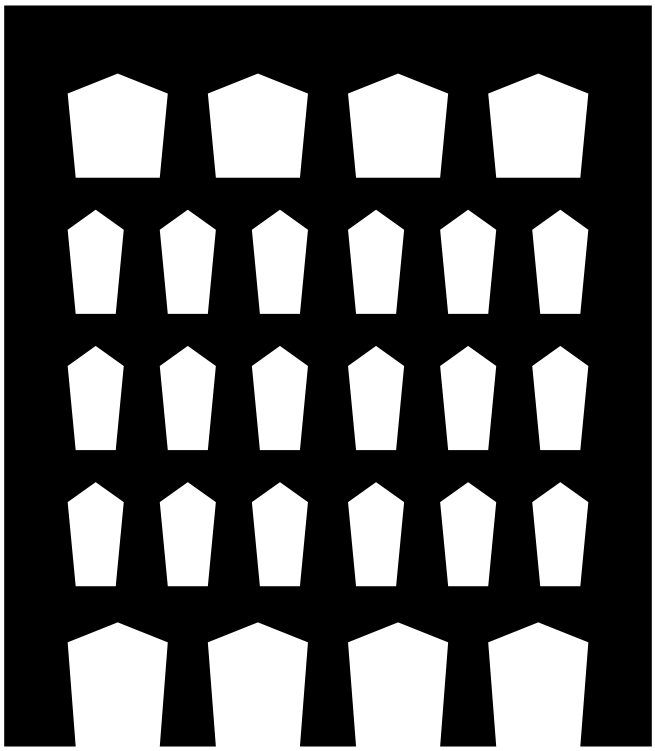
The Poetic of Tangible Simulacrums

BARCo068: Final Project

MA Architecture and Historic Urban Environments - UCL



Research

Student Number: 16062268
Submitted on 09/09/2021
Word Count: 6080
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BARC0068: Final Project.
MA Architecture and Historic Urban Environments.
University College London
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Acknowledgements

I would like to thank my Supervisor, Hannah Corlett, for her constant help and support during the time this Thesis was prepared and written. I am grateful for her remarkable ability to work with someone whose native language is not English and for her very special way of reading in between drawings, thoughts, and words. The discussions that I had with Hannah have been the most enjoyable moments in this course. Her incredible knowledge and taste about architectural theory and practice were valuable input to my evolution as an architect and person.

Professor Edward Denison has provided useful knowledge and support from the beginning of this year and made this journey easier and enjoyable. Afra Van't Land has provided useful comments and knowledge throughout the year. I would like to thank all the other tutors that played an important role in my development this year: Professor Ben Campkin, Dr Sarah Milne, Dr Eva Branscome, and Aileen Reid. I am grateful for their support.

My Grandfather Kostas, who as a cabinetmaker focused on details and perfection and Eleni and Marios, mother and father, who their craft, fashion designer and printmaker, stimulated my passion about crafts and architecture. I am thankful to Konstantinos, brother, for his support throughout the year. Chrysanthi any words would be not enough to express what you have provided to me and no matter how many times I say "thank you" it will still be not enough. Your continuous encouragement has been the motive behind my persistence to keep going.

Note: Any drawing or image that is not referenced has been produced by the author.

Content

Ithaka

C.P. CAVAFY

‘When you set out for Ithaka
pray that your road’s a long one,
full of adventure, full of discovery.
Laistrygonians, Cyclops,
angry Poseidon—don’t be scared of them:
you won’t find things like that on your way
as long as your thoughts are exalted,
as long as a rare excitement
stirs your spirit and your body.
Laistrygonians, Cyclops,
wild Poseidon—you won’t encounter them
unless you bring them along inside you,
unless your soul raises them up in front of you.

Pray that your road’s a long one.
May there be many a summer mornings when,
full of gratitude, full joy,
you come into harbours seen for the first time;
may you stop at Phoenician trading centers
and buy fine things,
mother of pearl and coral, amber and ebony,
sensual perfume of every kind—
as many sensual perfumes as you can;
may you visit numerous Egyptian cities
to fill yourself with learning from the wise.

Keep Ithaka always in your mind.
Arriving there is what you’re destined for.
But don’t hurry the journey at all.
Better if it goes on for years,
so you’re old by the time you reach the island,
wealthy with all you’ve gained on the way,
not expecting Ithaka to make you rich.

Ithaka gave you the marvellous journey.
Without her you wouldn’t have set out.
She hasn’t anything else to give.

And if you find her poor, Ithaka won’t have fooled you.
Wise as you’ll have become, and so experienced,
you’ll have understood by then what an Ithaka means.’

Cavafy, C. P., Keeley, Edmund., Sherrard, Philip. *Selected Poems by C.P. Cavafy.* Princeton, New Jersey: Princeton University Press, 1972. Accessed June 03, 2021. doi:10.2307/j.ctt13x0vbt.

Abstract

The combination of Brexit and the Coronavirus pandemic caused an inflection to much of London's economy. The sterling exchange rate plummeted globally and foreign investors exited en masse, leaving premises and office spaces abandoned. The City of London was one of the hardest hit areas, it completely lost its economic power and looked for a new model of growth[0]. By 2022 all foreign owners had abandoned their premises, creating a vast vacancy within the City of London.

The Guild seized on this opportunity to bring making back into the City of London by reclaiming that vacancy and the seat of power. Considering the history of the guild there is a sense of over reclaiming of the centre of the city. Throughout history, Guild affects political power through the position of Mayor which passes temporality from Livery company to Livery company.

The replica makers decided to organise a Livery company with the scope to reclaim power, through the position of mayor of London, which then will support and promote their craft. The Postman's park was chosen as the location for their Livery hall. The construction of the Livery hall is rooted in the poetic of the process. Histories of the site and brutalism elements are reinterpreted in the construction process. The Livery hall will contain workshops, studios, an assembly room, a gallery, an urban garden, learning spaces, exhibition areas, housing units, offices, and spaces for social gathering.

[0] Kleovoulos Aristarchou, *Carving Mayfair,* MA Architecture and Historic Urban Environments, BARC0033, London, 2021.

Introduction

During the 19th and 20th century cast replication was essential for the recording and preservation of important heritage buildings. Sometimes, cast replications were also used for educational purposes. Nevertheless, physical replication in the last decades declined whereas in contrast, digital replication takes a lead in safeguarding and replicating important heritage buildings. Additionally, due to the increase of digital devices and the time spent interacting digitally during the Coronavirus pandemic we experienced an enhanced need for craftsmanship and other physical making activities. Increasingly individuals feel detached from the physical world and stuck in the digital one. Based on the above factors the thesis asks the following questions: Why is it crucial to rejuvenate physical replication of heritage buildings within the digital era? Could the process of physical making lead to unexpected and exciting results?

The investigation of the above questions was carried out through various media. The main method was casting and physical model making while books, articles and lectures informed the project with precedent studies and theories. Additionally, drawings, collages and maps have been used to express the ideas and research of the thesis. The proposal developed gradually through model making while a deep investigation of the history of the site, the Guild, and brutalism informed each step.

The thesis starts with a poem and a narrative in order to set the stage for the investigation. Following that, an analysis of the Guild's history and regulations helped the choice for the location of the Livery hall. After an understanding of the site location follows the research on simulacrums and few precedent studies. The investigation of simulacrums led to brutalism and the exploration of three important buildings. The final chapters are dedicated to the design intervention and conclusion. Furthermore, five separate booklets contain the process of the cast models.

Proposal

Guilds

For many centuries the City of London was the epicentre of economic activities and the place where Livery companies built their halls with the scope to promote their craft and products. Although many Livery companies still exist, in the last few decades they lost their power due to the changing power structure and nature of business within the City of London. The decades after the Second World War the City of London passed from a massive rebuilding programme where general densification and construction popped up through the ashes of the bombed sites[1]. The fig. 03 shows the bomb density and damage during WWII. The consequences of the war and the rapid increase of offices caused many Livery companies to lose their halls. There are now 108 livery companies which 39 of them occupy a hall and all of them are located within the City of London[2]. The reason for the above is that there is a rule that every Livery hall should be located within the City of London. The halls are places where the members of the Livery companies could meet, discuss and organise events related with their profession[3]. However, the Livery hall of the replica makers will have workshop spaces next to it which will function separately.

As we can see from fig. 04 the Livery halls are close together and spread across all over the City of London. To visit all of them you need approximately three hours of walking time. Two of the newest and most extraordinary halls are the brutalism Salters' hall and Guildhall with the two brutalism wings (Guildhall library and museum, and Guildhall art gallery). The juxtaposition between the new buildings and the original Guildhall is astonishing. The elements of both new buildings connected harmoniously with the historic structure. The rhythm and the shapes of the windows of the Guildhall museum and library are marvellous. The openings bring appropriate light within the building while giving a special aesthetic on both the exterior and the interior spaces. The shapes of the entrance and the V-shaped elements of the left hand side building that connect the library with the historic building are beautifully designed. Again the architect uses the V-shaped proportion to create various elements which much all together. By using the same shapes with proportion rules the architect achieved a harmonious design. The openings of the Guildhall art gallery are also well designed with similar care and based on the library building. Both the Guildhall library and museum and the Guildhall art gallery were designed by the architect Sir Giles Scott in 1974 and 1999 respectively[4]. The white concrete brutalism Salters' hall was inspired by salt. The texture and the form reminiscence salt and was designed by the brutalism architect Basil Spence and built in 1976[5].

[1] "City History," City of London, last modified June 19, 2020, https://www.cityoflondon.gov.uk/things-to-do/history-and-heritage/city-history.

[2] Matthew Engel, "British Institutions: Livery Companies," Financial Times, last modified December 22, 2012. https://www.ft.com/content/e42e19a0-47da-11e2-a899-00144feab49a.

[3] Ibid

[4] "Guildhall," City of London, accessed June 21, 2021, https://www.cityoflondon.gov.uk/.

[5] Lizzie Crook, "The brutalist Salters' Hall is enclosed by white fluted concrete," Dezeen, last modified September 26, 2020, https://www.dezeen.com/2020/09/26/salters-hall-brutalist-architecture-open-house-london/.

Fig. 01: The collage shows the two sides of the City of London and the three brutalism buildings that inspired the project.

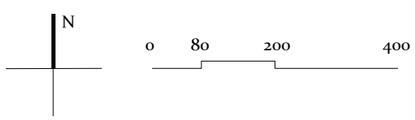

Fig. 02: Figure ground of City of London.

Bomb damage

Bomb density

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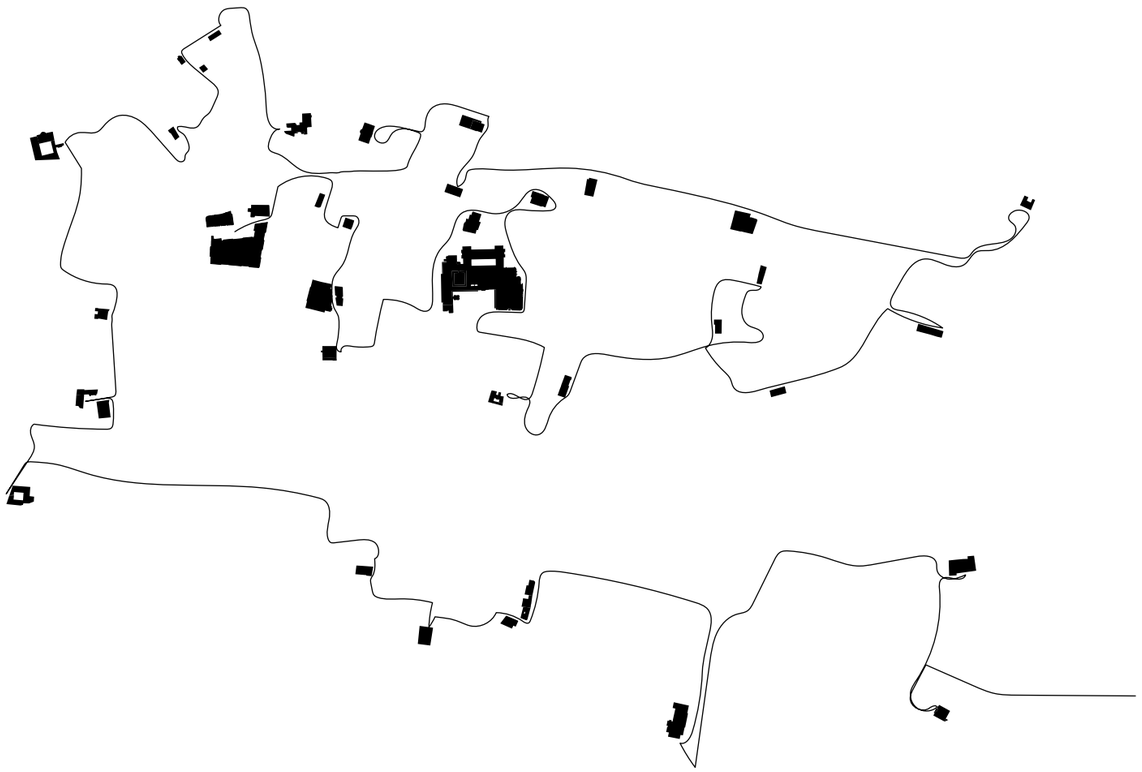
0 80 200 400

Fig. 03: Map showing bomb damage and density.



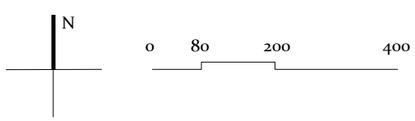


Fig. 04: Map of the journey of exploring the Livery halls.

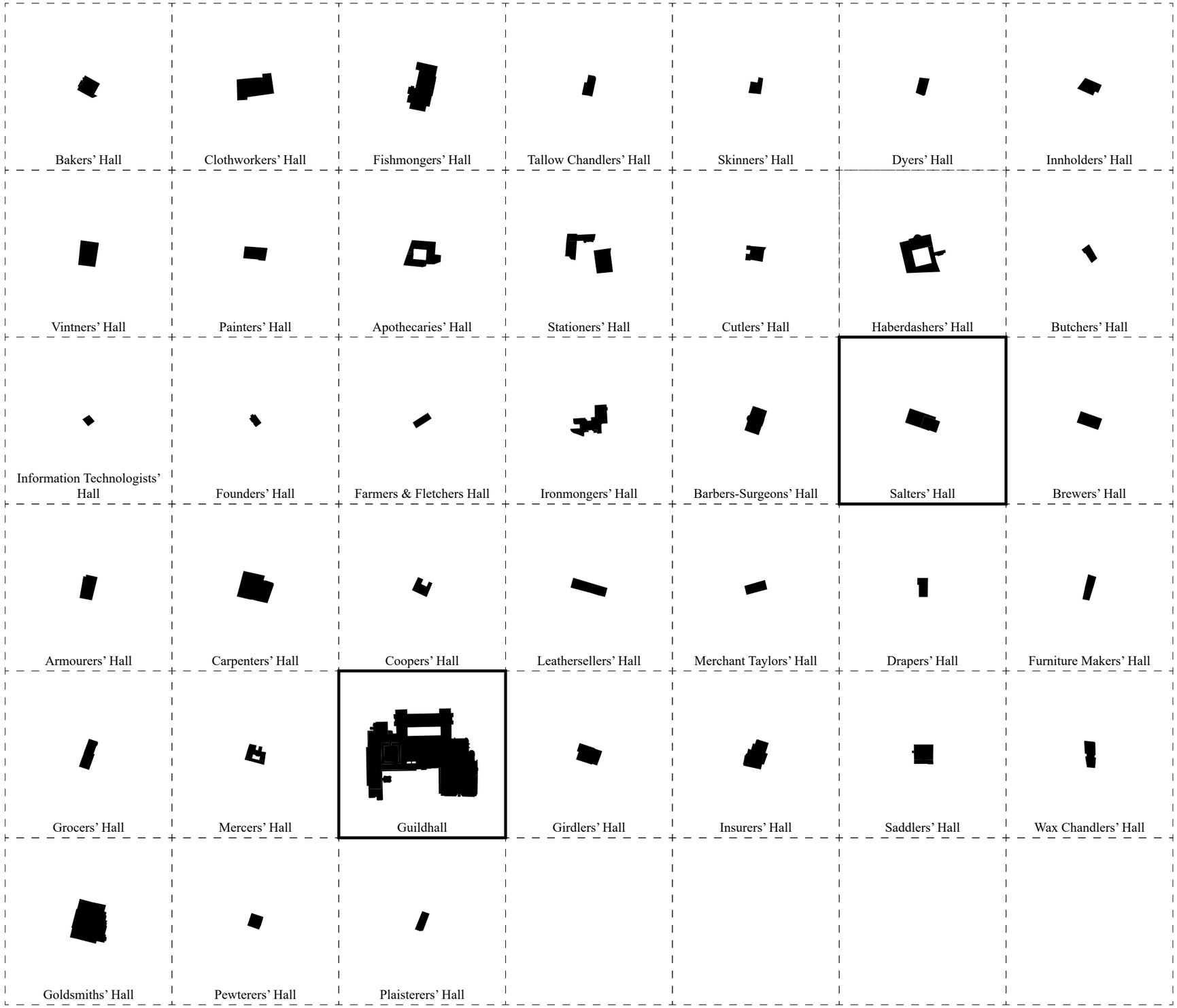


Fig. 05: Diagram of Livery halls in order based in the journey.

Fig. 06: Photographs of Livery halls in order based in the journey.

Fig. 07 (left): The image shows the juxtaposition of the original Guildhall with the Guildhall Library.
Fig. 08 (right): The image shows the Guildhall art gallery.

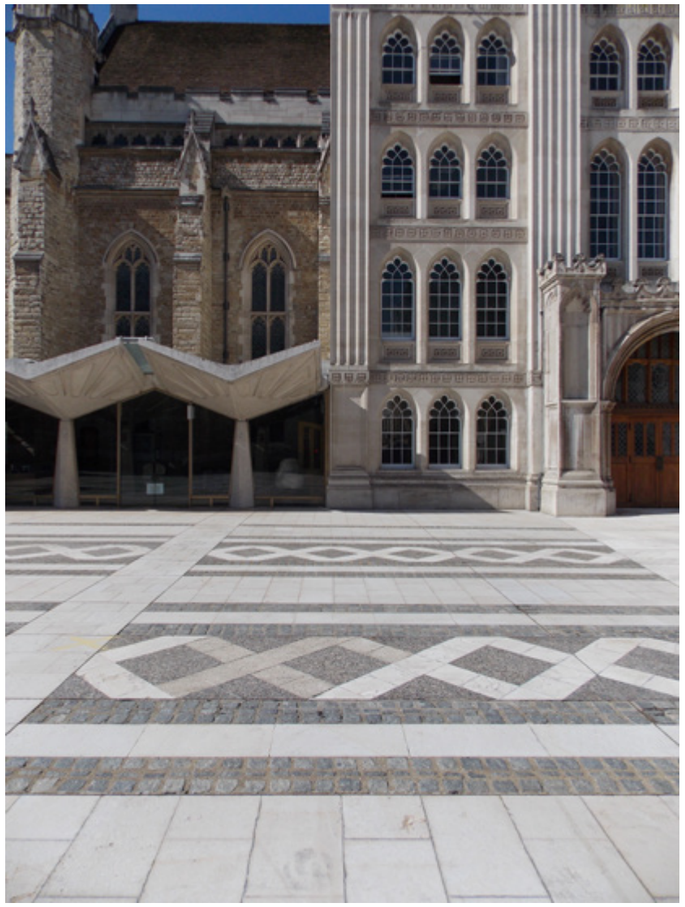


Fig. 09 (left): The image shows the juxtaposition of the original Guildhallwith the Guildhall Library.
Fig. 10 (right): The image shows the entrance to the Guildhall Library.

Fig. 11 (left): The image shows the entrance to Salter' Hall.
Fig. 12 (right): The image shows the Salter' Hall.

Postman's Park

The City of London, known also as the Square Mile, is the oldest part of London and is the place where the Romans first built Londinium around AD 50[6]. The area is full of archaeological elements and heritage places. As we can see from fig. 23 the wall that used to protect the city is still evidence nowadays in various spots around the city. While the city is full of historically important buildings, fig. 03 and fig. 25, the bomb damaged from WWII allowed new modern buildings to grow as previously discussed. The juxtaposition of historic and new constructions is incredible. The urban planners of the city played a crucial role by creating rules to protect the historic urban fabric of the city. One of the most important rules they created was the view protection of St. Paul's Cathedral. They set up few important view lines from specific places to St. Paul's cathedral which must be protected[7]. For that reason some remarkable and unusual forms of high rise buildings emerge around the city.

The City of London is small in size and someone can walk from one part of the city to another within 25 minutes, fig. 20. The city is full of churches and some of the most historically and architecturally important buildings in the country as we can see from fig. 27 and fig. 22 respectively. Furthermore, the map in fig. 22 shows the buildings of Bank design by John Soane, St. Paul's Cathedral, Barbican Estate, the Guildhall complex, and Lloyd's building design by Richard Rogers. The rebuilding of the Square Mile after the WWII has as an effect the decrease of residential buildings to a minimum. As we can observe from fig. 28 the residential areas are mostly to the north-west part of the city. Most of this area is covered by Barbican Estate. The City of London has many open spaces and parks in various sizes spread around, fig. 26.

[6] "Roman London: AD 50-410," Museum of London, accessed July 23, 2021, https://www.museumoflondon.org.uk/museum-london/permanent-galleries/roman-london.

[7] "Tall Buildings and Protected Views," City of London, accessed July 14, 2021, https://democracy.cityoflondon.gov.uk/documents/s99270/Appendix%202%20-%20Tall%20Building%20and%20Protected%20Views.pdf

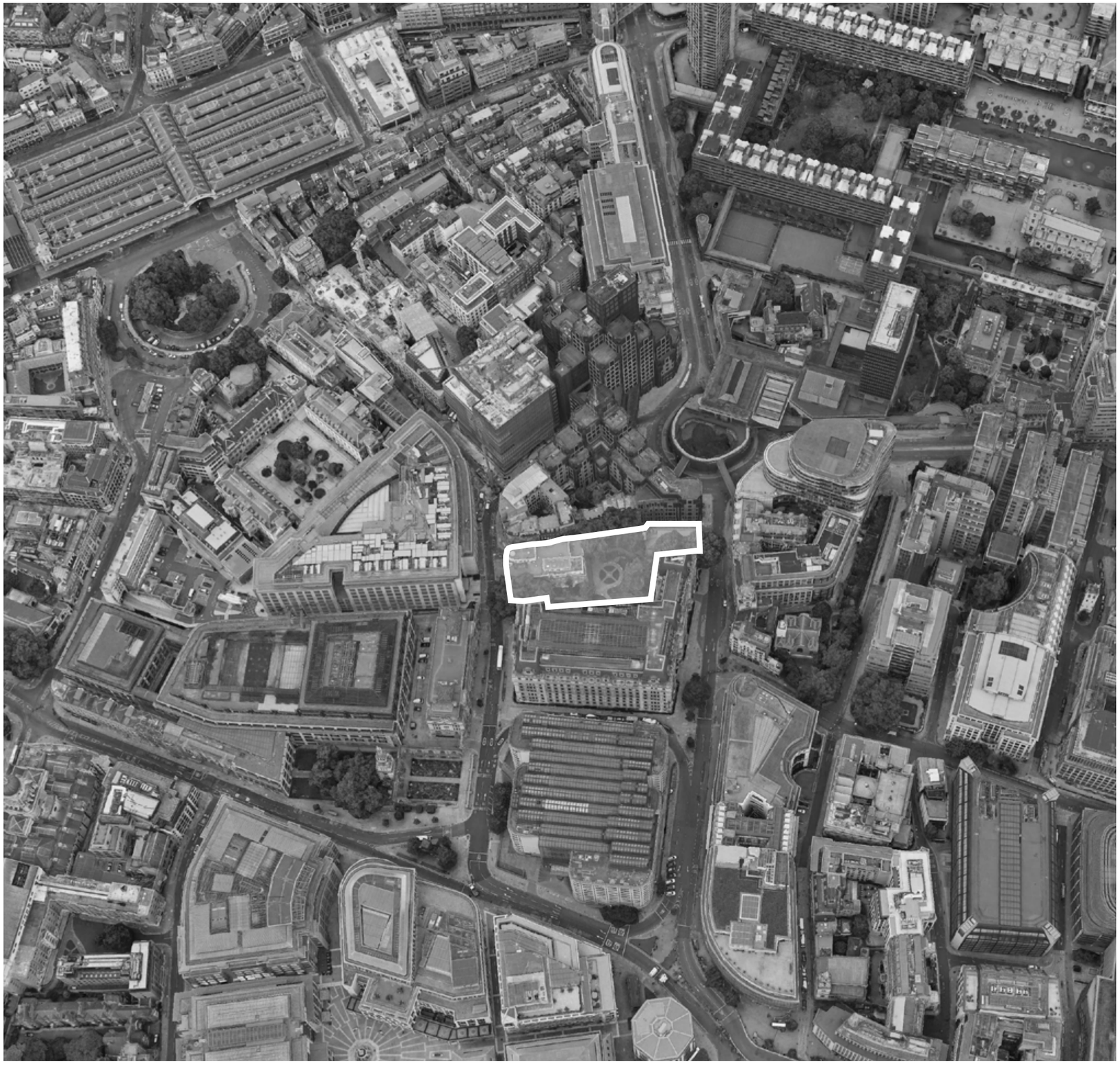


Fig. 13: The image shows the site of the project from aerial view.

Postman's Park

Fig. 14 (left): Photograph shows the west entrance to the Park.
Fig. 15 (right): Photograph shows the east entrance to the Park.

Postman's Park

Fig. 16 (left): The photograph shows the church of St Botolph on the right and the memorial and 75 Little Britain building on the left.
Fig. 17 (right): The photograph shows the church.

Fig. 18 (left): Photograph took from the east entrance looking to 75 Little Britain building and the memorial.
Fig. 19 (right): Photograph took from the east entrance looking into the centre of the park.

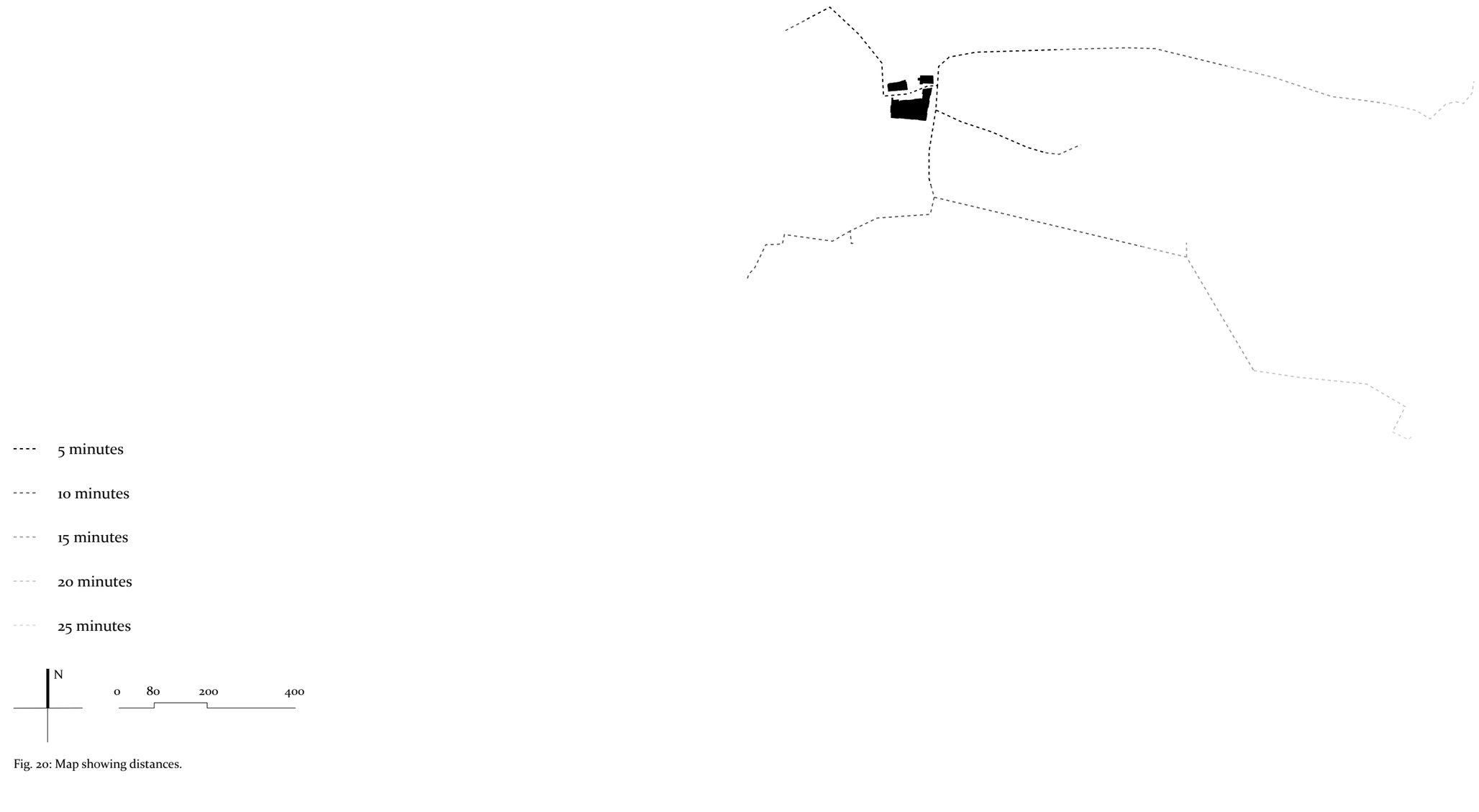
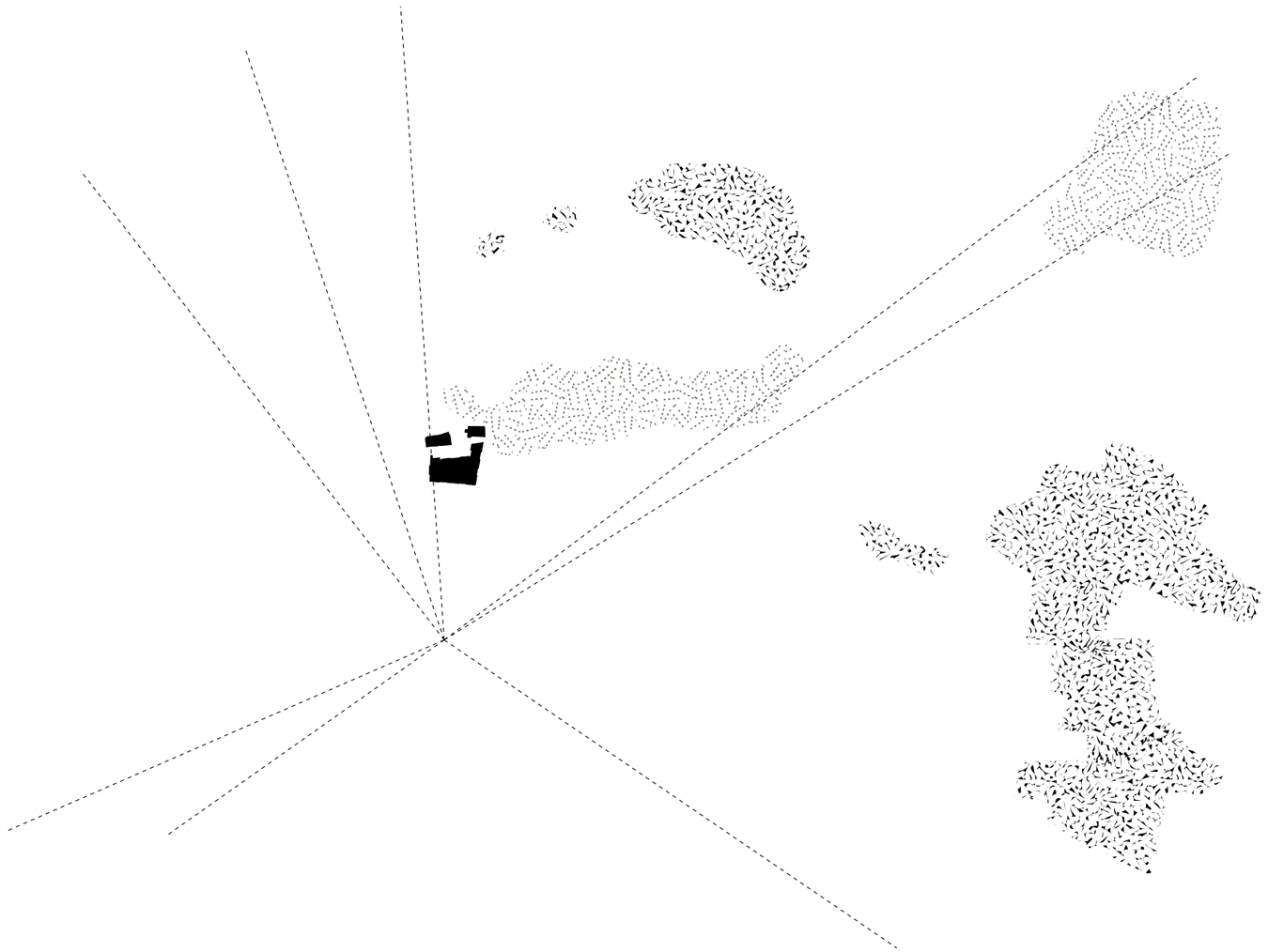


Fig. 20: Map showing distances.



Higher High rise buildings

Lower High rise buildings

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0 80 200 400

Fig. 21: Map show high rise buildings and protection lines for St. Paul.

Fig. 22: Map showing buildings of historic importance.

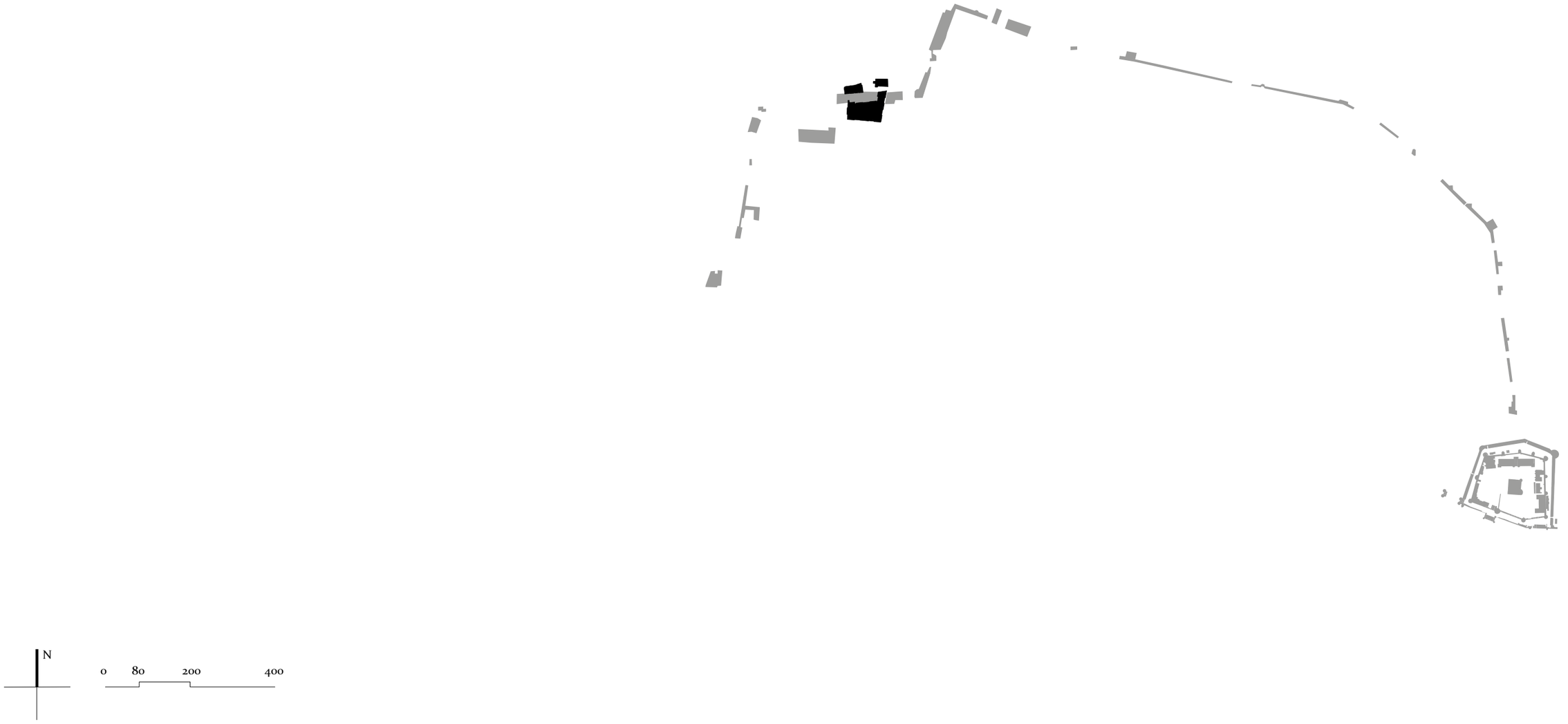
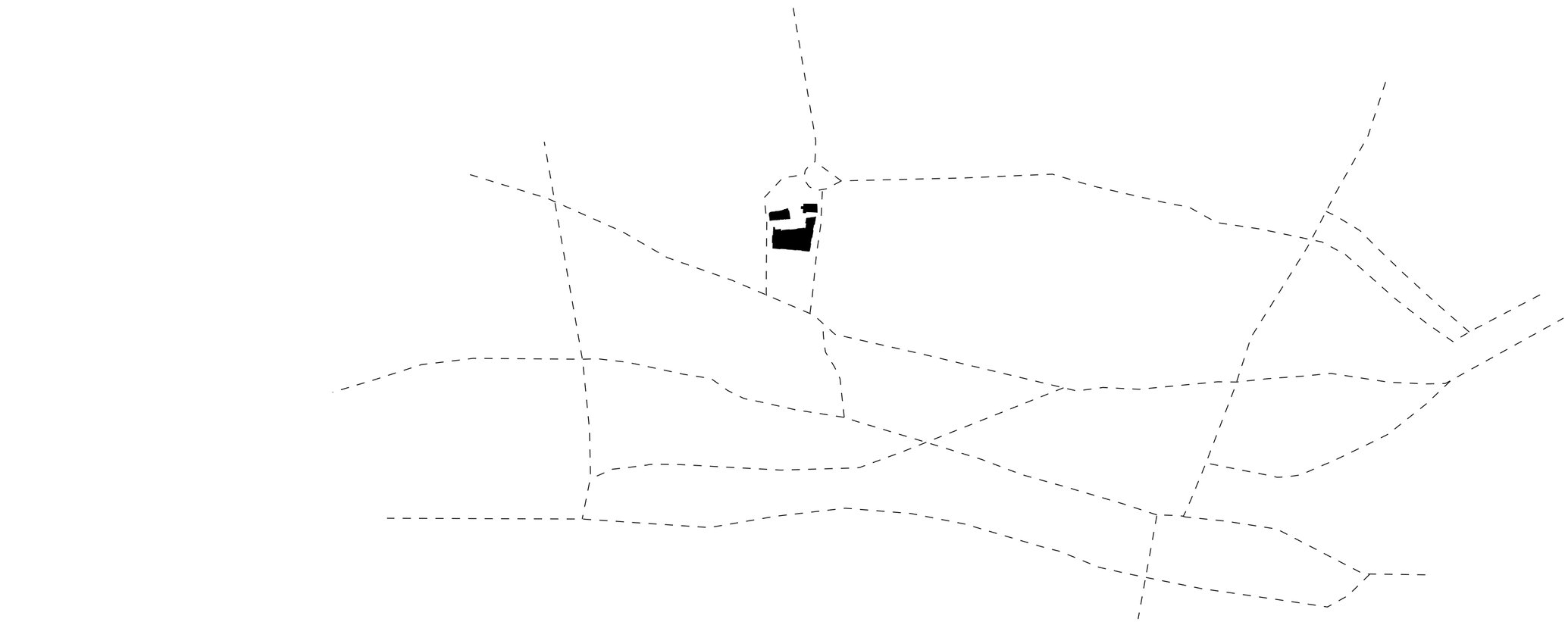


Fig. 23: Map showing London Wall and Tower of London.



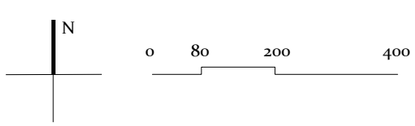


Fig. 24: Map showing important road arteries.

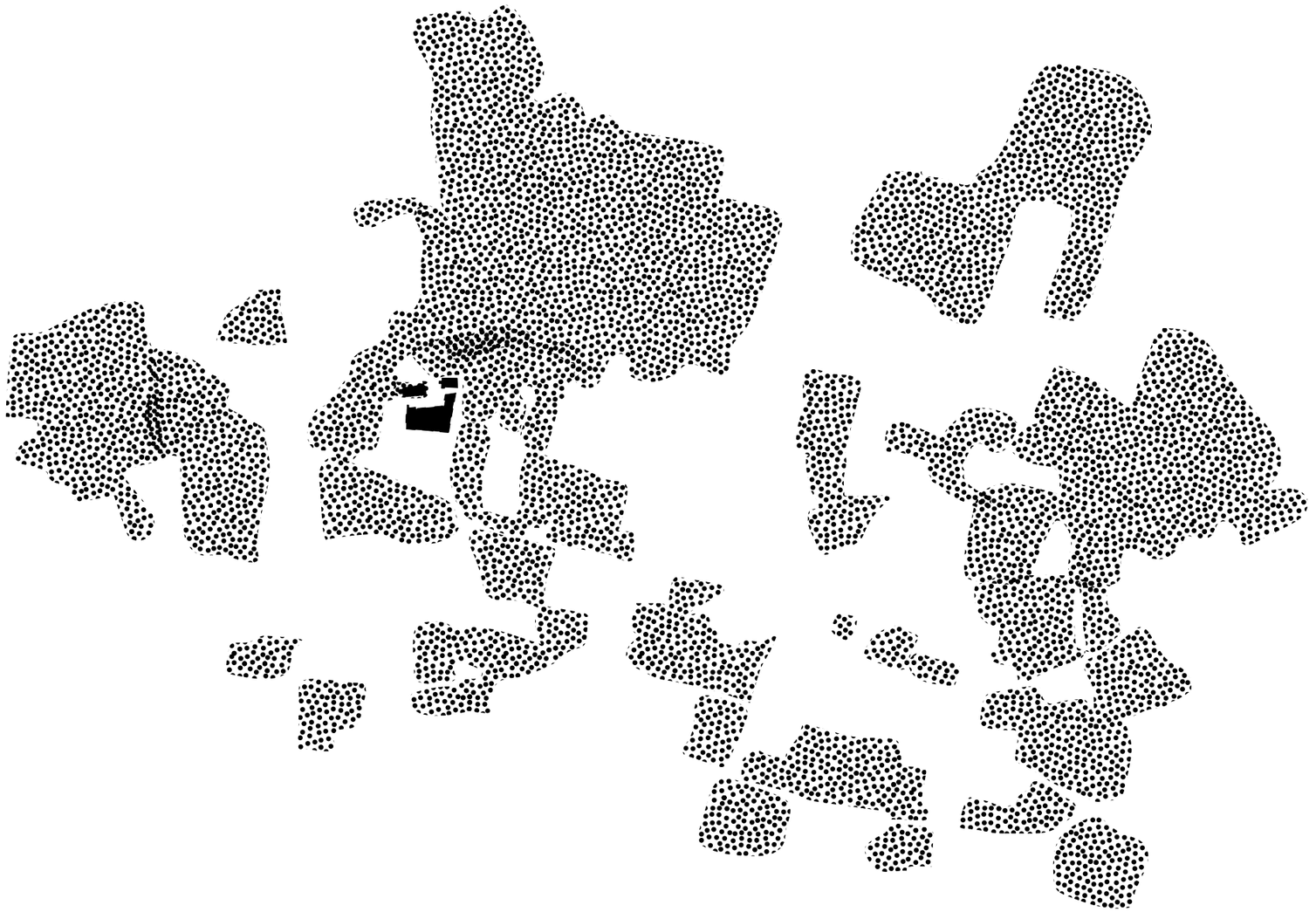


Fig. 25: Map showing modern development areas.

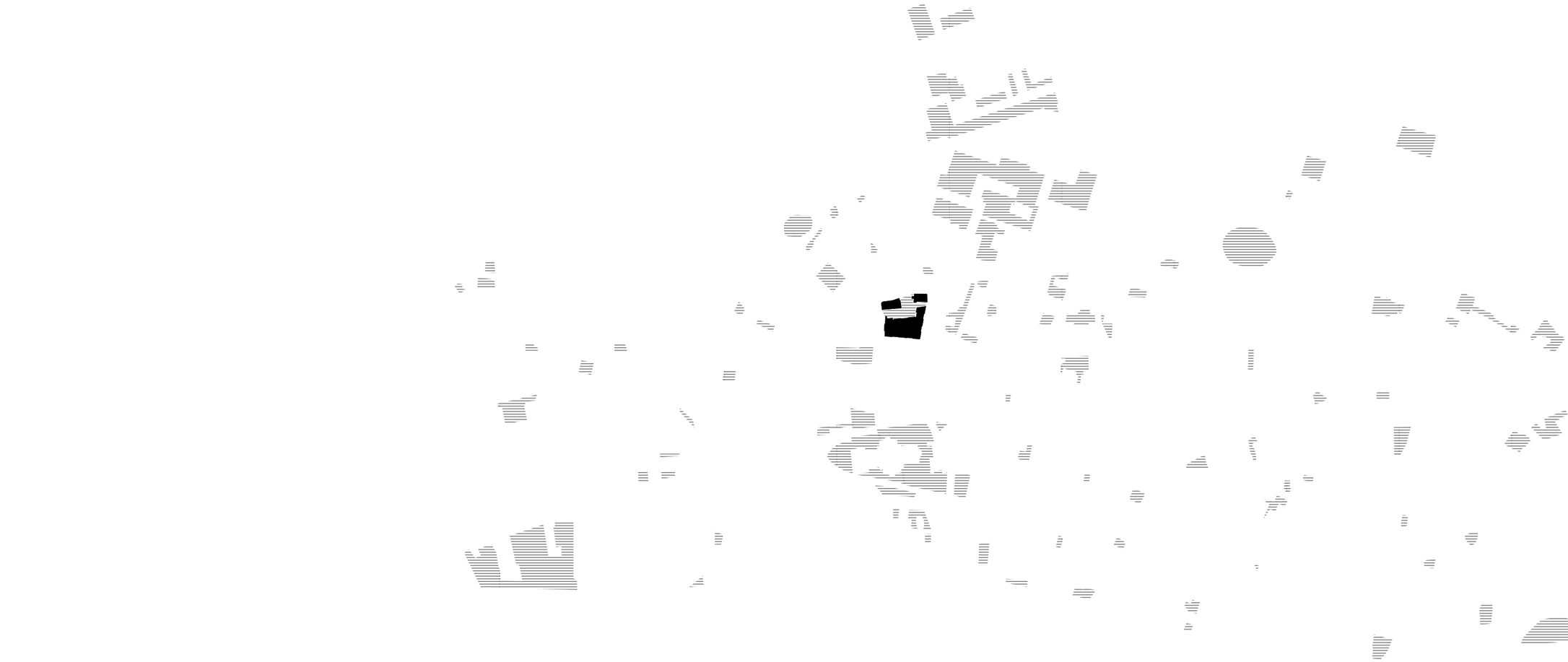


Fig. 26: Map showing open spaces and parks.

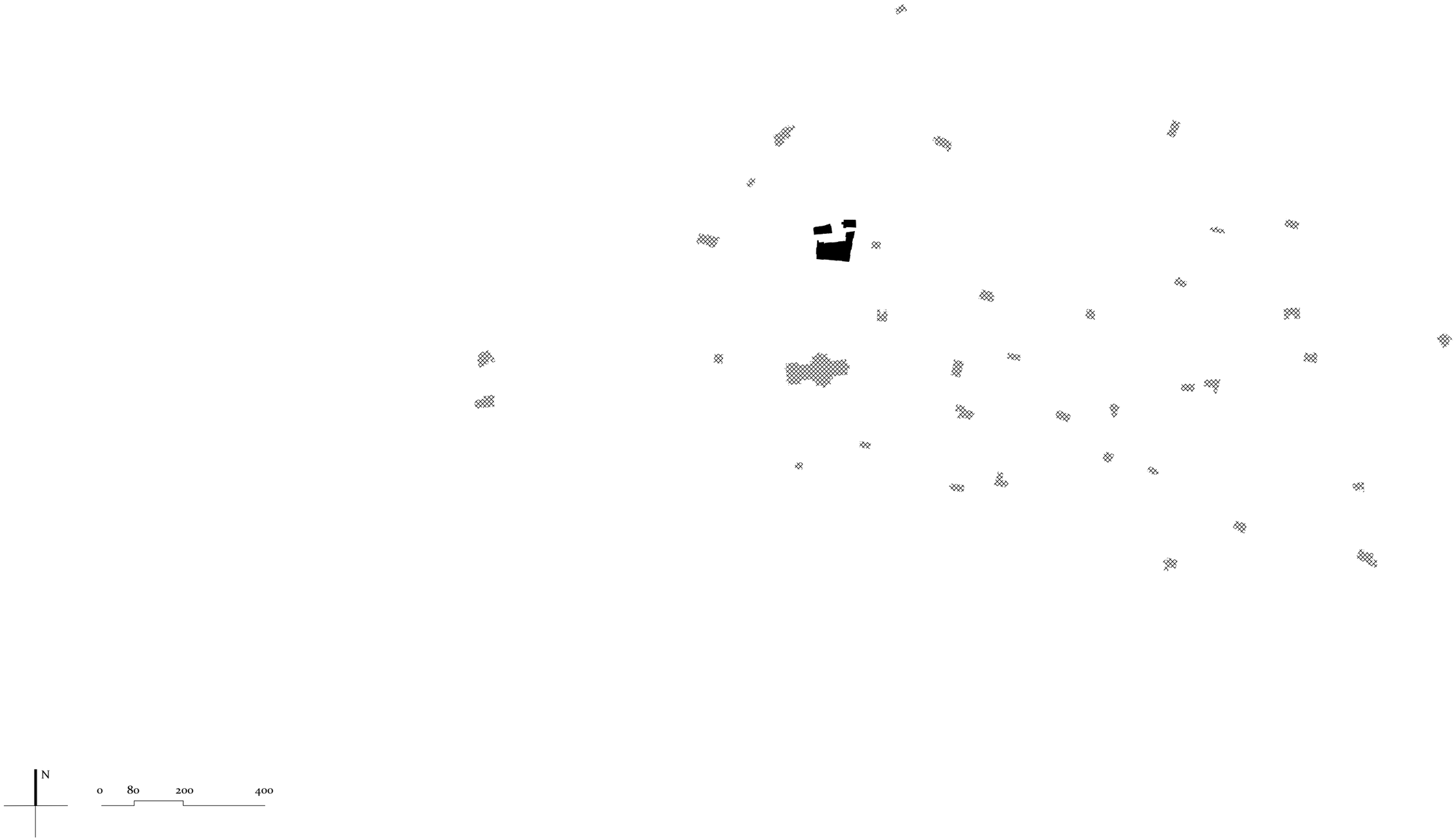


Fig. 27: Map showing churches and sacred buildings.

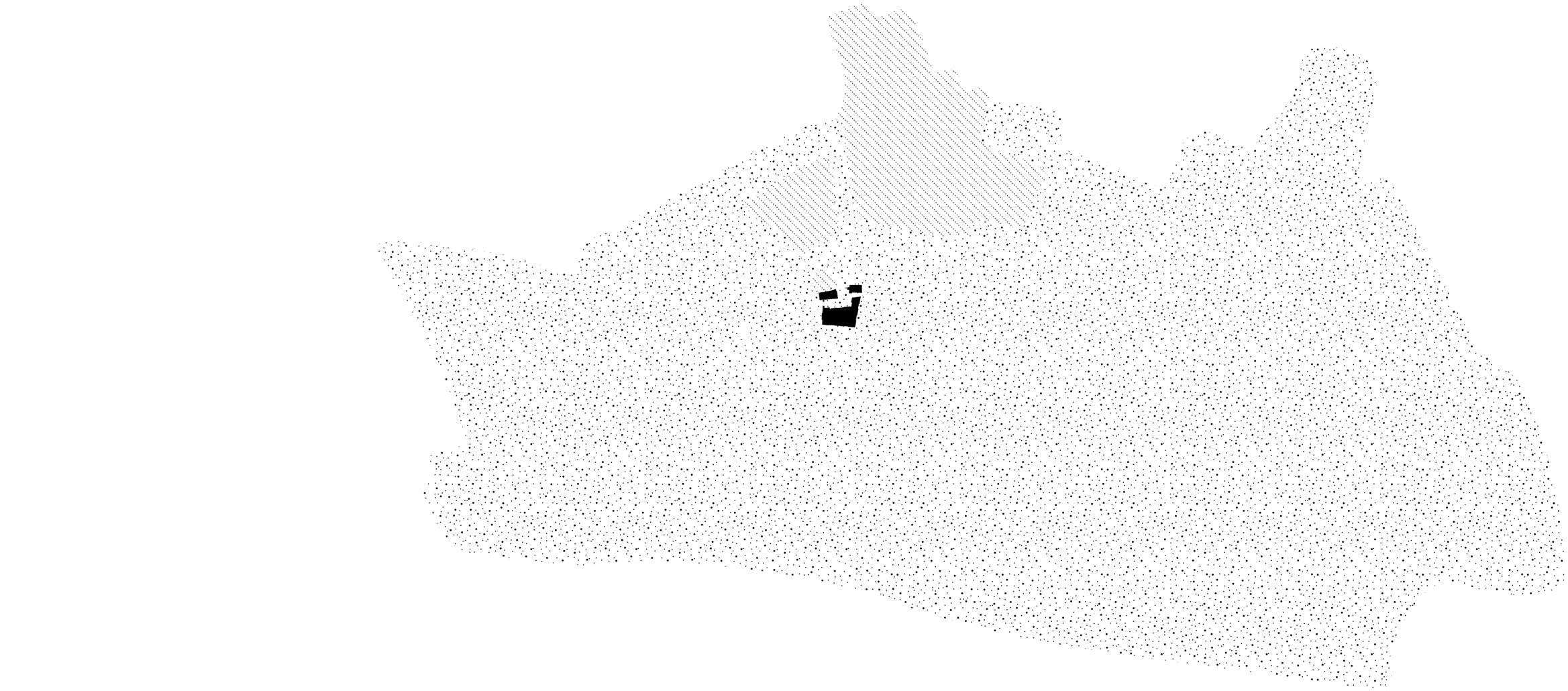


Fig. 28: Map showing residential and non-residential areas.

