such as hotels and apartment buildings, create a unique blend and may use the characteristics of the architecture as part of their identity, or touchmark.

An example is Auckland's Hotel Britomart; its logo suite and visual identity are very forward in communicating their architectural counterpart while still aiming to communicate a larger commercial brand experience. Combining the developer's vision for the entire neighbourhood, brand values, and architecture, it resulted in a unique dynamic identity – with clear visual landmarks that relates to the architecture – that is easily recognisable.

To create a sense of craftsmanship not typically associated with contemporary hotels, the building's design concept is reflected heavily in the treatment of materials and colour scheme: raw materials, exposed bricks, and concrete mould-work, along with brown and green earth tones. The building's façade adds a sense of dynamism and movement with exterior glazing in an irregular pattern; this pattern is visually translated into their dynamic logo, which takes on the form of those windows.



Figure 2.10: Cheshire Architects, (2021). Signage.



Figure 2.09: Cheshire Architects,(2021). Hotel Britomart Logo suite.

## 2.4 Architectural visualisations and presentation

The dynamic identity for the concert hall Casa da Música, in Porto, Portugal, was conceived by graphic designers Sagmeister and Walsh after the design of the architecture. The architectural design concept itself was adapted from a previous project by architect Rem Koolhaas. Using the overall form, silhouette, and the different sides of the building, the designers created a dynamic logomark that can then be filled with different colour schemes extracted from images of different artists relevant to the brand.

While there is a direct connection between the visual identity and the architecture, it serves only as a visual landmark and call-back to the space; beyond that, the design doesn't seek to communicate the actual design of the space, but seeks to inject a commercial identity within the space.

Given the inherently commercial nature of architecture and visual identity, it is typically used to communicate a commercial entity. This means that while these graphics may be connected to the architecture, they do not aim to convey the architecture itself, but rather the entities within.

On a small scale, design studios and architects alike present their designs in a way that aims to communicate their concepts, as this aids in communicating their design to their clients, and in exploring different ideas in the early conceptualisation stages. Using a specific language of textures, mark-making techniques, styles, and fonts, architects and designers communicate and express their spatial designs through drawings, sketches, and stylised images.

Within the academic practices of building arts, students are required to create presentation boards and other materials that showcase their work, and the main goal is not to communicate their hypothetical client's brand but to communicate their specific design and style.

The mark-making carries a visual message that plays a part in communicating and conceiving the design concept and the final design. One can easily discern a visual and conceptual connection these graphics share with the architecture they depict. Can this form the basis for a visual system?

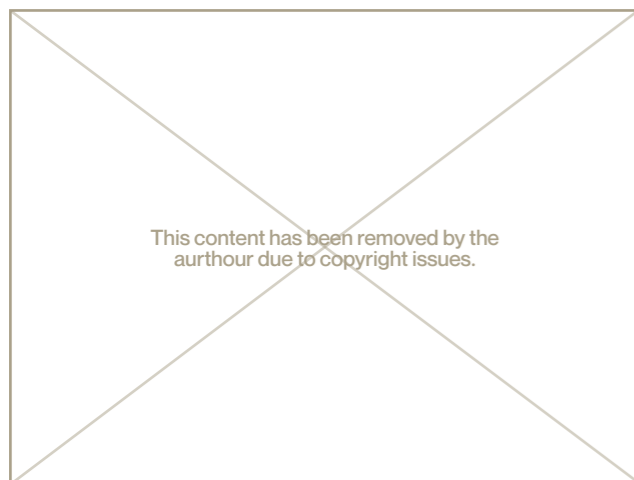


Figure 2.11: Casa da Música, Archdaily, 2014.

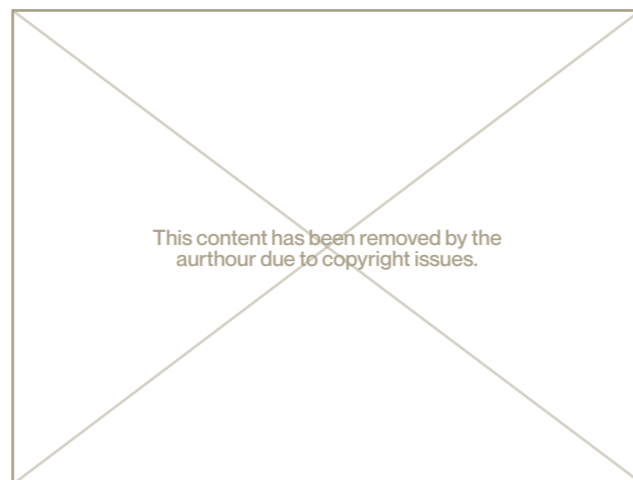


Figure 2.12: Stefan Sagmeister, (2007). Casa da Música Identity, Logo Generator.

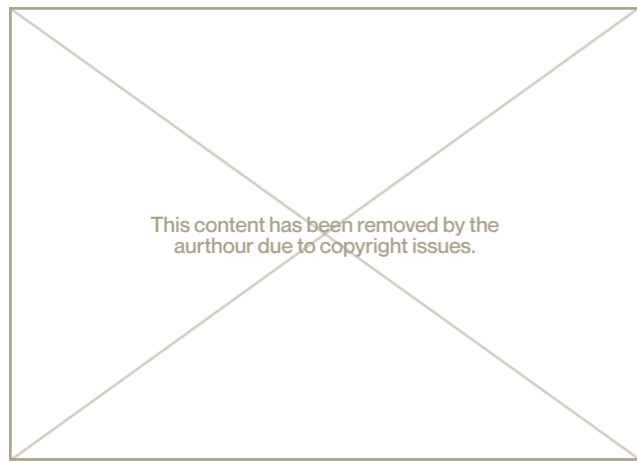


Figure 2.13: Guillaume Ramillien & Boris Bouchet Architectes, via ArchDaily. (2021).



Figure 2.14: Fala Atelier, via ArchDaily, (2021).



Figure 2.15: Thorsten Deckler @thethinking\_hand, Instagram. (2025).



Figure 2.16: Anna Pang @akp.architecture, Instagram. (2024).

## 2.5 Graphic design influencing the built environment

In order to deepen the conceptual connection shared between the built environment and its graphics, I question whether a built environment should be influenced by graphic design as well.

The Dutch design studio Thonik’s new headquarters was designed from the perspective of graphic designers. The owners, Nikki Gonnissen and Thomas Widdershoven, approached the design of the entire structure using a grid, the same way a graphic designer might approach a design layout, and removed any internal columns that, in their view, would disrupt the flow of the windows and walls, as well as moving the fire staircase to its exterior.

The use of stripes on the exterior walls accentuates the pillars and windows of the architecture, as well as the diagonal lines created by the external fire escape. Widdershoven elaborates: “Putting on the stripes is something that architects would never think of. It is a typical graphic design tool to bring liveliness and balance to different elements” (Pintos, 2020).

Such treatment and approach to the architecture through a graphic-design lens has created a look that feels almost like a drawing of a façade rather than a three-dimensional space. The building’s unique supergraphics create a highly identifiable visual language.



Figure 2.17: Studio Thonik, MMX Architecten. (2020). Front view of Studio Thonik.

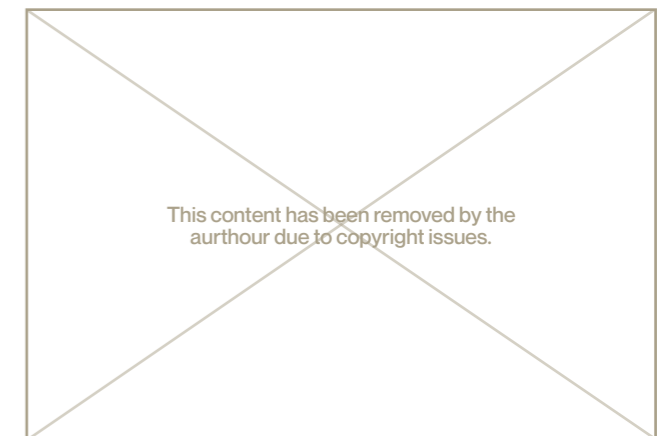


Figure 2.18: Studio Thonik, MMX Architecten. (2020). Stairwell.

Atypography by Svethe Grudi seeks to explore the balance between typography and abstraction, and has resulted in a unique incorporation of abstract typography into the built environment. The words written in abstracted typefaces form a larger uniform shape which is then used as a basis for architectural design, such as site layout, overall form, and façade designs, or what I would describe as ‘typographic architecture’.

A second example by Grudi is more in line with environmental graphic design, where abstract typefaces are incorporated directly into the environment. By reducing the letters into simple shapes, they relate to real-life objects with the same shape (in the case of the images in Figures 2.21 and 2.22, they are square and rectangular). This creates dialogue in which the environment and its materials are more than substrates to project graphics onto, but the actual material becomes the structure of the text.

Restricted by typography’s two-dimensional nature, the relationship between architecture and type is limited to shape-related translations. However, Grudi’s work highlights how graphic design can be embedded into and influence the environment, from site maps to individual tiles.

In conclusion, graphic design is commonly employed to communicate architectural design – wayfinding, signage, etc. – however, this is in a purely environmental graphic-design context and is rarely adapted in

traditional graphic mediums nor fully developed into a visual identity.

There is also a disconnect, no matter how small, between architecture and graphics, given that the two are frequently presented and worked on as separate entities, with architecture as the leading component. The use of a visual identity in conjunction with architecture is often done so as to communicate only a brand that exists in a space, rather than the space itself.

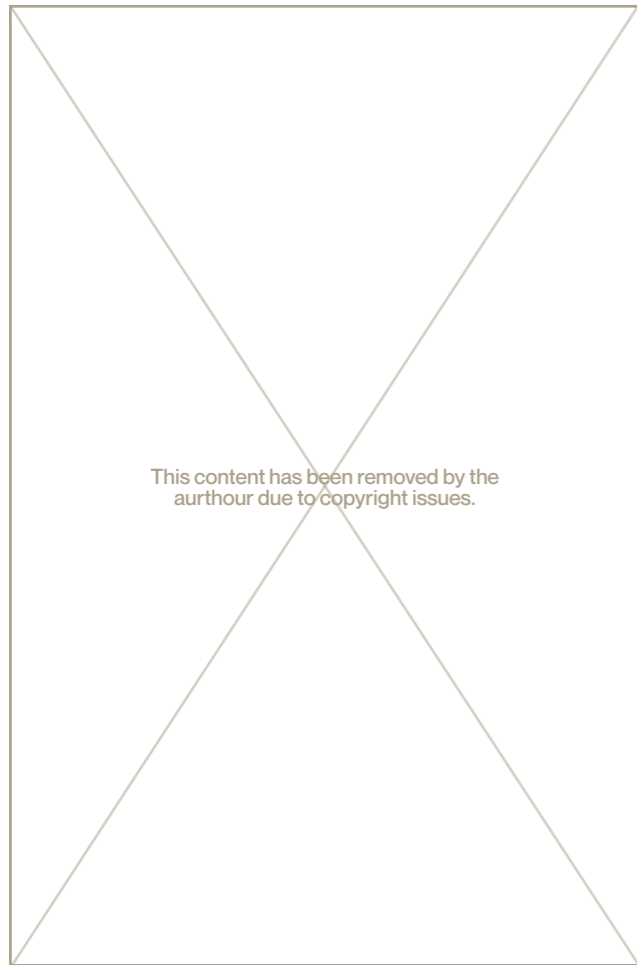


Figure 2.19: Atypography (Svethe Grudi). (2023). Epetri Font.

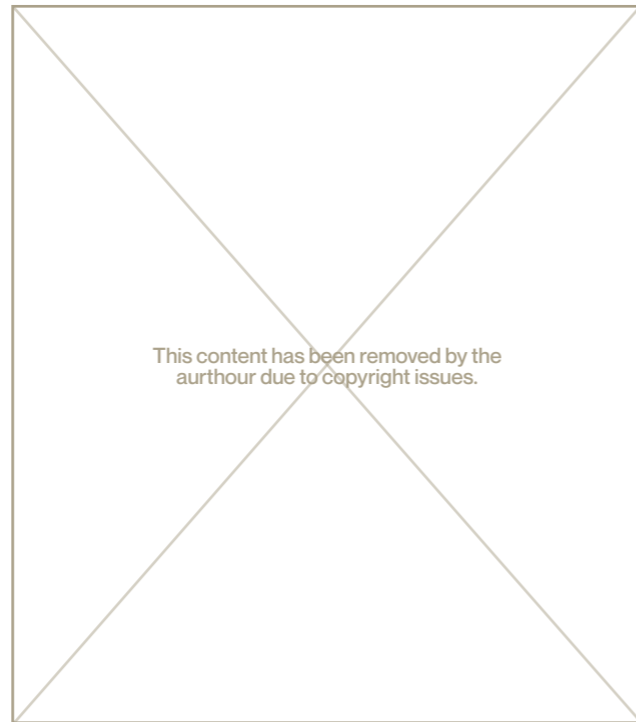


Figure 2.20: Atypography (Svethe Grudi). (2023). Kvar H Font.



Figure 2.21: Atypography (Svethe Grudi). (2023). “TLOCRT Squared” Font.

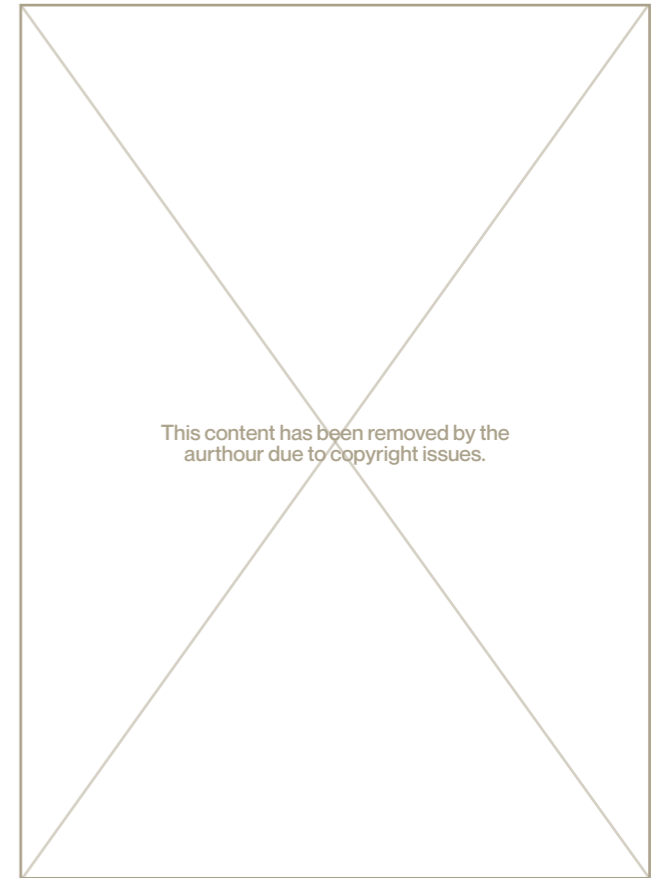


Figure 2.22: Atypography (Svethe Grudi). (2023). “TLOCRT Horizontal” Font.

# Literature discussion

# Literature discussion

## 3.1 Graphics and architecture

Both architecture and graphic design are disciplines of language and communication. Interior designers and architects communicate via the creation of spaces, or, as Rana Kutlu refers to in her journal article, a “spatial message” or “spatial meaning”. On the other hand, graphic designers communicate visually with symbols, typography, textures, and illustrations (Kutlu, 2016, p.1).

In Virginia Smith’s *Forms in Modernism: A Visual Set*, she draws formal and visual parallels in various disciplines such as fashion, architecture, graphic design, furniture design, and typography. She argues that the reason why such similarities exist through the ages, and why we see different art and design objects of the same period having the same design language, is that there exists a ‘virtual landscape’ in design, where there is a tendency for all design disciplines to treat forms similarly. A specific period of a unique tendency is referred to as a ‘visual set’, for example the briefly discussed Art Nouveau and De Stijl styles (Smith, 2005).

A visual set is “similar to the idea of a mindset”, as Smith explains (2025, p.7), and the similarities in form are not simply surface-level coincidences and likeness but instead stem from a “similarity in intellectual thinking” (p.7) – that is, periods of shared methodological thinking result in periods of similarly treated forms across different disciplines. This similarity is further expressed by renowned graphic designer Alvin Lustig:

**The kind of relationship that existed [in earlier periods] between objects – the great symbolic spark that jumped between a candlestick, a gothic cathedral, or a tapestry will be rediscovered, the same vital meaning broadcast and received by a series of objects, which were in themselves separate, but related by this larger meaning.** (Quoted in Smith, 2005, p. 5)

This perfectly illustrates the relationship between architecture and the visual identity that this research practice aims to achieve. Suppose we follow this premise of the visual set, that similar forms in design stem from one shared methodological thinking. I propose that for the visual identity to effectively interact and be deeply connected with the architectural design, it should stem directly from the design concept – the methodological source of the design.

To achieve that, this project requires a well-articulated and well-informed design concept.

## 3.2 What is a design concept?

A design concept refers to a given design project’s core driving force, idea, or narrative. It is unique to each project, but different projects can possess the same list of visual qualities, placing them in the same style.

The concept acts as a set of driving forces and approaches that informs all design decisions in the project – like a ‘visual set’ within a specific project. However, the design concept must be preceded by a thorough understanding of the design brief, site, and context (Coles & House, 2007); only after that should the designer respond with a concept. Each designer may respond to those parameters differently and return with a different concept – a course of action of their own, as each will approach design differently. As discussed earlier, the architectural identity is rooted in its design concept, as design decisions are driven by the concept (which is driven by the brief).

Concepts themselves can be expressed in many ways, as outlined by Rengel:

Concepts can be **philosophical** (less is more, equal amount of space for all, and so on), **thematic** (a western bar), **functional** (a two-wing configuration separating two distinct groups), **artistic** (a balanced composition of bold colours), **mood-related** (a place that induces tranquillity), or **stylistic** (a space that projects an outlook towards the future while remaining rooted in past tradition). (2007, p.139-140)

Rengel articulates that while there is always a central concept, a multitude of concepts can also exist under that – called “big concepts” and “small concepts”; as well as a combination of different ideas forming a unified approach (Rengel, 2007, p.139). This hierarchy within a concept is further illustrated in Sully’s writing, where he dissects the design concept into two categories, “organisational concept” (having to do with space and form, lighting, etc.) and “character concept” (having to do with style, theme, or narrative) (2015, p.xxiv). While a concept – the “overarching approach and idea” of a design – may begin as a simple idea, it must then encompass a multitude of approaches for different components while still relating to the key idea.

In Natalie Badenduck’s book *Interior Design Concept* (2022), she organises design concepts into different models and types, discussing how they are communicated, developed, and evolve through the design process. Among her categories of concepts, I aim to follow the most common type – the ‘Big Idea’, which refers to the design concept where one key prompt or idea serves as the main inspiration to which all design decisions will relate. Maintaining a singular initial idea will allow me to develop the design without complicating the concept; however, given the interconnected goal of this project, it may evolve into the ‘Nexus’ type of design concept.

The 'Nexus' refers to a net of different design aspects, sometimes both problem and solution, and how the final design is created by interweaving these in a way that is unique to the project. Alternative phrases used to describe this method include "fusion", "tied together", "thread" and that which "links together" (Badenduck, 2022, p.41) This web-like nature of design is also similar to the systems-thinking approach.

It is important to recognise that a design concept is inherently biased, as different designers will respond to the same brief in different ways, having their point of view and design preferences that result in different outcomes – the same way audiences with different points of view may interpret a design work differently (Rengel, 2007, p. 249). The design concept I will adopt in the making portion of this project is a response to the self-driven design brief and site location, a response inherently filled with my own design biases and preferences – the same way clients select design concepts that resonate most with them.

### 3.3 Communicating architecture

#### Perceived architectural identity

In "*Brand visual identity in architecture*", Bonenberg discusses the concept of an architectural brand visual identity, that the built environment itself can become a 'brand'. Within this article, he studies the architecture in Poznań, Poland, and the city's perceived architectural identity; these qualities that build identity are uniqueness, familiarity, personification, prestige, legibility, cultural identification, and fashion (Bonenberg, 2014).

Bonenberg also discusses the visual features that contribute to that identity; while this list of traits is developed in a specific context in Poland, some features are still applicable in the case of developing and articulating the architectural identity and concept for this project, such as the colour of the façade in relation to the background, material, roof shape, ornamentations (or lack thereof) on different components, façade, etc. These components may provide insight into which part of an architectural project a designer should carry over into a visual identity.

However, architecture and graphic design are both methods of communication (the former being a language of space and time, the latter a language of visuals and graphics, often referred to as 'visual communication' or 'communication design'). How do we develop a language of visuals and graphics to communicate a message made of space and time?

A design system may be part of the answer.

#### Design system as a solution

A design system is a multi-faceted term, meaning different things in different applications. In his video, graphic designer and creative director Dan Mall categorises a design system into six different types, of which brand identity and visual language is one. In this case, the 'system' refers to the approach and unique qualities and tools (visual language) to communicate an identity (Mall, 2023).

A 'design system', as discussed in *Building Design Systems* by Sarrah Vesselov and Taurie Davis (2019), in conjunction with the blogpost 'What is a design system' by Chad Bergman (2024), refers to a specific set of building blocks and standards, a language shared amongst a specific project, composing of assets, design concepts, terminology, and approaches taken to communicate a specific idea(s).

As discussed by Mall (2023), tools are a different type of design system. User interface (UI) kits, for example, are libraries of visual components that designers can drag and drop into designs, enabling easier work and design. Sites such as Figma provide UI kits (or "component libraries") in different styles for different applications that designers can easily use and edit if necessary without having to design and create everything from scratch.

The sharing of assets allows for great consistency as well. I question whether this can apply to my design process; by using the same material and assets in both graphic design and architecture, they can form a direct connection and create an overall consistency with each other.

In that case, developing a system within the design concept can allow both the architecture and visual identity to easily and effectively link back to each other through a shared systematic approach and a common library of assets.

# Methodological approach

The following methodologies were adopted to explore the idea of developing a visual identity system from the discipline of architecture.

# Methodological approach

## 4.1 Design concept

To achieve a cohesive multi-disciplinary outcome, this research was based on the belief that a singular design concept can act as a shared origin between two disciplines and as a framework to explore how a visual identity can be the catalyst for rich inter-disciplinary connection.

The process necessarily began with defining the design concept, which would go on to inform any design decisions made during the entire design project. In this research, after understanding the design brief and site, I began with one single prompt – a general idea I researched as my inspiration, which was used to draw a design concept from.

The design concept as the central anchoring idea allows straightforward communication between the concept, the architecture, and the graphics. This research also placed emphasis on keeping the final architectural identity in mind – when we view everything together, how do the components contribute to the final design narrative?

The design concept was then expanded to an overall look and feel (often in the form of a mood board, but within this research, it was a list of qualities, to avoid preconceived design influences). The ‘look and feel’ of a design refers to a project’s overall thematic and stylistic impressions, where a designer will articulate how they want their design to look and what emotions or moods they want to set. This is semi-dependent on the concept but allows for a level of design input at the early stages of the design. A brutalist design concept, for example, may take two different approaches to its look and feel while still

carrying the same design concept – hence the importance of defining the ‘look and feel’ after the design concept. The graphics should be driven by the design concept and fit the determined look and feel.

While articulating my design concept, I will also discuss what impression I want the architecture to have – its architectural identity. Various design components should communicate the design concept and its original prompt, as well as come together to communicate the intended architectural identity.

The architectural design work was focused on conceptual development and schematic design only, as the first phase was where ideas were allowed to flow the most and were up for change and adjustments. If a particular concept did not work, a new iteration was created; the schematic phase was the concept put onto more defined designs, allowing the designer to figure out the overall design. The following stage, the detailed design phase, was where designs were solidified and finalised, which was done briefly at the end to produce more detailed outcomes.

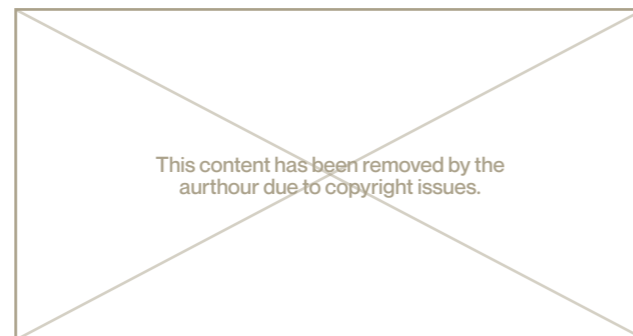


Figure 4.01: Diagram demonstrating the overall structure of the ‘Big Idea’ (Badenduck, 2022).

## 4.2 Systems thinking

The whole is greater than the sum of its parts; by linking different objects to form a larger whole, the design of parts considers the whole and how it interacts with its other parts.

The designs involved in this project considered many factors: design brief parameters, envisioned end-goals, how each component interacts, how those interactions form a larger effect, look and feel, etc. All these elements became hard to define through a singular linear process – a result of interdisciplinary thinking that emerged in the early explorations of my research.

The visual identity and the built environment needed to both communicate the design concept and the source inspiration, and exhibit a connection with each other. These parts interconnected to form a larger whole whose conceptual expression, I hope, is much more impactful than the parts in isolation. I recognised that a traditional linear approach to design would not be able to create the dialogue I wanted to create, hence why this practice-led research adopted a systems-thinking approach.

Systems thinking has been constantly redefined and adjusted in meaning, given that the components involved in this mode of thinking shift constantly, even within its own process (Arnold & Wade, 2015).

Santhosh Gandhi refers to systems thinking as a holistic approach that focuses on how “elements are interrelated and connected”, and how the interconnectedness between different components can “synthesise to create a new effect in the system over time” (Gandhi, 2022).

John Spacey refers to systems thinking as “the theory that a system is more or different from the collective attributes of its parts.” He elaborates that the “sum of parts is the foundational idea behind system theory and systems thinking – that you need a different way of thinking to understand systems because they cannot be fully understood by analysis of parts” (Spacey, 2019).

Systems thinking, as articulated by Anderson and Johnson, is defined by the following principles:

1. Consideration of the ‘whole’ or the ‘big picture’.
2. Balancing both long and short-term perspectives.
3. Acknowledging and recognising the dynamic, complex, and interdependent nature of systems.
4. Taking both measurable and non-measurable factors into account.
5. “Remembering that we are all part of the system in which we function and that we each influence those systems even as we are being influenced by them” (Anderson & Johnson, 1997, p.18).

While systems thinking is typically applied to larger fields such as politics or human behaviour and is not a methodology typically associated with the design field, I recognised that this methodological thinking could be applied to my design approach.

Components and ideas were linked according to their relationship and dependency on each other, indicating which is driven or inspired by which. They were also analysed according to how they interacted and might impact the final design narrative.

### 4.3 Practice-based research

The core part of this research explored ways in which visual language and architecture could be created in an interconnected manner, as well as conditions that would allow this to happen – which ultimately required one to go about producing and designing. This research has been developed for the building arts and communication arts, both industry professionals and practising students, and serves as an input into the dialogue of interdisciplinary design – hence why I have situated it as practice-led research.

#### **Self-imposed design brief**

A design brief defines the scope of design work involved. Both building arts and communication design (in industry and academic practices) are heavily driven by commercial briefs, as clients and professors approach us, each with design briefs and lists of deliverables – the idea of a design brief is one that any designer well understands. The central focus of a visual identity is a commercial phenomenon as well. However, this project did not have any intended commercial outcome – that being said, working within traditional commercial formats allowed for initial ideas to be developed more easily; secondly, in order to examine the effectiveness of the produced visual identity, the produced work, in my opinion, should still take the form of graphics that would traditionally exist in a commercial sense.

Therefore, for those reasons, the practice-led design work began with a design brief set by myself, including a general set of deliverables for both disciplines, the overall location and context, and an outline of the project. The final produced architectural design is a finalised exterior design with a general layout, a fully developed visual identity, and artefacts that help communicate that identity.

#### 4.4 Research method

The practice-led portion of this research consisted of multiple design phases. However, the following principles and approaches helped me examine, adjust, and refine the outcome and establish a set of parameters and approaches to creating a visual identity from the architectural process.

##### **Analysis and examination**

The key to answering my research question relied on being actively engaged in my design work. It required me to consistently analyse how different produced design components worked with each other and their effects on the larger whole.

By first analysing a design (whether it was graphic design or architecture) through a more linear and traditional lens, such as visual qualities like visibility, clarity, balance, and order, I examined the validity of the components in isolation, then paired them together to examine their combined visual effect. After that, the previously discussed systems mode of thinking was used as a mode of analysis; design elements were analysed for their ability to communicate with each other, and how individual changes would affect the final result.

##### **Eliminate or combine**

Given the amount of architectural and graphic exploration that was to be done, I recognised that designs would have varying degrees of success. There needed to be a process of elimination, where design features and ideas deemed unsuccessful were tossed in the bin, and semi-successful elements could combine with other features and ideas to inspire another round of designing to create new effects.

For example, in the first phase of design, a halftone was used to communicate some architectural features, but the dots of the halftone did not match the look and feel, and the circles did not communicate the right visual texture. However, using the same halftone idea but switching the dots to a pattern developed in a different exploration communicated the idea better and, overall, gave a much better overarching connection with the architecture and formed the appropriate ‘big picture’.

##### **Reflection**

The methodological approach to research and design helped me create an interconnected and nuanced visual identity and architecture. However, I still needed to consistently reflect in order to identify specific parameters to how a visual identity may be developed from the architectural design process, as well as to identify, examine and adjust key approaches.

By engaging in reflection-in-action, as outlined by Schön (1991), I was able to perform minor pivots during the design process and allow a small starting idea to self-correct as well as produce a larger yield of results, immediately eliminating designs that I was able to deem irrelevant or unsuccessful, as well as establishing detail-specific approaches.

After a round of design exploration was conducted by exhausting a particular idea within a given time frame, reflection-on-action (Schön, 1991) was conducted after the fact to identify its validity. After an architectural design was solidified, it was reflected upon in conjunction with the produced graphics in order to examine the design from a larger overarching perspective – specifically, whether or not the design concept was successful in inspiring good interdisciplinary dialogue; if not, a new design concept would be proposed. Through this process, I hoped to establish an approach to design that would facilitate the design of both architecture and a successful visual identity.

# Pre- conceptualisation

Setting up the base for the design,  
site research, initial ideation,

## 5.1 Design brief

As previously mentioned, the design work needed to be grounded in real-life practice, which required a design brief to define the scope of work. The brief was:

Design a series of eight high-end residential houses, located in Section 8 of the Wilson Trail, Tai Po, Hong Kong, along with its own visual identity.

This hypothetical, self-given brief had no particular contextual bearing but was created randomly as a design challenge. I selected the site of Hong Kong as a homage to my birthplace, and my childhood home was in the Tai Po neighbourhood. The reason for the design brief being eight houses was not a particular strategic decision but rather a response to the site location's name.

## 5.2 Name

Architects have used the naming of a project to communicate its design identity for decades – directly referencing the site, owners, or style through the name. For this research, I decided to keep it straightforward, careful not to use words and tones that communicated a particular style or feeling. In the same manner, I created the design brief as a response to the street name; this project is named 8th Houses, or 八居 in Chinese ('八' refers to eight and '居' refers to a dwelling).

## 5.3 Site analysis

### Address: Tai Po Tao Drive, Wilson Trail, Section 8

The project began by first conducting a study and understanding of the project site, allowing me to respond to the parameters appropriately.

The study of the site helped me identify a few things: the design of the building needed to be of a slim rectangular form to accommodate enough houses; windows and openings would be placed only at the front, facing the road, and not at the back where other buildings would block the sunlight and view.

The building's length also needed to follow the typology laid out by the other buildings and be aligned with them, meaning it could only extend a certain amount. The temple on the left side of the site also presented an opportunity for a communal building to create a community space with the temple.



Figure 5.01: Northern view of the site, with a view of the temple and adjacent footpath. (Source: Google Maps)



Figure 5.02: Southern view of the site, with a view of the adjacent footpath, road, and park. (Source: Google Maps)



Figure 5.03: Site analysis – lot size, adjacent buildings, sun paths and illuminated areas, and building boundaries.



Figure 5.05: Site analysis – noise zones.



Figure 5.04: Site analysis – adjacent historical buildings, roads, and landmarks.



Figure 5.06: Site analysis – greenery and trees.

#### 5.4 Initial prompt: bamboo scaffolding

After examining the site, the formation of a conceptual framework and design direction emerged. I gave myself a general idea and direction to explore design ideas by giving myself a prompt.

I selected a prompt relevant to the local context that is rich in history and modes of analysis, and could be interpreted into a design concept. Bamboo scaffolding is a well-established craft and technique in Hong Kong – however, I selectively narrowed in and focused on the physical and mechanical properties of bamboo scaffolding for my inspiration; not to diminish it as a cultural practice, but instead to recognise its modern applications and possibility for a contemporary take.

The design concept I came up with would be a response to the source prompt of bamboo scaffolding. The completed work should communicate a unique design language from the concept, allowing me to offer a new contemporary take while communicating the original craft of bamboo scaffolding.



Figure 5.07: Felix Wong. (2020). Construction workers climb bamboo scaffolding on a building in Hung Hom.



Figure 5.08: Peter Steinhauer. (2014). Cocoon.

## 5.5 Research, analysis and interpretation of prompt

The establishment of an initial prompt was followed up by detailed research of the topic: the history of bamboo scaffolding, its transition and role in the modern construction era, and material and mechanical properties were taken in as part of my understanding of bamboo scaffolding (see Appendix).

After studying bamboo scaffolding as a practice, I decided to focus on the specific branch of this practice that is used as a supportive exoskeleton of a structure. A few key qualities of bamboo scaffolding emerged, which informed the design concept:

### 1. Bamboo scaffolding as a visual filter (visual quality)

The act of erecting a bamboo scaffolding (both the scaffolding itself and the nylon netting that's attached to it) is almost a low-fidelity, segmented representation of the structure beneath; a filter that pulls a high-definition image of the structure beneath and spits out a lower-definition one.

A scaffolding structure built for a circular building would take the shape of a multi-segmented polygon. A square one would result in scaffolding that is split into segments as well – such is the result of the modular nature of scaffolding and the straight growth of bamboo.

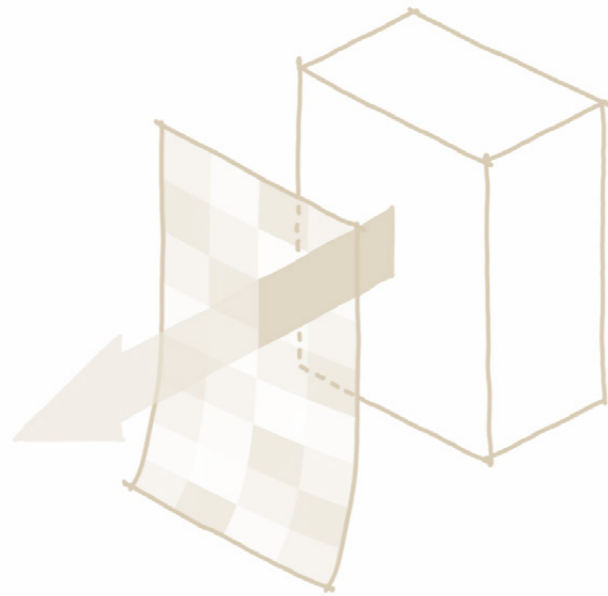


Figure 5.09: Bamboo scaffolding as a visual filter

### 2. Bamboo scaffolding as skin and skeleton

Bamboo scaffolding's different components can also be interpreted in a more anatomical sense; with the building as its innards, the bamboo scaffolding has a skeletal nature, with a layer of skin (nylon netting) pulled taut over it.

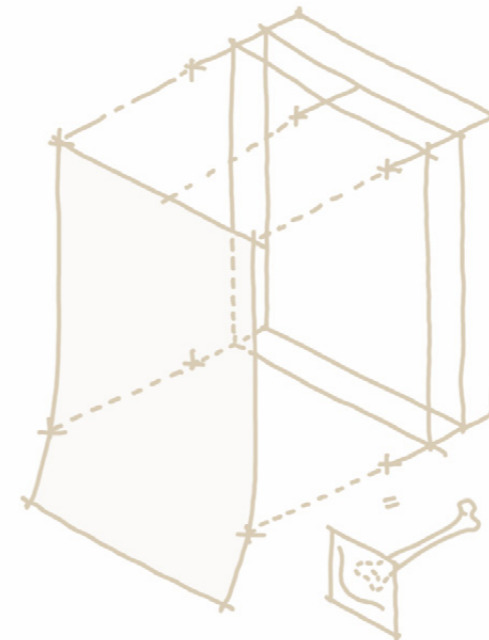


Figure 5.10: Bamboo scaffolding as skin and skeleton

### 3. Bamboo scaffolding as a dynamic arrangement

Existing as a temporary support structure, the scaffolding is often given less visual attention, as the main structure underneath it is the main focus. The scaffolding provides the necessary support to carry out important work on the main building. It is a temporary element intended to be removed, leaving the supported structure.

However, while the work being carried out is centred on the structure underneath the bamboo scaffolding, in windy conditions the outermost layer (the nylon netting) becomes the most dynamic element as it interacts with the wind. The netting is a dynamic element placed on an ordered and sequenced grid, the bamboo scaffolding.



Figure 5.10: Bamboo scaffolding as a dynamic arrangement

## 5.6 Initial blind ideations/sketches

Rough sketches were created to explore different ideations and how the previous interpretations of bamboo scaffolding might take form. Ideas explored here were immediate and initial responses to my interpretations of the prompt; these led to further explorations into how those interpretations might manifest as designs. These ideations of forms would go on to establish the project's design concept, where the key idea was to create a specific shape/form with the architecture.

I wanted to capture the soft and flowing nature of the nylon nettings of bamboo scaffolding. Overall, I envisioned a softer aesthetic to the overarching identity, one that would provide a calm feeling to its viewers.

A key recurring idea that emerged was the layering of multiple elements, mirroring that of traditional bamboo scaffolding and the layers created by the different components; this was then applied to graphic design, through forms such as overlaying translucent papers, textures placed over each other, or different overlapping small elements forming a larger element.

The grid was another idea that kept resurfacing, which is already a component in the scaffolding and would undoubtedly be carried over into the concept; a direct carry-over to graphic terms in grids could create a good call-back to the prompt. However, that would depend mainly on the design of the architecture.

