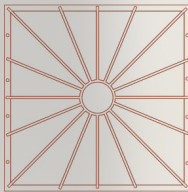


# VALUE, FRAGMENT, NARRATIVE

EXPLORING SPOILIATION  
IN THE PRESERVATION OF BUILT HERITAGE

2023  
Nelly Axelsson



2023  
VALUE, FRAGMENT, NARRATIVE  
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Abstract	6
Thesis questions	7
Thesis structure	8
Dictionary	9
Discourse	
a. City development in Gothenburg	12
b. Spoliation	13
c. Criteria of spolia	14-15
d. Designing with spolia	16
e. References	17
Inventory	18-47
Investigations	48-53
Project design	54-77
Discussion & reflection	78-79
Bibliography	80-81
Thanks to	82

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Death is a part of being alive.

It is a constant reminder of an inevitable ending that every living being experiences. Buildings are no exceptions. Although being inanimate, they are described as having life (S, Cairns & J, Jacobs).

The human strive to achieve immortality is rooted in the practice of architecture as well. We try, in various ways, to negotiate the death sentence for buildings through acts of preservation. However, in our fast-paced society, the built fabric is ever-changing, and the challenge is building between the preservation of cultural heritage and future development (Plevoets & Van Cleempoel,). The global environmental challenges are working against our most common strategy which is to “emphasize conservation of the original appearance to a great length of the building chosen as a monument and leave other buildings to be demolished when it faces structural instability or simply goes out of style” (Plevoets, 2022). Social instability and environmental crisis are a call to rethink how we perceive the management of cultural heritage as well as to reduce the climate impact of the building industry.

In this context, the ancient method of spoliation can acquire new significance. Spoliation became common during the economic downturn in the late Roman Empire. It entailed removing a part, or fragment, of an antique building on one site and assembling it with other parts on a new site to form a new building (Kinney, 2016). Today, the method of spoliation can offer architects a rich palette of authentic building materials that support storytelling, in connection with raising awareness and contributing to meet global environmental challenges. (Plevoets, 2022)

As a response to this call, this thesis seeks to explore the role of the fragment in relation to architectural design and the management of built heritage through the lens of spolia. For the sourcing of materials, as well as for building anew, the thesis will investigate the contemporary landscape of Gothenburg, Sweden. The method relies on three phases: Inventory, design explorations, and project design.

Inventory concerns the selective cataloging of elements and materials that can be sourced. Three public buildings in Gothenburg are chosen based on their cultural value. These buildings are explored through various means of drawing: through survey of discrete elements and historical layers, in search of various aspects that have influenced the fragment in its original context. The inventory creates a library of fragments that will be used as spolia in the following steps.

The design explorations investigate how the method of spolia could lead to future realities for reused building materials with emphasis on the value of fragments and their abilities to bring forward tangible as well as intangible qualities of the past in a new architectural setting.

The project design recognizes spoliation as a method of managing the loss of cultural value and the potential for design. The spolia depository serves as a vessel for the practice of reusing architectural fragments. Within the walls, remnants from demolished buildings accumulate and find new purpose in contemporary designs and constructions.

**How can the method of spolia be used to design an afterlife for demolished buildings that accounts for their heritage value?**

**What is the potential of the building fragment in relation to architectural design and the management of architectural heritage?**

## AIM

This thesis aims to investigate the potential of the fragment in relation to architectural design and the management of architectural heritage through the lens of the method of spolia.

## METHOD

The project consists of three phases: Inventory, Design investigations, and Project design. The phases overlap and constant reflection between them enriches the process.

Inventory involves selectively cataloging elements and materials sourced from three culturally valuable public buildings in Gothenburg. Various mapping methods are employed to explore these buildings, including surveys of discrete elements and historical layers, in search of aspects that influenced the fragment in its original context. This phase creates a library of fragments that will be used as spolia in subsequent steps. The research is conducted across scales, from a holistic understanding down to detail, and includes collecting theoretical support for the method of spoliation.

Design investigations are undertaken to study the method of spolia in relation to design, site, and program. The program enables spoliation to be studied both through the designed incorporation of used elements and materials as well as through means of display.

The phase focuses on testing the collected material through experimentations with different techniques, form studies and material explorations. This is explored through digital modeling, Model making, mix-media techniques and seek to produce material that will be refined in the next phase.

Project design is focused on refining material and sharpen arguments. The project design will utilize the findings in the two previous steps and introduce a site of implementation for a building design project.

## DELIMITATIONS

The project does not take part in the decision of demolition of buildings used as spolia, rather the project proposes the method of spolia as a remedy for what has already occurred.

The project does not seek to become an argument for demolition or influence the decision of the demolition of a building.

The act of preservation takes sustainability into account. However, the project does not go into detail about life-cycle assessments or construction details.

<b>Spolia</b>	Reuse of existing elements and fragments from demolished/unwanted buildings in means of pragmatic, aesthetic and ideological purposes. (Ploevets, 2022)
<b>Fragment</b>	A physical part related to a larger ensemble of parts that makes up the whole. The fragment is complete in itself and yet essentially incomplete (Schlegel, 1991). Each fragment stands for itself, as well as for the whole from which it is detached (Lacoue-Labarthe, Nancy, 1988).
<b>Element</b>	A building component, such as a wall, door, or window.
<b>Inventory</b>	A catalog of information on assets.
<b>Cultural heritage</b>	Cultural heritage can be both material and immaterial. It can be a building, ancient monuments, or traditions and tales. But generally, cultural heritage is about what the past generations have left behind to the present population (Riksantikvarieämbetet, 2018).
<b>Cultural value</b>	Cultural value is a collective name for what is considered valuable in the physical environment from a cultural-historical, aesthetic, and social perspective (Boverket, 2017). Cultural values can vary in degree and are divided into different categories.
<b>Gothenburg's Preservation Program</b>	A plan which let the City of Gothenburg to safeguard its unique identity and evolving character, while also ensuring compliance with legal regulations pertaining to urban development (Göteborg stad).
<b>Protection provision</b>	Jurisdictions tasked with enforcing the preservation of cultural and historical landmarks must ensure that their unique characteristics remain unaltered. However, these structures may be demolished and reconstructed in the same style and manner as before (Riksantikvarieämbetet).

**DISCOURSE**

## CITY DEVELOPMENT

In the urban context of Gothenburg, the process of development is vast and a constant matter in question. The city is undertaking immense infrastructural rearrangements, large redevelopments areas as well as densifying of the urban fabric. Relation to the changing climate has prompted an increase in the discussion of demolition decisions and architectural design and its contributions to the acknowledgment of heritage. The balance between development and preservation is challenging to achieve since too much of either side is not desirable.

In the current context, sustainability is the priority. However, the methods and strategies to achieve it vary. The debate about the demolition of buildings in Gothenburg has two outspoken forces, FASAD fighting to keep and maintain buildings of cultural significance and the city planner, Björn Siesjö, fighting for what is most functional for the development of the urban fabric.

The association FASAD is devoted to preserving the city's culturally significant buildings, and they raise concerns about architects' influence in decisions regarding demolition. FASAD believes that architects should take greater responsibility for sustainability and view reuse as an asset rather than a liability (FASAD, 2023). They argue for the priority to be restoration, renovation, or adaptive reuse before considering demolition. Björn Siesjö, The city planner's response to the objections of demolition buildings of cultural value, "As I have mentioned before; A city constantly changes its character and use, it is difficult to decide what we can and should preserve. We cannot live in a museum, but we must not lose touch with history either." (Siesjö, 2023)

The city development has taken initiatives towards increased care for encouraging the maintenance of cultural heritage and reuse. In 2022 was "Handslaget" instated, focusing on an increase in the circularity of reuse and working towards a decrease in climate emissions from the building industry (Göteborg Tar Storkliv Mot Återbruk | Business Region Göteborg, n.d.). The trade union for Swedish architects has, on a larger scale directed towards the architecture discipline, initiated the action plan "Agera!". It is a comprehensive plan on the importance of the cultural environment as a catalyst for transitioning towards a sustainable society and aims to amplify the presence of the cultural environment on various levels by providing tools to deal with the issue and to broaden the competence of architects (Sveriges Arkitekt, 2023).

## SPOILIATION

The ancient method of spoliation could gain new significance in the current debate of the preservation of cultural heritage.

The practice of spolia can be traced back to the Late Roman Empire, where it emerged during the economic downturn and became widely popular in ancient cities. A significant amount of legislation governed the practice of reuse, which established policies for architectural conservation and sought to preserve not only the physical monuments but also the civic ethos. The Legislation of the practice of reuse was rewritten numerous times to control the evolution of the activity. The majority of laws were about the maintenance of public buildings and preservation of the public ornament. It addressed that as long as public buildings remained functional and added to the aesthetic of the city, decorative and structural components were not permitted to be removed. However, when demolished, the deconstructed materials were offered by the authorities to assist in the creation of new construction (Alchermes, 1994).

One could argue that reuse was employed as a means of eliciting a positive and even patriotic reaction from their audience. Recognizable elements from earlier structures were incorporated into new designs, allowing the late imperial city's heritage to live on in the physical record of its monuments (Alchermes, 1994). The most well-known example of spolia is the Arch of Constantine, which is a triumphal arch in Rome dedicated to the emperor Constantine the Great in the year 315. The arc is constructed out of building elements out of previous triumphal arches made to honour Roman emperors before him (Sande, 2012).

Evidently, the physical loss of cultural heritage has significant negative psychological effects on individuals and communities and the increase in demolition and construction of new buildings are contributing to generic places where identity and character are not expressed (Altman, I 2012). Therefore, in the current debate about the preservation and development of cities, spoliation could allow for a city development where a sense of place is conveyed through recognizable elements and the physical loss of cultural heritage is less.

HISTORICALLY

<p>SYMBOLS &amp; RELIGION</p> <p>Spolia was often connected to religion and specifically Christianity, with the many spolia churches of Rome. Elements taken from a specific site could be used to communicate a certain message. The spolia can also be considered symbols of power simply due to their size and artfulness.</p>	<p>REUSE</p> <p>Spolia implies reuse of architectural elements. Historically the elements were sometimes carved out from existing monuments and buildings or taken/stolen as triumphs from defeated opponents. However, the elements often came from ruined sites and from storages of second hand building material.</p>
<p>RELOCATION</p> <p>Spolia implies moving an element from its original architectural context and inserting it in a new. the elements were often transported from historical or religious sites, which meant moving them from one geographical location to another.</p>	<p>AUTHENTICITY</p> <p>Spolia was not a copy or replica, but genuine element in its original form.</p>
<p>VALUE</p> <p>The value of spolia lays in material, function and the symbolism of the element.</p>	<p>AESTHETICS</p> <p>Spolia elements were attractive. e.g. the large, exquisitely ornamented ionic capitals. Craftsmanship and quality of materials were important, such as bright white marble.</p>
<p>UTILITY &amp; ECONOMY</p> <p>Using already existing elements shortened construction time, was less costly and resource intensive and sometimes made it possible to build differently from what the local building tradition allowed. The use of spolia was motivated by the scarcity of certain materials.</p>	<p>POLITICS</p> <p>The history show evidence that spolia was used to consolidate and demonstrate power. Building component taken from a defeated enemy and inserted into a new building like a trophy. Spolia was also a way to show greatness by taking elements from powerful context and inserting it into one's own and thus raising status.</p>

CURRENT INTERPRETATION

<p>MEMORY</p> <p>Change of title, "Memory" instead of "symbolism &amp; religion". The connection between the saved component and the citizens effects our emotions and adds another layer to the built environment which increases the value.</p>	<p>REUSE</p> <p>The elements must be in sufficient condition before and after removing them from their original context.</p>
<p>RELOCATION</p> <p>It does not require a geographical relocation.</p>	<p>AUTHENTICITY</p> <p>Some adjustments can be made to fit the element in its new context. The origin of the element must be known.</p>
<p>VALUE</p> <p>"Symbolism" changed to its capacity of storytelling. Addition: The changes of societal context through time will change the value of spolia, yet it stays as a mark of time.</p>	<p>AESTHETICS</p> <p>The aesthetics of letting the past show adds a complexity that evokes interest and reflection. Architecture is a reflection of society and spolia illustrates the layers of change that society undergoes.</p>
<p>UTILITY &amp; ECONOMY</p> <p>Using already existing elements is more environmentally friendly. A classification of elements from demolition sites makes the practice of spolia possible on a larger scale.</p>	<p>POLITICS</p> <p>Not related to victory over opponents anymore.</p> <p>Visibility of reused items in the can be seen as a statement that communicates political orientation as well as the conditions for putting this in practice is partly in the hands of politics.</p>



### DESIGNING WITH SPOLIA

Spolia has the potential to create a bridge between the past and present, establishing a connection between the origin of the fragment and its new location. However, the value and purpose of spolia are determined by the intention of its incorporation.

In the first half of the twentieth century, spolia was frequently incorporated as means to invoke the feeling of the fragment's origin of context onto the new site.

The shifts that followed allowed for the spolia fragment not to play a role at all in connection to its origin, such as, in the concept of bricolage, where different collected pieces have been curated together for aesthetic or utility purposes.

Spolia used in situ is as well a design strategy to form a connection on a site between the demolished and the new building (Meier, 2011).

### CRITIQUE TOWARDS SPOLIATION

The balance of the management of cultural heritage between preservation and the continuation of development is complex manner. While the method of spoliation offers one way, it is not without receiving criticism.

In his text, *Spolia in Contemporary Architecture: Searching for Ornament and Place*, (2011), Hans-Rudolf Meier shed light on some of the concerns surrounding the subject aired in the recent past.