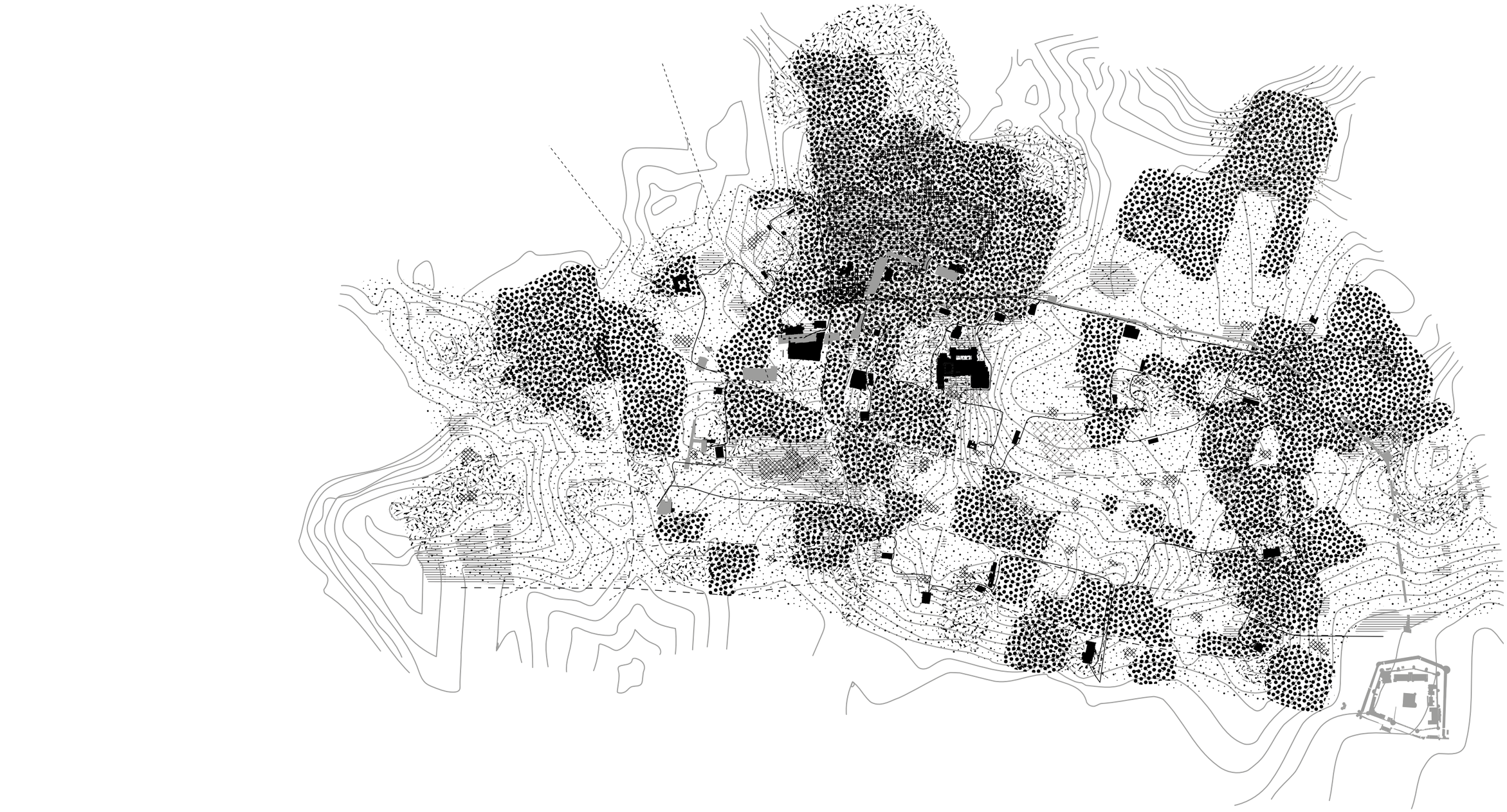


Fig. 29: Map showing all the layers together.

Given all the Livery halls should be located within the City of London, the members of the Livery company choose the site of their building to be within the Postman Park. The site is a void space with an opportunity to be developed. In addition, the site is located close to Livery halls with a possible collaboration such as Ironmongers and Wax makers. Moreover, the site has a rich history due to the fact that the London Wall passed within. The location of the site is crucial as two main road arteries pass from both west and east sides. On the northern part of the site pass another important road called Little Britain. Little Britain road was a famous lane full of booksellers from the mid 16th century and followed by goldsmiths and clothing trades between the 18th and 20th centuries. Little Britain was also mentioned in Charles Dickens' novel *Great Expectations* as the place of Jaggers' office. It took its appellation from the fact that in ancient times it was the residence of the Dukes of Brittany[8].

The Urban block consists of three types of buildings. The first and the oldest one is the church, the second is the office building on the south side, and the final building is the Little Britain 75 housing block. Throughout the analytical understanding of the figure ground maps of the site from 1870s until today, fig.36 until fig. 39, we identify a lane which nowadays doesn't exist. The image, fig.31, shows that the lane was surrounded by terraced houses which probably on the ground floor used to be shops of all kinds. Probably the lane has similar shops as Little Britain road. The lane was full of activities and well dressed people, probably doing their daily shopping. Nowadays, the terraced houses are replaced with an enormous office building which used to be part of the Royal post office. By observing the 1870s map, fig. 36, we identify that on the northern part of the site there is a building that creates a continuous elevation along Little Britain road. The reading of this map inspired the development of the northern gap between the church and 75 Little Britain building with workshops.

Within the park there is a Memorial dedicated to Heroic Self-Sacrifice which is listed as Grade II* (list entry number 1285796). The site includes a few more listed elements as shown in fig. 42. The Church of St Botolph is listed as Grade I (list entry number 1064732) while the east gate and railings are listed as Grade II (list entry number 1359142). The last element within the site that is listed is a police call box next to the east gate which is also listed as Grade II (list entry number 1262444). Furthermore, the part of the Roman wall is listed as a heritage monument which is a different category from the above (list entry number 1018883)[9]. The fig. 41 shows the movement through the site that has been observed by the author the past two months. People use the site to have their lunch or to exercise during day time. During Sundays the park is full of church visitors while on the other hand on a daily basis we see many visitors spending time looking at the memorial.

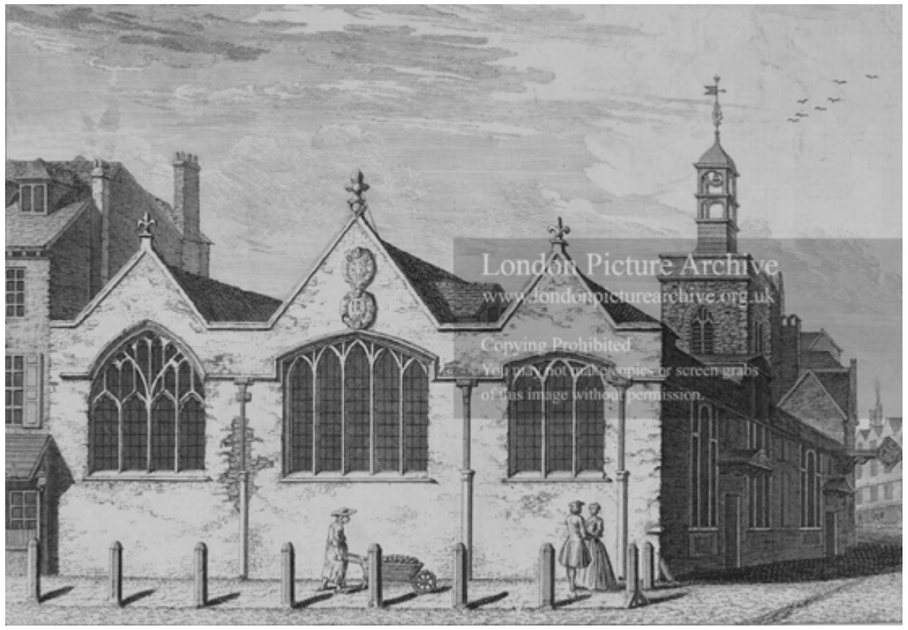
Lastly, through information from London Metropolitan Archives there are two photographs that together with the lane photograph inspired the project to a large extent. The fig. 30 shows the previous construction of the church to be attached with Georgian terraced houses. The Georgian terraced houses are reinterpreted and used as workshops within the site. The other photograph, fig. 32, shows the previous building of 75 Little Britain. The rhythm of the facade as the fig. 46 shows, three by four, informed the design for both the Livery hall building and the workshops.

The next section is dedicated to Simulacrum. Simulacrum meaning according to Gilles Deleuze is the copy or replica of something[10].

[8] Lee Jackson, "Victorian London – Districts – Little Britain," Victorian London. Accessed June 21, 2021, https://www.victorianlondon.org/districts/littlebritain.htm.

[9] "Listing Map," Historic England, accessed June 14, 2021, https://historicengland.org.uk/listing/the-list/map-search?clearresults=true.

[10] "Simulacrum," TATE, Accessed June 23, 2021, https://www.tate.org.uk/art/art-terms/s/simulacrum.



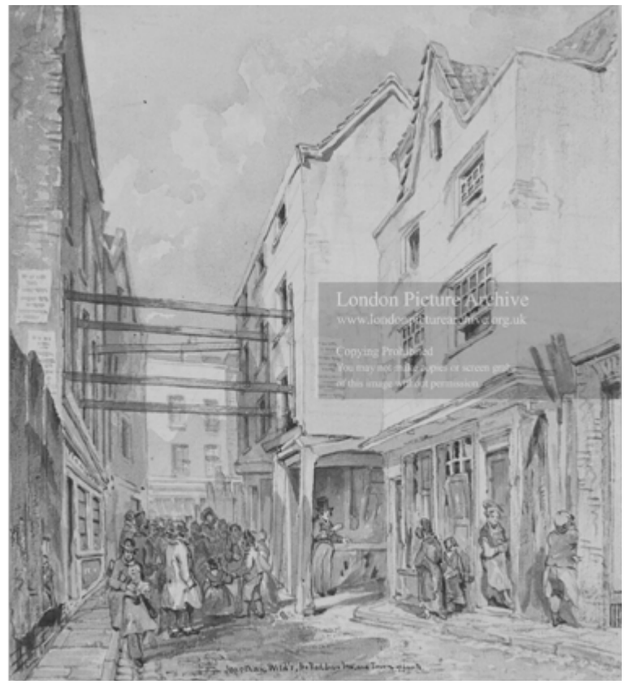


Fig. 30 (left): Image shows the previous construction of the Church of St Botolph attached with Georgian terraced houses in 1740.
Fig. 31 (right): Image shows a perspective of the lost lane and the terraced houses in 1825.

Fig. 32 (left): Image shows the previous construction of 75 Little Britain building in 1978.
Fig. 33 (right): Image shows Little Britain in 1978.

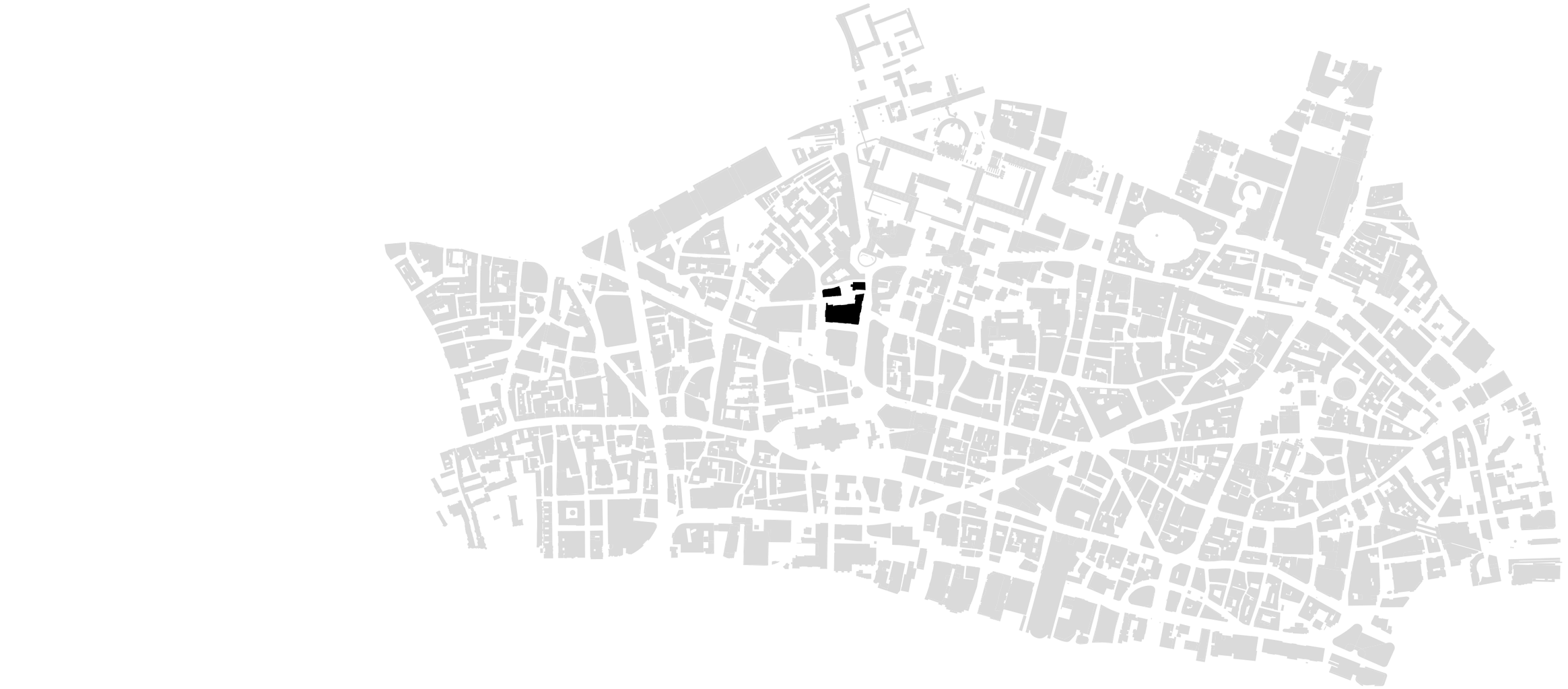
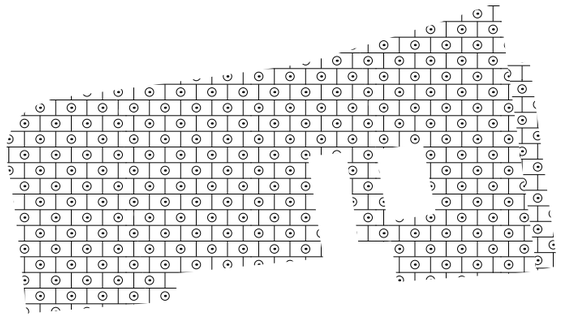
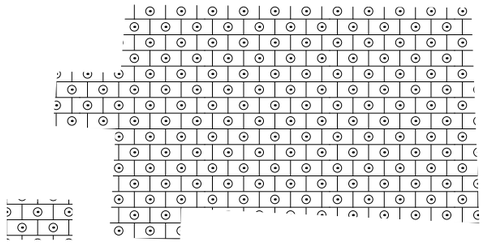


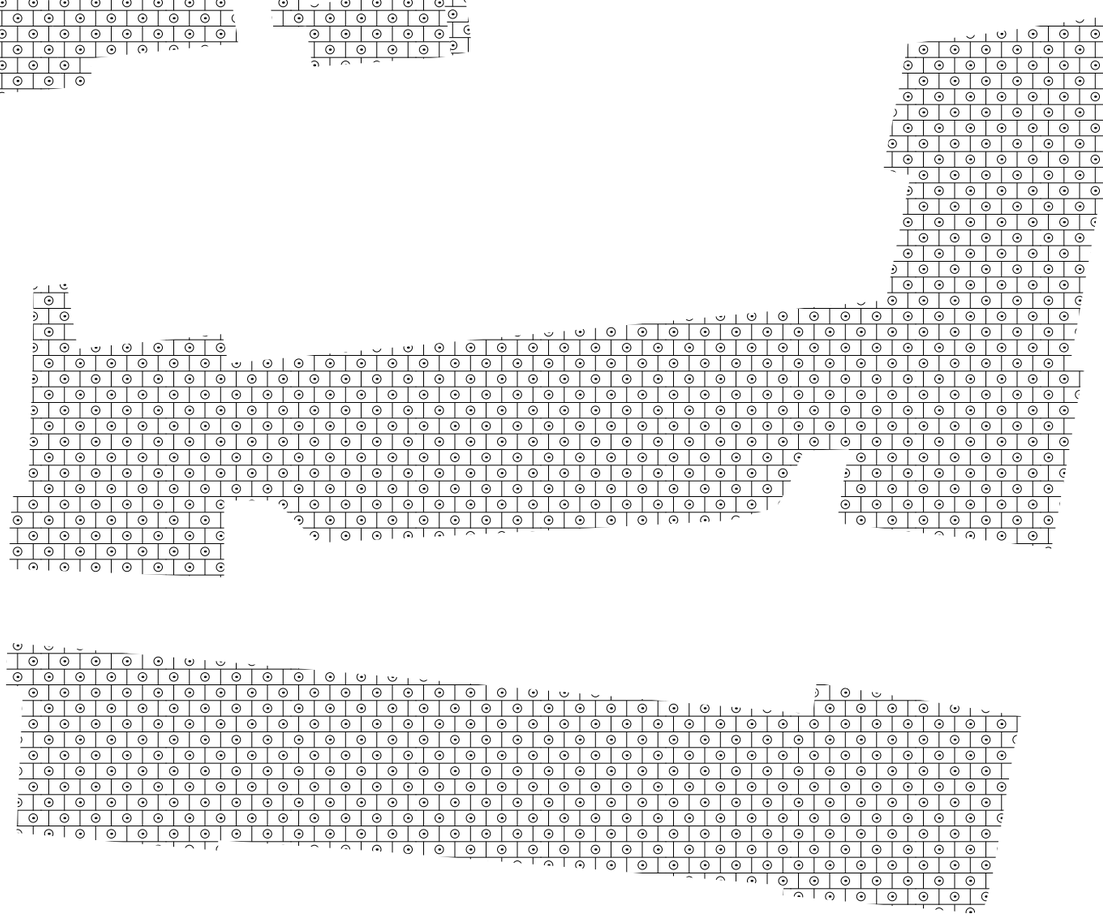
Fig. 34: Figure ground of City of London.

Fig. 35: Map showing the figure ground of the urban block in 2021.

Fig. 36: Map showing the figure ground of the urban block in 1870s.







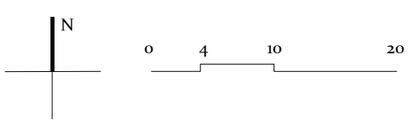


Fig. 37: Map showing the figure ground of the urban block in 1910s.

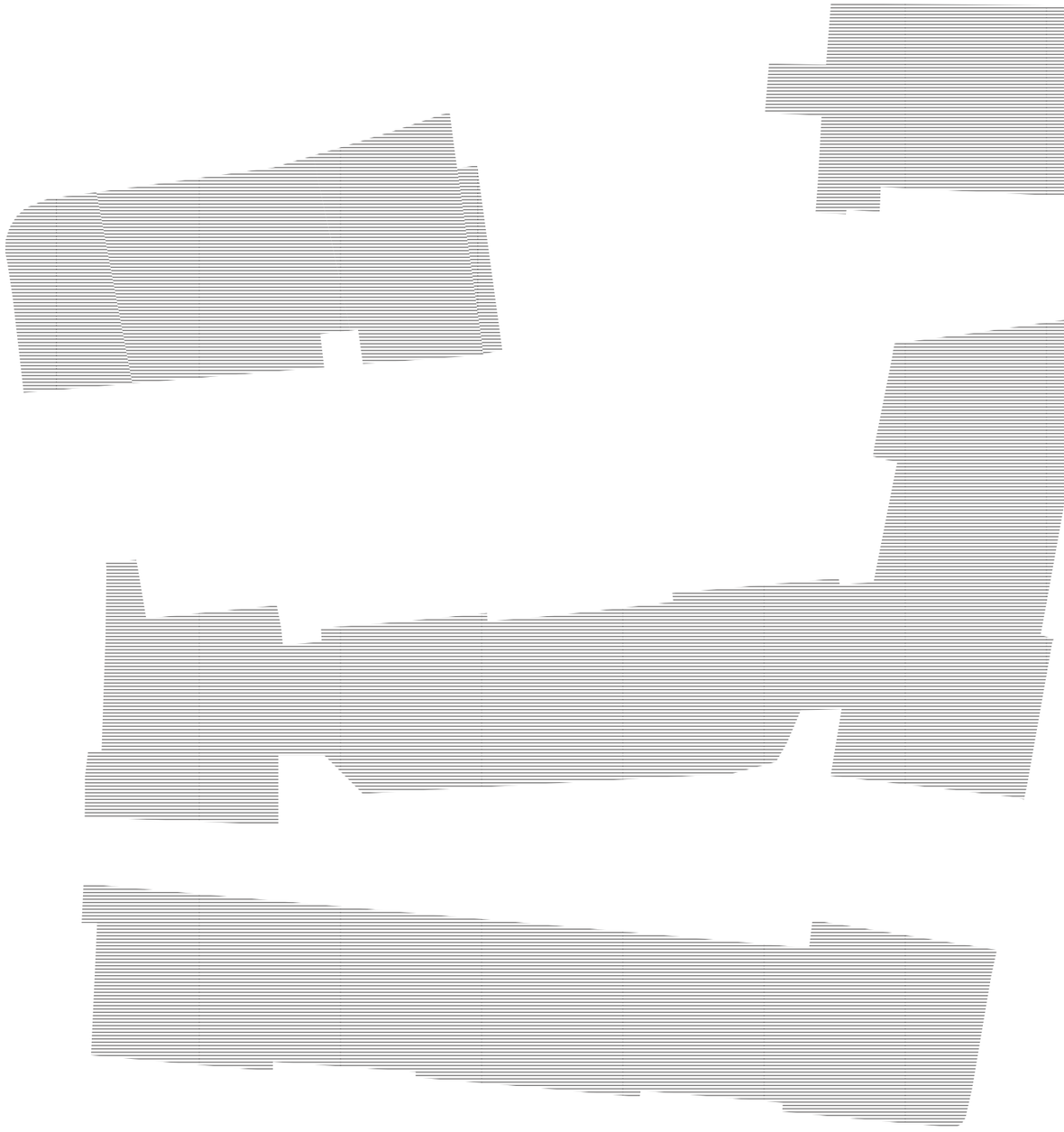


Fig. 38: Map showing the figure ground of the urban block in 1950s.

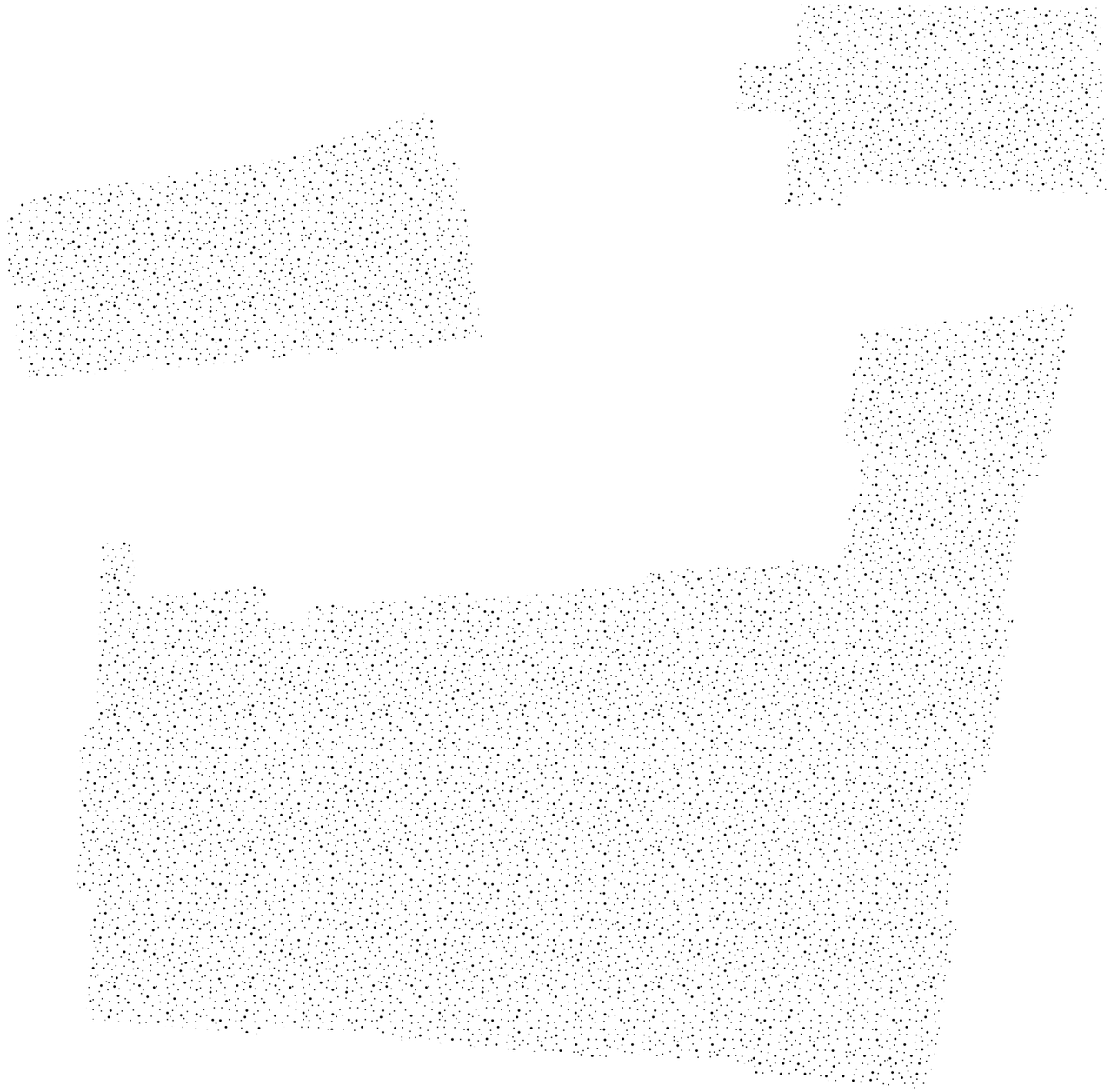
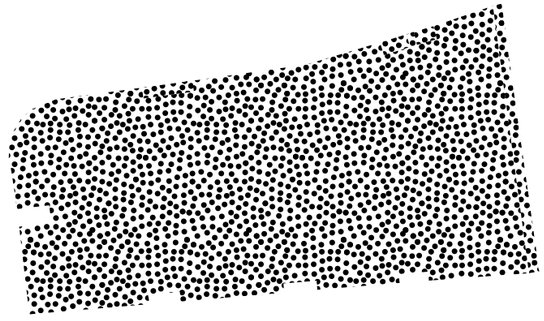
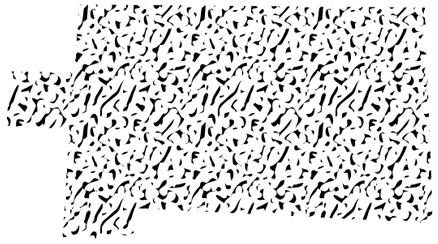


Fig. 39: Map showing the figure ground of the urban block in 2021.





Residential

Church

Offices

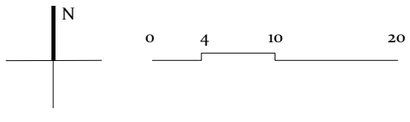
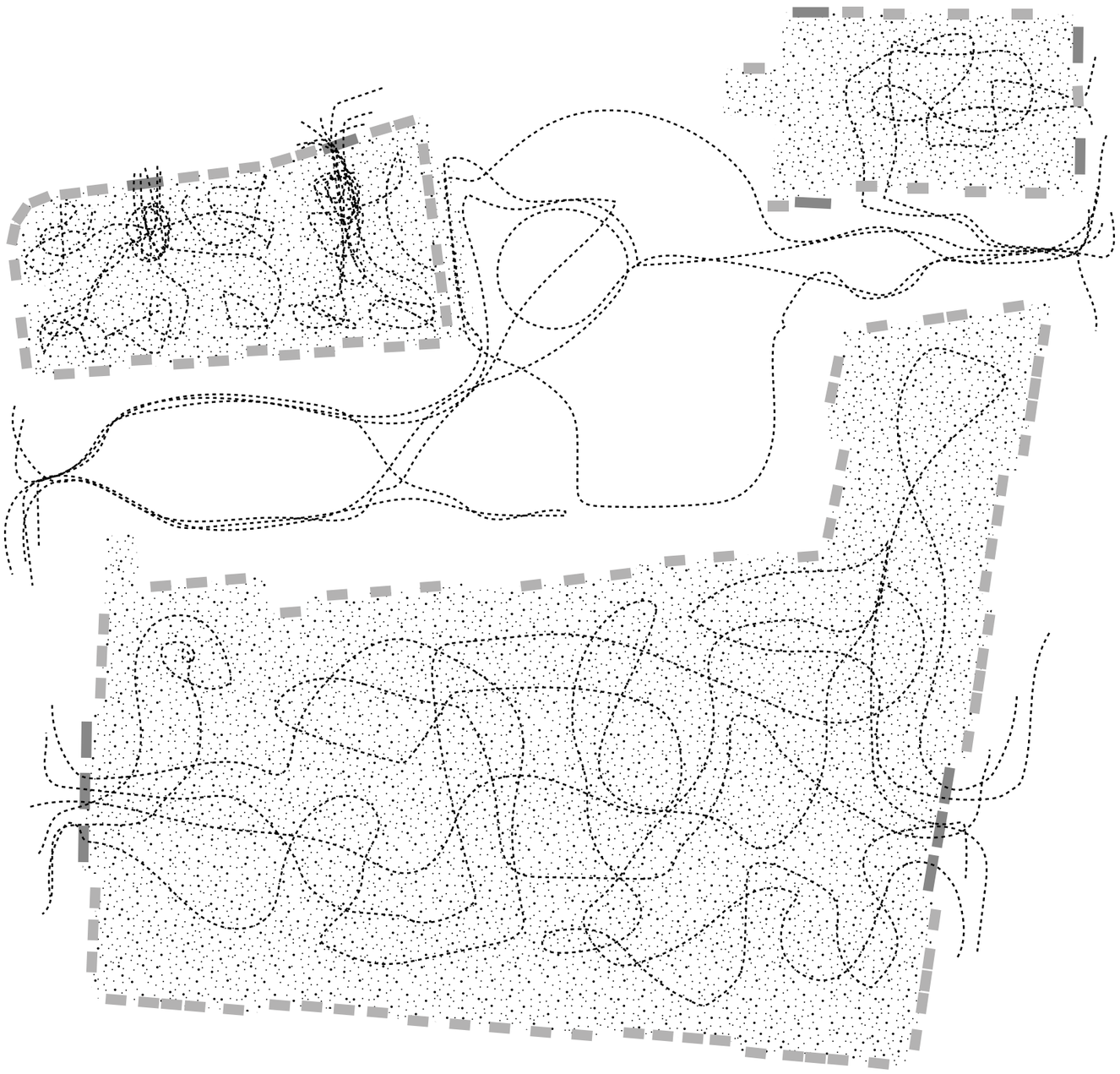


Fig. 40: Map showing the main functions of the buildings within the urban block.



Window

Entrance

N

0 4 10 20

Fig. 41: Map showing windows, entrances and movement within the urban block.

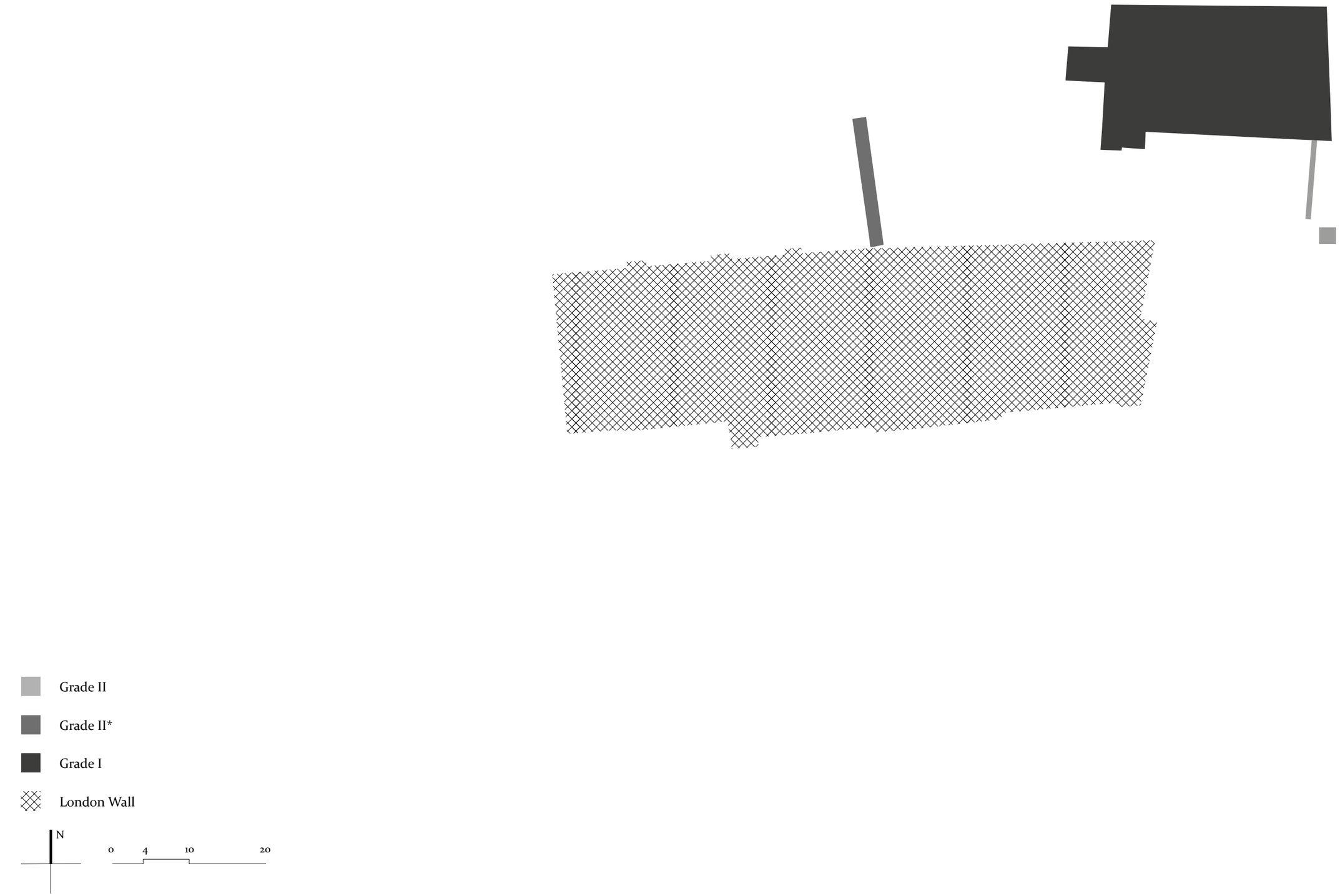


Fig. 42: Map showing heritage and listed elements within the urban block.

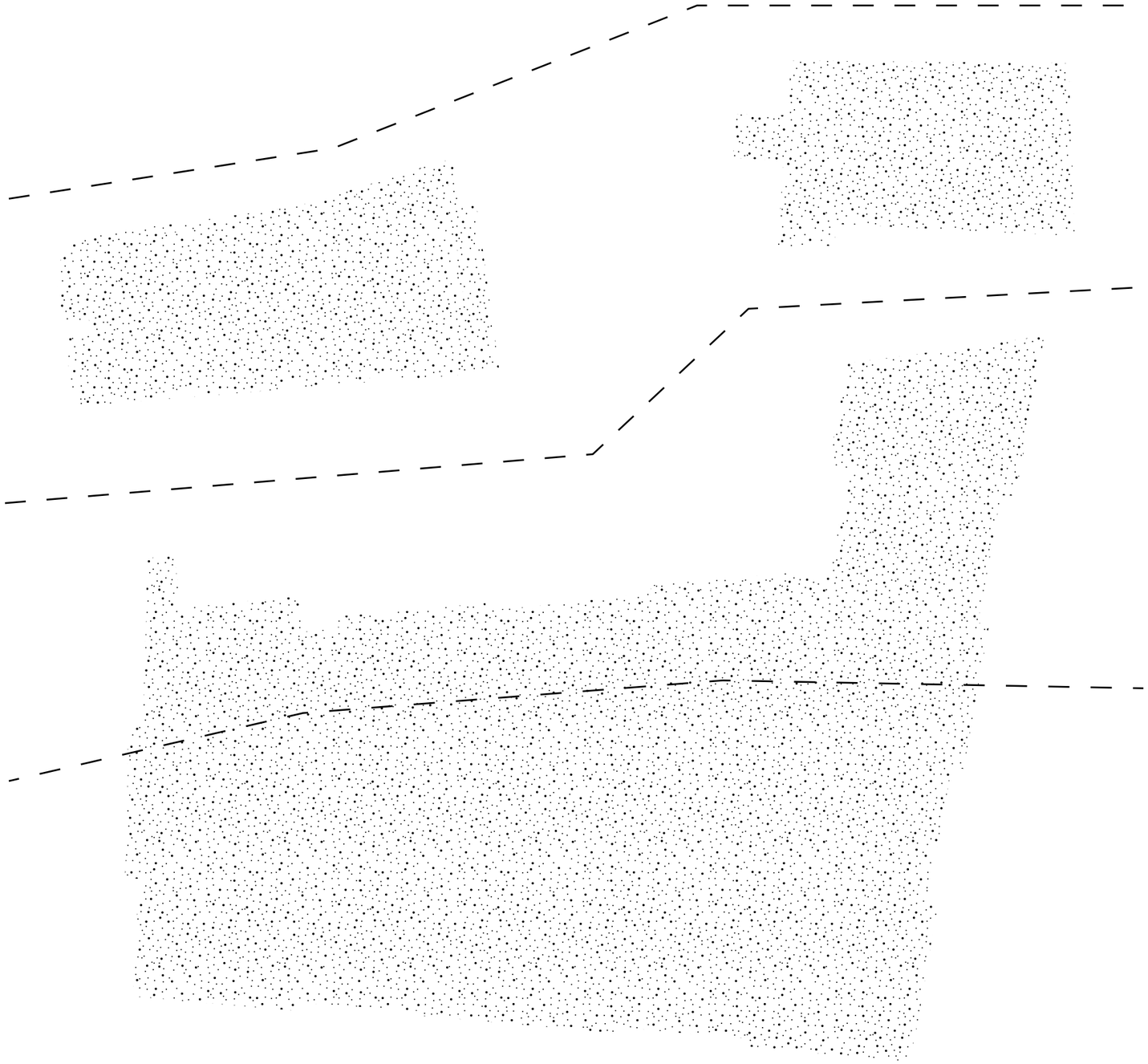


Fig. 43: Map showing the three historic pathways within the urban block.

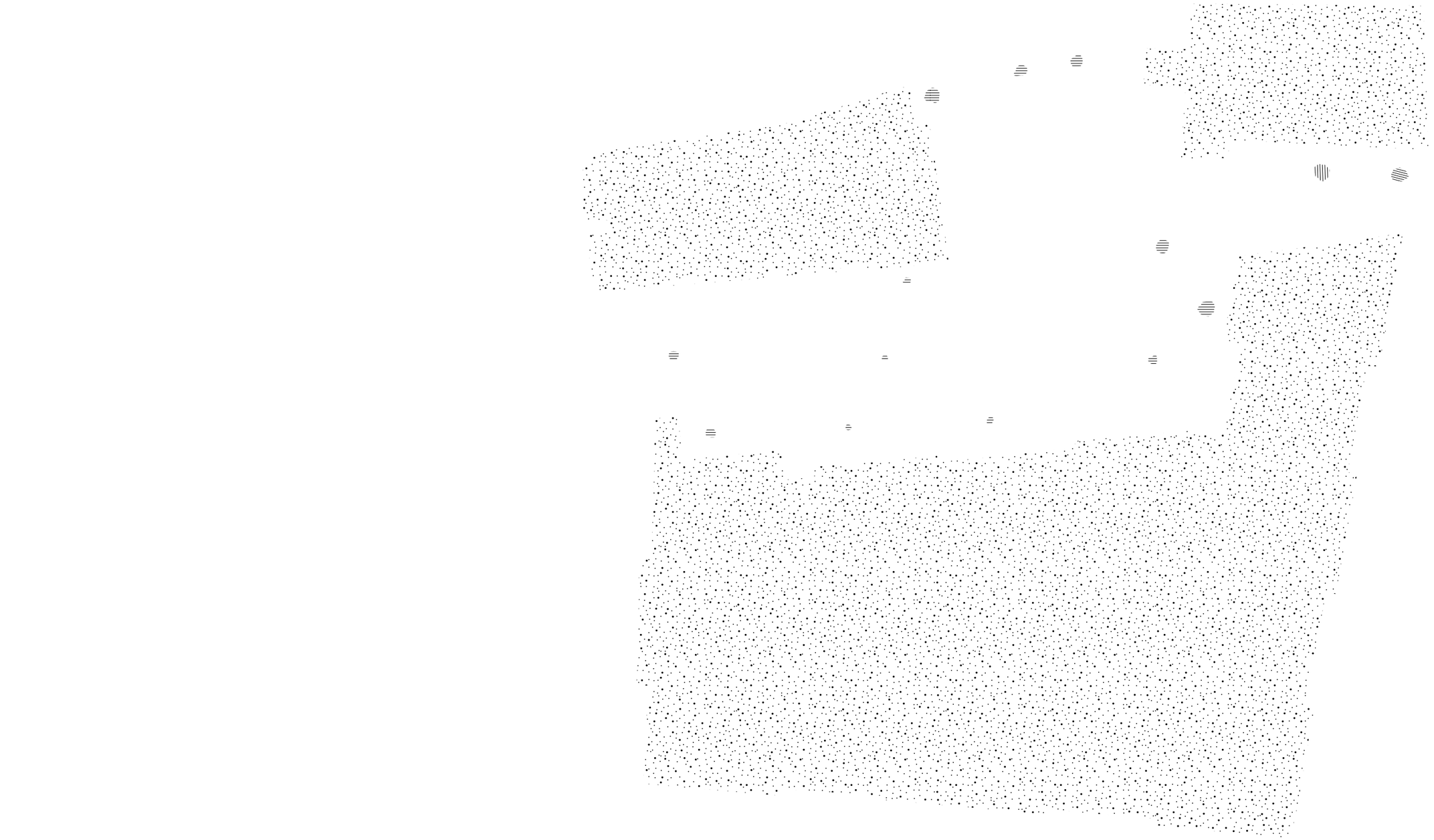
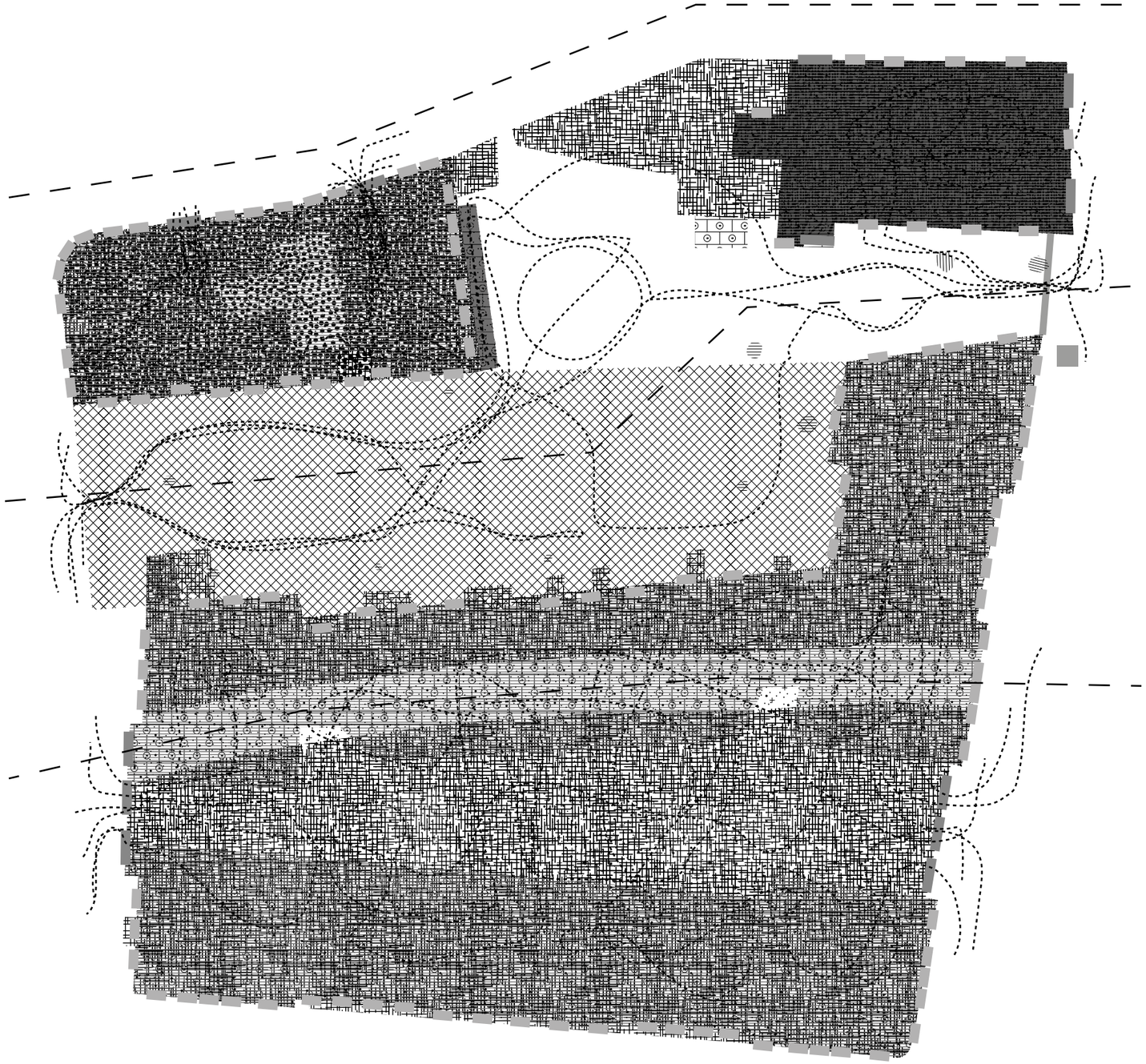


Fig. 44: Map showing trees location within the site.



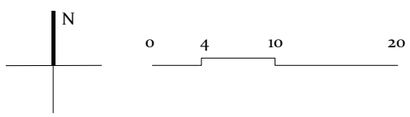


Fig. 45: Map showing all the layers together.

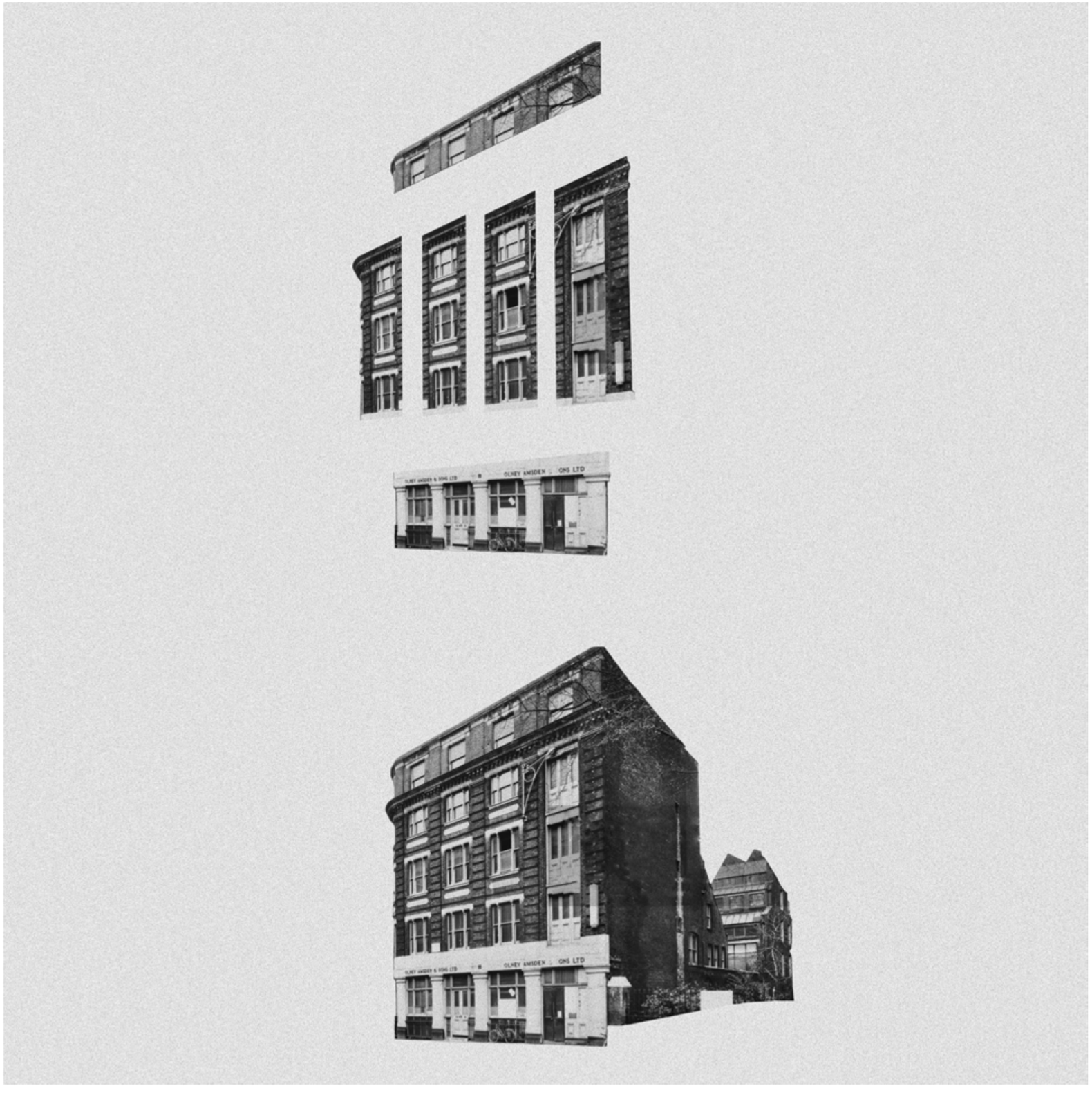


Fig. 46: The drawing shows the analysis of the old 75 Little Britain facade.

Simulacrums

The art of replica making, which flourished between the 19th and 20th century is nowadays diminished. Throughout the years cast replication played an important role in the preservation and the recording of important details and parts of monuments and artefacts at true scale. In many cases replication of those monuments was carried out to educate the people who were not able to travel. While sometimes it was just a collection of records and memories from those monuments[11].

Simulacrums have the ability to connect the past with the future[12]. During the nineteenth century, the majority of the replicas are considered a copy of buildings that were nominated historical monuments, as well as major ruins of antiquity[13]. As full scale, three dimensional fragments of monuments, simulacrums can be experienced synoptically, simultaneously, and spatially. Mari Lending in her book *Plaster Monuments: Architecture and the Power of Reproduction* said, 'Replicas have the ability to travel across media and materials, in space and in time, producing complex entanglements of copies and originals'[14]. She also states, that casts are irreproducible historical objects which are imbued with age value[15]. Moreover, imitations enabled the idea of the comparative size, volume and variety of various architectural objects within one place. On the other hand, the lack of digital replicas such as photography do give the volume, variety, and size of those objects. A digital replication can only give its surface, its exact form, and its depth of shadow[16].

According to Lending there are two methods of replicating physical objects, the one is by the technique of mould casting and the other is with the technique of electrotyping. The process of both techniques is shown in fig. 47. From both, electrotyping in terms of materials is more limited due to the fact that it is dedicated to metal imitation. The advantage of electrotyping is that it can produce thin detailed metal replicas. Whereas, mould casting has the benefit of producing replicas of various materials and shapes[17].

[11] Mari Lending, Plaster Monuments: Architecture and the Power of Reproduction, (Princeton: Princeton University press, 2017), 18

[12] Mari Lending, Plaster Monuments: Architecture and the Power of Reproduction, (Princeton: Princeton University press, 2017), 11.