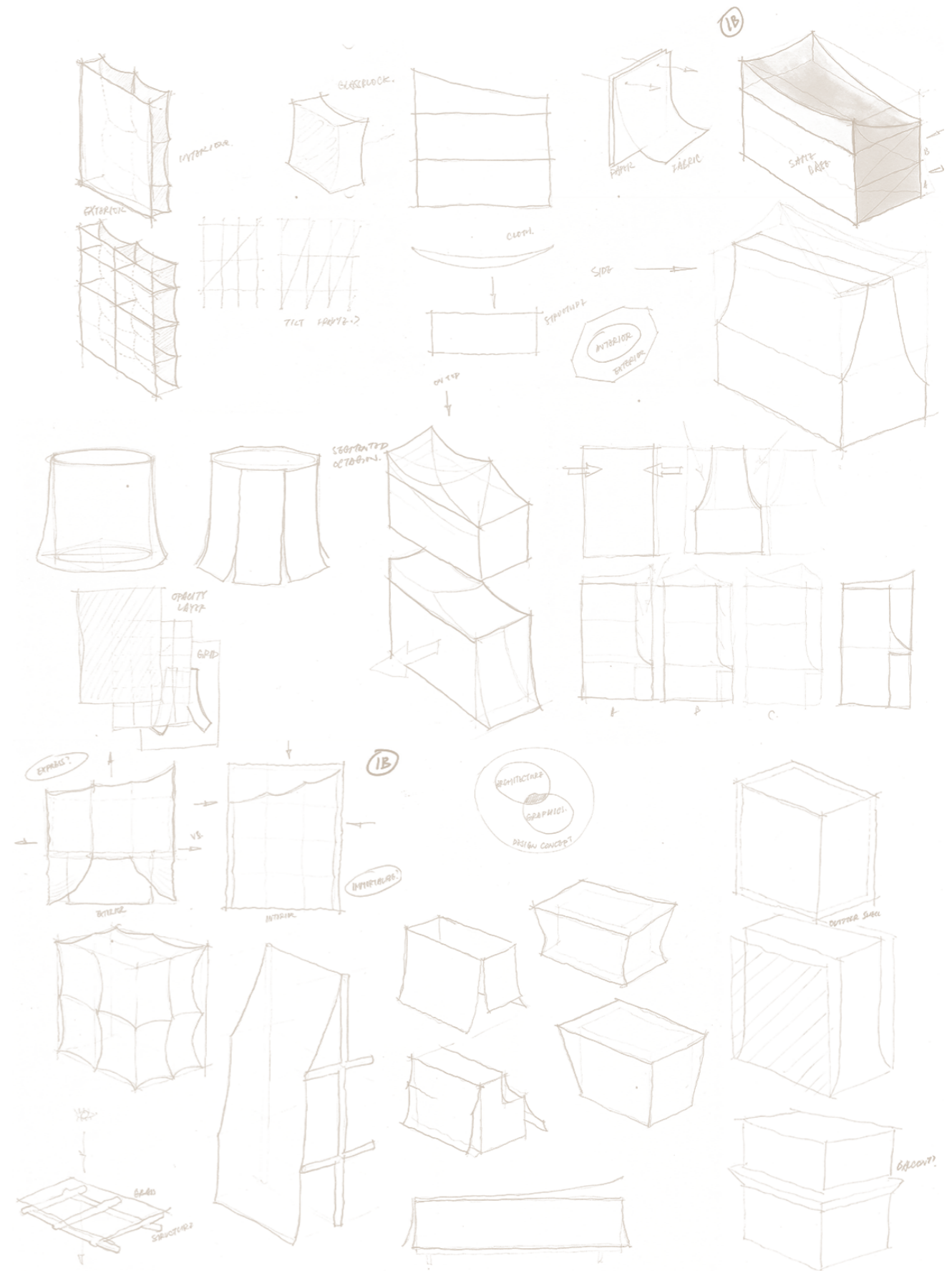


Figure 5.10: Ideation sketches – tent-like forms, movements similar to the lifting of fabrics. A combination of skeletal frame and the outer layer draped over and pulled up the frame; segmented curves, layers, and grids. Fabric/outer layer being pulled taut against draped outer layer over the roof and façade, a right trapezoid silhouette.

# Concept 1

# Concept 1

## 6.1 Concept articulation

After the initial ideation sketches, along with my interpretation, a design concept was articulated to act as a driving force for the project.

The design concept captures the layers on bamboo scaffolding by creating a soft semi-transparent curtain that envelops the main structure. This design freeze-frames the movement of the safety netting being blown in the wind. Openings in the façade/entryways are created by a 'lifting' of the curtains. The material selection pays homage to bamboo scaffolding by replicating materials seen in the construction field.

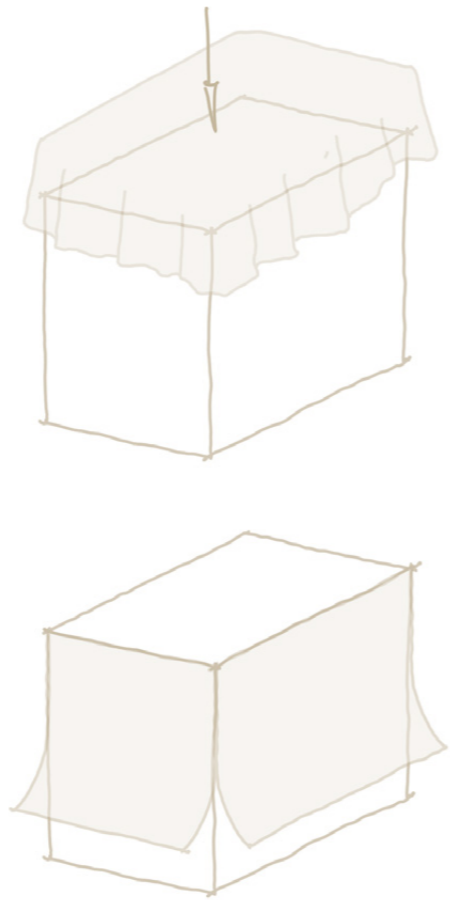


Figure 6.01: Concept of drapery placed over a structure, forming curtains around the building.

This design concept has three smaller organisational and character concepts. First, the architecture, like bamboo scaffolding, is divided into three components – the inner structure, the scaffolding, and the outer netting. Second, it captures the staggered effect that is created by the layering of components. Third – transparency: the layers of bamboo scaffolding each have different visual qualities, concrete being

non-transparent, the scaffolding being semi-transparent (you can view through the gaps), and the outer netting layer being translucent (while still having a texture). These key ideas would help inform both disciplines by acting as a base for approaching different design components.

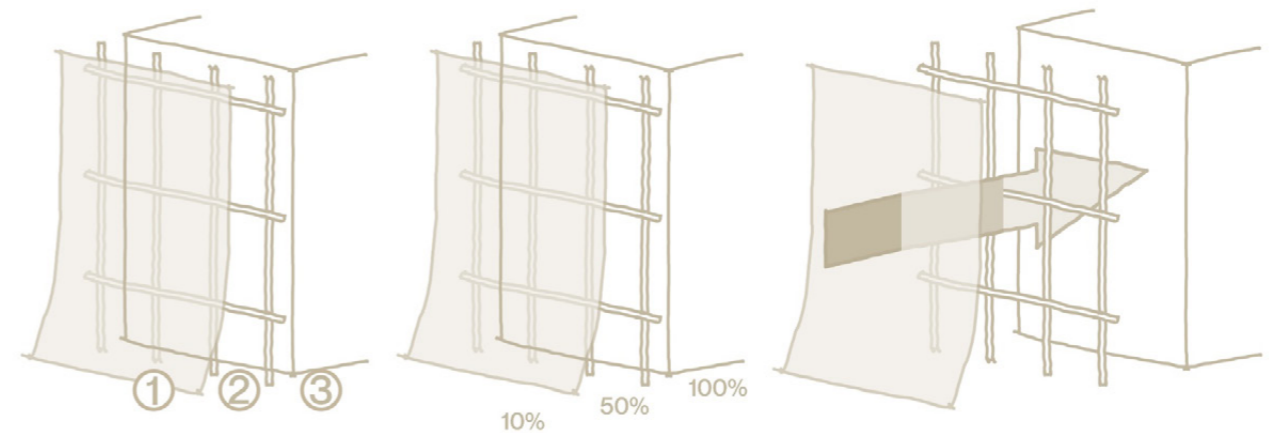


Figure 6.02: Breakdown of concept ideas.

The overarching characteristics of the design should be light, airy, calm, and soft. The formal qualities of the soft curtains, accompanied by the translucent materials, call for a relatively gentle overall impression. In terms of design, it should carry a minimalistic, modern, and neutral design language, using a minimal material palette and allowing each component's construction and material to speak for itself.

The design (both architectural and graphic) should not create visceral reactions but rather soothe and calm its audiences. The final architectural design should communicate a sense of delicate movement, a grounded feeling that is communicated through minimalistic material use and design style.

## 6.2 Typeface selection

In the article ‘Typography: The constant vector of dynamic logos’, researchers analysed over 50 dynamic brand identities; they concluded that within a dynamic identity system, typefaces act as one of the key identifiers of a brand and are the most consistent component within a brand identity. While the typefaces involved may exhibit flexibility, this occurs within “detail-related components” such as line weights, visual effects, and opacity – their overall structure, proportions, and measurements remain consistent (Lelis et al., 2022, p.21). This and other research also recognises that typefaces carry their own meaning and ‘personality’ (Lu et al., 2023; Shaikh et al., 2006).

As Lelis et al. assert, “typography involves shaping language visually so that form and meaning work together to communicate” (2022, p.6). Therefore, choosing a suitable typeface that projects the intended mood/look and feel is important. As the shape and structure of the typeface communicate the design, any visual effects are incorporated later. While typography alone will not make up the visual identity, it is an important factor that can act as a good starting point.

With the previously established concept and look and feel in mind, I sought out potential typefaces that matched and could project the intended conceptual impressions, along with my own creative inputs. I selected typefaces that could communicate a modern, clean, and minimal quality while projecting a calm impression. English sans serifs – especially Swiss typefaces, were excellent in projecting that impression; I specifically paid attention to the weight of the typefaces as well, selecting

those that are mid-weight to allow the design to be more neutral and balanced. Chinese typefaces were also examined; overall, using the Chinese serif fonts as part of the display typeface communicated a sense of modernity and delicacy that sans serif Chinese fonts could not seem to capture. However, anticipating later applications, where both Chinese and English glyphs might be used together, I used a mid-weight sans serif Chinese font that matched the weight of the sans serif English font to create a more balanced look. Any body-text applications would use the same sans serif English fonts (nothing would be written in Chinese besides the project name), sticking to the modern and clean look.



Figure 6.03: Selection of Chinese typefaces.



Figure 6.04: Selection of English typefaces.

### 6.3 Material selection

A material study was conducted to link relevant ideas to specific materials and explore how the design concept might manifest through the application of materials; the selection of materials depended on the design concept, the stylistic executions, local contexts, and partially personal design preferences. Outlined in the design concept, the material selection would be based on the relationship between the netting layer, bamboo scaffolds, and the structure below.

Material selection was made for both architecture and graphics (for printed matter), as some materials could only be used in an architectural context and vice versa – the selection of graphic-design materials was based on a combination of factors created by the colour schemes of architectural materials, the physical qualities of the materials, and the design concept.

From the architectural side, the concept revolved around a direct material call-back to different components that make up a scaffolding: the inner layer – the concrete structure – the middle layer – the scaffolding – and the outer layer – the safety netting; with specific subversions and additions to create depth.

#### Inner layer:

Concrete, glass, plaster, galvanised steel, satin aluminium, bamboo

#### Middle layer:

Powder-coated/painted aluminium, aluminium

#### Outer layer:

Nylon netting, perforated materials



Figure 6.05: Main material selections: bamboo, concrete, and aluminium.

For the graphic design, the selection of materials was driven mainly by the concept, but in dialogue with the architectural materials. Depending on which part of the architecture I was focusing on, I devised two types of approaches to the graphics to generate relevant ideas.

### 1. Layers

When viewing the general design concept and bamboo scaffolding in practice through a macro lens, examining how different components interacted visually, it was apparent that the core 'mechanic' at play was the layers created by different elements.

Translucent materials were compiled to examine their transparency and opacity. This presented opportunities for elements to be printed onto the materials themselves, or layering the material to create depth.



Figure 6.05: Main material selections: bamboo, concrete, and aluminium.



Figure 6.05: Main material selections: bamboo, concrete, and aluminium.

## 2. Weave

The weave of the netting is the first visual element of bamboo scaffolding, and the type of netting and its weave heavily affect the layer's transparency level. Hence, this approach focused on how the weave and pattern of the netting affected the underlying images and text.

I sourced fabrics and netting materials with a loose weave or a netting characteristic. Different fabrics were compared in terms of their weave pattern, thread thickness, and flexibility, as thicker, loose-weaved cotton netting would communicate a different message than nylon netting with square holes.

Calling back to the visual qualities of bamboo scaffolding, I experimented with the same idea by placing netting material on top of random graphics, as I had done with translucent materials such as tracing paper and baking paper. It was becoming evident that the idea of layers could be communicated successfully and very easily by further adjusting what I layered; with the quality and the amount of diffusion I could apply with the translucent material, perhaps I could make an even stronger impression.

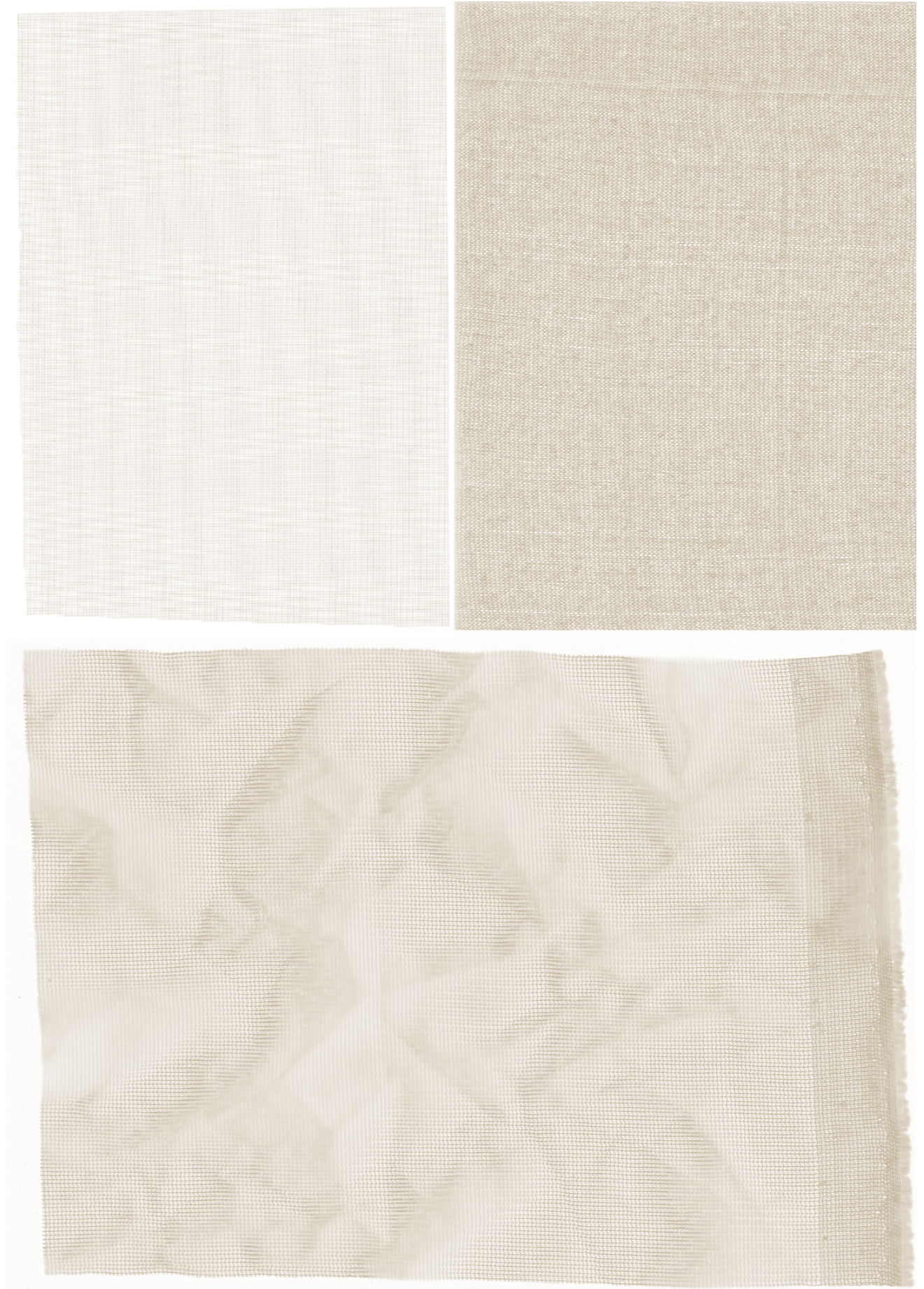


Figure 6.08: Netting materials: mosquito net (top left), cotton (top right), polyester (bottom).

## 6.4 Designing

An early form I arrived at was a rectangular scaffolding arranged around the main structure, with its base flaring out with the outer netting, which acted as a gentle drapery placed over the structure. While the central concept of the form was there, the more minor details were yet to be determined.

I split the development and execution of the architectural design into different parts: the scaffold component, the outer layer, and the joint details. (The interior components were not part of the focus, as the design concept focused on creating an exterior form.) In exploring the design of each of those components, graphic explorations were done to see how the aforementioned architectural component could be used as inspiration for the graphic language and imagery.

The design of the structure rapidly developed, and each round of architectural design was followed by graphic design that referenced specific design qualities of the architecture.

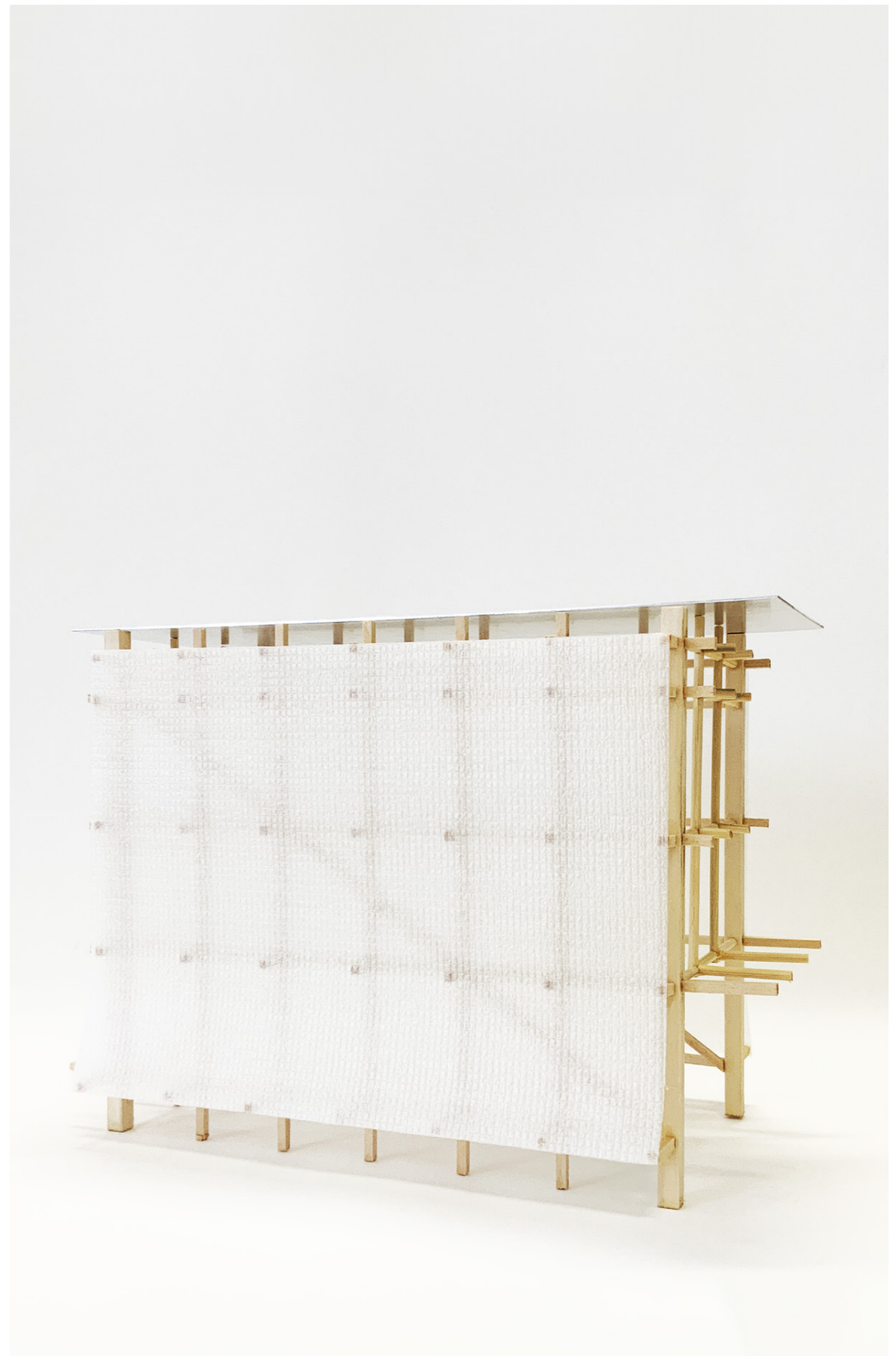


Figure 6.09: Experimental building model, side.



Figure 6.10: Experimental building model, front.

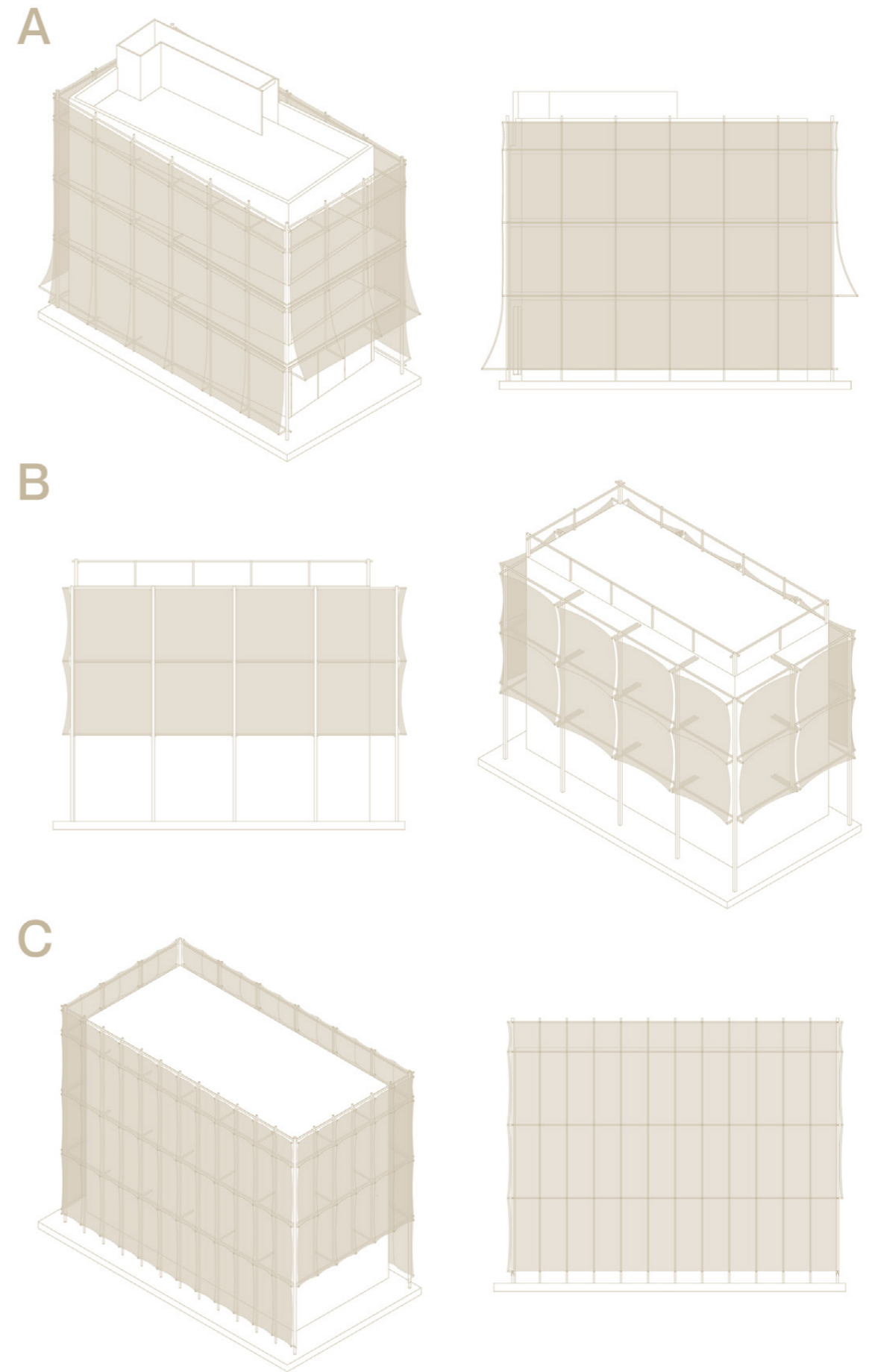


Figure 6.11: Different expressions of exterior form.

Overall, the architectural designs were translated into graphics through the following methods:

1. Through a direct visual reference to form and textural qualities (copying the architecture's silhouette, replicating the netting's texture, etc).
2. Approaching the design through the same thinking approach (layers in architecture were replicated through the layers in printed material and graphics; the design of a logo using the same grid arrangement as the bamboo scaffolding).
3. Using the same material/asset for both disciplines (the netting material used for the architecture's façade was scanned to be used as a texture).

Approaching different design components separately allowed me to develop graphics related to those specific components, especially by directly referencing their silhouettes, material patterns, and visual qualities. Specific attention was paid to line weight, line quality, and shapes to communicate the same design quality that aligned with the architecture. In some cases, while the line weight projected a delicate language, the shape of the logo communicated something different. This shape-related miscommunication was rejected for smoother, more slender shapes, which would help project a more delicate feeling.

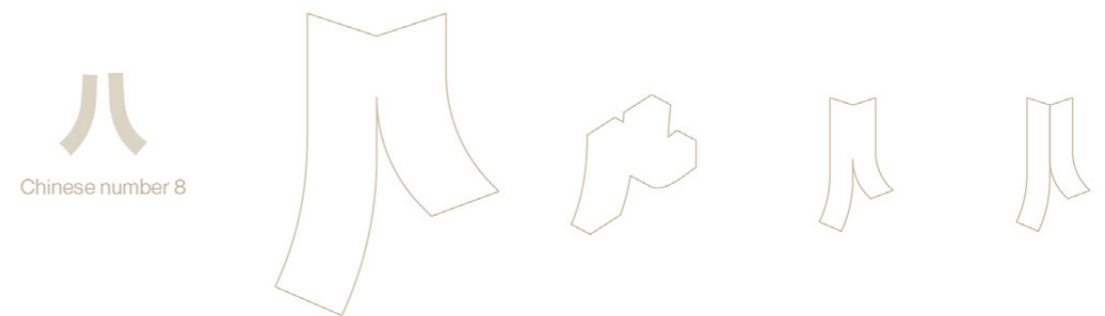
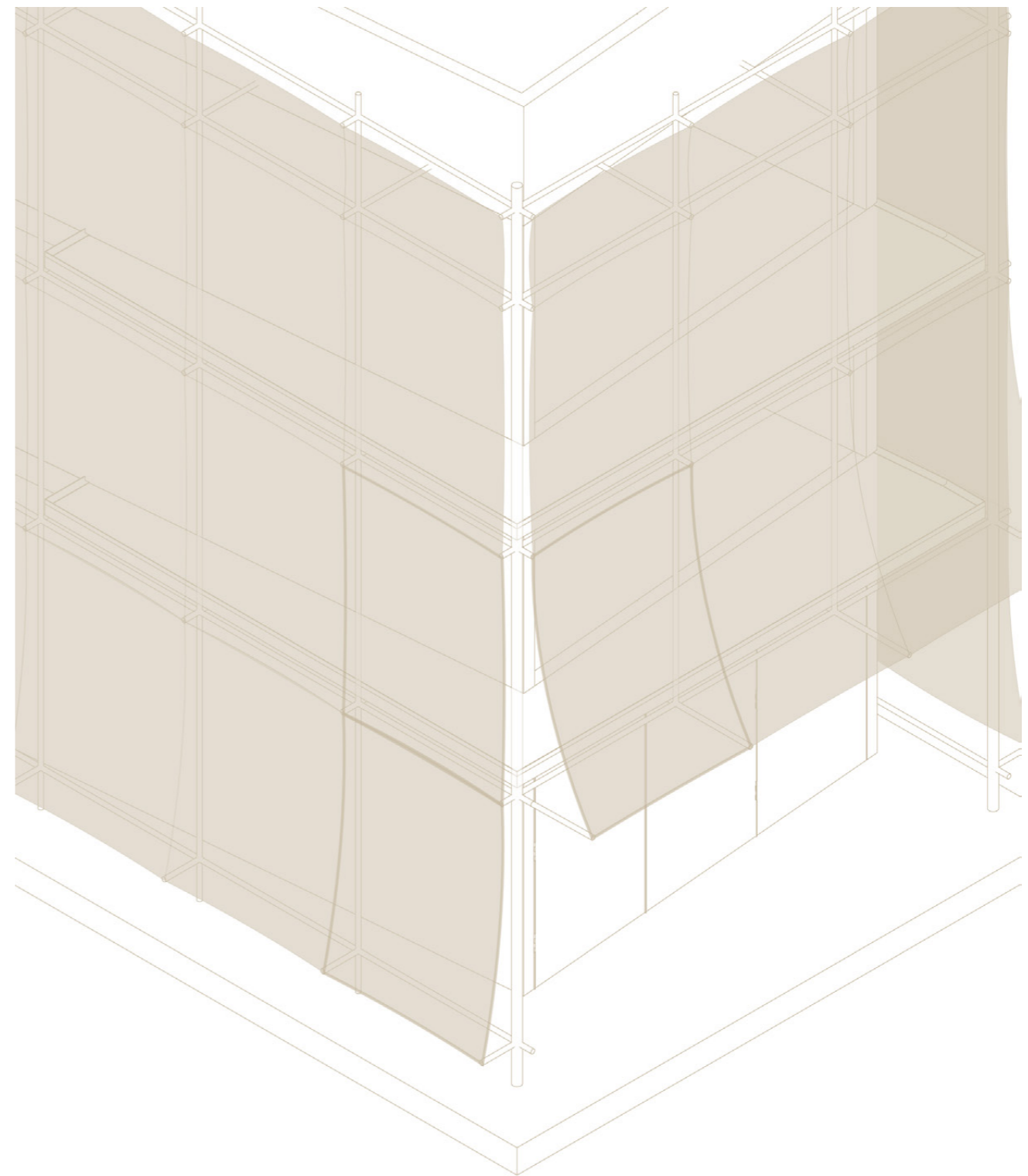
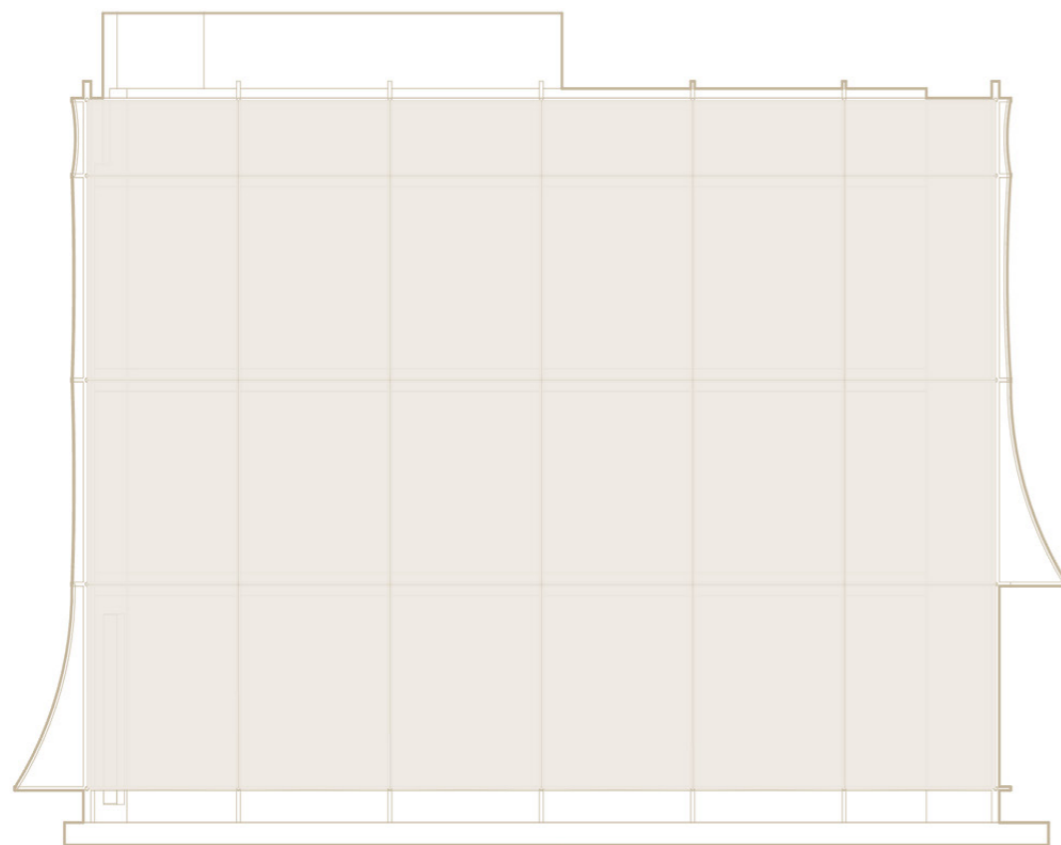


Figure 6.12: Logo design referencing the shape of the outer façade



In order for the graphic design components to communicate the spatial design, and for the connection between the two to be apparent, it needed to connect to the concept as well as the most prominent and immediate parts of the architecture, such as its silhouette, form, and outlines, as those are what the viewer can immediately identify in a building.

The concept's core idea of the flow and lifting of fabric is visible in the outer façade of the architectural design; this shape was used to denote the sense of delicacy in the graphic design, through its thin line weight, smooth curves, and sharp corners. It was then repeated to write out the Chinese character for 'eight', allowing the logo to accurately reflect the architecture and design concept (in its most reduced form) and directly communicate the project's name.

Graphic imagery created with less-immediate elements, such as the pattern of the netting and joint constructions, on the other hand, could require the viewer to scrutinise the architecture on a deep level in order to recognise the connection, as these elements occur on a smaller scale within the space.

After developing the specific built components, a final round of graphic exploration was done to gather and blend ideas. It was evident that referencing a single architectural feature was not enough. For the graphic language to be truly interconnected to the architecture, it needed to blend different ideas.

Figure 6.13: Logo referencing the silhouette of the architecture.

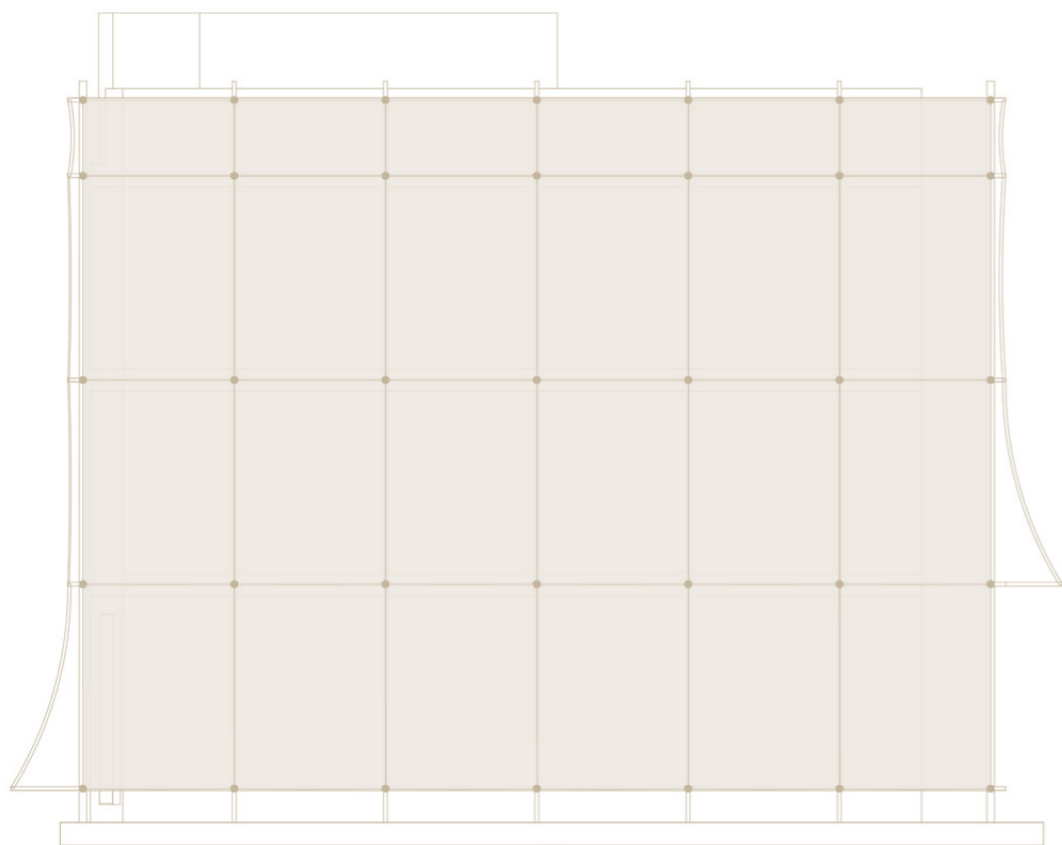


Figure 6.14: End points of the scaffolding creating a grid.



Figure 6.15: Logos referencing the grid created by the scaffolding.