Meier translates a critique by Helene Rahms, which been cited by the architecture critic and journalist, Dieter Bartzko in 1980, where they condemned the practice of spoliation as symbolic hollow gestures:

“What is questionable about this spolia architecture is that it can be used as a justification or compensation for brutal and reckless encroachments on the organic unity of the city”

The concerns of the quote fall under the critique of the follow-up of demolition or other cause of obliteration, where the intention of spoliation comes into question. They insinuate it as an attempt to cover the rapture and how it occurred by evoking a feeling of familiarity and softening the blow of the sudden change (Meier, 2011).

The critique is not without weight, it is a critical perspective of how one can interpret the method.

### Utrecht, City Hall, new wing with spolia from a former annex (2001)

- Miralles Tagliabue EMBT

The extension of Utrecht city hall showcases a method of deconstruction of the facade, the play with old spolia elements kept from the demolition of additions made to the building in 1932. The play of spolia fragments was made to exaggerate the historical layers of the building with methods of exposing and overlaying (Blundell Jones, P. (n.d.)).

*Keywords: Deconstruction, reuse of fragments to provoke memory*

Deepskyobject, Utrecht City, 2017



### The architectural vocabulary of Rudolf Olgiati

Rudolf Olgiati (1910-95) was a Swiss architect who had a method and workflow of collecting and storing building elements from deconstructed buildings and incorporating the measurements of the fragments into a new building from an early stage.

*Keywords: Storing of fragments, Collection*

Brutarchitekt, Wohnhaus in Chur, 2021



**INVENTORY**

**SITES OF SOURCING**

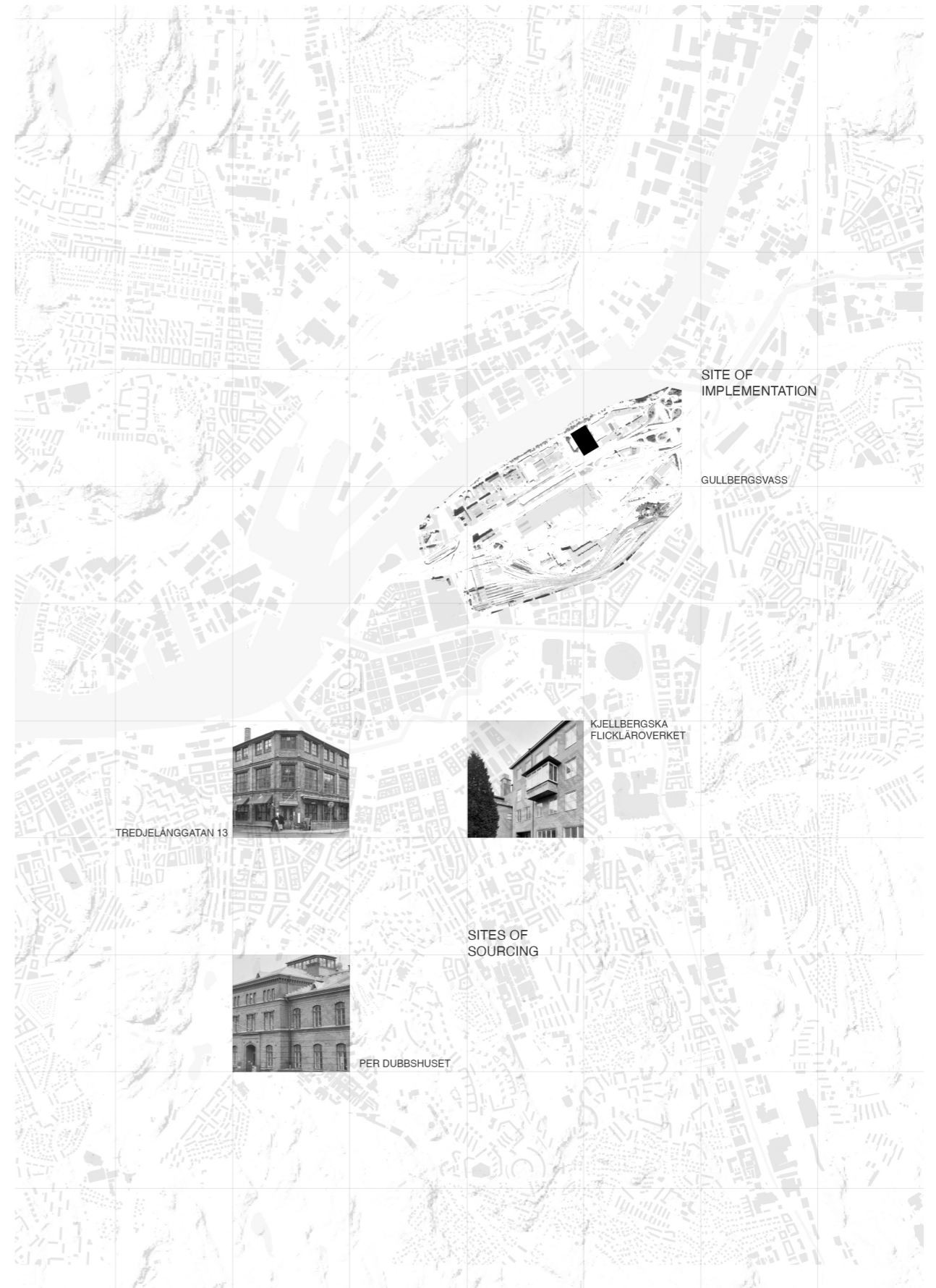
The possible sites of sourcing are today's buildings facing demolition in Gothenburg, Sweden. This project departs in the scenario of demolition being unavoidable.

The buildings are of cultural significance to associations for building preservation such as FASAD and the Swedish Association for Building Preservation (Svenska byggnadsvårdsföreningen). Therefore, the buildings and their fragments do already have cultural value when examining them for possible detachment and turned into spolia.

**BUILDING 1**  
Kjellbergiska flickläroverket

**BUILDING 2**  
Per dubbshuset

**BUILDING 3**  
Tredjelånggatan 13



**BUILDING 1**

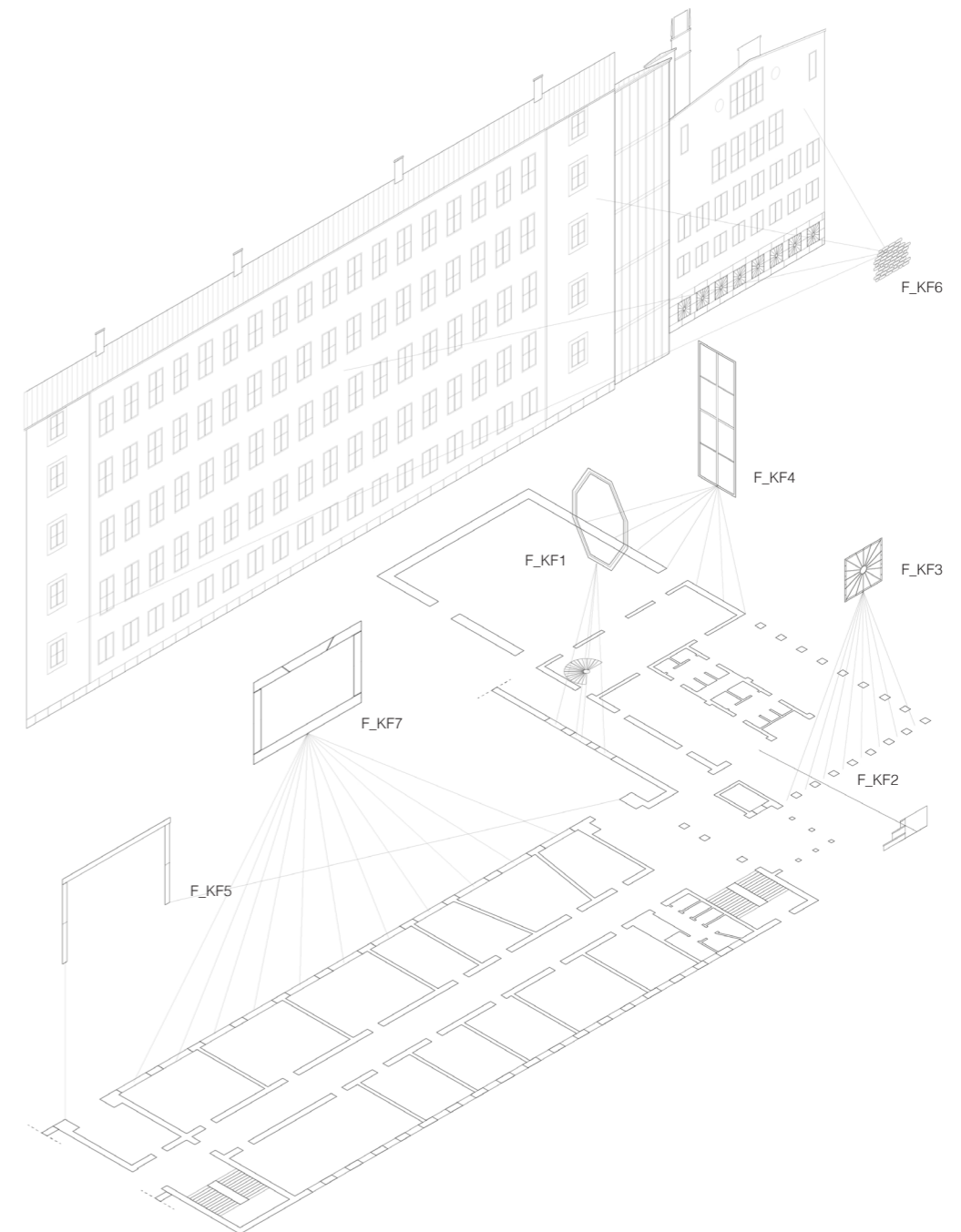
KJELLBERGSKA FLICKLÄROVERKET  
1935

The Kjellberg high school was founded in 1929 as higher general education for Girls in Gothenburg, and their new building was designed and constructed in 1935 by architect R. O. Svensson. The house is located within Renströmsparken's classic institutional environment, along with the Old Court of Appeal and the Humanities library.

The building has since then undergone minor remodeling and as the school for girls was discontinued in 1960, the building was used by the school for adults until 1988, when gained an extension in 1989. The extension added functions for the Academy of Music and Drama by Gothenburg University. The two buildings are today called Artisten.

**Future plans**

The addition built in 1989 is being kept but the original building is to be demolished to accommodate needs of the music and drama department as well as the department of art and design that are moving in under the same roof.





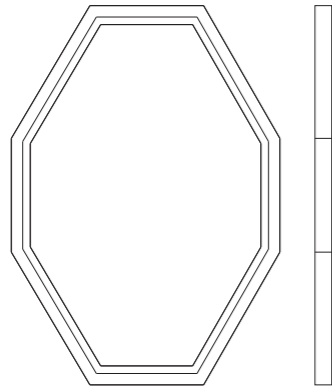
*View of Kjellbergsska flickläroverket inside the courtyard of Artisten*



*Interior view of Kjellbergsska flickläroverket in process of deconstruction*

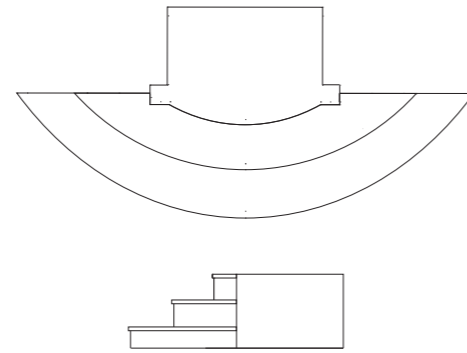
F\_KF1

Octagonal window  
wood / Glass  
1989  
Quantity: 4



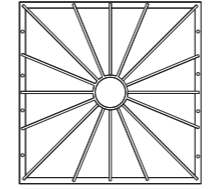
F\_KF2

Staircase  
Slate  
1935  
Quantity: 1



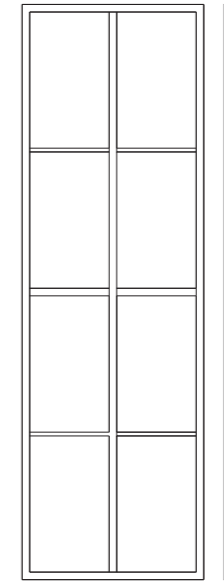
F\_KF3

Window Fence  
Cast iron  
2005  
Quantity: 8



F\_KF4

Window  
Wood / Glass  
1935  
Quantity: 7

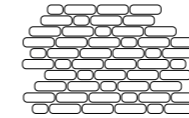


F\_KF5

Passage  
Granite  
1935  
Quantity: 2

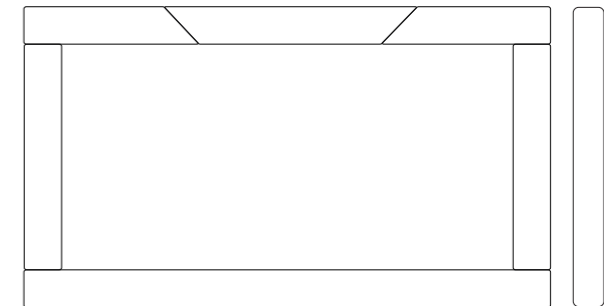
F\_KF6

Brick  
1935



F\_KF7

Exterior Window trim  
Granite  
1935  
Quantity: 10



**BUILDING 2**

PER DUBBSHUSET  
1896

Per Dubb's building was designed in 1896 by architect Axel Kumlien as the hospital's main entrance and administration building. The building was typical for its time with its prominent placement as it was at the beginning of a low, elongated, and symmetrical shape with free-standing pavilions linked by a covered passageway. The building lost its purpose of being a main entrance in 1959 when the addition of a new building complex changed the hierarchy, character, and organization of functions at the hospital.