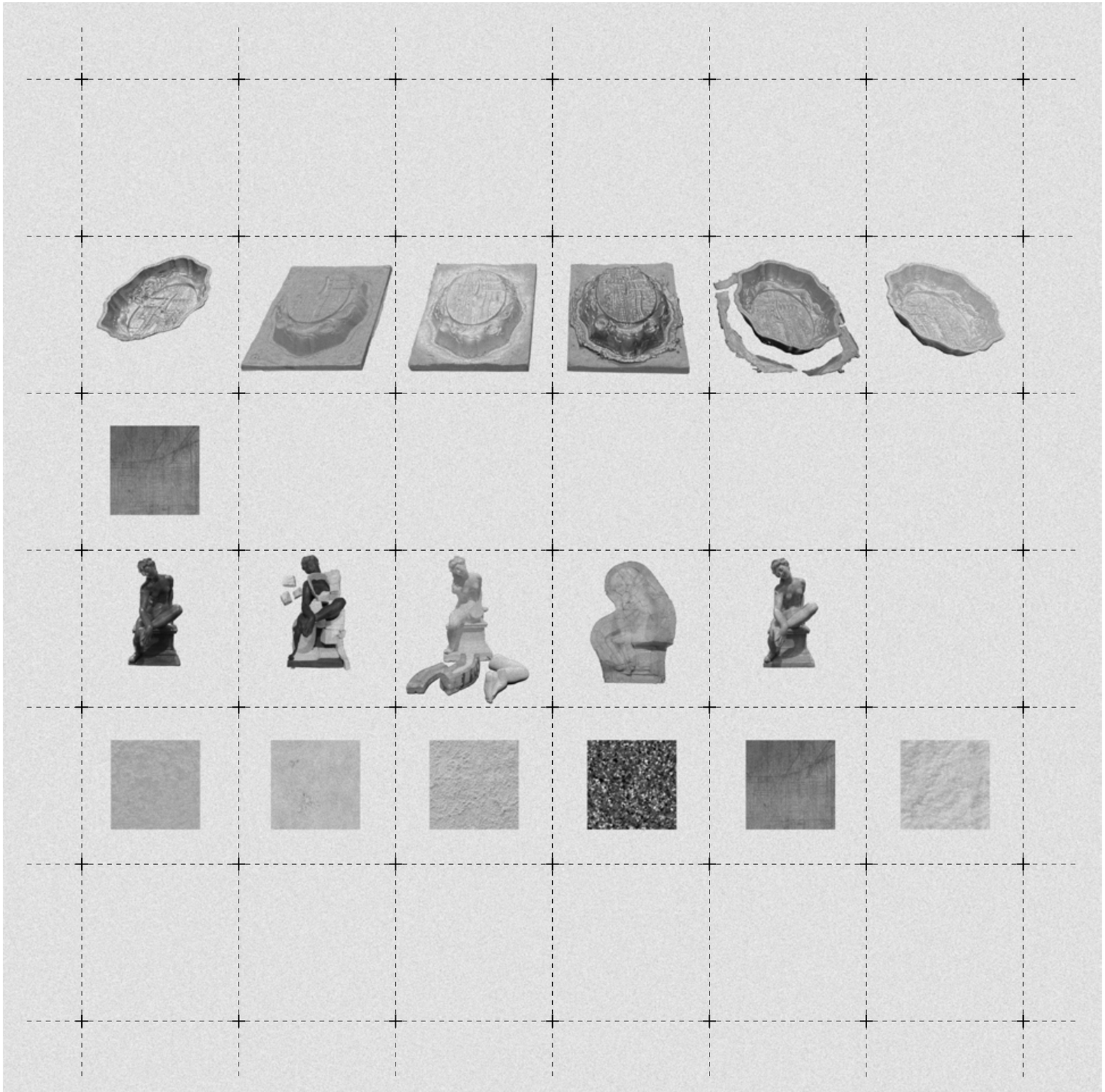
[13] Mari Lending, Plaster Monuments: Architecture and the Power of Reproduction, (Princeton: Princeton University press, 2017), 7-8.

[14] Mari Lending, Plaster Monuments: Architecture and the Power of Reproduction, (Princeton: Princeton University press, 2017), 8.

[15] Mari Lending, Plaster Monuments: Architecture and the Power of Reproduction, (Princeton: Princeton University press, 2017), 29.

[16] Mari Lending, Plaster Monuments: Architecture and the Power of Reproduction, (Princeton: Princeton University press, 2017), 115-122.

[17] "Cast court," Victoria and Albert Museum, accessed June 14, 2021, https://www.vam.ac.uk/.



Latex

Concrete

Plaster

Plastic

Metal

Wax

Fig. 47: The diagram shows the construction techniques and materials of cast replication.

With the introduction of advanced technological equipment and software such as point cloud technology, people turn to digital replication for important monuments and buildings. An example of this is the digital replication of the western section of Robin Hood Gardens in London before its demolition. The Brutalism complex was designed and completed in 1972 by Alison and Peter Smithson, two of the most important architects of that time[18]. The council of Tower Hamlet chose to demolish this part of the complex in order to make space for new development in 2016. An example of bad simulacrum is the work *Infractus* by Smout Allen. The artwork was produced by using the digital imitation of Robin Hood Gardens[19]. As we can see from fig. 52 and fig. 53 the replica loses all the qualities of its original. Furthermore, it looks cold, emotionless, and distant without a sense of its size, textures, shadow depth, exact form, volume and variety.

Juhani Pallasmaa said the following about the difference of physical versus digital 'the manual sketch, drawing or physical models is moulded in the same flesh of physical materiality that the object being designed and the architect himself embody, whereas computer operations and imagery take place in a mathematized and abstract immaterial world'[20]. Even though he is speaking about architectural design, this can easily be applied to the art of physical replication. Furthermore, by touching the object you understand them differently and pay attention to entirely different characteristics and qualities[21]. On the other hand, the computer creates a distance between the maker or observer and the object, whereas physical making puts the observer or designer in skin-contact with the space or object itself. By touching the object, it becomes a part and extension of your body[22].

A good example of casting is the work of Rachel Whiteread and Jorge Otero-Pailos. The first one is an English artist who produces cast sculptures and the first woman to win the annual Turner Prize in 1993 for her work *Ghost* [23]. The fig. 50 shows her work *House* which is a concrete cast of the inner spaces of the last terraced house from a mass demolition in a road in East London. The artist with her work tries to capture the absence of the terraced house by casting it. The artwork was successful in regards to the meaning that the artist wanted to pass to the observer. The artwork *The Ethics of Dust* of Jorge Otero-Pailos, fig.48, is an enormous latex cast of the inside of the Trajan column replica from V&A museum in London. The cast is a result of removing dust and dirt gathered over decades by using conservation latex. The installation was placed next to the original cast, revealing the passage of time[24]. Both artists, with their work capture the materiality and form of the original while at the same time celebrate their qualities and varieties. In addition, their work invites you to touch it and experience the essence of the original.

[18] Eftychios Savvidis, Future Pasts/ Past Future: or material preservation in an increasingly digital world (MA Architecture and Historic Urban Environments, BENVGHE 6, London, 2017), 3-11.

[19] "Infractus: the taking of Robin Hood Gardens." Allen Smout, accessed July 14, 2021, http://www.smoutallen.com/infracts-the-taking-of-robin-hood-gardens.

[20] Juhani Pallasmaa, The Thinking Hand: Existential and Embodied Wisdom in Architecture. AD Primers. (Chichester: Wiley, 2009), 95-96.

[21] Juhani Pallasmaa, The Thinking Hand: Existential and Embodied Wisdom in Architecture. AD Primers. (Chichester: Wiley, 2009), 94-95.

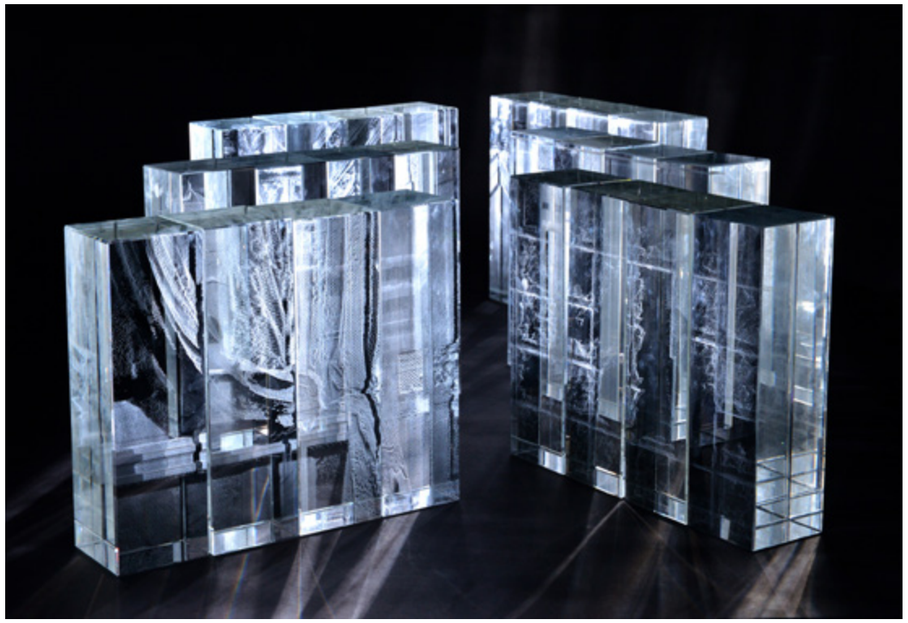
[22] Juhani Pallasmaa, The Thinking Hand: Existential and Embodied Wisdom in Architecture. AD Primers. (Chichester: Wiley, 2009), 97.

[23] "Rachel Whiteread," TATE, accessed July 21, 2021. https://www.tate.org.uk/art/artists/rachel-whiteread-2319.

[24] Victoria and Albert Museum. "The Ethics Of Dust: Trajan's Column by Jorge Otero-Pailos." Accessed June 21, 2021. https://www.vam.ac.uk/articles/the-ethics-of-dust-trajans-column-by-jorge-otero-pailos.

Fig. 48 (left): The photograph shows *The Ethics of Dust* by Jorge Otero-Pailos.
Fig. 49 (right): The photograph shows *Distributed Monuments* by Jorge Otero-Pailos.

Fig. 50 (left): The photograph shows *House* by Rachel Whiteread.
Fig. 51 (right): The photograph shows *House* by Rachel Whiteread.



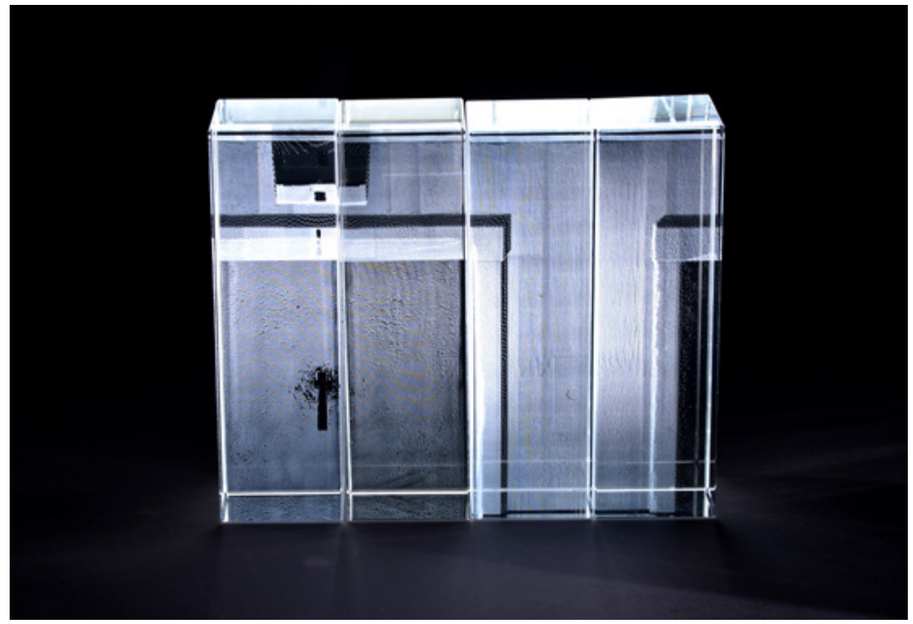


Fig. 52 (left): The photograph shows *Infractus* by Smout Allen.
Fig. 53 (right): The photograph shows *Infractus* by Smout Allen.

An important role to the development of this project was the award winning Aria building by Amin Taha's office Groupwork. Inspired as well by Rachel Whiteread's *House*, he recreates the missing part of the Victorian Terraced which was bombed during WWII[25]. The project was also informed by the Fouquets Barrierre Hotel in Paris by Edouard François and by the Museum of natural history in Berlin by Diener & Diener architects[26]. The terracotta tinted concrete facades are playing with the concepts of memory, absence, real, unreal. While the internal and external parts of the cast wall filled with insulation[27].

The architect in a lecture explained the construction method of the cast wall as follows[28]. In order to create this monolithic cast of the building they use machine milled polystyrene moulds which are then set up on site, fig. C07 and fig. C08. When the polystyrene mould wall was ready they pureed the terracotta tinted concrete and waited for it to set before they removed the polystyrene blocks. He states that the best part of the project was the time of revealing the cast wall by removing the polystyrene blocks[29]. An interesting part of this project is the way he chooses to carve parts of the wall to create openings. As we can see from fig. 54 he plays with the juxtaposition of the old traces of opening with the new ones. The analysis of this idea informed the creation of openings for the workshops.

The Georgian terraced workshops will be cast with the following five materials Latex, Concrete, Plaster, Metal and Wax. The five workshops are examples of types that show how the individual makers could use the materials, methods and requirements of their cast making to inform and construct their terrace building. The technique for casting the terraced workshops is mould making due to the flexibility of materials, shapes and sizes. The workshop's design was inspired from Amin Taha's Aria building and the work of Rachel Whiteread and Jorge Otero-Pailos. The design of each workshop is explained within their own documents. The next section is dedicated to brutalism which has similarities in the construction process and methods with the art of physical simulacrums.

[25] "168 Upper Street," RIBA, accessed June 21, 2021, https://www.architecture.com/awards-and-competitions-landing-page/awards/riba-regional-awards/riba-london-award-winners/2019/168-upper-street.

[26] Jason Coe, Amin Taha, "168 Upper Street by Groupwork," Architecture Project Talks, Dezeen, July 2, 2021, Record of Lecture, 01:31:15, https://dezeen.zoom.us/rec/play/ .

[27] "168 Upper Street," RIBA, accessed June 21, 2021, https://www.architecture.com/awards-and-competitions-landing-page/awards/riba-regional-awards/riba-london-award-winners/2019/168-upper-street.

[28] Jason Coe, Amin Taha, "168 Upper Street by Groupwork," Architecture Project Talks, Dezeen, July 2, 2021, Record of Lecture, 01:31:15, https://dezeen.zoom.us/rec/play/ .

[29] Ibid

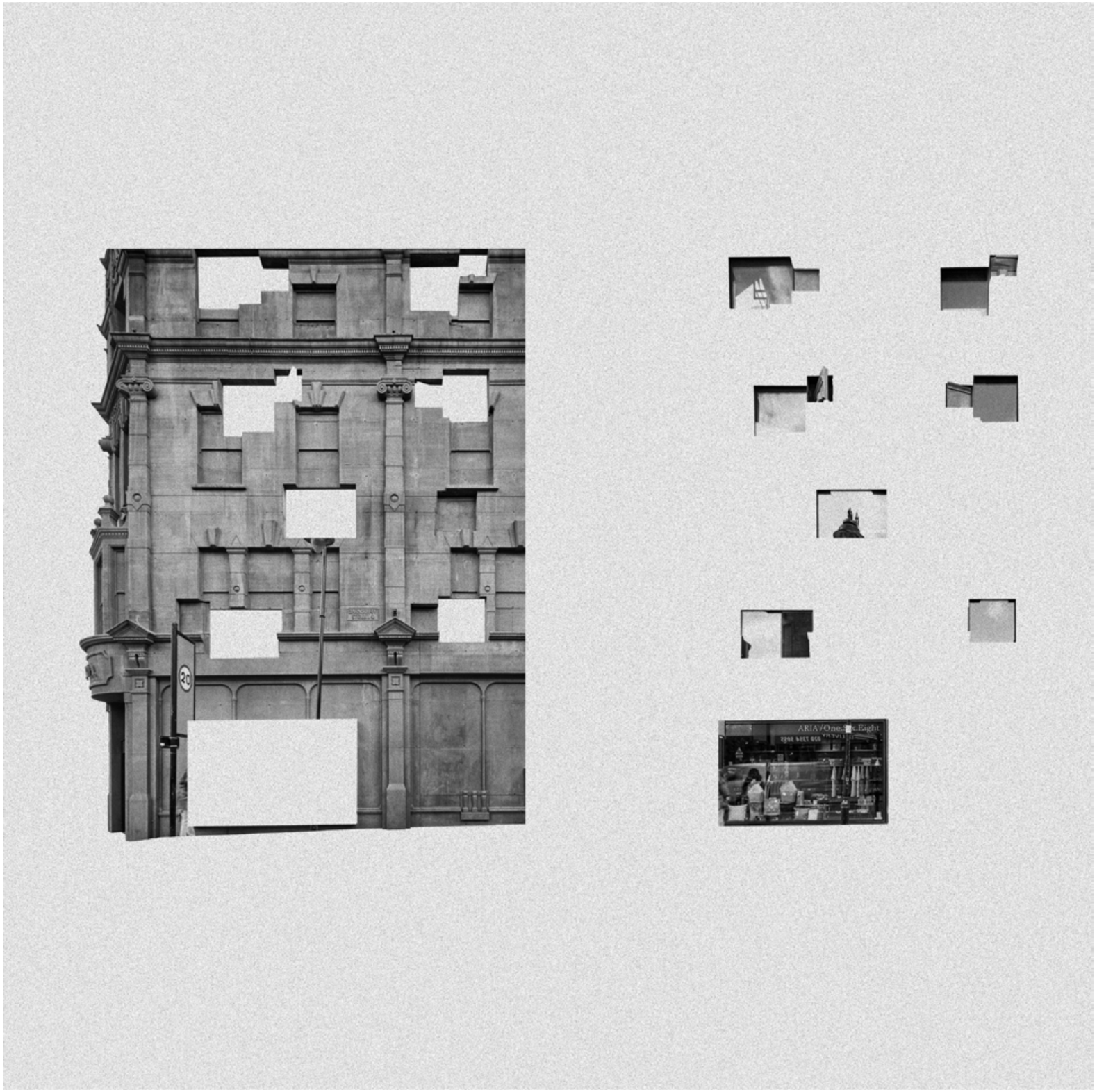


Fig. 54: The drawing shows the analysis of the cast and the windows allocation.

Fig. 55 (left): Photograph shows the new entrance of the Aria building.
Fig. 56 (right): Photograph shows the interior of the cast Aria building.

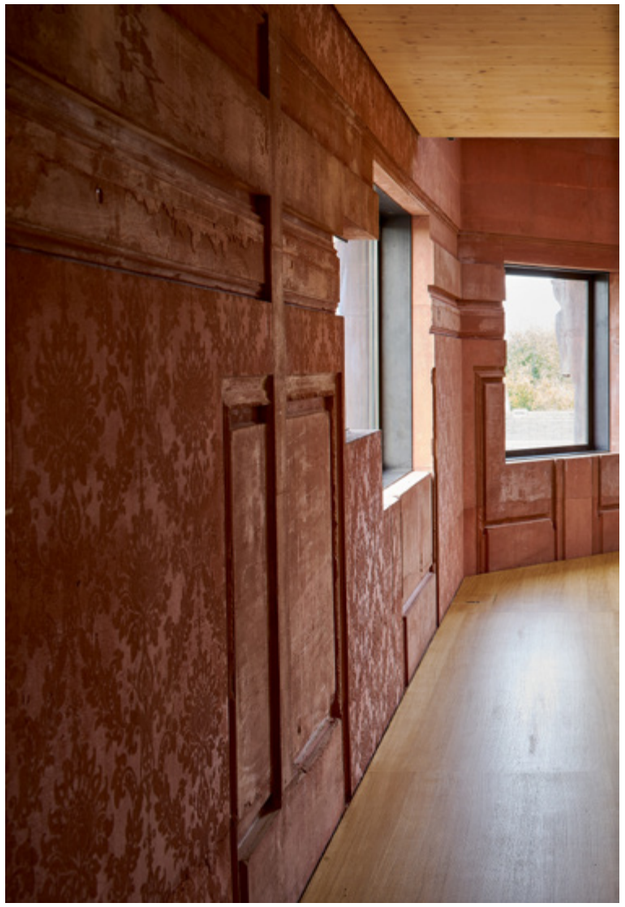


Fig. 57 (left): Photograph shows the texture of the cast.
Fig. 58 (right): Photograph shows the detail of the openings in relation to the cast.

Brutalism

The replica makers morphed their livery hall complex by casting elements from their favourite brutalism buildings, the remaining Robin Hood Gardens building, Hayward Gallery and Elephant and Rhino house. Their interest in replicating brutalism buildings comes from the threat of loss of those historically important structures. Additionally, brutalism excites the replica makers due to the similarities of construction process.

Brutalism starts as an architectural idea and theory in the late 1950s, during the 1960s and 1970s the idea expands and evolves into praxis[30]. There are two fundamentals that all brutalism buildings share: Firstly and most important, a curtain mood, and secondly a specific expression of materials (concrete), function and services. To explain further about the mood, brutalism buildings have drama, presence, they don't have to be big necessarily, but they have to be bold[31]. In addition, massing and weight is essential to create this brutalism mood[32].

Concrete is a combination of Portland cement, sand and aggregates mixed with water. When the mixture is ready its poured into shuttering or moulds and allowed to cure and set. It can be pre-cast off site and transported, or can be poured in-situ[33]. Concrete can be finished in different ways. For example the shuttering or mould marks can be left exposed. The mould could be faced with plastic, steel or rubber to create a range of impressions. On the other hand, while shuttering is normally formed of planks of timber, this will leave the impression of plank marks and wood grain in the concrete surface[34]. All of the above can be observed within the three brutalism building the Robin Hood Gardens building, Hayward Gallery and Elephant and Rhino house.

The Robin Hood Gardens building was used and explored due to the threat of loss of this historically important brutalism building. It is located in Tower Hamlet next to Blackwall tunnel and Canary Wharf in East London. As we saw previously, a digital replication of the building loses many of the qualities of the original. The observation of the fig. 64 shows a pattern of three by four as we saw with 75 Little Britain buildings. The pattern of elements from the building was used to create the canvas for the Livery hall, while the concrete texture was used as a finishing material for the hall.

The Elephant and Rhino house located within the Regents Park Zoo and is listed as Grade II* building[35]. The building was completed in 1964 and was designed by Casson Conder Partnership Architects[36]. The building housed four rhinoceroses and four elephants in paired pens[37]. The brutalism building was constructed with reinforced concrete ribbed walls. The use of rubbed texture was introduced to prevent and protect the building from the animals' friction against the walls[38]. The conical roof's structure was made of laminated timber beams and covered with copper. The tall conical roofs give the impression of elephants gathering around[39]. The gorgeous curved shaped walls and the dramatic conical shaped roofs were used both within the ground floor of the hall and on the roof of the morphed church accordingly.

Last but not least, the Hayward Gallery is part of the Southbank Centre and was built in 1968 and designed by a team of architects from the Greater London Council Department of Architecture and Civil Design. Two members of that team were Ron Herron and Warren Chalk, who later founded Archigram[40]. The building complex is located on the South bank of River Thames, in Central London. The building's form and appearance is impressive. It has all the nice elements of a brutalism building, it has drama, presence, it is bold, has remarkable form, looks heavy, and monolithic. Furthermore, the architects applied a mixture of concrete textures across its elevation. The three elements that stand out are the concrete staircases that are placed both within the interior and exterior spaces, the door frames and the air extractor tower on the east side of the building. The forms of the three elements are extraordinary and have harmonic proportions.

[30] Billy Reading, Brutalism (Gloucestershire: Amberley Publishing, 2018), 5.

[31] Billy Reading, Brutalism (Gloucestershire: Amberley Publishing, 2018), 15.

[32] Billy Reading, Brutalism (Gloucestershire: Amberley Publishing, 2018), 16.

[33] Billy Reading, Brutalism (Gloucestershire: Amberley Publishing, 2018), 19.

[34] Billy Reading, Brutalism (Gloucestershire: Amberley Publishing, 2018), 19-21.

[35] "Elephant and Rhinoceros Pavilion, London Zoo," Historic England, accessed June 28, 2021, https://historicengland.org.uk/listing/the-list/list-entry/1323694.

[36] "The Elephant House," Casson Conder Partnership Architects, accessed June 28, 2021, https://www.cassonconder.co.uk/#/the-elephant-house-historical/.

[37] "The Elephant and Rhinoceros House," Architecture Journal Building Library, accessed June 28, 2021, https://www.ajbuildingslibrary.co.uk/projects/display/id/2974#tabs-Drawings.

[38] "Elephant and Rhinoceros Pavilion, London Zoo," Historic England, accessed June 28, 2021, https://historicengland.org.uk/listing/the-list/list-entry/1323694.

[39] "The Elephant and Rhinoceros House," Architecture Journal Building Library, accessed June 28, 2021, https://www.ajbuildingslibrary.co.uk/projects/display/id/2974#tabs-Drawings.

[40] "Hayward Gallery,"Architectuul, accessed June 28, 2021, http://architectuul.com/architecture/hayward-gallery.

Fig. 59: Map showing brutalism buildings within the City of London.

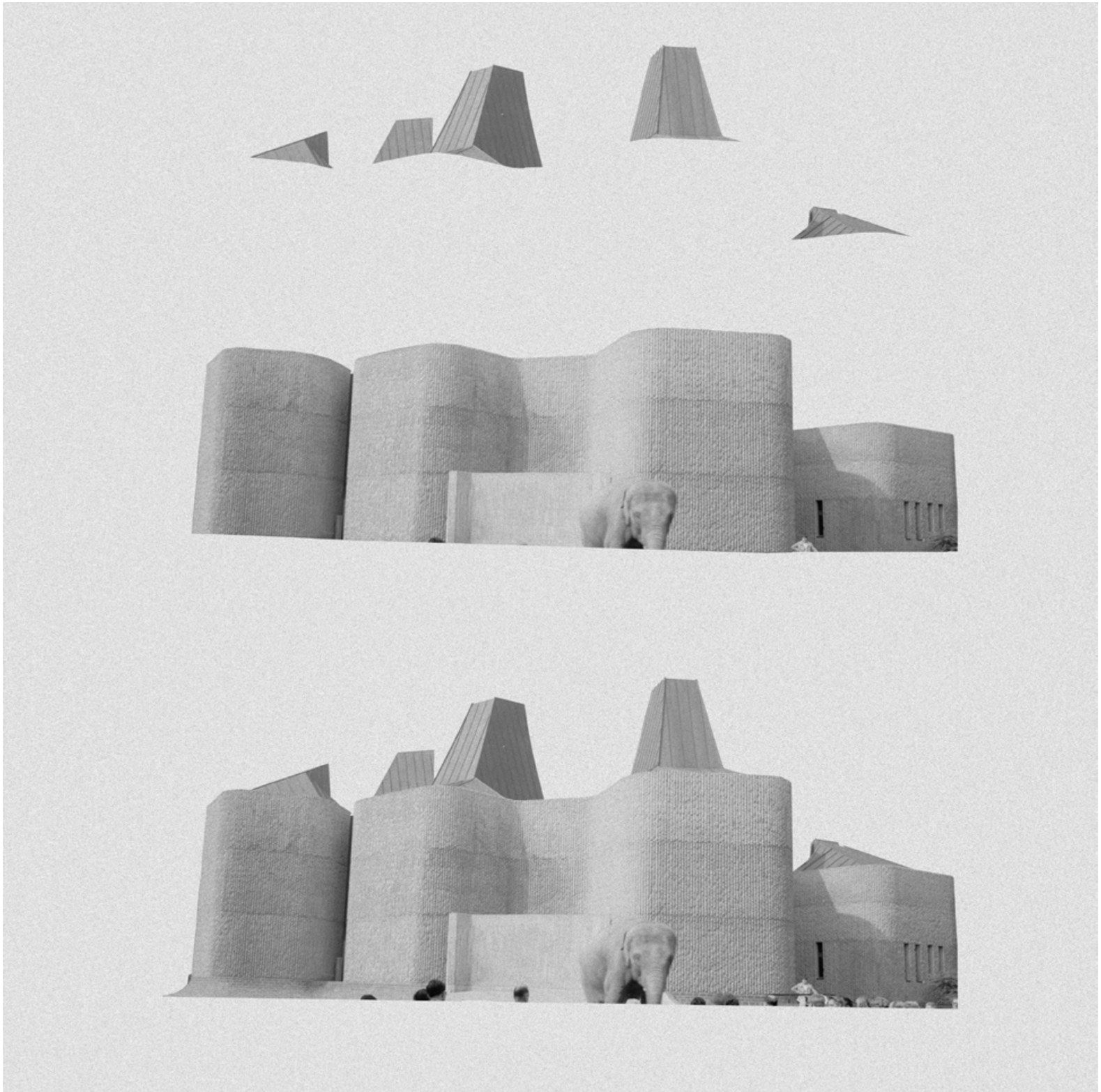


Fig. 60: The drawing shows the analysis of the elements from elephant and rhino house.

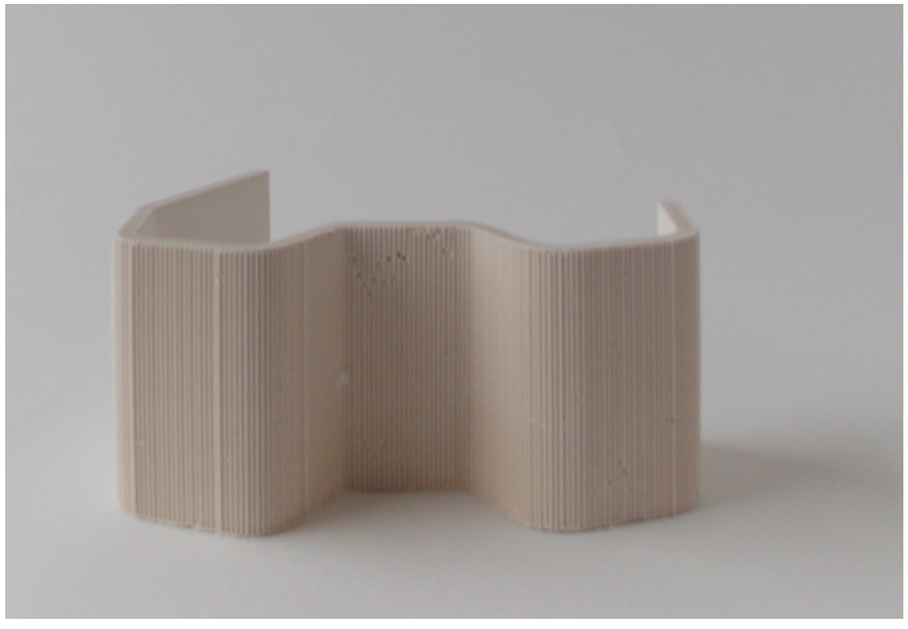


Fig. 61 (left): Cast model of the elephant and rhino house wall, scale 1:100.
Fig. 62 (right): Cast model of the elephant and rhino house roof, scale 1:100.

Fig. 63: Cast model of the elephant and rhino house wall texture, scale 1:20.

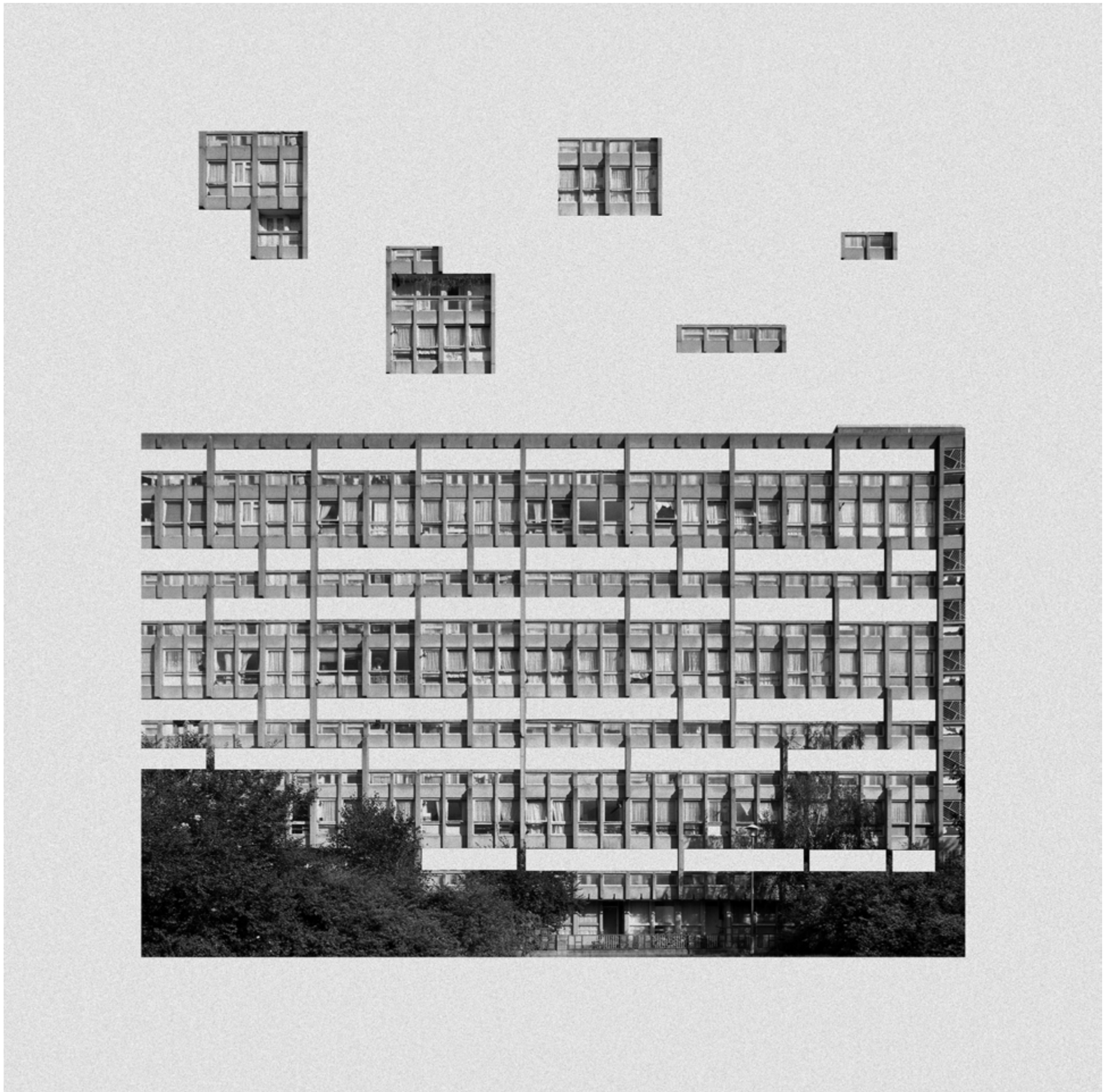


Fig. 64: The drawing shows the analysis of the elements from the Robin Hood Gardens building.

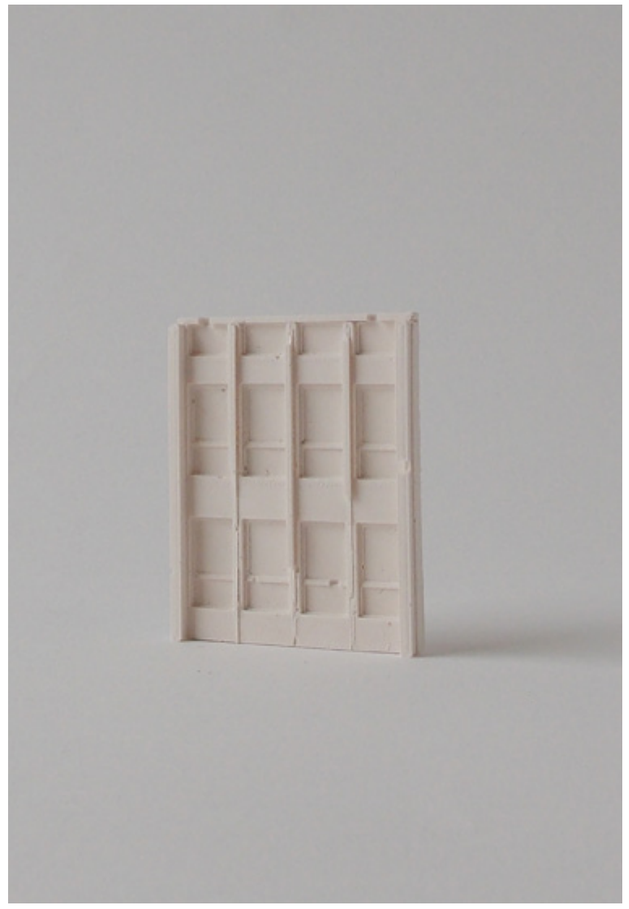


Fig. 65: Cast model of the Robin Hood Gardens windows block, scale 1:100.

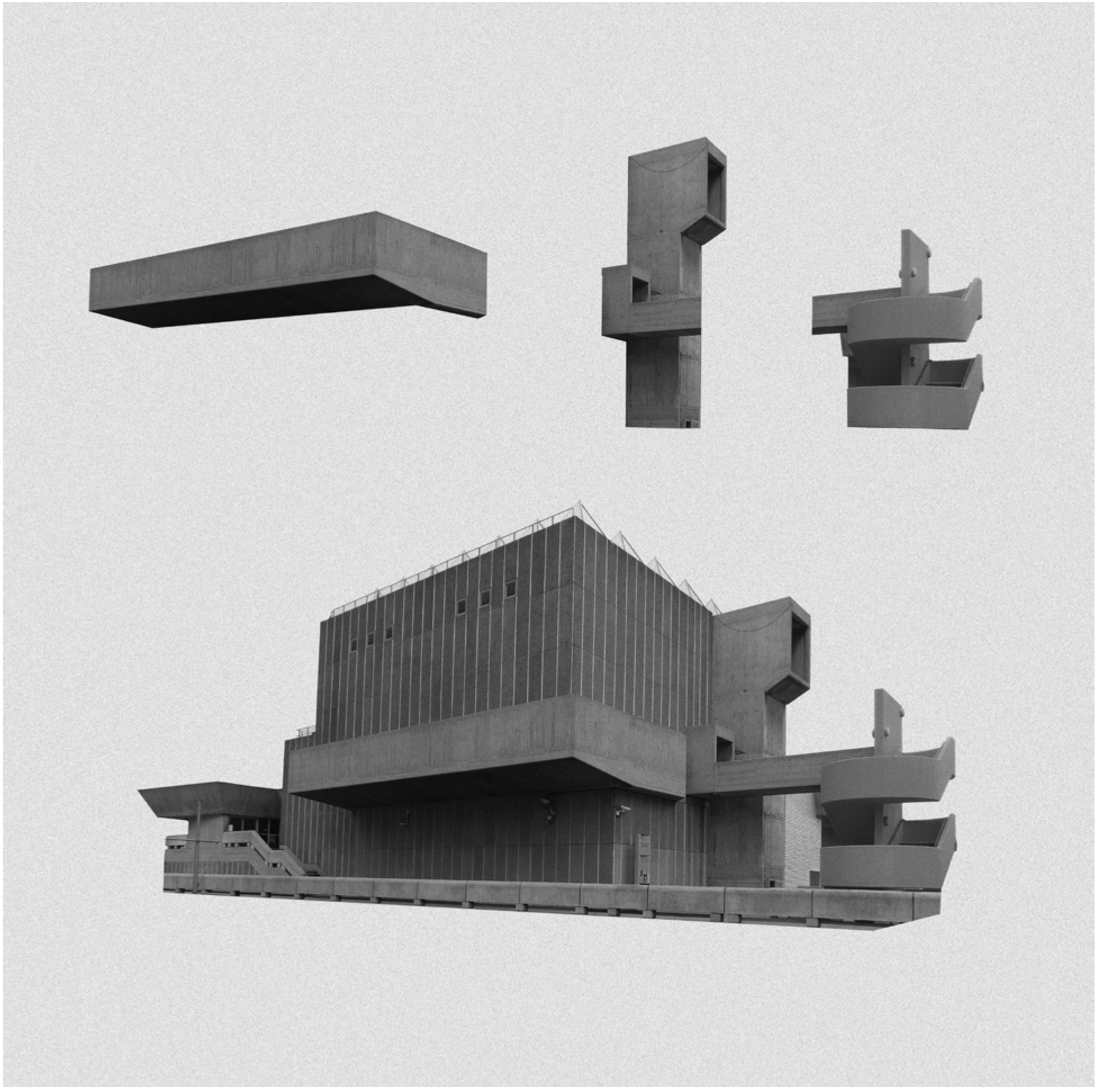


Fig. 66: The drawing shows the analysis of the elements from Hayward Gallery.

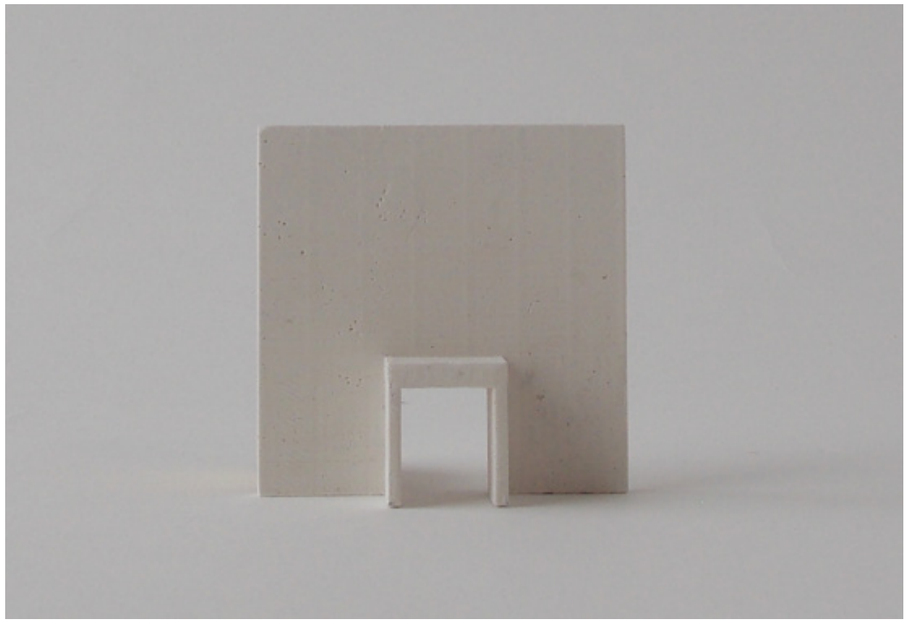


Fig. 67 (left): Cast model of Hayward Gallery entrance, scale 1:100.
Fig. 68 (right): Cast model of Hayward Gallery air extractor tower, scale 1:100.

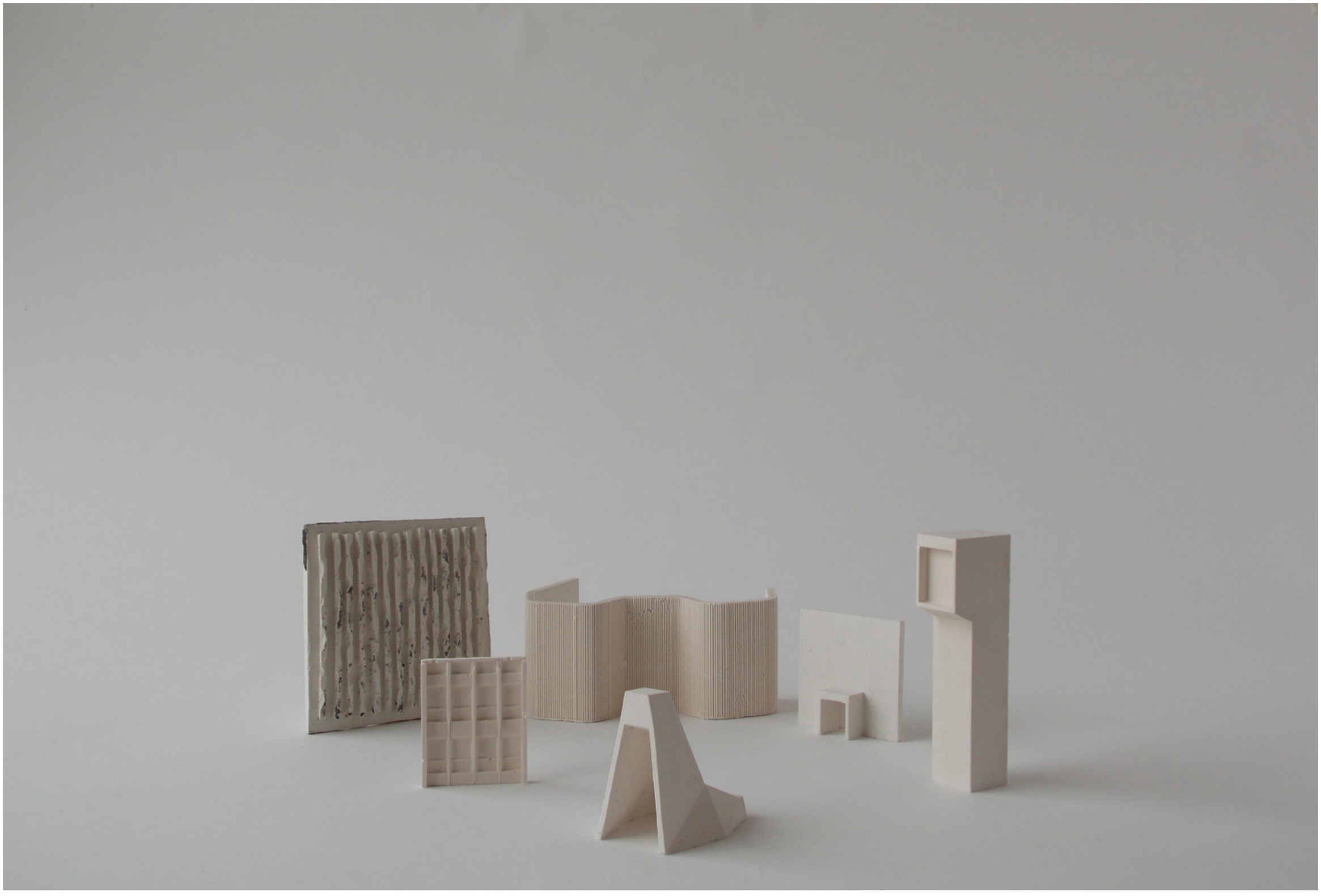


Fig. 69: Set up of all the brutalism cast models.

Design Intervention

The Livery members enjoy watching the elegant parts of a building's details coming out of the moulds one after another[41]. They see poetry and find joy in the process of creating the casts. Every cast is done to the maximum degree of perfection. As the poem *Ithaka* by C.P. Cavafy states, we have to enjoy the journey and not only the destination. The produced casts are sold to collectors, galleries and museums. Cast replications of important buildings are kept in archives as replicas often have longer lifespans than the originals. Any income from the casts is used for the expansion and support of the Livery company.

The replica makers work in harmonious collaboration to achieve the best possible casts by sharing knowledge and tools. The Livery hall is a centre of education where knowledge is shared freely. Any new technique or issue is presented within the assembly room. The best pieces are exhibited in the gallery and exhibition spaces within the morphed church. The replica maker expands their knowledge within the library where can study anything from literature to science. Additionally, the replica maker educates the public about the secrets of its craft.

The construction of the Livery hall is rooted in the poetic of the process. Histories of the site and brutalism elements are reinterpreted in the construction process. Starting by inhabiting the church to be used as a workshop space the construction began by filling the gaps, on the north part along Little Britain, with workshops made by casts of Georgian terraced houses. While simultaneously the church is parasitically morphed with brutalism elements to an assembly and exhibition space. Indirect sunlight passes from the elephant and rhino cast roofs into the exhibition space of the morphed church. The memorial names were cast on the surface of the replica of the Hayward's gallery extractor tower. The tower was placed next to the church entrance. The south part of the site followed with more terraced workshops inspired by the traces of the past. The 75 Little Britain facades were replaced with an elevation made by casts of the unwrapped terraced workshop moulds. New layer of openings were introduced to bring light within the hall. The new openings were inspired by the shape of the Guildhall library windows. The process of building the hall was used as a learning method with the scope to teach younger generations and test new techniques of replication. The hall was a result of the process of physically making the terraced workshops. All the three layers of the process (the Georgian terraced house, the negative of the workshops, and the Guildhall library windows) can be observed on the facades of the hall. The site is in constant flux and morphing as replication techniques change. The site is a place where the process is more important rather than the end result.

[41] Mari Lending, Plaster Monuments: Architecture and the Power of Reproduction, (Princeton: Princeton University press, 2017), 24.

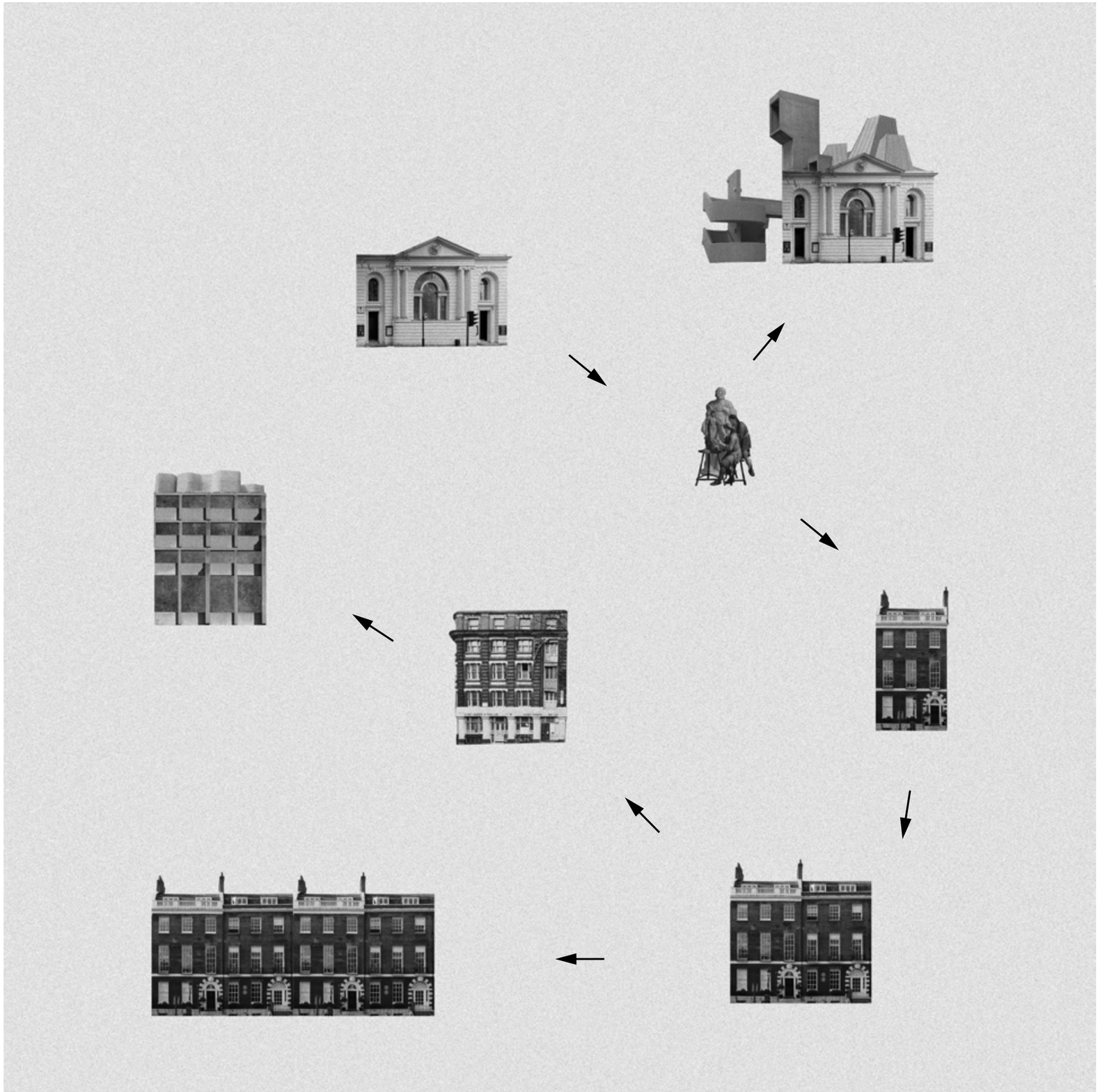
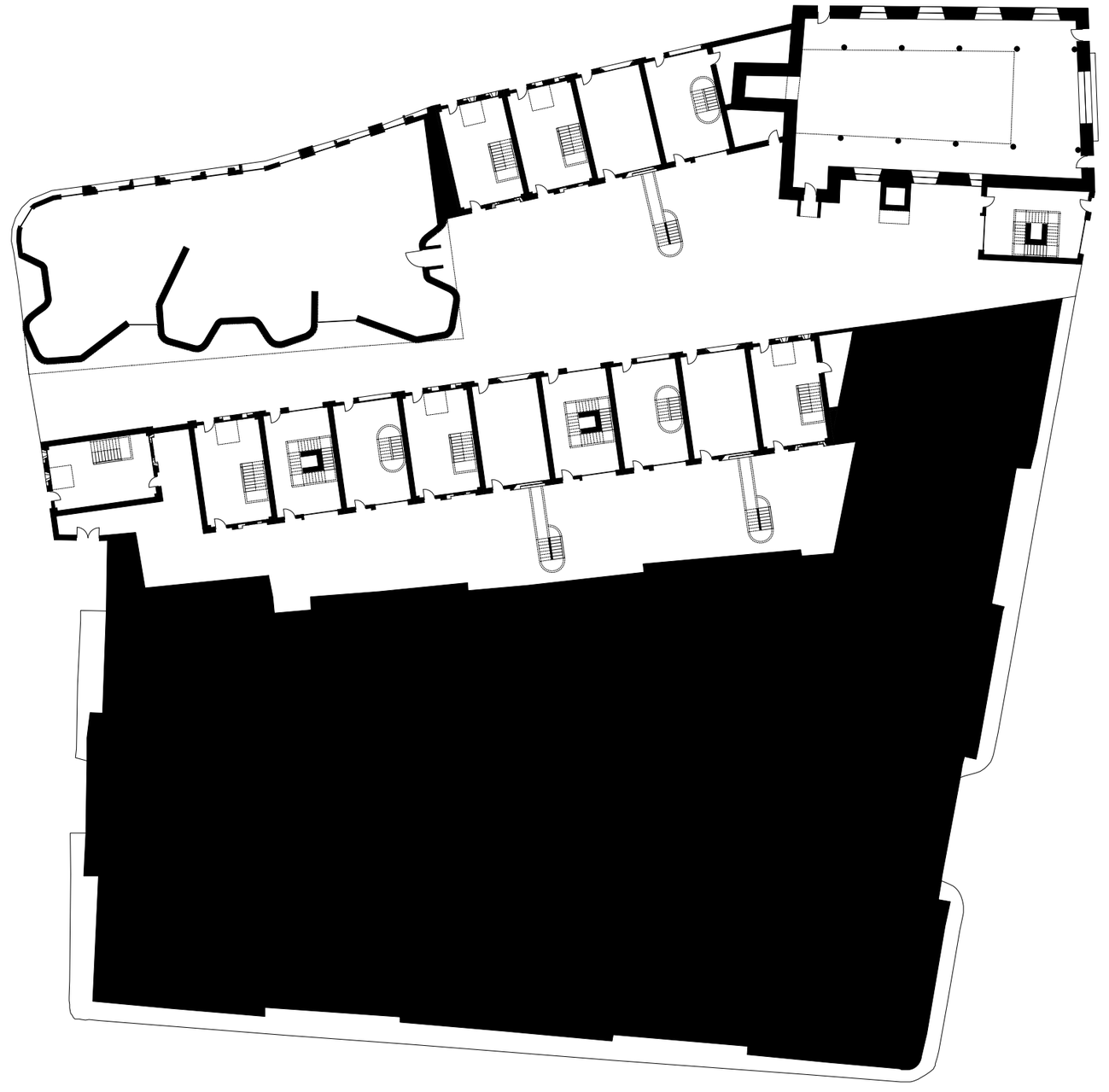


Fig. 70: The drawing shows the construction process of the Livery hall.