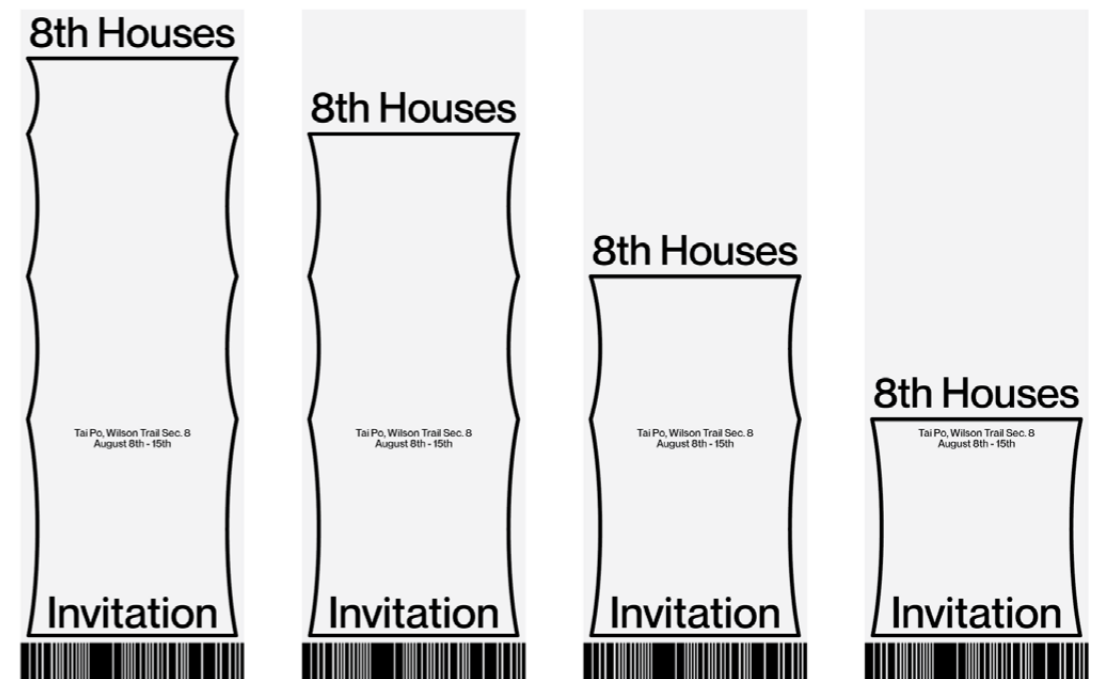
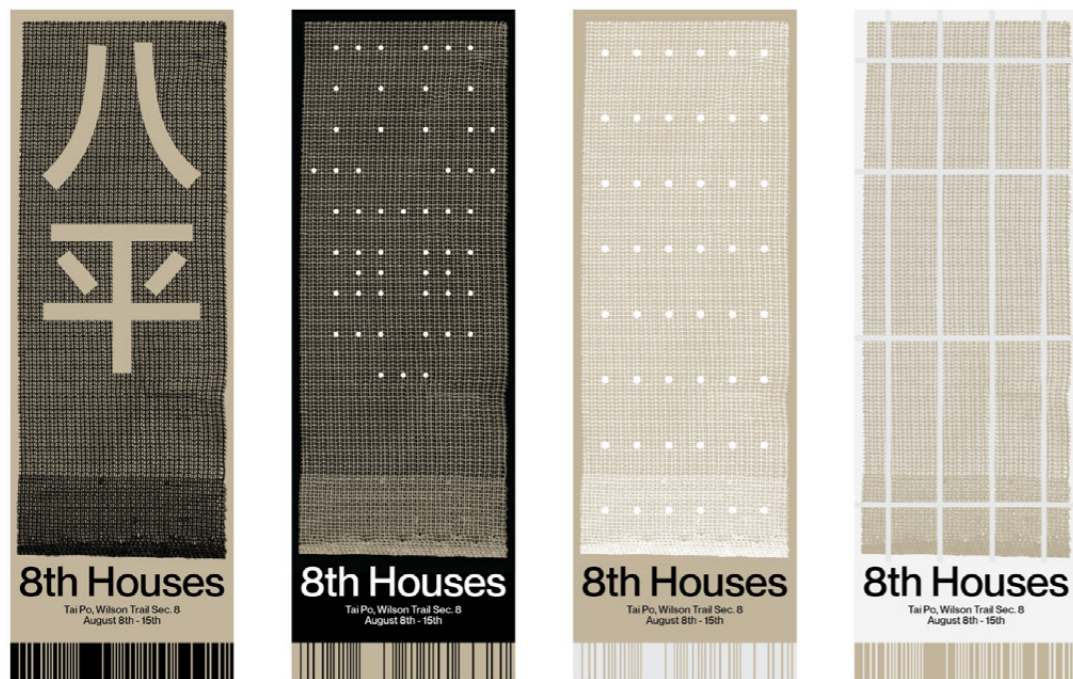
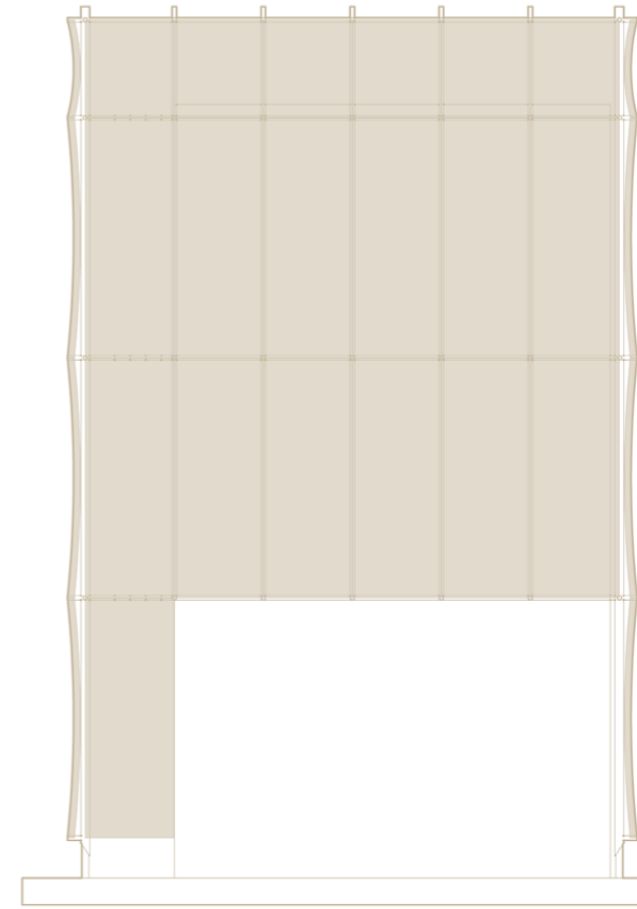


Figure 6.16: Graphic explorations using the fabric as the key design idea.

Figure 6.17: Graphic explorations using the silhouette as the key design idea, forming a dynamic visual component.

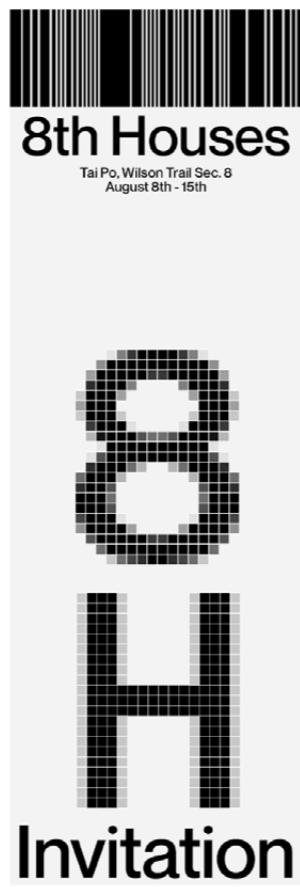
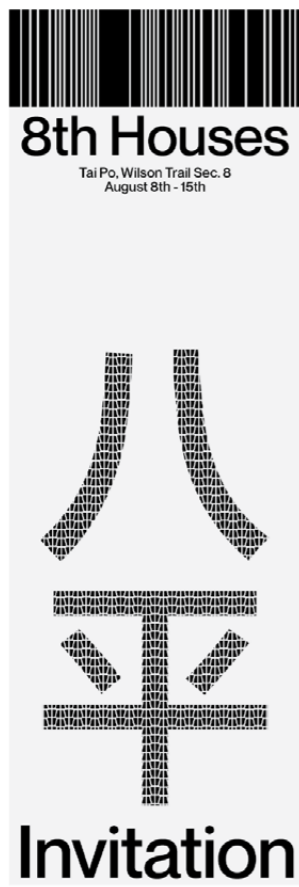


Figure 6.18: Graphic explorations using the patterns of the netting was the key design idea.

Figure 6.19: Graphic explorations using 'overlay' as the key design idea.

## 6.5 Reflection and pivot

This design concept hinged on creating a specific architectural form: a scaffolding around the structure and the gentle draping of the netting.

While the architecture itself was successful in conveying those things and yielded some interesting graphic elements, the design concept was only aimed towards creating the built environment, hence making any developed graphic design lack nuance and depth, as it was merely mimicking parts of the structure. The connection between graphic and architectural design was one sided and surface level.

Designs such as the façade logo were able to communicate nuanced messages, but I could not develop an entire visual language from them.

The core design concept played an important role. However, on a more immediate level, the look and feel played the most significant role in dictating specific graphic-design languages, such as texture, colour, and line weight, even specific shape-related impressions (a rounded corner vs a sharp corner).

This concept did not include a systematic approach to both disciplines, but rather aimed to create a specific architectural form that I then used to create graphics. Hence, for the next design concept, I needed to incorporate a systematic approach in the design concept that allowed for both languages to exist in the first place, rather than trying to derive the graphic language from the spatial concept and design.

# Concept 2<sup>(a)</sup>

## 7.1 Concept re-articulation

Dramatically shifting the core design concept's interpretation of bamboo scaffolding and formal approaches while maintaining the same look and feel and material palette, a new design concept was created, this time focusing on the modularity of the bamboo scaffolding – a modular system that could be applied simultaneously to both disciplines.

Referring to my three initial interpretations of bamboo scaffolding, the idea that bamboo scaffolding creates a constantly changing arrangement was used as a new concept. Part of the characteristics of bamboo scaffolding lies in the fact that the safety netting can be infinitely dynamic within an ordered bamboo grid, constantly changing and flowing.

This concept explored how movement could be expressed within a grid. Façades and roofs expressed that idea through different variables in the same grid. The key design expression was 'different ways to connect a grid'. This immediately allowed a level of methodological approach to both designs, as opposed to the approach of one architectural form in the first design concept.

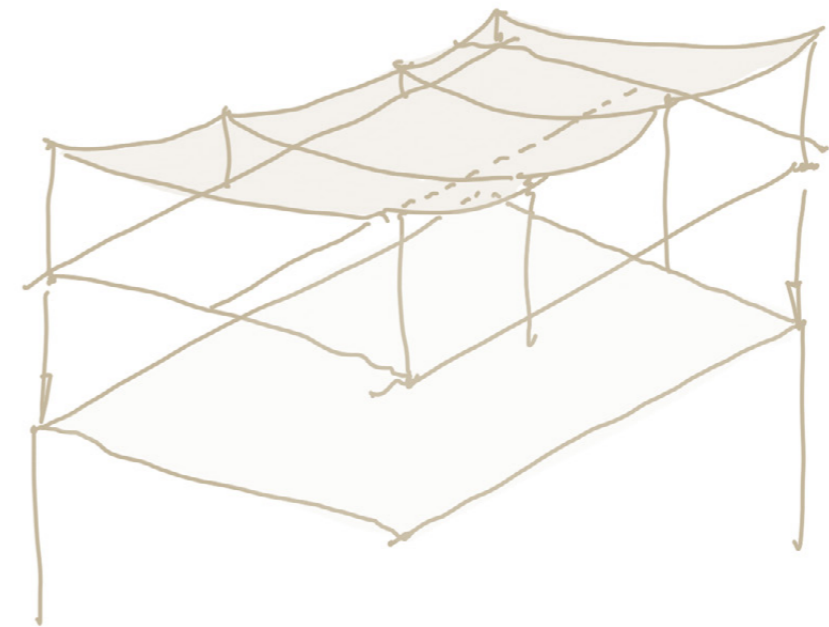


Figure 7.01: Concept sketch of the roof design, a delicate form held up by a skeletal form.

## 7.2 Façade and graphic exploration

### Main idea: grid + arrangement

Dynamics in bamboo scaffolding can be expressed in the form of different connections in a set grid. Similarly, bamboo scaffolding's netting is infinitely dynamic, depending on how it is draped over the scaffold. These concepts were used to create a roof form by connecting a  $2 \times 4$  grid in different ways, and allowing it to drape and sag, creating a dynamic form that was soft but simultaneously under tension. Using the same grid, dynamic logos were created that directly corresponded to individual roof lines, using the same  $2 \times 4$  grid and variations of the same idea.

### Main idea: visual quality of the netting

Referencing the translucent quality of bamboo scaffold netting, I combined that with the silhouettes of the newly established architectural forms.

In my previous explorations, focusing on the idea of overlays, the overlaying of a net material on an image created a gridded/dotted appearance that resembled a halftone texture. In the new concept, that textural characteristic was applied to the gradient silhouettes in the form of halftones. A custom script code (Kelso, 2011) applied a custom halftone with the Chinese character for 8.

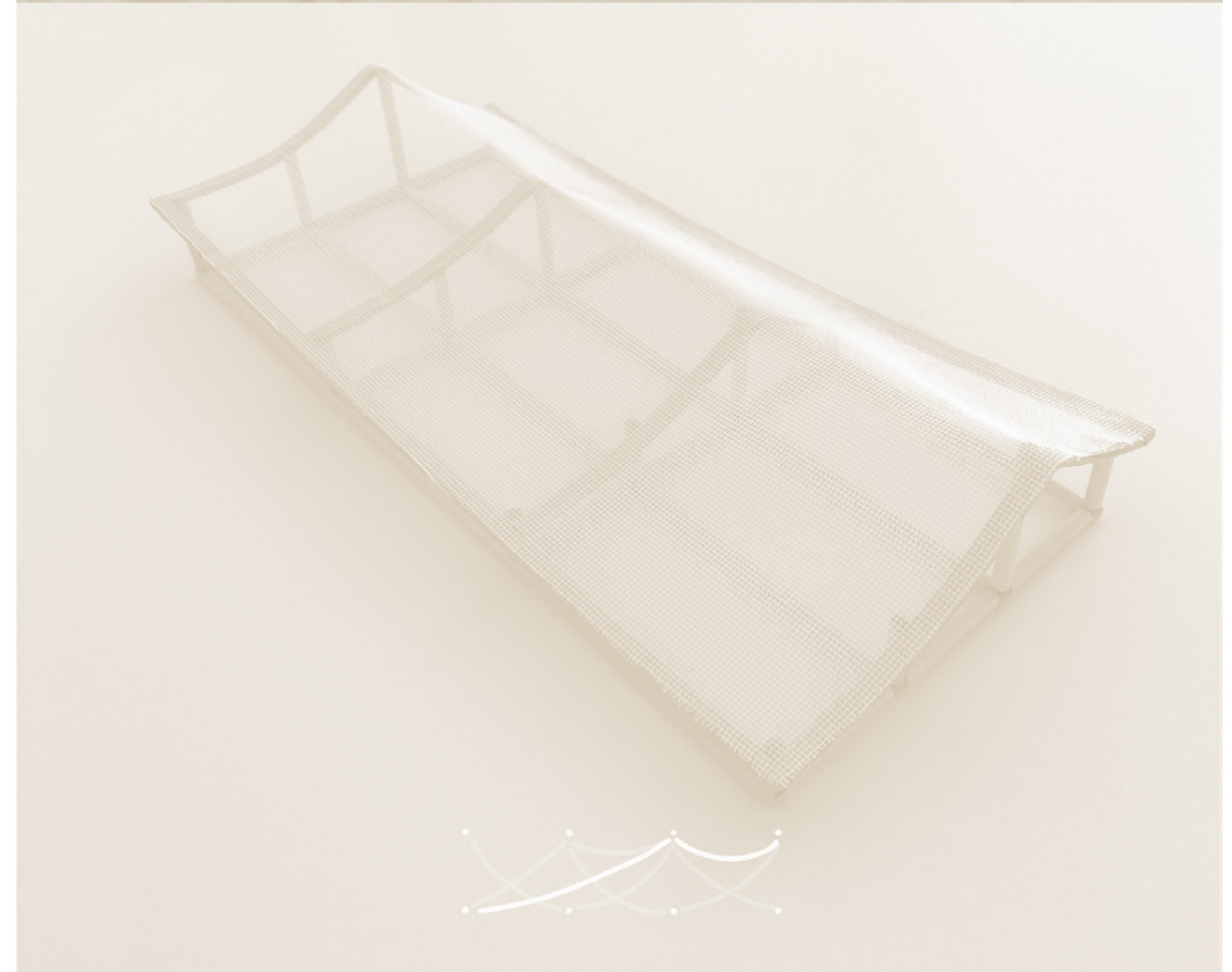


Figure 7.02: Bamboo scaffolding (top), and experimental architectural model created by different connections of a grid (bottom).

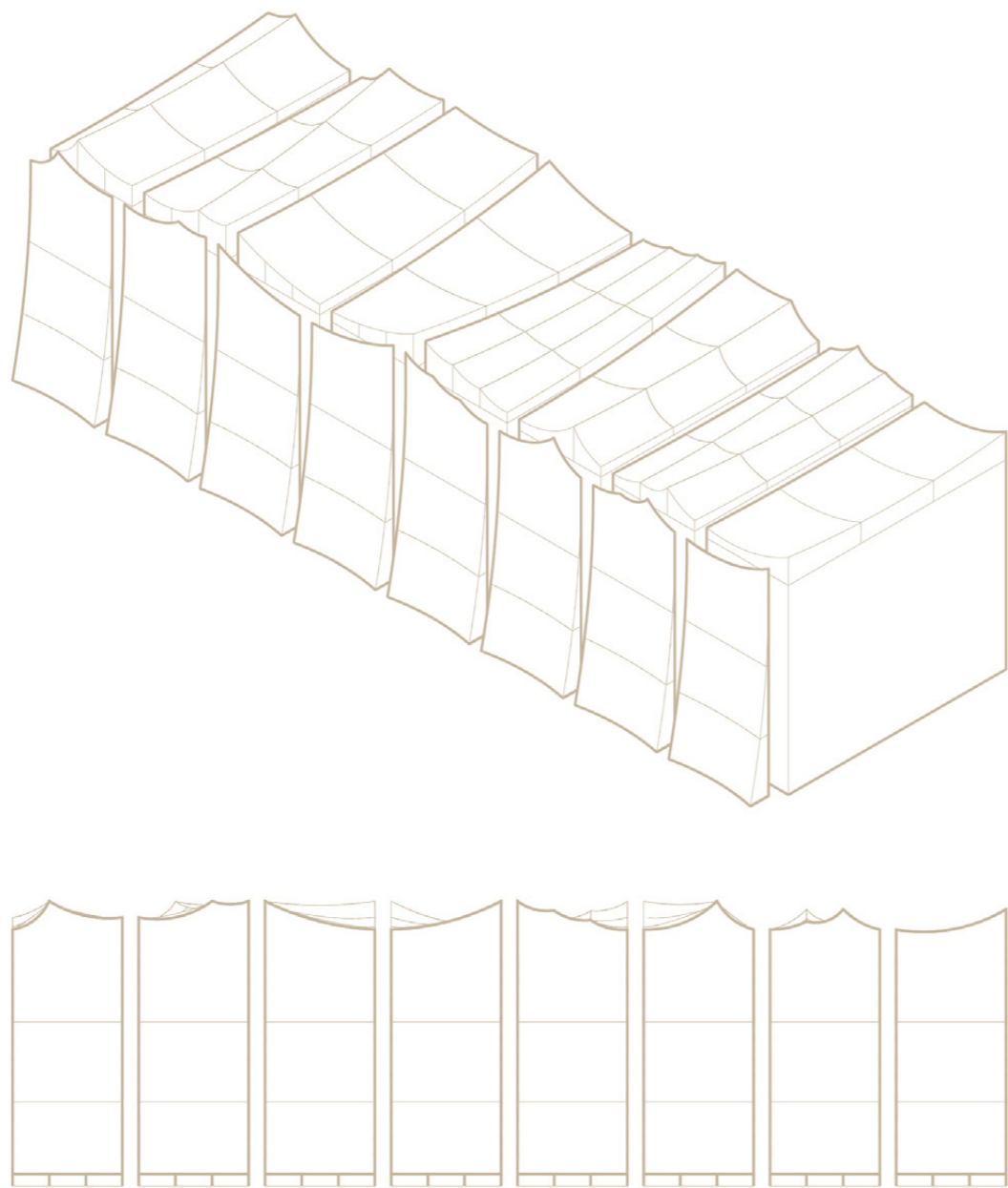


Figure 7.03: Exterior variations.

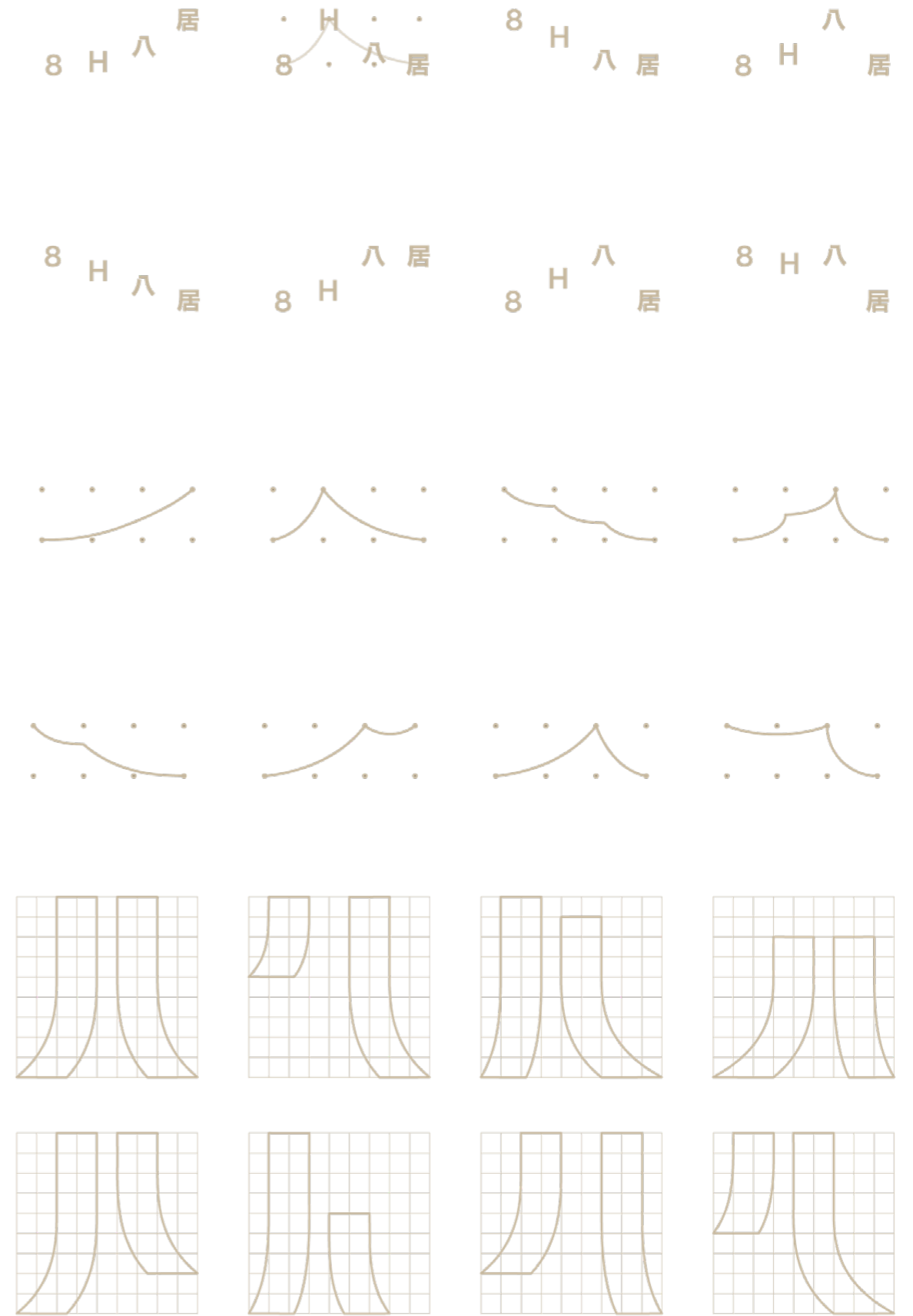


Figure 7.04: Logo explorations referencing the roof line.

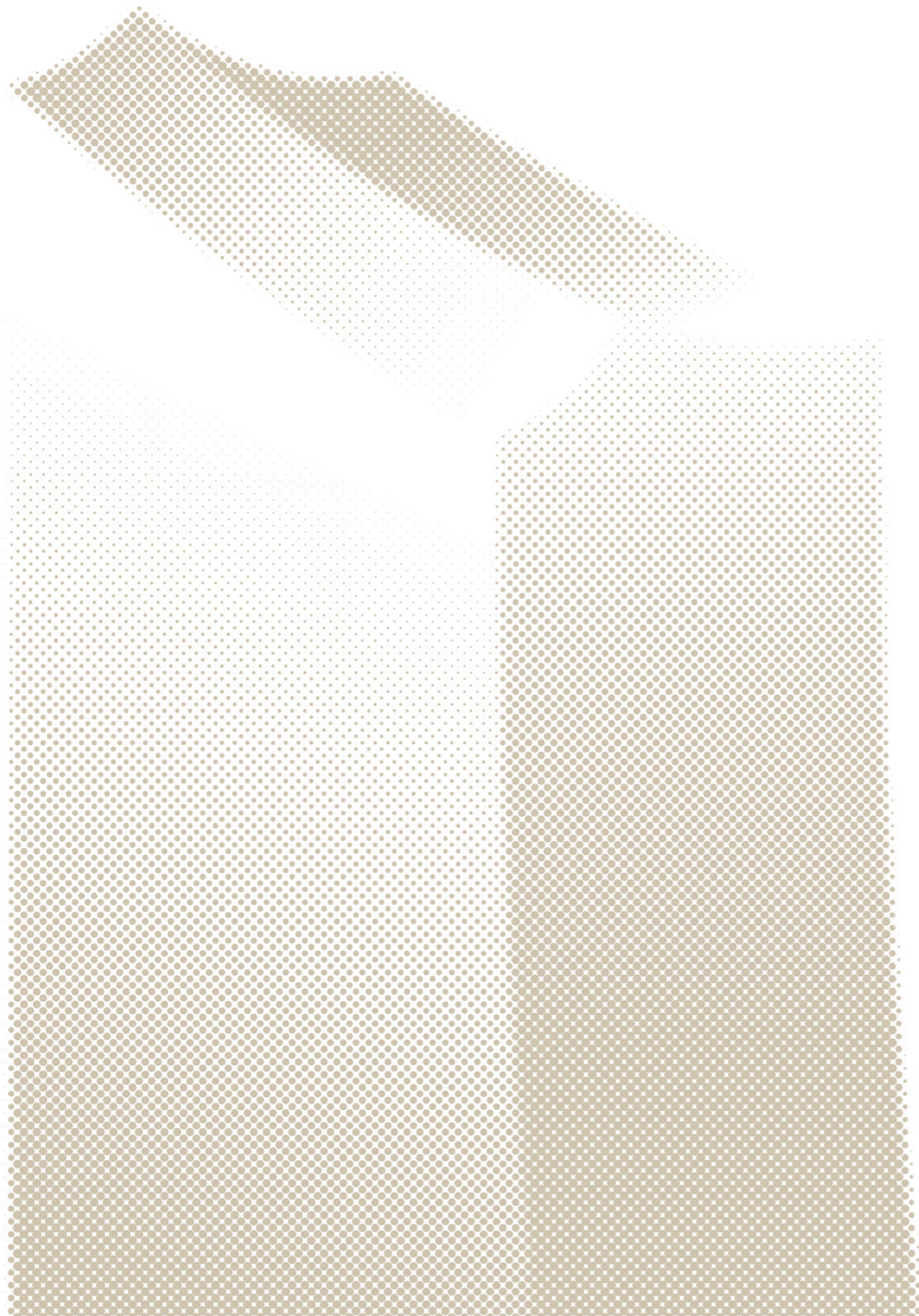


Figure 7.05: Translucent gradient combined with the silhouette of the architecture.



Figure 7.06: Halftones created from the gradient silhouette.

### 7.3 Reflection and pivot #2

While the idea of dynamic linkage between dots on a grid yielded interesting results and could generate a considerable variety of connective patterns, this ultimately stemmed from a direct translation of architectural form to graphic representation, the method of 'connecting the dots' ultimately lacked nuance and depth. While the connections were dynamic, they were not infinitely dynamic, and this mode of thinking did not apply to other formats; it was limited to this specific presentation of dots connected by lines.

Therefore, what if I focused on placing values into those grids instead of connecting dots within a grid? By referring to a different interpretation of bamboo scaffolding, as a low-poly filter of the structure underneath, I drew a similarity between the pixelation created by the bamboo scaffolding and how digital pixels work.

In the same way that digital pixels each represent a different value, a value scale was created and assigned to different components of architecture and graphics, which hopefully would yield far more interesting results.

As part of the design concept, the initial inspiration, bamboo scaffolding, was now interpreted as a data-processing device. The building façade was treated as an arrangement of different pixels and cells that contained different values.

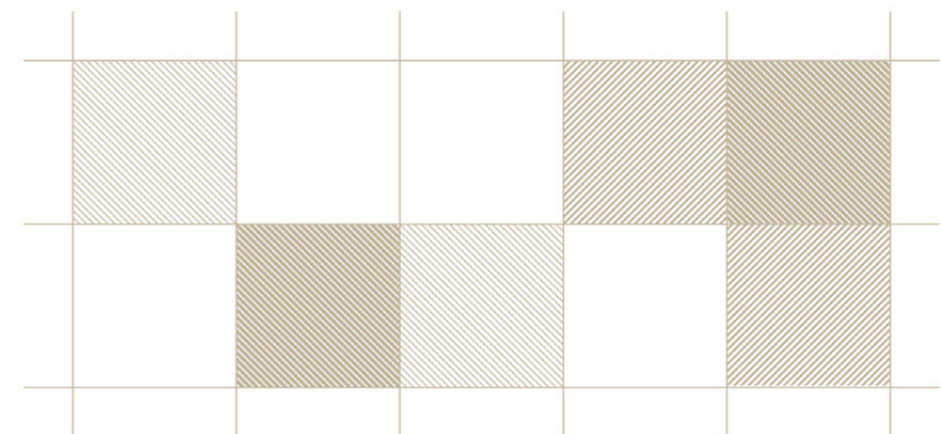
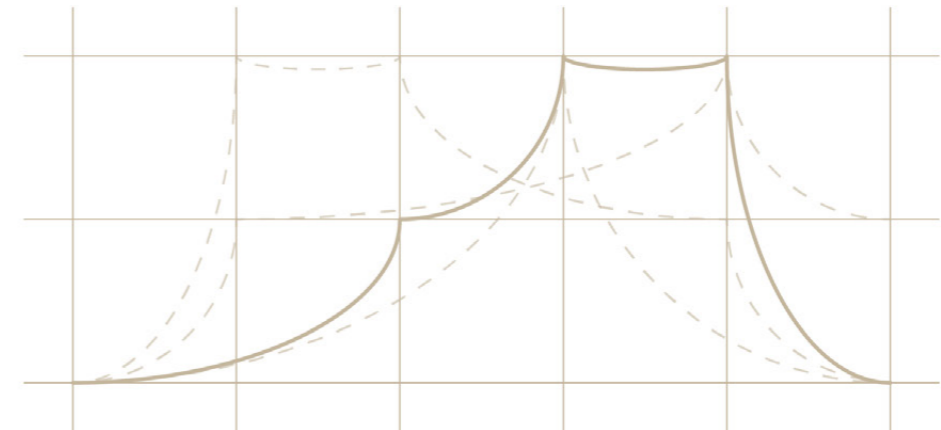


Figure 7.07: Change of concept, from connecting a grid to placing value in a grid.

# Concept 2<sup>(b)</sup>

### 8.1 Concept re-articulation

Looking at the bamboo scaffolding, we can observe a grid-like effect created by its layers; the scaffolding, along with its outer netting, creates a 'low-resolution' view of the underneath structure.

Using that effect as the driving force, this concept created a 'pixelated' grid of the façade and roof; using a value scale, the building façade and roof were treated as an arrangement of different pixels and cells containing different values.

It is worth noting that, while previous iterations exhibited a relationship of the architecture to the graphics, where an architectural form was first conceived as the key focus of the design concept, this iteration saw architecture as a visual component; the system of 'pixels' (which is itself a graphic element) was the main focus, and the concept took on a more methodological approach. Ideally, this would open the design to be much more adaptable, regardless of format and medium, between both disciplines and create a deep connection that exceeded surface-level formal translations.

The architecture and graphic design should both still communicate the same look and feel of calm and minimal design language, but rather than communicating a design concept of a draping fabric, they should communicate a digital look from the new design concept.

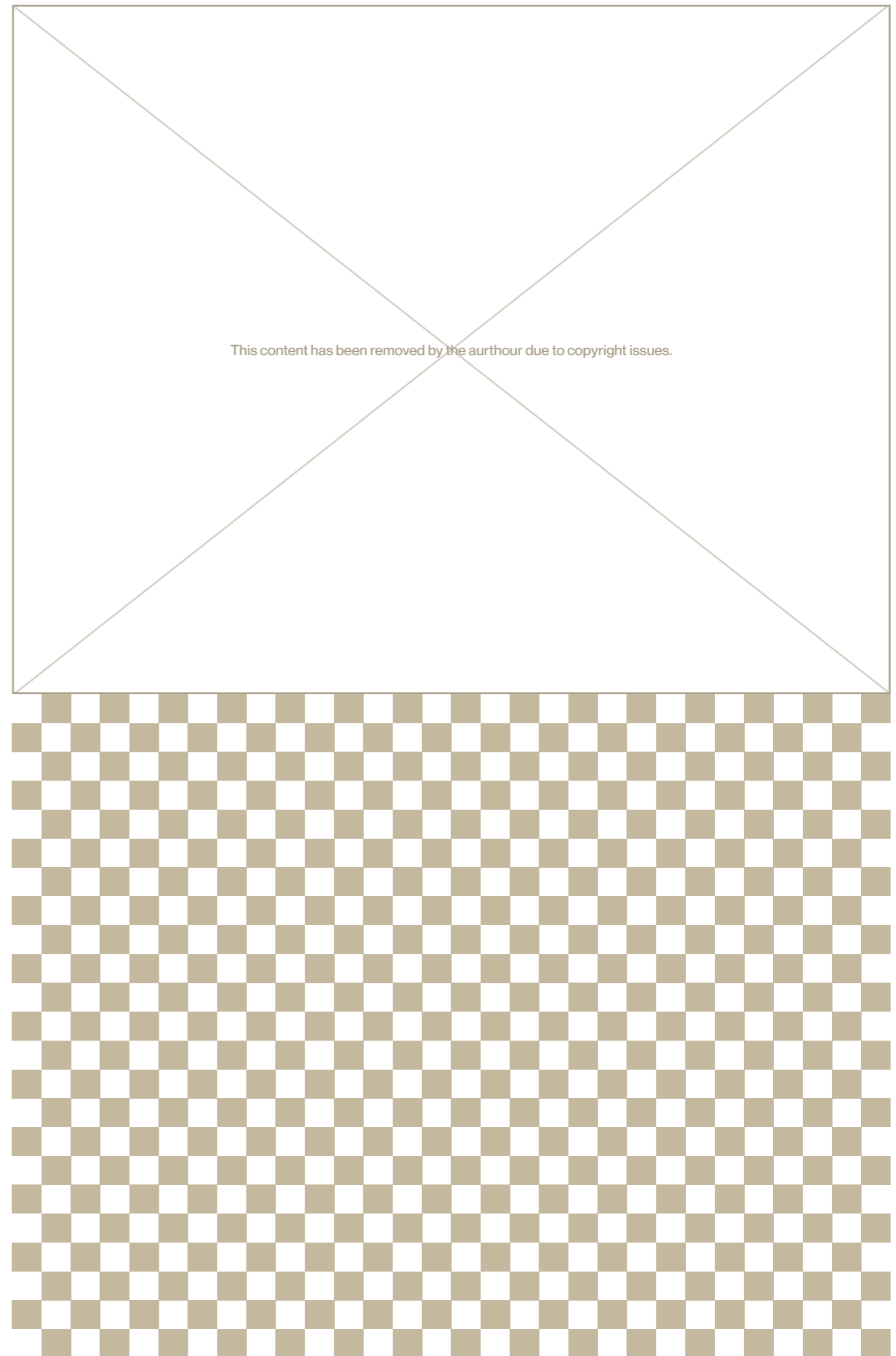


Figure 8.01: Bamboo scaffolding as a pixelated screen.

Exploring the idea of pixels and low resolution, I experimented with creating pixelated versions of images; a previous work involved replacing the halftone dots with Chinese characters; this idea was then used to experiment with adding variation and dynamics to the design. Replacing the pixels of a particular image with the characters created a unique dynamic that I found resonated well with the architecture and was also very similar to the netting patterns I had previously studied.

I also experimented with grids as the main driving force of the designs, as pixels function as different values within a grid. However, this disregarded the visual qualities of pixelation, which was the key concept.

Overall, the graphics focused on exploring different textures and values to create a pixelated effect; the same approach was used to conceptualise the architecture – the façade was used as a screen that ‘pixelated’ the inner structure through different textures and values of pixels.

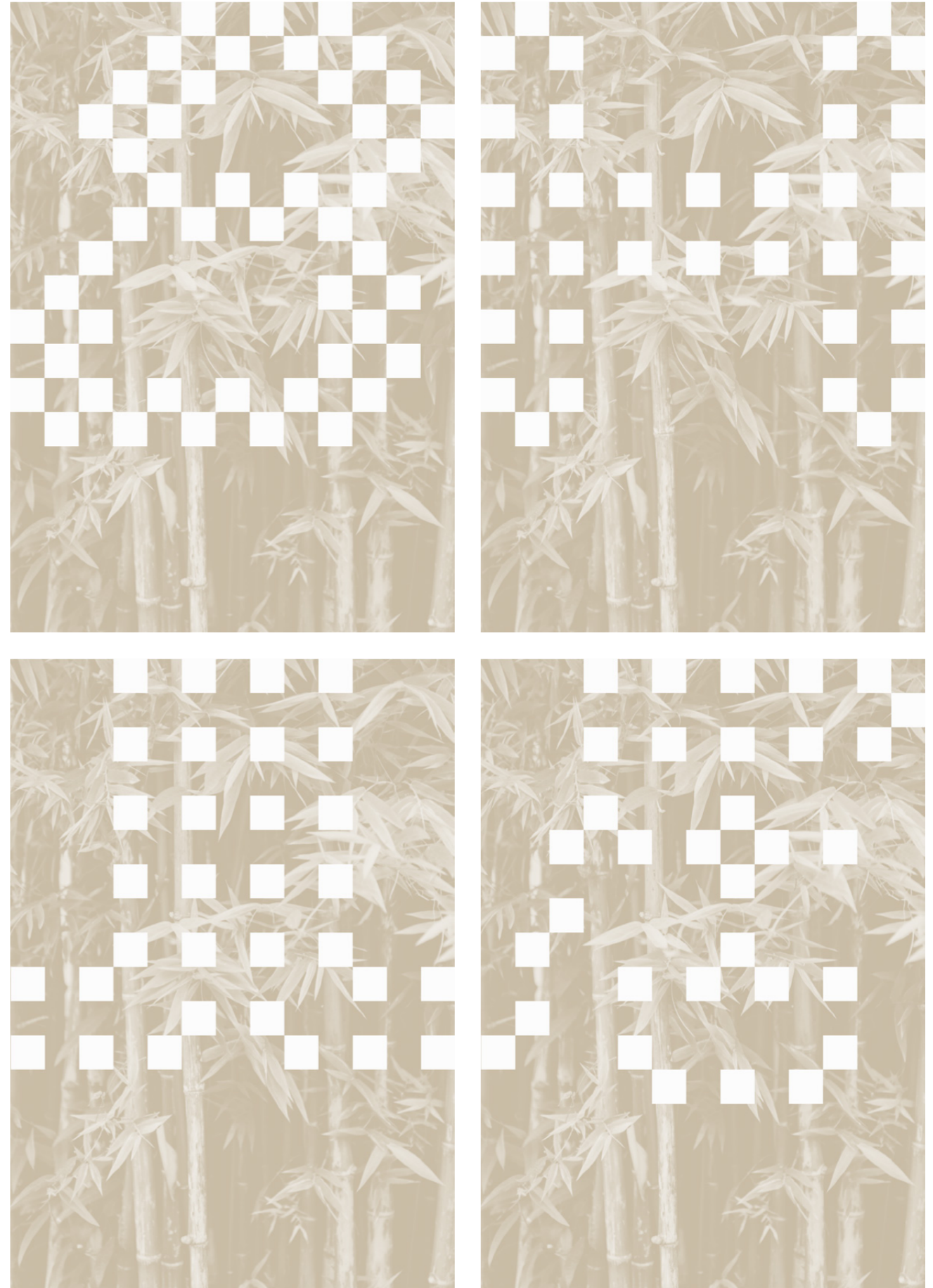


Figure 8.02: Experiment with pixels spelling out the project name.