The building itself constitutes a well-preserved turn-of-the-century public environment, both interior and exterior. It has two floors with a central entrance and the facades are made of red brick, with patterned masonry, bands, and decorations in darker brick and natural stone.

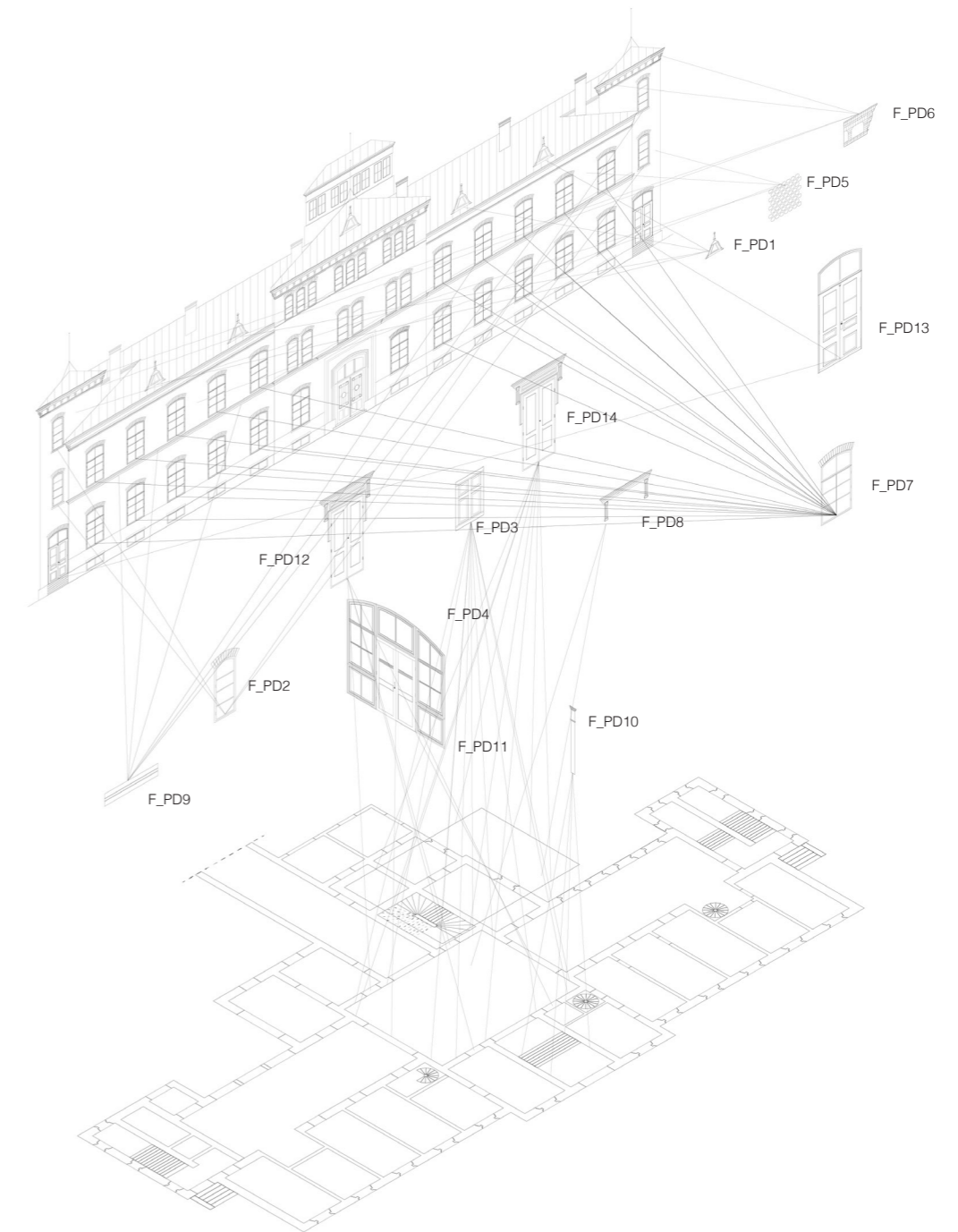
Today, Per Dubbhuset accommodates offices as well as a smaller banquet hall, Per Dubbsalen, with adjacent salons.

Per Dubbsalen was restored in 1982, and the building's vestibule, the hospital's original main entrance, was renovated during the end of the 20th century.

Per Dubbhuset is designated as culturally and historically valuable in the conservation program for Gothenburg and in the detailed plan for the Sahlgrenska hospital area (diary number 956/901) has Per Dubbhuset protection provision q.

**Future plans**

The building is to be demolished and replaced by a large building complex to accommodate the hospital's new investment Sahlgrenska Life. A proposal is to preserve the facade of the entrance and place it inside the new building. This has not been confirmed yet, however, this thesis proceeds on the basis that it is kept.





Exterior view

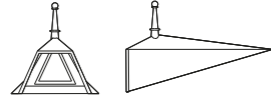


Interior view of Per Dubbs' hall



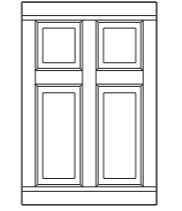
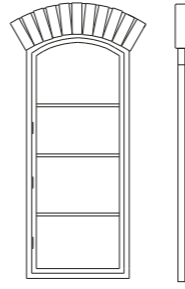
F\_PD1

Dormer window  
Copper / Glass  
1896  
Quantity: 4



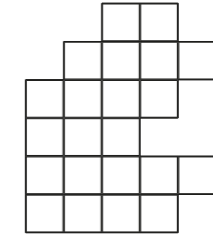
F\_PD2

Window  
Wood / Glass  
1896  
Quantity: 8



F\_PD3

Interior Panel  
Wood  
1896  
Quantity: 24

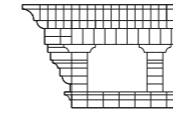
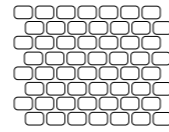


F\_PD4

Tiles  
Ceramic  
1896  
Quantity: 86 m2

F\_PD5

Brick Pattern  
1896

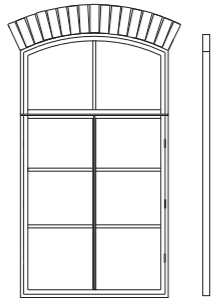


F\_PD6

Corner  
Brick  
1935  
Quantity: 8

F\_PD7

Window  
Wood / Glass  
1896  
Quantity: 10



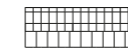
F\_PD8

Interior crown  
moulding trim  
Wood, white  
1896  
Quantity: 2



F\_PD9

Decorative  
Moulding  
Brick  
1935

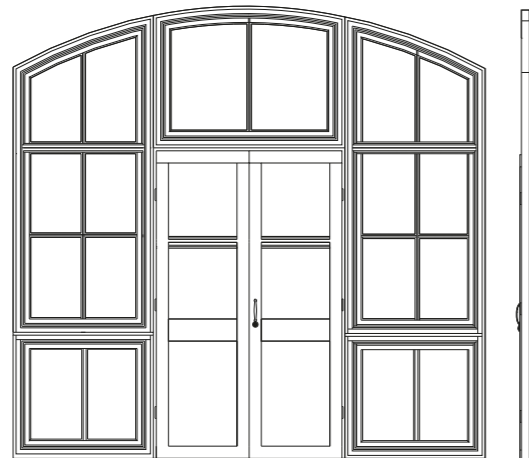


F\_PD10

Plaster  
Marble  
1896  
Quantity: 2:

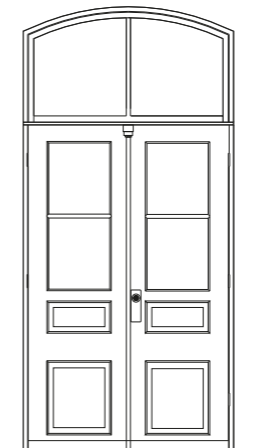
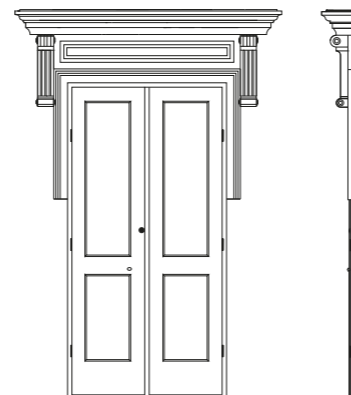
F\_PD11

Interior Door  
Wood / Glass  
1896  
Quantity: 2



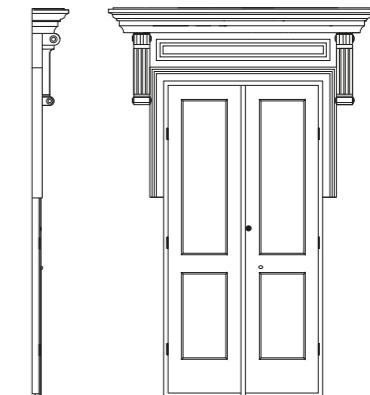
F\_PD12

Interior Door  
Wood, natural  
1896  
Quantity: 4



F\_PD13

Exterior Door  
Wood / Glass  
1896  
Quantity: 2



F\_PD14

Interior Door  
Wood, white  
1896  
Quantity: 4

**BUILDING 3**

TREDJELÅNGGATAN 13

1891

The original building was constructed in 1891 as a brewery and almost completely rebuilt in 1898 to accommodate a workshop for a pumping business. In 1929 a third floor was added and furnished as a dressmaker's workshop.

The floors have since then been altered to serve as various needs and functions. The ground floor is today operating as a restaurant business and a boutique. Floors 1 and 2 are today mainly used as Office space.

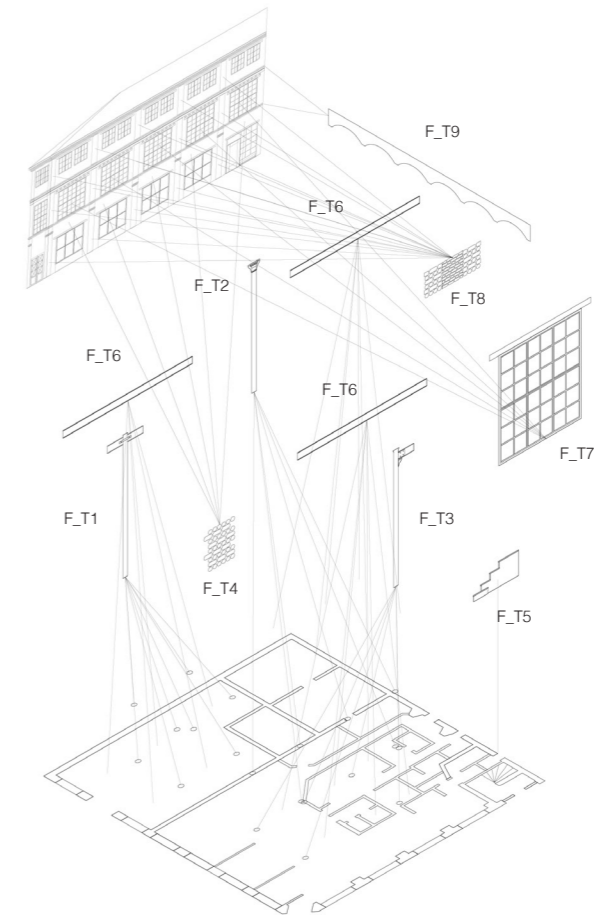
The exterior of the building displays clear industrial characteristics and is well preserved since the rebuilding in 1898 and the addition in 1929. The industrial character is enhanced by the conservation of the chimney dating back to 1929. The original design with patterned brick façades in red and yellow is still perceptible.

Alterations that have affected the original/older character are mainly window changes where existing openings have been reduced and replaced with plastered parapets as well as the white color being painted on the courtyard façades.

The interior of the building exhibits original/older building elements in their original placement due to the minimal changes made to the structure as well as stairwells. The visible parts of the frame, columns, beams, and cast vaults are details that have been preserved.

**Future plans**

The future plans for the plot are to convert it into a four-story hotel with a bar, restaurant, pool, and lounge.