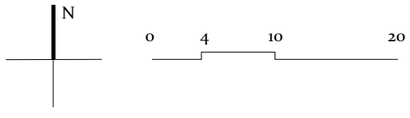
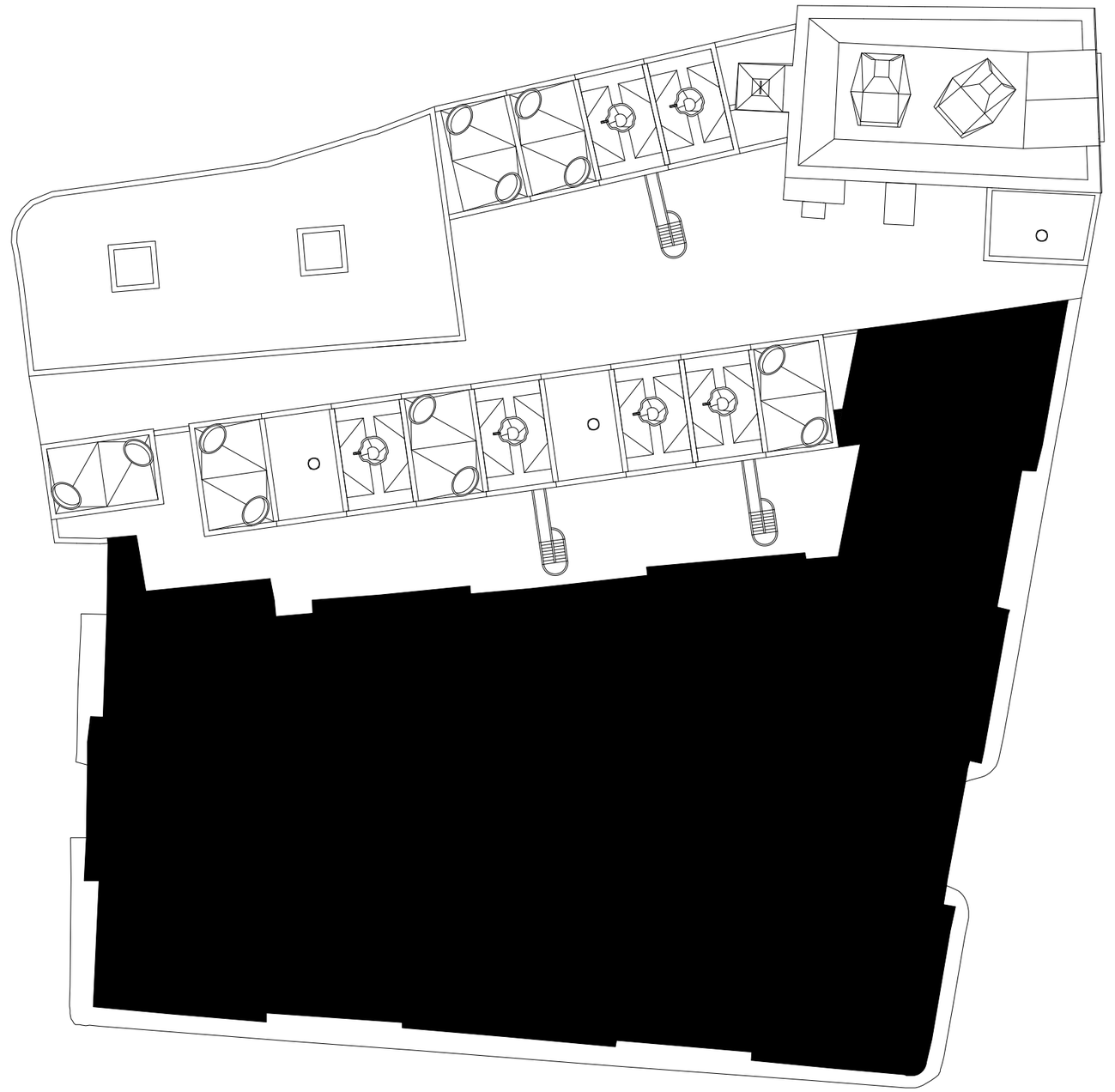
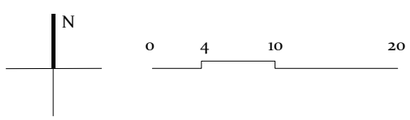


Fig. 71: Ground floor plan of the proposal.





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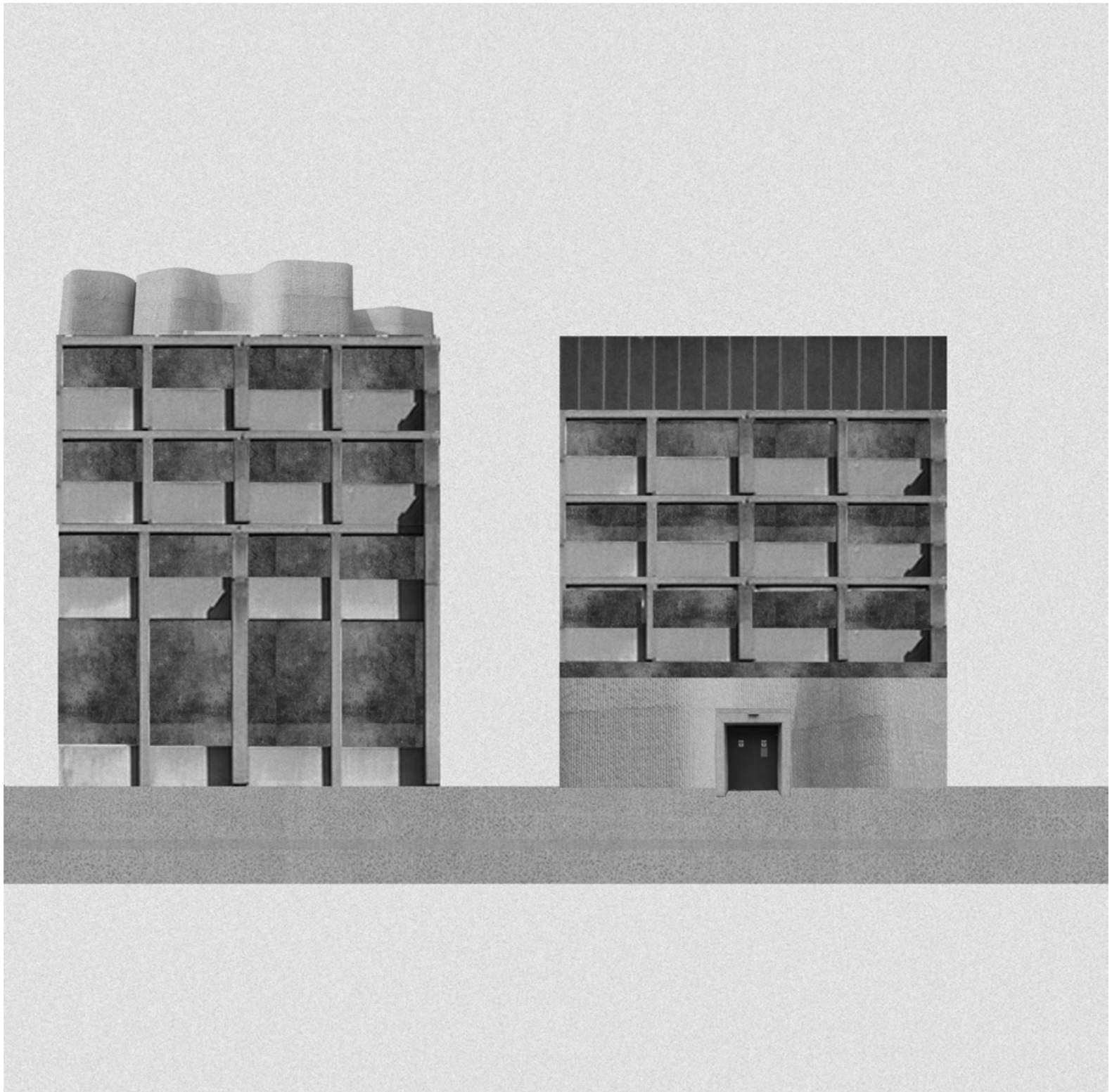


Fig. 73: The drawing shows the two ideas of creating the Livery hall.

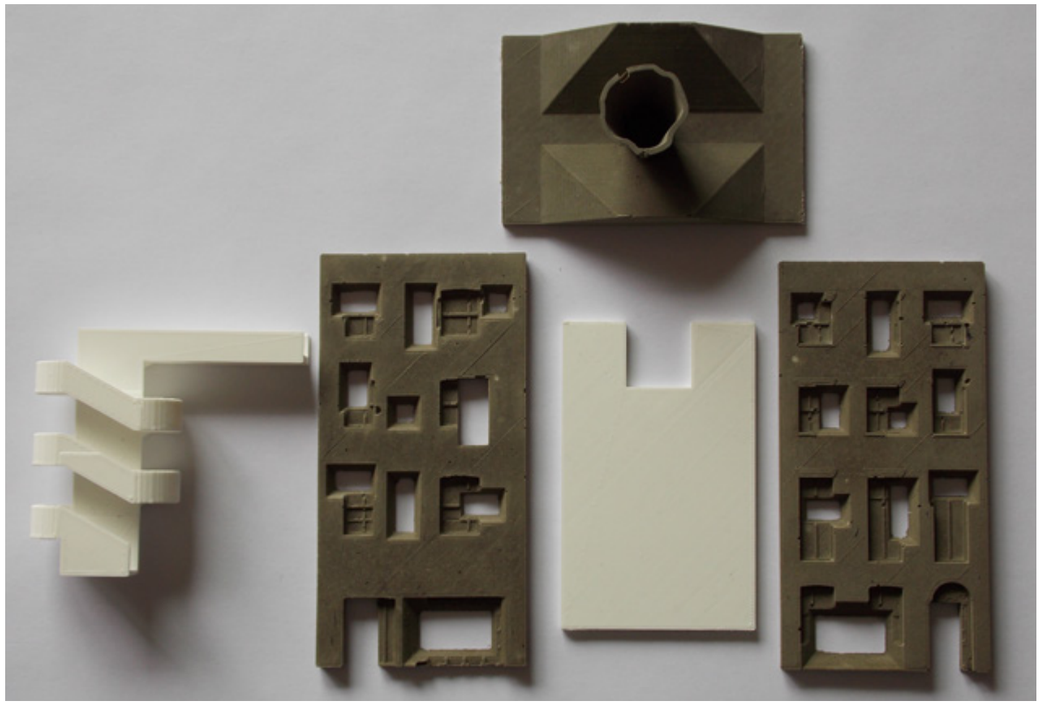
Fig. 74: The perspective shows the recreation of the lost lane, the cast workshops and the Livery hall entrance.

Fig. 75: The perspective shows the interior of a concrete workshop.

Fig. 76: The elevation perspective shows the facade of the Livery hall, wax and metal workshops from Little Britain street.

Fig. 77: The elevation perspective shows the facade of the Church, plaster and concrete workshops from Little Britain street.

Fig. 78: Set up of the five workshops cast models, scale 1:100.



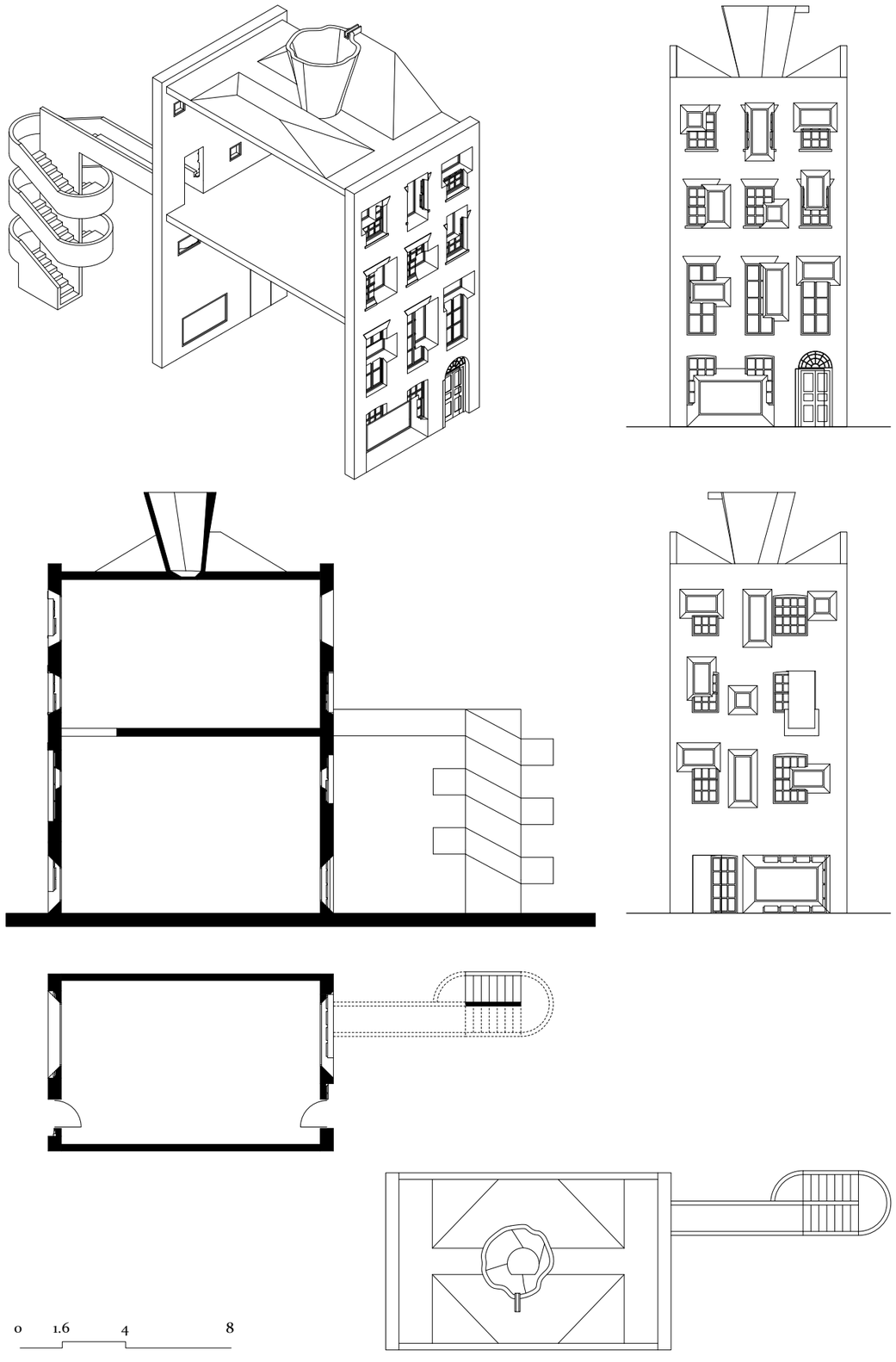
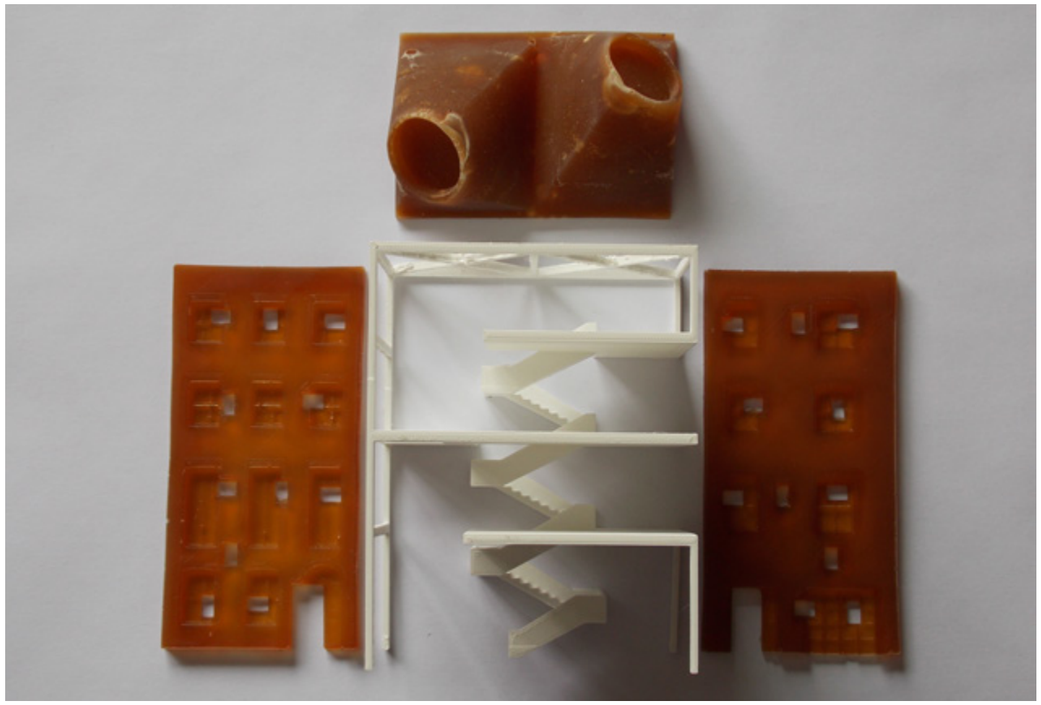
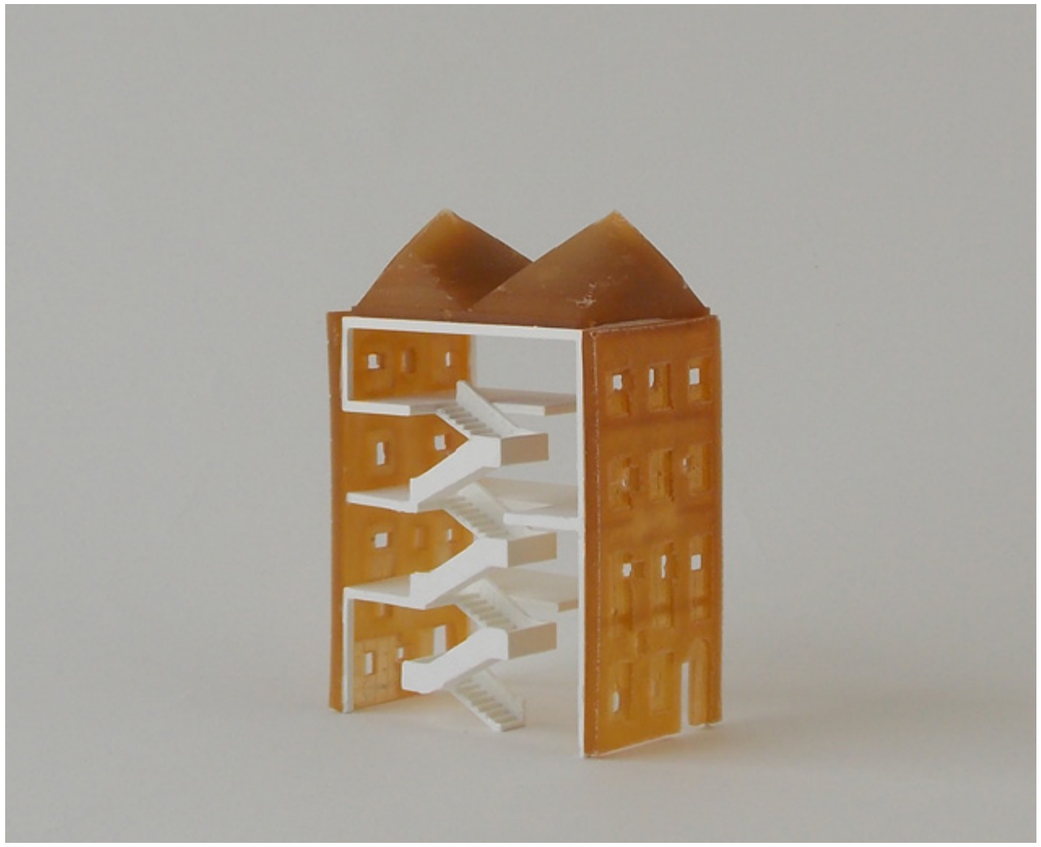
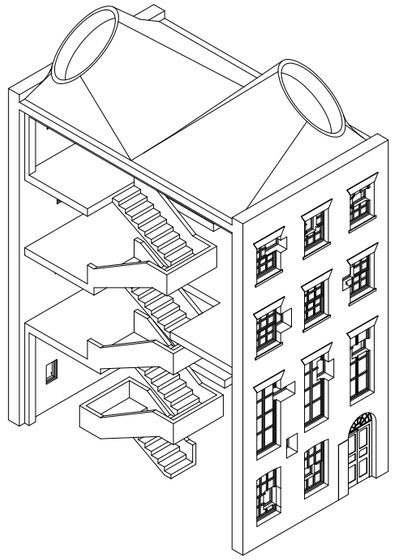
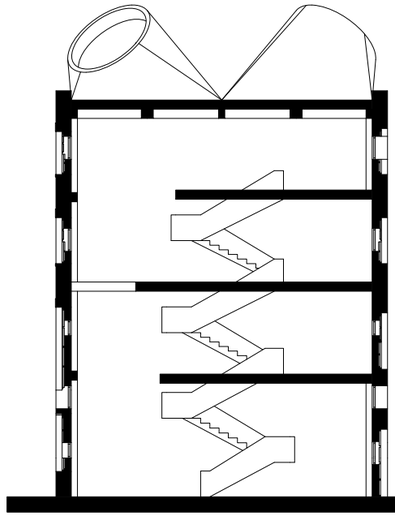


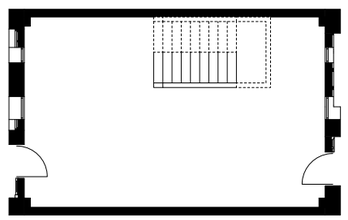
Fig. 79 (left): Cast model and pieces of concrete workshop, scale 1:100.
Fig. 80 (right): Drawings of concrete workshop.

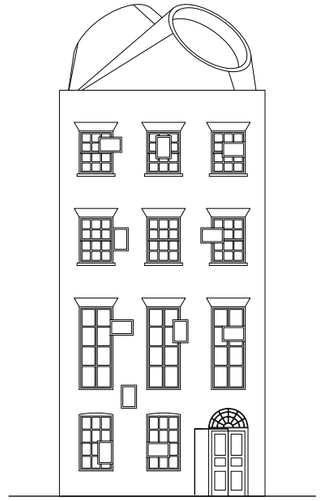


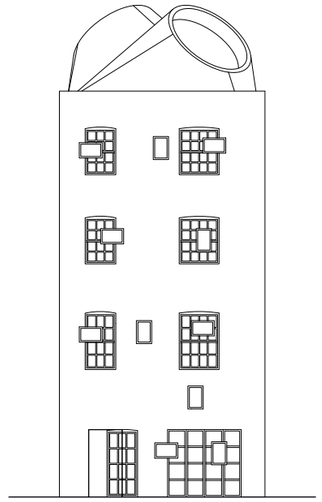












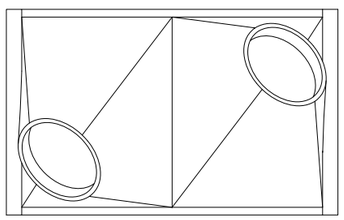


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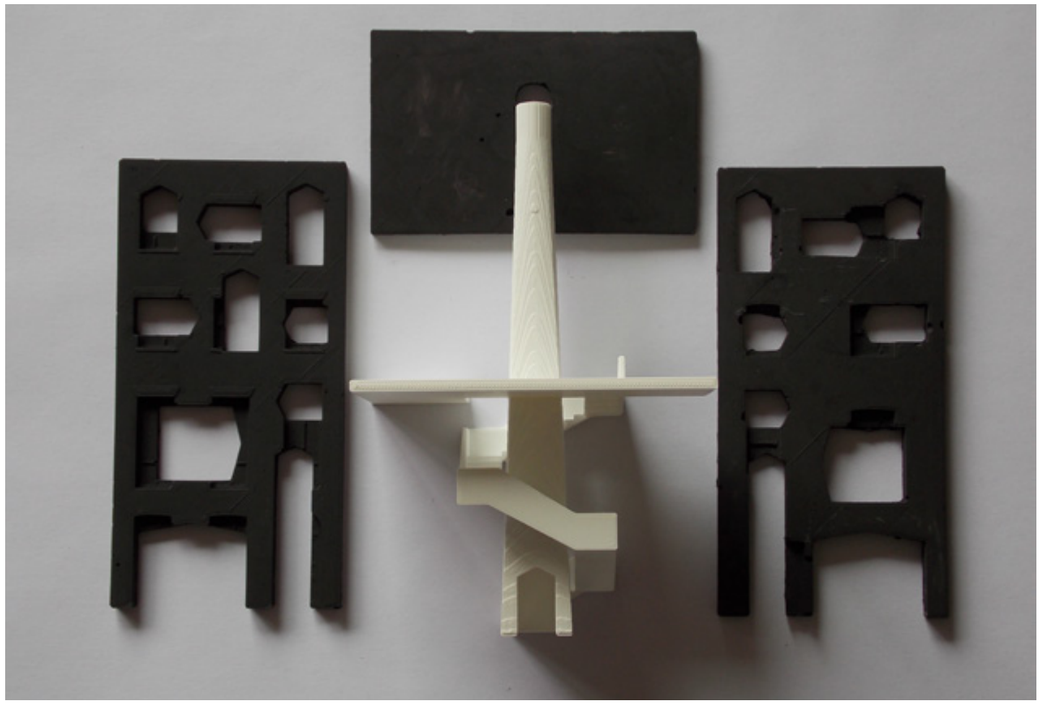
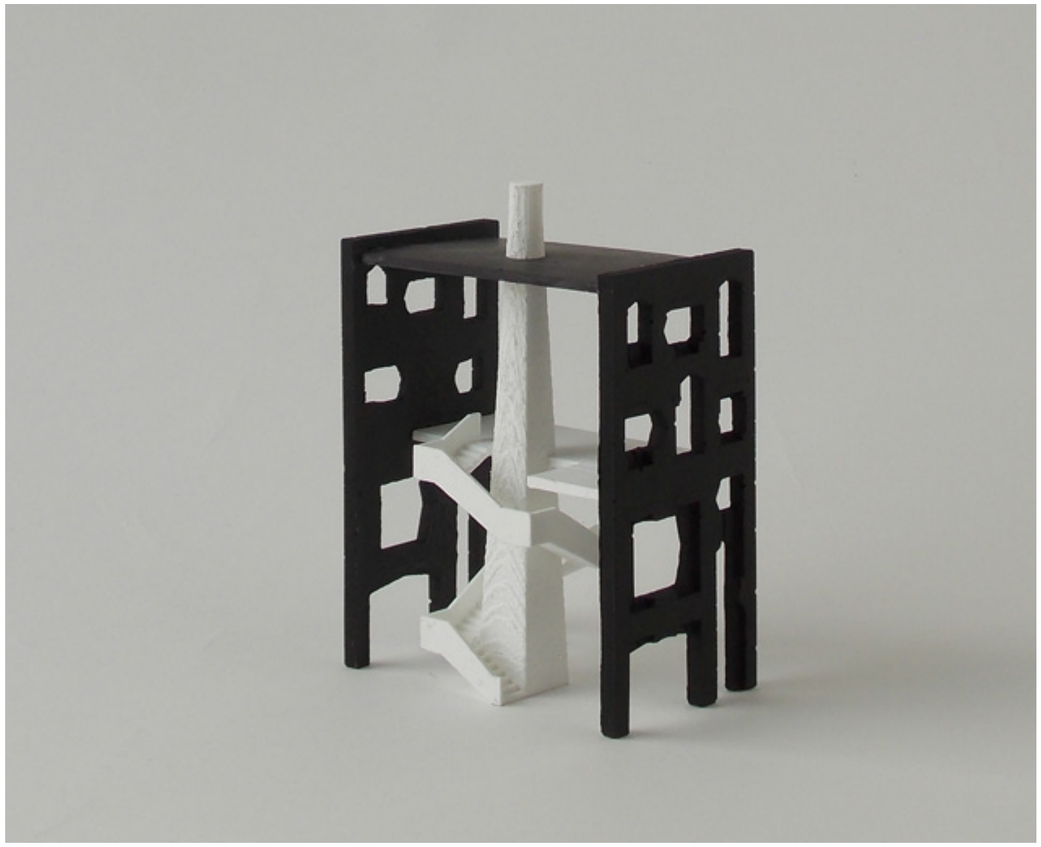
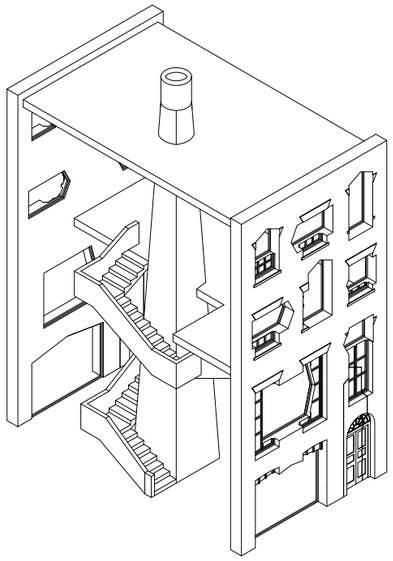
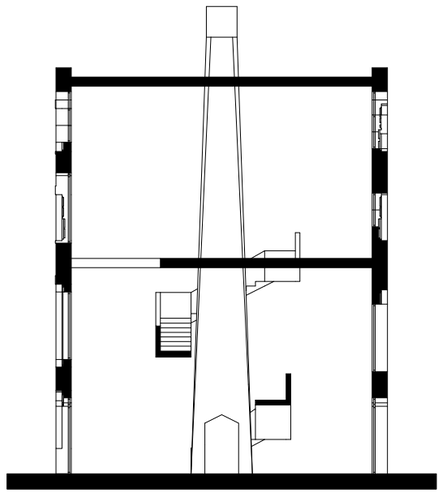
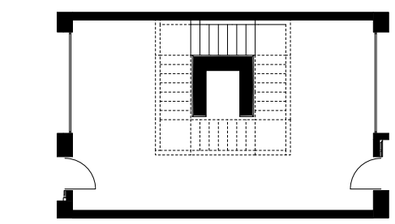
Fig. 81 (left): Cast model and pieces of latex workshop, scale 1:100.
Fig. 82 (right): Drawings of latex workshop.

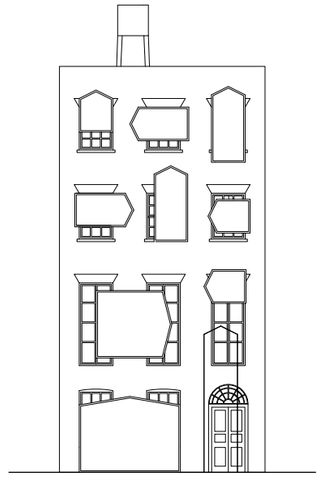


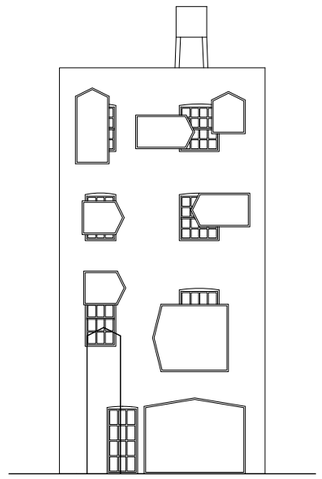












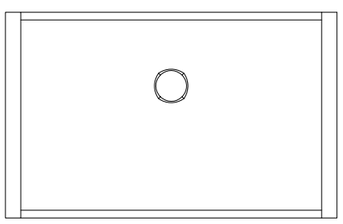
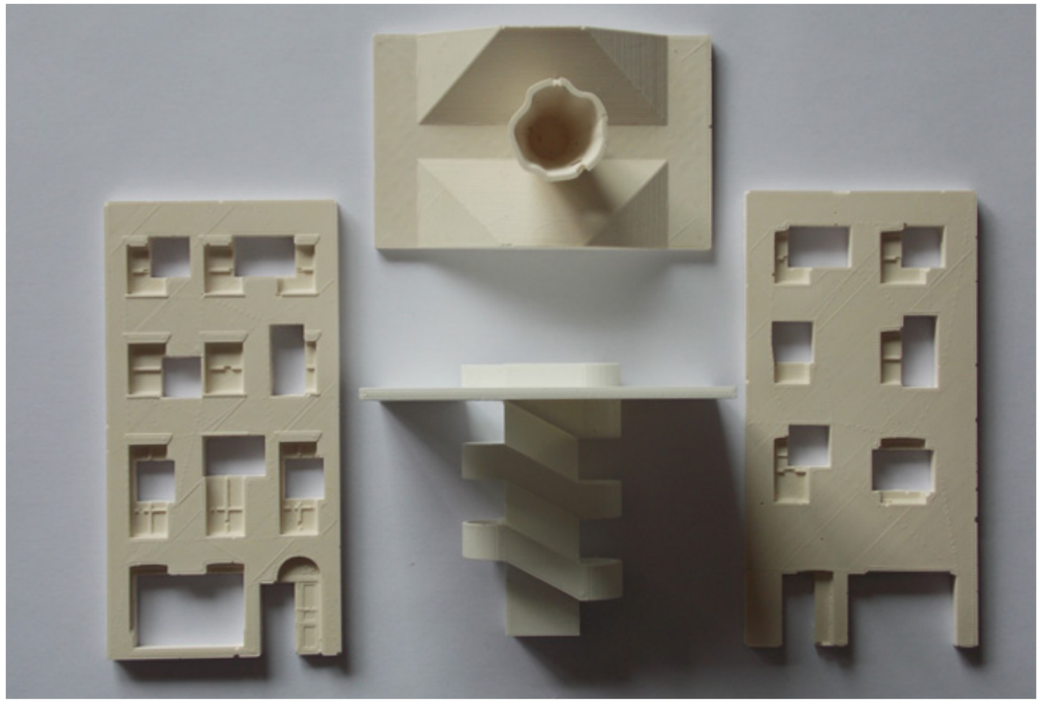
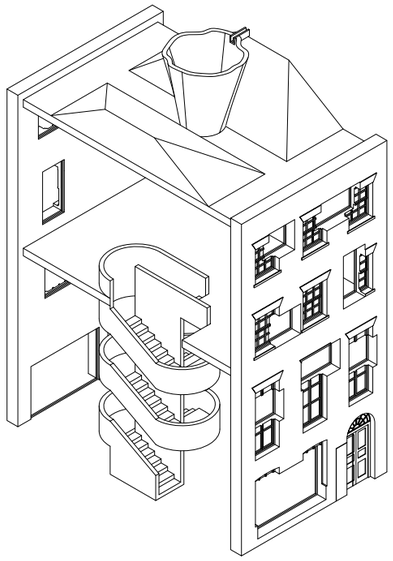
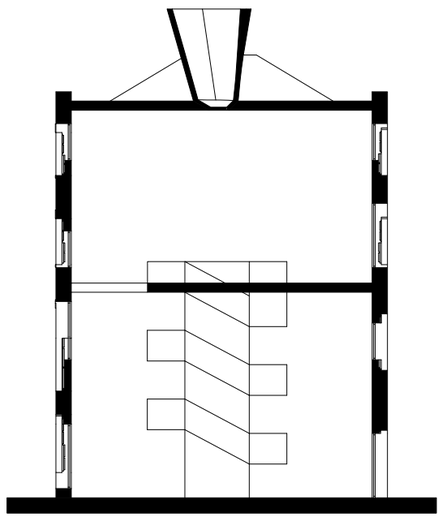
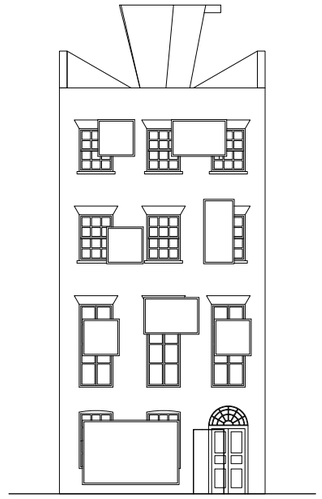


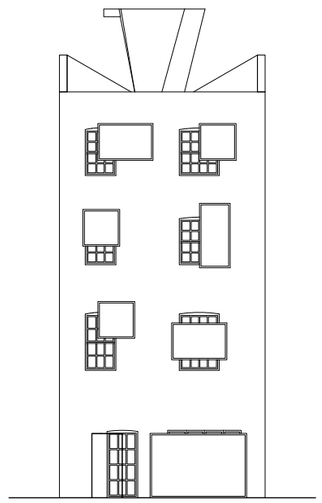
Fig. 83 (left): Cast model and pieces of metal workshop, scale 1:100.
Fig. 84 (right): Drawings of metal workshop.

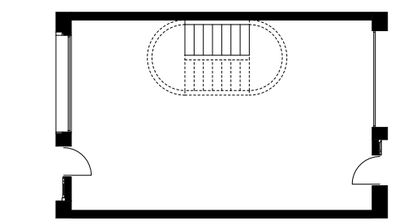












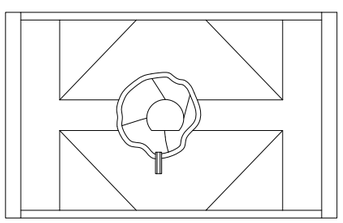
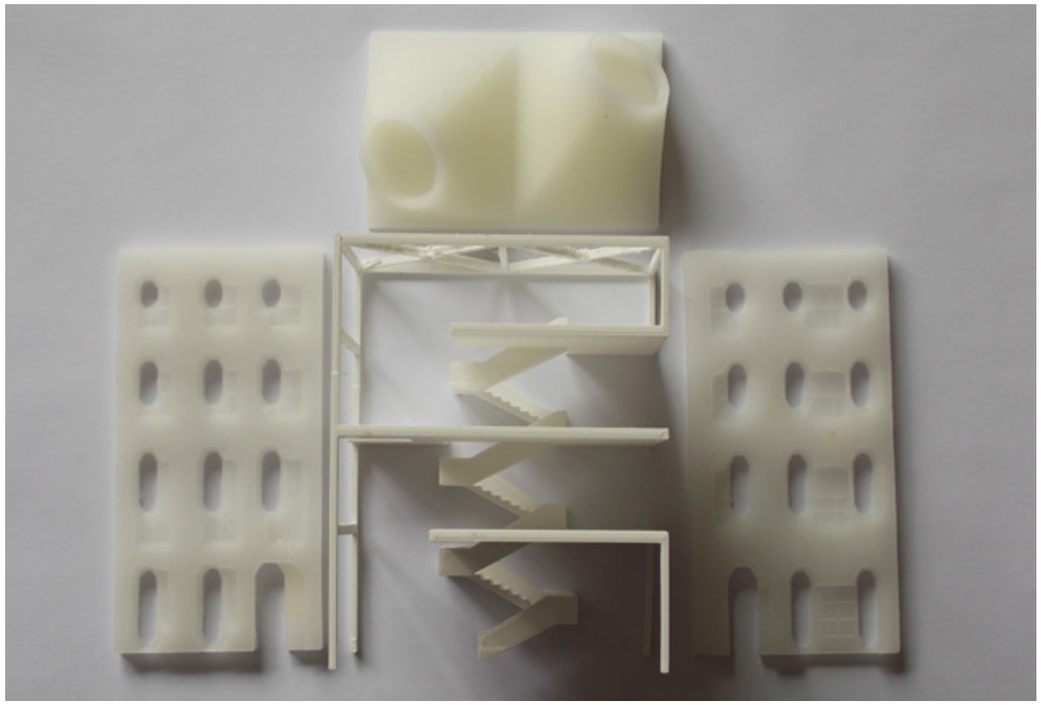
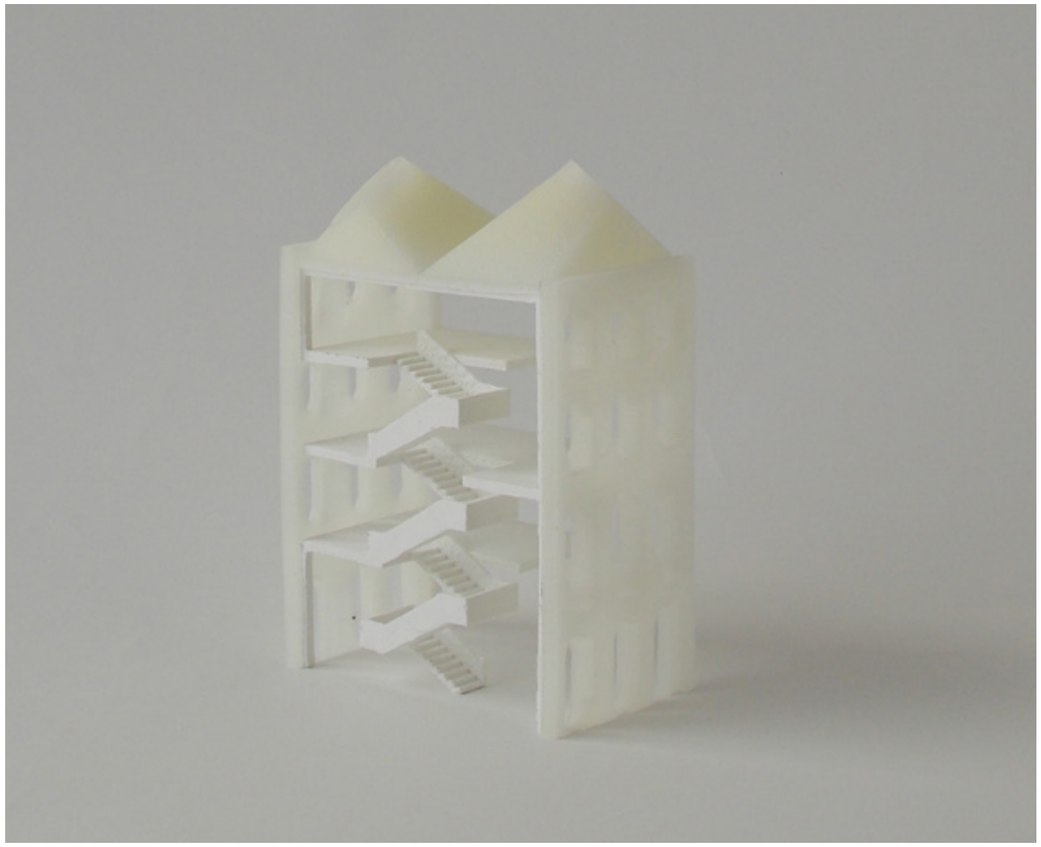
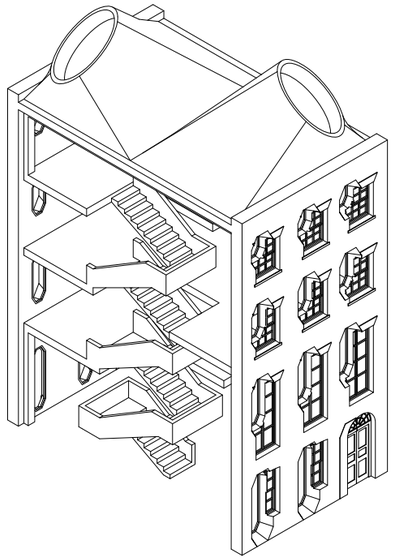
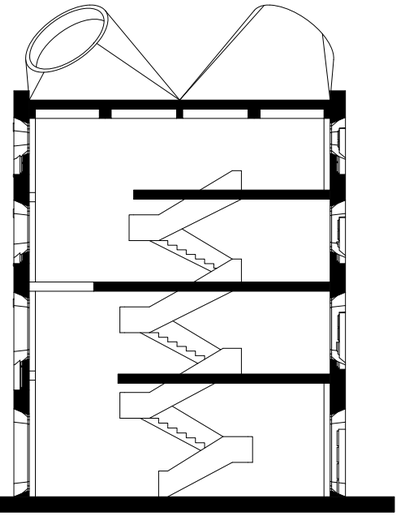


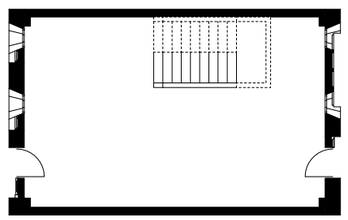
Fig. 85 (left): Cast model and pieces of plaster workshop, scale 1:100.
Fig. 86 (right): Drawings of plaster workshop.

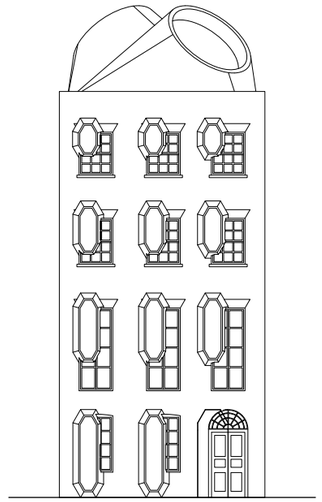


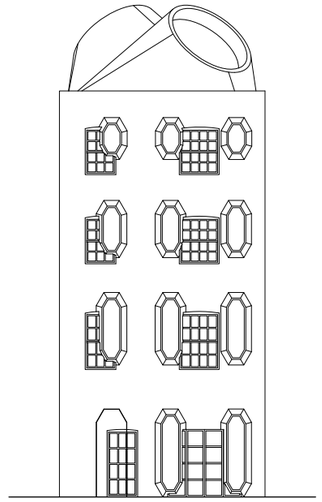












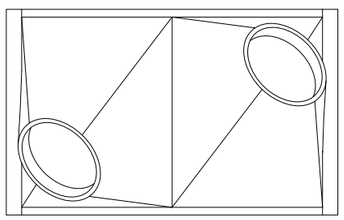


Fig. 87 (left): Cast model and pieces of wax workshop, scale 1:100.
Fig. 88 (right): Drawings of wax workshop.

Fig. 89: Sectional model of the proposal, scale 1:100.

Conclusion

The fast pace of the digital world has forced craftsmanship to decline over the past decades. Many craft professions have declined and lost their power. The craft of replica makers is no exception to this. In this research we saw the importance of their craft and the possibilities for this to expand and be used in other fields such as construction and architecture. What we saw with Aria building was extraordinary. A building which is a cast, a replica, a concrete memory from the past and simultaneously contemporary. I see a future where this craft could adapt and thrive again. It could be combined with the principles of brutalism and the essence of heritage protection to create something unique and influential. We also learn that physical replicas can give the essence, volume, variety, and size of the original objects. Additionally, imitations make possible the idea to compare those objects. On the other hand, we learned that with digital replication we lose all of the above and we are at a distance from the objects.

The thesis investigation started with a poem and a narrative with the scope to set the stage. Then by understanding the Guild history, the location of the Livery hall was chosen. After a deep understanding of the site location the thesis explored simulacrums and researched precedent studies. The exploration of simulacrums led to Brutalism and a deep understanding of three important buildings. Simultaneously with the research the thesis evolved through the cast process of the five workshops. Finally all the investigations led to the design intervention where we have three different elements: the morphed church, the livery hall and the cast workshops.

Due to the unavailability of casting metal the thesis was unable to test metal casting. Alternatively, the investigation was done by the use of metal powder mixed with plaster for the metal workshop casts. If I had more time I would like to cast the hall building in order to test and explore the design further. The exploration was done with materials that I have used before either as casting materials or moulds. Wax was new for me as a model material and the exploration with it was interesting. It has nice qualities and is fast to cast. With regards to Latex, I have never used it as a cast material only as a mould for plaster casting. It is an exciting material and very flexible for both casting and moulding items. Concrete, plaster and plaster with metal powder I had been using them as casting materials but never in such detailed moulds. All of the materials capture the rich details of both the facades and the roofs. The assembly of the pieces was both challenging and exciting.

The process of making the casts was enjoyable and helped me design the Livery hall. If I hadn't produced the physical models I would never have thought that the negative form of the workshop facades could be used to shape the facades of the hall. The possibilities of creating something new and unique are higher when you have a direct contact with the design objects itself. Juhani Pallasmaa was right about that, when we design physically we could unleash new possibilities and lead us to unexpected results. We should drive ourselves to physical making either by model making objects or drawing by hand. If you design digitally it seems that your design is set from early stages, while when you use a physical approach such as analogue drawings and model making you push the design further. In general we see crafts to decline due to the increasingly mass and perfectly produce factories products. We have to keep and enhance craftsmanship and crafts people. As Richard Sennett said in his book *The Craftsman*, it is difficult to explain craftsmanship through text[42]. So my argument is if we lose craftsmanship and crafts people it will be gone forever. Every special craft around the world should be protected as an intangible heritage.

[42] Richard Sennett, The Craftsman, (New Haven: Yale University Press, 2008), 95.

Appendix

The Hotel Fouquet's Barriere in Paris was one of the buildings that inspired the Aria building and designed by the French architect Edouard Francois in 2006. The building is an exact replica of the previous Fouquet's hotel nearby and was designed in relation to the urban block that located. The new hotel was cast with concrete while square windows added according to the interior needs[43].

[43] "Hotel Fouquets Barriere," Edouard Francois, Accessed July 3, 2021, https://www.edouardfrancois.com/projects/hotel-fouquets-barriere.

Fig. 90 (right): The images shows the exterior view of the cast facade.

The Museum of Natural History located in Berlin and was renovated and expanded by the Architects Diener & Diener in 2010. The architects created a replica of the missing part of the museum. The building was damaged by bombs during the Second World War[44]. The concrete cast part reminiscent the event while at the same time keeps the memory and the form of the building. The building was a precedent study for the Aria building.

[44] "Diener & Diener Architekten: The Museum of Natural History," Divisare, Accessed July 3, 2021, https://divisare.com/projects/366508-diener-diener-architekten-the-museum-of-natural-history.

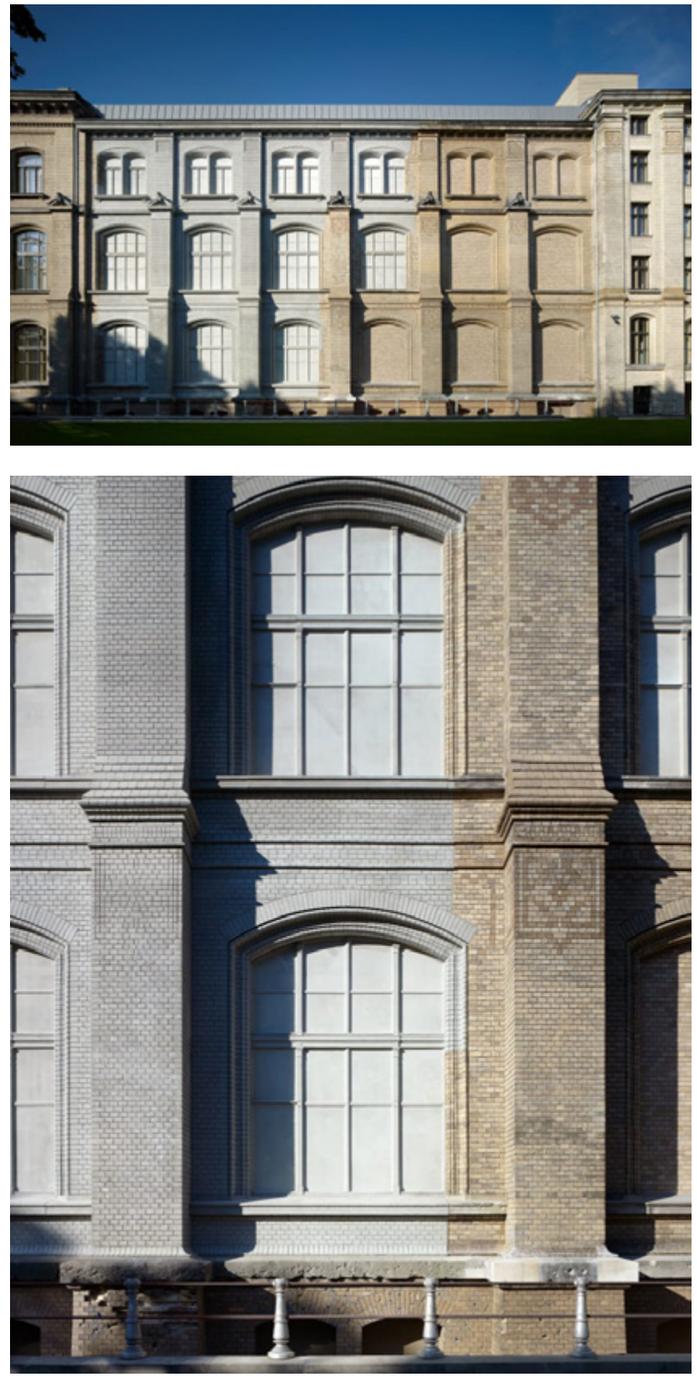
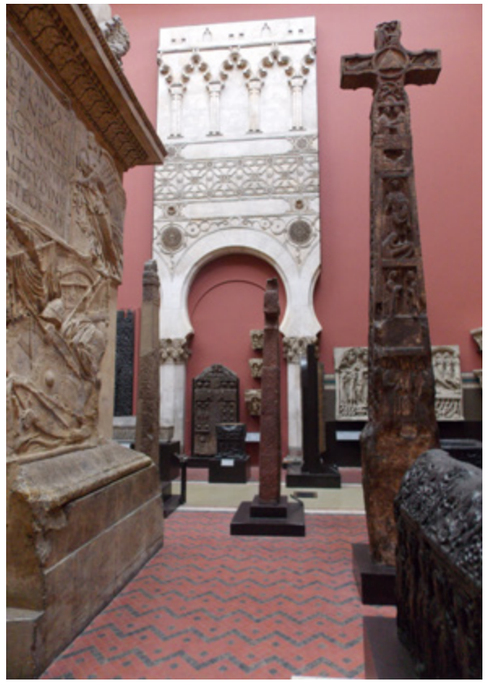
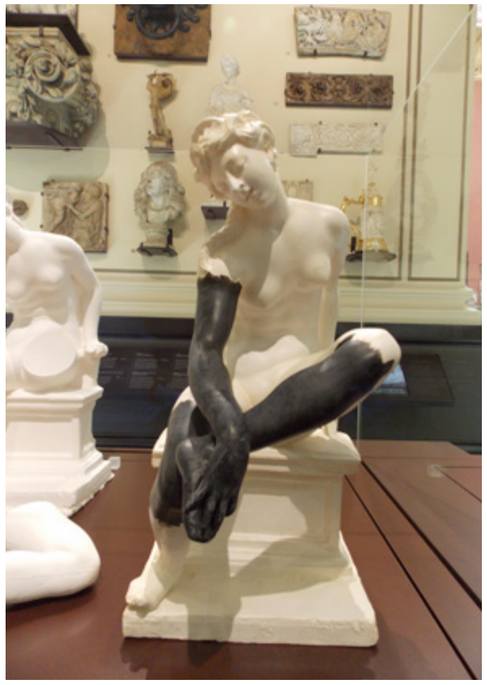


Fig. 91 (right): The images shows the exterior view of the cast facade.