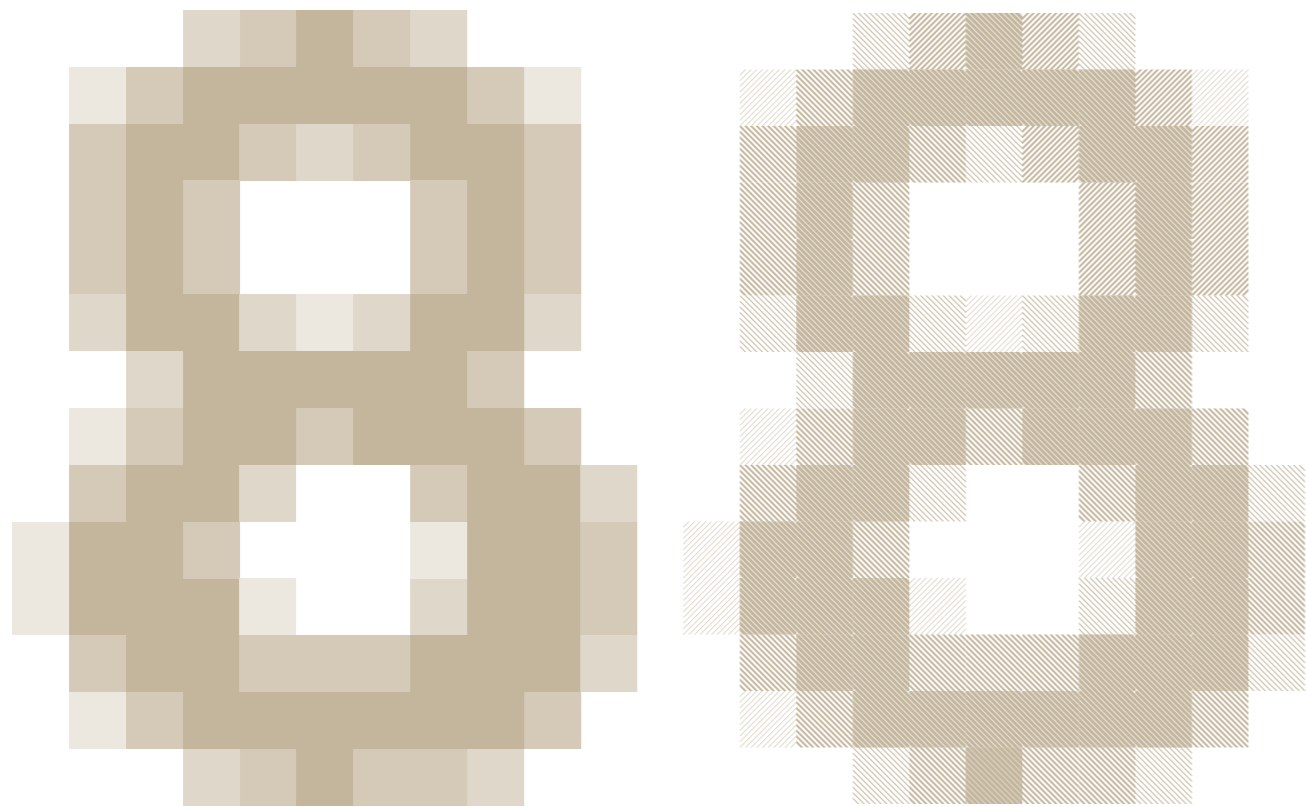
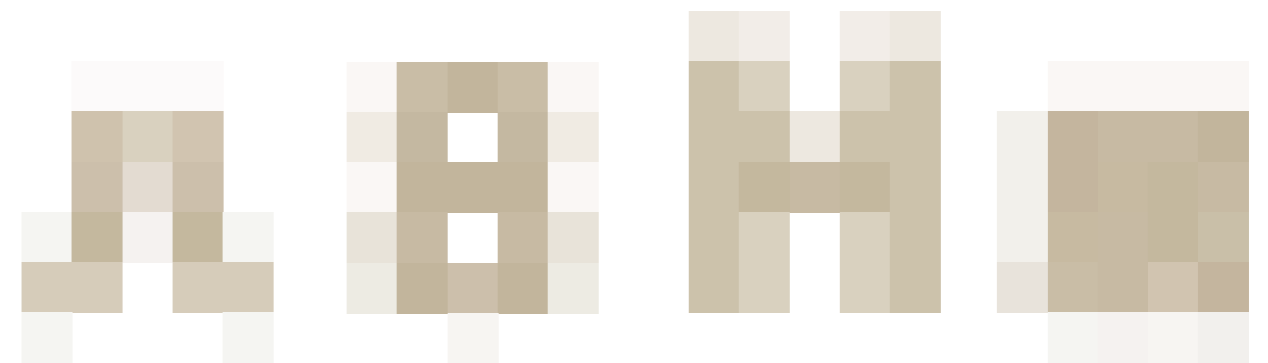
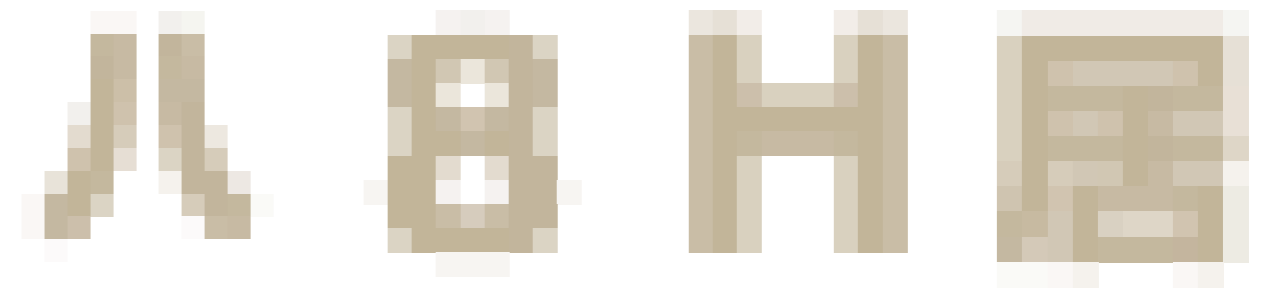
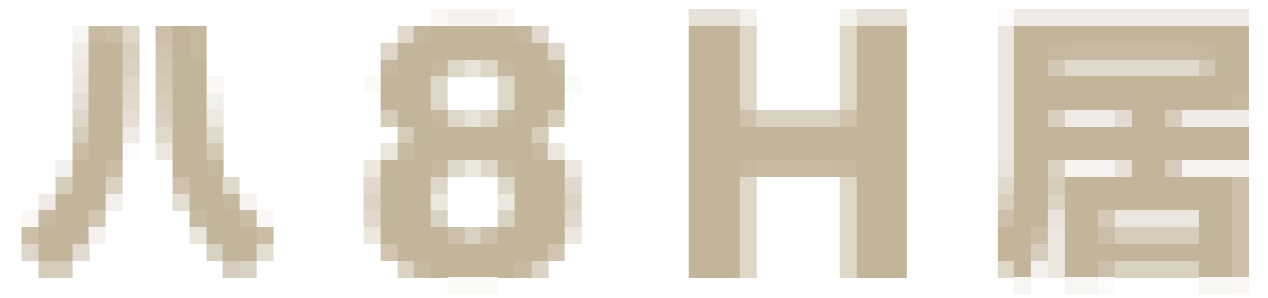


Figure 8.03: Experiment with replacing pixels with patterns and text.

Figure 8.04: Experimentation with image texturing.



Figure 8.05: Experiment with text halftone.



25%



50%



75%



100%

## 8.2 Establishing the system

By taking the Chinese and English names of the project, 8th House (which is abbreviated to '8H') and '八居', I got four different characters, corresponding to a value scale of four quarters. Adding 'zero', representing a complete lack of information and value, this 0–4 value scale – 0%, 25%, 50%, 75%, and 100% – was then used to create architectural elements and graphic elements, following the same scale.

This scale not only represented visual weight and texture but also colours: the right colours – in this case, different tints of the same brown colour that match those of bamboo boards – helped communicate the prompt of bamboo and gave the right look and feel.

Figure 8.06: Pixelating text to create four shades of colours.

Referencing the same movement of the netting developed in Concept 1, this form was used to convey movement in the new façade and roof. Each house was then given a randomly generated series of numbers, reinforcing the unpredictability and dynamism of bamboo scaffolding. These numbers were used as a base for both the architectural design and the corresponding visual identity; helping generate variations of the same form, creating a pixelated screen on the façade.

The construction of the façade structure drew heavy inspiration from how bamboo scaffolding is constructed, using the same construction materials and designs from previous iterations. The actual façade used perforated metal panels mounted on the scaffolding to create a 'freeze-frame' of the movement of the netting.



Figure 8.07: Scaffold netting, Sham Shui Po, Hong Kong

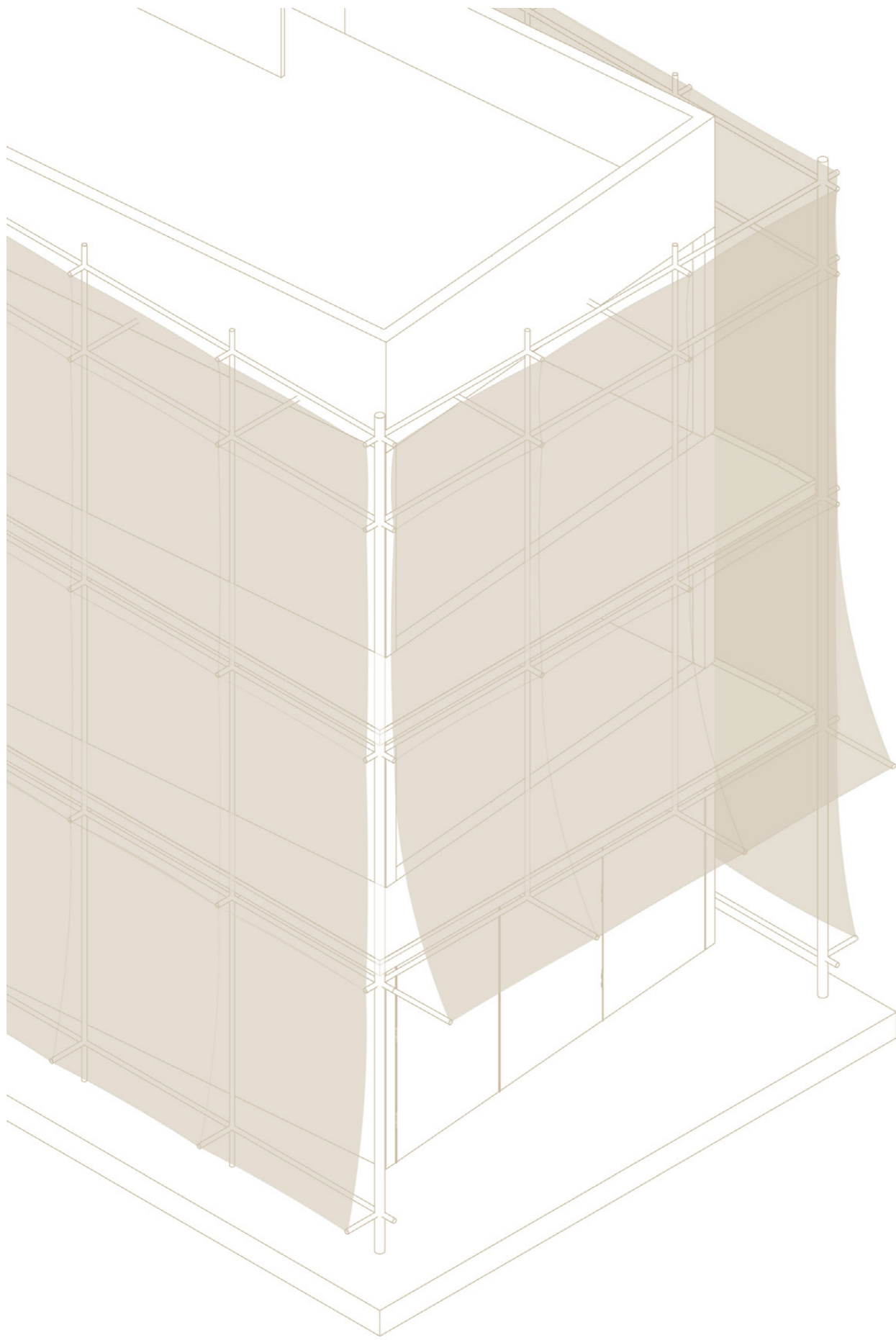


Figure 8.08: Concept 1 design, driven by the flow and draping of the bamboo scaffold netting.

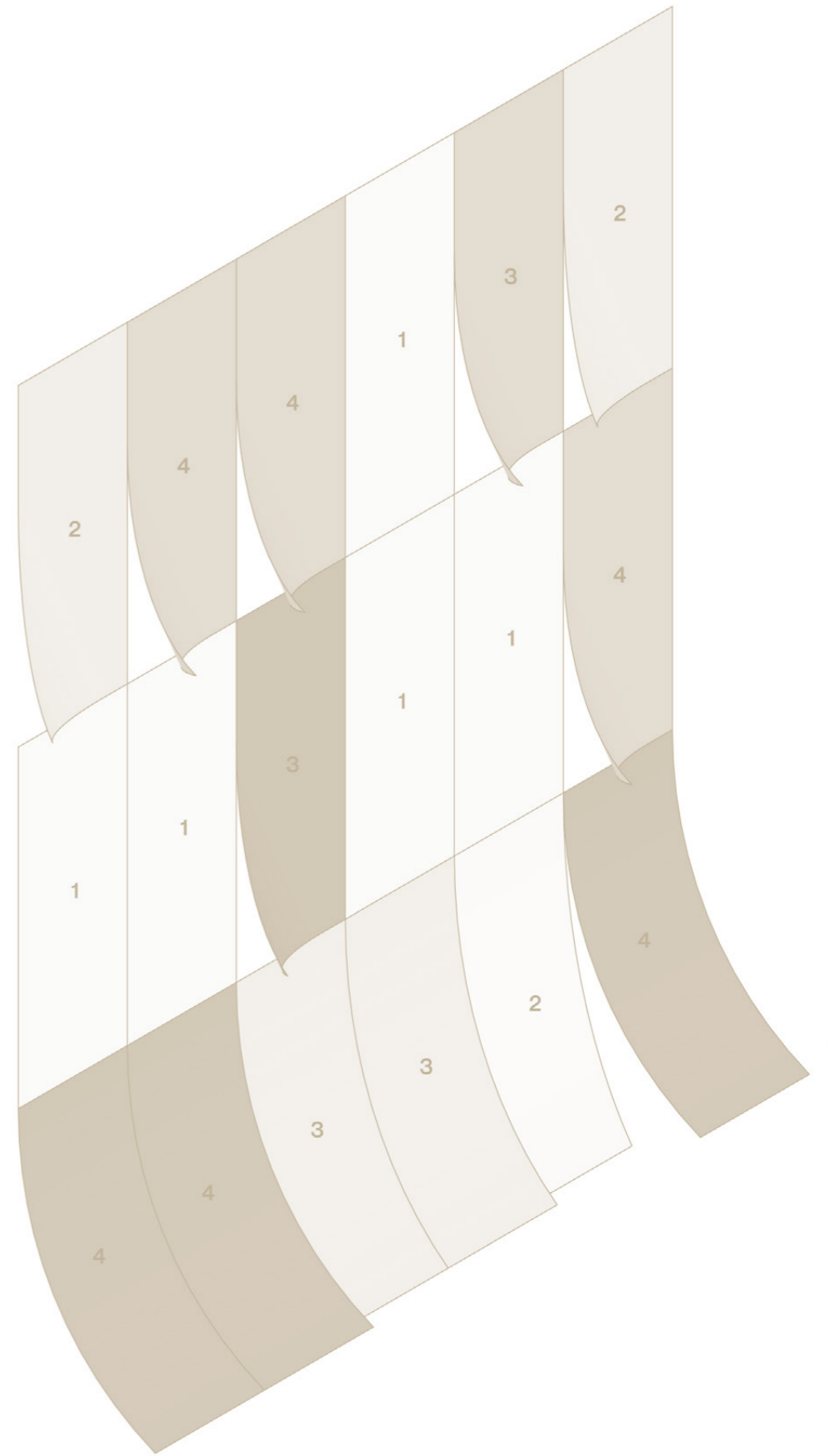


Figure 8.09: Concept 2b design, using the same form of concept 1.

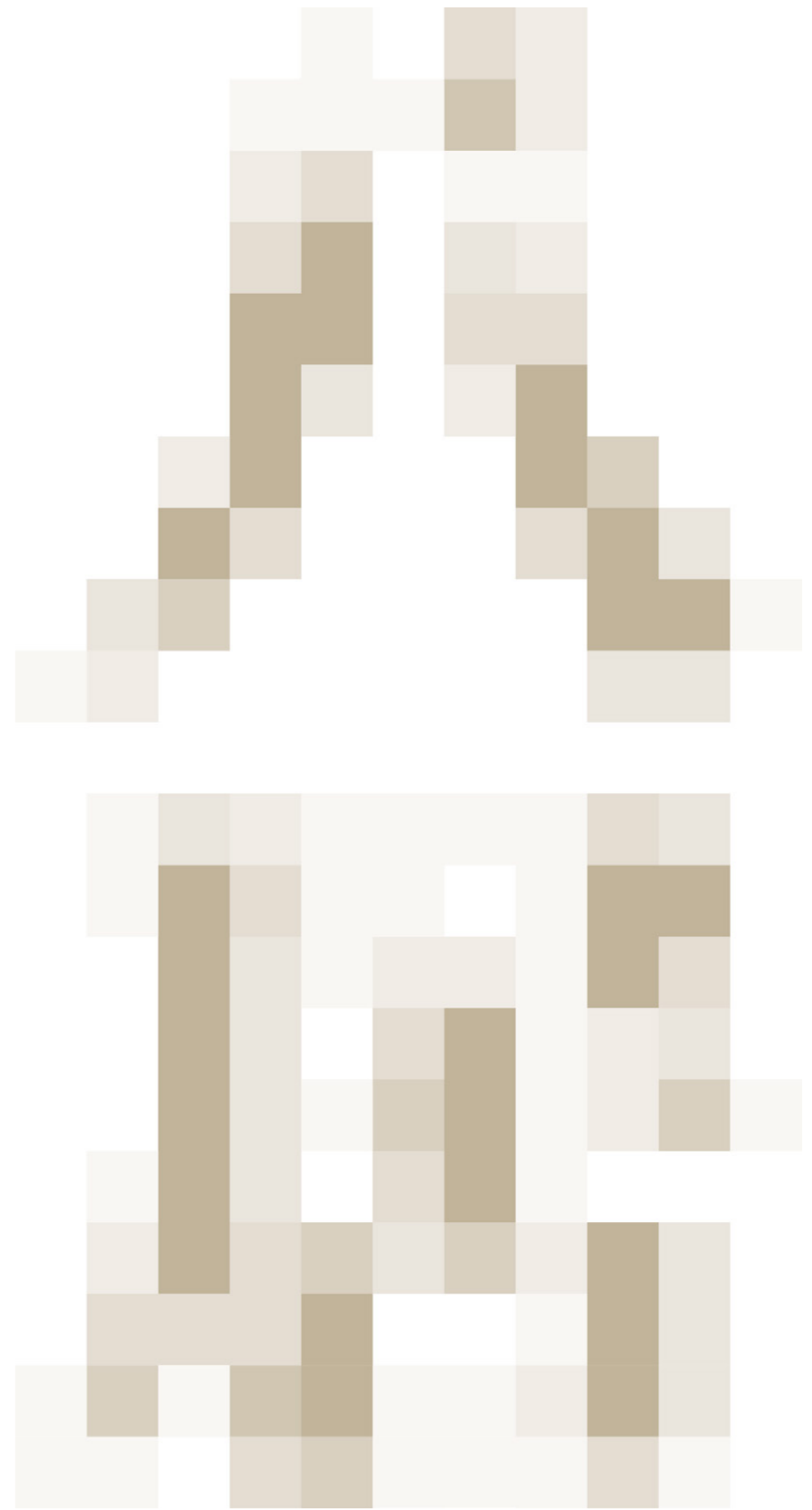


Figure 8.10: Experimentation with pixels, translucency, and delicate qualities.

The ideas of grid and pixels were used to continue experimenting with visual elements, creating specific treatments for images, patterns, and effects; close attention was paid to whether the specific designs communicated a sense of subtle movement and the idea of pixelation.

The idea that the scaffolding netting obscures the object underneath (the original inspiration) was key here, and was a specific quality that I used to gauge whether or not visual elements were successful or needed to change – solid-coloured pixels communicated the design concept well, but did not create enough visual movement to communicate the subtle obscuring action of the netting. However, replacing some solid pixels with a pattern created an effect that could communicate both ideas; adding the characters into the mix further pushed the concept of pixels and even communicated a sense of ‘digital artefact’ that I was pleasantly surprised with, as it helped deepen the design concept by adding an extra idea that aligned with it.

The use of brown tones to communicate the prompt and the mood was further reinforced by smooth movements of motion graphics, which I developed as a part of the experiments. Accompanied by sound and the speed and movement of the motion graphics, these reinforced a sense of ‘cleanness’ and ‘softness’ defined in the look and feel.

Overall, explorations of the graphics focused on different formats of image masks, the pixelating texts and other graphic elements, as well as visual texture and opacity. These simultaneously matched the visual effects created by the bamboo scaffolding, the pixelation concept, and the soft and delicate look and feel.

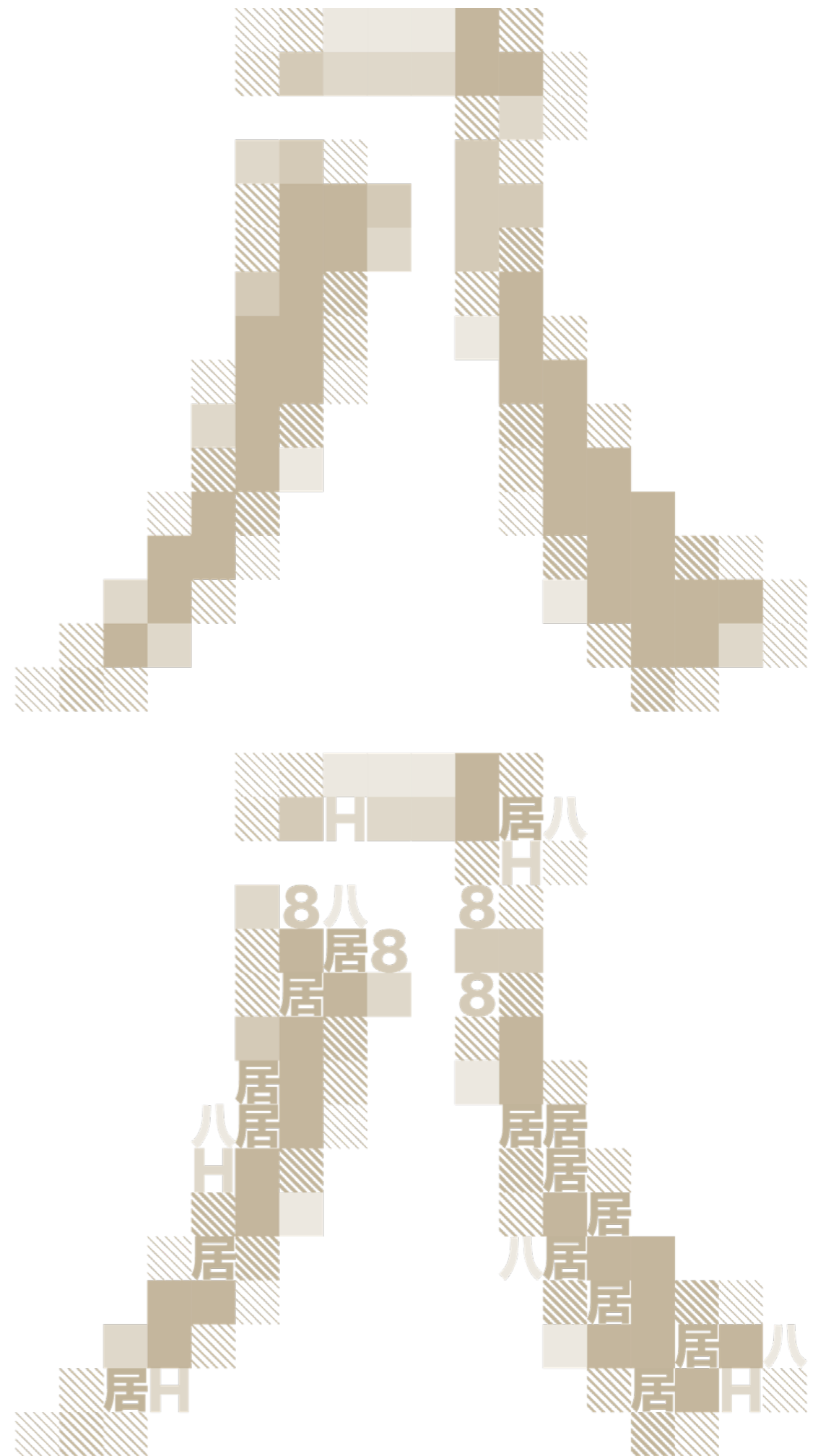


Figure 8.11: Texture variations.

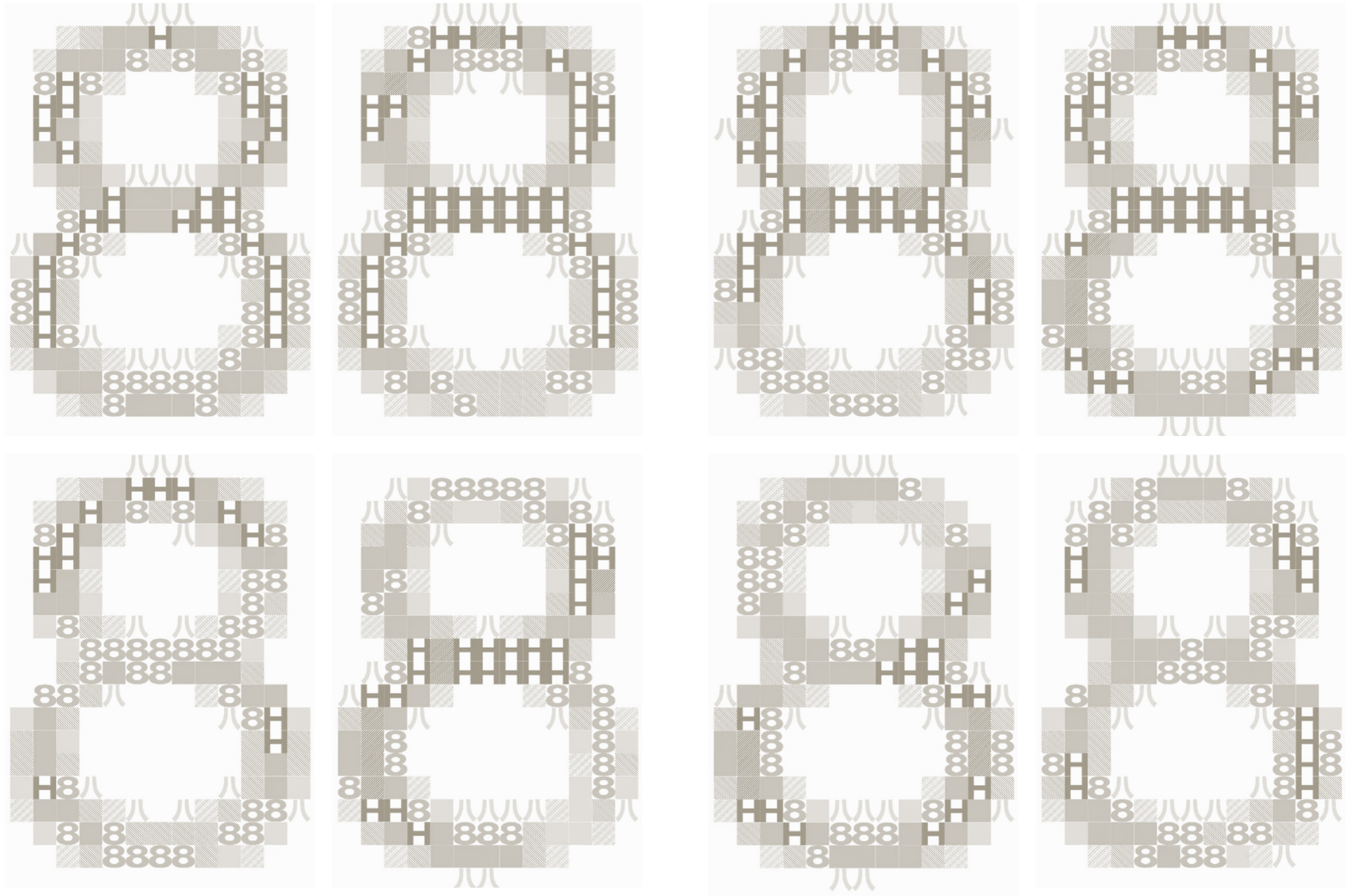
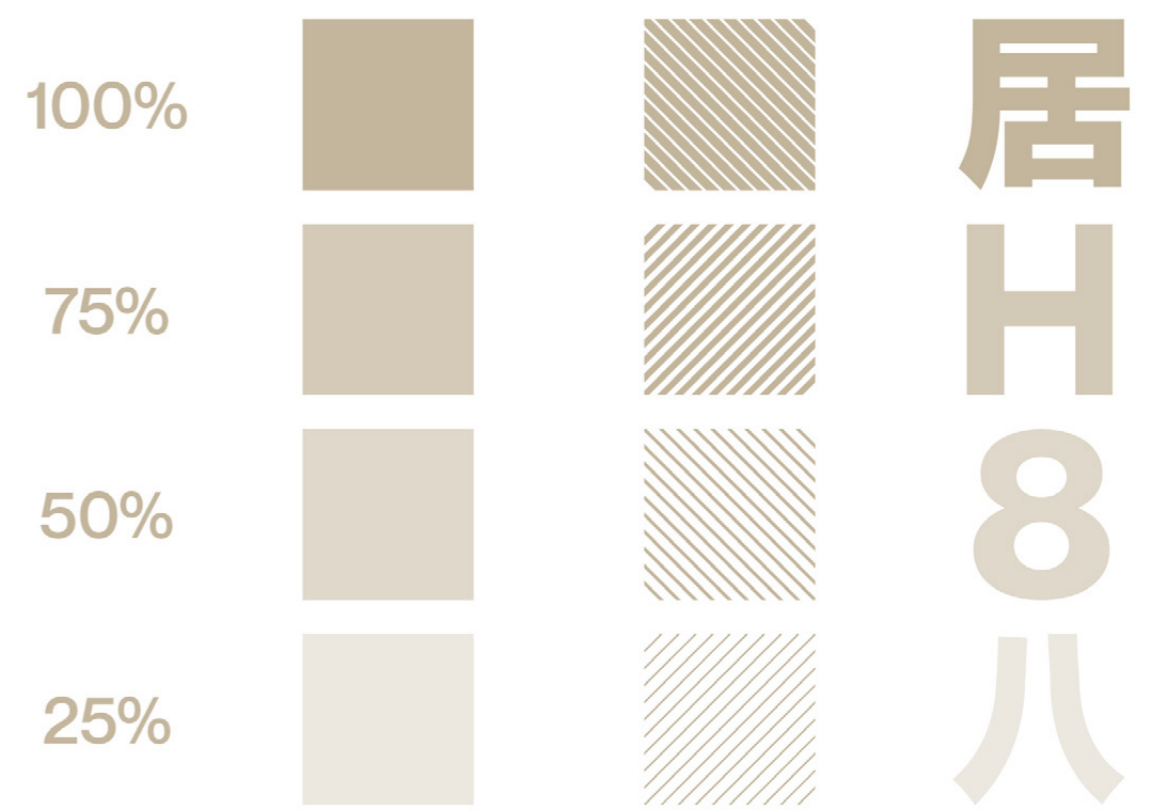


Figure 8.12: Motion-graphic snapshots.

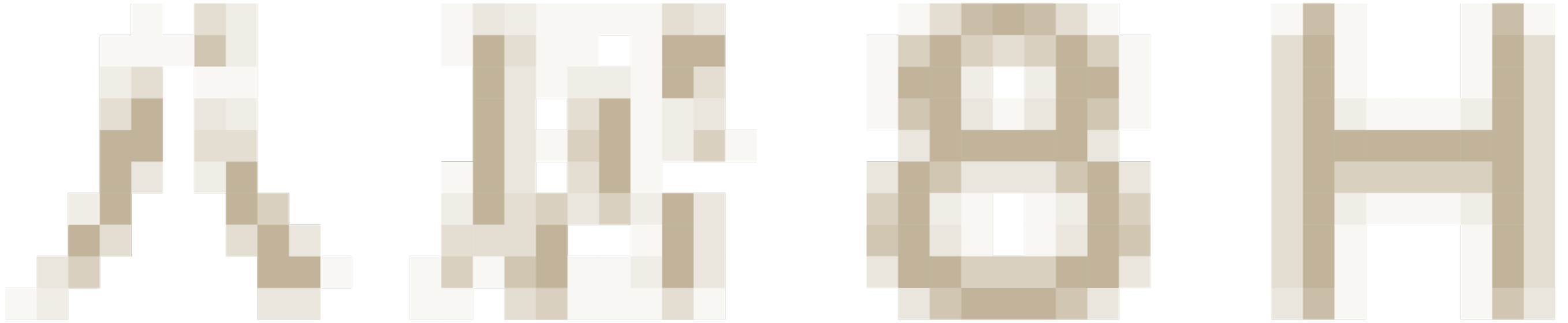
# Visual identity



**Colour scheme**

The colour scheme adheres strictly to the four established shades (with the addition of white) and includes no other colours, to create a monochromatic and minimalistic look. In larger image-pixelating applications that call for a smoother look, four additional intermediate shades (making the total colour count eight) are introduced to prevent the colour transitions between different pixels from being too harsh.

Figure 9.01: Project colour scheme, textures, and glyphs, with the addition of white background.



八居

8<sup>th</sup> House

**Pixelating typefaces**

The specific display-type treatments for this visual identity include pixelating the text and filtering the colours into the four established shades.

Figure 9.02: Project logo and small-scale display text.

Neue Montreal  
Medium

Neue Montreal  
Regular

A lighter version of the same font ensures consistency between the pixelated display text and regular text; it is then slightly blurred to create a softer pixelated look.

Figure 9.03: Body text and pixelated display text.



Some of the solid pixel colours are replaced with texture, and as the font is scaled up for larger applications (posters, larger formats), glyphs are used to add to the dynamism.

Figure 9.04: Medium-scale display text, 16 'pixels' tall.

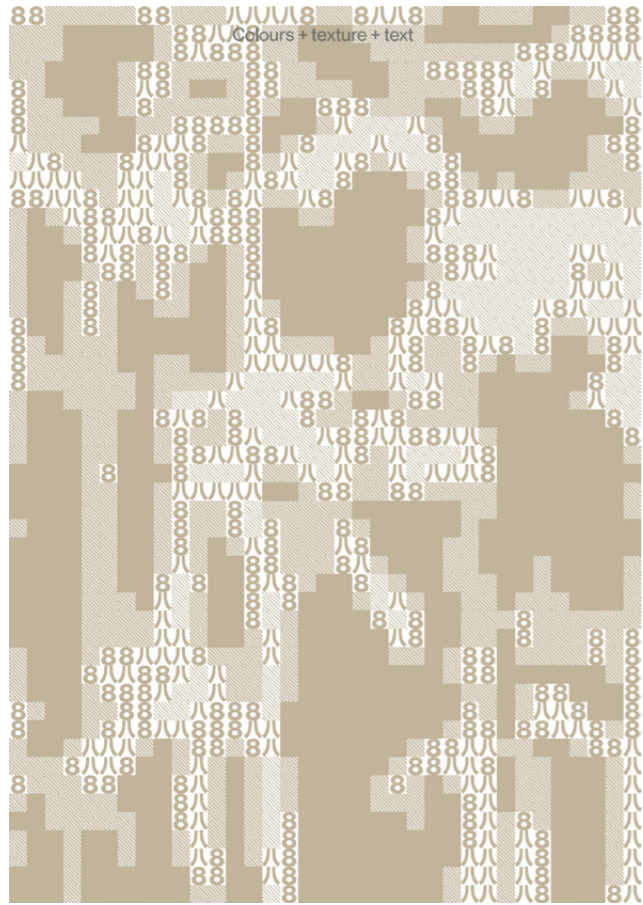


Figure 9.05: Large-scale display text, 33 'pixels' tall.



The corresponding houses each have their own number, which follows the same treatment as the display text.

Figure 9.06: Pixelated numbers 1 to 8.