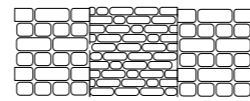
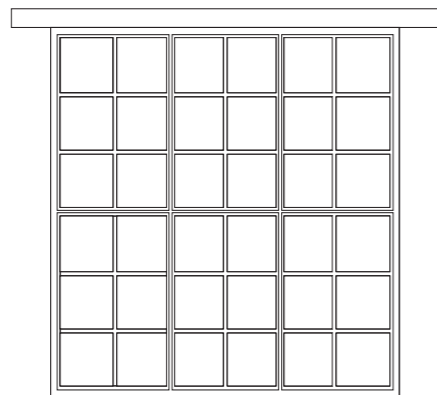
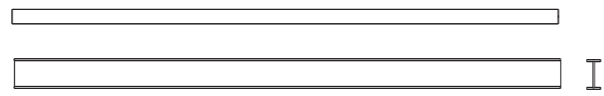
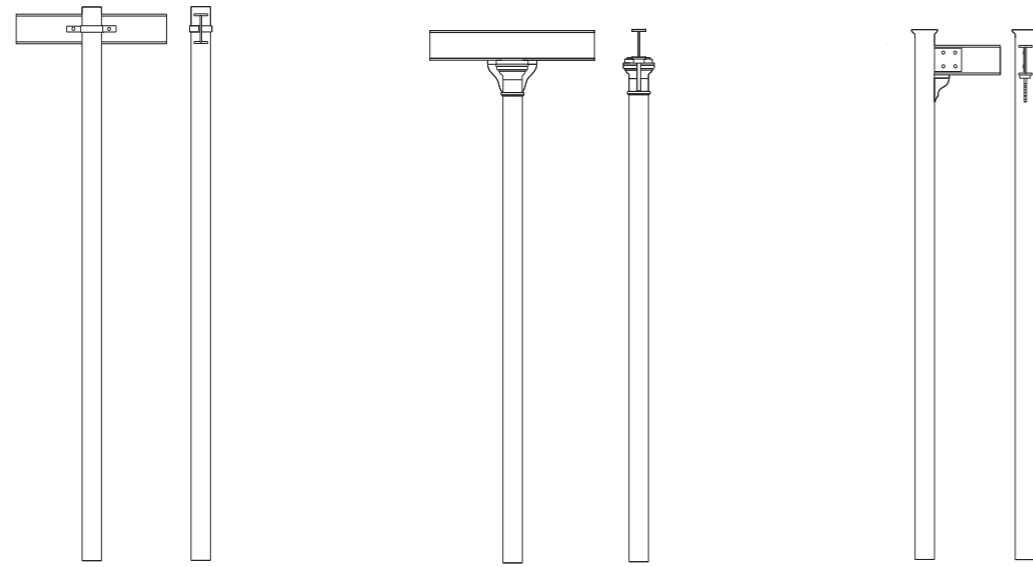




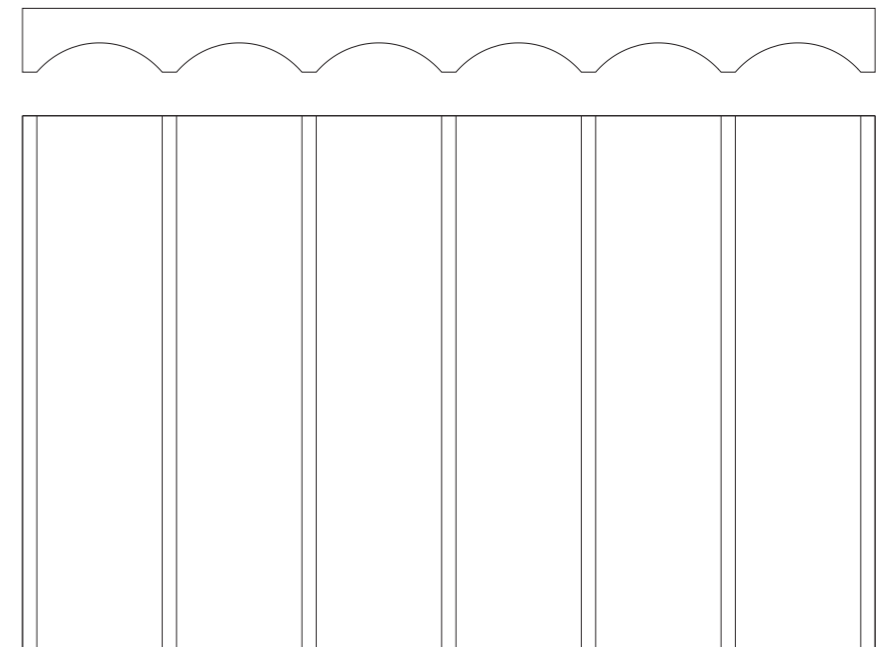
*Exterior view*



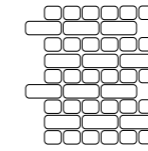
*Interior view of the second floor*



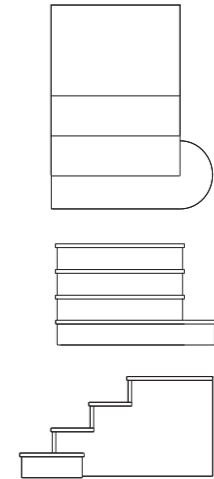
F\_T9  
Barrel vaults  
Concrete In-situ  
1898  
Quantity: 4



F\_T4  
Brick  
1898



F\_T5  
Stairs  
Marble  
1898  
Quantity: 1



### OBSERVATIONS OF BUILDINGS

The documentation consists of readings of the historical layers through reports, articles, and archive drawings in combination with own analysis of the material and the physical buildings. These observations have given guidelines for the design process.

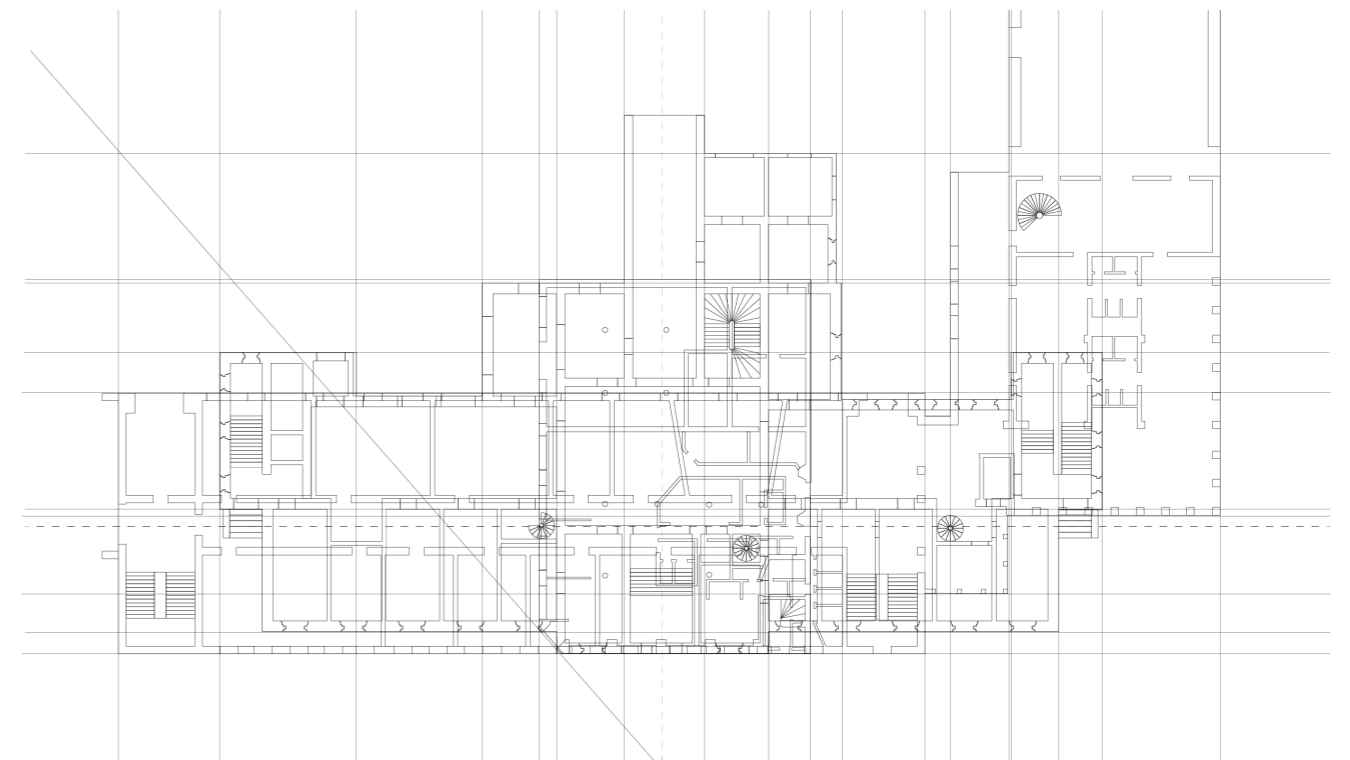
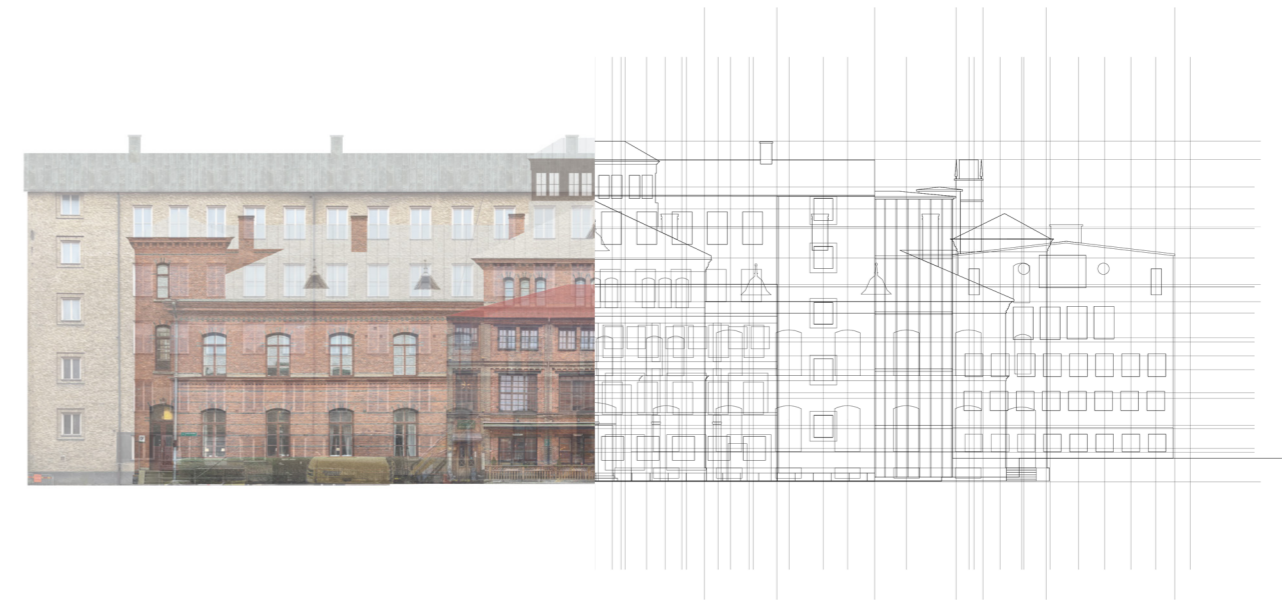
All the buildings have the appearance of being solid, sturdy & grounded.

All buildings have facades of brick and load-bearing walls of such as well. The brick patterns vary.

All buildings have facades that speak a strong language of repetition and order, emphasized through window placements and decorative brick formations.

Per Dubbshuset and Kjellbergsska Flickläroverket follow a dominant symmetry in the floor plans, meanwhile, Tredjelånggatan 13 resembles one space being divided into clusters.

Per Dubbs are the most maintained and preserved, while Tredjelång has been altered many times throughout the years. Kjellbergsska was in the process of demolition so the state of preservation could not be carefully examined.



## LIBRARY OF FRAGMENTS

The library of fragments is an open-ended part of the thesis. The intention is to create a base of fragments to elaborate with and add new pieces gradually as the project evolves.

The fragments as been documented through photography and extraction of the elements from its surrounding. Each piece as been 3d modeled to create a better understanding of its qualities and generate material for a smooth workflow.

## ACT OF EXTRACTION

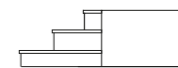
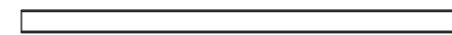
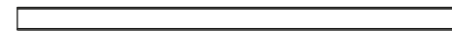
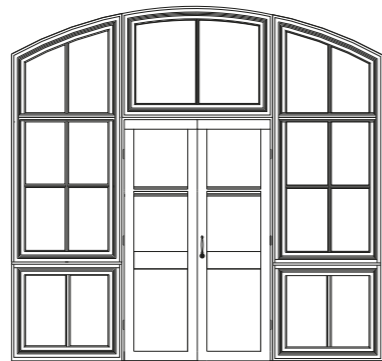
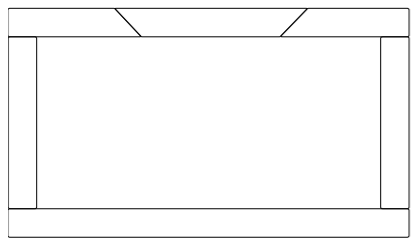
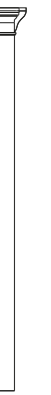
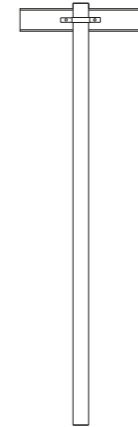
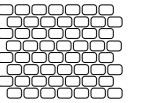
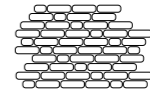
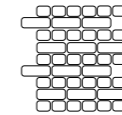
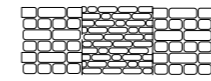
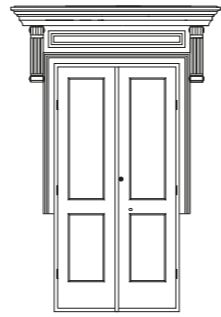
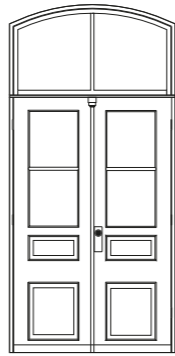
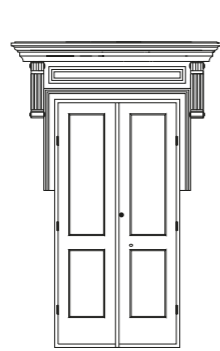
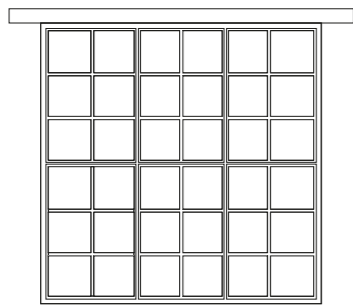
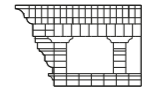
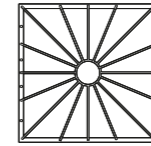
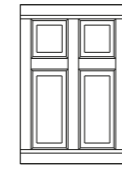
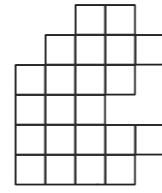
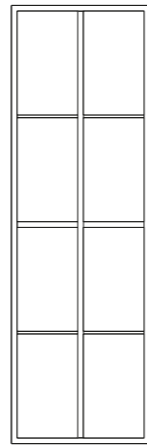
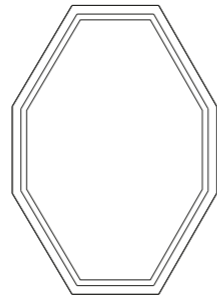
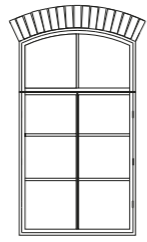
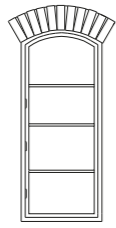
The process of extracting fragments is based on preliminary investigations by antiquarians evaluating the cultural value of the buildings. The documents go into depth about each building's characteristics in the cityscape, alterations, and changes of functions, and how this has affected the shape, materials, and usage of what is today.