Site Photographs

Fig. 92 (left): Site visit photographs.
Fig. 93 (right): Site visit photographs.





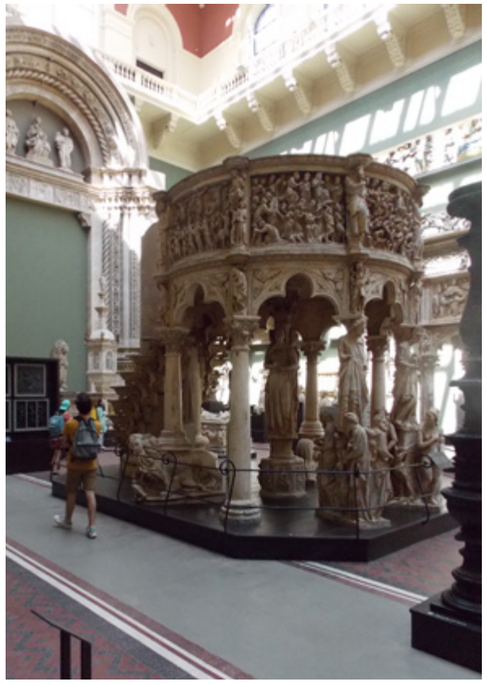


Fig. 94 (left): Study visit photographs from the cast rooms at Victoria and Albert Museum in Londonon 26/05/2021.
Fig. 95 (right): Study visit photographs from the cast rooms at Victoria and Albert Museum in London on 26/05/2021.

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Fig. 11: Photograph found from:
DMFK. “Salters Hall.” Accessed June 28, 2021. https://dmfk.co.uk/projects/salters-hall/.

Fig. 12: Photograph found from:
Archdaily. “Salters’ Hall Renovation: dMFK.” Accessed June 28, 2021. https://www.archdaily.com/791974/salters-hall-renovation-dmfk.
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Fig. 36: Drawn by the author. Information found from:
Digimap. “1870s.” June 21, 2021. https://digimap. edina.ac.uk/roam/map/historic.

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Fig. 42: Drawn by the author. Information found from:
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Fig. 49: Photograph found from:
Jorge Otero-Pailos. “Exhibitions.” Accessed June 21, 2021. http://www.oteropailos.com/.

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Pinterest. “Rachel Whiteread.” Accessed August 07, 2021. https://www.pinterest.co.uk/.

Fig. 52: Photograph found from:
Smout, Allen. “Infractus: the taking of Robin Hood Gardens.” Accessed July 14, 2021. http://www.smoutallen.com/infracts-the-taking-of-robin-hood-gardens.

Fig. 53: Photograph found from:
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Fig. 55: Photograph found from:
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Fig. C08: Photograph found from:
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Fig. C09: Photograph found from:
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Fig. C10: Photograph found from:
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Fig. C11: Photograph found from:
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Fig. C12: Photograph found from:
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The Poetic of Tangible Simulacrums

BARCo068: Final Project

MA Architecture and Historic Urban Environments - UCL

Concrete

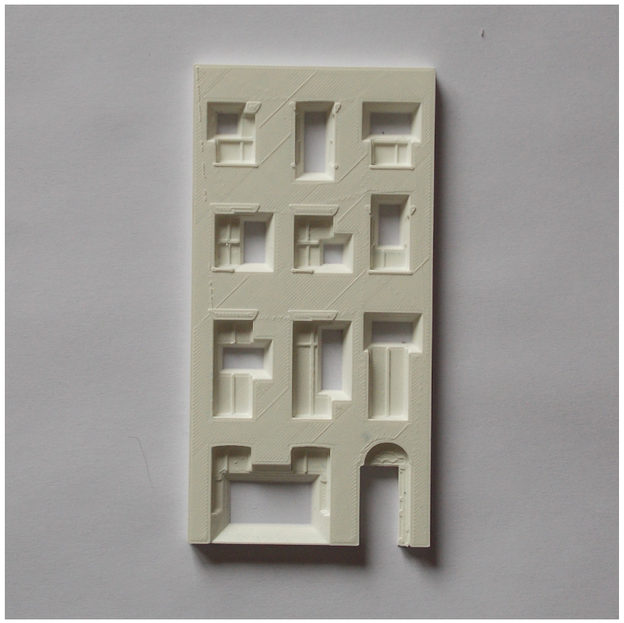
Note: Any drawing or image that is not referenced has been produced by the author.

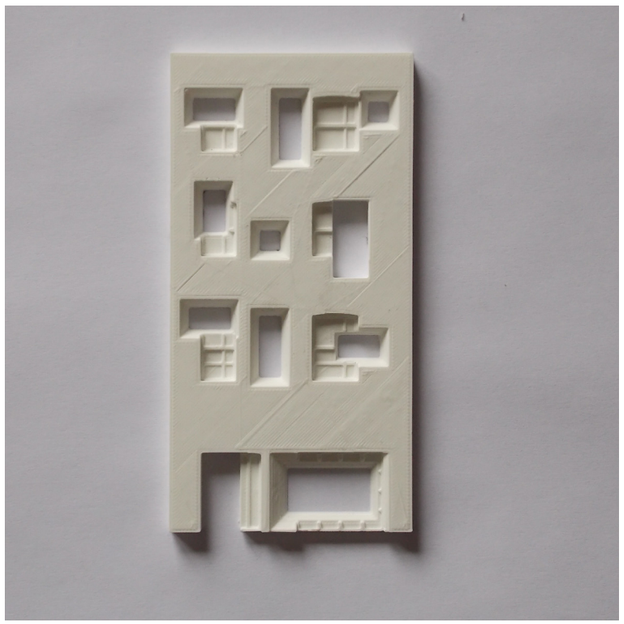
Student Number: 16062268
Submitted on 09/09/2021
Word Count: 416
Supervisor: Hannah Corlett
BARC0068: Final Project.
MA Architecture and Historic Urban Environments.
University College London
The Bartlett School of Architecture

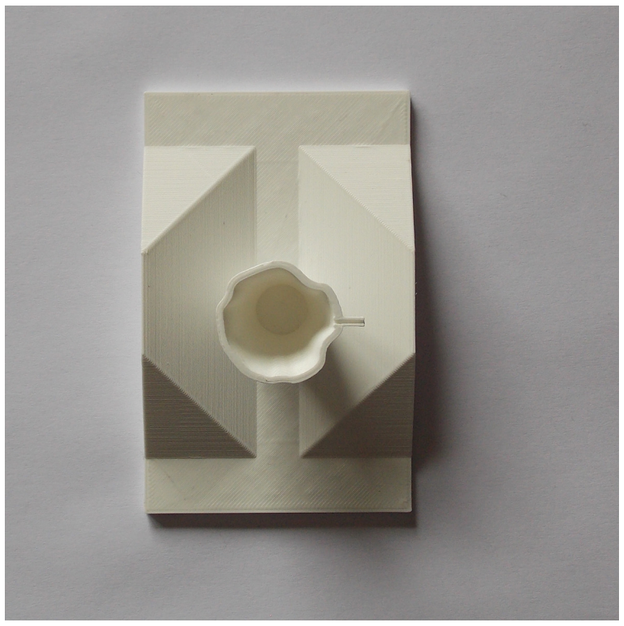
The concrete workshop inspired by brutalism and modernism architectural elements. To start with, due to the huge amount of water needed for making concrete, each concrete workshop includes a water tank on the rooftop. The water tank was inspired by brutalism water tanks. The openings are inspired by modernism architecture where the use of concrete was essential. The plasticity of concrete as a material allows the realisation of this conical carved shaped opening. As you can observe from the models and drawings from this document, the allocation of the opening comes in juxtaposition with the Georgian house window traces. The position of the openings is made also in relation to the interior needs of the workshops. The ground floor opening is large enough to allow the visual interaction of the workshop user with visitors and passengers.

The concrete workshops have two double height floors. Due to the dimensions of the concrete casts this extra height is needed. The moulds and most of the casts are temporarily stored on the first floor. The vertical movement of the materials, moulds and casts is done through an opening within the floor. Due to the limited space, the staircase that leads to the upper floor is located outside. The staircase is a replica from the Hayward gallery staircases.

The process of making the workshops model is similar to the other workshops but with few exceptions. The material proportions to create concrete needs to be perfect. Furthermore, the material needs enough time to set before demoulding the pieces. Silicone was used as the material for moulds due to the ability to be able to cast all the five materials and in any temperature.







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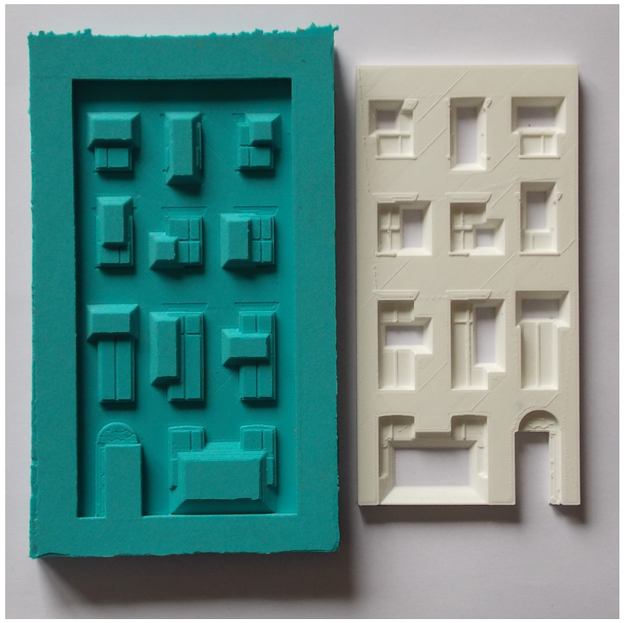

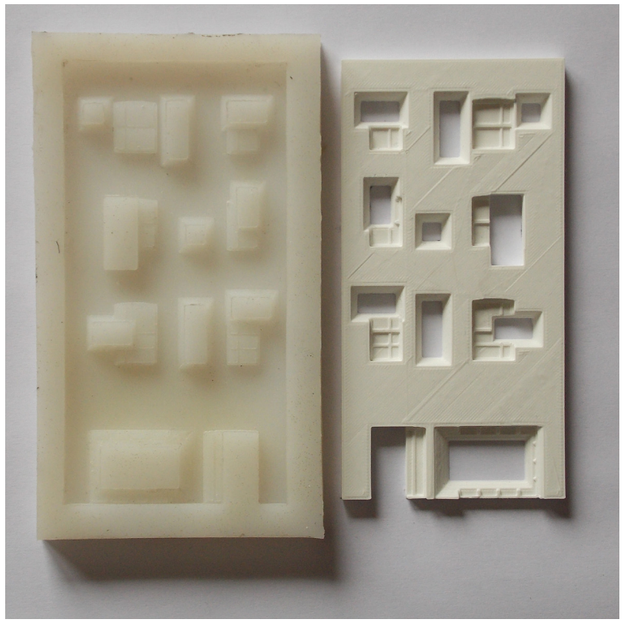

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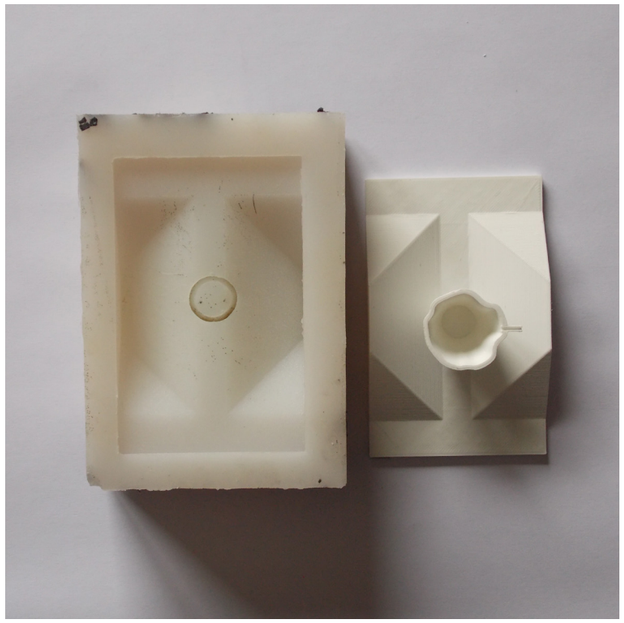

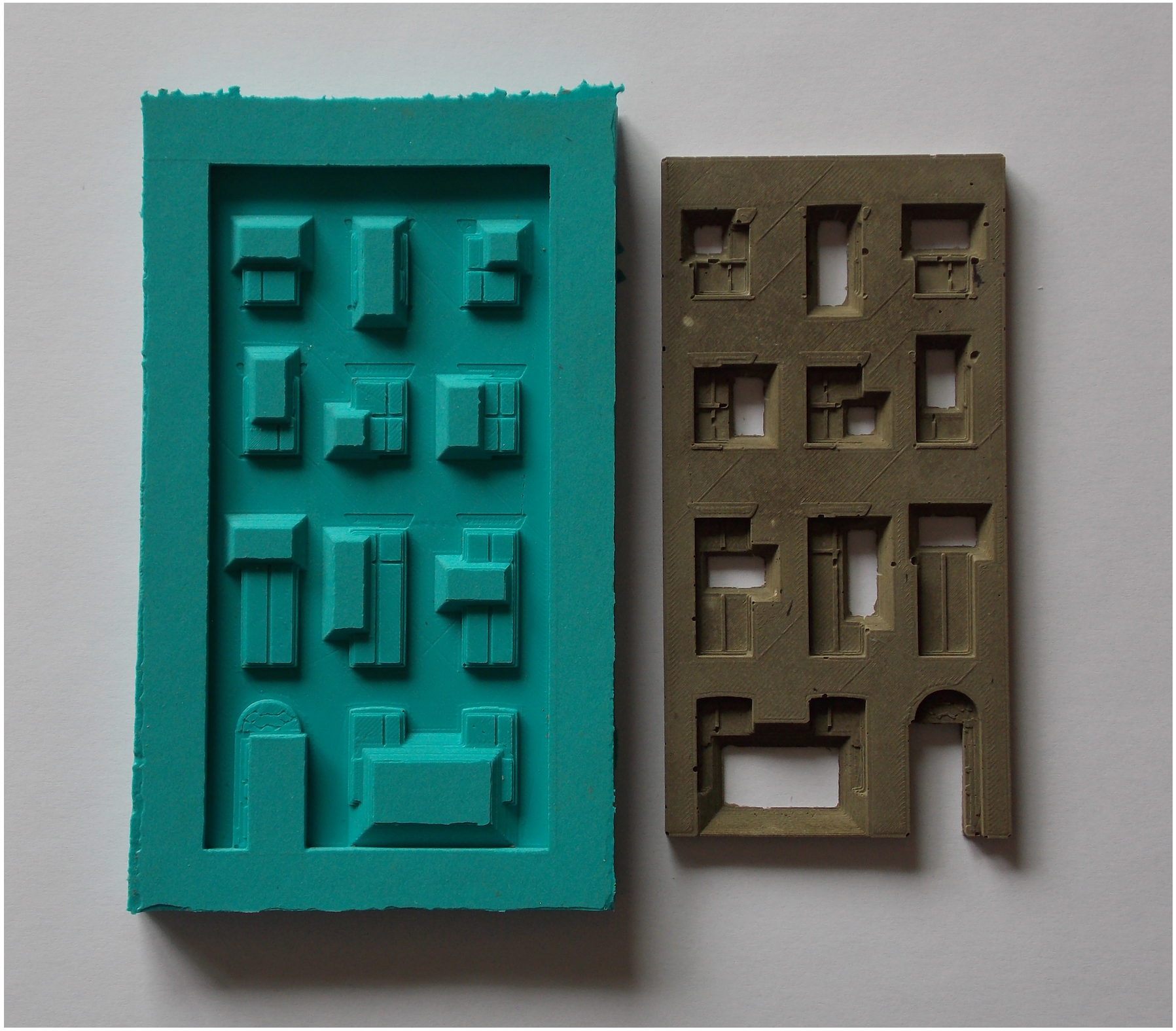

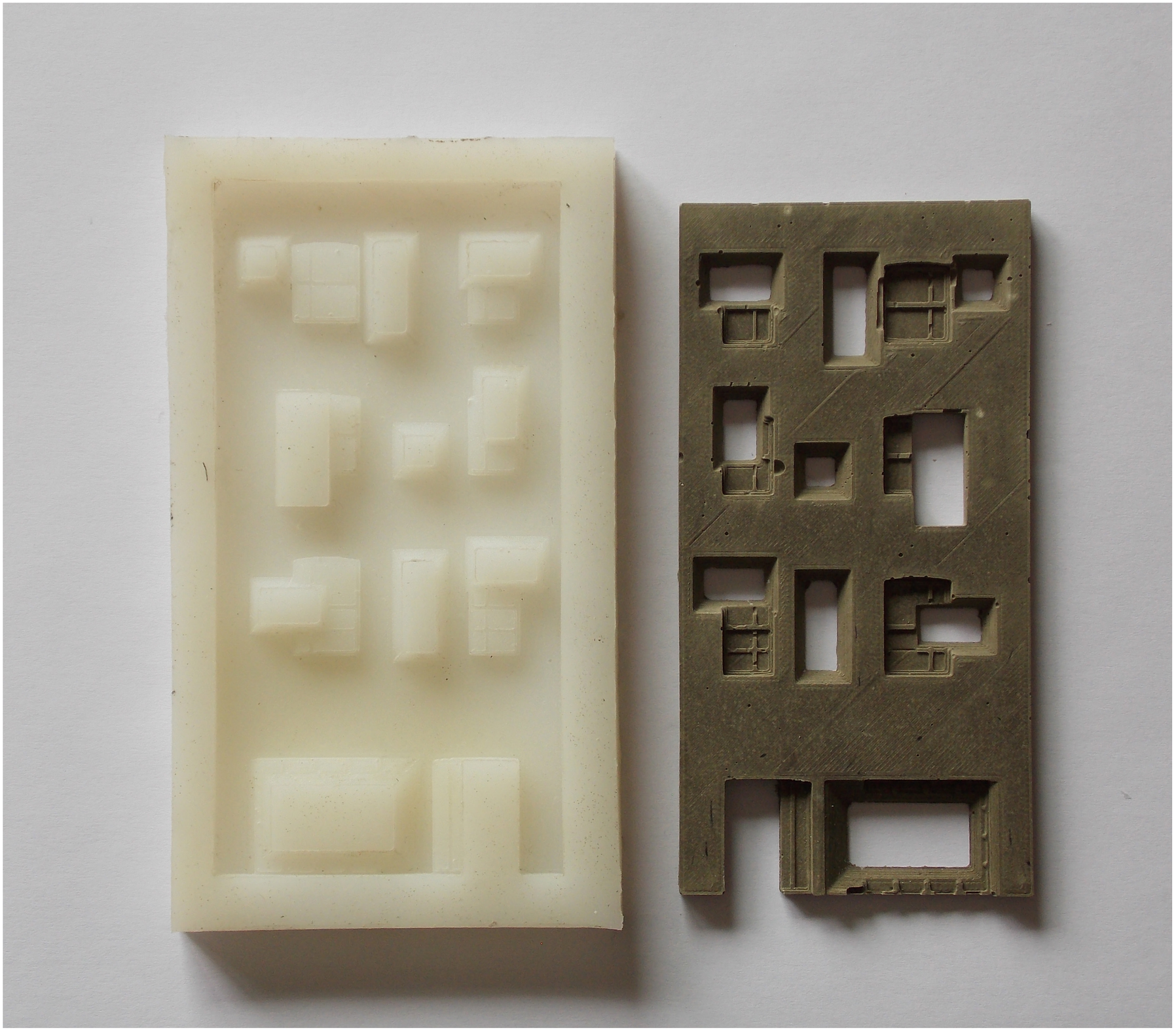

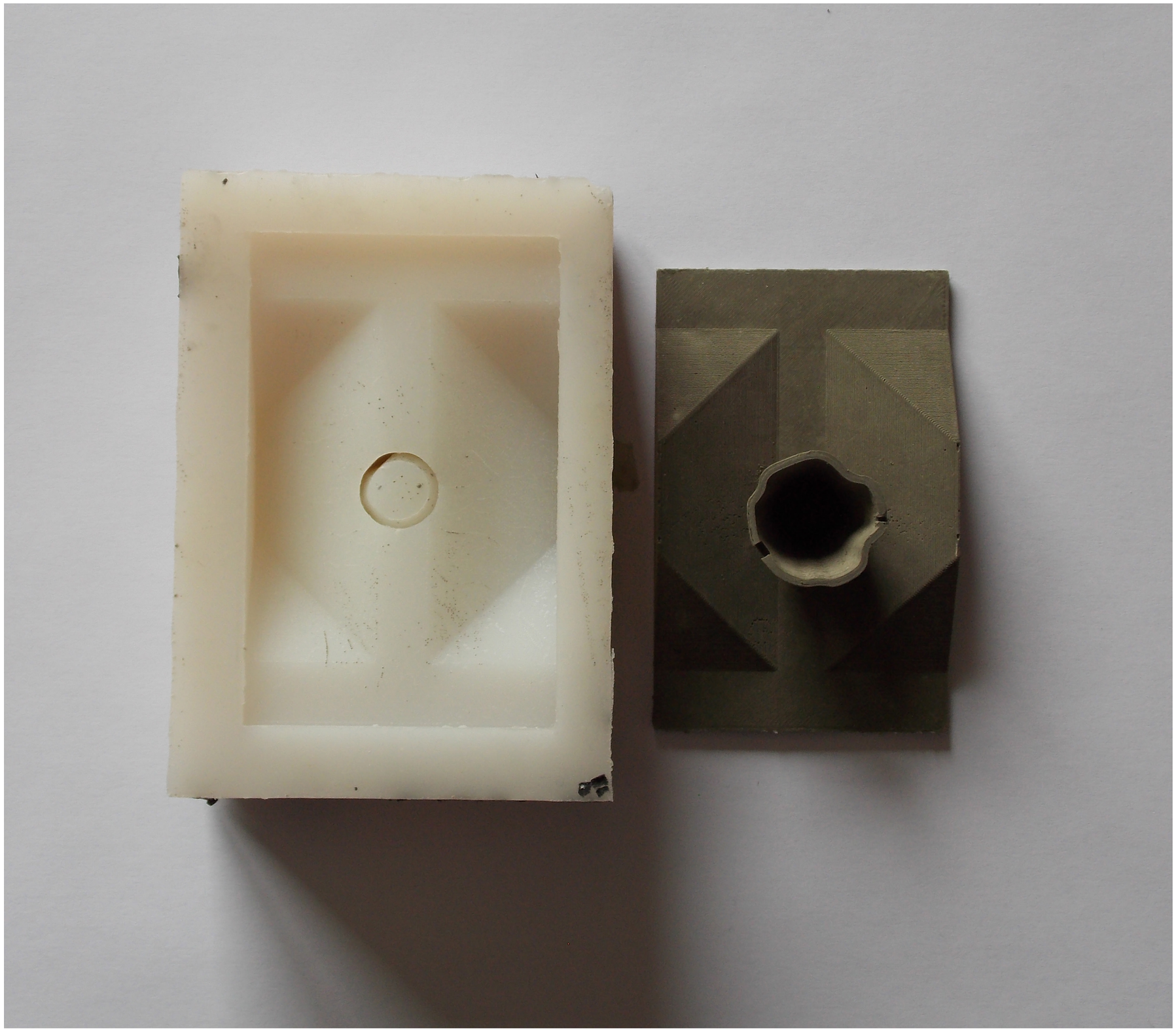

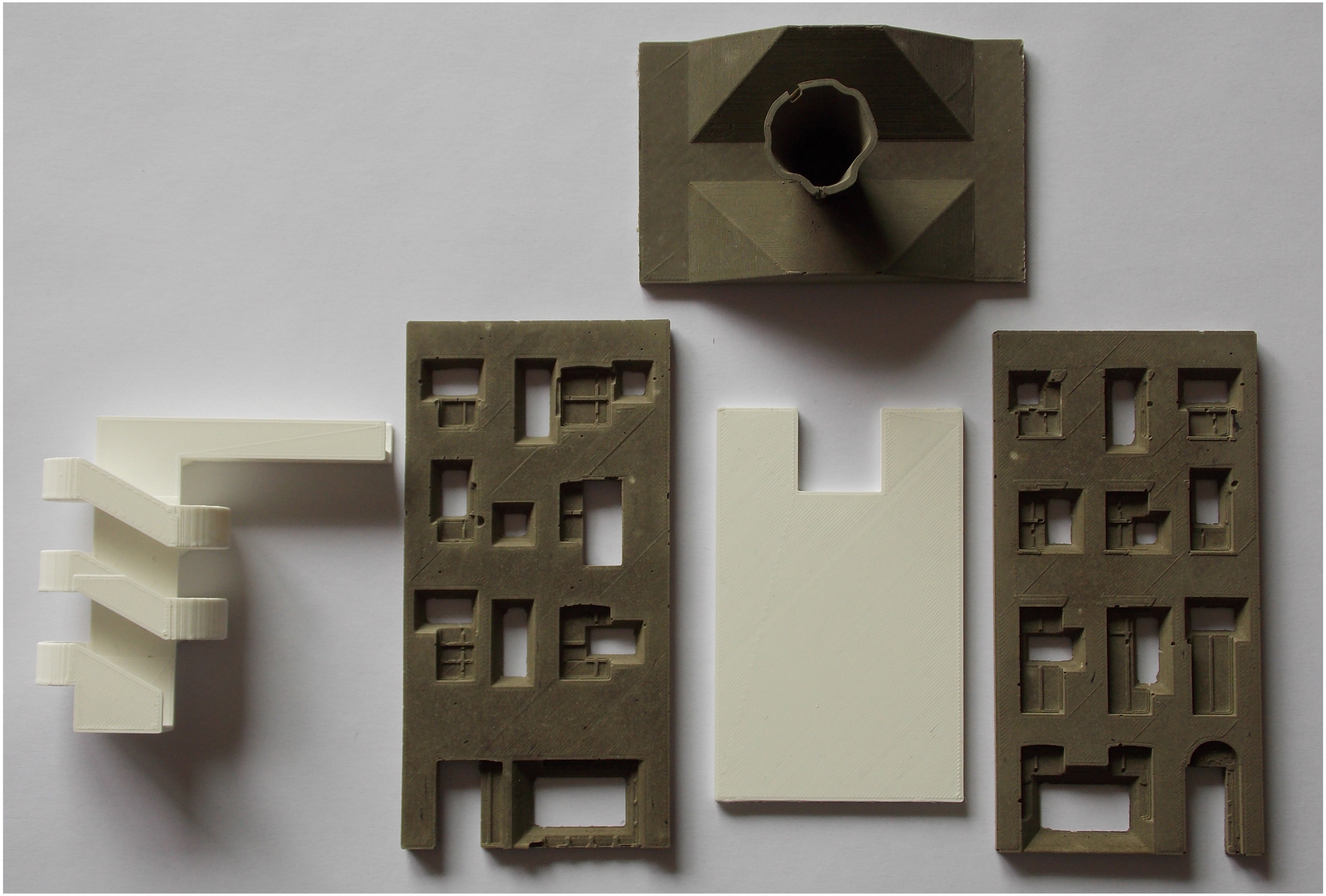

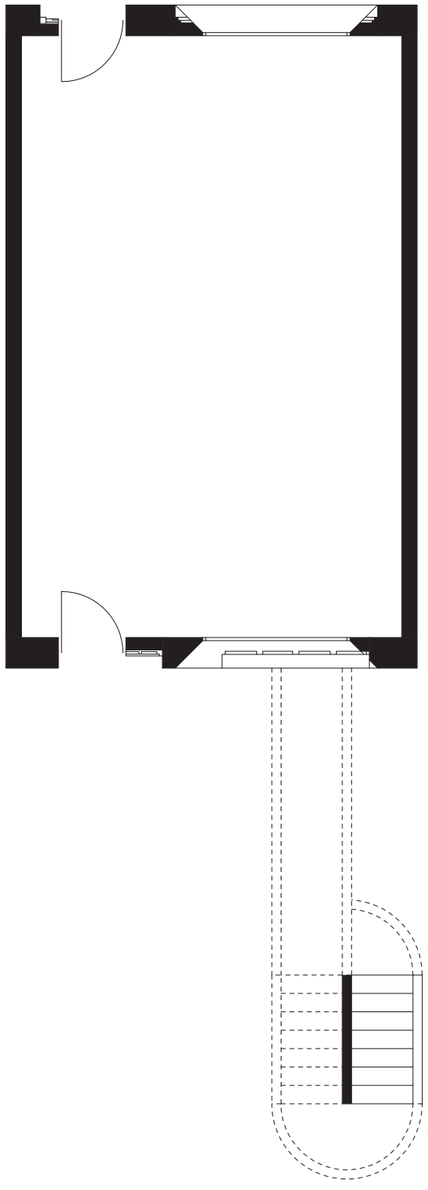

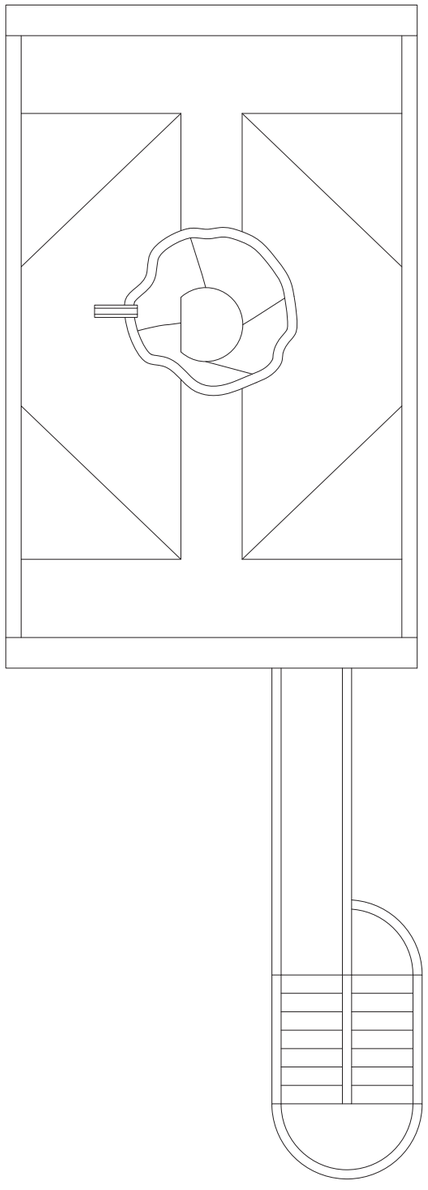

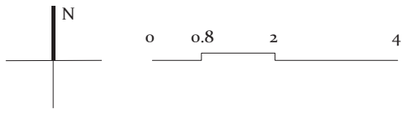
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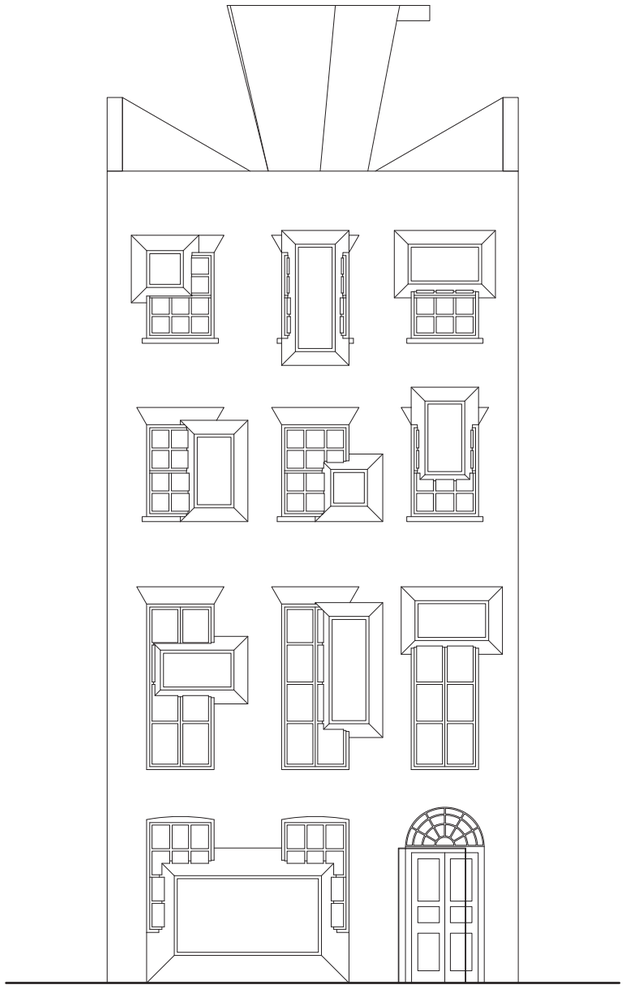

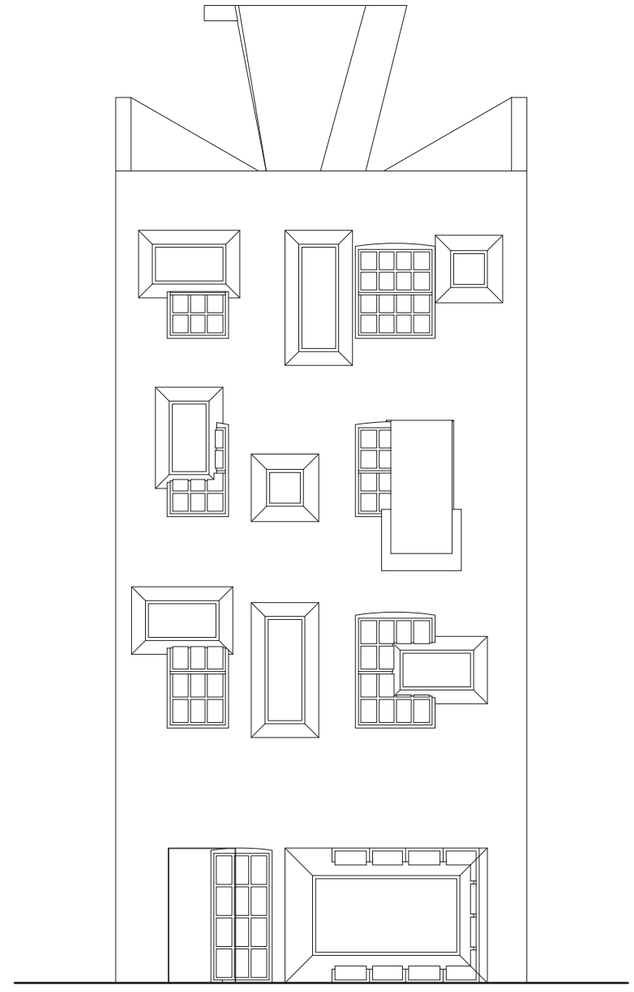

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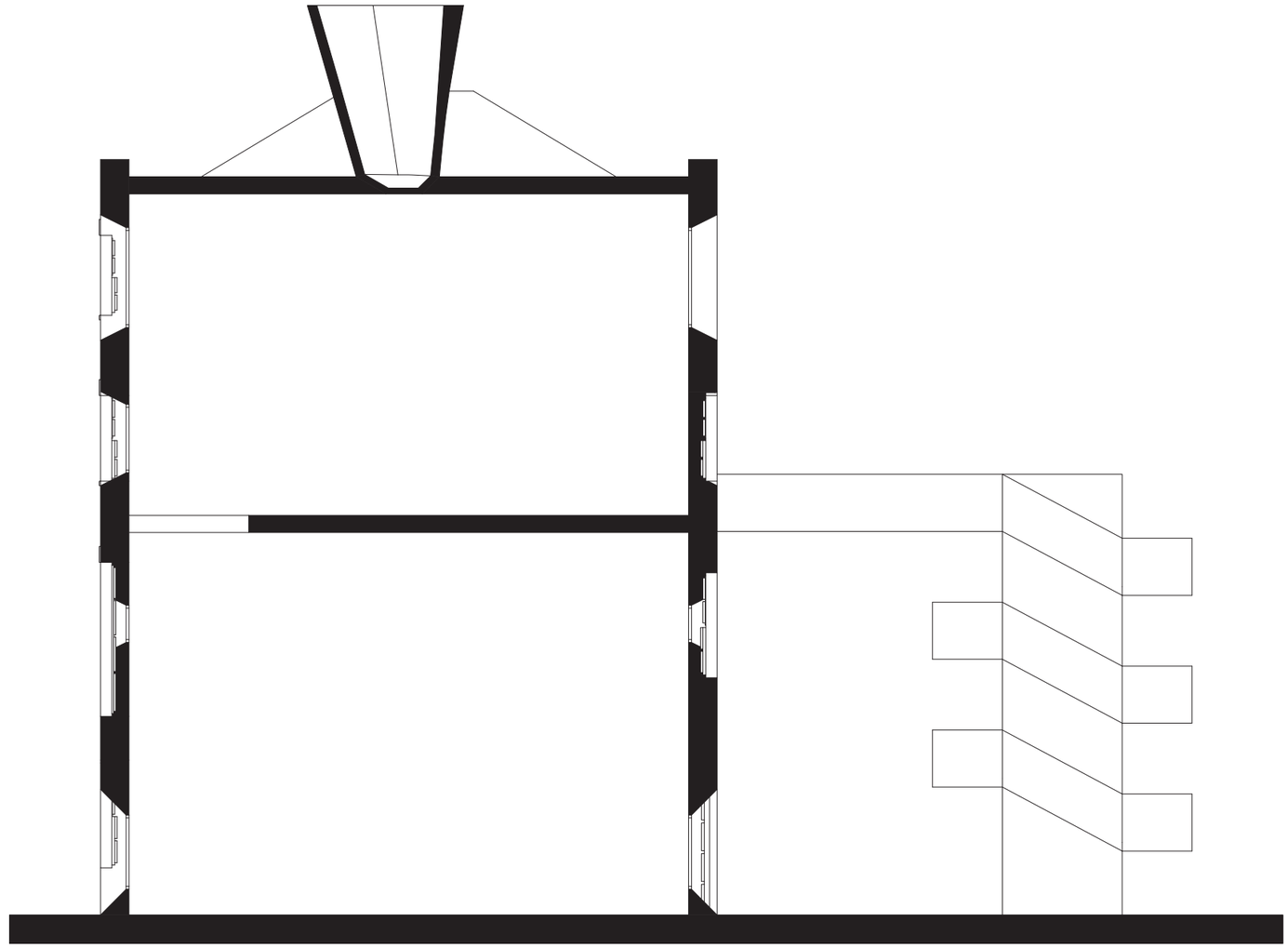

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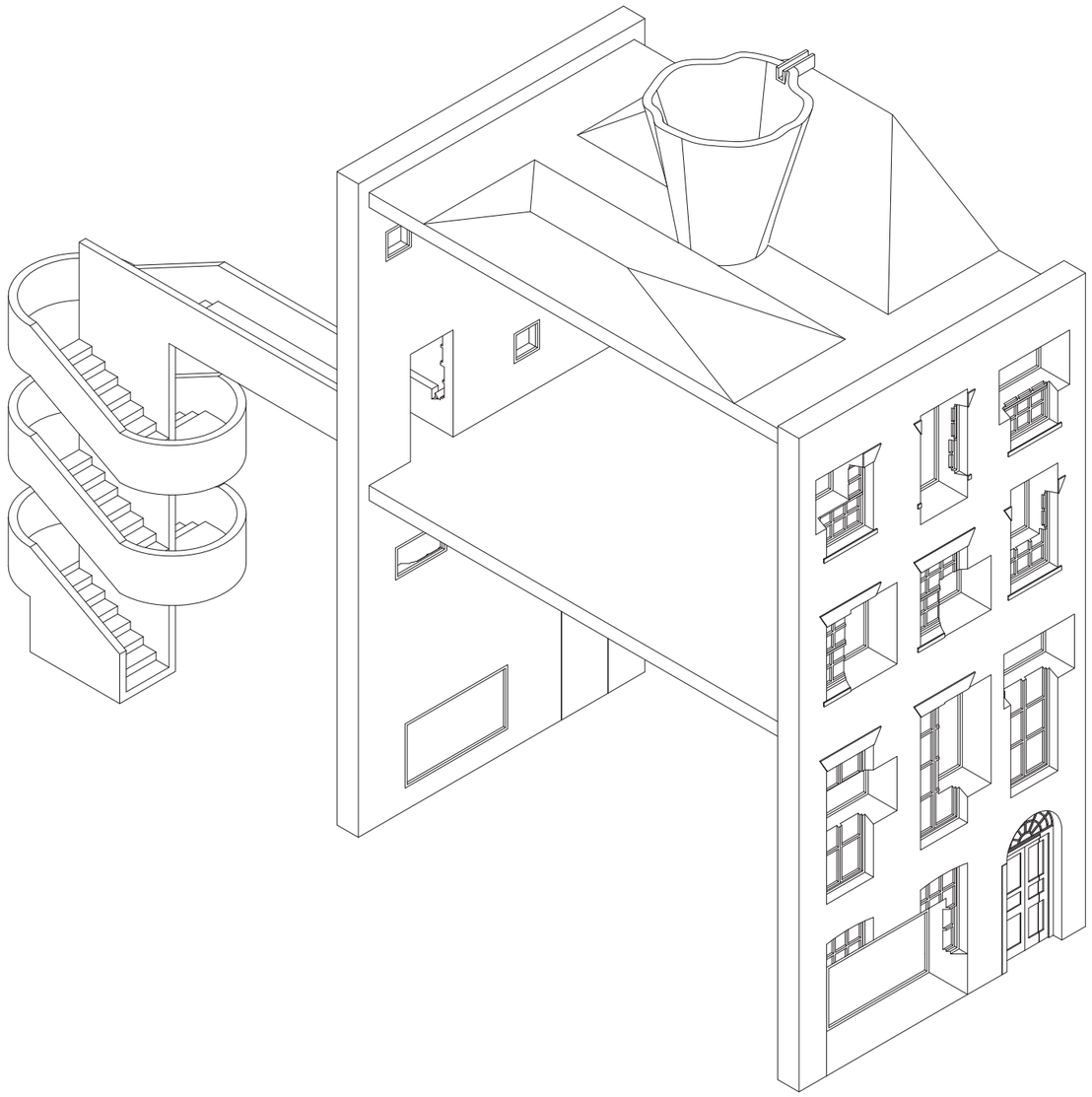

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Fig. C01 (left): The *House* by Rachel Whiteread.
Fig. C02 (right): Brutalism Water Tank.

Fig. C03 (left): The roof of Unite d' Habitation designed by Le Corbusier.
Fig. C04 (right): Brutalism water tank structures.

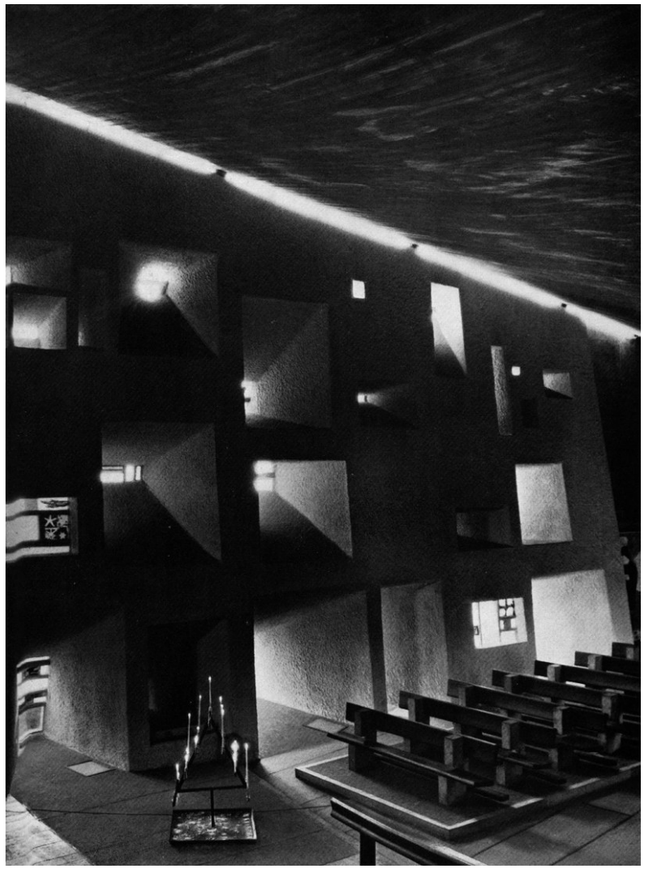


Fig. Co5 (left): Windows of Ronchamp chapel designed by Le Corbusier.
Fig. Co6 (right): Windows of Ronchamp chapel designed by Le Corbusier.

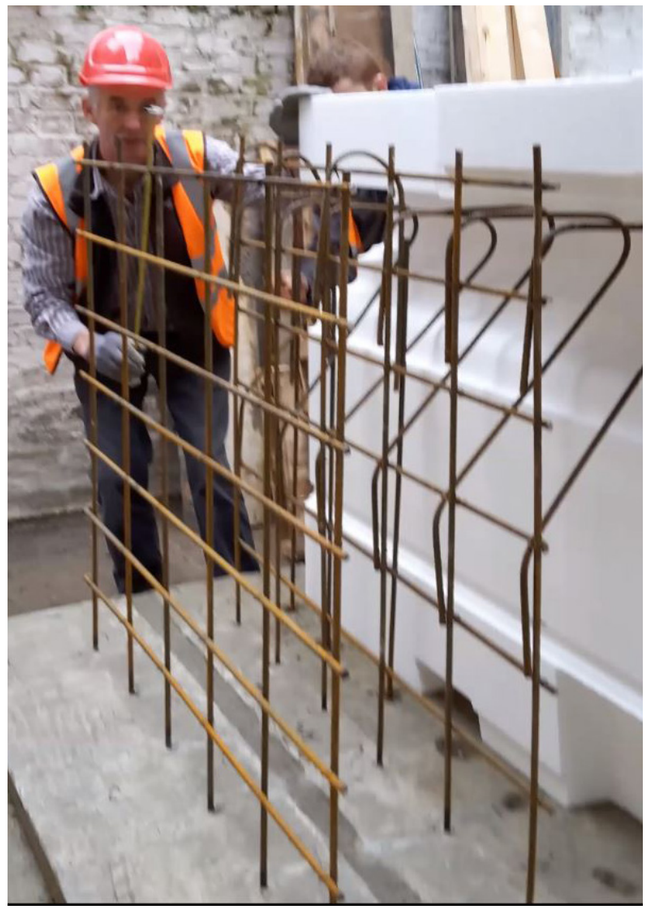
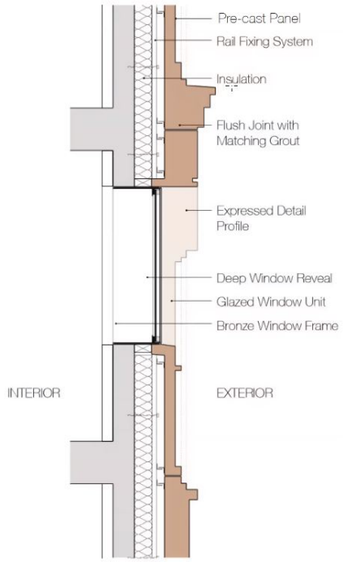


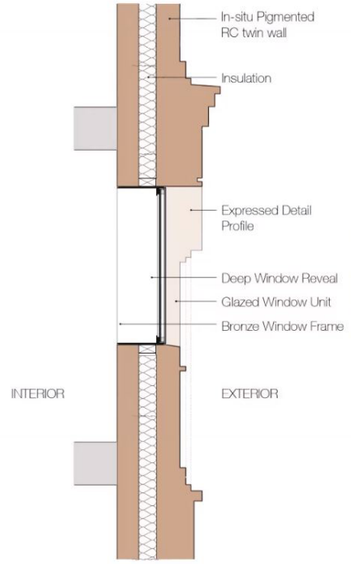
Fig. C07 (left): Robot creating the polystyrene mould for casting the Aria building.
Fig. C08 (right): Detail of polystyrene mould and steel structure for Aria building.

Fig. C09 (left): Polystyrene mould wall before casting Aria building.
Fig. C10 (right): Polystyrene mould wall before casting Aria building.

External Wall Option 1:
Pre-Cast Concrete Panel



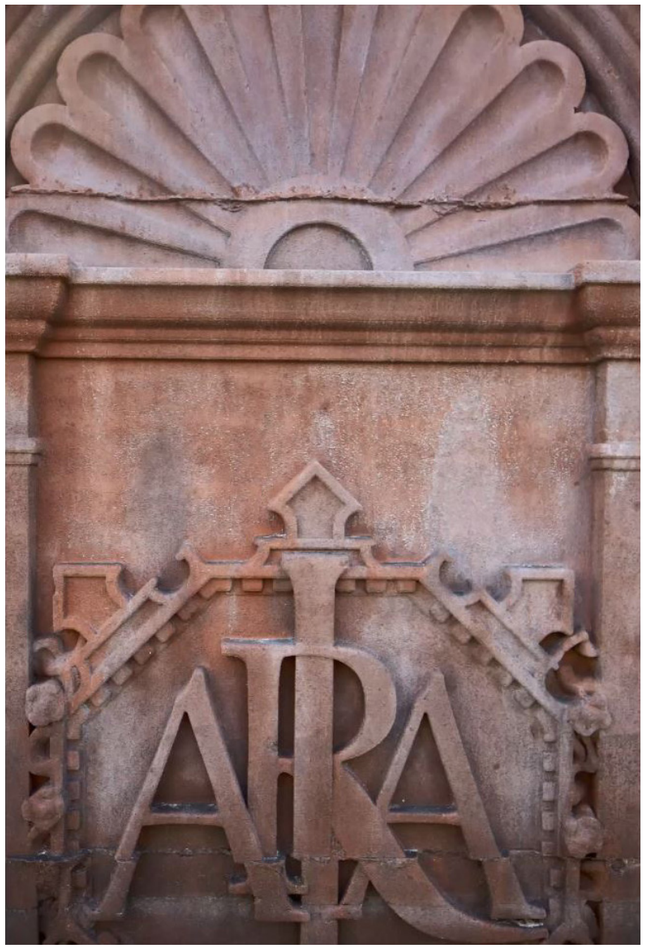
External Wall Option 2:
In-situ Concrete Twin Wall



External Wall Option 1: Pre-Cast Concrete Panel	**Rate (£/sqm)**
Precast Panels	£1,000
Internal RC Wall	£200
Wall Linings	£150
Total	**£1,350**

External Wall Option 2: In-situ Concrete Twin Wall	**Rate (£/sqm)**
External Formwork	£90
Intenal Formwork	£35
Pigmented Concrete	£90
External Concrete Wall Rate	£250
Internal Concrete Wall Rate	£200
Total	**£675**

Fig. C11 (left): Remove of the polystyrene mould after the cast, Aria building.
Fig. C12 (right): The drawing shows the two proposed construction methods for Aria Building. The polystyrene mould cast was cheaper than the precast concrete method.