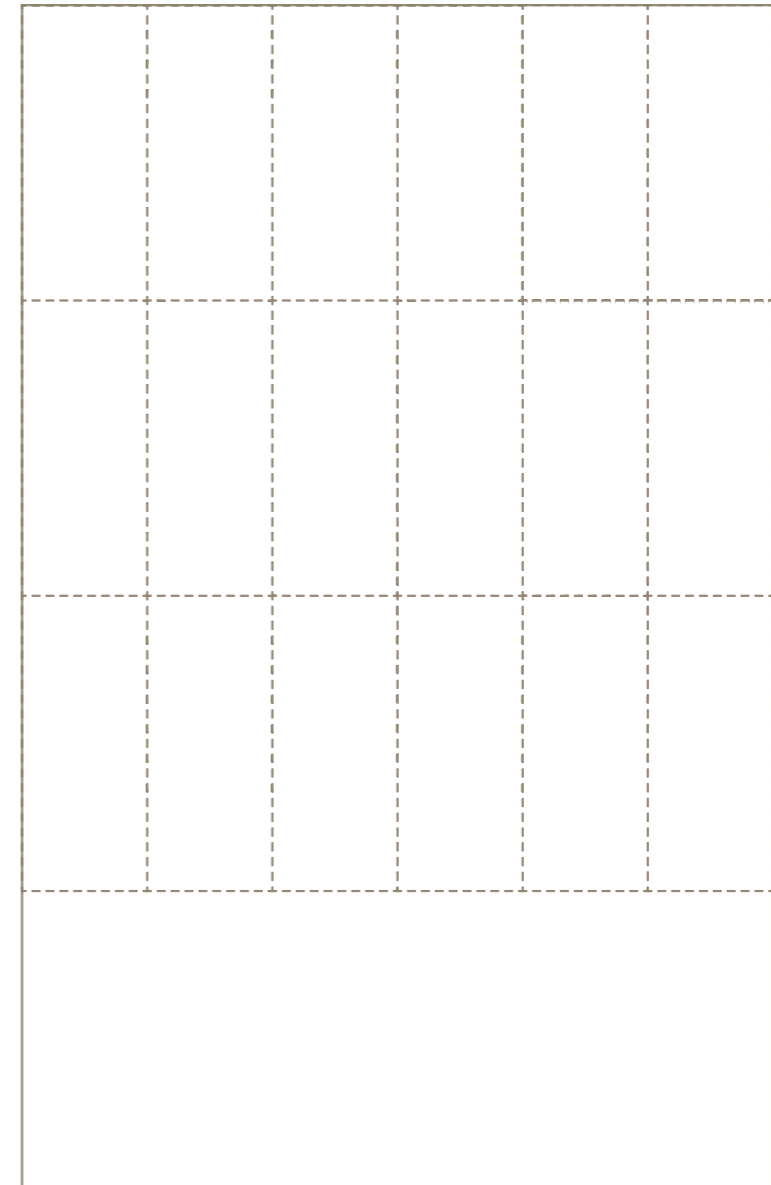
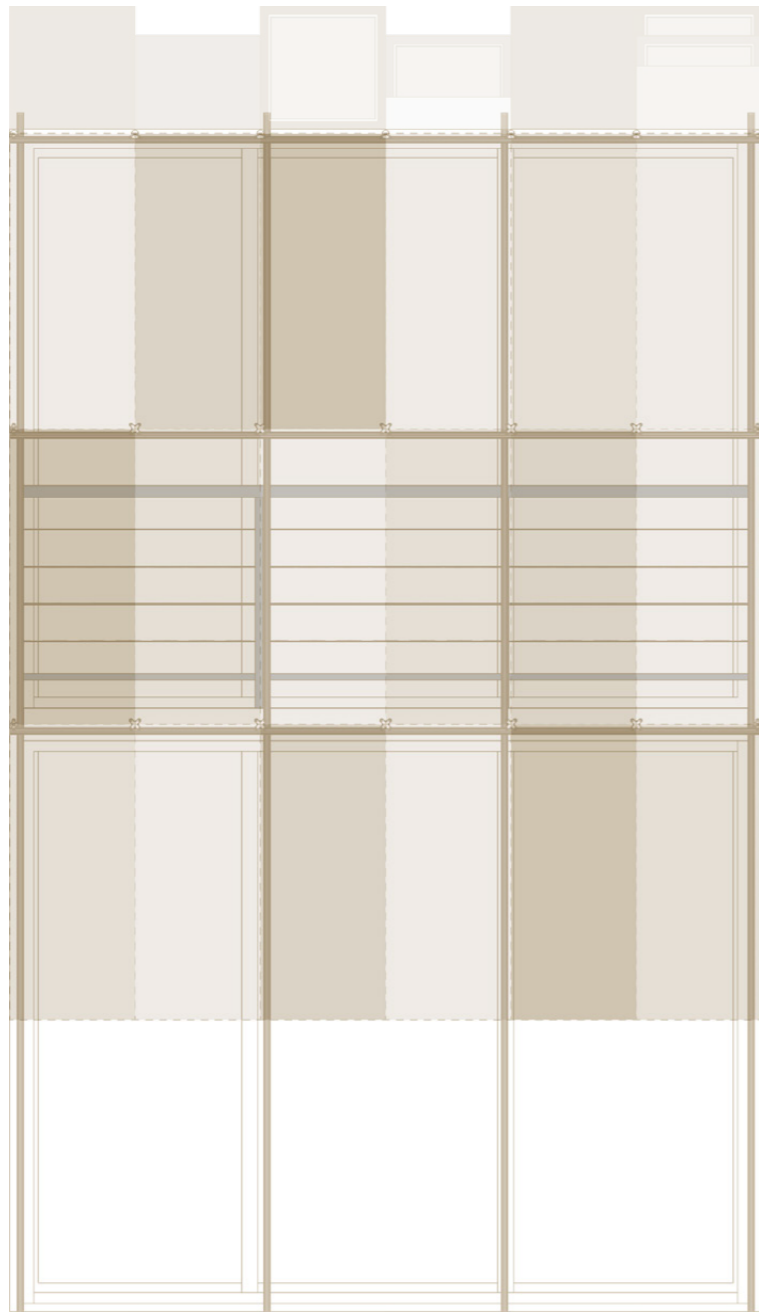


### Image style

Using the same image treatment developed during experimentation, the visual identity pixelates the image and systematically replaces certain shades of colour with different textures and texts. The combination can change and add to the dynamism, given that the colour scheme remains the same.

Overall, the texture and relatively soft gradient of the text pixelation and images aim to communicate the sense of digitisation and soft feeling. Using the right amount of pixelation was important, as too much (lower resolution) creates a harsh transition between colours and loses a sense of smoothness. However, too little pixelation (higher resolution) means the concept of digitisation and visual distortion is not as apparent.

Figure 9.08: Variants of the final image-pixelating effect.



**Layout design**

The dimensions and layout of any printed material and collateral directly reference the building's height, width, and façade dimensions. The bottom row is left empty in the same manner as the façade.

The page is divided into three columns; paragraphs are designed to be driven down the length of the page and are vertically staggered as a subtle reference to the rectangular forms and alternating façade arrangement.

Figure 9.09: Page dimensions and layout, derived from the architecture.



Figure 9.10: Page dimension and layout.

<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie</p>		<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zrril delenit augue duis dolore te feugait nulla facilisi. Lorem ipsum dolor sit amet, cons ectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo</p>
<p>consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zrril delenit augue duis dolore te feugait nulla facilisi. Lorem ipsum dolor sit amet, cons ectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo</p>	<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo</p>	
<p>consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zrril delenit augue duis dolore te feugait nulla facilisi. Lorem ipsum dolor sit amet, cons ectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo</p>		
		<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zrril delenit augue duis dolore te feugait nulla facilisi. Lorem ipsum dolor sit amet, cons ectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et</p>

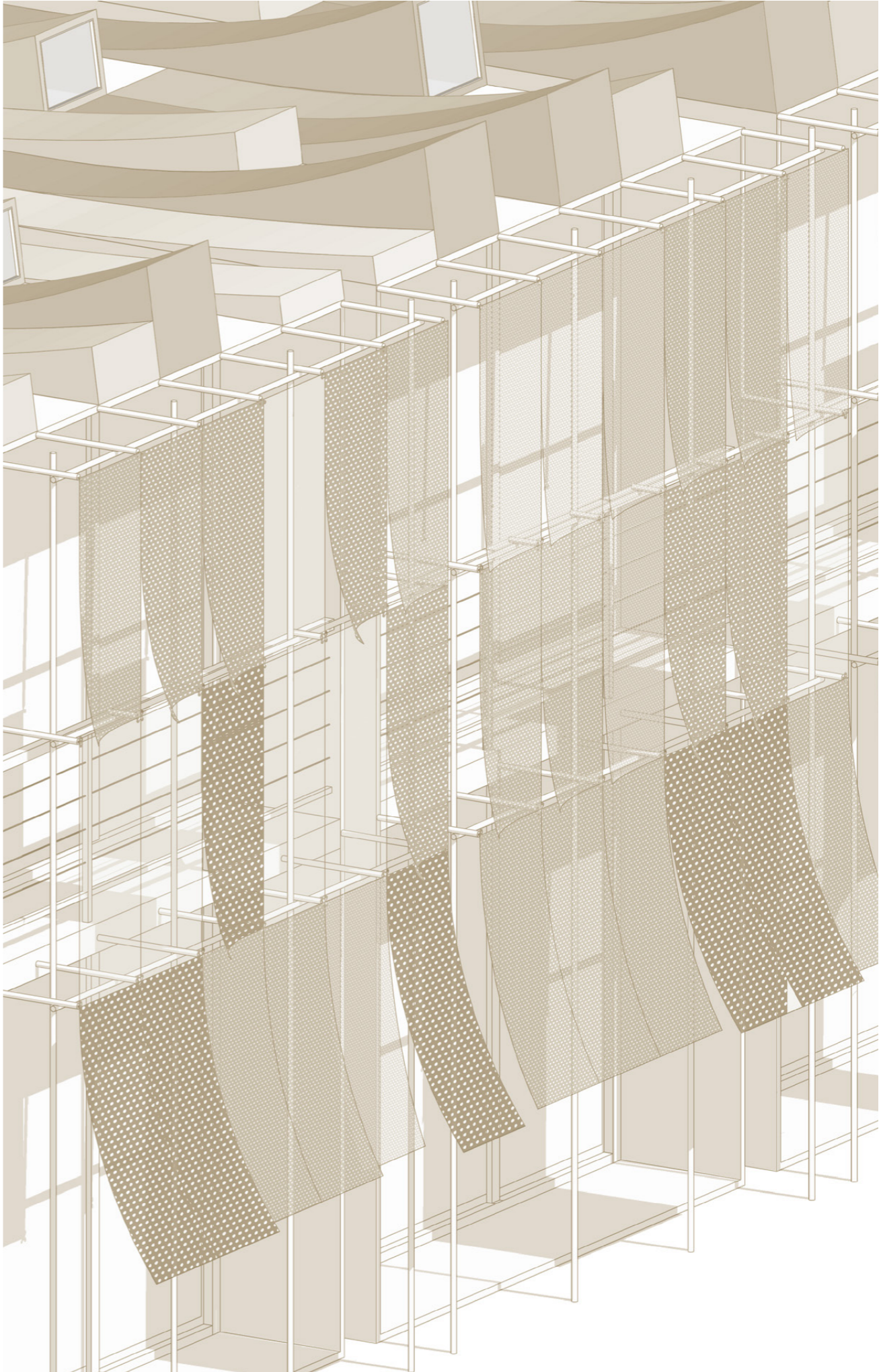
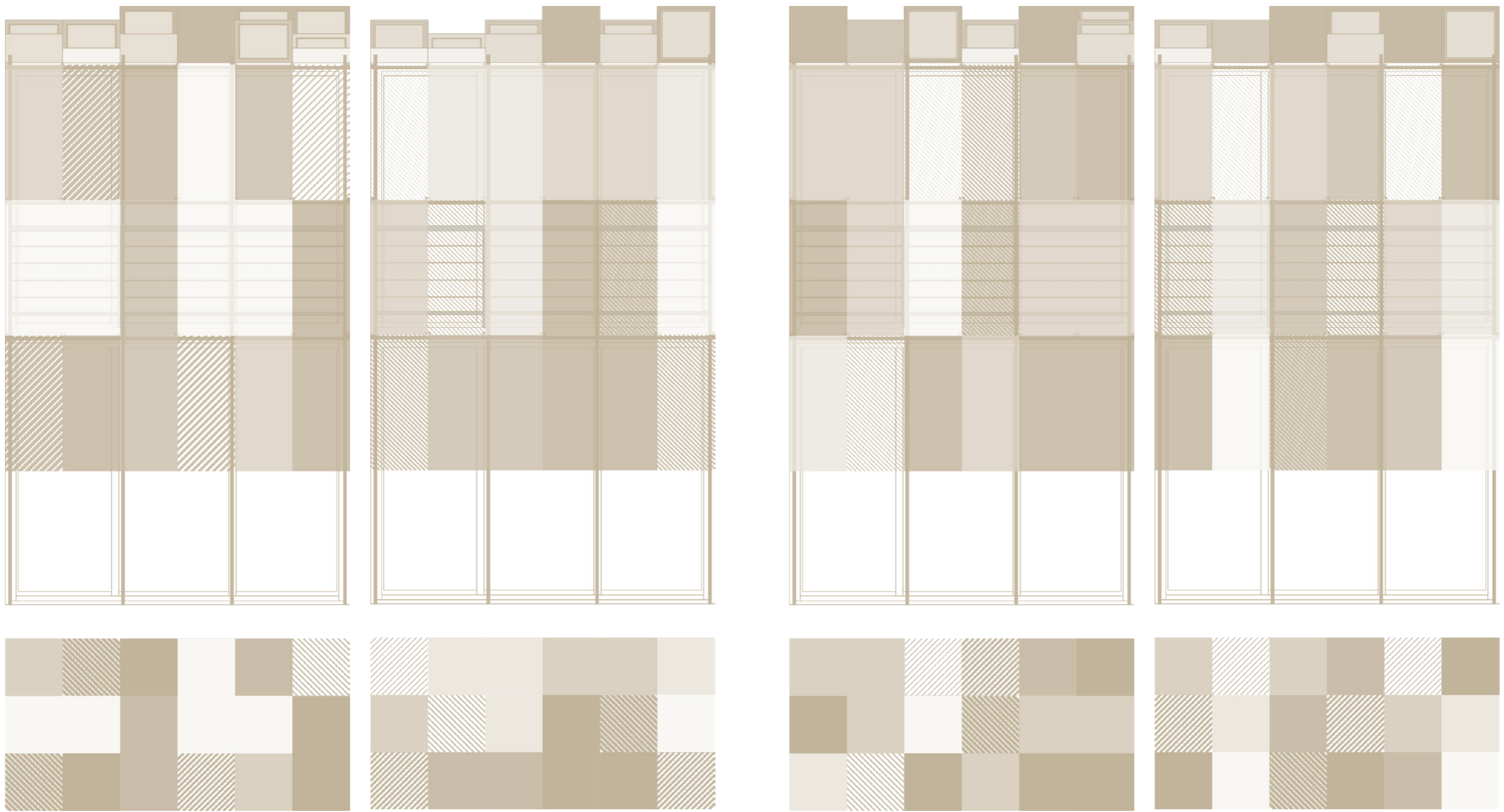


Figure 9.11: Layout driven by the verticality of the façade elements.



### Identifier of individual houses

The coloured grid of each house, created using the generated numbers that created the façade design, is used in addition to the pixelated numbers as a subtle identifying mark for materials that are applicable on a per-house basis (leasing agreements, relevant move-in documents, key cards, etc.), directly referencing the unique arrangement of each house's façade and roof.

Figure 9.13A: Façade design and grid identifier.

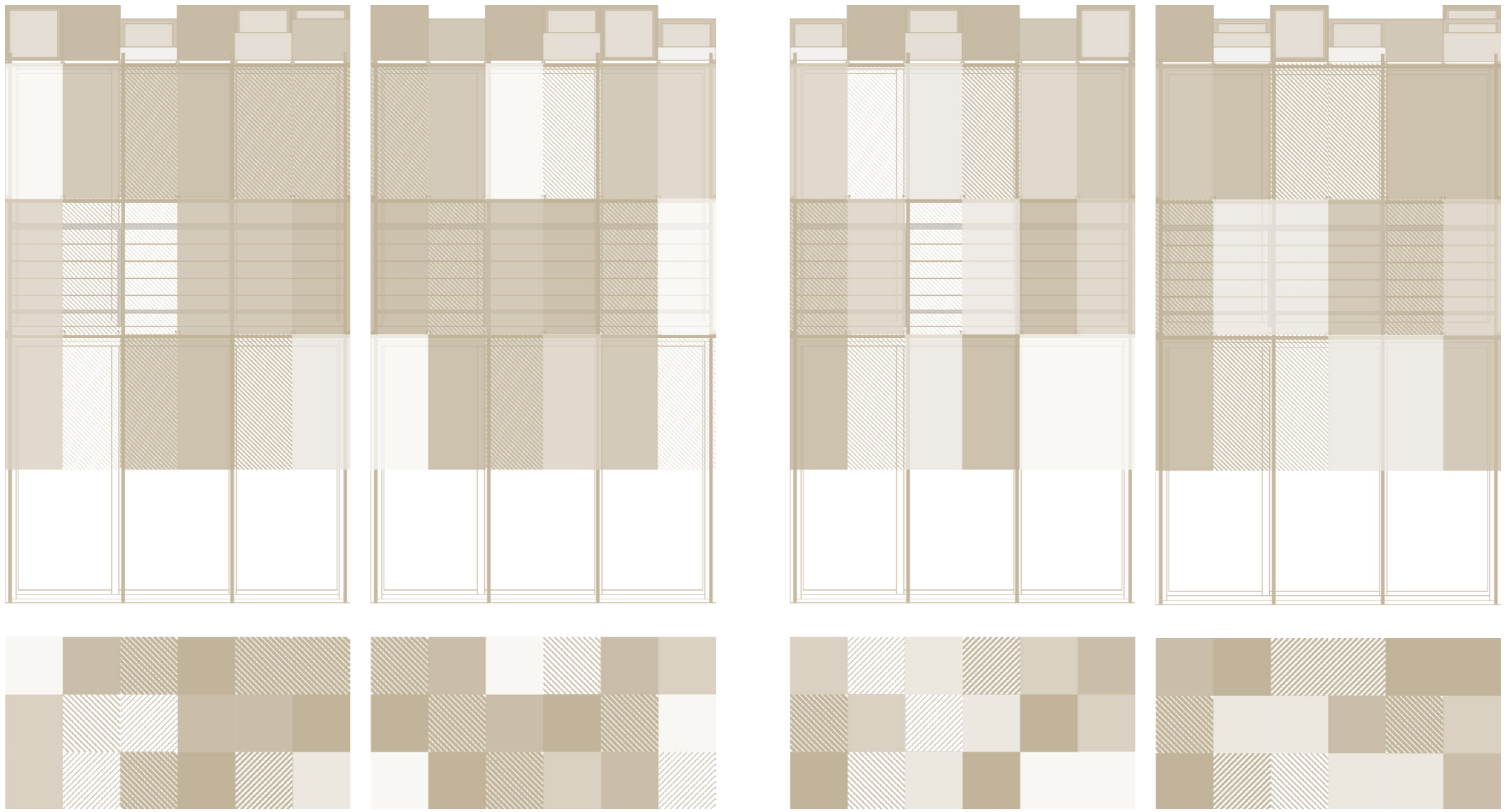


Figure 9.13B: Façade design and grid identifier.

### Design concept and idea communication

I realised that between visual identity and architecture, the former communicated the 'pixels' element of the concept more successfully. At the same time, the latter better communicated the 'bamboo scaffolding' element of the concept. Each element was promoting ideas inherent to its nature: pixels being a graphic phenomenon, scaffolding being a three-dimensional construction practice.

Combining the work created across two disciplines allowed me to convey the design concept and the overall design narrative far better than through one discipline alone, as the viewing of the visual identity and the generated graphics, and the experience of the architecture help narrate a design that has its roots in bamboo scaffolding but was driven by the idea of 'pixelation' and 'layers'.

Overall, here is how different components communicate ideas and feelings of a larger design narrative.

### Initial inspiration – bamboo scaffolding

Bamboo scaffolding has informed the choice of the material palette, the construction of the front façade, and the overall colour palette. The movement and dynamics of the netting are reflected in the variation seen in the façade grid and visual identity.

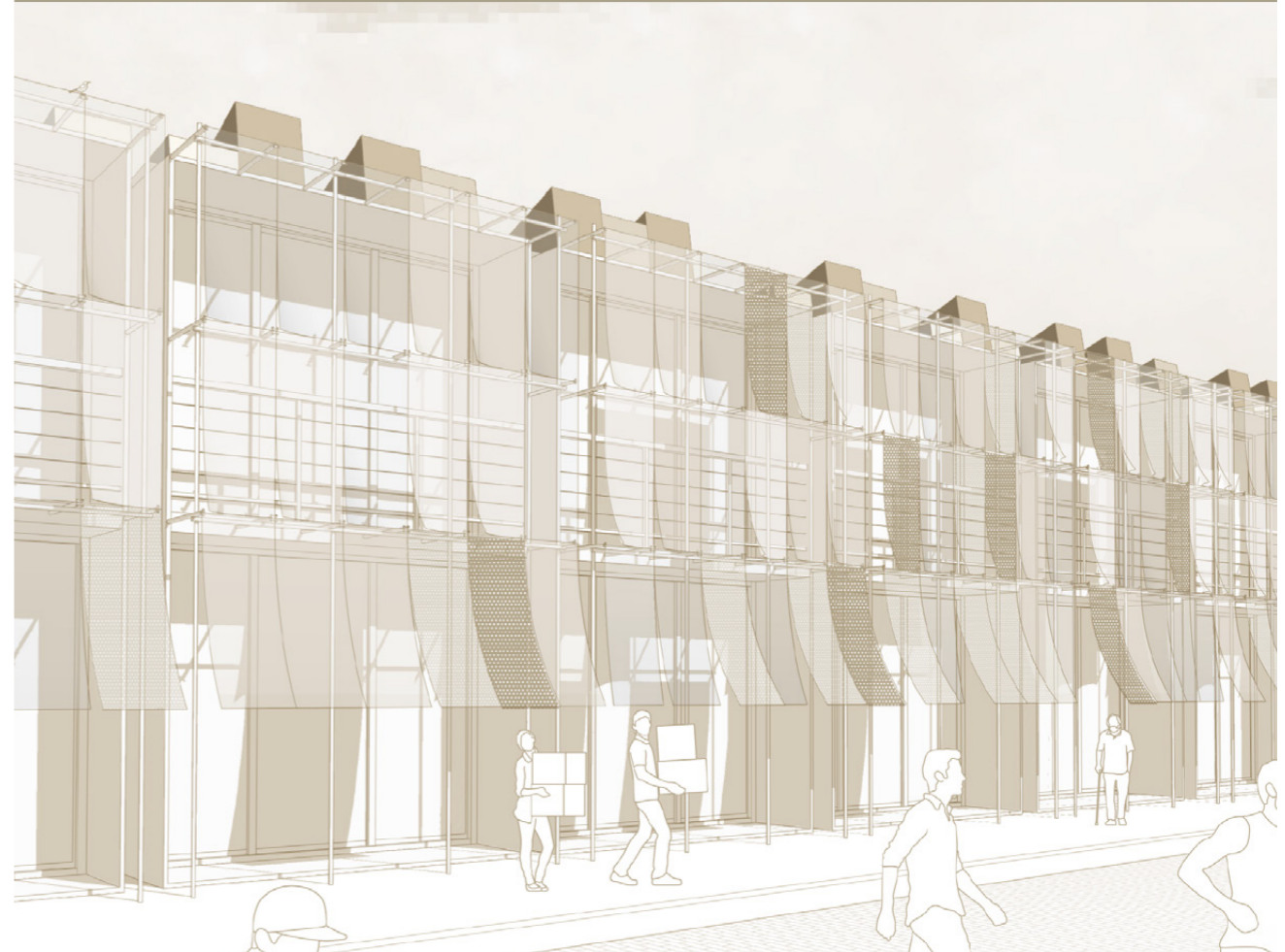
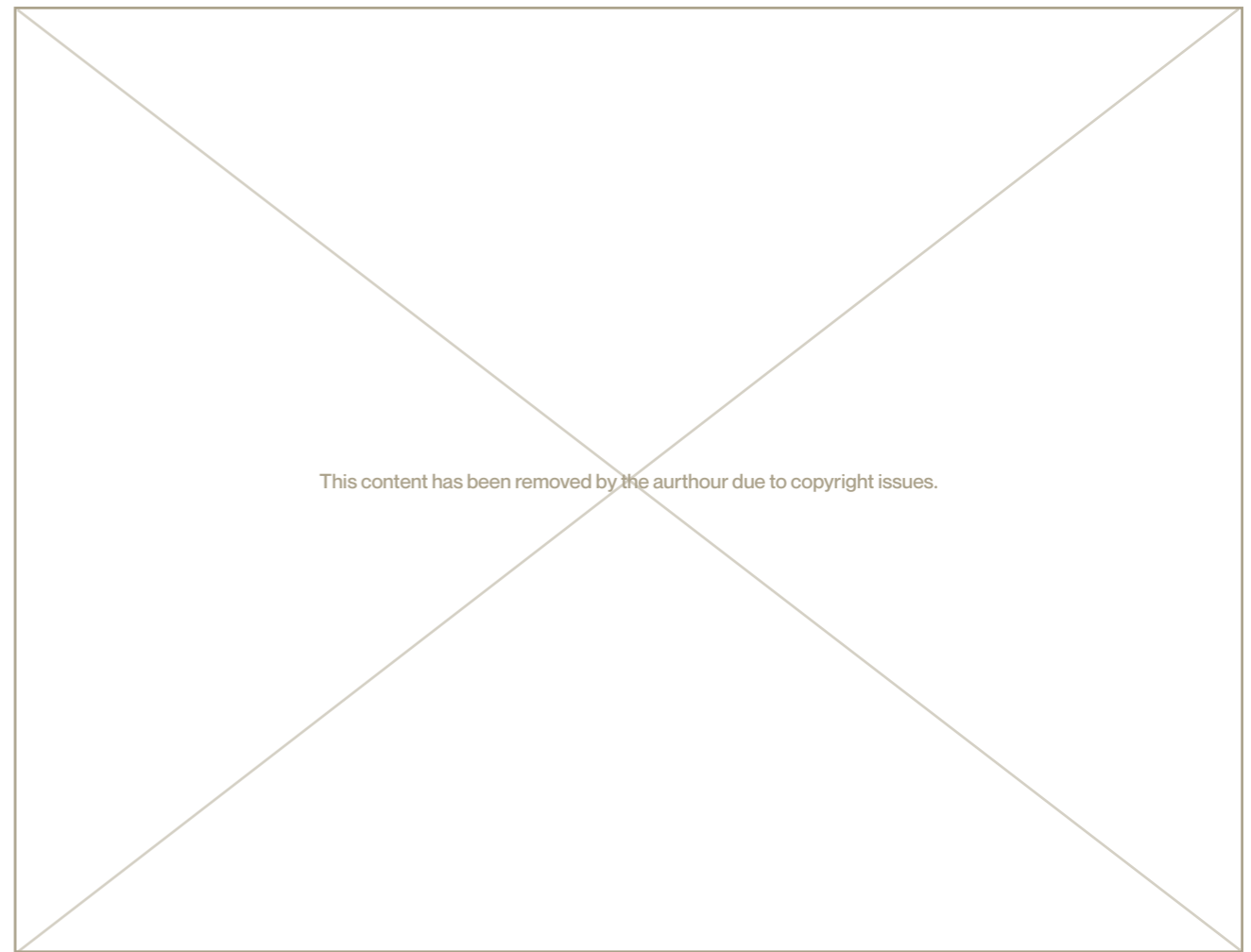


Figure 9.14: Bamboo scaffolding as a design concept expressed in the architecture.

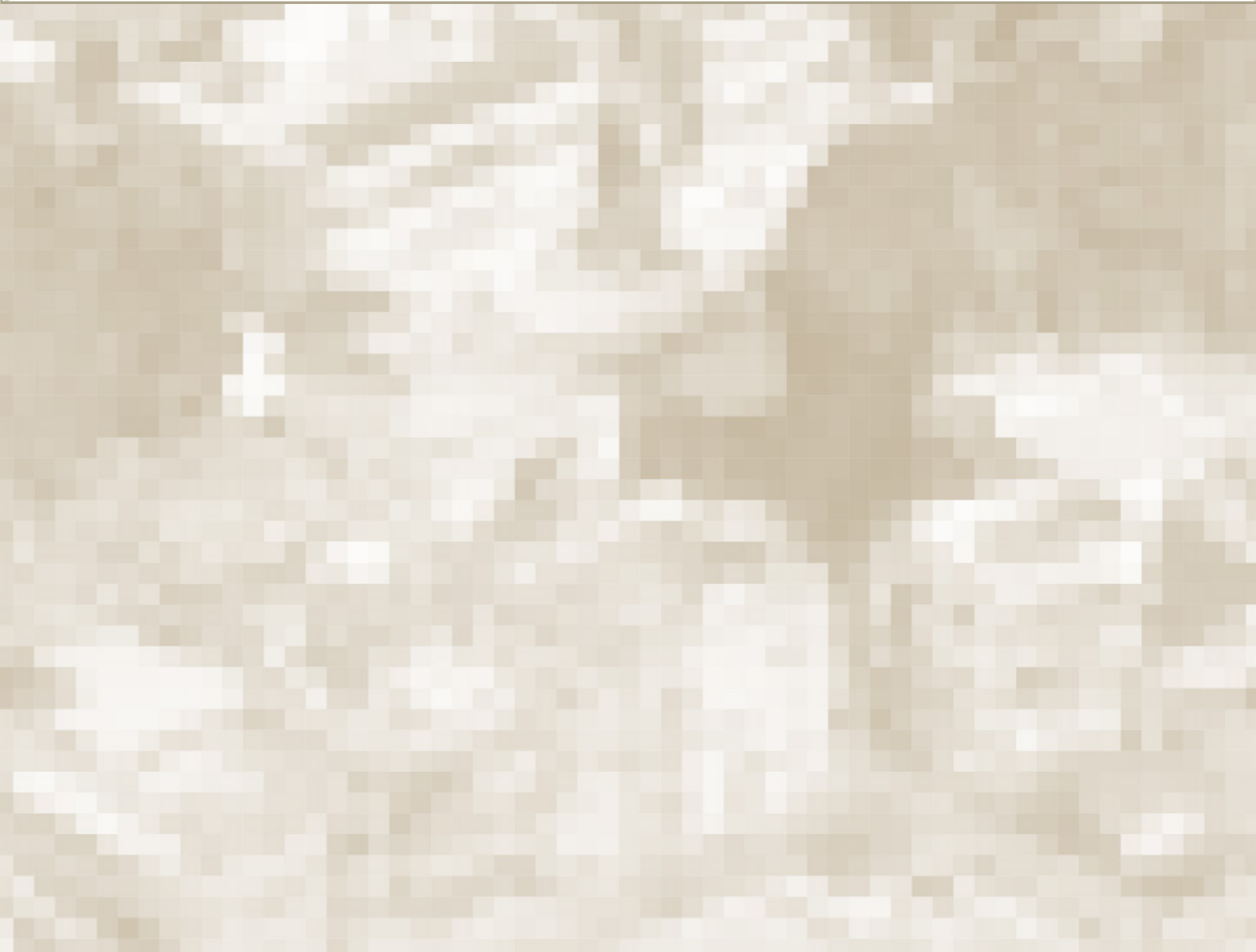
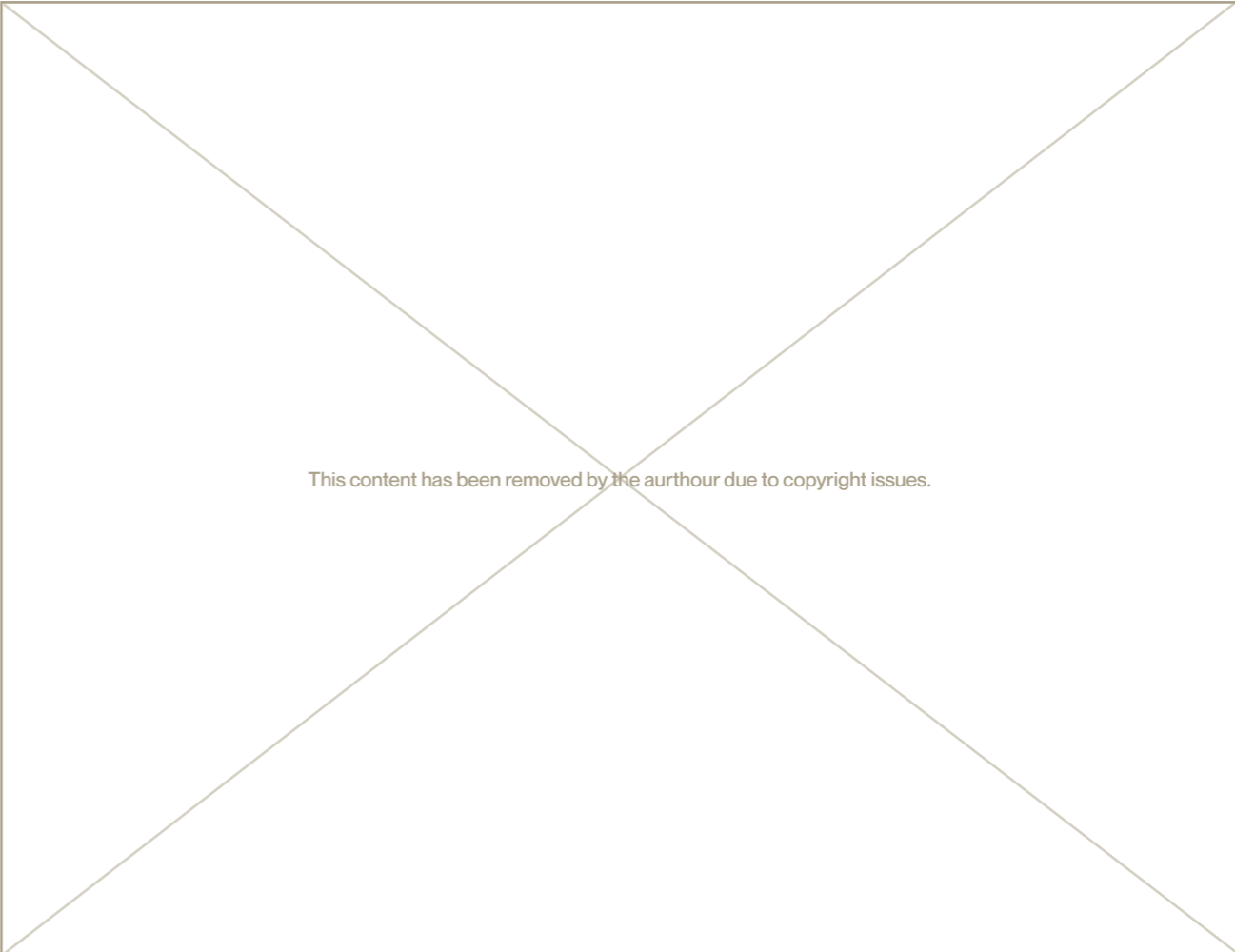
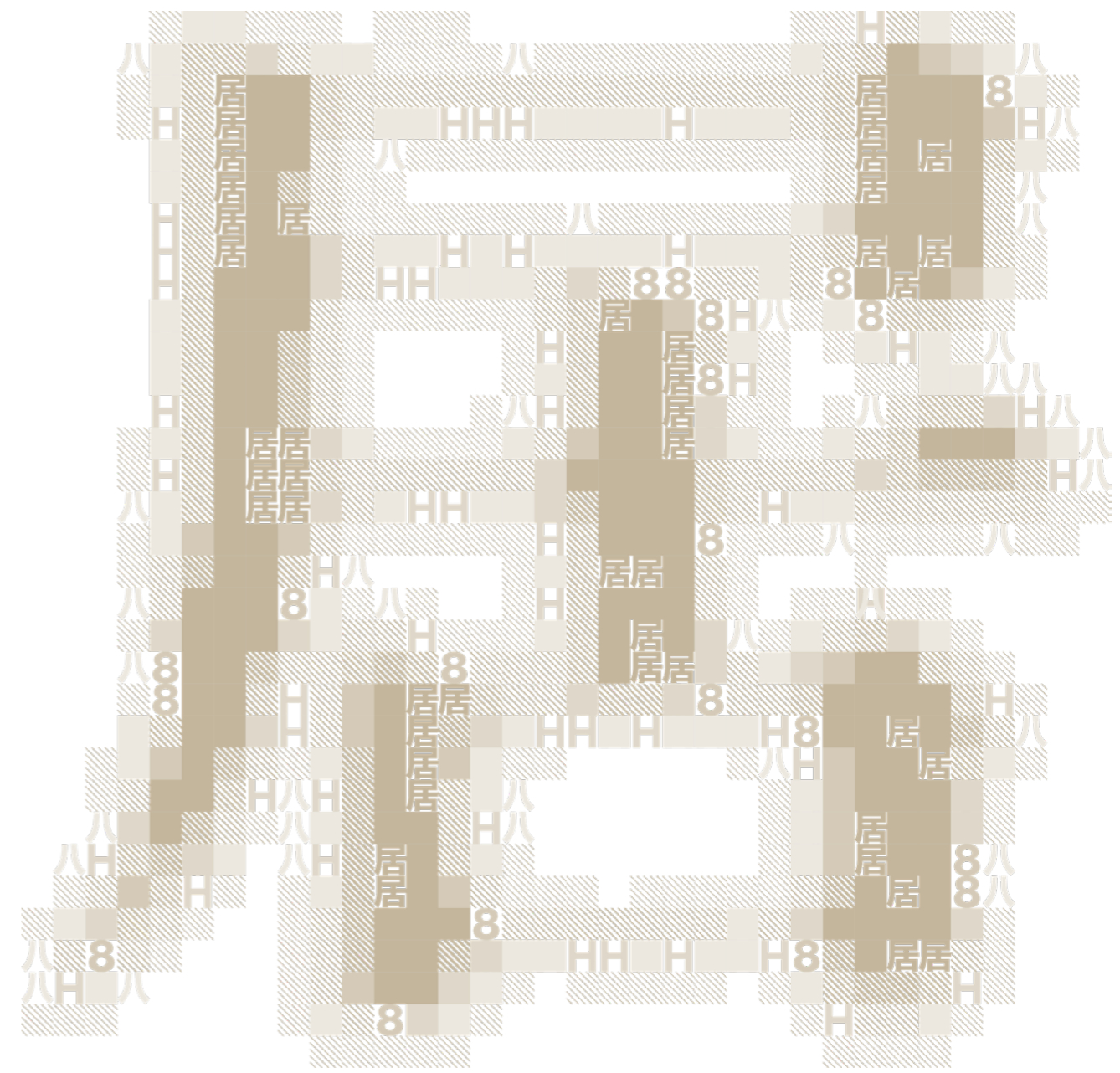


Figure 9.15: Bamboo scaffolding as an inspiration for pixelation in the design.

**Design concept**

The design concept of pixelation is reflected in the façade grid, the squares in the visual identity, and the value scale. The 'pixel' part of the concept is communicated more prominently through the graphics and visual identity, while the source inspiration is communicated more clearly through the scaffolding of the façade.



**Look and feel**

The calm and delicate feeling is created by the colour scheme, the curves in the façade, and the overall construction of the scaffolding. The desired modern and contemporary style is communicated via the hashing pattern used in the pixels and the use of typefaces.

Figure 9.16: Typeface application.

## Architectural renderings

The architectural renderings follow the same strict colour scheme, with white as the base. Avoiding any harsh camera angles, the renderings take a relatively moderate perspective. However, images that aim to communicate the patterns and arrangement of the architecture take on a slightly more non-traditional angle to exaggerate the design. Real-world images are used to communicate how the architecture would interact with the existing site, albeit placed under a gradient map, to maintain the same colour scheme. Certain elements are pixelated within the renderings to communicate the design concept further. The line qualities are deliberately smooth and clean; I have intentionally avoided any styles with a 'sketch-like' quality, as I wanted the rendering to be relatively clean.

Regarding texture, the renderings focus on depicting the patterns of the façade and intentionally lack any texture or material depiction other than the intentional pixelation of clouds and other minor objects.

Overall, maintaining the same colour scheme, which was designed to be calming and gentle, the renderings communicate the modern and minimalistic look and feel through their smooth lines and flat colours, as well as the lack of line and material textures.