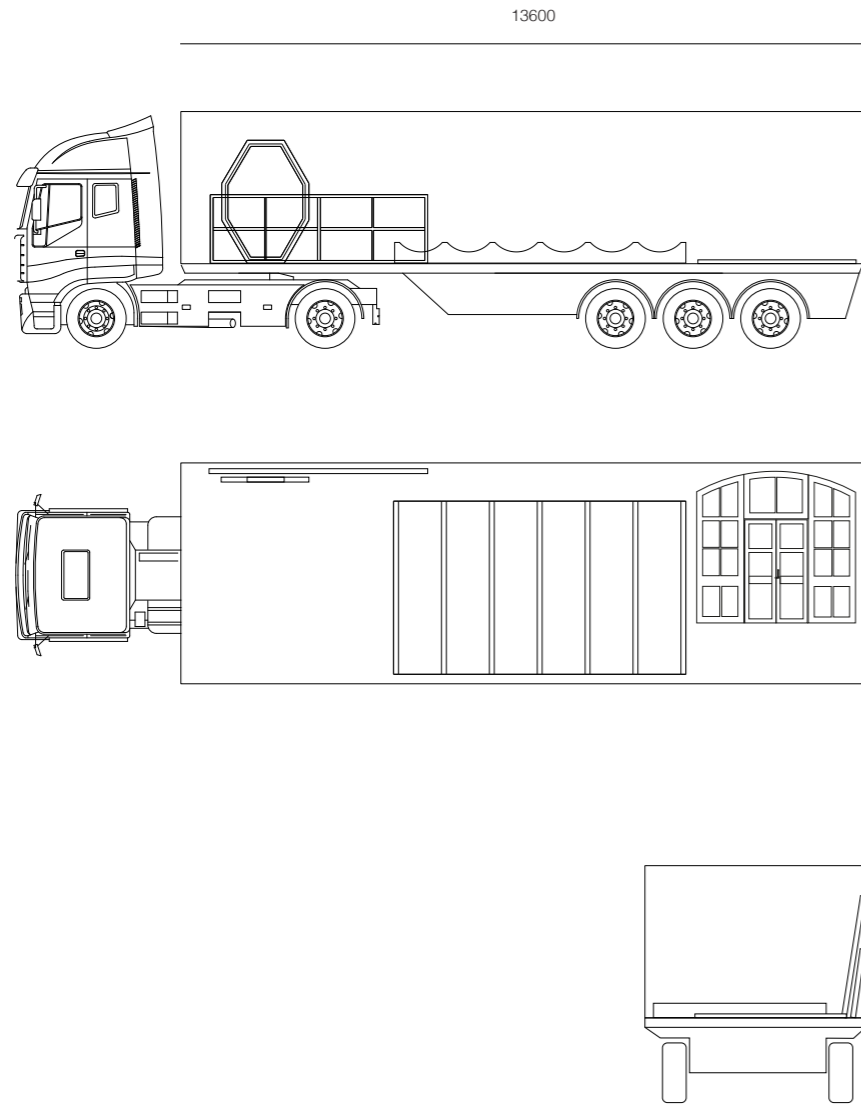
While these documents give some direction toward what is seen as valuable, the potential was extended to include more building elements of the buildings.

The criteria that are followed are based on the current interpretation of the framework of spolia. It can be summarized by sourcing fragments of durable materials, exhibiting craftsmanship, and/or fragments that speak of the character of the building.

It is important to state that value is a subjective interpretation. We are different as individuals, and as communities thus we see value in different things. The fragments that are chosen are therefore subjective to this author's interpretation.







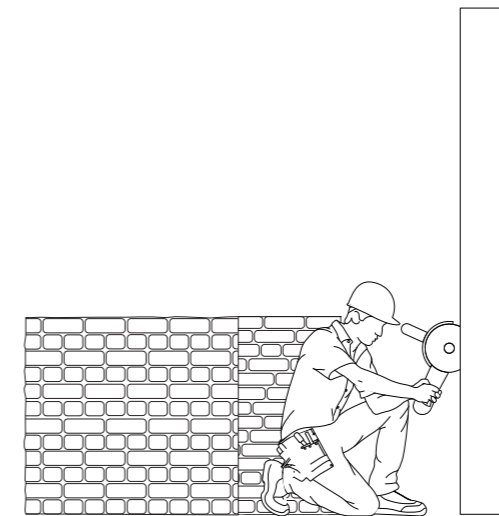
The measurements of fragments are limited by transportation since the relies on being moved. The dimensions of a lorry carrying a wide transport are the limits that are applied to the sizes of fragments.



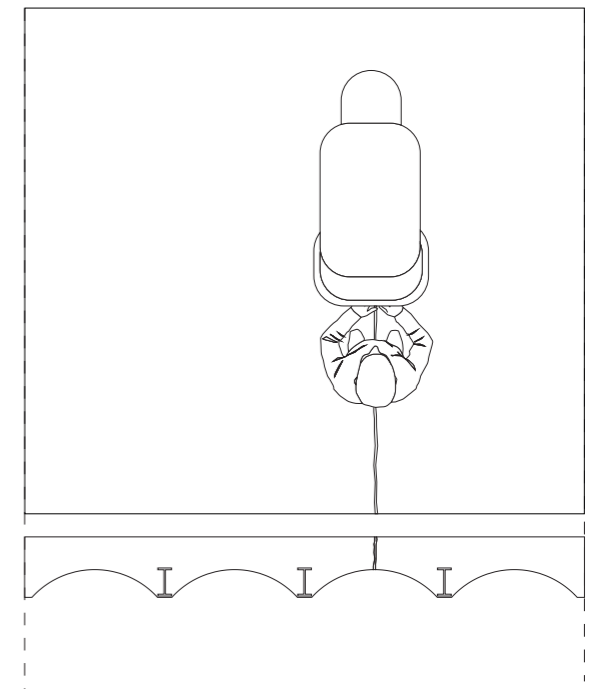
**Steel**  
*Angle Grinder for minimal traces  
on the fragment's appearance*



**Delicate fragments**  
*A careful extraction with smaller  
tools.*



**Brickwork**  
*Angle grinder for brick cutouts*



**Concrete**  
*Concrete saws that are designed for  
this purpose.*

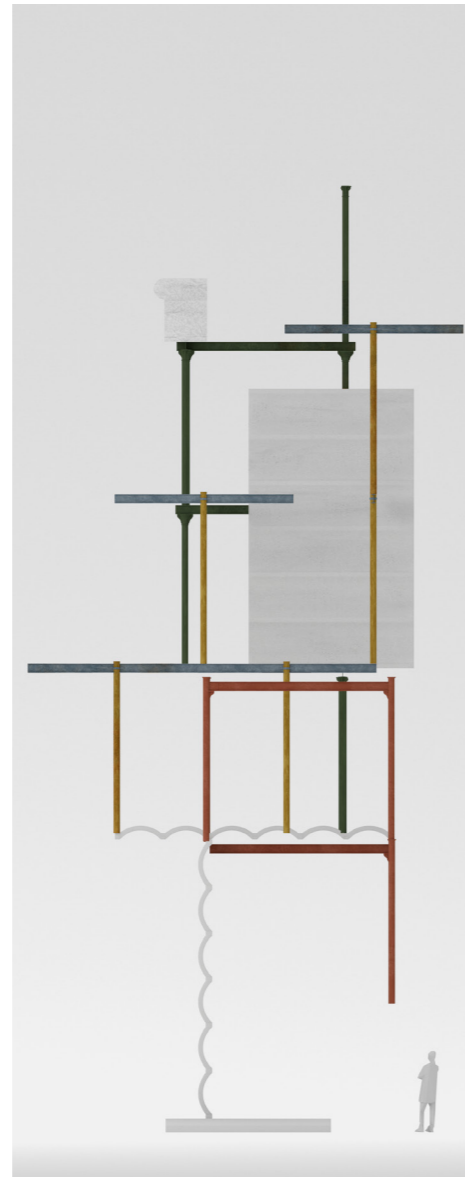


**DESIGN EXPLORATIONS**

### ASSEMBLAGE STUDIES

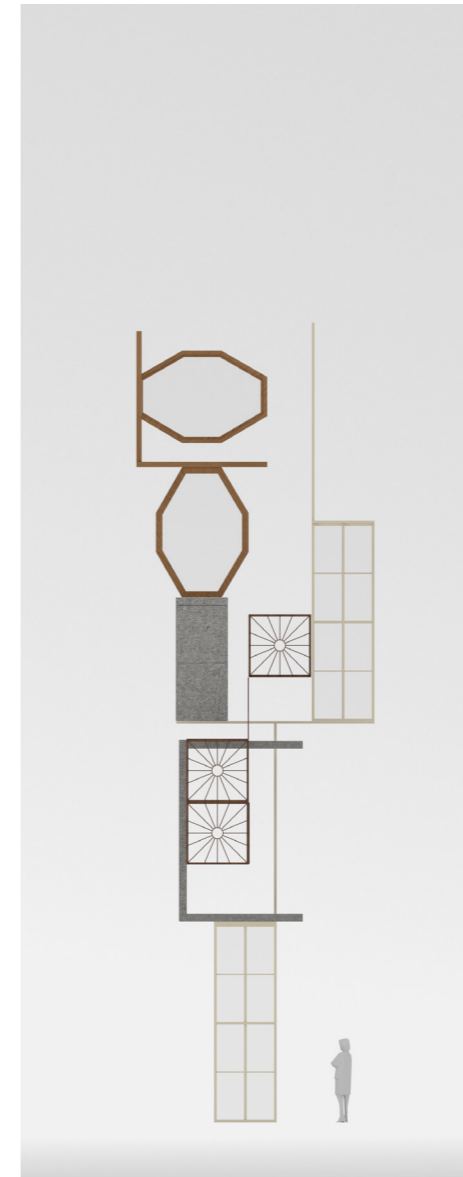
The design explorations focus on creating an understanding of the qualities of the fragments and bring insights to what has shaped the final outcome.

The assemblages try to explore how identity and characteristics of each building could be conveyed through its fragments. Example: The fragments of Tredjälånggatan speak of industrial character, enhanced tectonic features whereas Per Dubbs is much more of a Victorian identity, where ornaments and maximalistic style are enhanced.



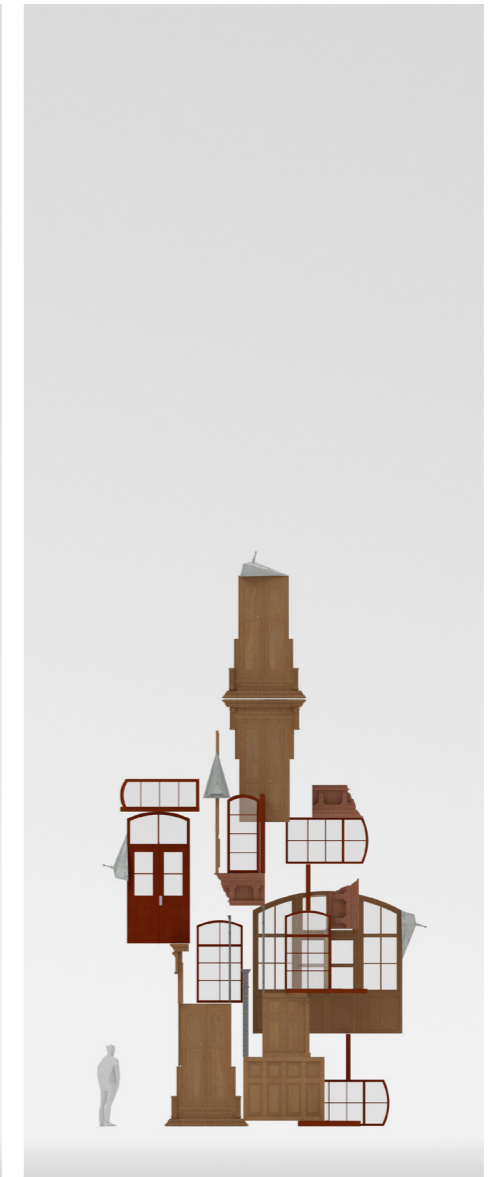
**Tredjälånggatan 13**

Various alterations of the industrial building has left it with clusters of internal systems.