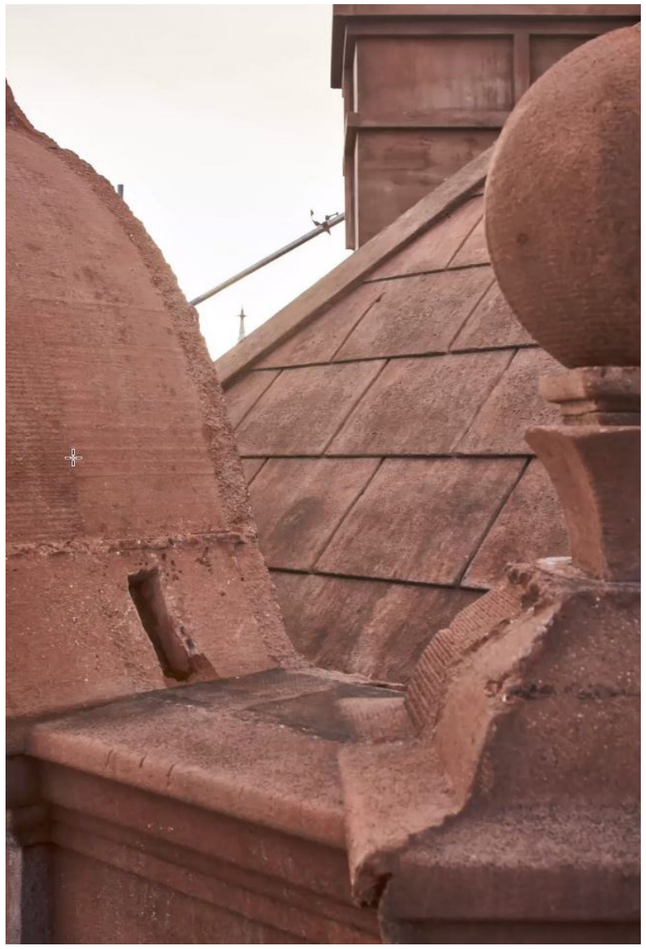
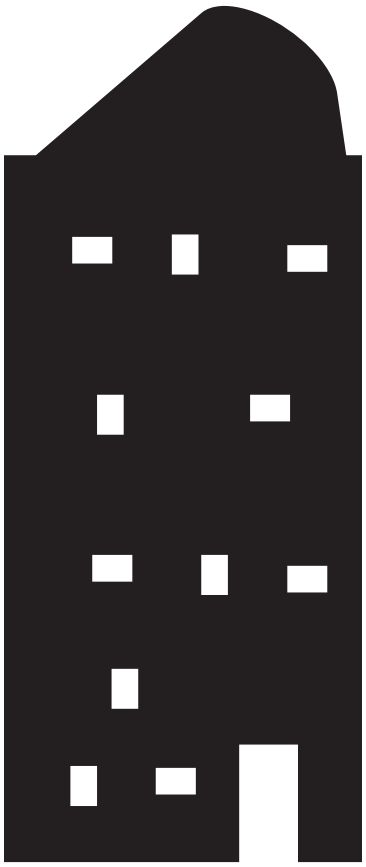


Fig. C13 (left): Close up from the cast, Aria building.
Fig. C14 (right): Close up from the cast, Aria building.

The Poetic of Tangible Simulacrums

BARCo068: Final Project



MA Architecture and Historic Urban Environments - UCL

Latex

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Student Number: 16062268
Submitted on 09/09/2021
Word Count: 339
Supervisor: Hannah Corlett
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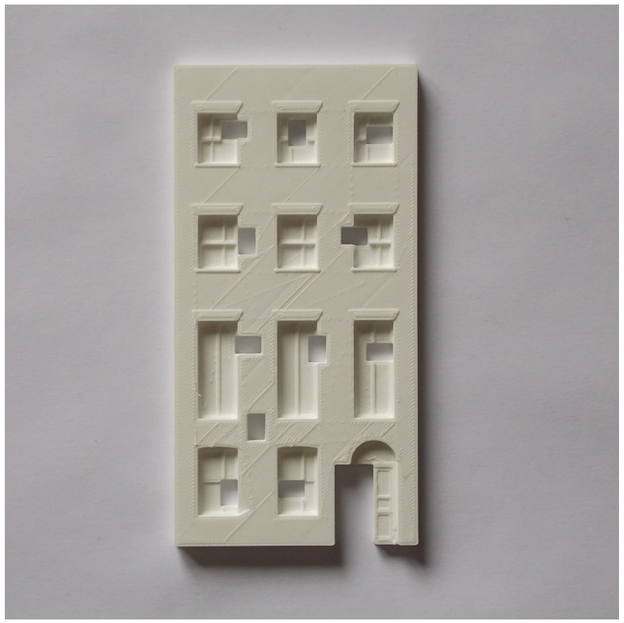
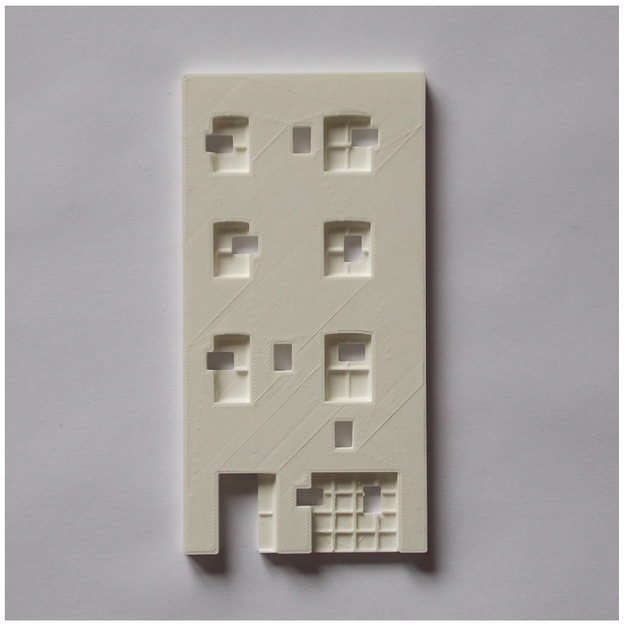
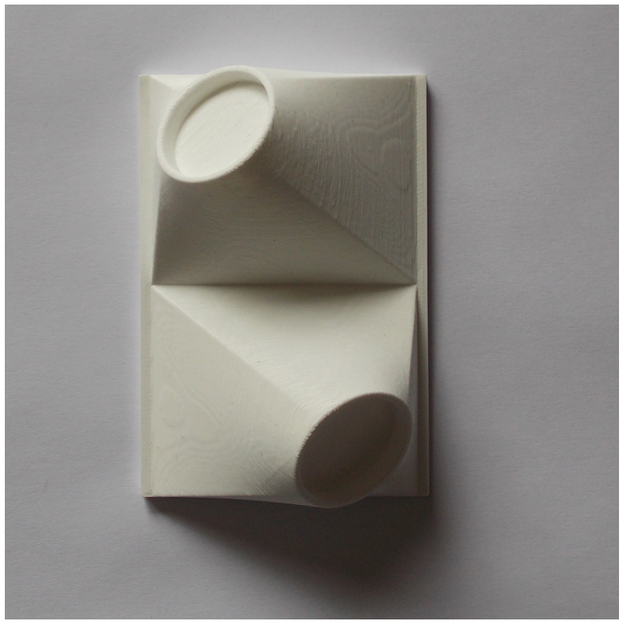
The latex workshop inspired by the work of Jorge Otero-Pailos. As a material could be both the mould and the cast. Due to the high toxicity and smell, the latex workshops need good ventilation. The roofs are inspired by brutalism buildings and brutalism air ventilated structures. Due to the transparency of the material the openings are small in size. The allocation of the opening has as a reference the position of the Georgian house window traces. The position of the openings is made also in relation to the interior needs of the workshops. While the sizes of the latex casts are small, the latex workshops have four floors with an internal staircase. The floors are carved in order to allow vertical movement of materials, casts and moulds. The first, second and third floors could be used as storage spaces while the ground floor is dedicated to the making of the simulacrums. A secondary structure is needed to support and hang the soft and bendy latex.

The process of making the workshops model is similar to the other workshops. On the other hand, the time that the latex needs to set is at least seven times more than the other materials. The demoulding of the pieces is easy due to the flexibility of the material. Throughout time the material shrinks and is something to be considered. The fig. L03 and fig. L04 show the qualities of the material in relation to texture, colour strength and light interactions.







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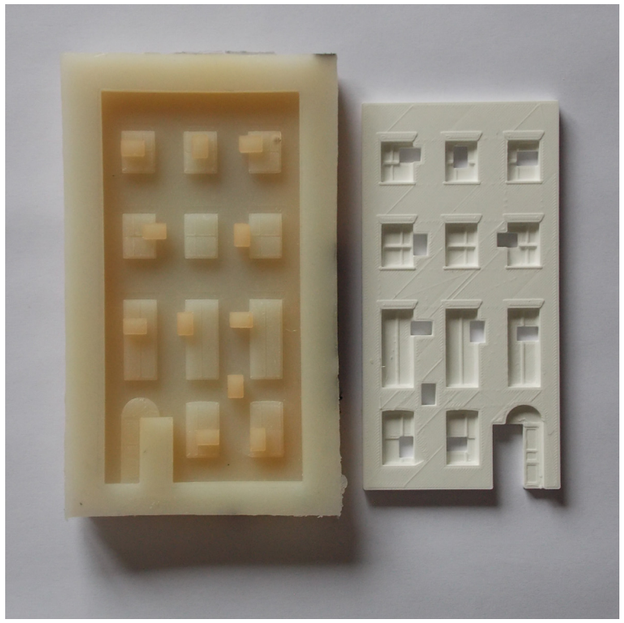

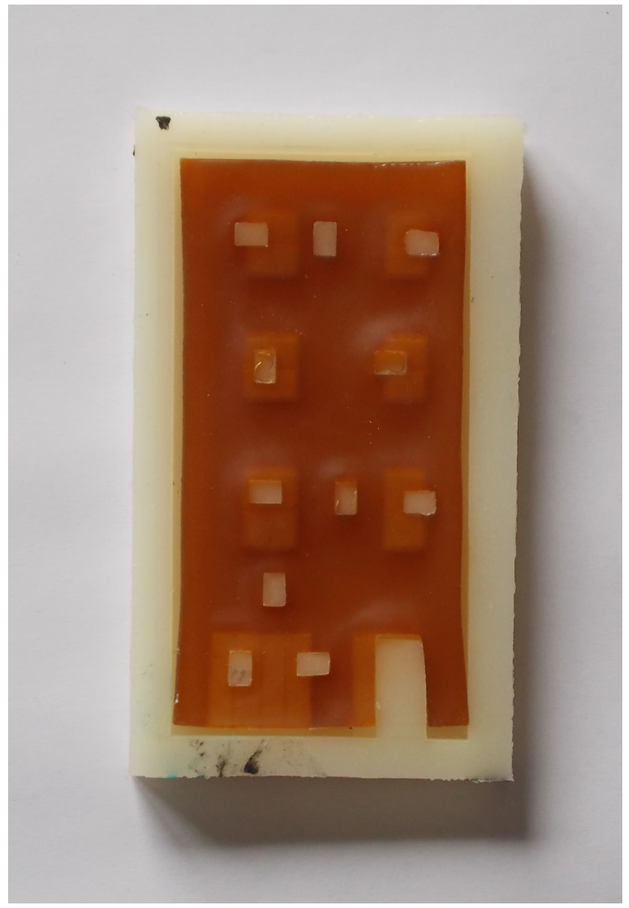

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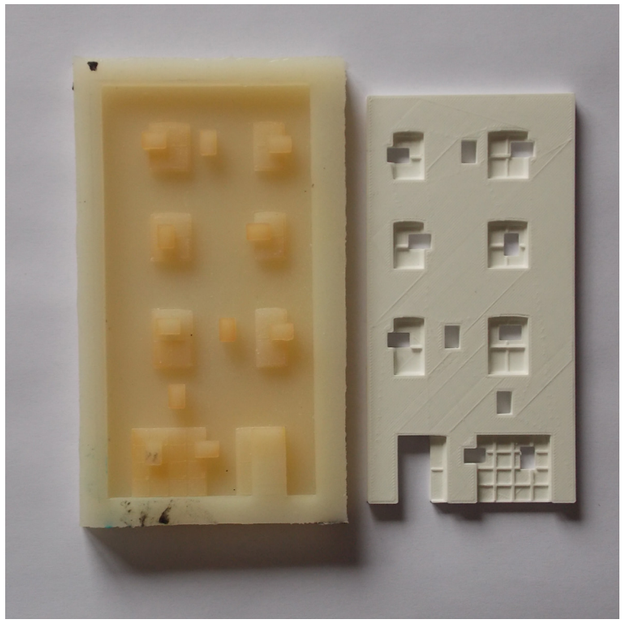

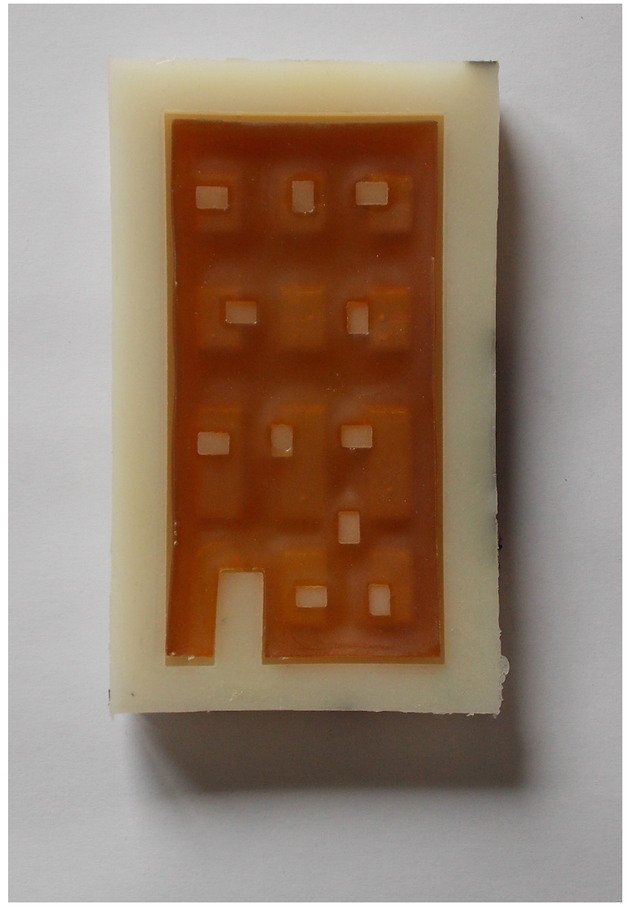

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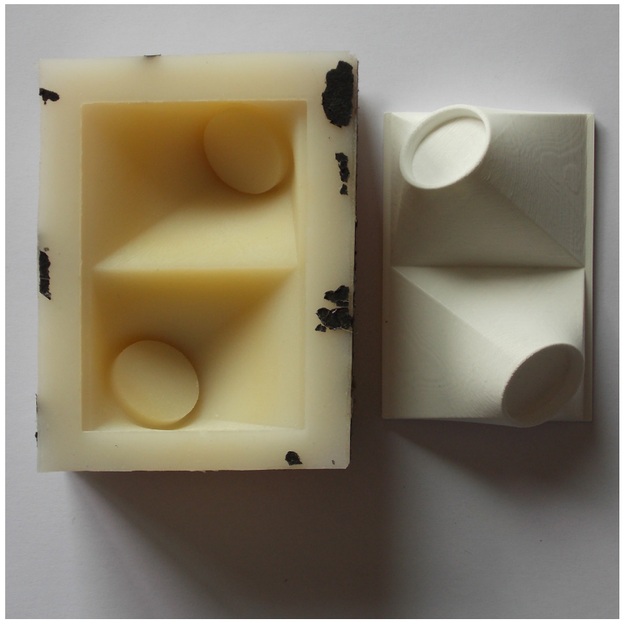

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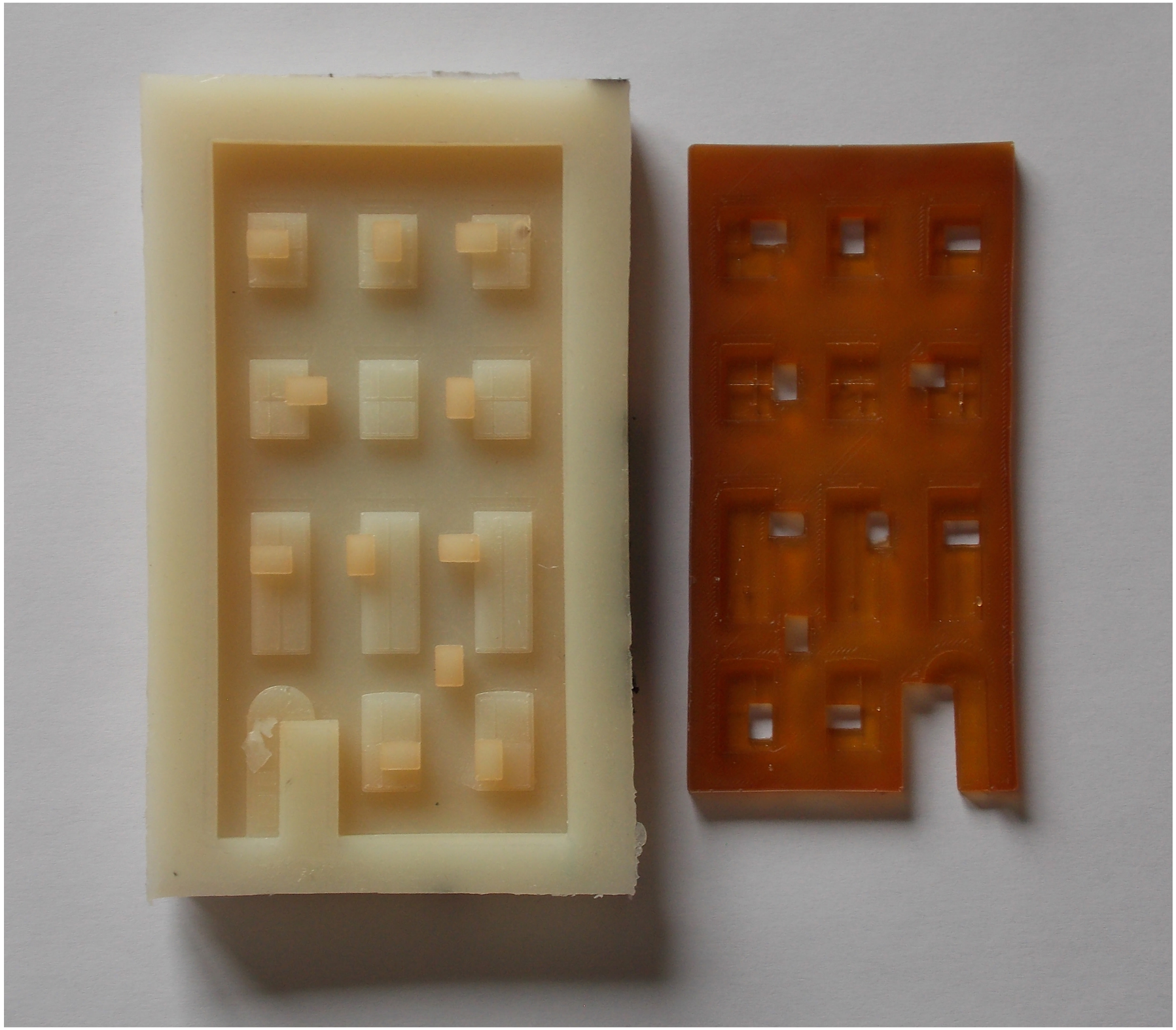

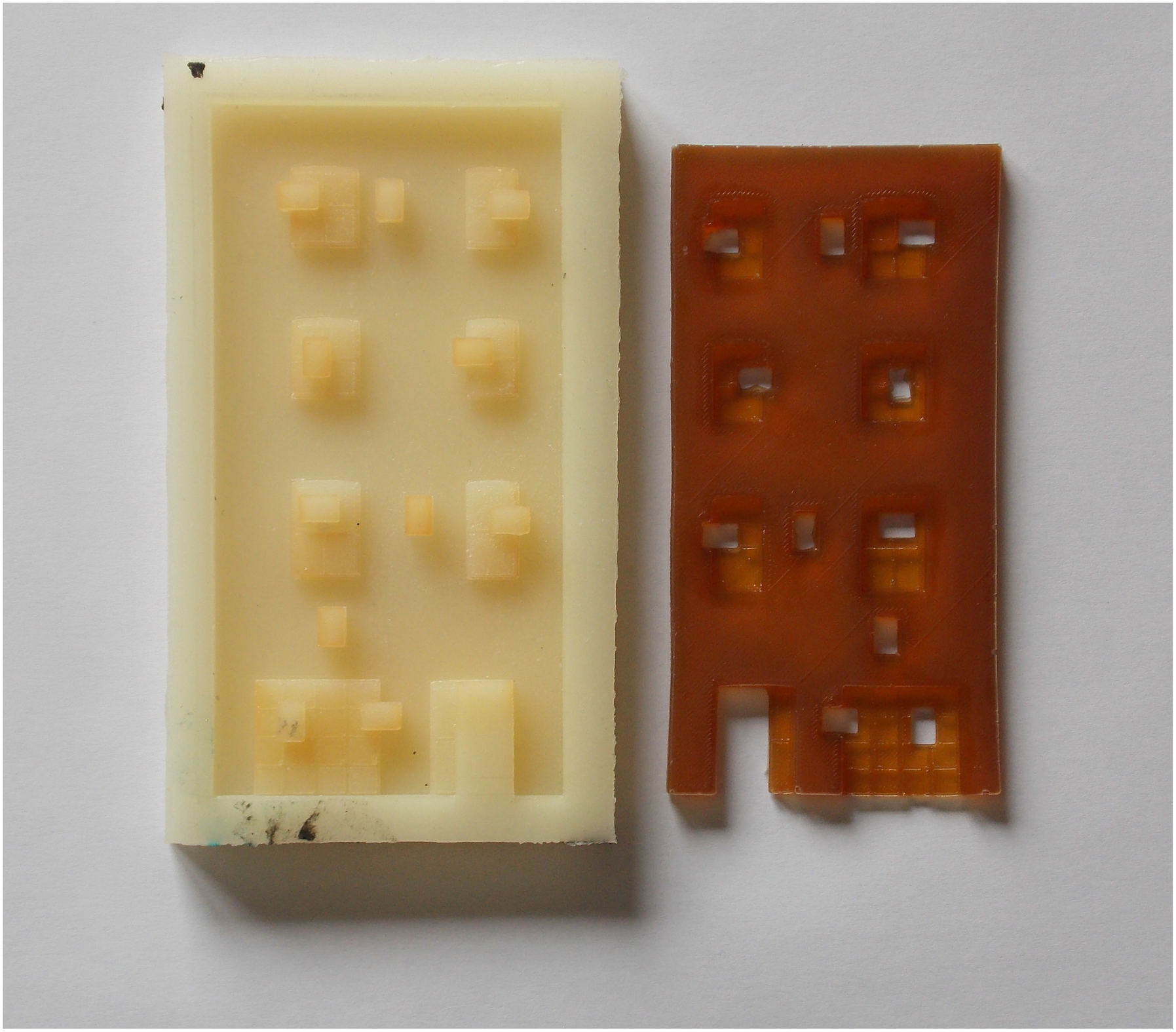

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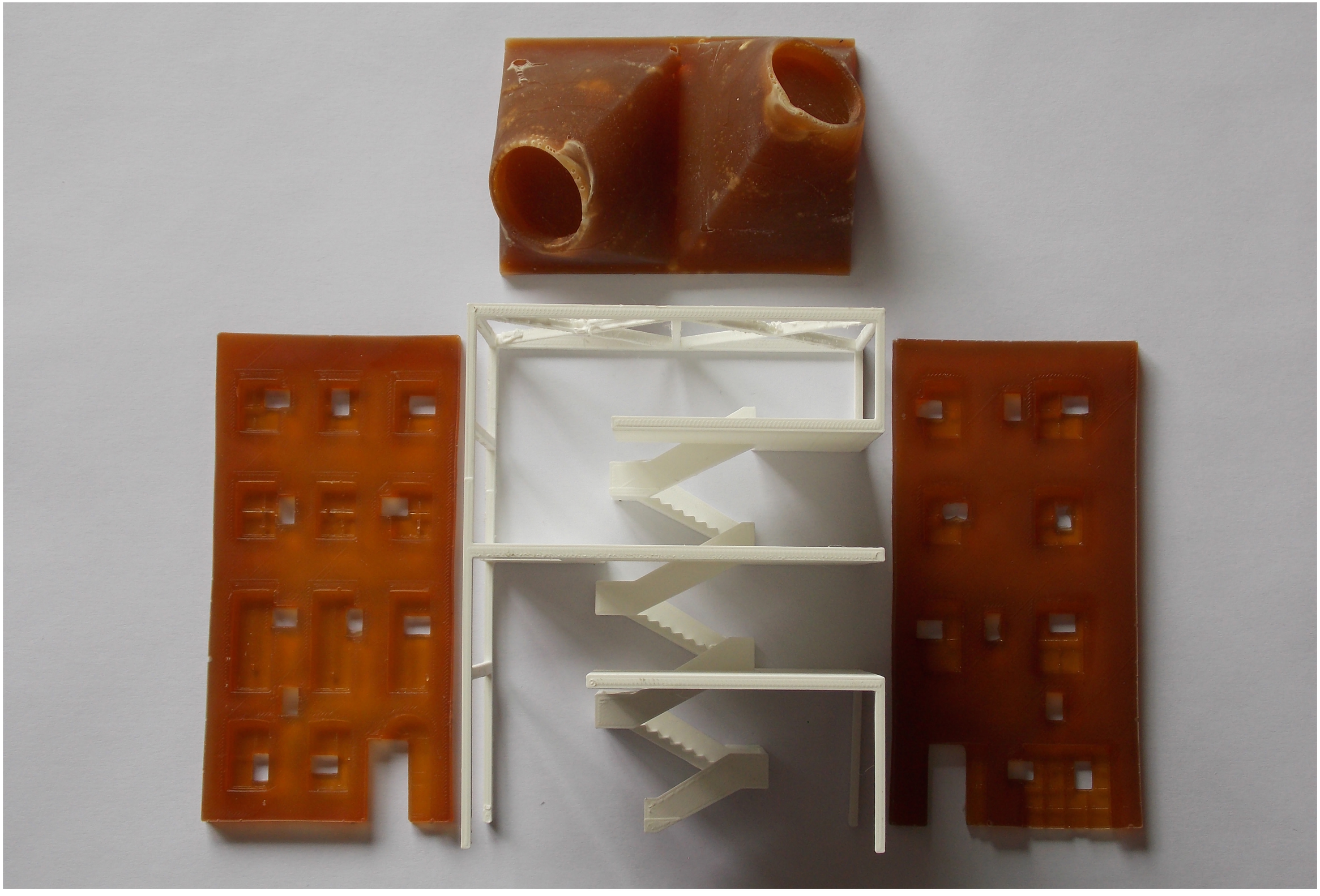

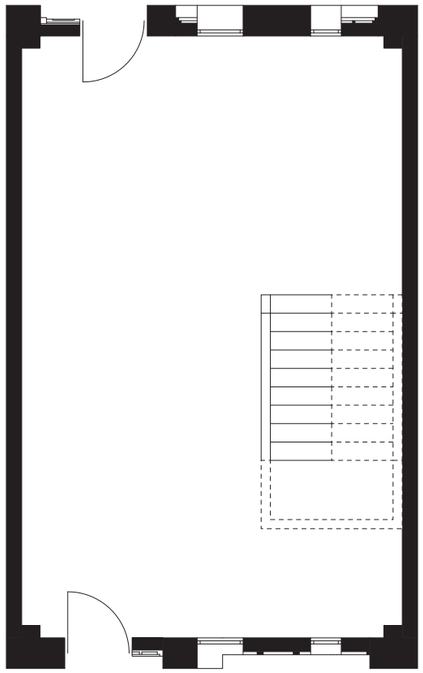

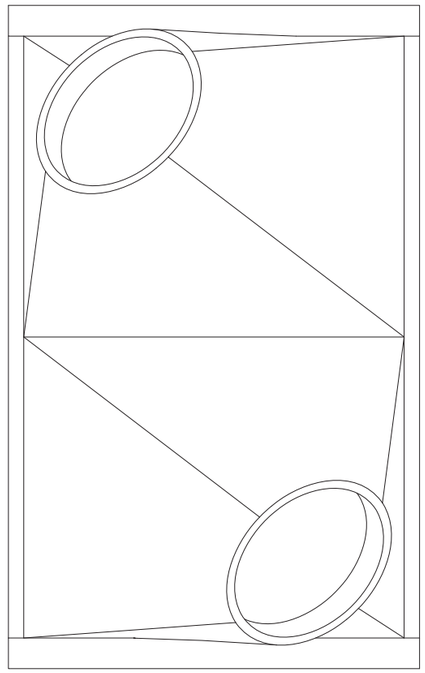

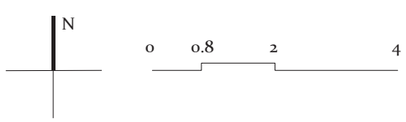
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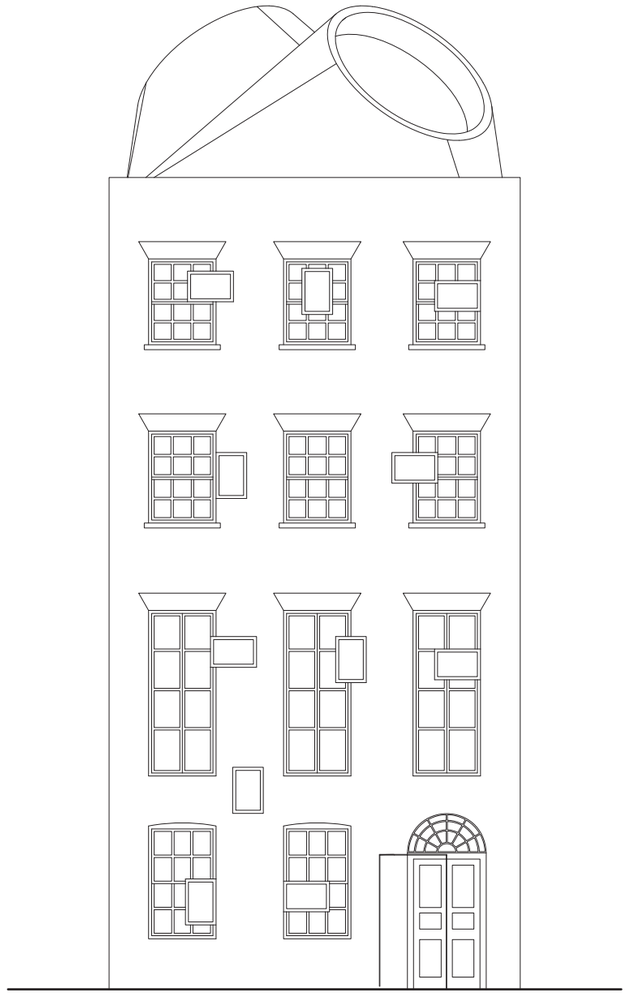

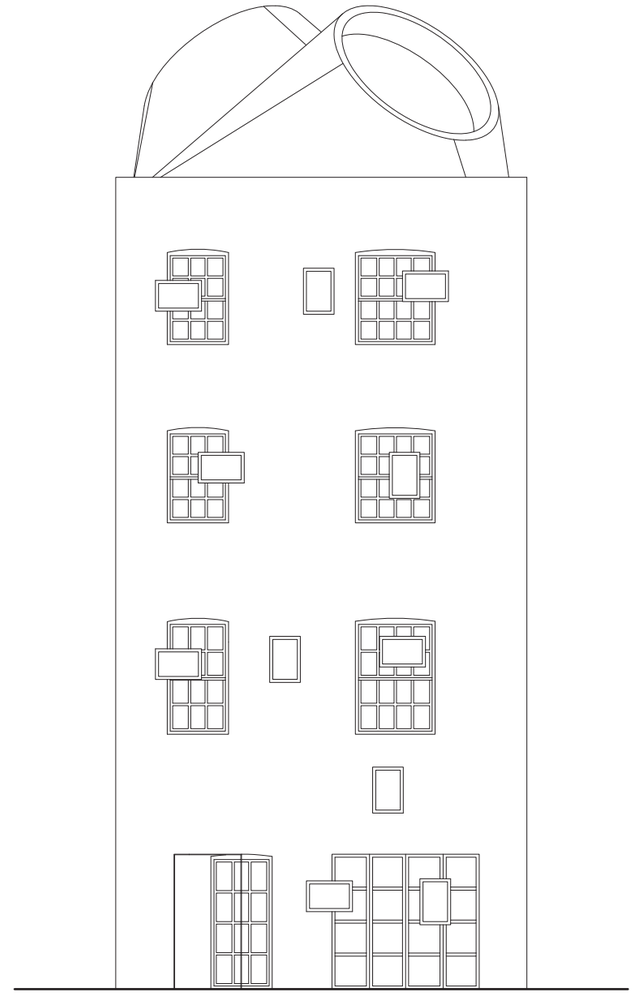

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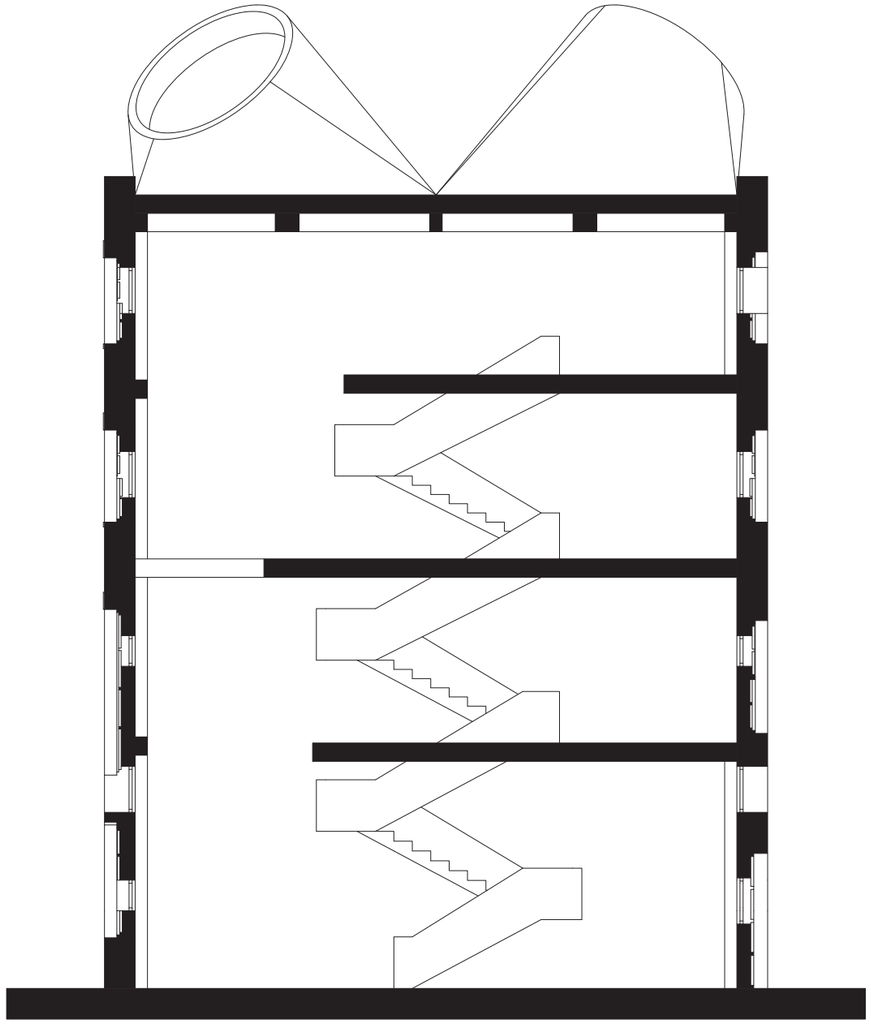

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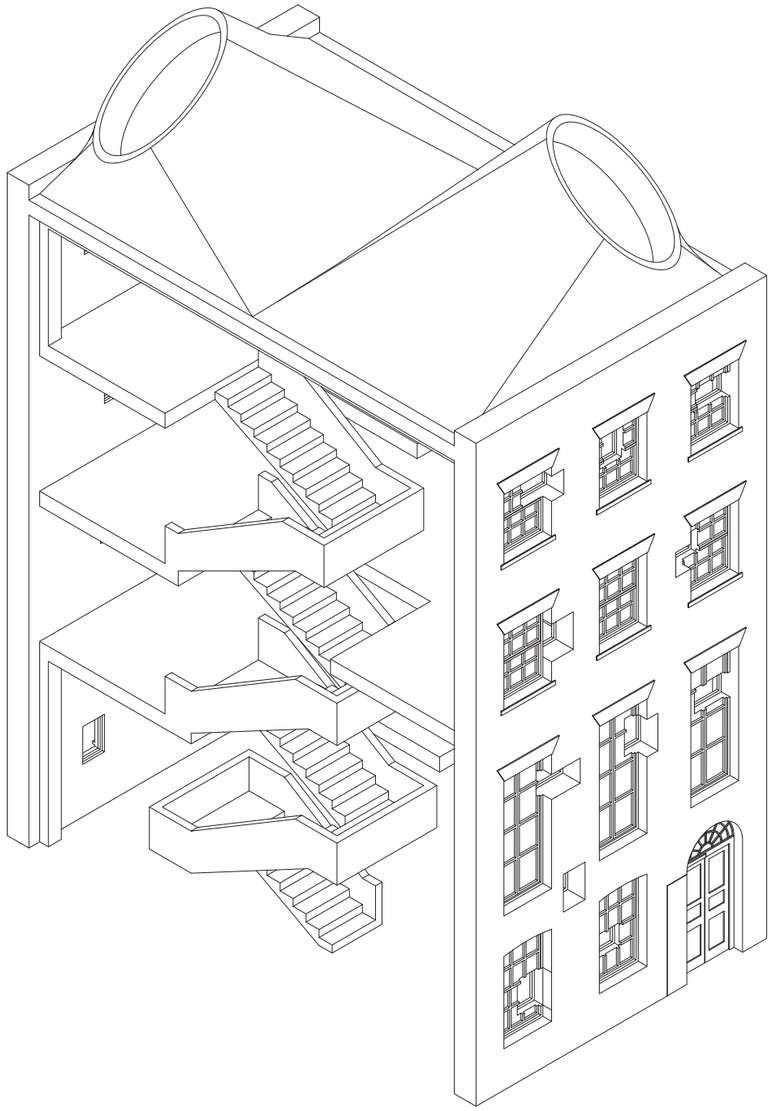

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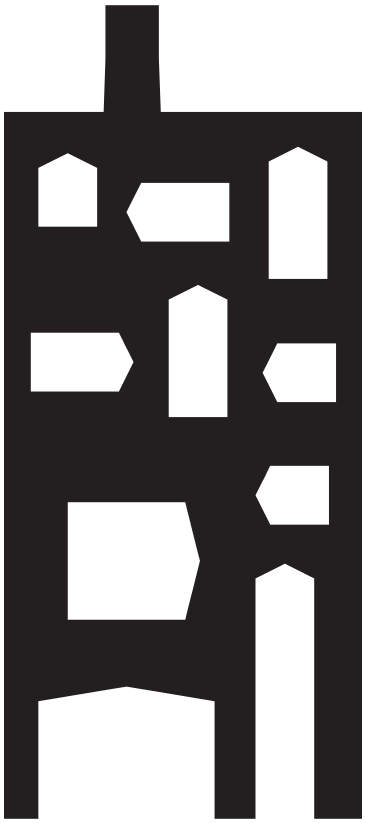
Fig. L01 (left): The image shows the work of Jorge Otero-Pailos *The Ethics of Dust, Old United States Mint, San Francisco.* The project is a reference for it texture and interaction with light for the latex workshops.
Fig. L02 (right): The image shows the work of Jorge Otero-Pailos *The Cultural Legacy of Pollution.*

Fig. L03 (left): The image shows the work of Jorge Otero-Pailos *Slow Dialogues: Time, Space, and Scale* during Construction process.
Fig. L04 (right): The image shows the work of Jorge Otero-Pailos *Slow Dialogues: Time, Space, and Scale* during Construction process.

The Poetic of Tangible Simulacrums

BARCo068: Final Project

MA Architecture and Historic Urban Environments - UCL



Metal

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Submitted on 09/09/2021
Word Count: 335
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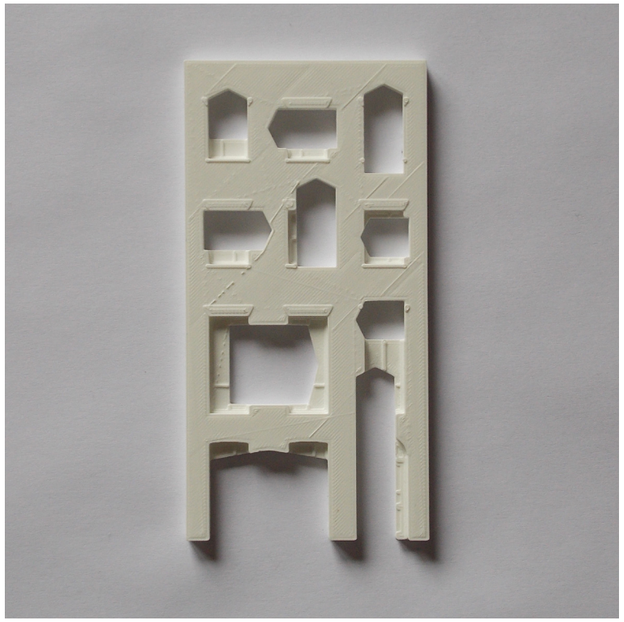
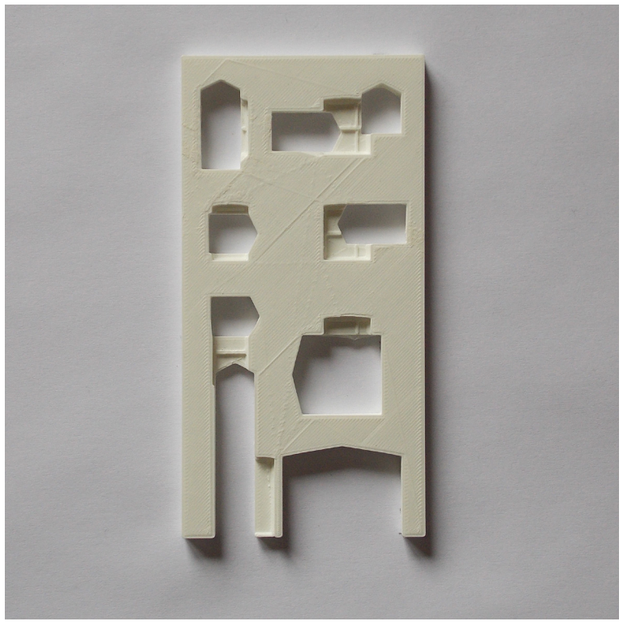
The metal workshop was inspired by early metallurgy tool shapes such as arrowheads and swords. From early times humans used the technique of cast to produce metal tools. To start with, metal workshops need a furnace to melt metals before casting. The furnace opening is also inspired by the arrowhead shape for its opening while the overall shape of the object starts with a square shape in the bottom and ends with a circle in the roof. As the most important part of the workshop, the furnace is celebrated with a staircase that passes around it.

The allocations of the opening come in juxtaposition with the Georgian house window traces and are placed based on the interior needs of the workshops. Similar to other workshops, the ground floor opening is large enough to allow the visual interaction of the user with the visitors and passengers. The doors of the metal workshops are tall enough to allow metal sheet material to enter the building.

The metal workshops have two double height floors. Due to the dimensions of the casts this extra height is needed. The materials, moulds and the casts are temporarily stored on the first floor. The vertical movement of the materials, moulds and casts is done through an opening within the floor. Metal can be used only as a cast material. Last but not least, the process of making the metal workshops model is similar to the other ones.





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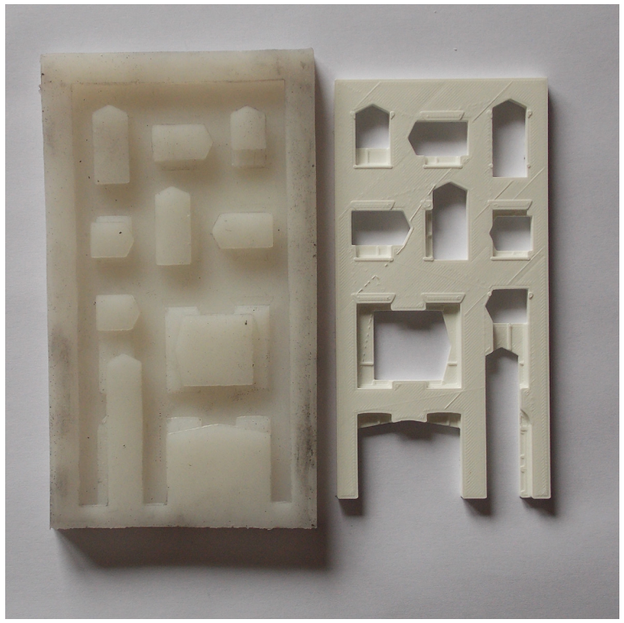