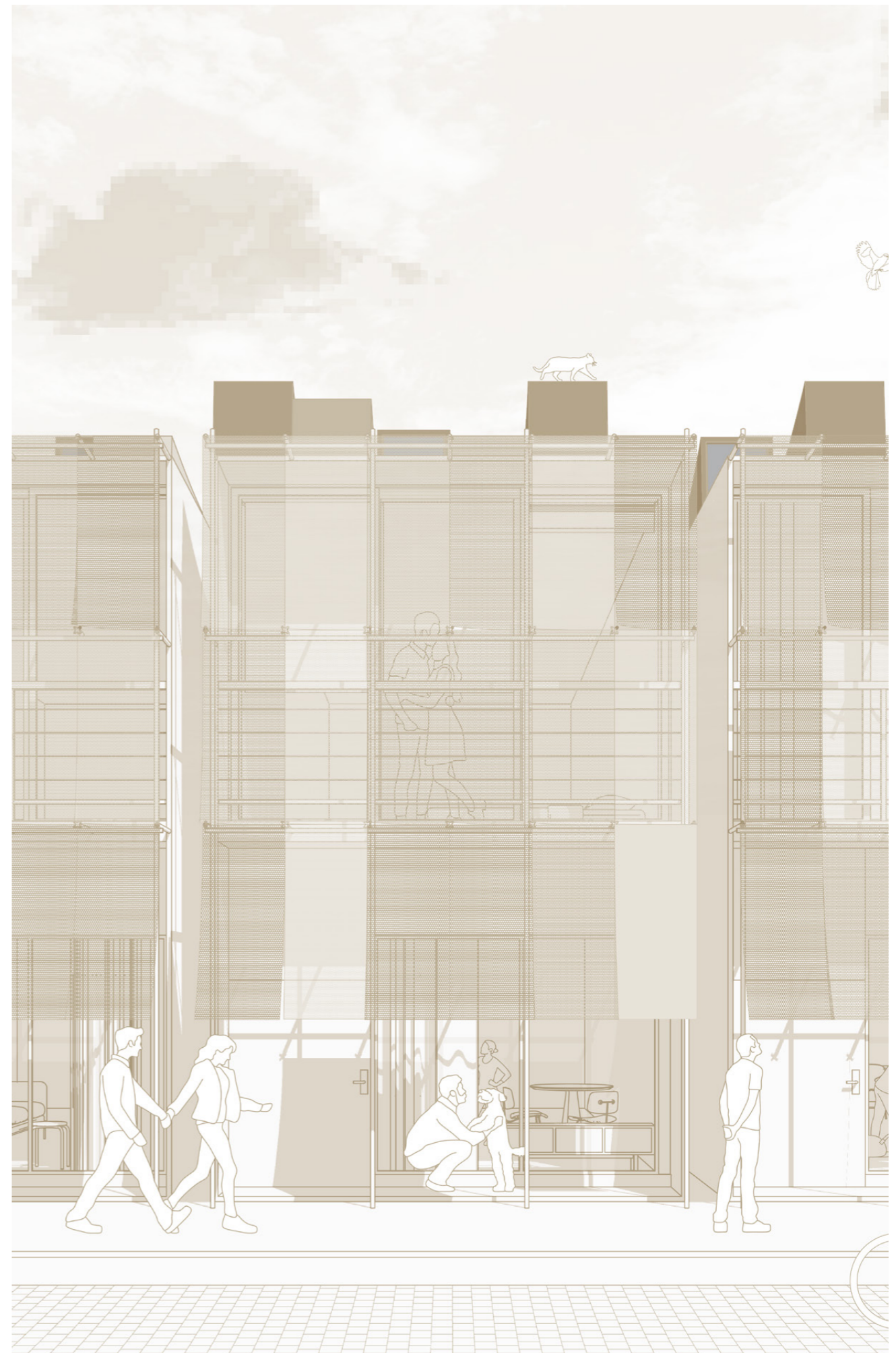


Figure 9.17: Architectural rendering, front view.

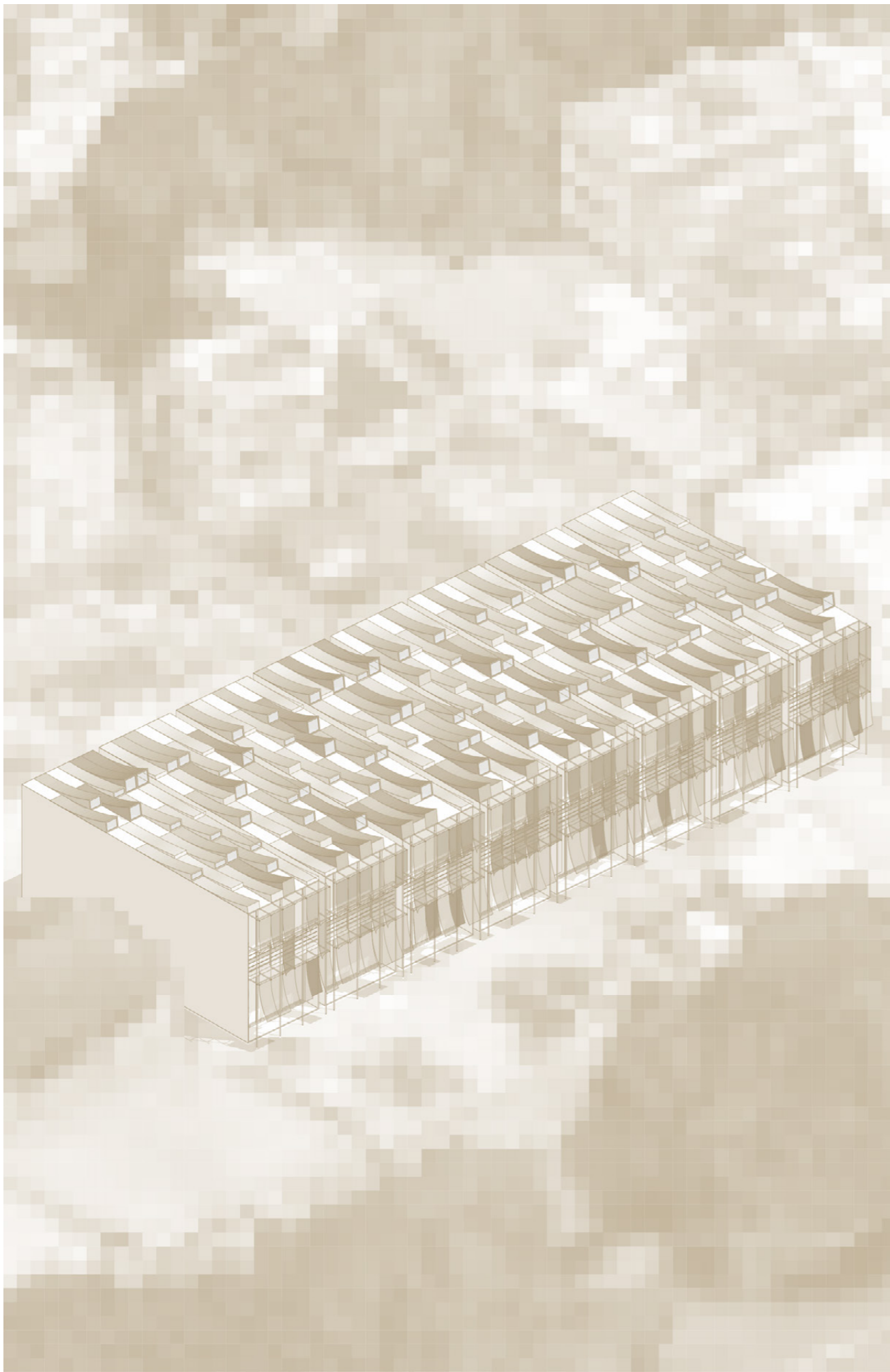


Figure 9.18: Architectural rendering, aerial axonometric view.



Figure 9.19: Architectural rendering, front view.



Figure 9.20: Architectural rendering, northern view.

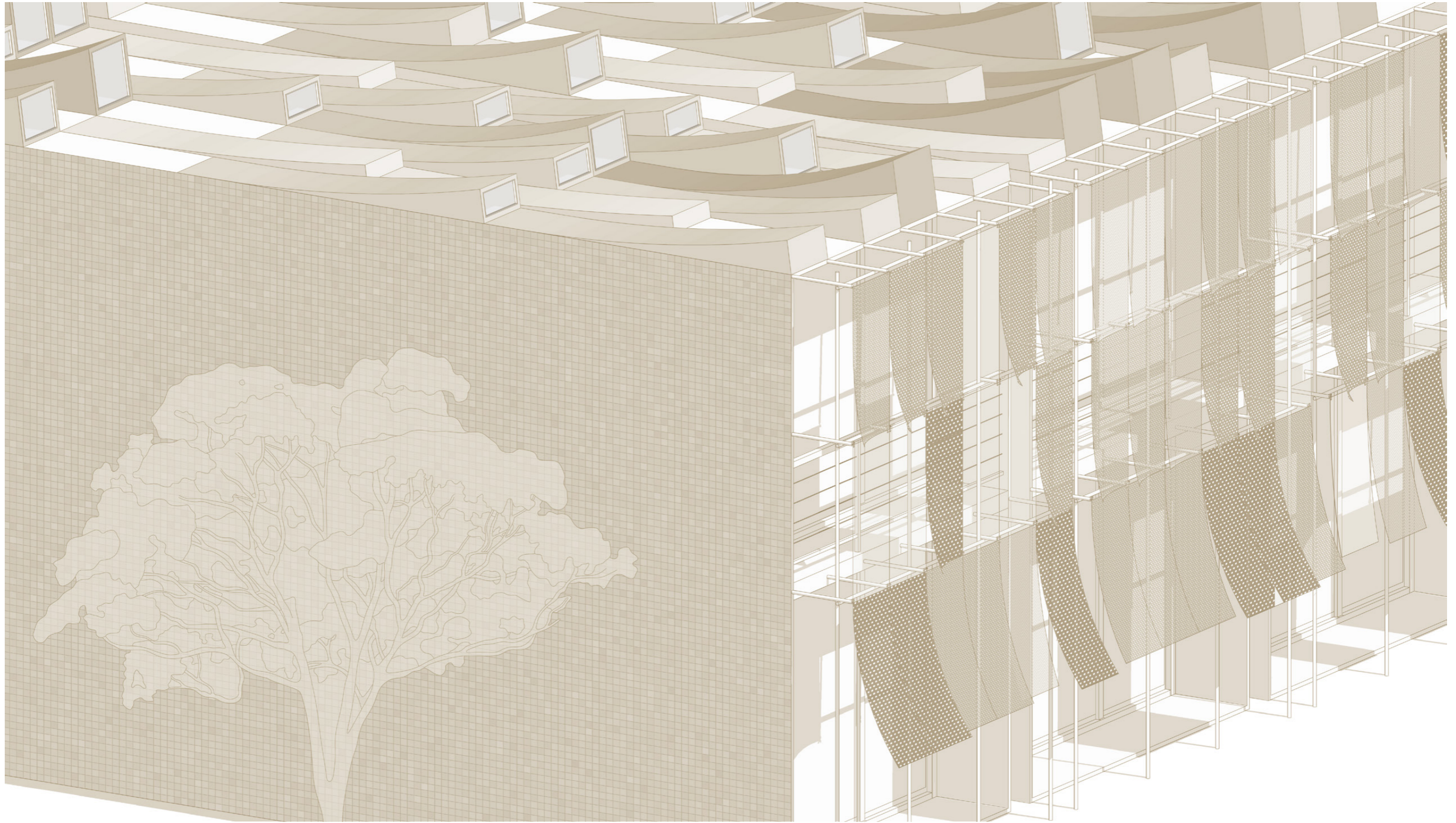


Figure 9.21: Architectural rendering, axonometric view of the side, front façade, and roof.

## 9.2 Architecture

Other than the previously discussed connections, the following architectural components are driven by the visual identity and communicate a graphic element of the concept:

The side walls of the structures are covered in a small mosaic tile that is local to Hong Kong. Known to vary in colour, it creates a 'pixelated' look on the surface.

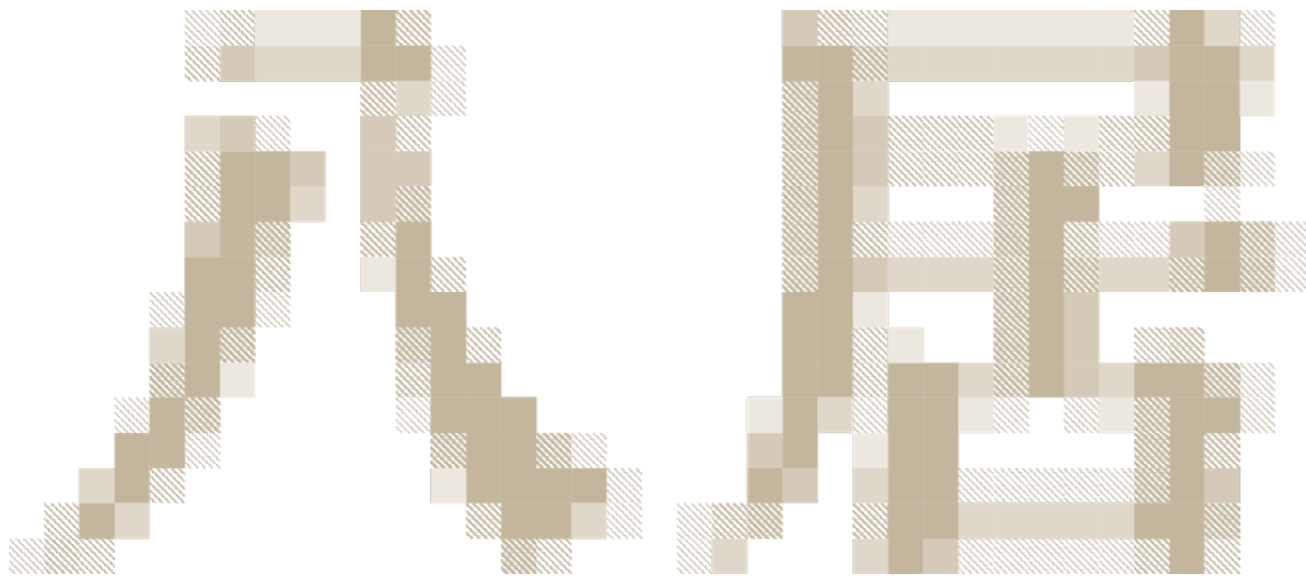


Figure 9.22: Visual identity - pixelated text.

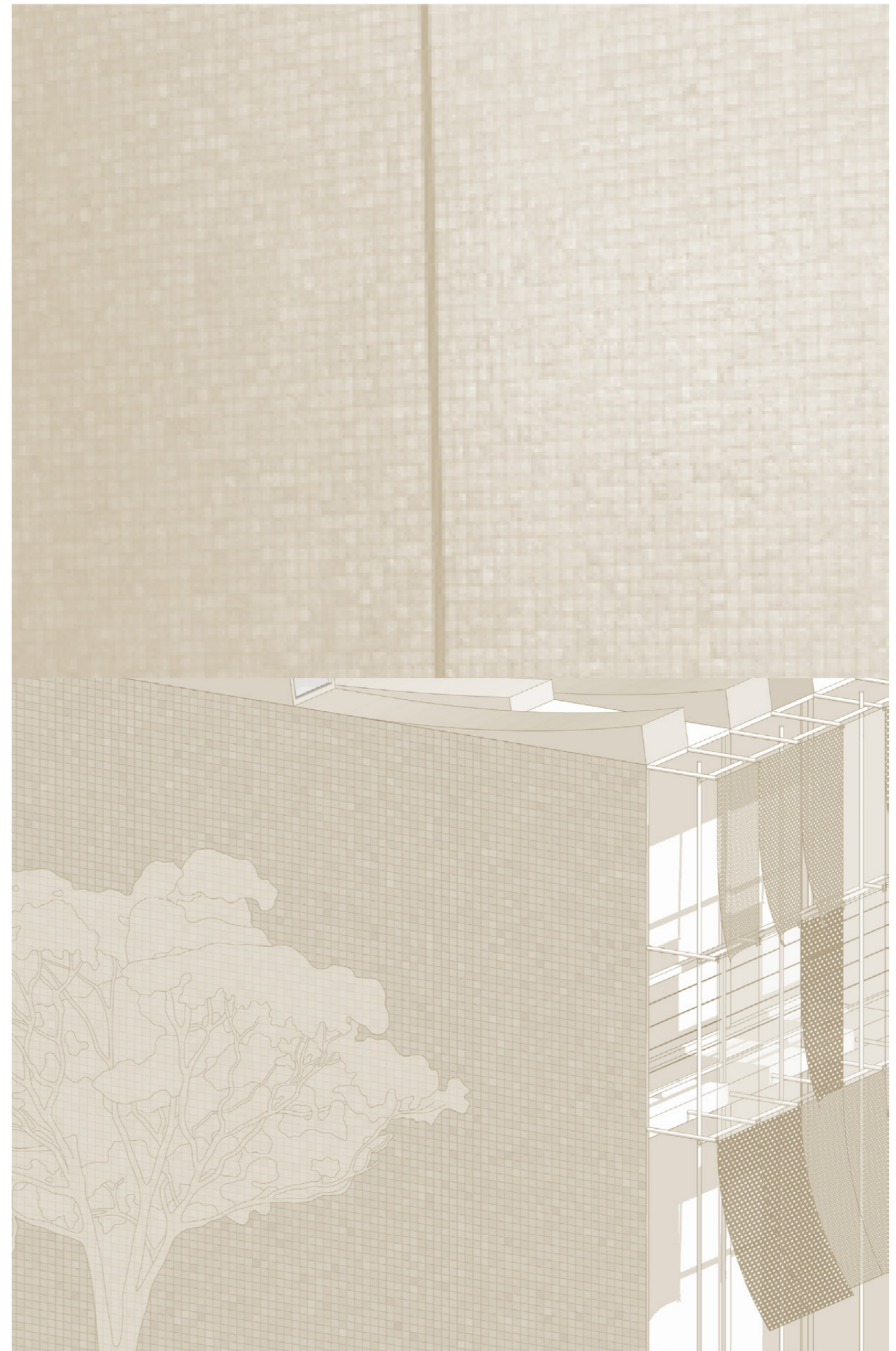


Figure 9.23: Mosaic tiles and side wall.

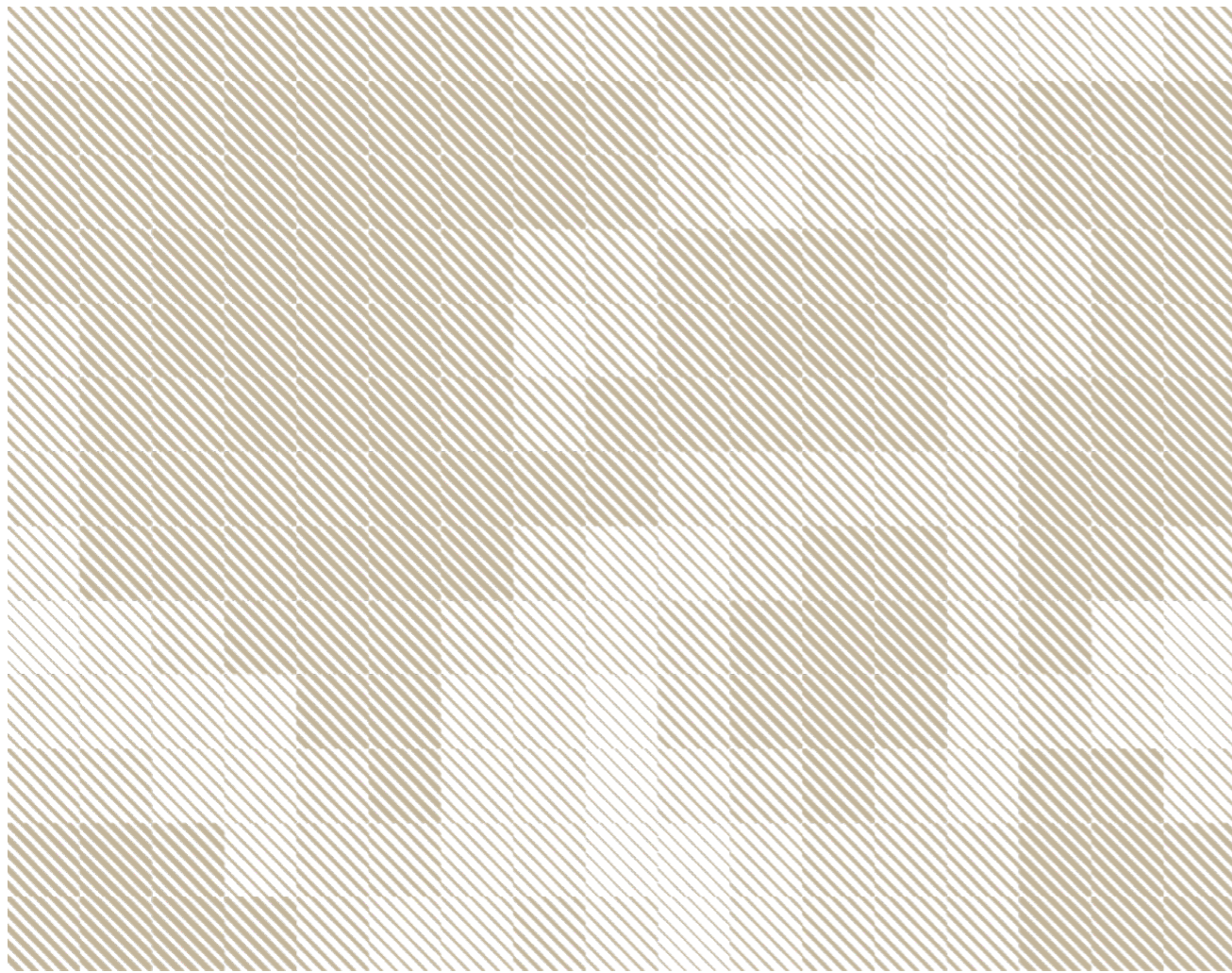


Figure 9.24: Texturised pixelated image.

The façade panels are separated by four different shades with varying degrees of movement. These panels are perforated with varying sizes of holes as well, giving a texture-mask effect that is reflected in varying degrees of transparency.



Figure 9.25: Façade front view

# Conclusion

## Part of the design, not an addition

This project explored methods and strategies to developing a visual identity that authentically communicates the intent of the architectural design, with the goal of creating a rich and nuanced interdisciplinary dialogue. In order to successfully and coherently develop a complete visual identity and expand beyond traditional environmental graphic design, a designer should consider the visual identity as part of the design scope rather than a secondary communication device for architecture.

The effectiveness of the developed graphics in communicating an architectural design decreases when architecture is prioritised – I am not advocating for graphic design to be favoured over architecture, but rather to realise the potential value of simultaneous consideration. By considering both design disciplines simultaneously and developing a concept that can accommodate both, it can allow the two disciplines to be influenced by each other. The concept can then expand its reach into more modes of expression, allowing a ‘symbolic spark’ to manifest across the multiplicity of a project, creating a united design language.

In this project I intentionally steered away from traditional commercial design processes and framed it as a visual identity project that was driven by my research question, rather than a ‘brand’, as is typical within a professional project. In order to test and develop my proposed parallel design approach I avoided giving the project an overall ‘brand identity’ or ‘persona’. I was careful to make sure my design outcomes did not feel like a ‘brand’ project that felt like a commercial residential project, where I was designing to ‘sell’ the architecture or communicate the values of a building development venture.

This resulted in some unexpected limitations and a lack of more concrete applications of the developed visual identity. The design system I created could easily have been expanded into other mediums, but I chose not to apply it to formats which would be considered ‘branding related’. My final submission expressed the visual identity system through typography, a colour palette, visual textures and publication layouts. Designs related to wayfinding, collateral and supergraphics were conceptualised initially but not progressed further.

On reflection, it would have benefitted the project if I had expanded the scope of possible formats and actively tested my design system across a broader range of applications—even within what is traditionally perceived as ‘brand’ communication. While this project limited its exploration to a single site, the proposed approach of designing architecture and graphics in parallel could have been extended even further through rigorous testing in a brand-related context.

## Systematic approach

By working through my three design iterations, I came to recognise that a design concept driven by a particular form could not create rich visual language because it can only communicate through a singular visual language. In my final iteration, I established a system informed by the design concept of pixels, which was then applied to both design disciplines; this created a much easier and more direct design process. However, suppose a design concept aims to create a specific architectural form. In that case, I still suggest extrapolating a system to design either by referencing material use and specific design motifs, or from the form itself, as I did in the first iteration, as this would create a more unified approach.

Once the system was established, developing a visual identity that spoke with the architecture was easy. The design of both architecture and the visual identity was driven by the design concept and with strong consideration of the look and feel. The two can exhibit slight levels of divergence in design language (as long as they both refer back to the same idea, it can create a richer expression), but still be cohesive and united. After that, one can then create more direct links between the two by directly referencing specific visual elements (for example, using the façade design as a layout scheme).

However, this proposed systematic approach would benefit from additional experimentation with other design concepts, to be able to examine its effectiveness as a methodology, as other design concepts may not involve a systematic approach, in turn making this an isolated approach.

The overall body of work, while limited to a residential design context, showed potential to be used in a different context – if developed the methodology further. Art galleries for example, where graphical posters needed to be made to promote art/design of a different discipline, may adopt specific methods used in the translation of architectural/spatial language to graphical languages within this project. Brands who plan on expanding their brand identity into a physical space may also find this research useful.

### Systems thinking

Adopting a systems-thinking approach allowed different design components to connect with each other to communicate a more impactful design narrative. The architecture was more articulate in transmitting the ‘scaffold and netting’ aspect of the design concept; the visual identity supported it by reinforcing the idea of ‘pixelations’ through its various elements. Conversely, the material palette helped reinforced the ‘bamboo’ part of the design that the visual identity lacked.

When the disciplines were combined, they created an overarching design narrative that each alone would not be able to fully articulate and express. The overall design experience and the expression of the design concept were able to be amplified because the components were able to reinforce and back each other up in terms of their design message.

While further work needs to be done in order to establish that a clear methodology that is applicable across different design topics, I hope this research demonstrated the value of parallel cross-disciplinary alignment and the creative potential in thinking of all components of a design as intimately related.

### Key approaches

Within this project, i’ve used these methods to develop a visual identity that is inter-connected with the architecture, and for nuanced dialogue to occur between architecture and graphics:

1. Incorporate a system of approach in their design concept that can be applied to both disciplines.
2. Consider both the starting look and feel, and the final intended impressions.
3. Connect the design through shared visual qualities and landmarks.
4. Allow the concept and design to shift to achieve richer dialogue.

### Future directions

The practice of creating a visual identity with architecture has proved to be an impactful creative tool. As I continue to explore the intersection of the building arts and graphic design, it may be interesting to experiment with how one may extrapolate a visual language from an already completed space, rather than starting both from scratch. As well as how the incorporation of graphics can impact and alter the overall design narrative of the built environment.

Overall, while this project demonstrated an impactful relationship between graphics and architecture, a more expansive body of work could have tested the robustness of the proposed design system. Exploring a parallel creative process across two major design disciplines was an ambitious goal for such a short timeframe; and while one can certainly ascertain that the project may be beneficial to student practice, more research is needed into it’s possible relevance and application within a professional context. Further investigation into the needs and standard practices of industry and experimentation within practice-based research is needed to fully test the approach, methods and systems proposed within this project.

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A.03	Unknown. (1996) "Bamboo scaffolding outside the exhibition hall at the 'Hong Kong Tomorrow' exhibition in 1996, at Edinburgh in Scotland. The scaffolding was erected by master scaffolder Choi Keung, instructor at the Construction Industry Training". Sourced from Waters, 1998.
A.04	Unknow. (1993). "Bamboo scaffolding for slope maintenance". Sourced from The Structural Engineer/Volume 71/No 11/1 June 1993.
A.05	Chan's Scaffoldig Works Ltd. (2006). Single layered scaffolding. Accessed Feb 2025, from HKmemory. <a href="https://www.hkmemory.hk/MHK/collections/bamboo/All_Items/Bamboo_images/201302/t20130205_56507.html?cf=classinfo&amp;cp=1981&amp;ep=after%C2%A01981&amp;path=/MHK/collections/bamboo/All_Items/8200/9916/9919/index_2.html">https://www.hkmemory.hk/MHK/collections/bamboo/All_Items/Bamboo_images/201302/t20130205_56507.html?cf=classinfo&amp;cp=1981&amp;ep=after%C2%A01981&amp;path=/MHK/collections/bamboo/All_Items/8200/9916/9919/index_2.html</a>
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# Research: bamboo scaffolding

This portion of the appendix is a supplementary material to Chapter 5 of the exegesis.

# History and origin of bamboo scaffolding

The origin of bamboo scaffolding, in traditional Chinese mythology, is considered widely to be Yau Chao Sze( Chinese: 有巢氏, directly translates to "having nest" or "nest-owner"), a legendary sage, tribe leader, and the inventor of houses and buildings. He was believed to be the first master of bamboo scaffoldings who erected the first treehouse out of bamboo around 5 millennia ago.

However, it was a separate entity – a Lo Pan, considered to be the patron founder of Chinese building arts, along with his inventions of revolutionary tools such as the saw, the plane and the chisel, that brought the practice of bamboo scaffolding into a more scientific one; and is now considered a deity and patron saint who's still celebrated by all members of the Hong Kong construction industry to this day.

Bamboo has long played a significant role in Chinese culture, from water pipes to materials for furniture, fishing rods, to being used as a form of writing substrate (by splitting the bamboo into slim sections and tied together via twines, forming what is called Jok Gan (竹策), a scroll of slim bamboo sticks, in which content is written on a vertical axis, and read from right to left) to bamboo shoots being used in Chinese cuisine. Bamboo has also played an important role in Chinese construction history as well. One of the more noticeable depictions of bamboo scaffoldings is shown in one of China's most important pieces of art - Along the River During the Qingming Festival.

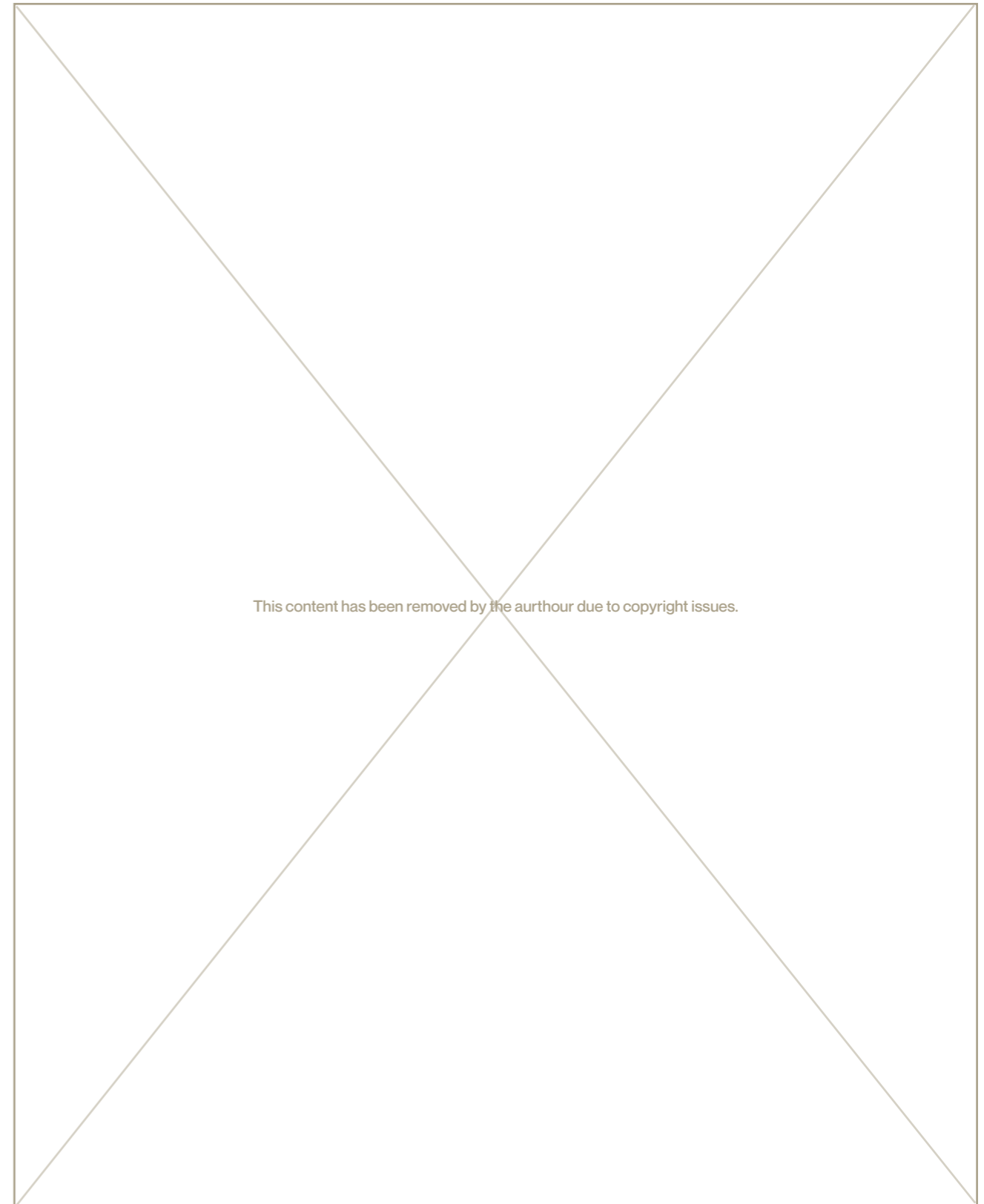


Figure A.01: A Han Dynasty wooden scroll unearthed from the the Xu-anquanzhi Ruins, similar ones would be made out of bamboo, bones, and other substrates as well. China Daily, 2023, accessed Feb 2025

### Bamboo scaffolding as a practice

The craft of bamboo scaffolding can be split into two main applications: the use of bamboo scaffolding to create structure and the use of bamboo scaffolding as a support element for construction and maintenance.

### Bamboo as the main structure

The technique of bamboo scaffolding is a long-standing tradition in Chinese culture, used to create temples, theatres, and festive venues. The benefits of bamboo scaffoldings lie in the fact that such structures are temporary and highly flexible.

### Bamboo as support

Besides creating structures, it has also been used to support the construction of structures. Bamboo scaffolding has been a large component of Hong Kong's construction history; during its early years, it was used commonly in the construction of homes and other structures, walled villages being one of them. The three-storey-tall Tsui Shing Lau in Ping Shan, New Territories, was built with the help of bamboo scaffoldings. (Waters, 1989) However, the scale of application evolved as a result of colonialism, as British rule introduced higher structures, and after the era of colonialism ended, the scale expanded again as more and more modern high rises began to be constructed.

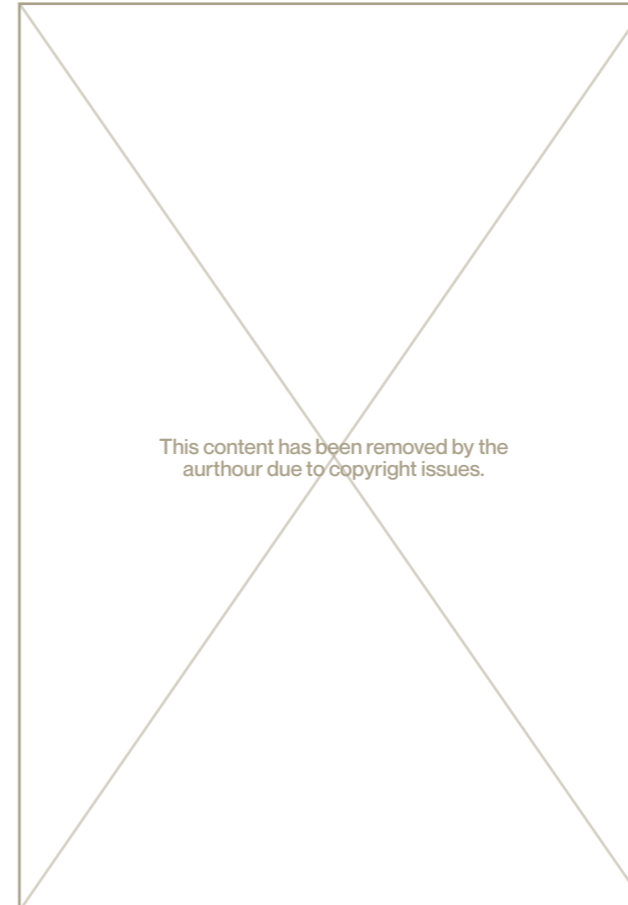


Figure A.02: Citymag, Z. (2020). Zinc Sheet being laid and secured. Meet the masters behind hong kong's most extraordinary bamboo theatre. Retrieved February 2025, from <https://thetheatretimes.com/meet-the-masters-behind-hong-kongs-most-extraordinary-bamboo-theatre/>



Figure A.03: "Bamboo scaffolding outside the exhibition hall at the 'Hong Kong Tomorrow' exhibition in 1996, at Edinburgh in Scotland. The scaffolding was erected by master scaffolder Choi Keung, instructor at the Construction Industry Training" (sourced from Waters, 1998)

## Flexibility

Bamboo provides superior advantages in creating scaffoldings that mould to the shape of the building, as bamboo can be placed in non-rectangular arrangements, unlike metal scaffoldings. The bamboo can be cut according to need as well, allowing for an additional layer of flexibility.

## Advantage of bamboo in Hong Kong's terrain and weather

The use of bamboo as a scaffolding material, especially in modern times, is not only one of culture and economy but especially one of geology and climate. Hong Kong's terrain, compared to its geological neighbour – Shen Zhen, which is relatively flat in terrain – is hilly and mountainous, filled with steep slopes. Bamboo allows for dimension and strength flexibility, and being able to be cut and tailormade for specific building conditions allows scaffolders to create scaffolding structures that are more fitting to their angles and slopes.

Given Hong Kong's highly dense urban environment, bamboo has proven to be a far more flexible option as its dimensions are adjustable to fit within narrow and awkward urban environments.