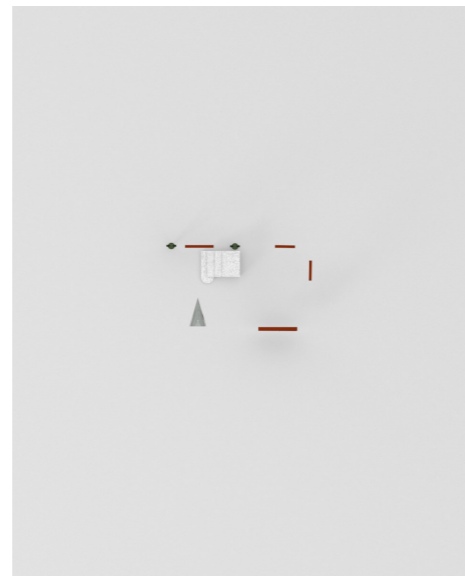
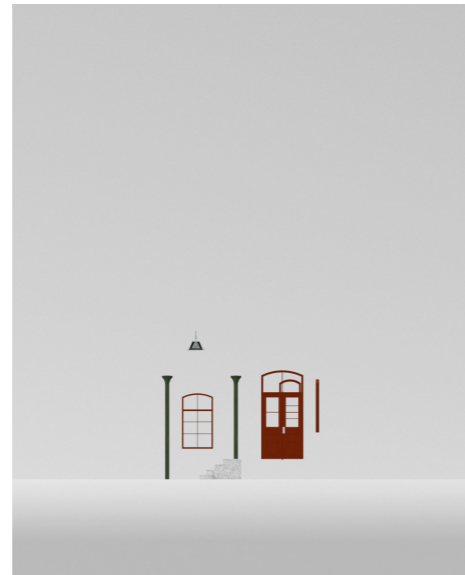
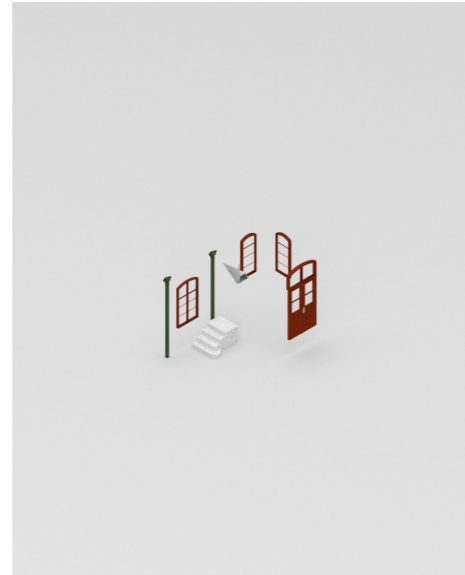
**Kjellberg's Flickläroverket**

Institutional characteristics, where the fragments are gathered in collections.



**Per Dubbshuset**

Heavy institutional building with much detail. Ornamentation and symmetry give the building an embracing feeling.

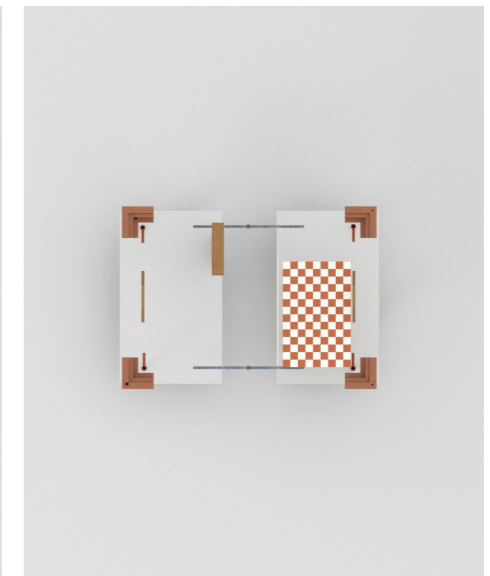
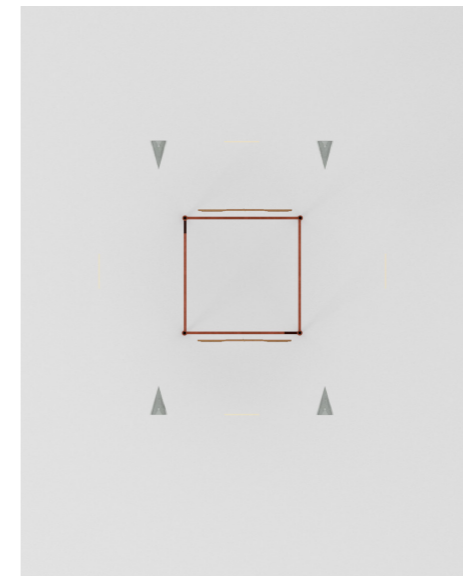
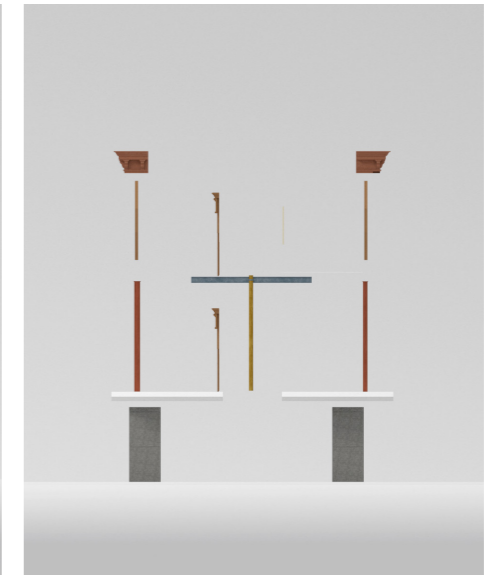
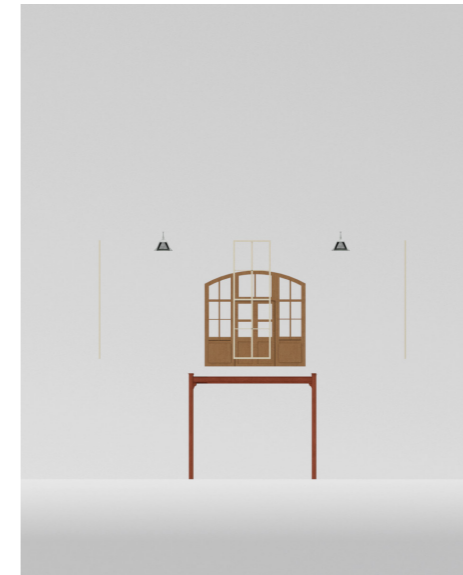


### SPATIAL STUDIES

The spatial studies are executed to create spatial translations by the positioning of fragments.

The fragment's positions are of a repetitive character where the symmetry provides the highest level of understanding of spatial qualities.

The material properties contributes to an easy reading of the objects and allows for fast recognition to connect the dots in-between.



### MATERIALITY

The material in-between the fragments are of importance to bring forward the intention of the reused material.

#### Grey concrete

*The colour and the smooth texture of the in-between material juxtapose the bricks.*

#### Red plaster

*The smooth texture juxtapose the bricks. The colour create a more comprehensive reading of the whole.*

#### Yellow stones

*The rough texture and the bricks are of same character. The colour enhances two of the types of brick formations.*

### MEETINGS

The meeting between the fragment and the immediate building element is a moment which can enhance the fragment's visibility.

#### Direct meeting

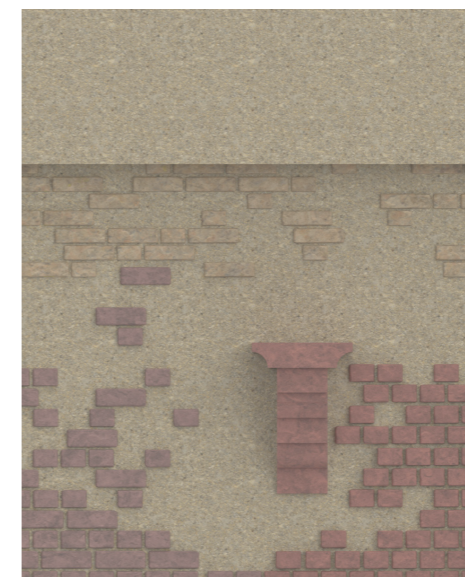
*A seamless attachment where the fragments are in direct contact with the wall element.*

#### Visual disconnecting meeting

*A shadow gap to create visual separation between the objects.*

#### Transitional meeting

*A material to separate the fragments and the wall element.*



**PROJECT DESIGN**

**PROJECT DESIGN**

The project design recognizes spoliation as a method of managing the loss of cultural value and the potential for design.

The program of the project inserts itself in the built fabric of Gothenburg as a vessel for the practice of reusing architectural fragments. A combined museum and storage, where design professionals have a wide selection of building elements and the public are invited behind the scenes. The Spolia Depository is directed towards the design professions and is managed by an institution with the purpose of creating a multi-layered reading in the development of the cityscape. The building accommodates a workshop, seven different exhibition areas, offices, an archive, and a cafe.

The proposed design is located in Gullbergsvass, a site that will undergo extensive redevelopment beginning in 2025, with completion projected for 2050. The Gullbergsvass area is currently dominated by large-scale industrial buildings occupied by wholesale businesses. The entire area is slated to be transformed into a new district that will accommodate over 20,000 residents and provide employment opportunities for a similar number of people.

Given the ongoing demolitions of the sites of sourcing in this thesis - Per Dubbshuset, Kjellbergska flickläroverket, and Tredjelånggatan 13 - the site of implementation was selected with consideration of its proximity to the demolition schedule. The site is also easily accessible by vehicle for convenient loading and unloading of fragments, as well as for people to visit. The available plot located by the riverside meets all the necessary requirements as described.

Within the walls of the Spolia Depository, remnants from demolished buildings can accumulate and find new purpose in new contemporary designs and constructions, allowing for a multi-layered reading in the development of the cityscape which is intertwined with historically inherited narratives and contemporary characteristics.

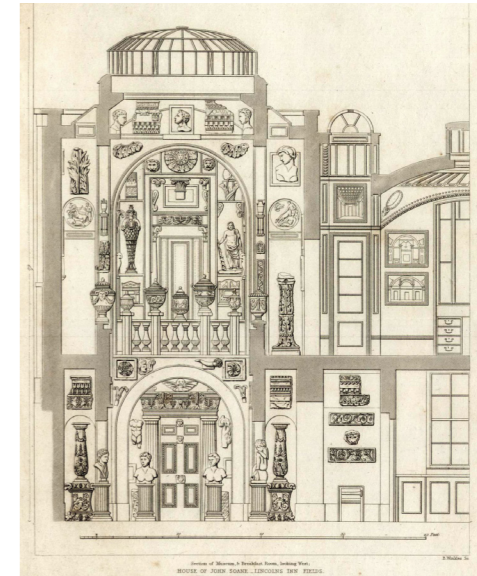
**Sir John Soane's Museum**

House and museum of the British architect Sir John Soane (1753-1837)

The collection of Soane is massive, ranging from antiquities, furniture, sculptures, architectural models and drawings, and paintings. The extraordinary notion of the museum is how he blurred the lines between where the collection ends and the building itself begins.