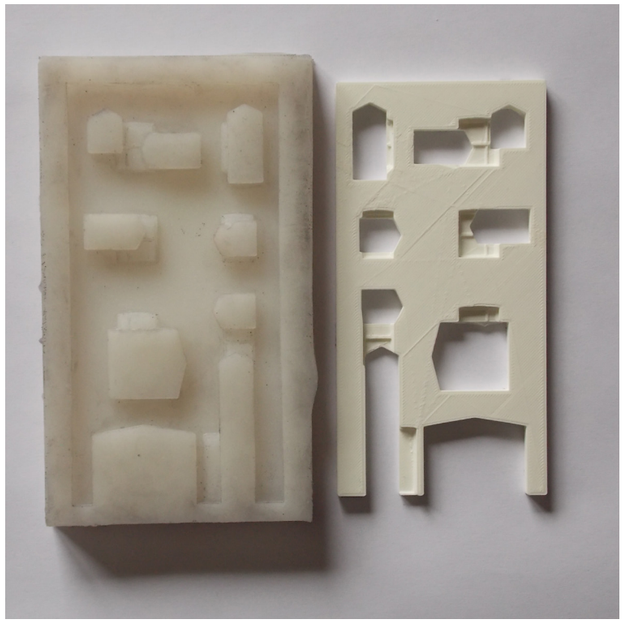

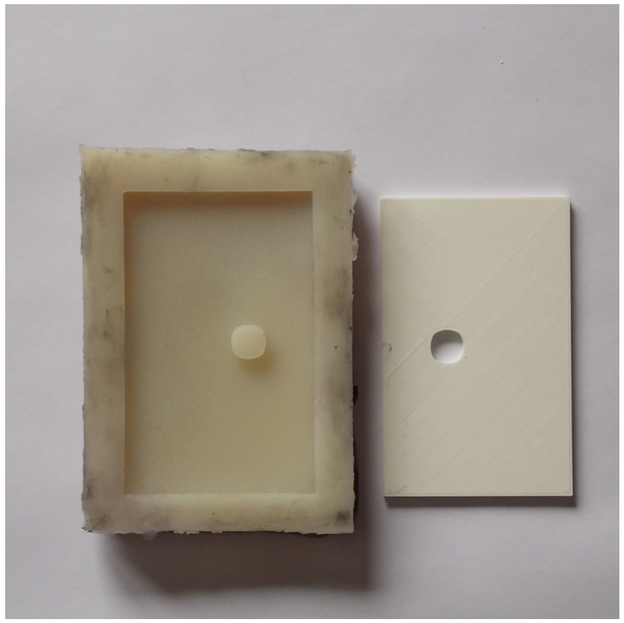

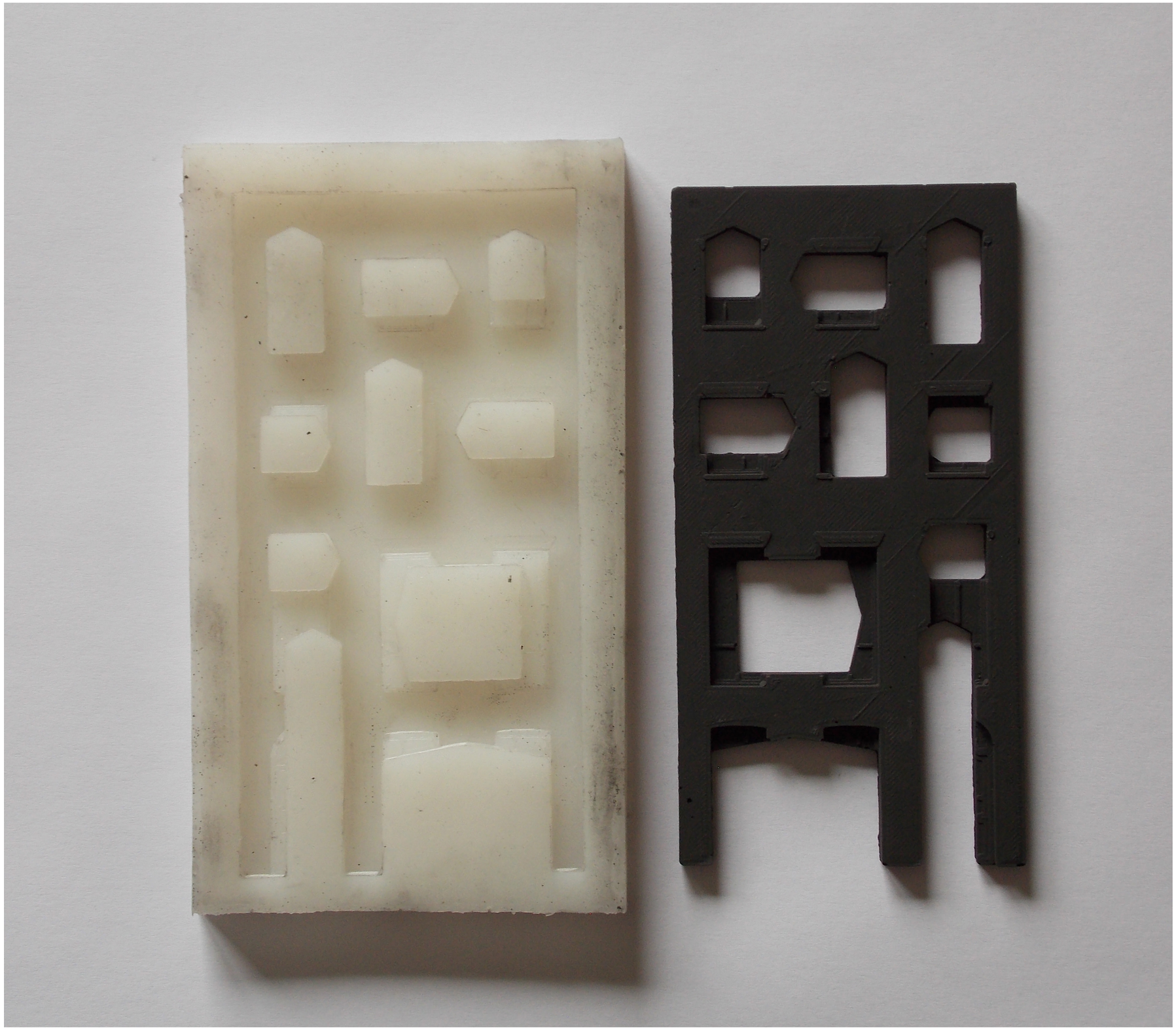

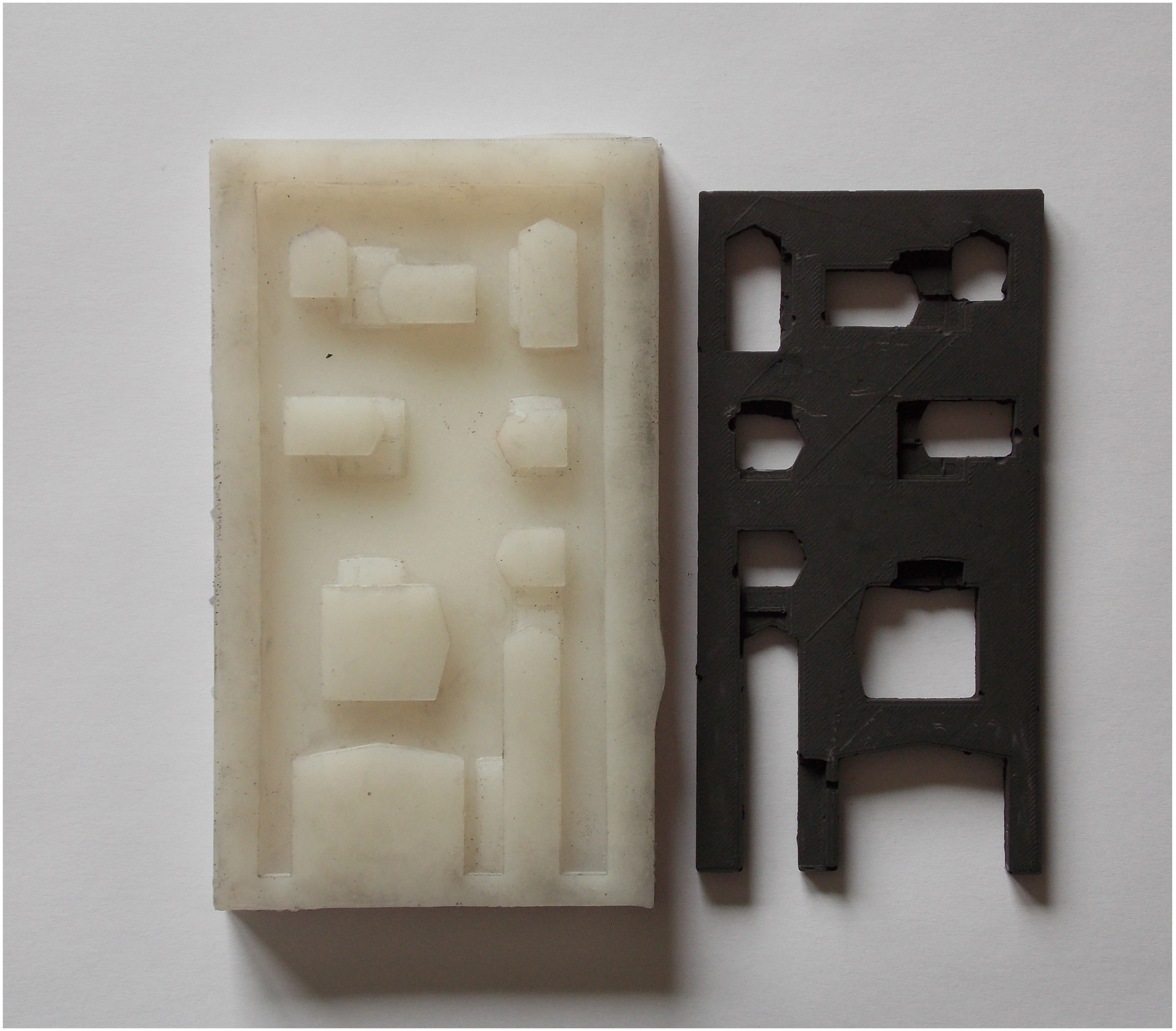

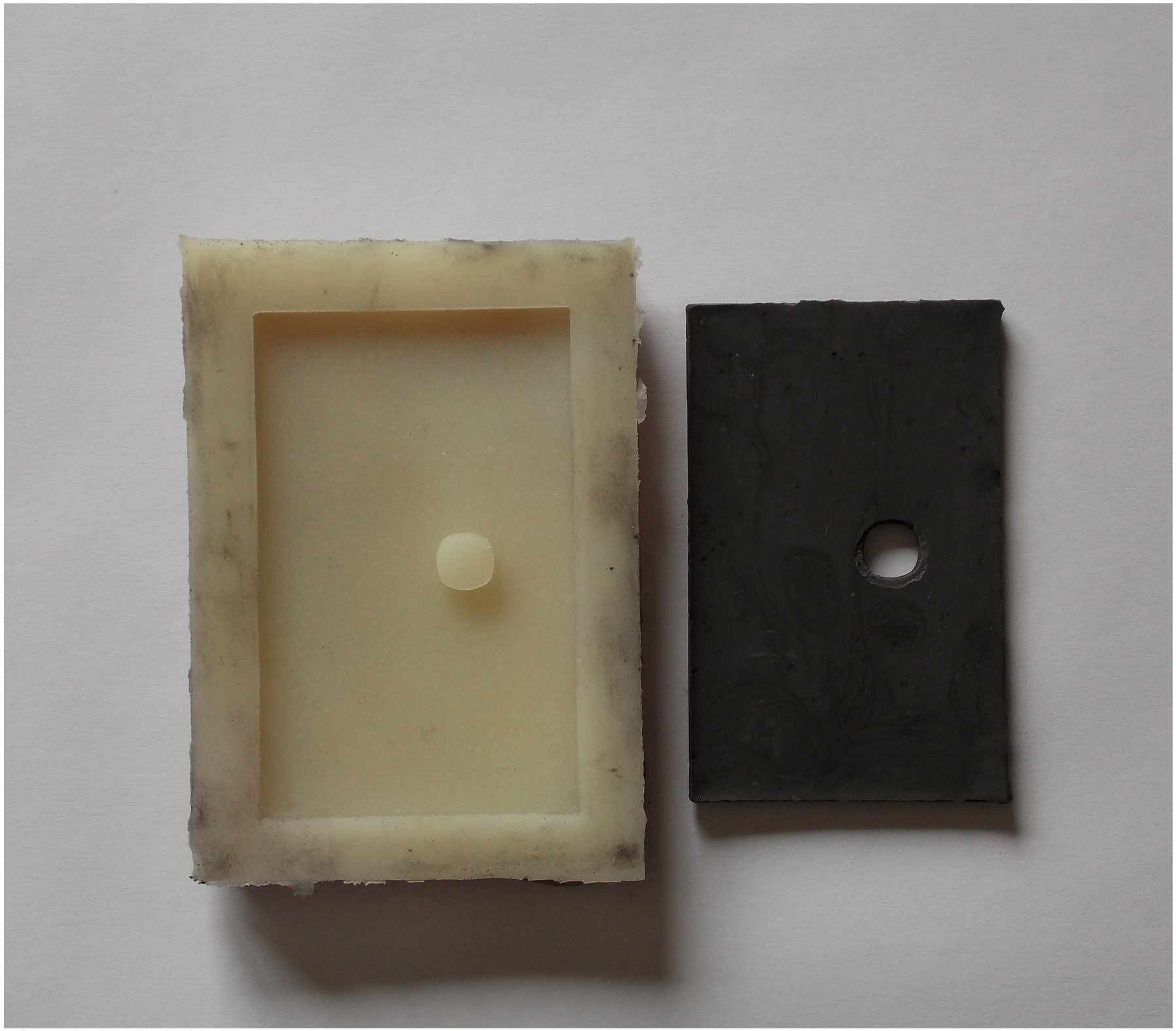

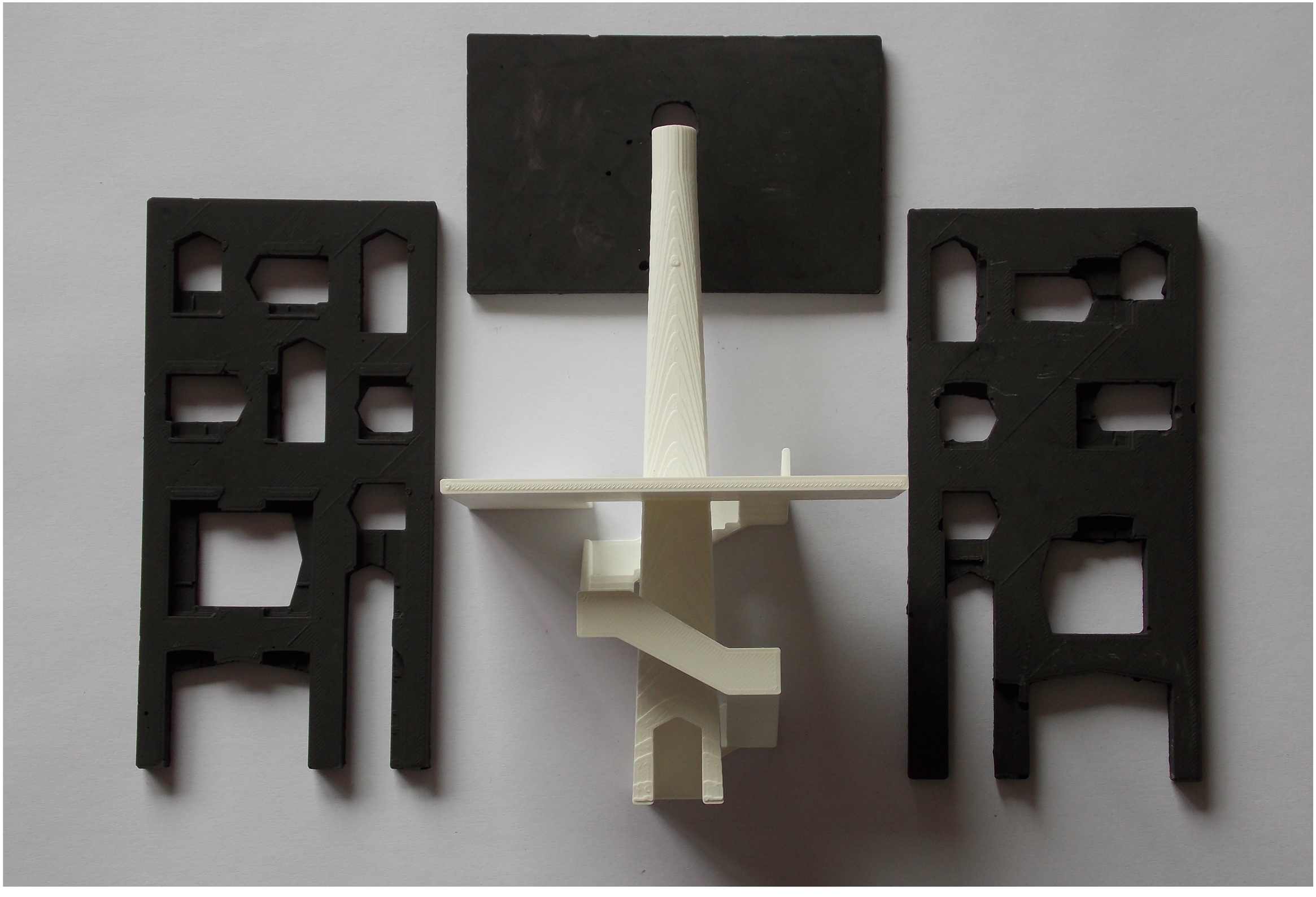

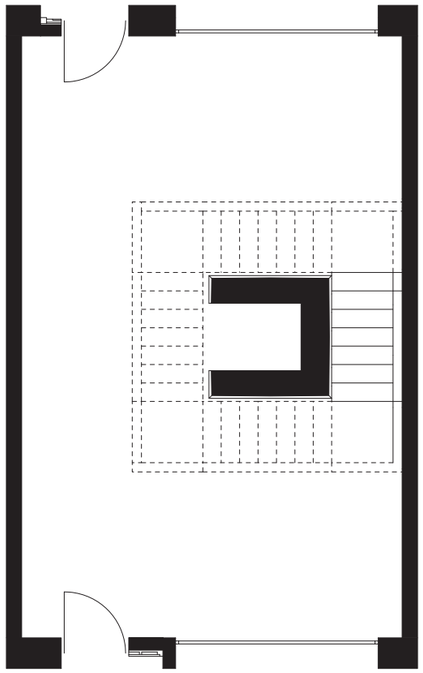

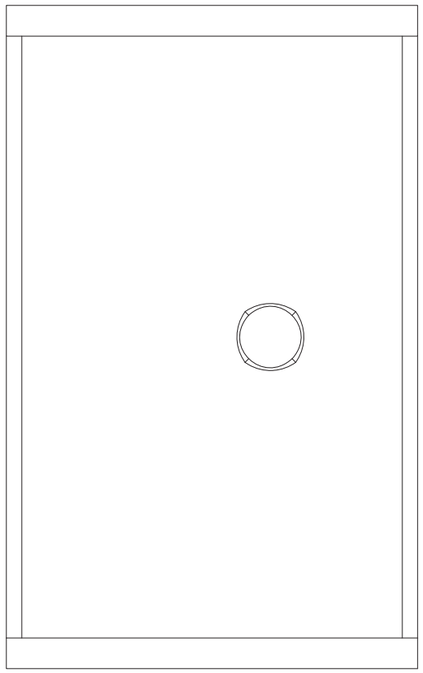

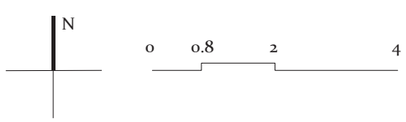
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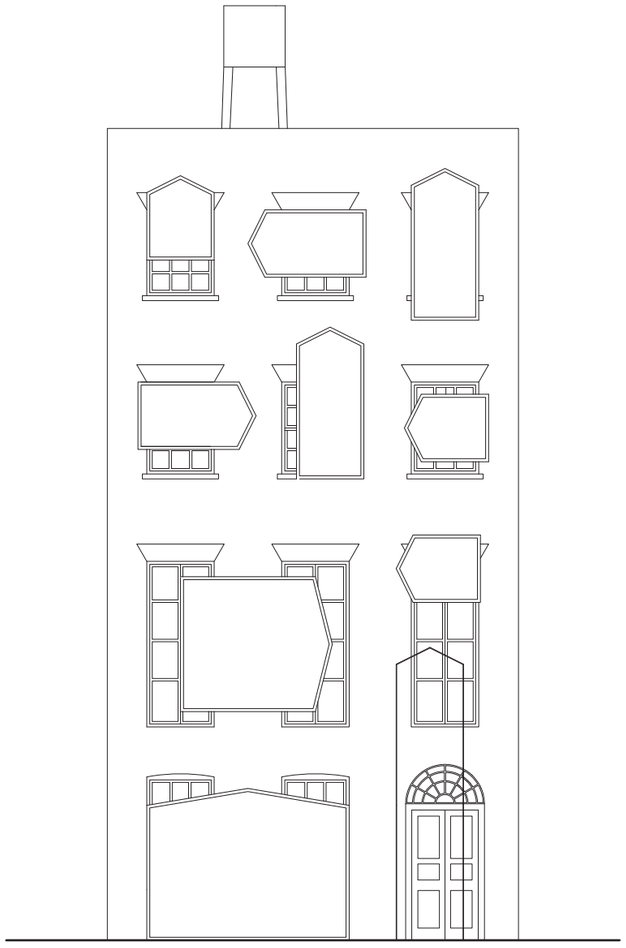

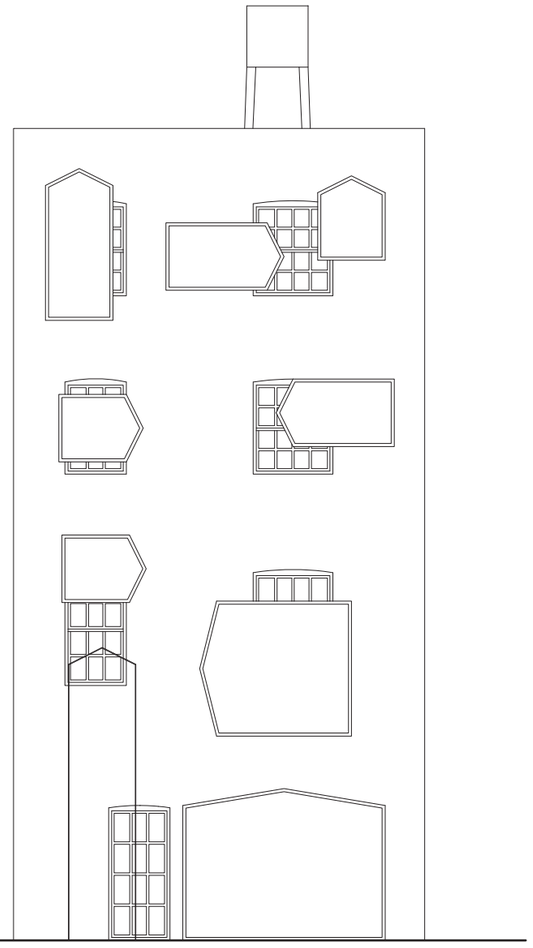

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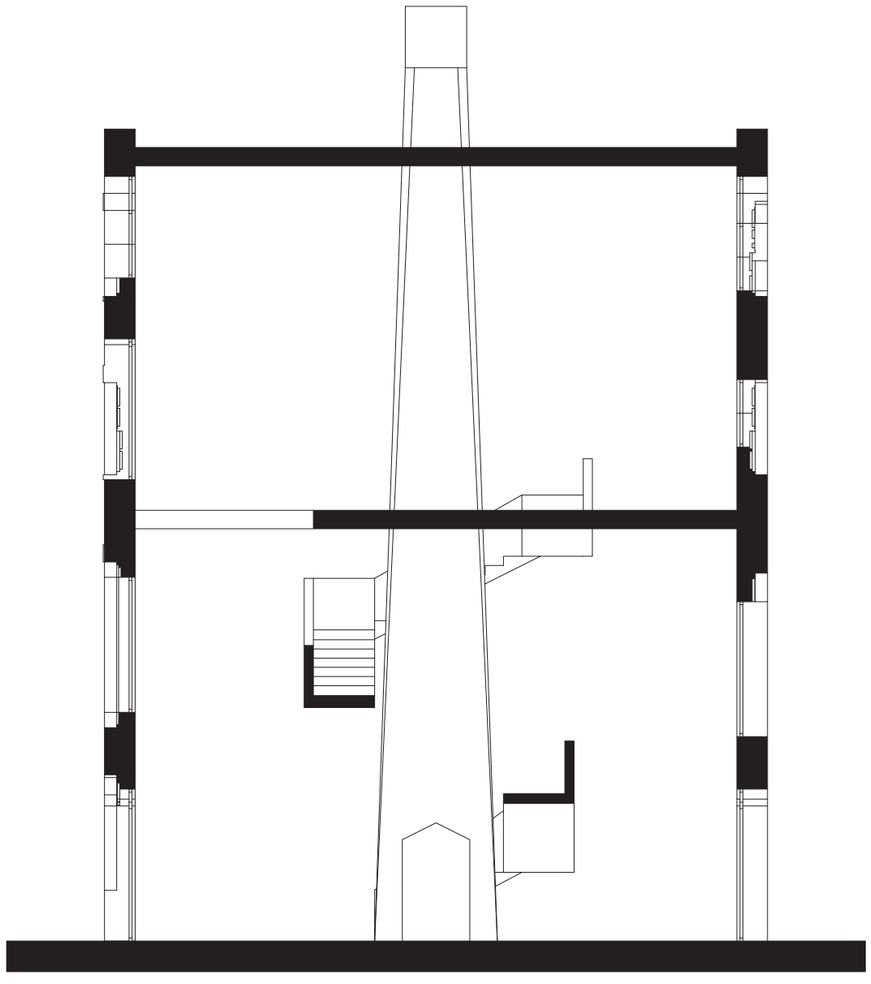

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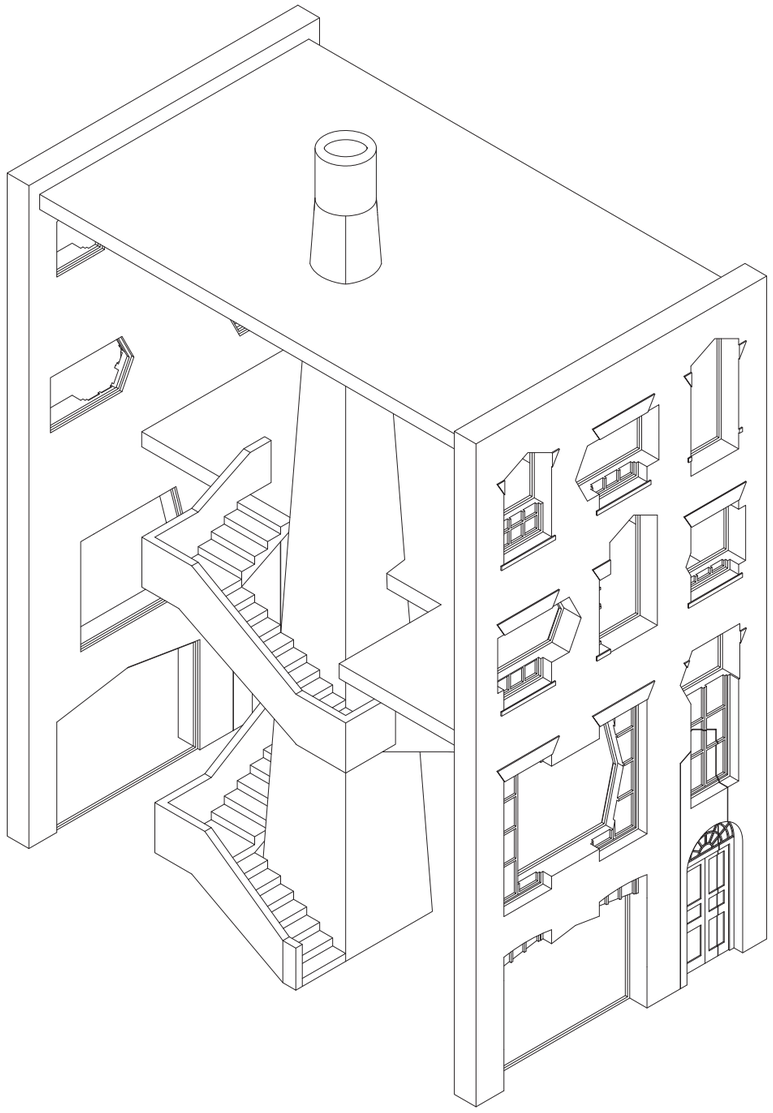

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Fig. M01 (left): Artefact, cast metal arrow heads.
Fig. M02 (right): Artefact, cast metal sword.

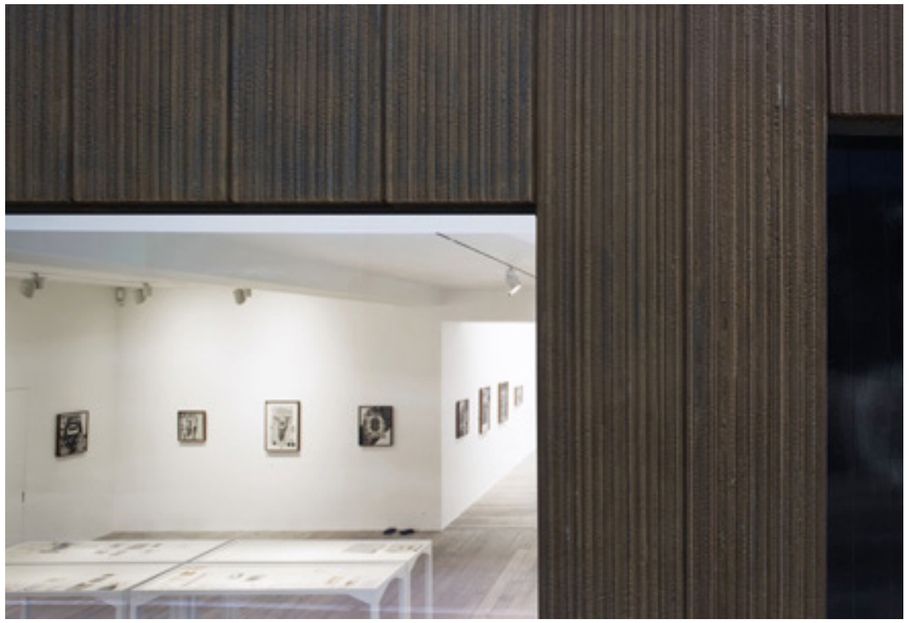


Fig. M03 (left): Iron cast of Raven Row Gallery facade by 6a Architects.
Fig. M04 (right): Iron cast of Raven Row Gallery facade by 6a Architects.

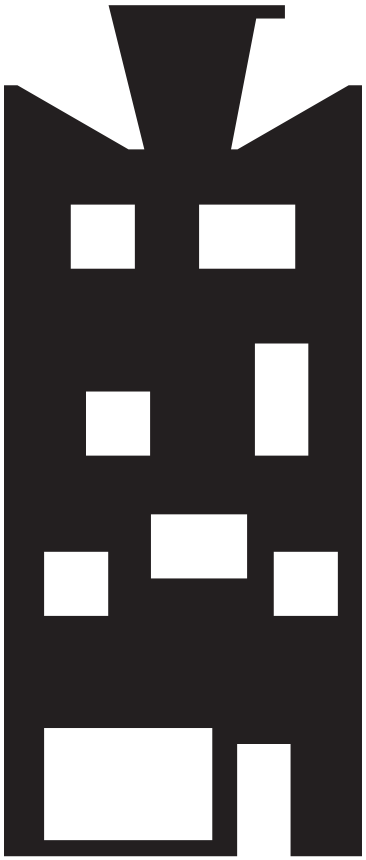
Fig. M05 (left): Iron cast of Paul Smith shop facade by 6a Architects.
Fig. M06 (right): Iron cast of Paul Smith shop facade by 6a Architects.

Fig. M07 (left): Iron cast process for Paul Smith shop facade by 6a Architects.
Fig. M08 (right): Iron cast process for Paul Smith shop facade by 6a Architects.

The Poetic of Tangible Simulacrums

BARCo068: Final Project

MA Architecture and Historic Urban Environments - UCL



Plaster

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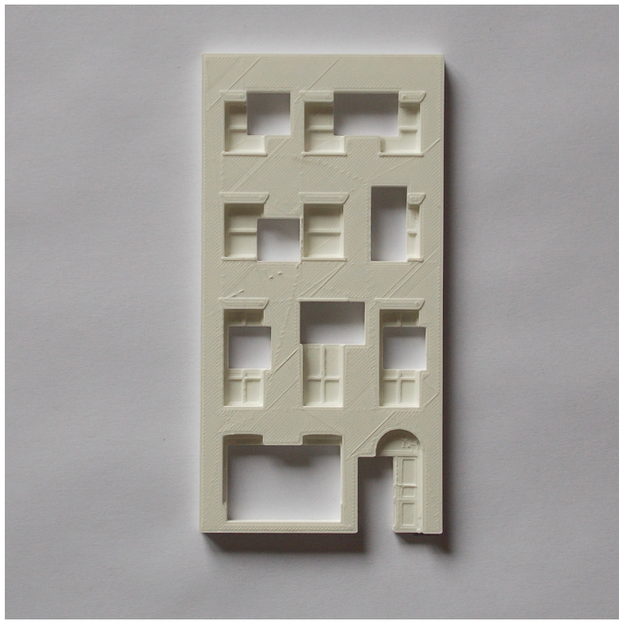
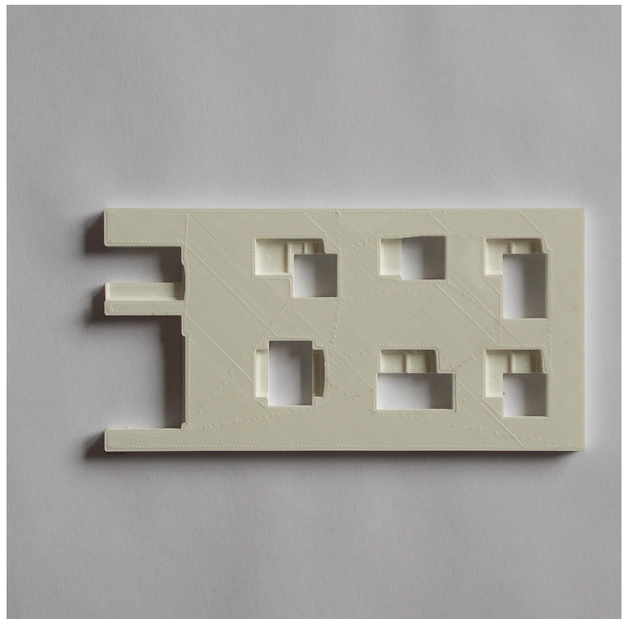
Process

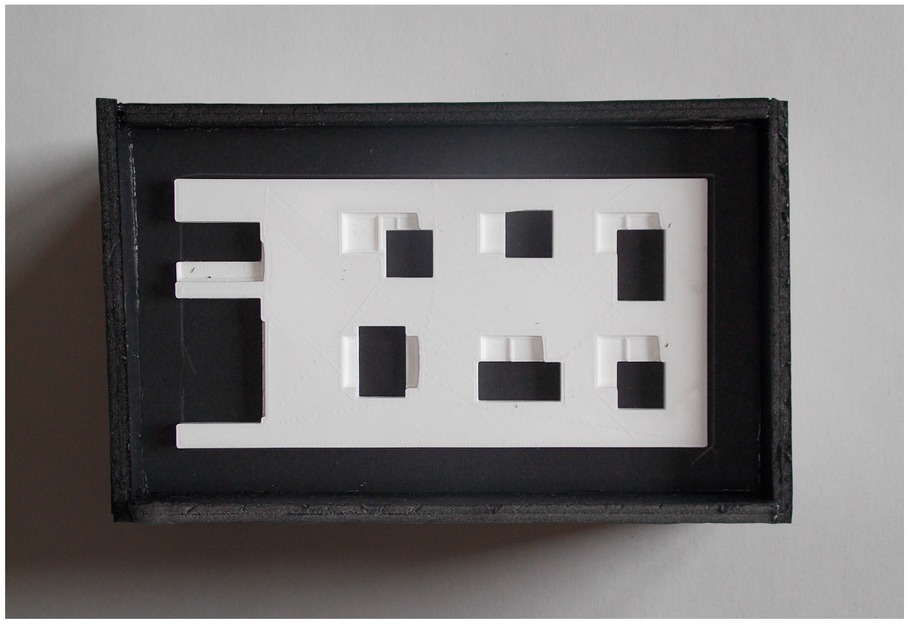
The plaster workshop was inspired by the work of Rachel Whiteread *Ghost*, fig.P01 and fig. P02. To start with, due to the huge amount of water needed for making plaster, each workshop includes a water tank on the rooftop. The water tank is the same as the one of the concrete workshop. The allocations of the opening come in juxtaposition with the Georgian house window traces and are placed based on the interior needs of the workshops. Similar to the Concrete workshop, the ground floor opening is large enough to allow the visual interaction of the user with the visitors and passengers.

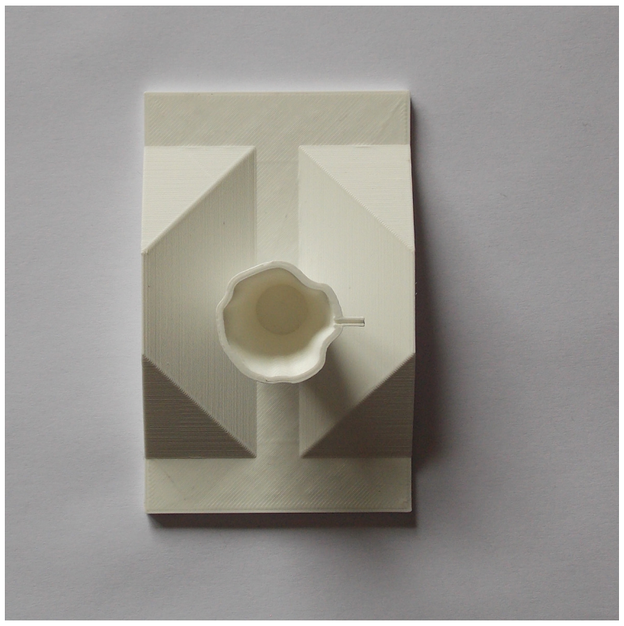
The plaster workshops have two double height floors due to the large size of the casts. The moulds and most of the casts are temporarily stored on the first floor. The vertical movement of the materials, moulds and casts is done through an opening within the floor. On the contrary with the concrete workshops, the staircase is located in the interior space of the plaster workshop. As with the concrete workshop, the staircase is a replica from the Hayward gallery staircases.

Plaster can be used both as a mould and cast material. Plaster is the most common material for casting due to its advantages of being cheap, its plasticity, strength, colour, texture and the ability for swift sets. The process of making the workshops model is similar to the other workshops and by far the easiest material to cast with. The mixture of the two materials needed (water and plaster) is easy and the set time is fast enough. Some plaster types are far stronger than concrete. Example of this was the roof parts of the concrete and plaster workshops. The concrete piece was difficult to be demoulded without break, while the plaster one was done from the first time.









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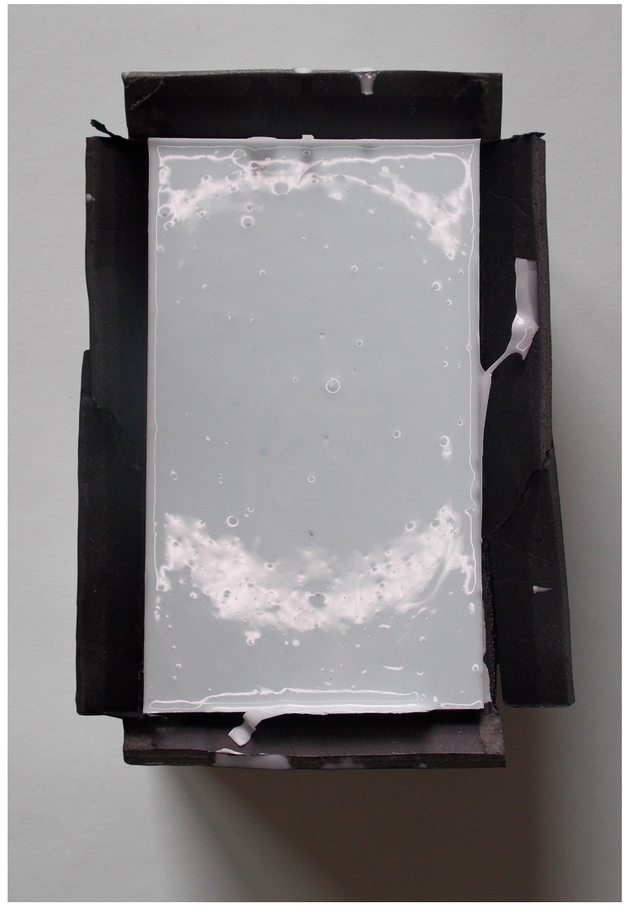

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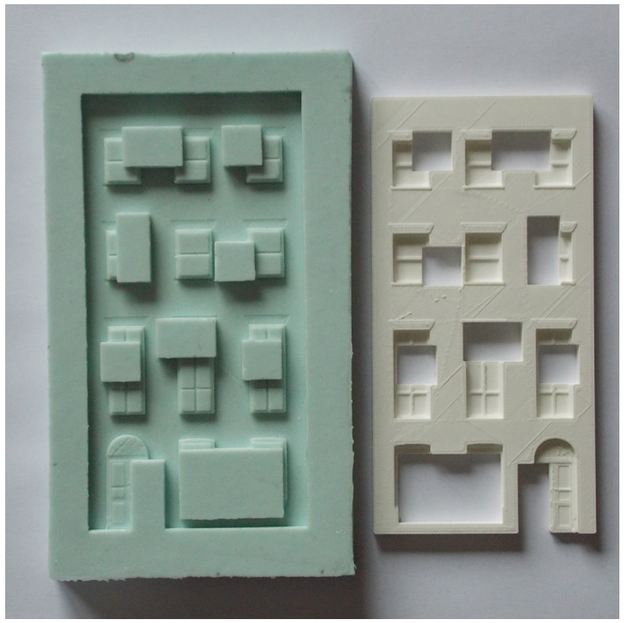

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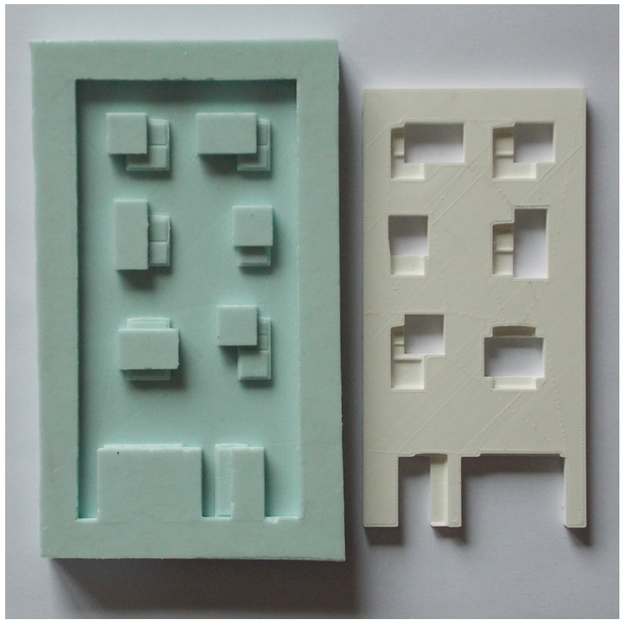

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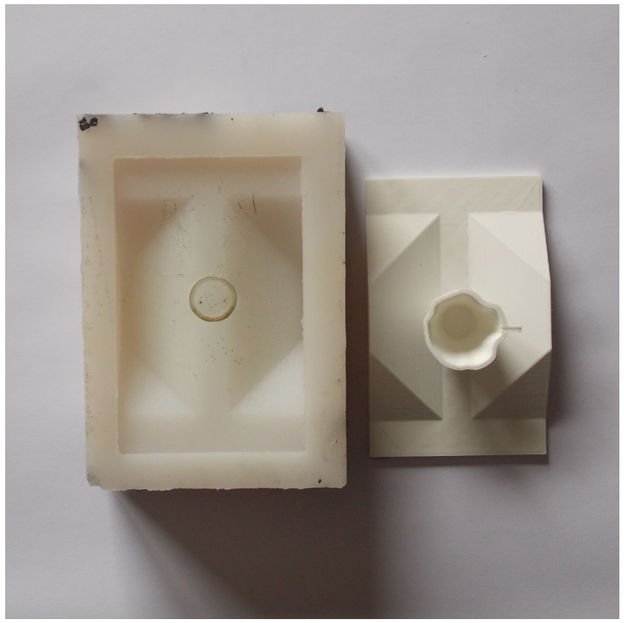

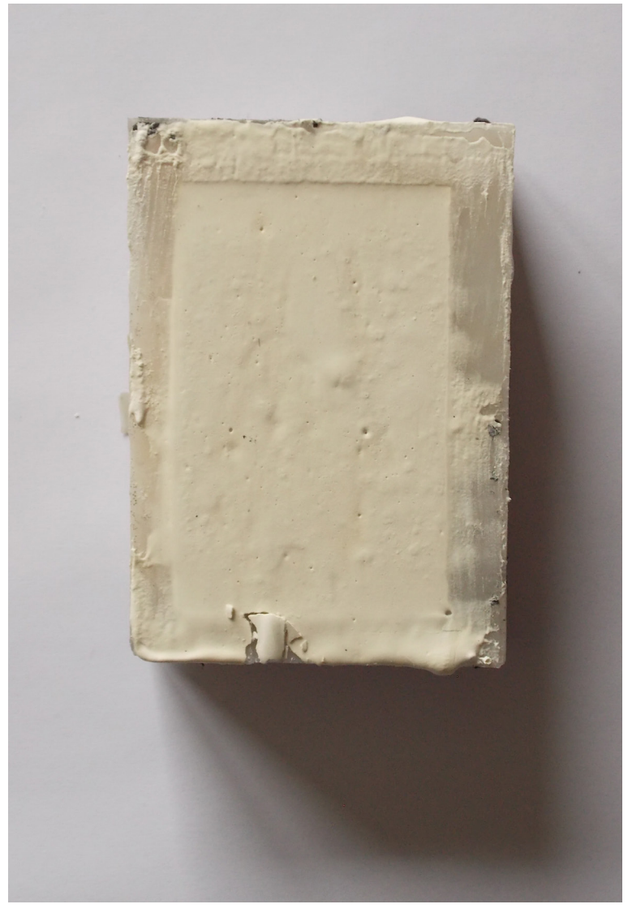

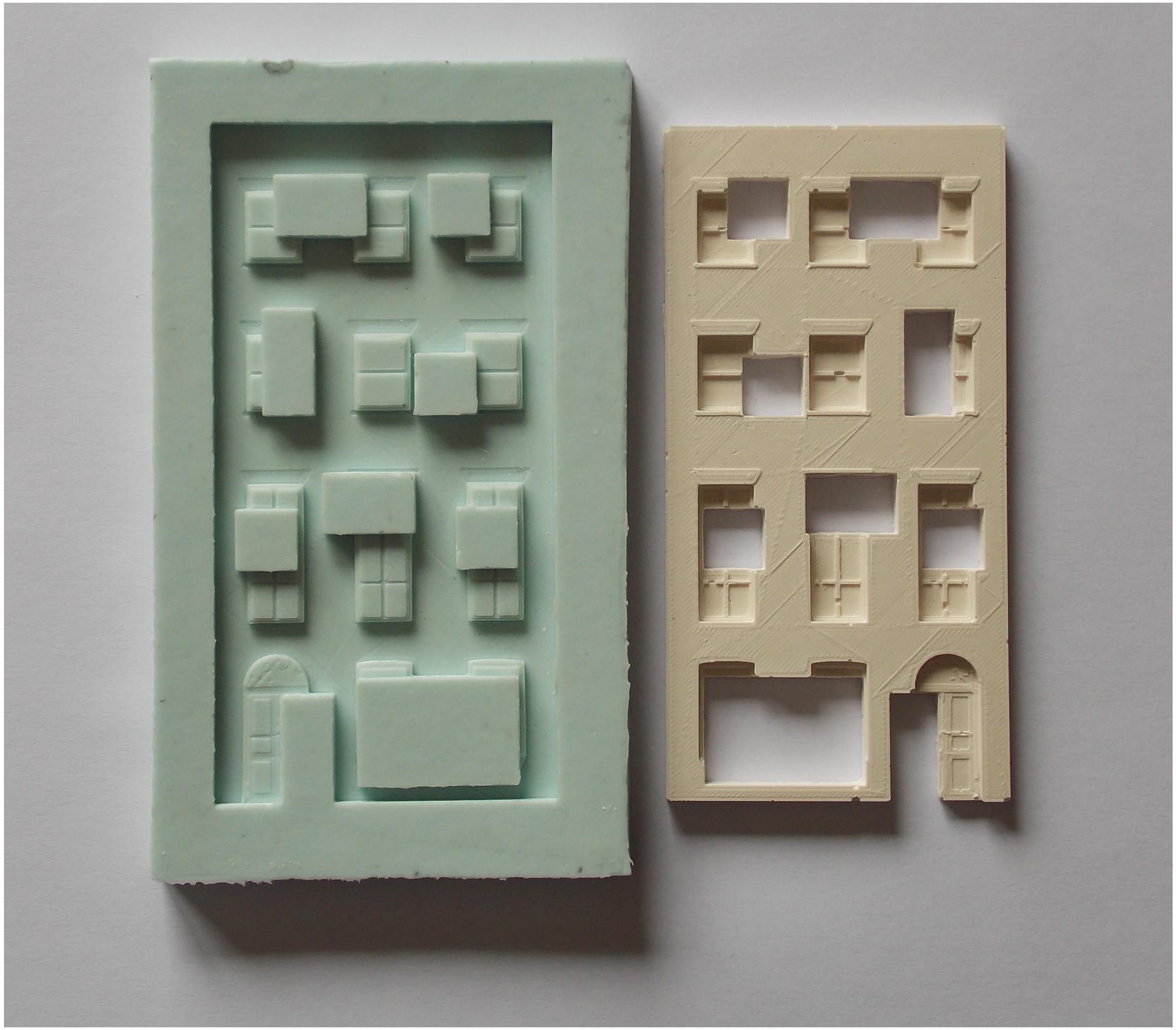

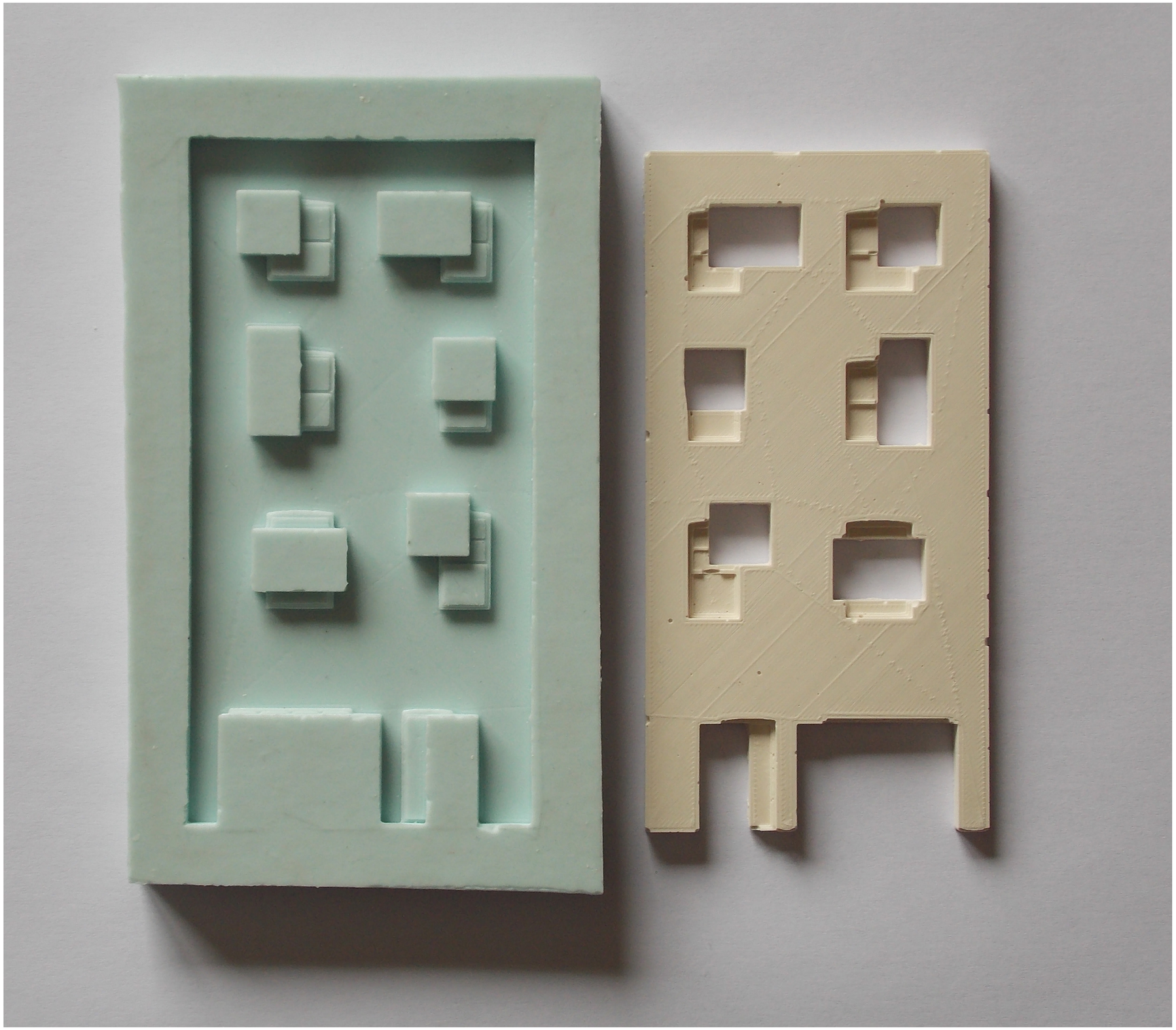

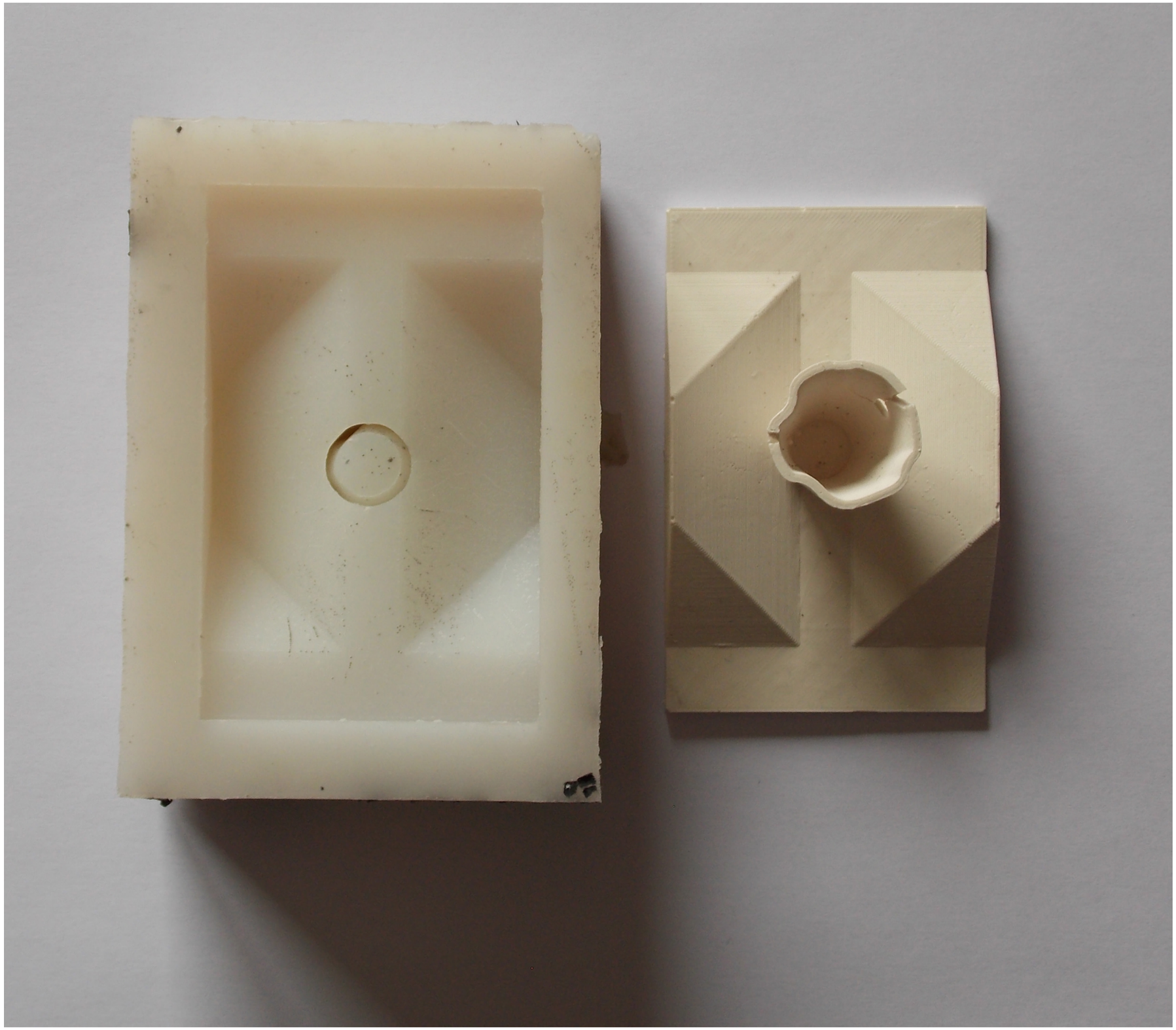

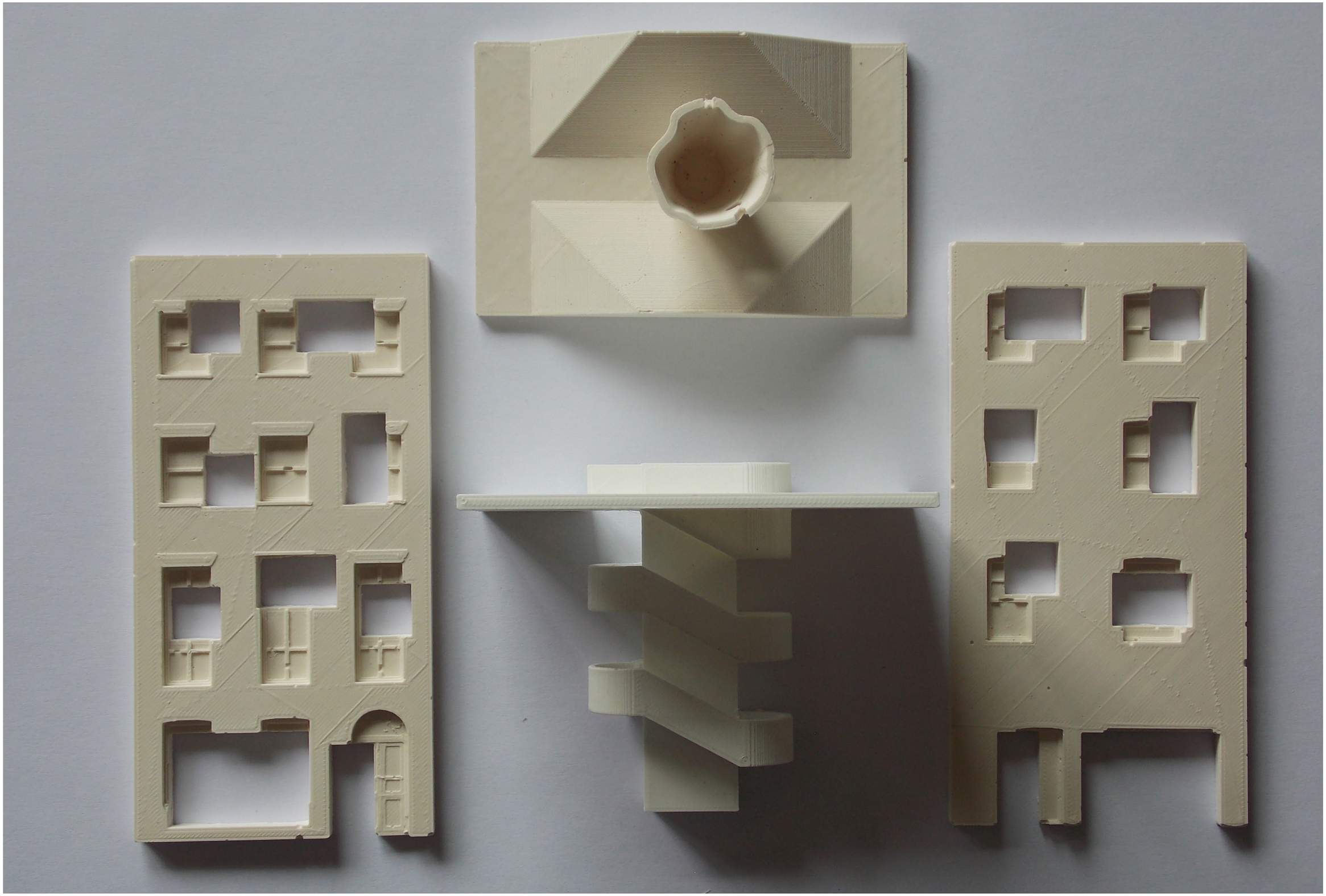

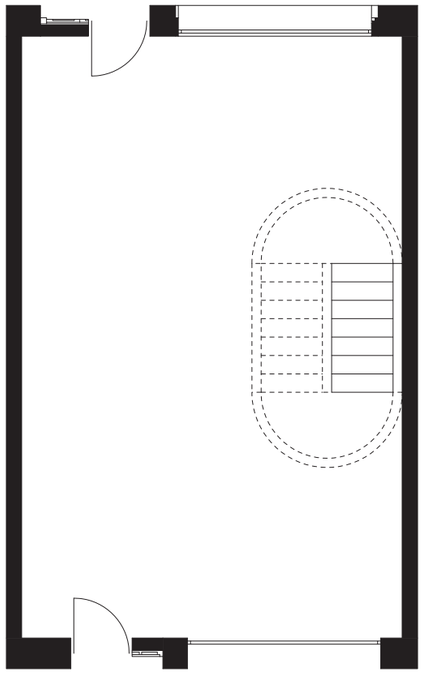

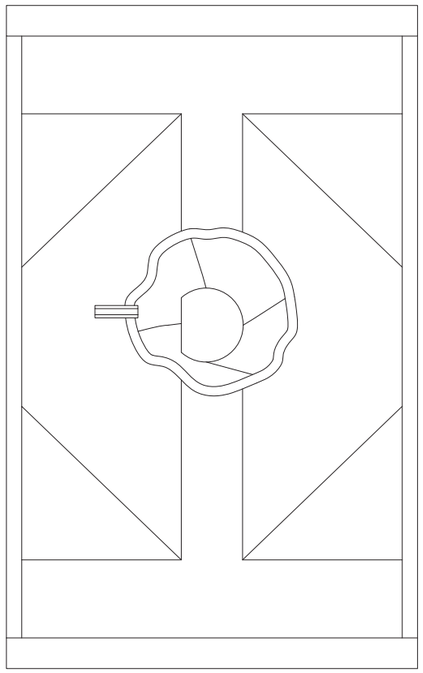

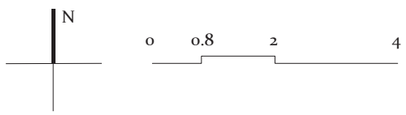
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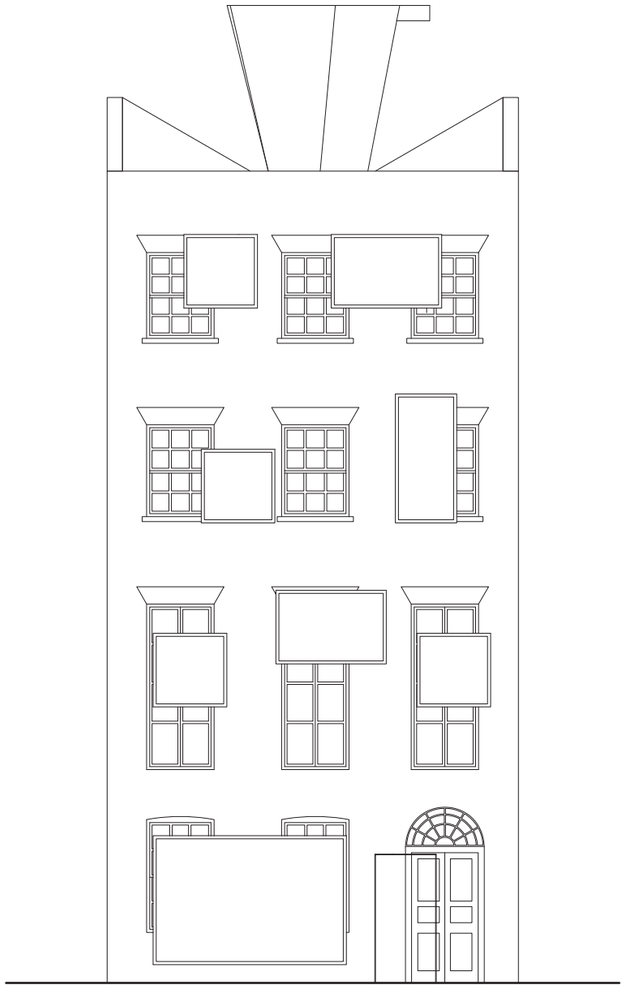