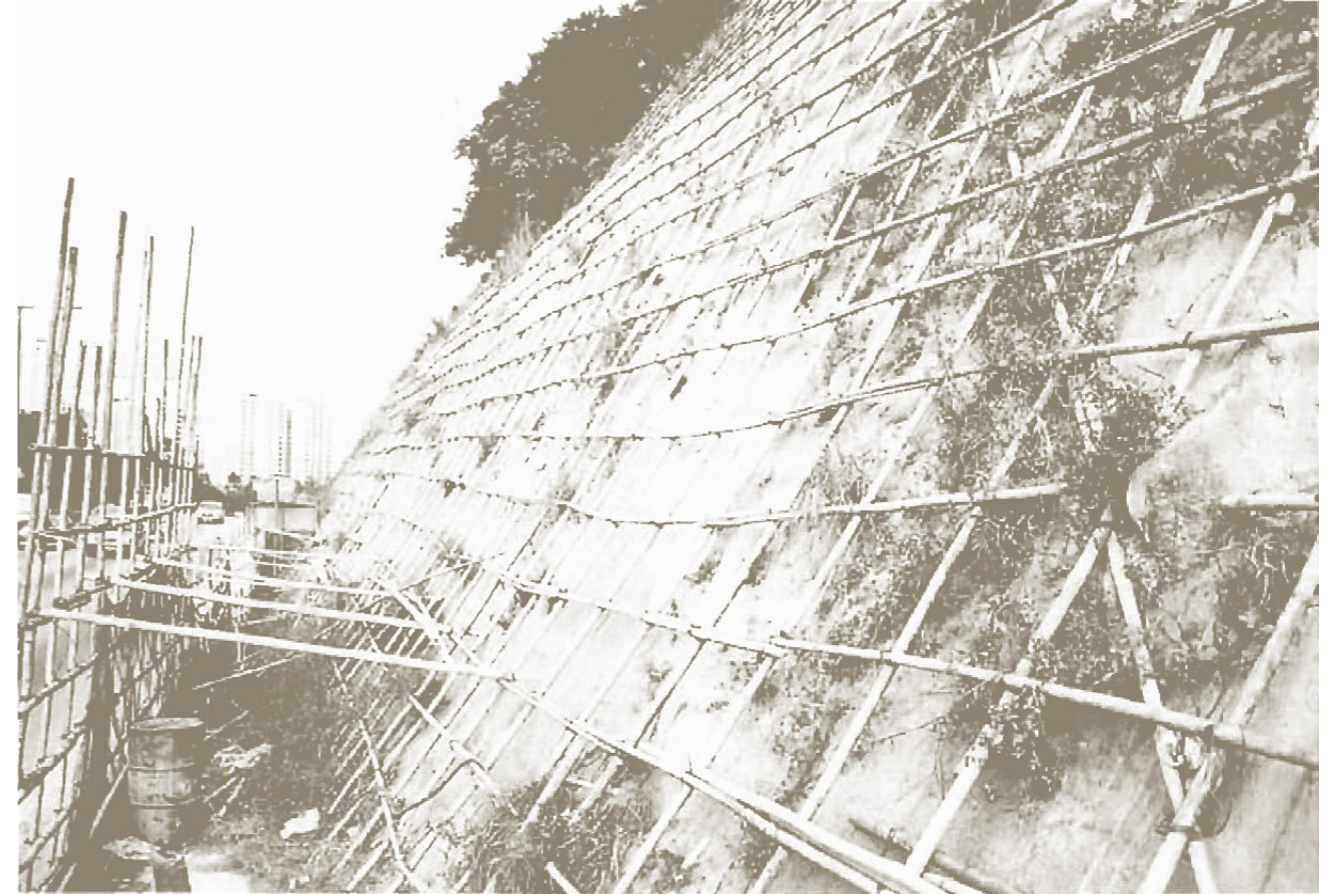


Figure A.04: "Bamboo scaffolding for slope maintenance" (sourced from The Structural Engineer/Volume 71/No 11/1 June 1993)

# Mechanics of bamboo scaffolds

## Bamboo species

There are two species of bamboo that are used in the construction of scaffoldings:

*Bambusa Pervariabius* and *Denodrocalamus Latiflorous*, both species are natively grown and harvested in Guang Dong and Guang Xi, two provinces directly adjacent to Hong Kong, each possessing different traits and are used for different purposes in scaffolding.

*Bambusa Pervariabus* are categorised into A, B, and C grades, of diameters of 75, 50 and <50mm. Grade A being used for secondary posts, Grade B for horizontal members, and C being used to a connecting member between the double-layered scaffoldings.

*Denodrocalamus Latiflorous* are used as cross bracings, as they typically grow longer and thicker than *Bambusa Pervariabus*. In some cases, Chinese Fir is also used in the main posts and the bottom horizontal posts. (Fu, 1993)

## Mao Jok vs Ko Jok

Regardless of species, bamboos are typically separated into two working types as well; *Mao Jok* (lance/spear bamboo) are typically no less than 75mm in diameter and 10mm in wall thickness and are typically used for major bracings and standards. They typically take 3-4 years to reach peak strength. However, industry demands have reduced the harvest time for plants over 2 years, sometimes even less. *Ko Jok* (tall/high bamboo) are typically no less than 40mm thick and form the secondary supports. (Buildings Department HKSAR, n.d.; Waters, 1998)

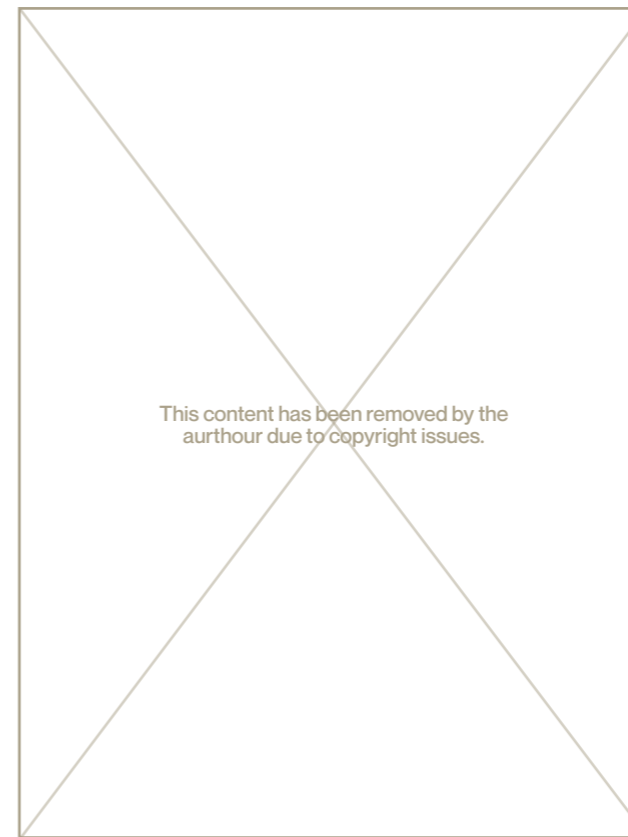


Figure A.05: Single layered scaffolding, Chan's Scaffoldig Works Ltd, 2006, Accessed Feb 2025 via HKmemory.

## Single-layered scaffolding

Single-layered scaffoldings consist of one singular plane of scaffold that is anchored to the exterior surface and is mostly used for the installation of curtain walls, as well as façade and form-works.

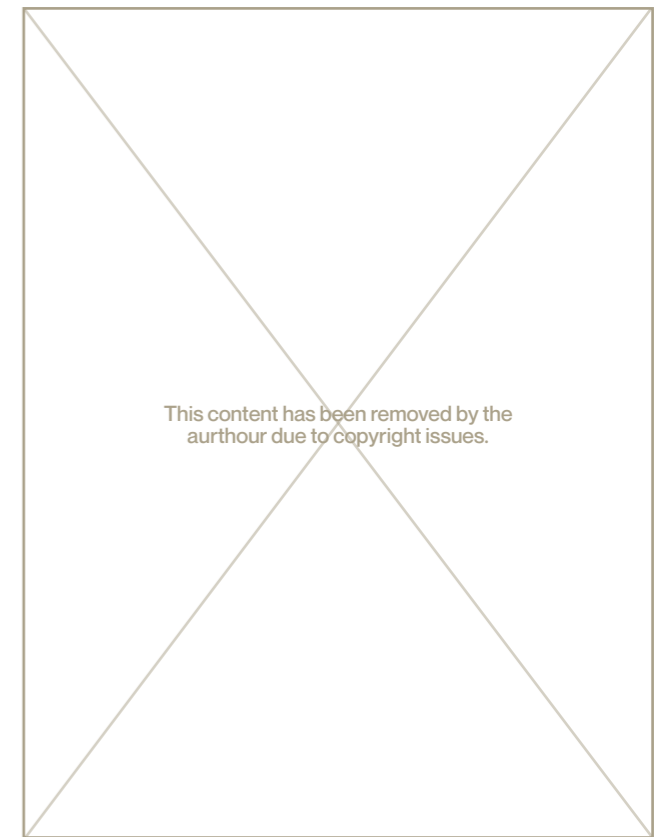


Figure A.6: "The whole building of Tin Shui Wai Fire Station was covered in bamboo scaffolding and green netting", Chan's Scaffoldig Works Ltd, 2000, Accessed Feb 2025 via HKmemory.

## Double-layered scaffolding

Double-layered scaffolding, as the name implies, consists of two planes of scaffolding, the inner layer typically around 150mm to 300mm away from the exterior surface, and is known as the "finishing scaffolding". A second layer is then erected at 700mm from the inner layer and is referred to as the working scaffolding. The 700mm gap between the two layers allows for additional support and the placement of a walkway. Which allows for safer manoeuvre across the level. Double-layered scaffoldings are the industry requirement for all construction sites, while painters prefer single-layer scaffolds for their cheaper cost. (Francis K.W Wong, 1998)

### 3.4 Catch fan

When constructing tall structures, it is industry standard to include an additional scaffolding element called a "catch fan". Designed to act as an exterior pocket, these catch fans are constructed by placing outwardly diagonal planes as a means to capture anything that may fall from a high position to protect workers and civilians from any falling debris.

### 3.6 Nylon netting

As the practice of bamboo scaffoldings continues to develop and improve, nylon nettings have been hugely incorporated into it as an additional layer of protection for both workers and anyone who may be below the structure. It is often used to cover any and all surfaces of the scaffolding and can be reused for another project in most cases.

### 3.5 Nylon ties

Before the introduction of nylon ties, bamboo scaffoldings were traditionally tied together via the use of thinly cut strips from the outer sheaths of the bamboo, which are soaked in water to ensure flexibility. After these bamboo strips are dried, they shrink and tighten up, creating a secure joint; however, these bamboo strips can become weak after prolonged exposure to the elements and snap under pressure, leading to the use of a more materially stable nylon lashing in the past 50 years. (Waters, 1998)

### 3.7 Steel brackets

Steel brackets are another important component of any modern-day scaffolding, installed to transfer the weight of the bamboo onto the façade of the main structure. The proper installation of these steel brackets ensures that the scaffolding does not shift or bend; once a scaffold has shifted or bent, it cannot be fixed unless dismantled completely and re-started from scratch.

# Concept 1: design notes

This portion of writing was originally part of chapter 6 and was significantly edited down and eventually replaced with a much more concise body of text. These notes offer a more detailed look at the design process involved in concept 1.

In the following sections, I've split the design development and execution of the architecture into 3 parts: its scaffold component, its outer layer, and its joint details; in exploration how each of those components are designed, graphical explorations are done to see how the aforementioned architectural parts can be used as inspiration for the graphical language and imagery.

# Designing: scaffolding arrangement

Different arrangement of the scaffolding will create different impressions onto the netting on the exterior, the idea that the netting forms a drape that envelops the structure remains the same while I experimented with different arrangement of the scaffolding.

This concept aims to bring a modern twist and subverts the traditional expectation of bamboo scaffoldings, which lead to the design decision to use metal as the scaffolding material. However, how bamboo scaffoldings (treated as a facade now) are traditionally constructed is inherently different from how a metal scaffolding or a metal facade may be constructed : bamboo scaffolding being held together with nylon ties, metal scaffoldings connected via keys and slots, metal facades being connected via welded joints and bolts, these different modes of operation resulted from different applications and material and mechanical properties, and resulted in different looks. Bamboo scaffoldings are constructed by interlocking bamboos, their paths do not intersect, metal scaffoldings contain elements that intersect and some that do not, metal allows for "rods" to intersect and merge into each other.

The process began by building a scaled model out of wooden sticks, exploring how the different members interact with each other and how that may affect the overall look.

I will describe the construction of these scaffoldings by two types: over-locking (members placed over and adjacent to each other, allowing members to stay uninterrupted) and interlocking (members intersecting each other, creating segments of the same line)

The over-locking construction of the scaffolding, accompanied with the outer layer a nylon fabric, created a “fogging” / “layered” effect where members get less visible the further they are away in relation to the fabric – all created by the addition of the fabric, without the fabric, we lose any sort of fogging and everything appears clear. A interlocking construction however, did not create the sort of layering seen in an over-locking construction, but due to its construction, created individual “nubs” where the jutting members connects to the netting layer. This moved all the elements back and reduced their visibility all at the same time, rather than a step effect.

While the over-locking method is more ideal in creating a layering effect, the interlocking method provided a significantly cleaner layout of members, both from a head-on view, and side profiles. However, by constructing the scaffolding in the interlocking method, we lose part of the key structural characteristics of bamboo – which is its overlocking construction method.

Maybe an intermediate approach would be required to create the desired visual effect.

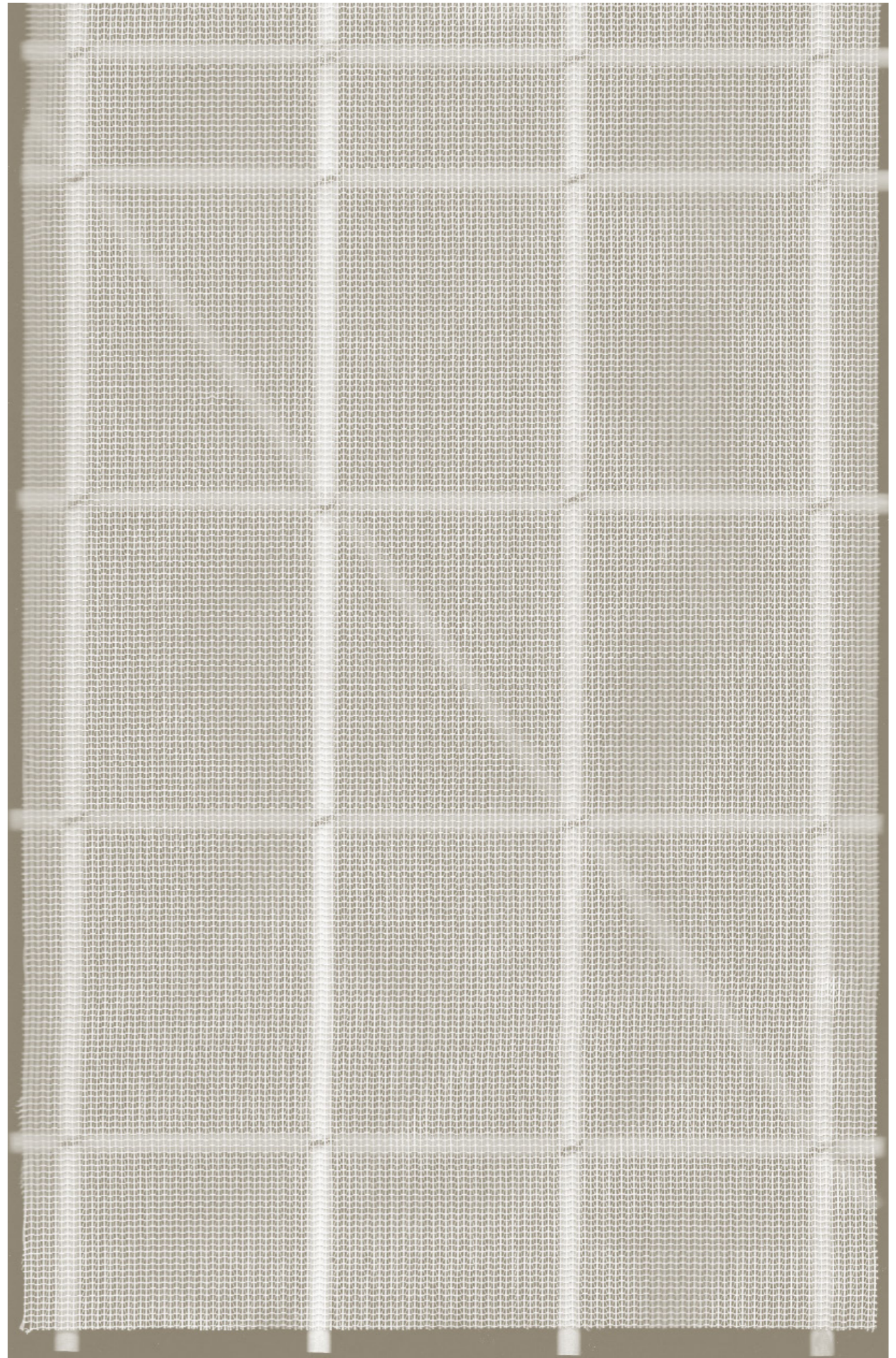


Figure B01: First model, overlocking sticks secured by threads.

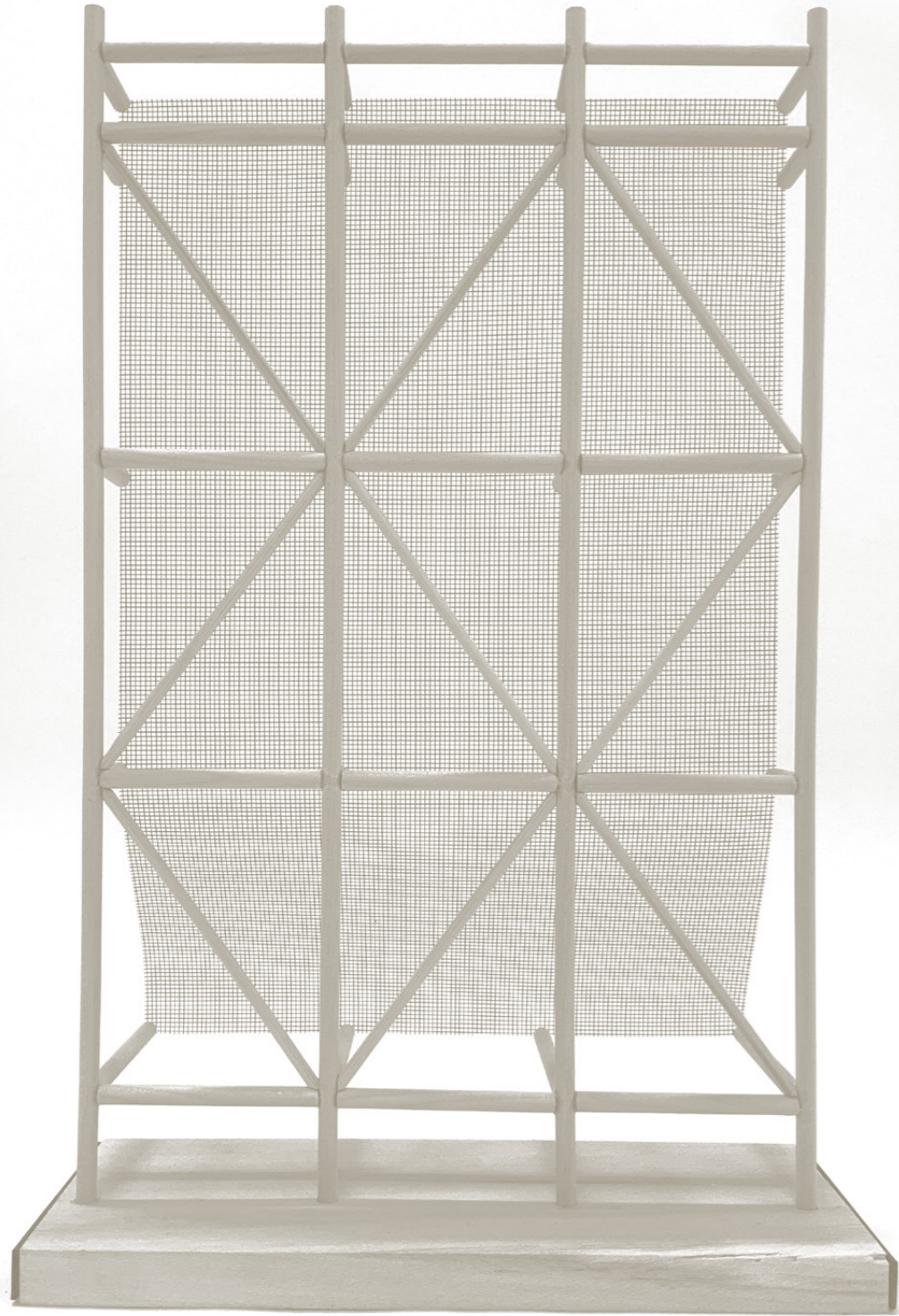


Figure B02: Scaffolding model, flared bottom.

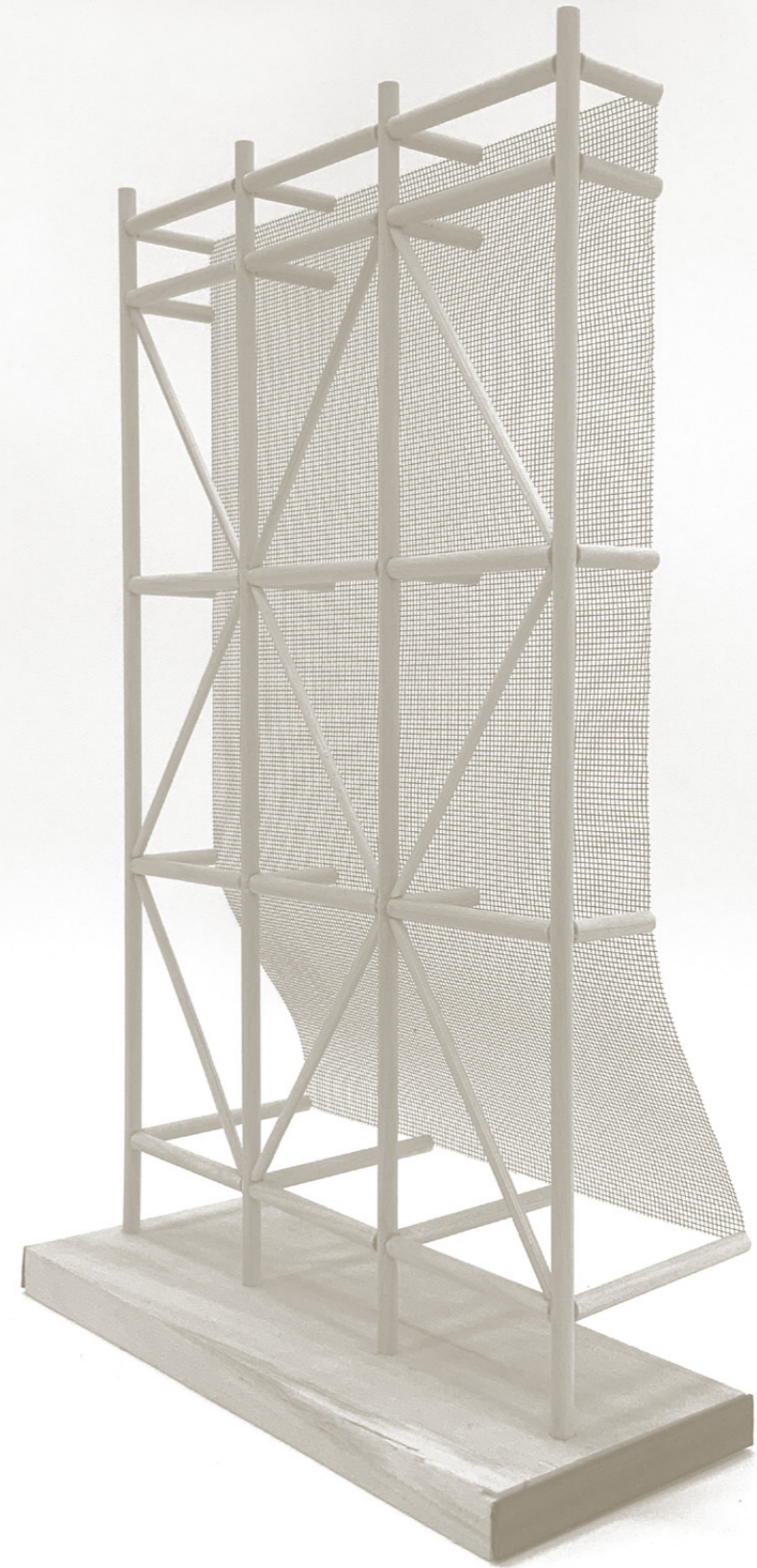
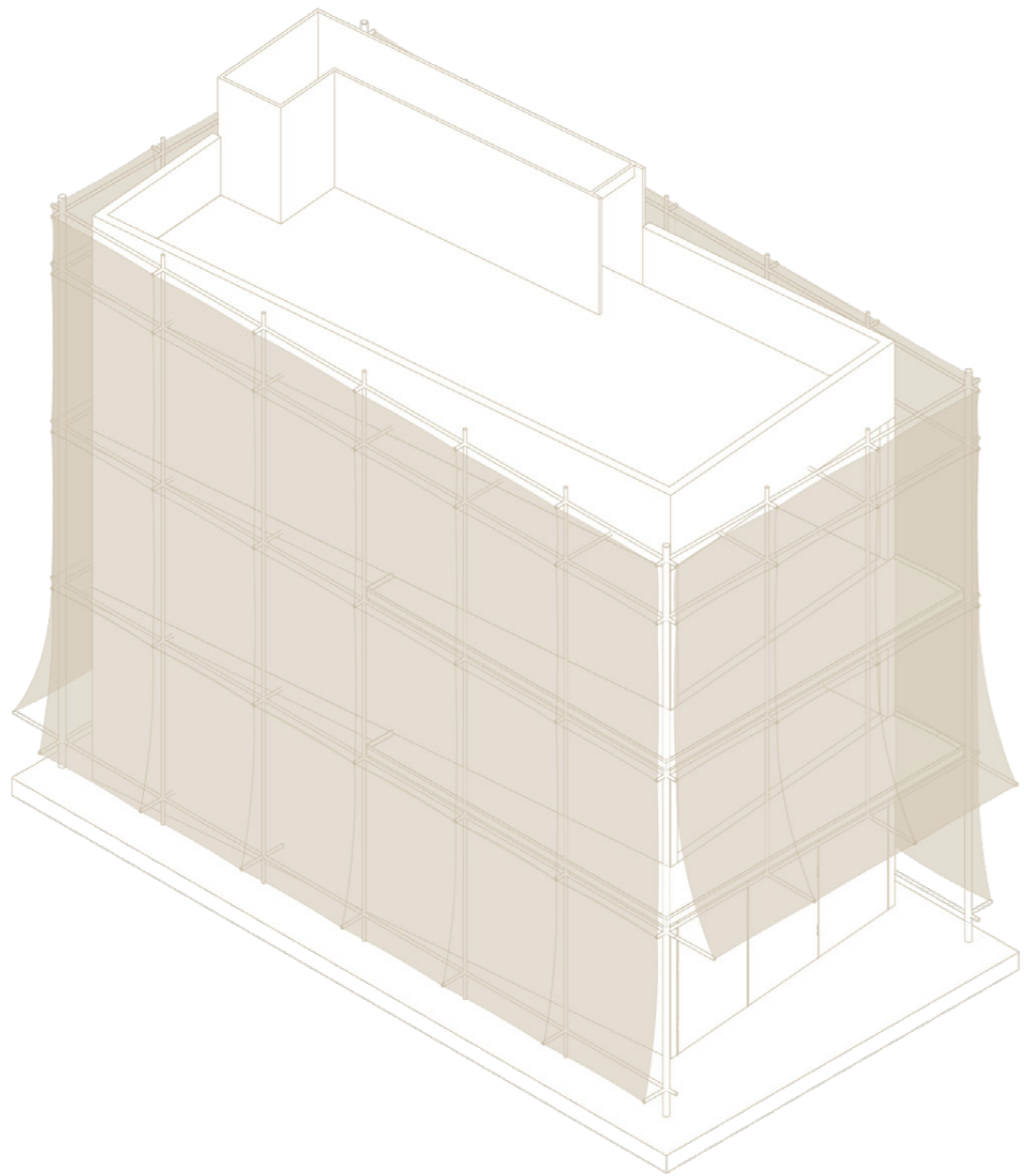


Figure B03: Scaffolding model, flared bottom.

Rather than one long diagonal support, the support has been split into smaller segments. It was noted that a heavier fabric must be used as well, as a lighter material does not have enough weight to create the intended outwards curve, but rather a sharp cut as seen here in the model.



A: Netting placed on to a 6x4x3 grid, slight flare at the bottom roll, opening at the front. Slight twist in the inner structure created opportunity for a balcony.

Figure B.04: Form A, Axonometric View

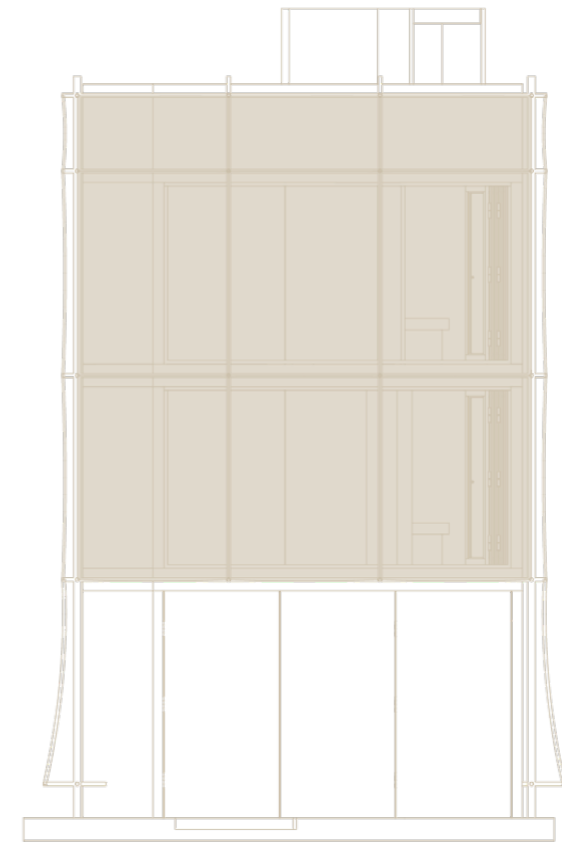
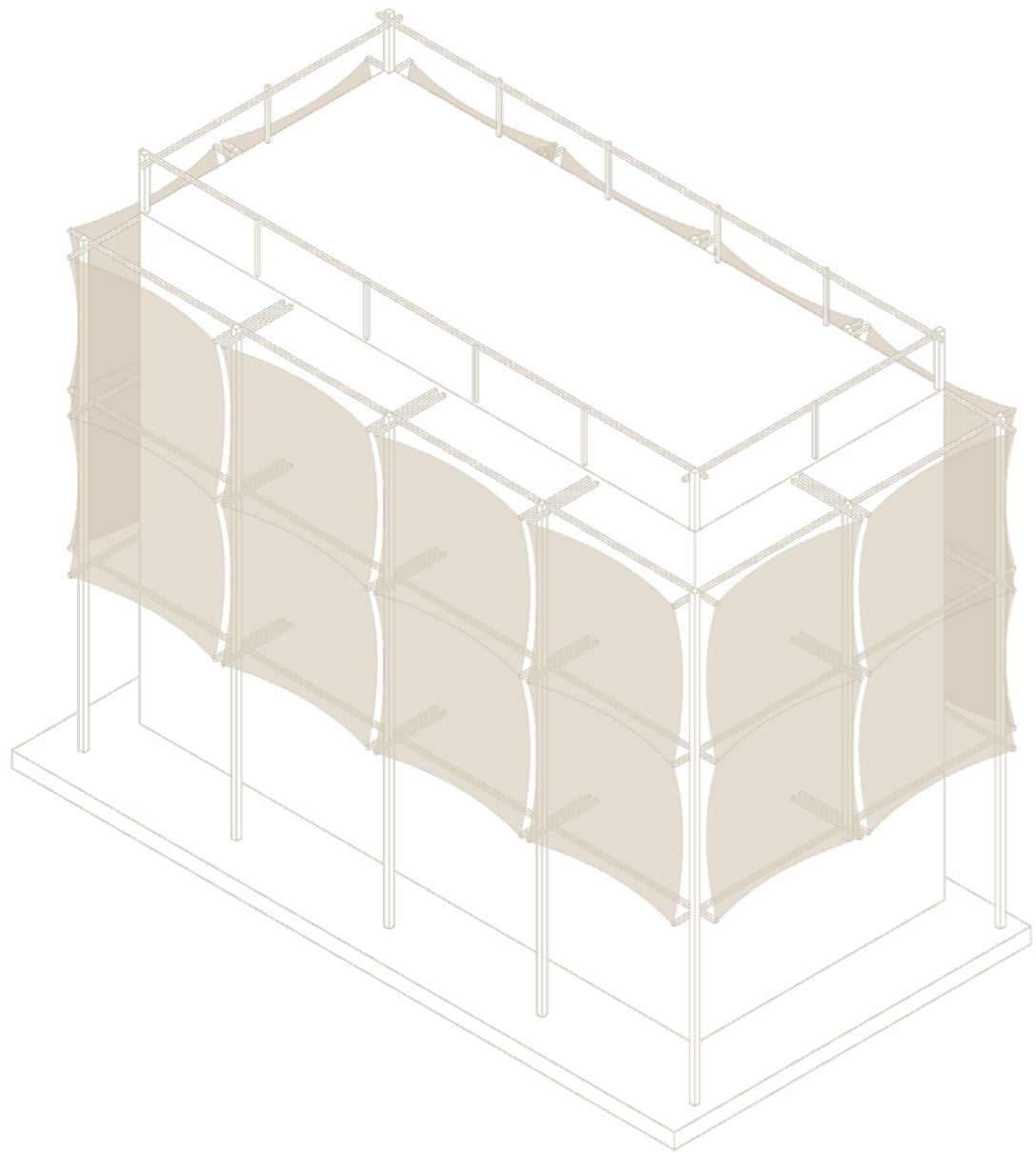


Figure B.05: Form A, Front and side view



B: Netting placed on to a 4x3x2 grid. Bottom row left exposed, exaggerated netting with an inward cusp. This does not particularly work for the intended concept, but I wanted to try a slightly different approach, however it did not work.

Figure B.06: Form B, Axonometric View

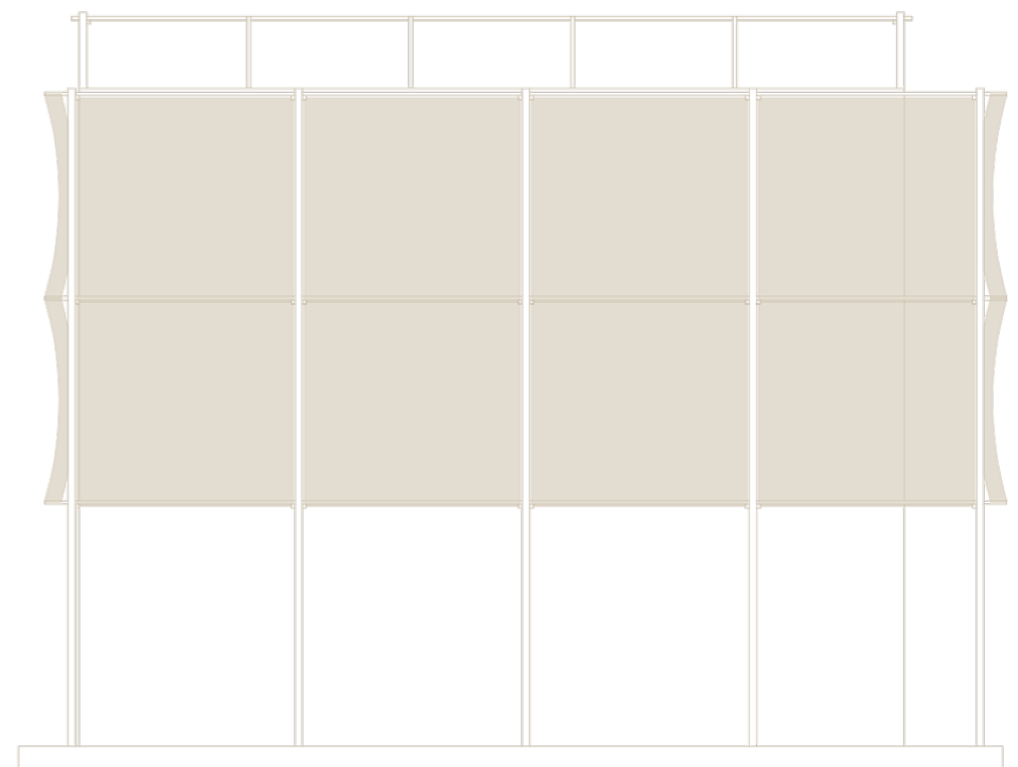
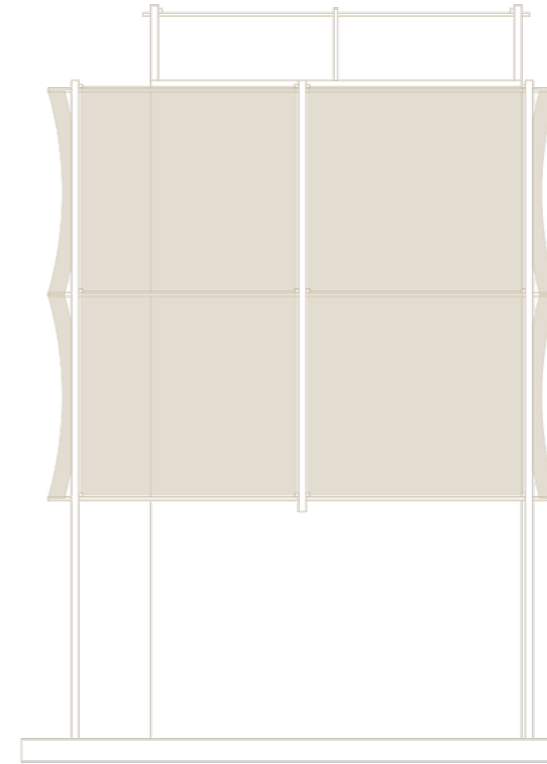
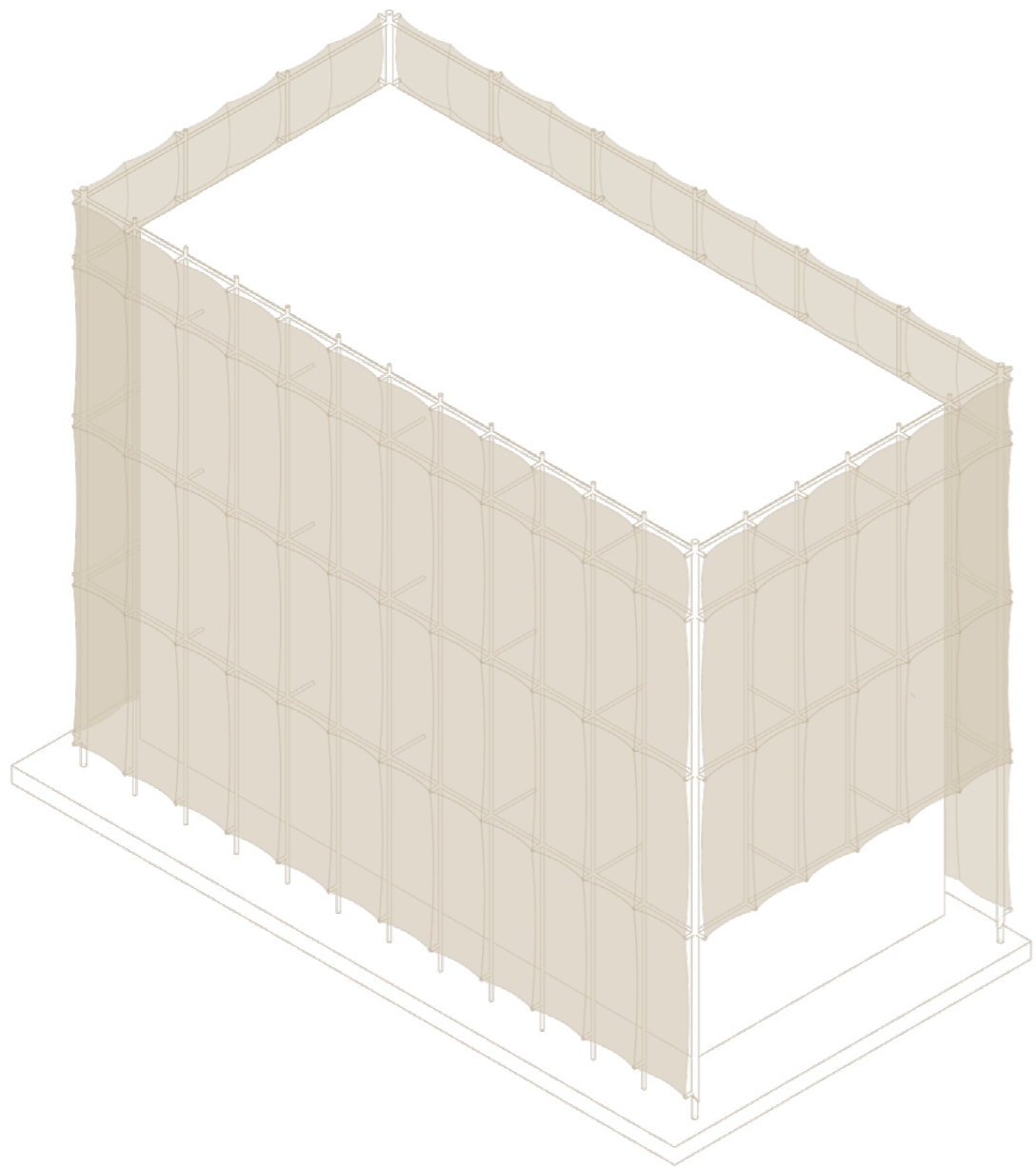


Figure B.07: Form B, Front and side view



C: 12x6x4 Grid, no flare at the bottom, gentle draping of netting

Figure B.08: Form C, Axonometric View

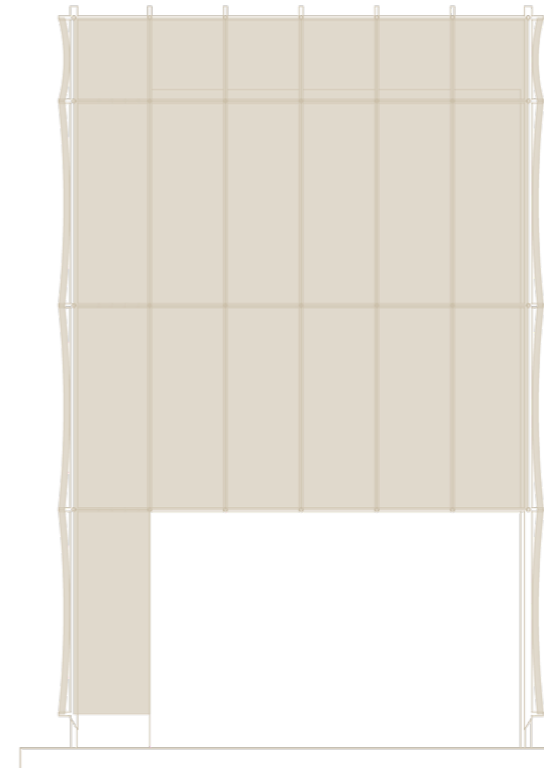


Figure B.09: Form C, Front and side view

The fact that the term “grid” can be used in both an architectural context and graphical context presented an obvious opportunity for graphical translation of built features. A second arrangement was also drawn by examining the second of the structure – the floor slabs and overall floor height created as grid that has alternating grids.