*Keywords: Accumulation of fragments, Museum*

Archimaps, (March 4, 2016), Section of the Museum inside Sir John Soane's House, London



**Depot Boijmans Van Beuningen**

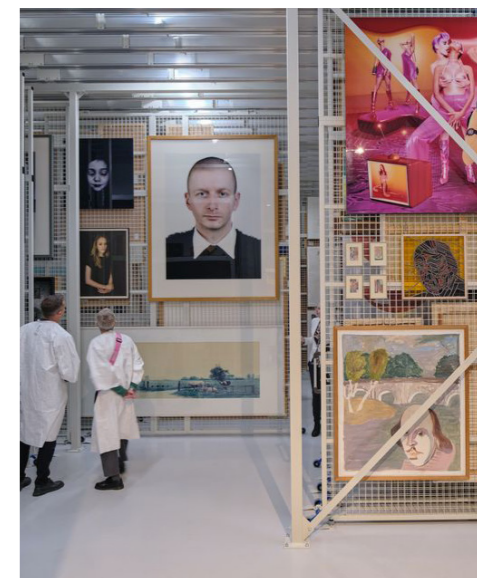
MVRDV  
2021

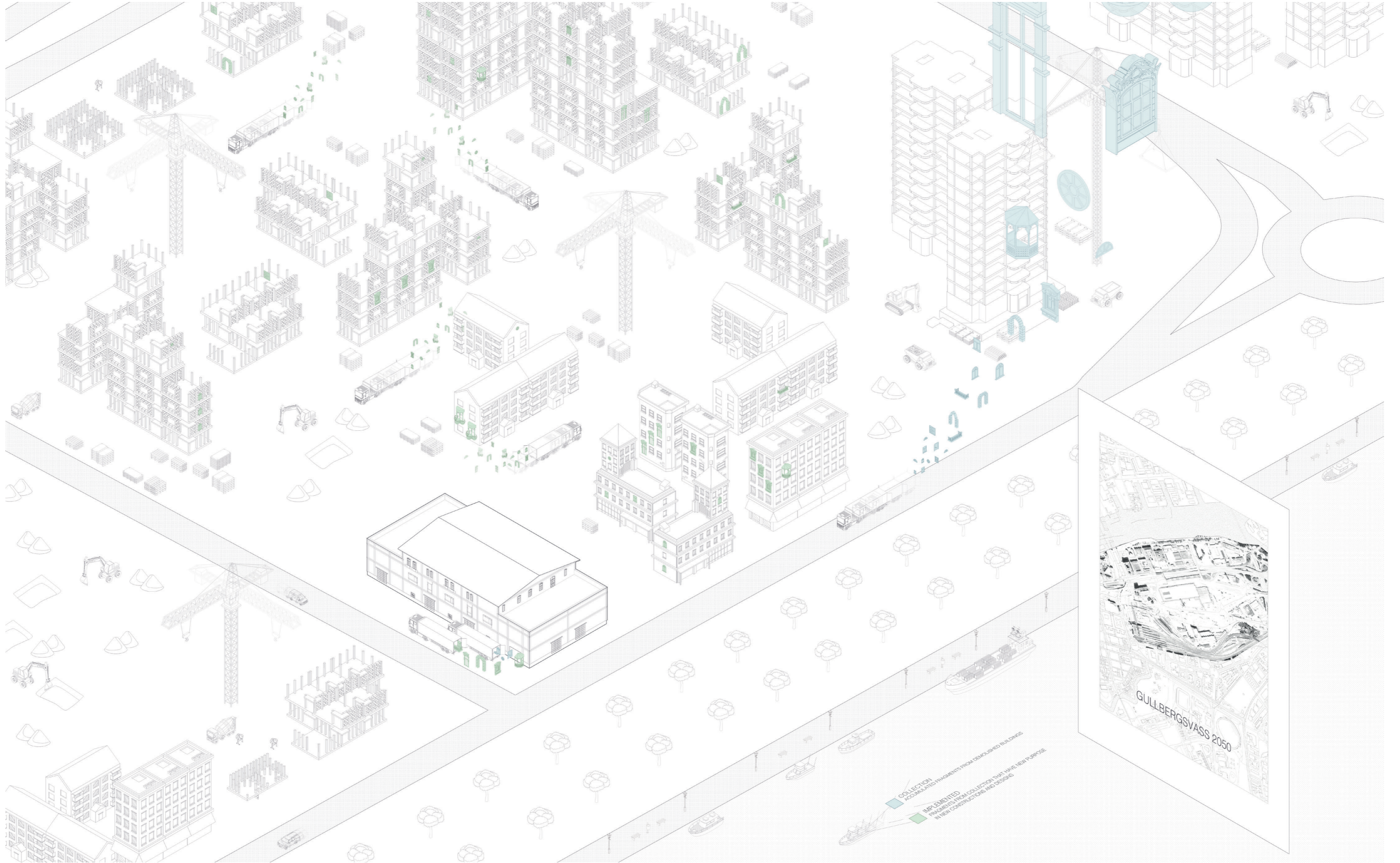
Art storage building

It is a public art depot showcasing the collections that are stored by the museum but not being exhibited. The museum allows the observer to see the processes behind the management of art such as restoration and climate requirements.

*Keywords: Storage, Museum*

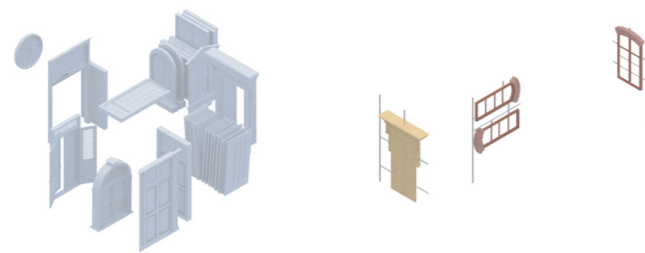
Van Duivenbode, O (Feb 4, 2022) Depot Boijmans Van Beuningen





The project design encourages the process of the practice to be seen as an exhibition, inviting the public for a tactile experience of the identities of the lost buildings through collected fragments. The Spolia depository acknowledges the act of exhibiting an object as a way to apply or enhance value. Therefore, the storage of the building elements is arranged out of exhibition displays, where the collected fragments and the inventory interplay to create intimate moments for the observer.

The fragments are arranged into exhibition areas according to the flexibility of them, including size, weight, and assemblage abilities. The exhibition displays are organized in building elements; Larger fragments, pillars, beams, staircases, surfaces, and openings.

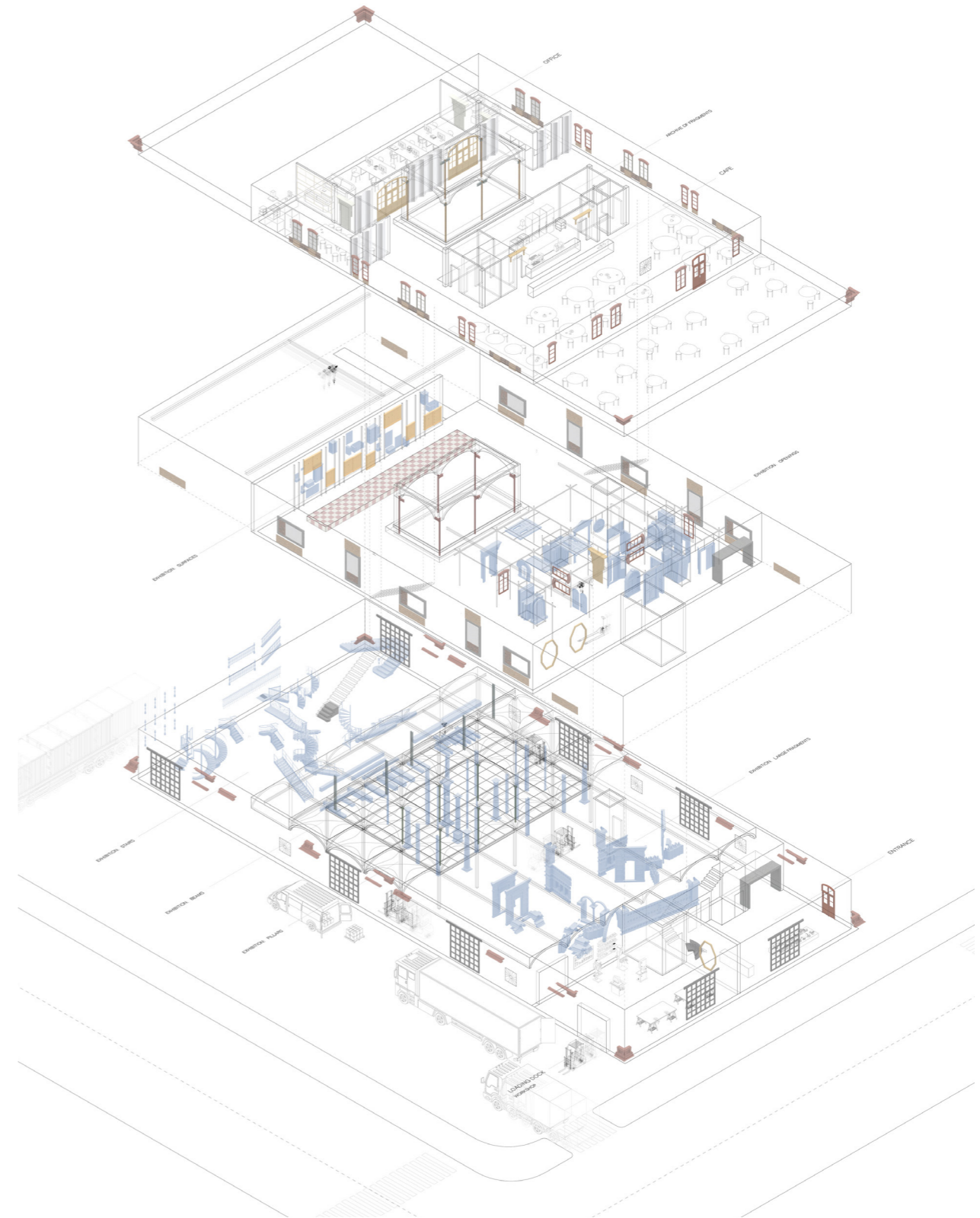


**COLLECTION**

*Consists of fragments that are being sourced from other demolitions. The fragments are sourced and stored for future constructions.*

**INVENTORY**

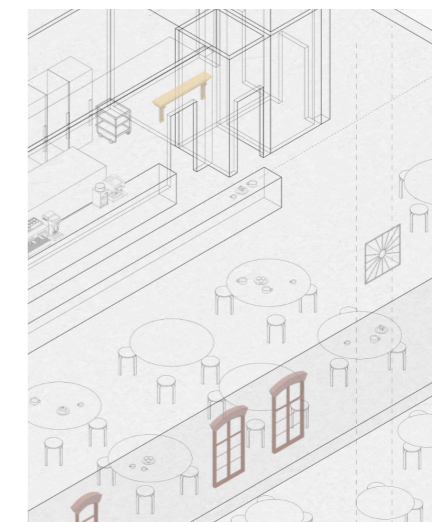
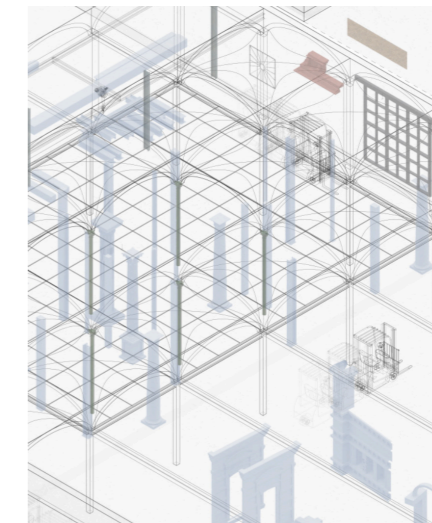
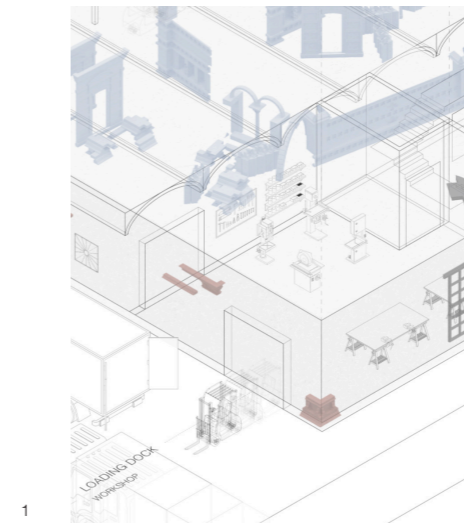
*Consists of the fragments from documented in previous phases.*





The measurements of the fragments are limited by the dimensions of a lorry, simply because it is more accessible in a deconstruction process and the overall transport of the objects, but as well a reasonable size for human interaction. By insinuating moments where one needs to apply affection and care for the fragments, the act becomes part of the healing process on a personal level as well as encouraging others to take responsibility.

The fragments are tended to in the workshop when they first arrive, carefully removing parts that are left from the deconstruction without altering the character. The transitional spaces are designed to allow for forklifts and pallet trucks to move around the exhibitions and the exhibition displays are reliant on the human workforce.