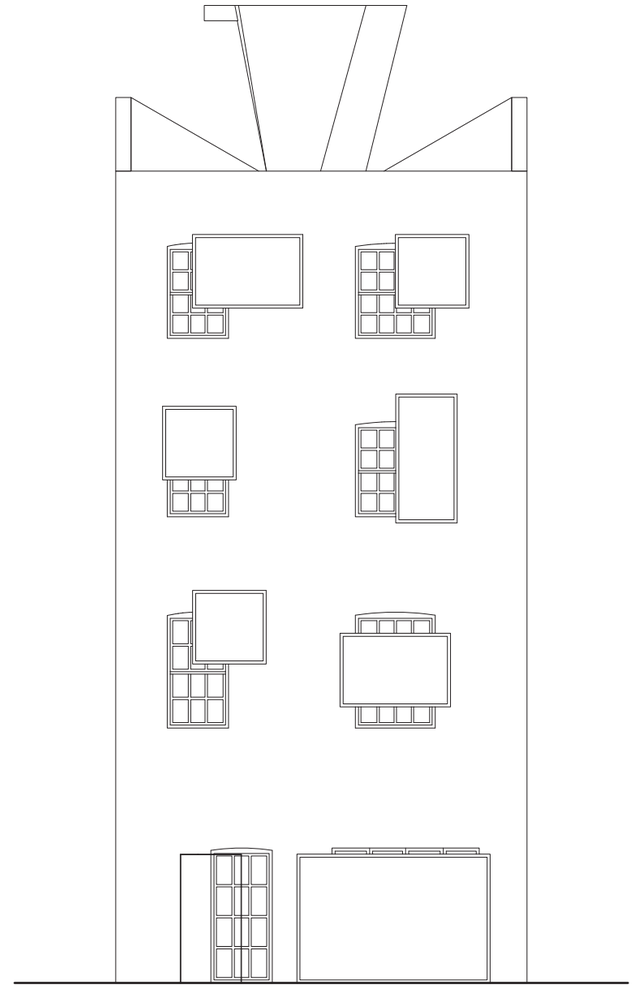

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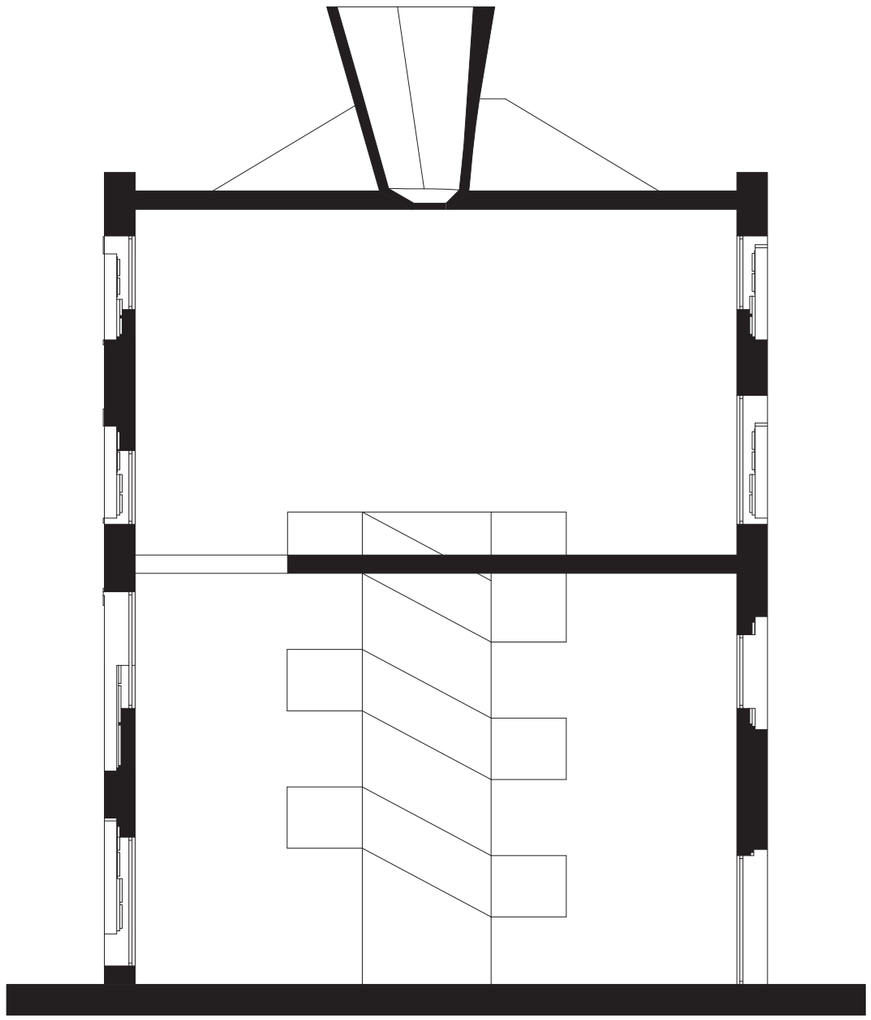

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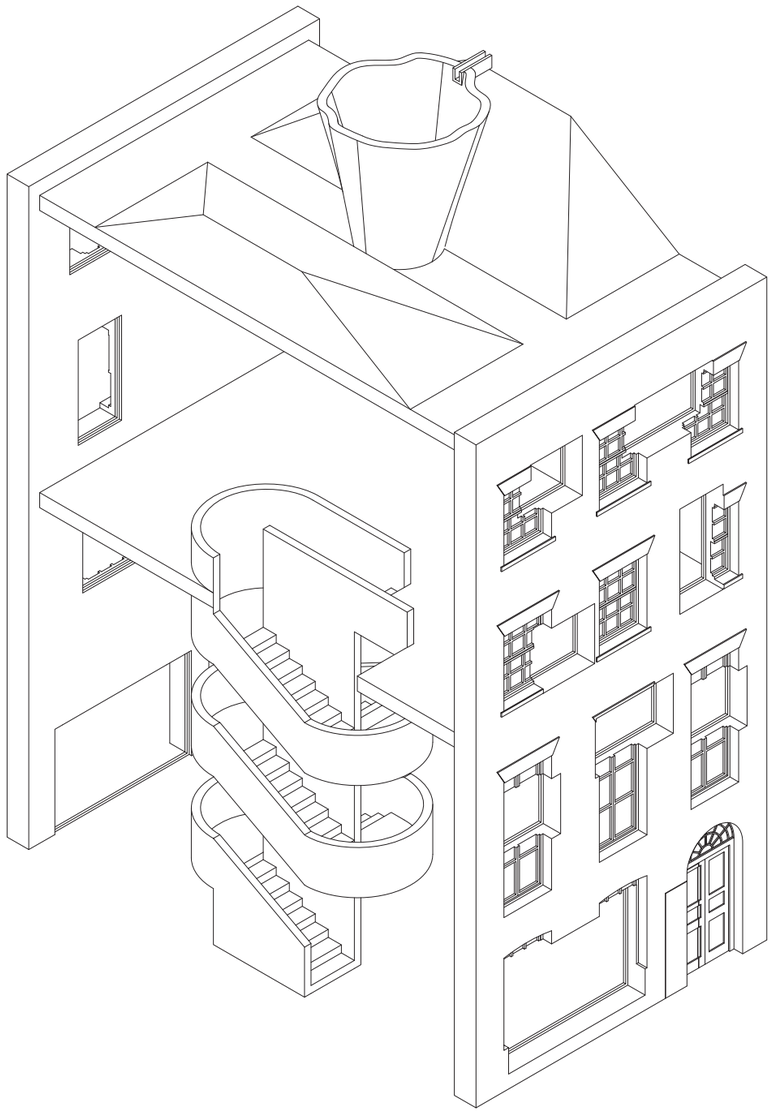

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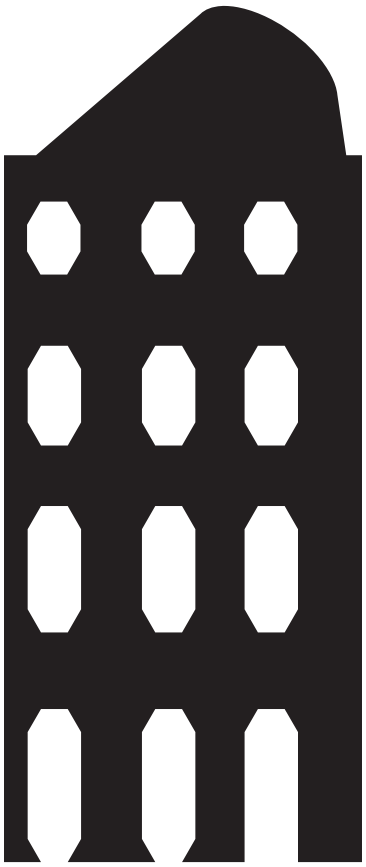
Fig. P01 (left): The photograph shows *Ghost* by Rachel Whiteread.
Fig. P02 (right): The photograph shows *Ghost* by Rachel Whiteread.

Fig. P03 (left): The polystyrene mould construction method could be use for the plaster workshops.
Fig. P04 (right): The polystyrene mould construction method from Aria building.

The Poetic of Tangible Simulacrums

BARCo068: Final Project

MA Architecture and Historic Urban Environments - UCL



Wax

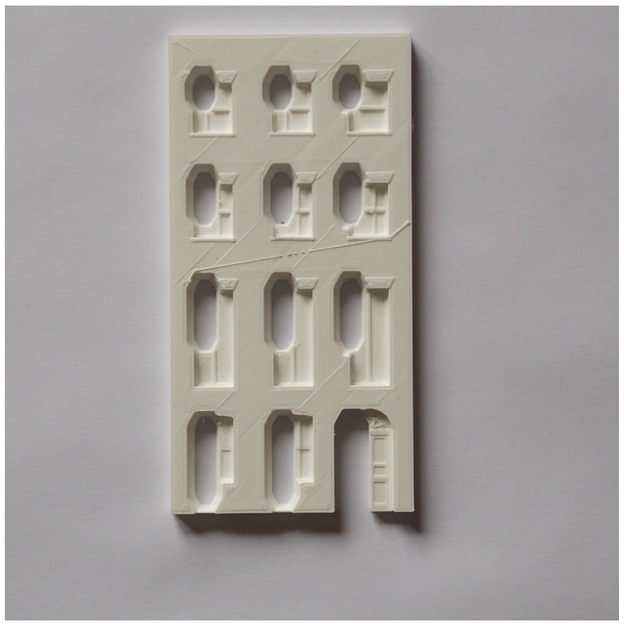
Note: Any drawing or image that is not referenced has been produced by the author.

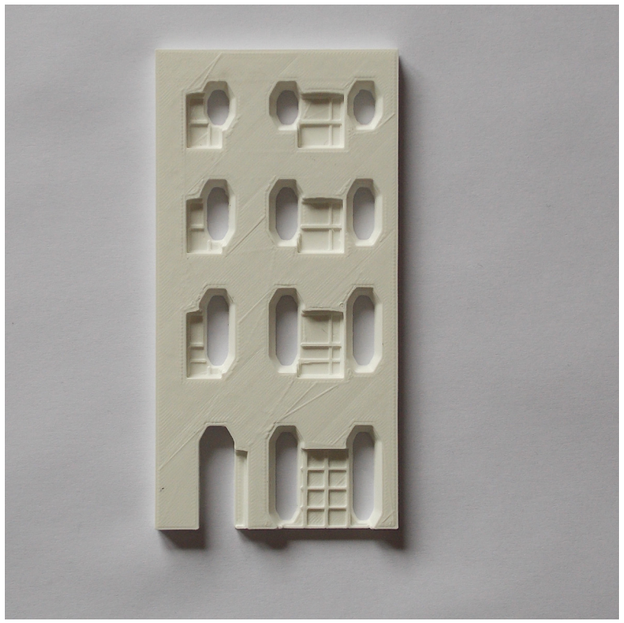
Student Number: 16062268
Submitted on 09/09/2021
Word Count: 307
Supervisor: Hannah Corlett
BARC0068: Final Project.
MA Architecture and Historic Urban Environments.
University College London
The Bartlett School of Architecture

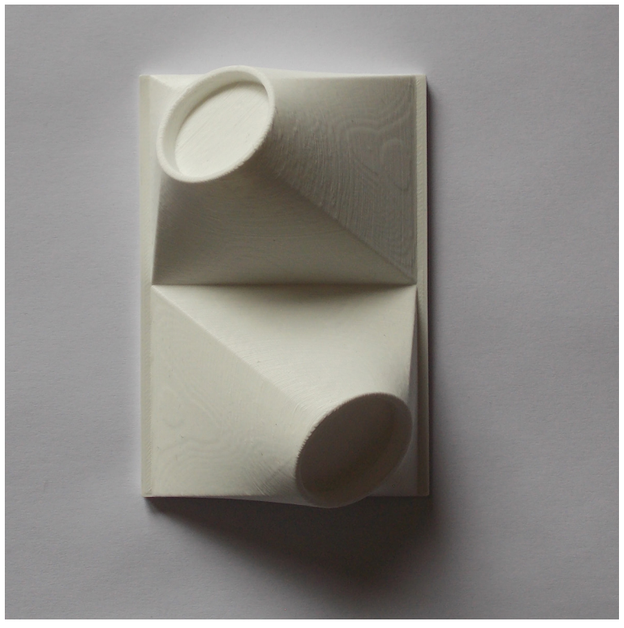
The wax workshop was inspired by beehives and the openings of the Guildhall art gallery. To begin with, the wax workshop requires a good cooling and ventilation system. The roof shape is the same as the latex workshop. The openings of the workshops are a series of octagons shaped in rows of three by four columns. As you go higher the openings become smaller. The concept is that bees work in hierarchy and order and the openings reflect that. The ground floor which is the workshop space has the bigger openings whereas the upper floors have smaller openings because they are less important. Again the ground floor openings are large enough to allow the visual interaction of the user with the visitors and passengers.

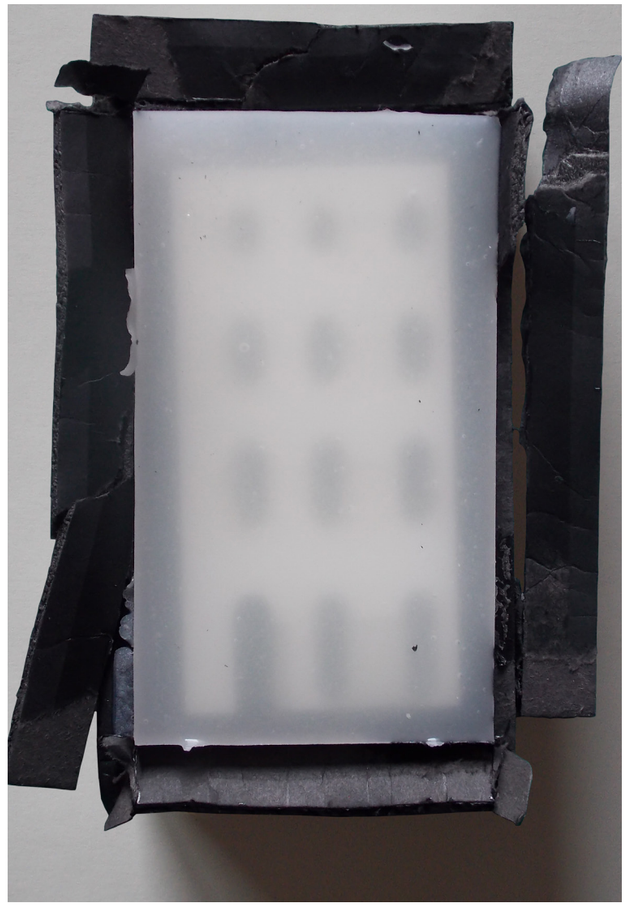
The wax workshops have four floors with an internal staircase due to the fact that the sizes of the wax casts are small. The floors are carved in order to allow vertical movement of materials, casts and moulds. The first, second and third floors could be used as storage spaces while the ground floor is committed to casting. A secondary structure is needed to support the wax walls and roof.

Wax can be used only as a cast material. The process of making the workshops model is similar to the other workshops and can be set in a couple of minutes. The fig. W02 shows the qualities of the material in relation to texture, colour strength and light interactions. The wax as a material has nice qualities in texture and light interaction.









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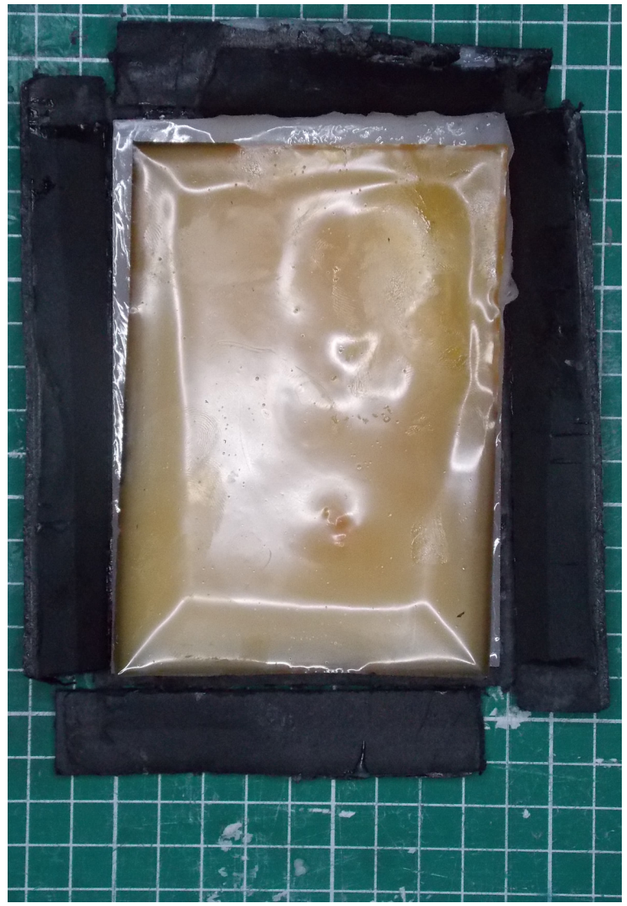

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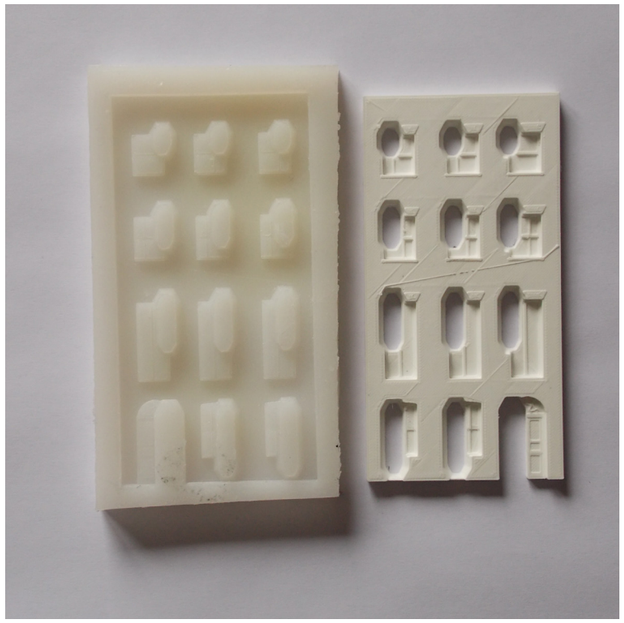

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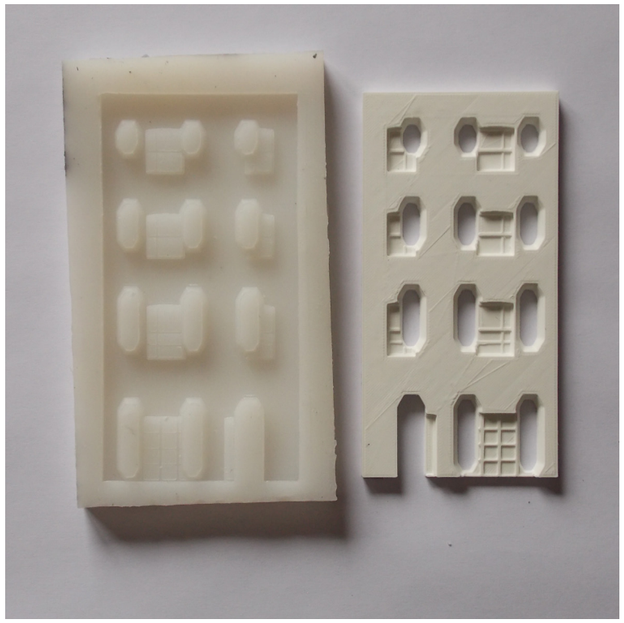

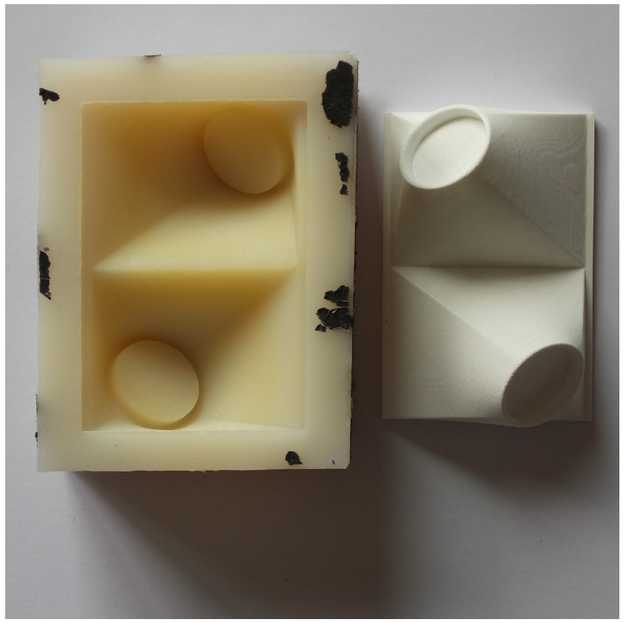

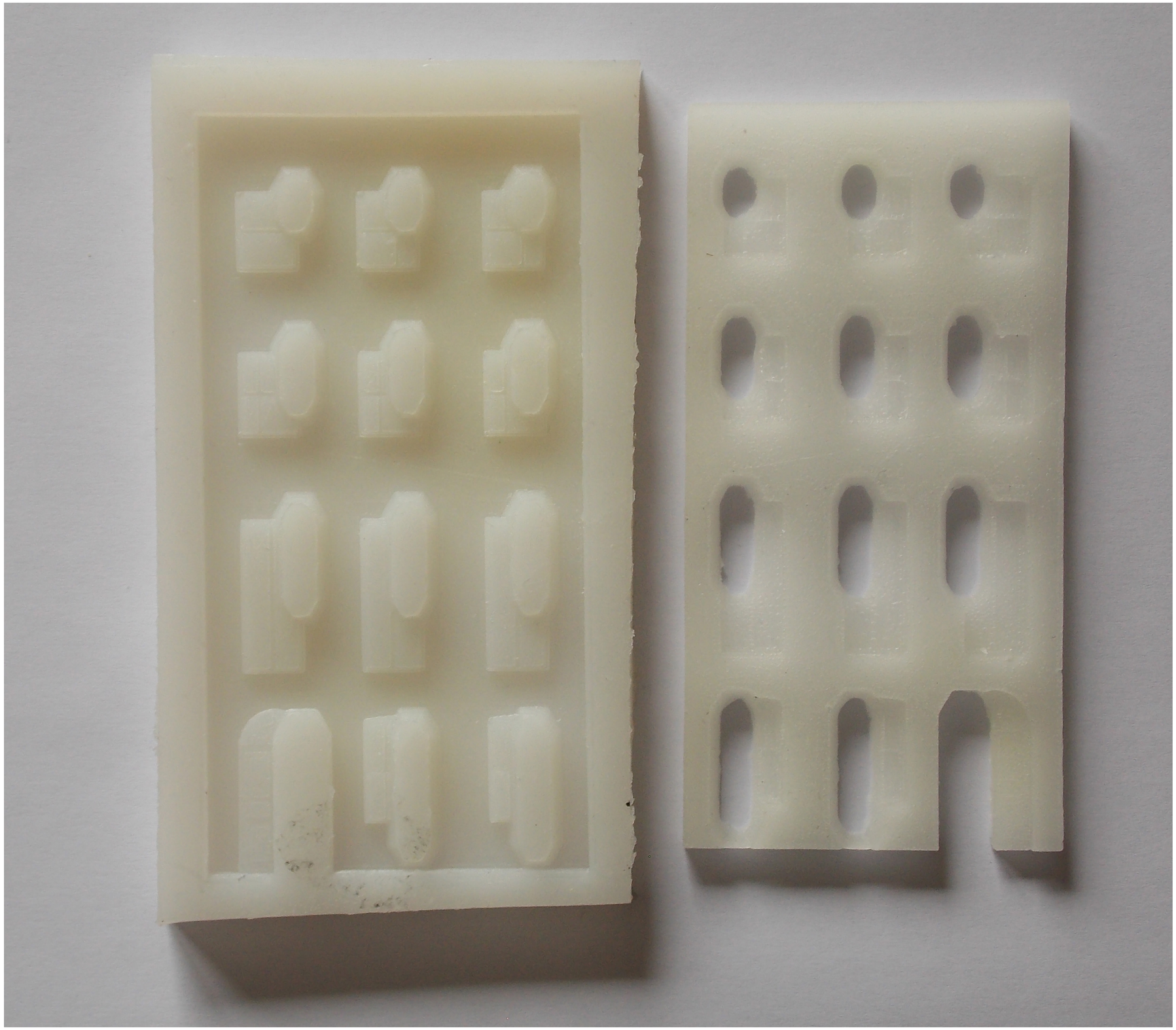

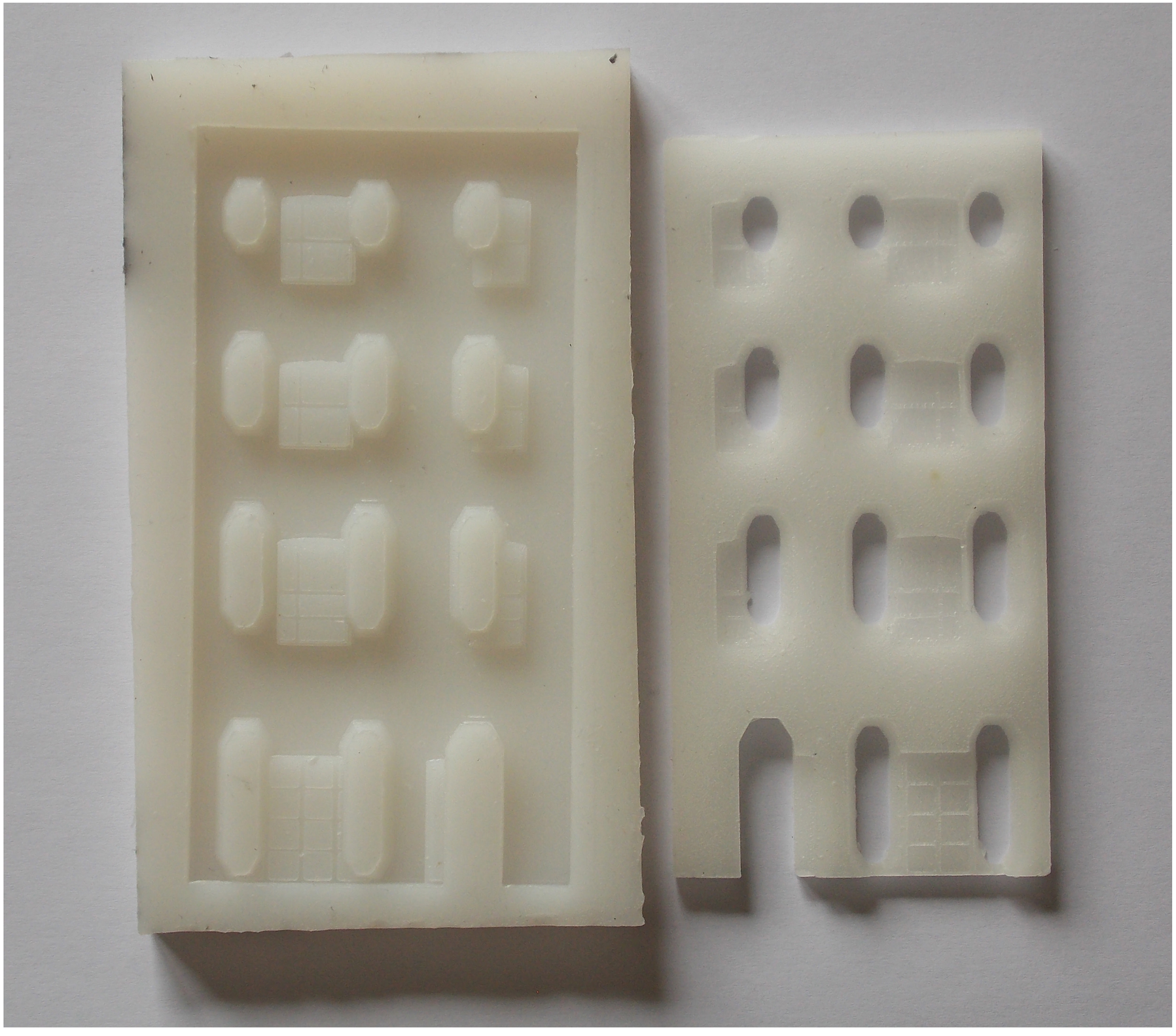

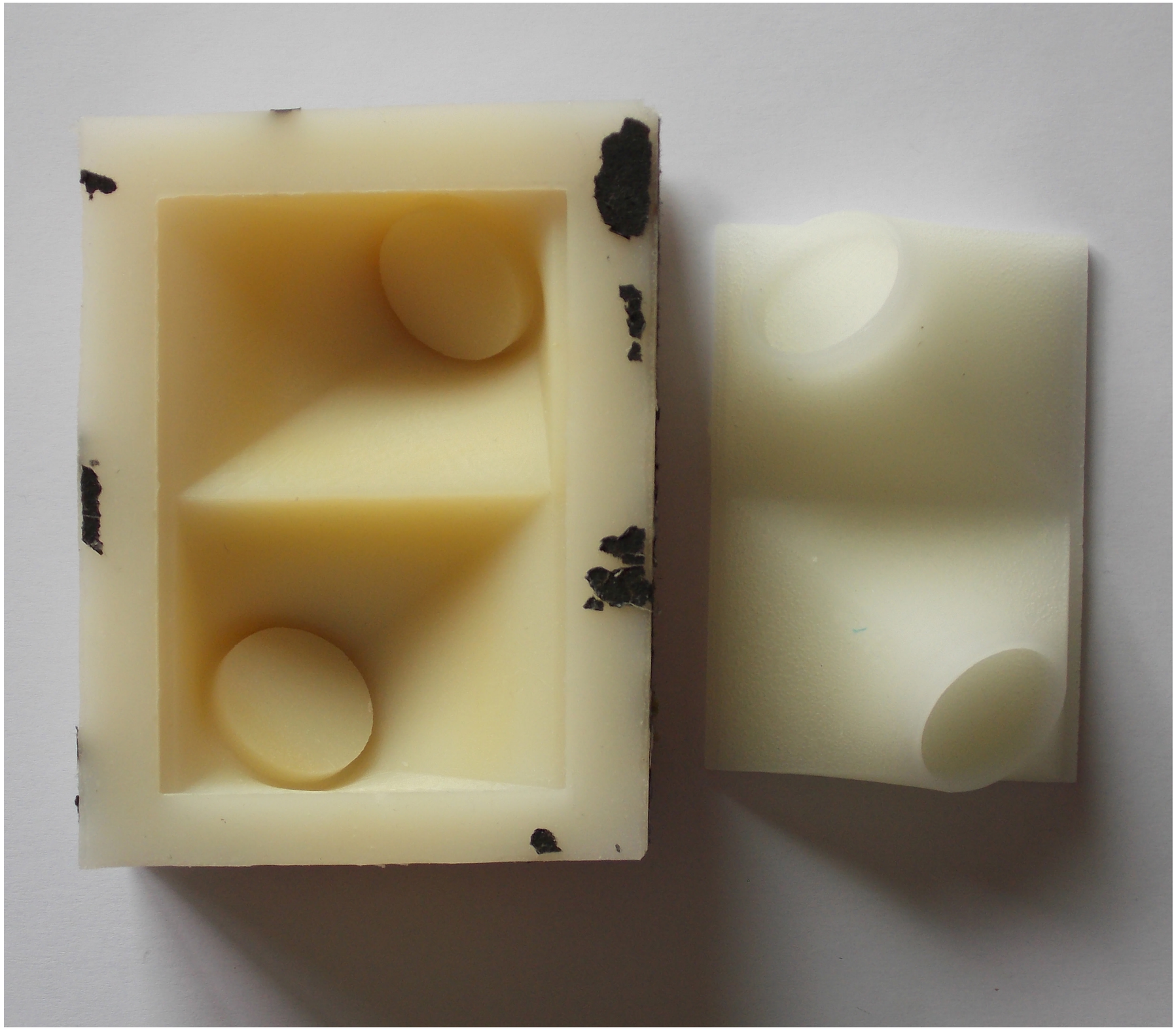

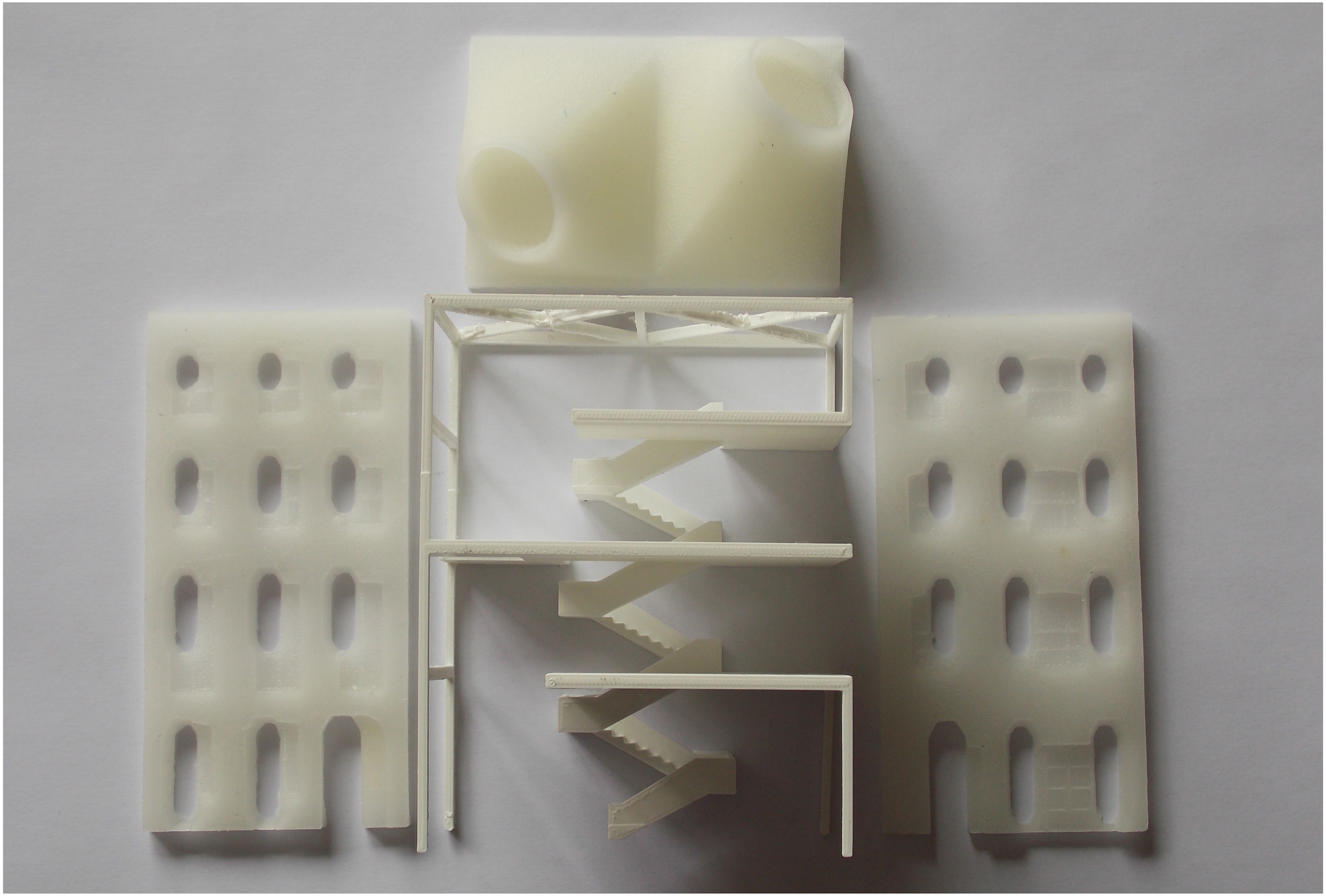

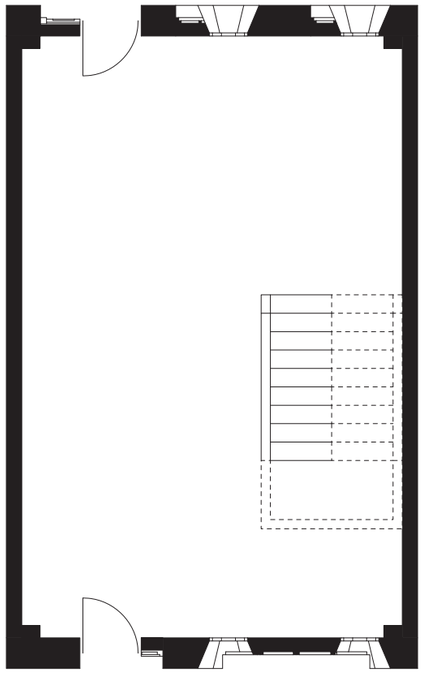

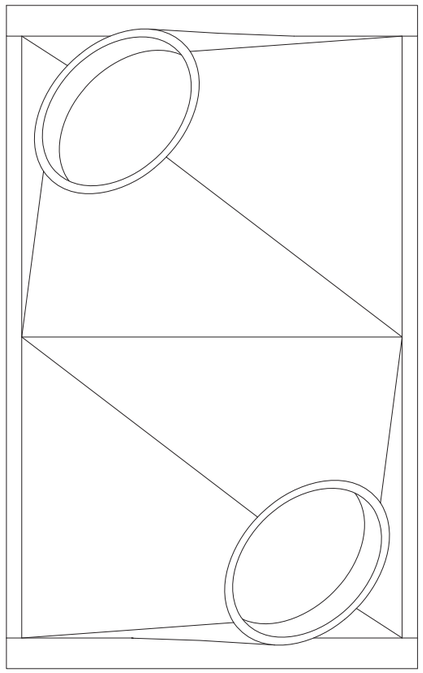

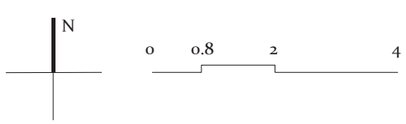
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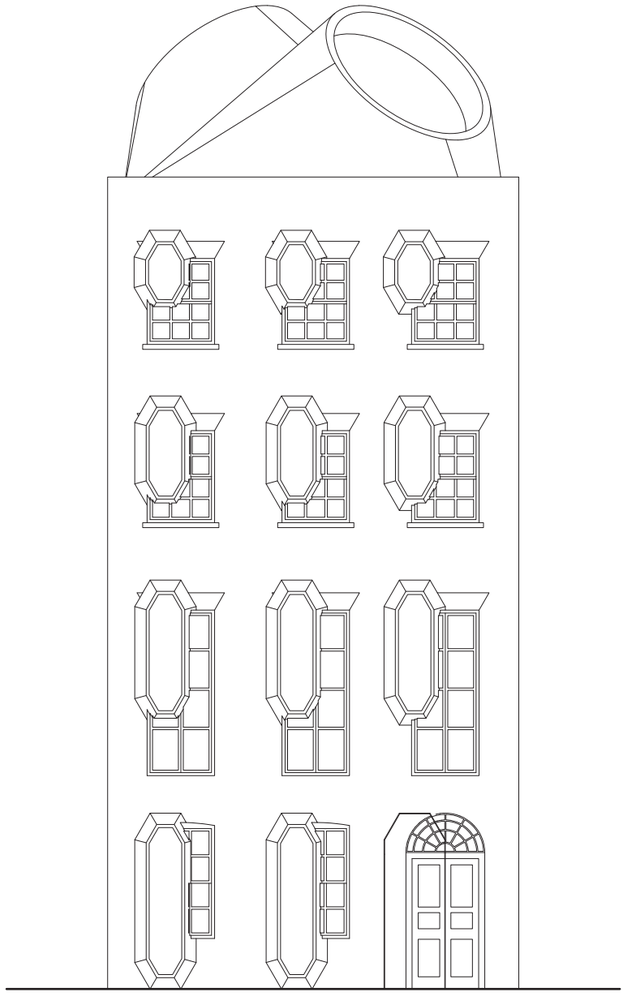

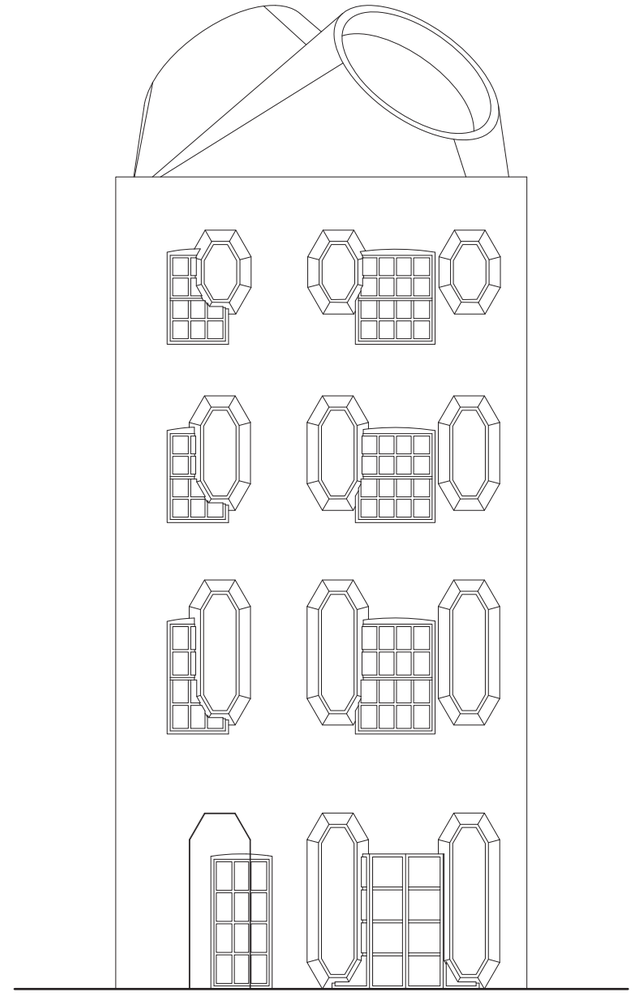

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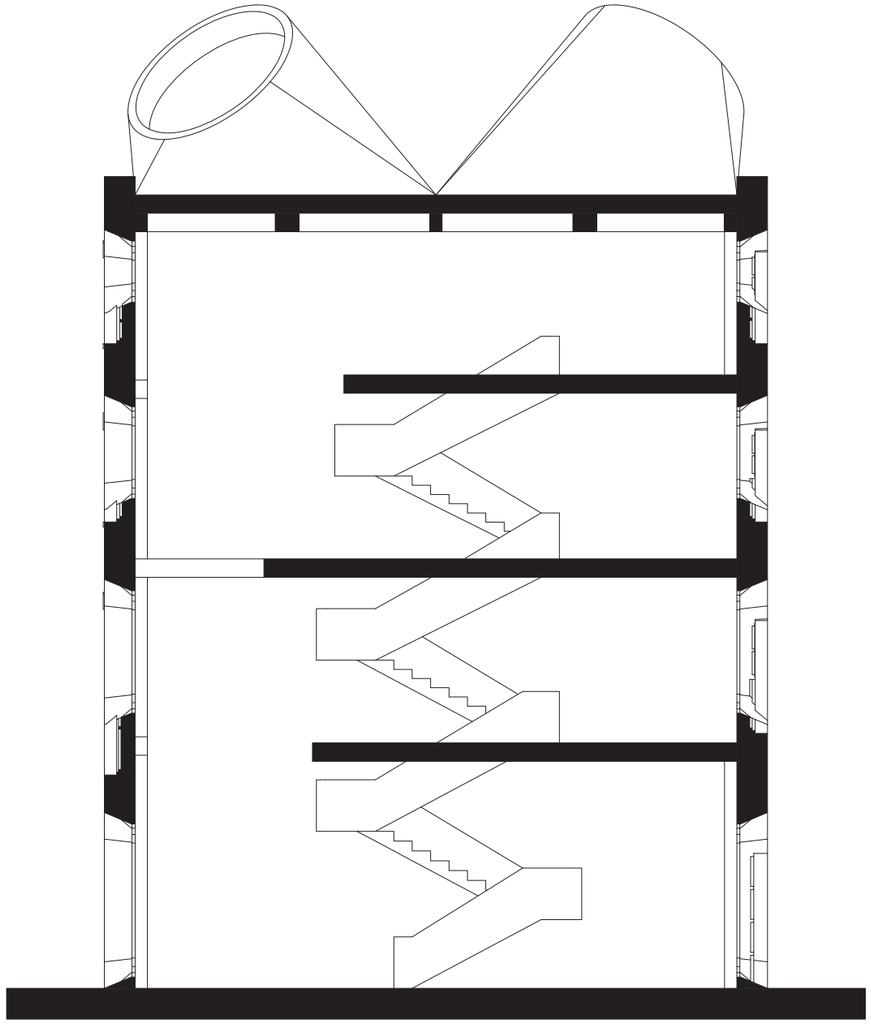

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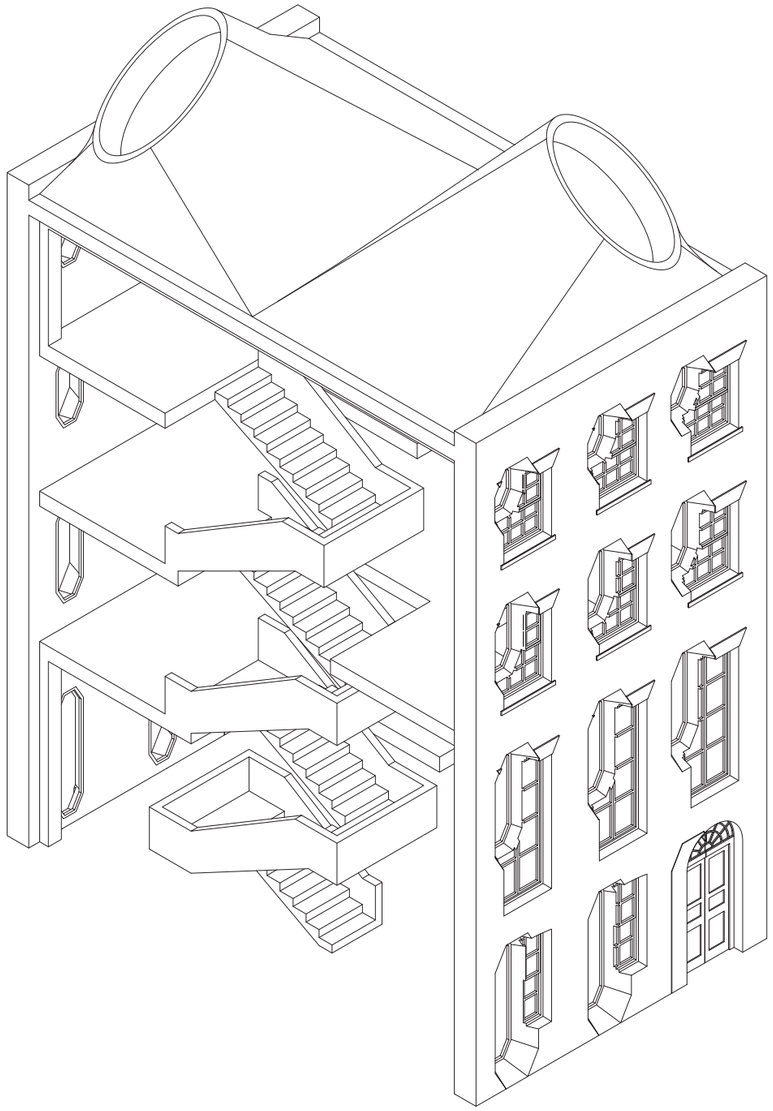

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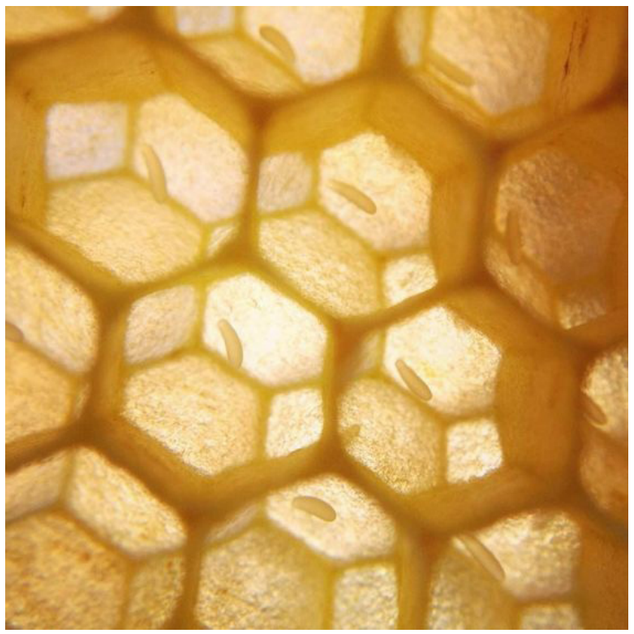

Fig. W01 (left): Image of beehives.
Fig. W02 (right): Work of Antony Gormley *Blind Light is a reference for its* interaction with light for the wax workshops.

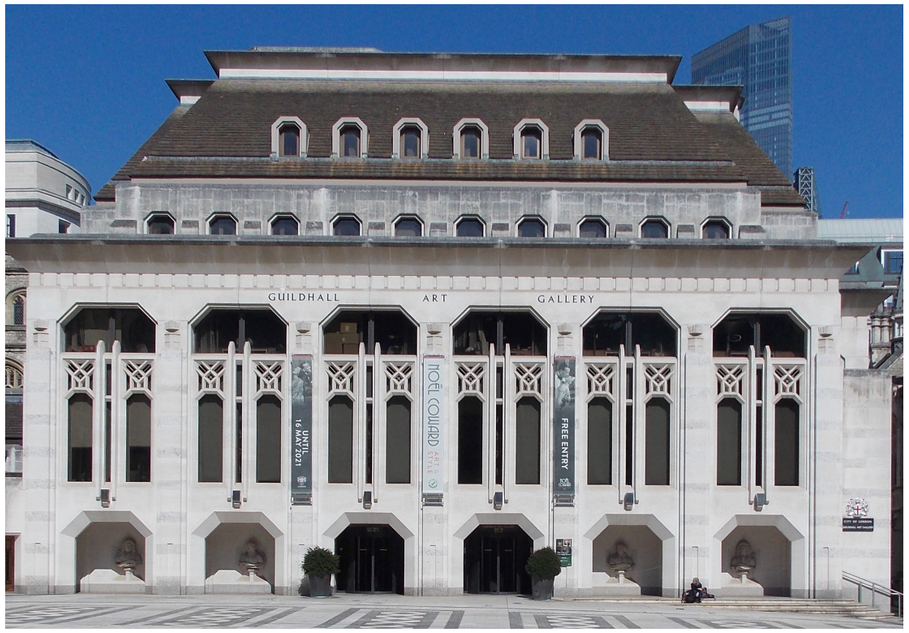

Fig. W03 (left): The openings of Guildhall Art Gallery influence the wax workshop openings.
Fig. W04 (right): Close up of Guildhall Art Gallery windows.