By extracting the those grids directly and applying onto the grid of a page layout, we create a very subtle visual link – while the grid is directly translation, I doubt the viewers will pick up on that relationship, as the grid will not be drawn out, but rather remain hidden – an obvious link in theory, but very weak connection in practice.

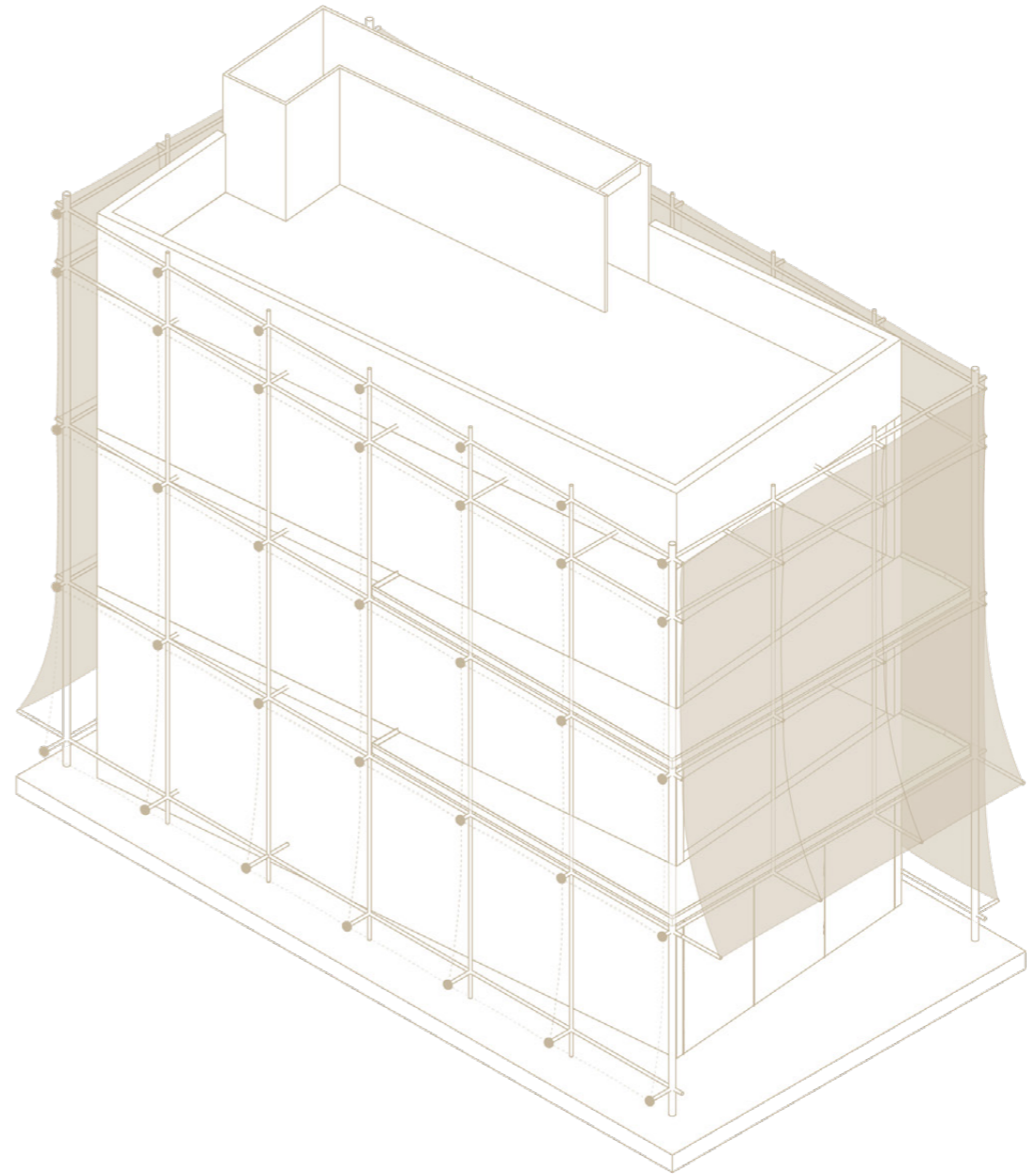


Figure B.10: The grid created by the scaffolding.

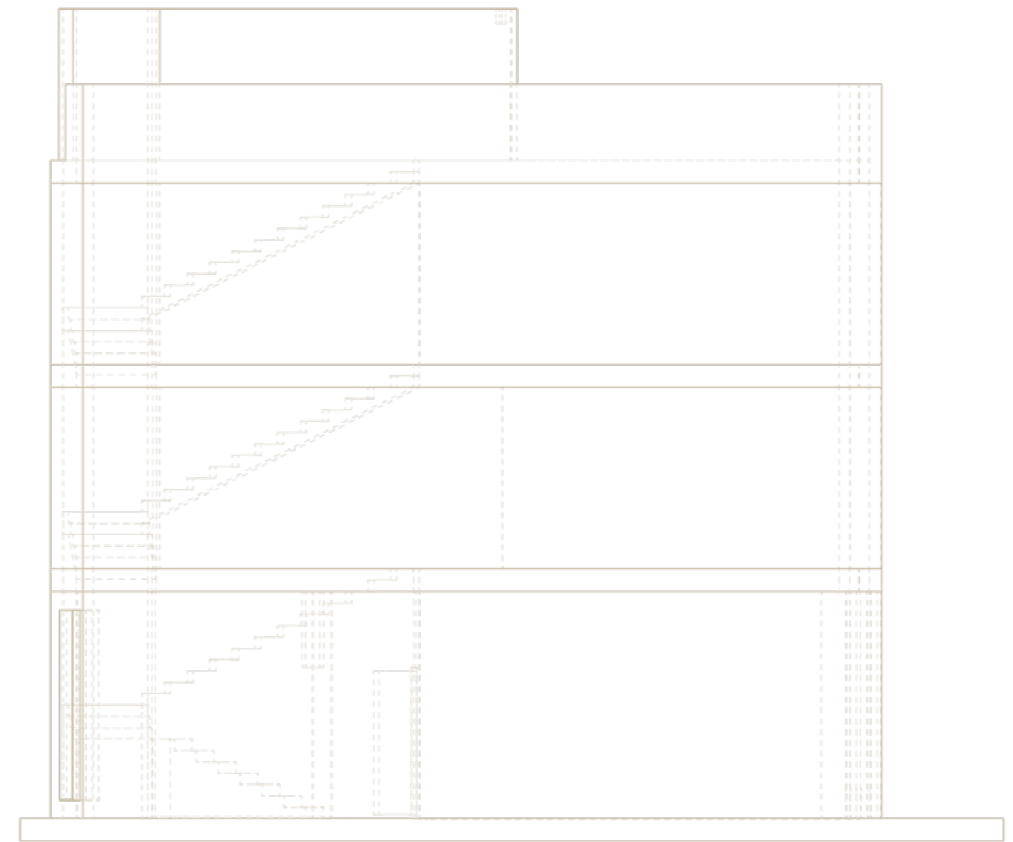
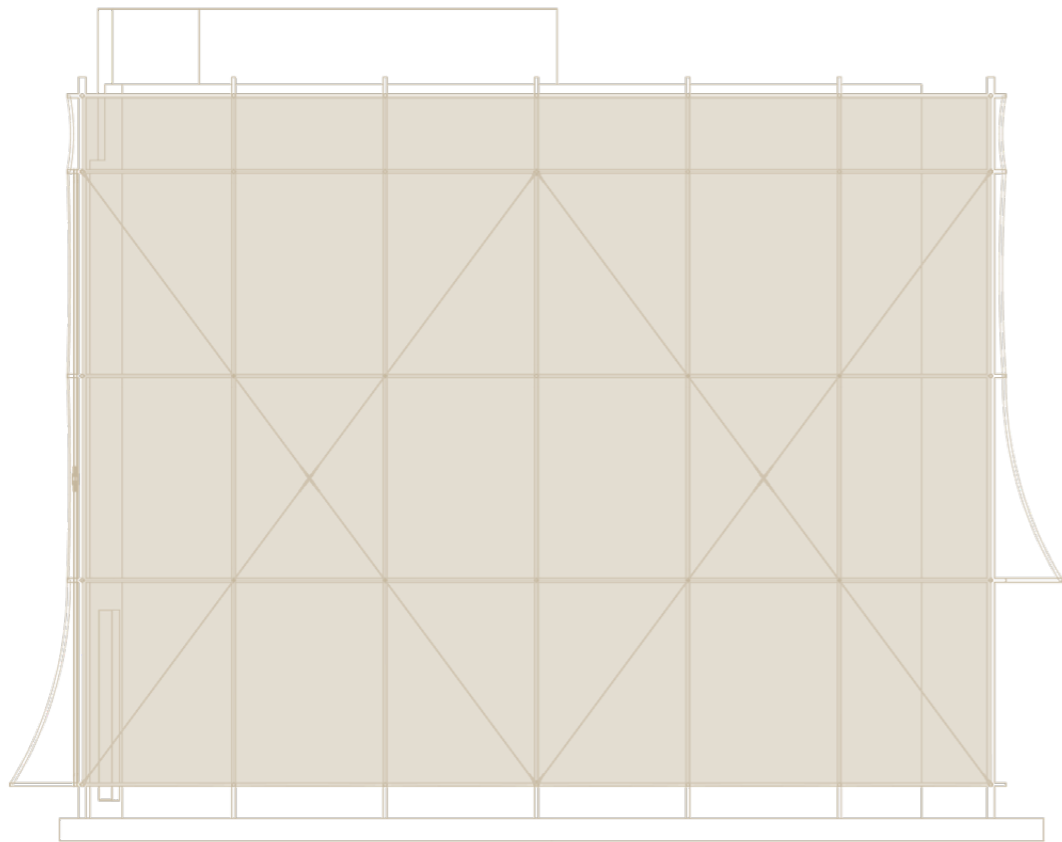
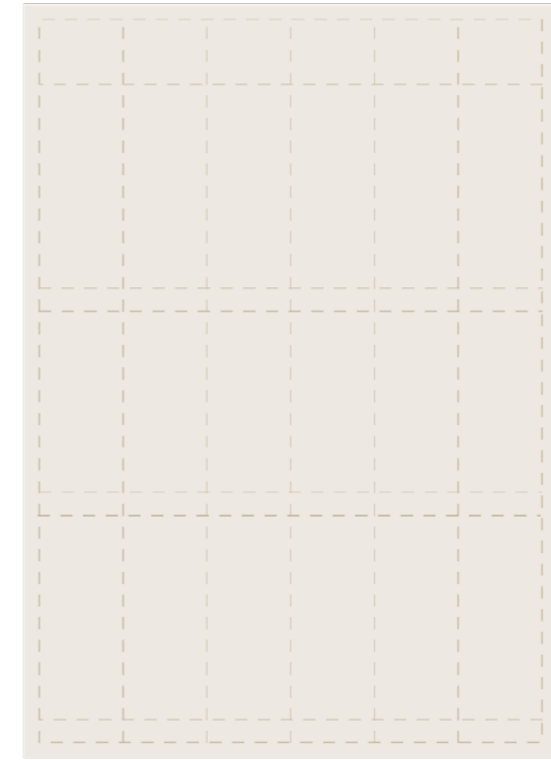
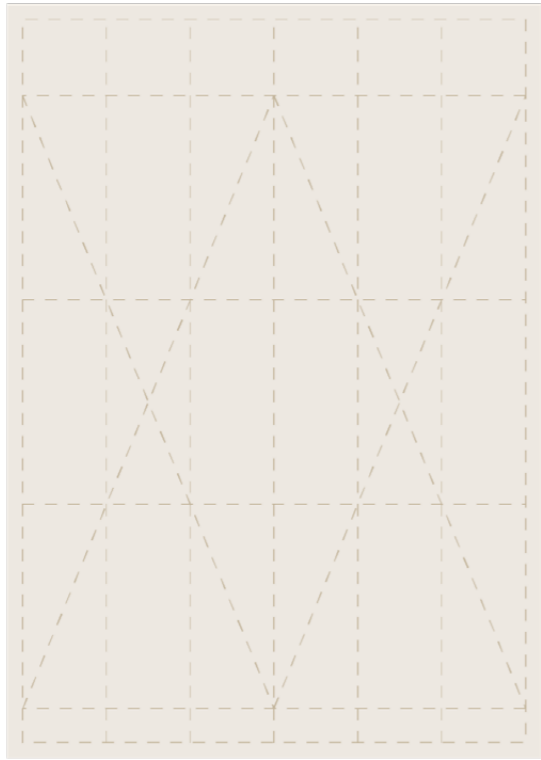


Figure B.11: The grid of the scaffolding is translated to the grid of the paper.

Figure B.12: The grid is arranged in relations to the structural floor slabs.

## Designing: outer layer/netting

The outer layer – how the netting is cut, arranged and how much tension is exerted will heavily affect the final outcome. As a uniform netting will create a uniform skin, and the segmented netting creating an impression of a grid with gaps in between. Normal bamboo scaffolding practice pins the netting via the use of zip ties and nylon strappings, and is pinned every floor but allows for enough loose fabric to move in the wind and reduce any possible stress.

The uniform netting itself creates a uninterrupted layer that distorts and occludes the bamboo grid below.

The materials opacity, texture and opaqueness play a larger role here than its form, and it was important the outer layer, while should communicate the scaffolding elements underneath, should not be too “transparent” and appear invisible, but rather occludes and disrupts the line of sight and “hides” the structure underneath.

The existing silhouettes of the architecture are used as a form of inspiration for logos, and a dynamic element created by segmenting the silhouette according to the individual rows.

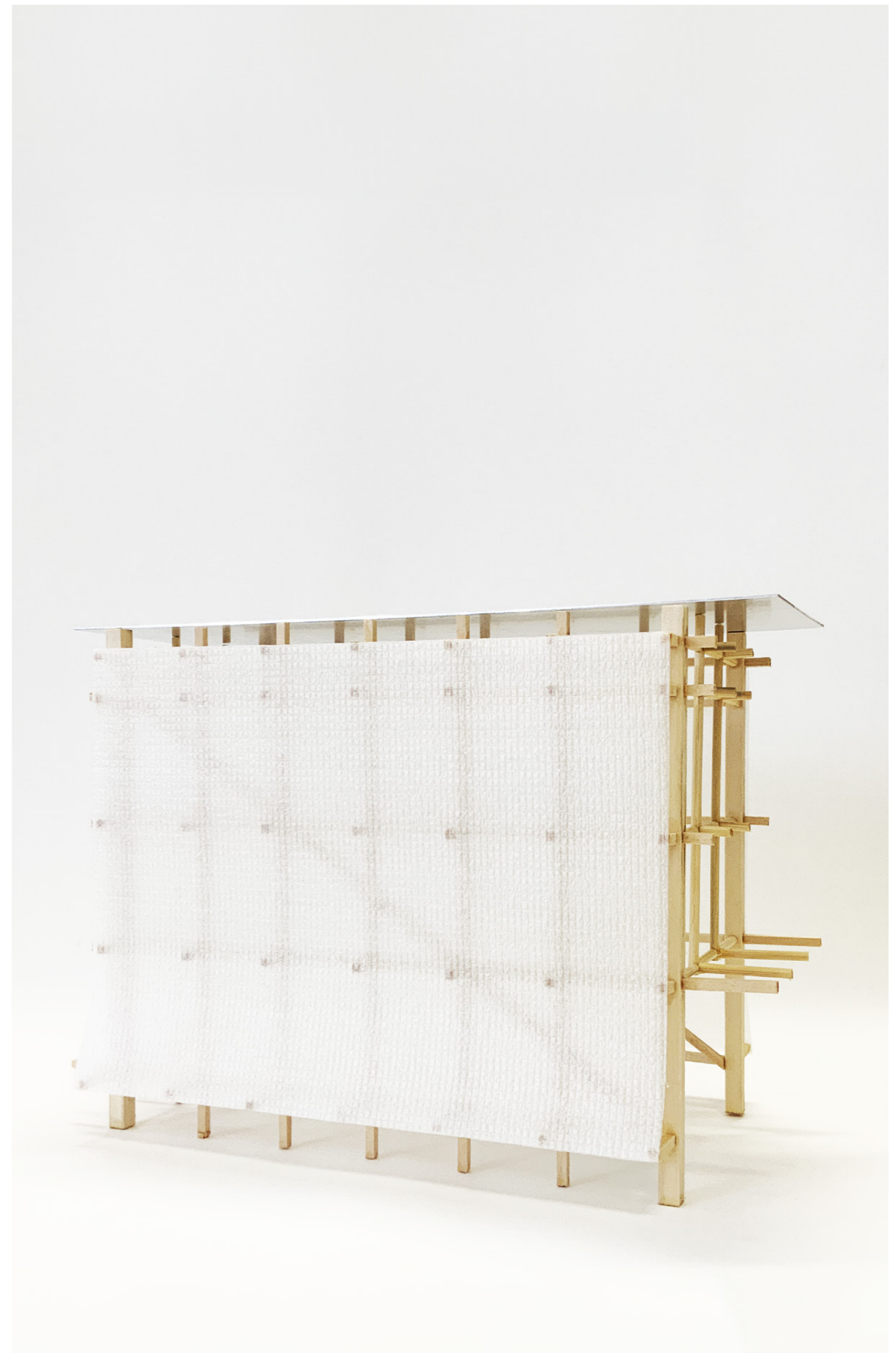
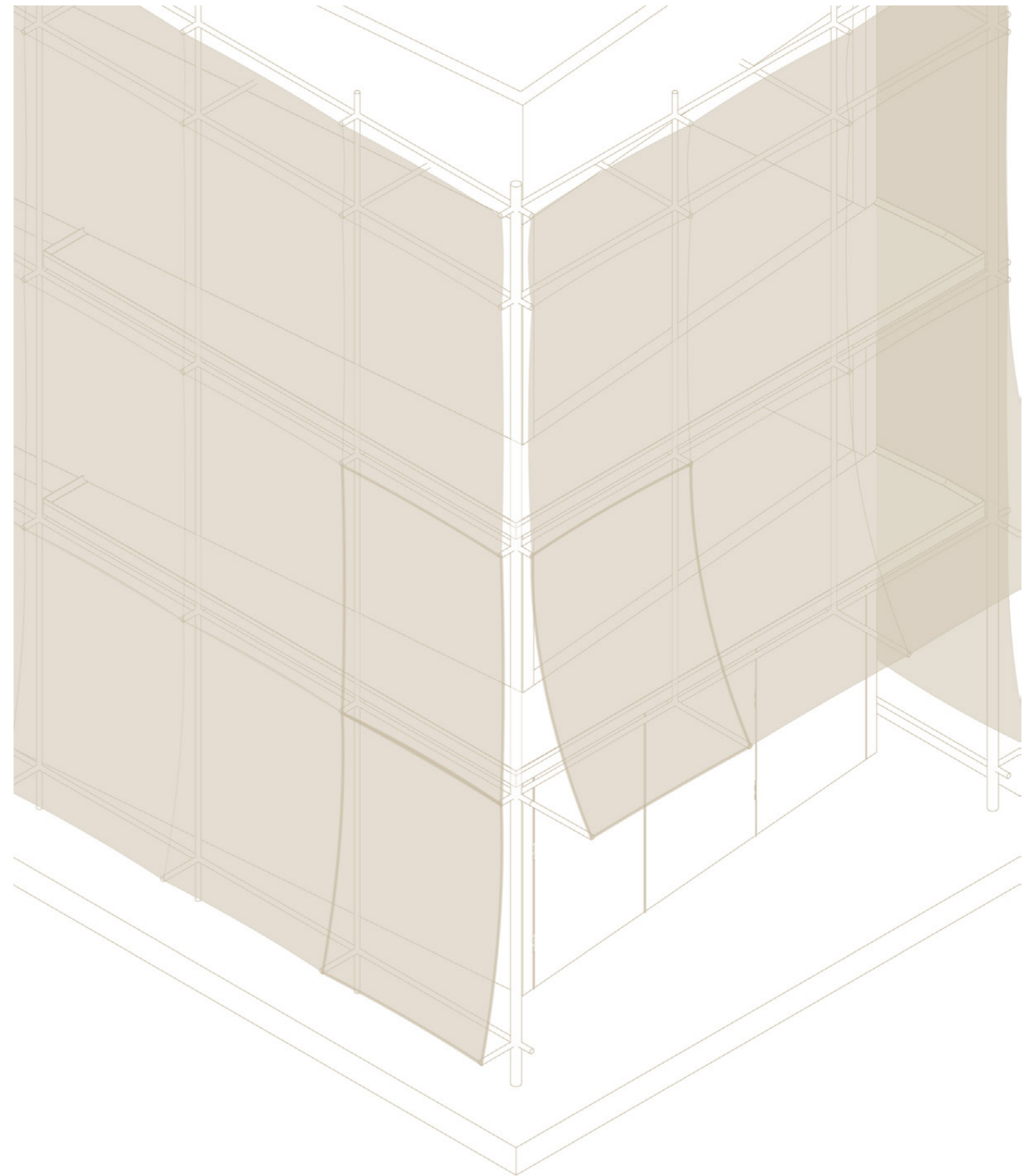


Figure B.13: Experimental building model, side.



Figure B.14: Experimental building model, front.



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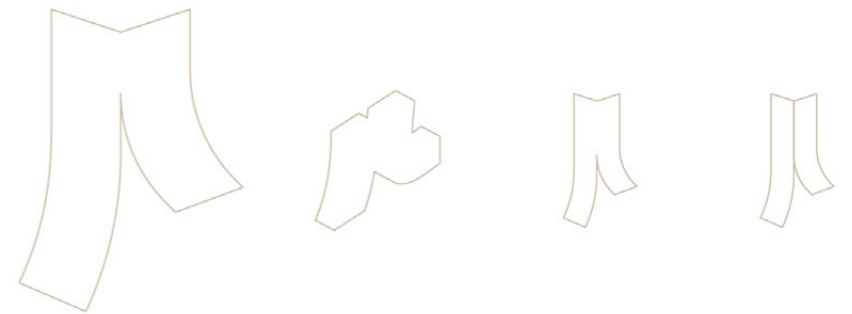


Figure B.15: Logo design referencing the shape of the outer façade

# Designing: joints

The way the scaffolding is constructed and how the individual tubes are connected may change how the structure works as well, and may also provide key design features that may contribute to the visual identity.

While traditional bamboo scaffoldings are constructed using nylon ties, that does not offer long term stability. Given that the scaffolding will be made out of aluminium, it made sense that the joinery is also made of the same material.



Figure B.16: Intersecting-overlocked construction

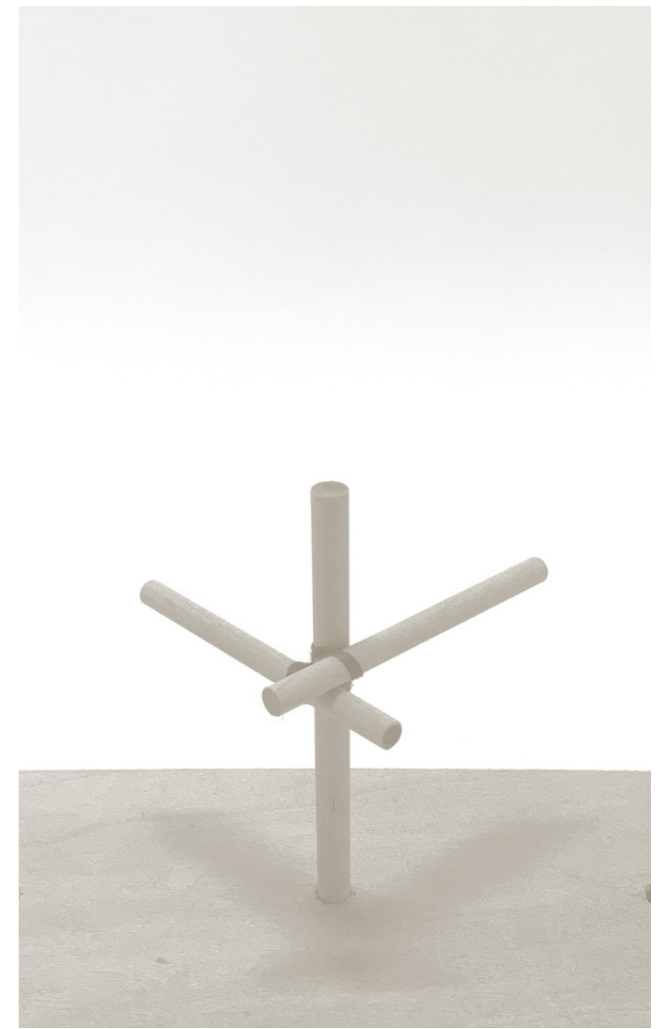


Figure B.17: Overlocking construction

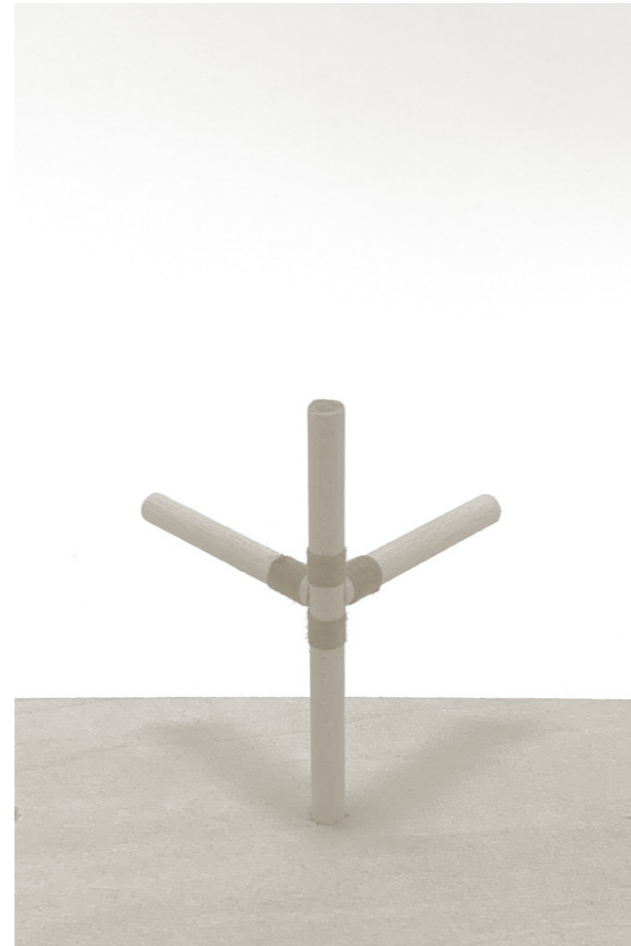


Figure B.18: Intersecting construction

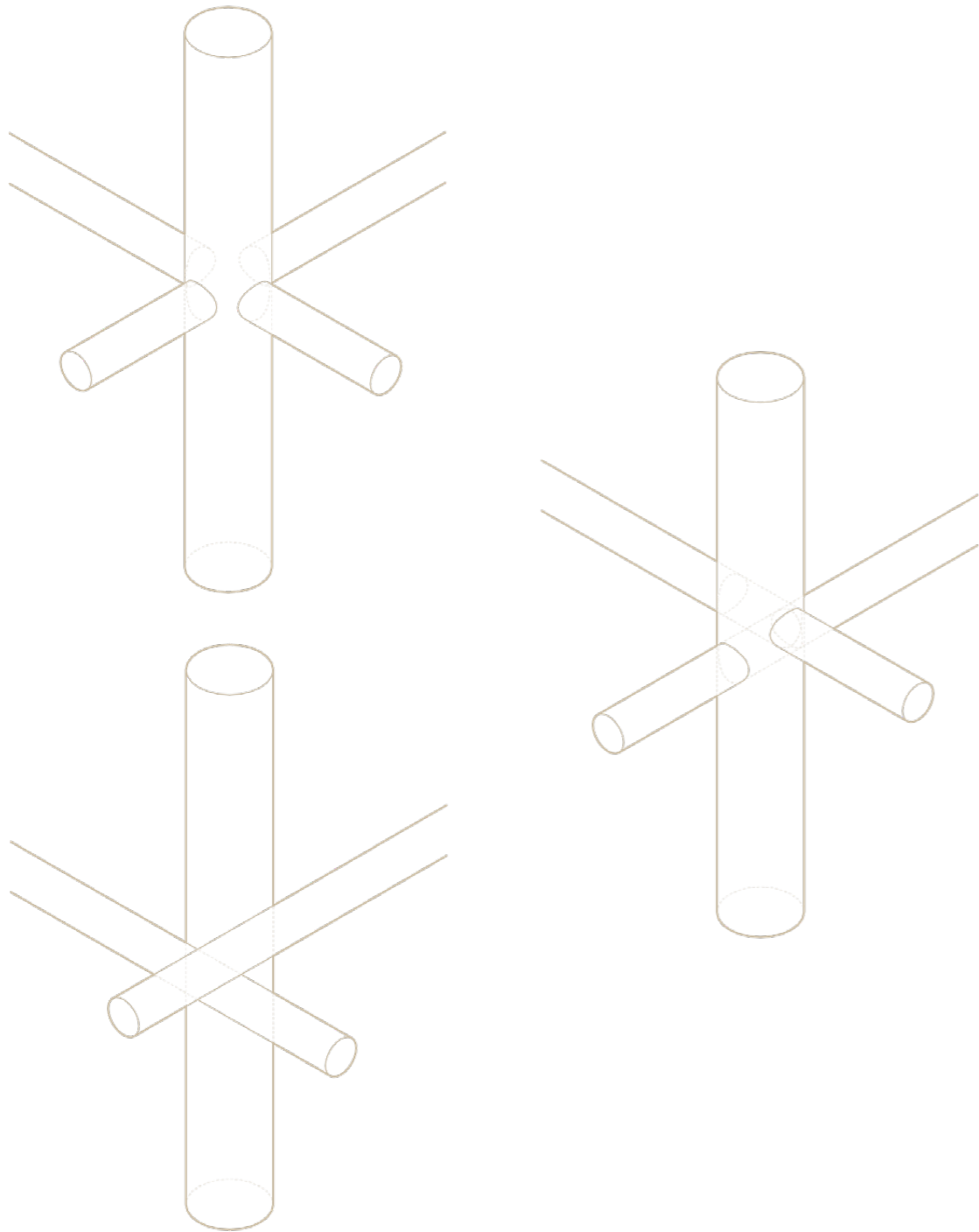


Figure B.19: Different joint constructions

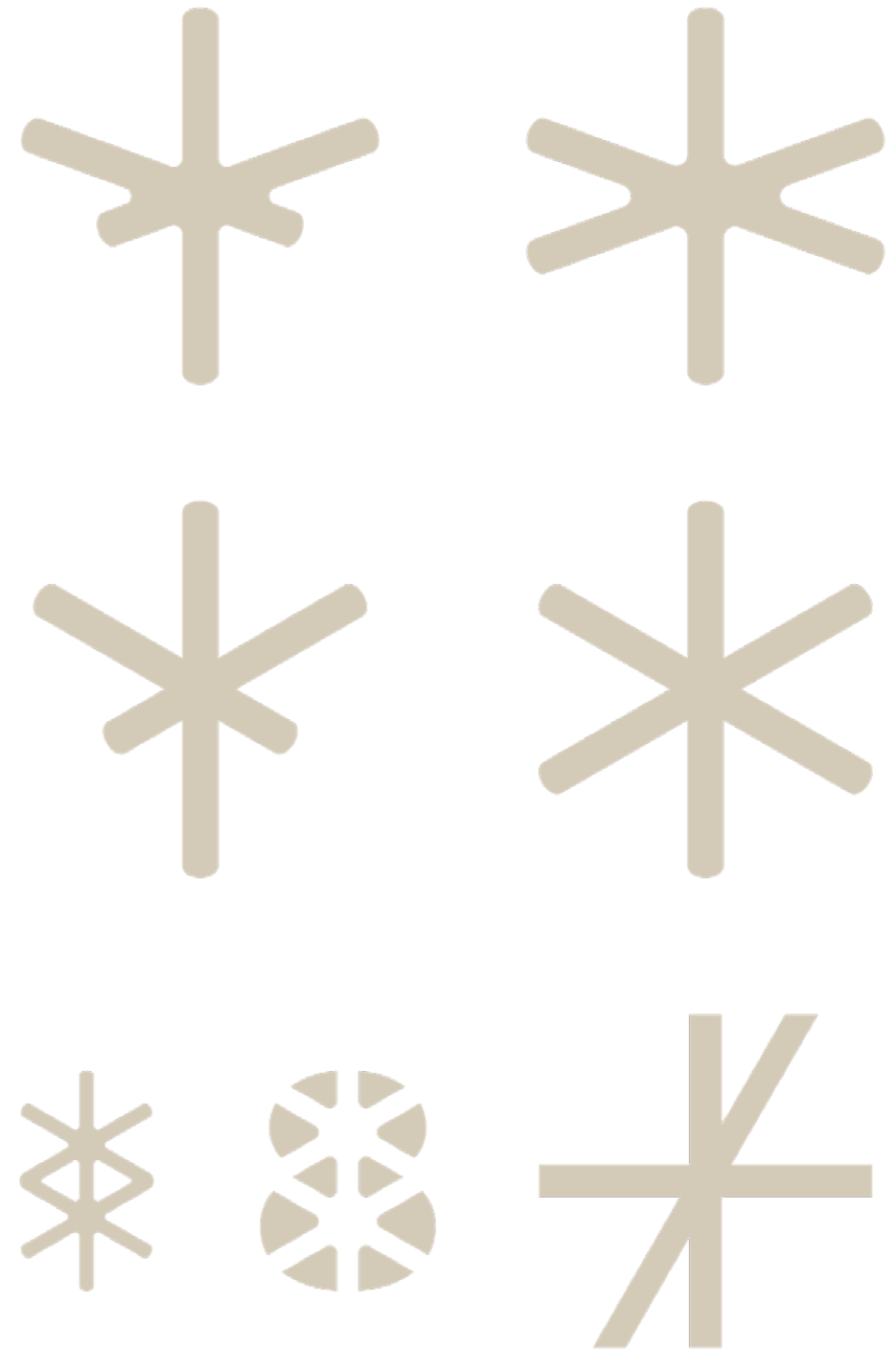


Figure B.20: Logos created by observing the different joints

# Exhibition

As part of the curriculum, the completed body of work is exhibited at the Ngutu Kaka Gallery.

The exhibition included two monitors, displaying relevant motion graphics and visual identity, a 1:30 scale architectural model, and two large fabric banners. It was important that I carry the same design language and communicate the same mood and feelings through the exhibition, which informed detailed decisions to mounting, specific hardwares and overall arrangement.

Keeping the middle seam of the glass in mind, the monitors are aligned center and are placed at a certain distance to display a connected series of images and videos - used not only to display the visual identity, but to provide examples of how the architecture and graphics are linked to each other. I've avoided placing the two monitors back to back as it still needed a certain level of distinction from one another.

The banners are included to not only reintroduce the sense of delicateness into the display space, which was lacking through the monitors and the model; they also reinforces the same shade of colour through the design, the fabrics were dyed to match the same shade of brown seen on the architectural model and the visual identity; the manner of which the fabric is draped directly echos the shapes found on the facade of the architecture as well. Lastly, the fabrics also helped frame the aforementioned objects in a more theme-appropriate manner.

Spot lights are introduced directly under the banners to provide defused lighting at night, and created a warm atmosphere in the display area, echoing the soft feelings created by the banners and colour scheme.



Figure C.01: Daytime view, St Paul Street



Figure C.02: Motion graphic - House 1 to 8, St Paul Street



Figure C.03: Motion graphic - House 1 to 8, St Paul Street



Figure C.04: Title card, St Paul Street



Figure C.05: Title card, St Paul Street



Figure C.07: Closer view, St Paul Street



Figure C.07: 1:30 Scale architectural model



Figure C.08: Close up, 1:30 Scale architectural model