1. Loading dock, workshop
2. Exhibition/Storage, Ground level
3. Exhibition/Storage, First level
4. Café
5. Office

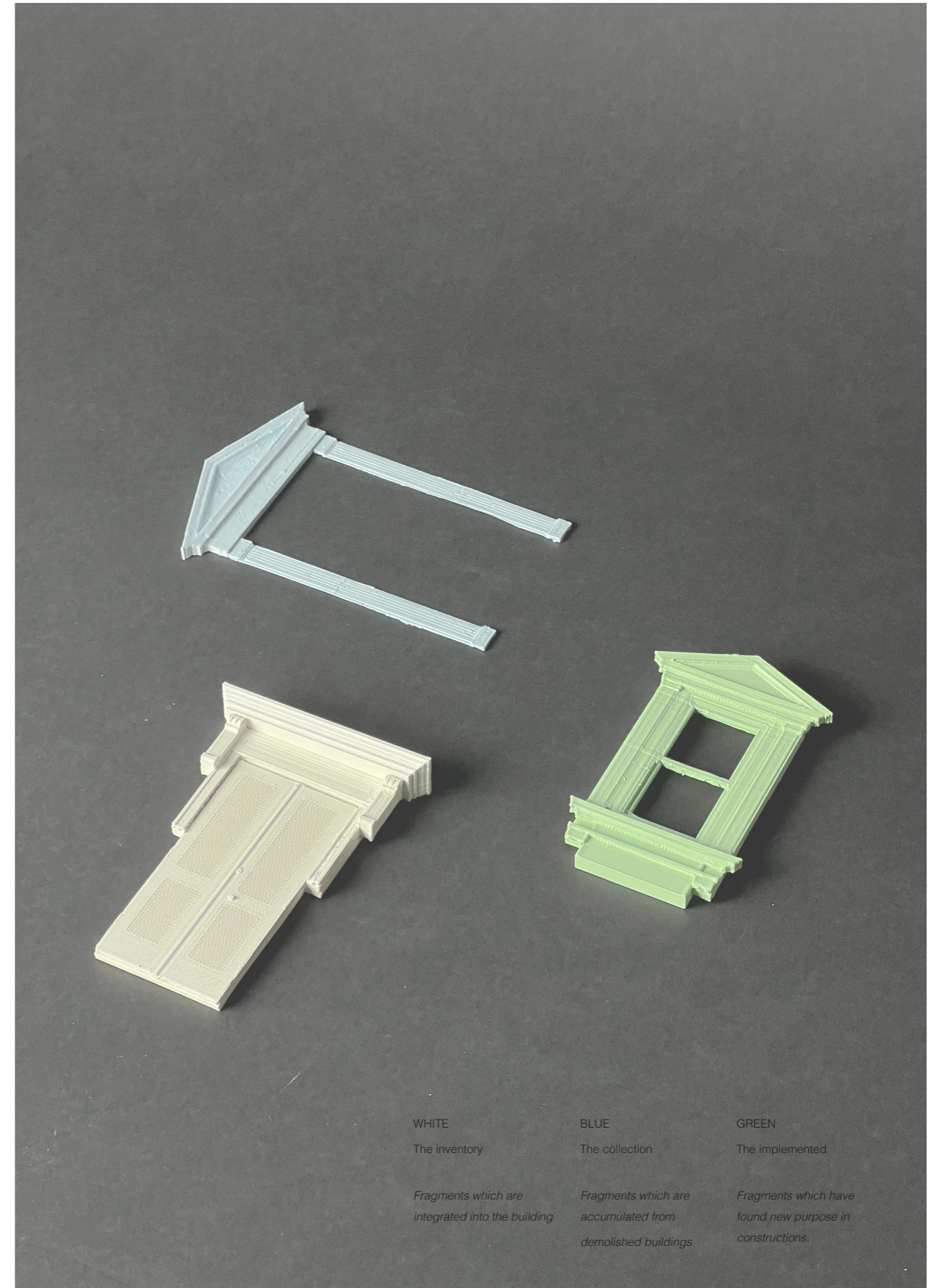
The design of the building is wielded by the logistics of moving fragments around as well as creating a design that alludes to the three demolished buildings. The documented buildings All have the appearance of being solid, sturdy & grounded and their facades speak a strong language of repetition and order, emphasized through window placements and decorative brick formations. A dominant symmetry in the floor plans and vaults is something that can be seen in a majority of the buildings.





### ARCHIVE OF FRAGMENTS

Each fragment that is added to the collection is documented in the depository's archive. The archive contains a physical 3d model of the fragments as well as digitalised information of each fragment. The information is a summary of the origin of the fragment, its material composition, measurements, if it has been altered and where its current location is. The archive provides accessible material information for discussions concerning possible reuse opportunities.

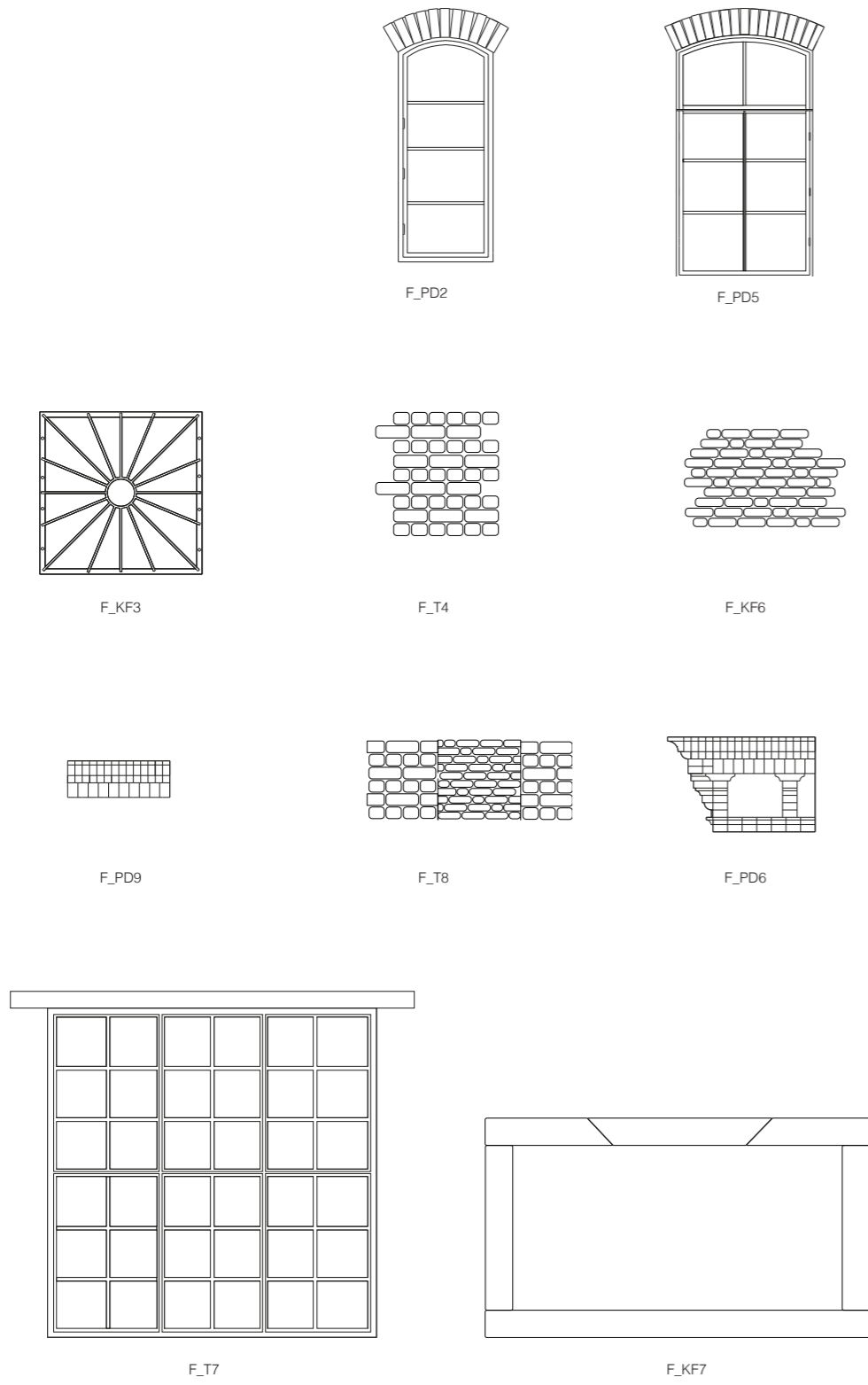




The integration of the inventory is exemplified by the facades of the depository. These facades draw inspiration from the original buildings, showcasing a robust character through the use of assembled stone and brick, while adhering to a rhythmic pattern of repetitions.



The aim behind integrating fragments is to create a design that presents a cohesive impression, enticing viewers to linger and explore the intricate details. Rather than seeking a design that allows for easy comprehension at a glance, the fragments are intentionally incorporated without alienation, fostering a deeper and more engaging visual experience.

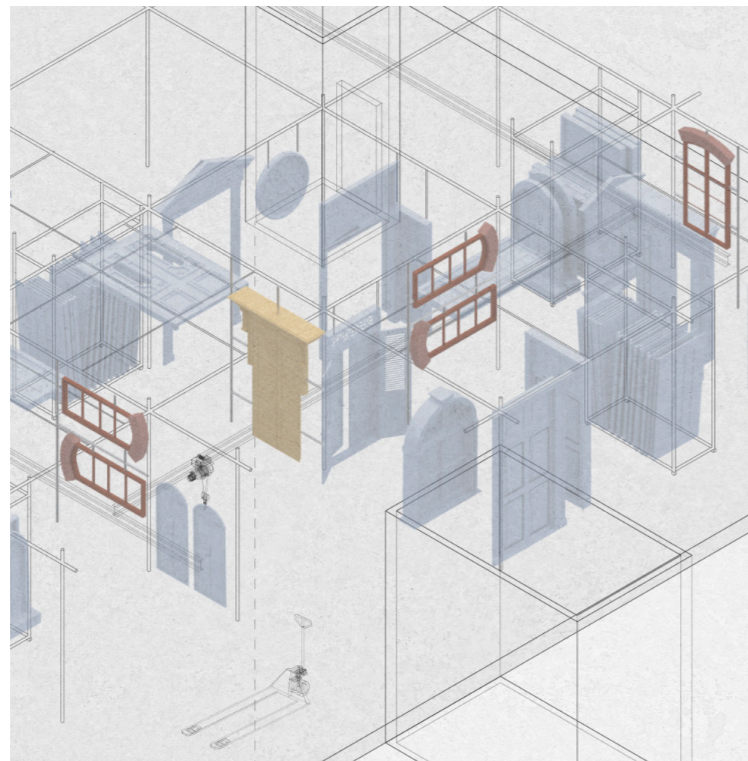


*Inventory that can be seen in the perspective*



#### EXHIBITION DISPLAYS

The distinctive feature of the spolia depository, as opposed to antiquarian stores, warehouses for reuse, and similar establishments, lies in its intention to showcase the fragments within a setting reminiscent of a museum. The interplay between the inventory and the collection is inspired by Sir John Soane's Museum, which provides an experience of not knowing where the collection ends and where the building itself begins. These blurred lines aim to increase the curiosity of the observer.



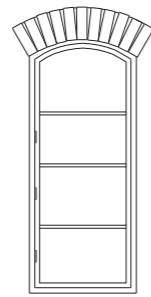
#### EXAMPLE OF DISPLAY / OPENINGS

Through the interaction of the grid and the windows and doors, a sense of intimacy, flexibility, and interchangeability is fostered, giving rise to unique spaces. In this interplay, the grid blurs the distinction between the integrated fragments and the collection (represented by the color blue). While the inventory seamlessly integrates into the grid, the collection assumes the role of versatile components that operate harmoniously within the grid's framework.

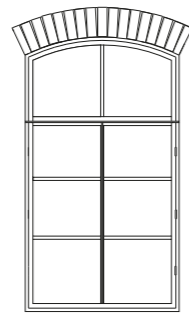
Similar strategies are employed by other exhibition displays as well. These displays blur the boundaries between integrated fragments and the exhibited collection, where the grid serves as a unifying element. The collection elements are designed to seamlessly adapt and work within the grid structure, enabling a cohesive and visually engaging exhibition experience.



DISPLAY / OPENINGS



F\_PD2



F\_PD5

*Inventory that can be seen in the perspective*





F\_T2



F\_T6

*Inventory that can be seen in the perspective*





## DISCUSSION & REFLECTION

Demolition is inevitable, but what happens after is a choice. Rather than dismissing the act, this thesis brings forward spoliation as a process for healing for the city and its inhabitants through the management of fragments of cultural value. The thesis explores a more specified method under the topic of transformation and reuse. The method that complements existing preservation strategies in its ability to deal with what happens after demolition when the others fall short. However, it should be seen as a method to implement after the decision of demolition is final, not as an argument for it. As I see it, the intention of the usage of spoliation defines if the act is interpreted as affectionate or if it is a hollow gesture that rather promotes demolition.

The thesis questions concerns how the method of spolia can be used to design an afterlife for demolished buildings that accounts for their heritage value as well as the potential of the fragment in relation to architectural design and the management of architectural heritage. In many ways are the heritage value of a building is tied to each individual identity. Although inanimate, buildings are described as having life and they are viewed as an entity of its parts. Therefore, the fragments cannot replace the building. Fragments can be seen as a physical reminder of the demolished building and in many aspects, the building's life continues in the archived material and the collective memory. One could apply spoliation in various transformation strategies such as restoration and adaptive reuse, nevertheless this thesis has explored the possibility to assemble it into a new building.

The thesis evolved into looking on spoliation on three different aspects. Firstly, The management of preservation through spoliation, including documentation, logistics, and the intangible qualities the fragments bring with them to the cityscape. Secondly, The integration of spoliation, how material qualities and aesthetics can be combined to form a cohesive reading of the new building. Lastly, The exhibition of spoliation, how the act of exhibiting the fragments can foster greater understanding and nurture the value of the built heritage.

I believe that I have merely scratched the surface of what the method can offer architects of today. While this thesis began from an interest in aesthetics, it evolved to focus more about the management of preservation. It emphasises the importance of documenting and assembling an inventory of fragments and proposes an alternative way of approaching context that speaks historical identity, character and context. The architect plays a pivotal role in shaping social and environmental conditions through their decisions and choices, encompassing aesthetics, workflows, and software utilization that directly impact the development of the built environment. In the realm of design, the method of Spoliation challenges the conventional approach by starting with a focus on the intricate details. The potential solutions to address social instability and the climate crisis may lie in reevaluating our methods of working and redefining our mindset that can challenge traditional norms and embraces holistic thinking. I reckon the thesis show compatibility with the initiatives "Handslaget" and "Agera!" as well as is a contribution to the debate about reuse.

The inventory is a large part of the thesis and the documentation process has been the most time-consuming. Some limitations were encountered. Although the three sites of sourcing are public, it has been challenging to get access to parts of each building. This has made the inventory rely on mainly first impressions and observations. The access to Kjellbergsga flickläroverket has been the most difficult since it is already in the process of demolition and upon visit, many elements had already been removed. In addition, there are missing information about the pre-study made by antiquarians about Kjellbergsga flickläroverket. Akademiska hus, The owner of the building ensures that they have been made but will not be made public.

When working with spoliation, I recommend to respect the fragments but do not be frightened to be radical as well. It is easy to have too much respect of the fragments and the step towards design becomes difficult to move into. The design challenge, when working with the existing spolia fragment, is that too much altering of the fragment's appearance will erase its ability to be seen as spolia. But when exploring the method, I encourage painting more outside the lines to create a richer understanding of what is inside.

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