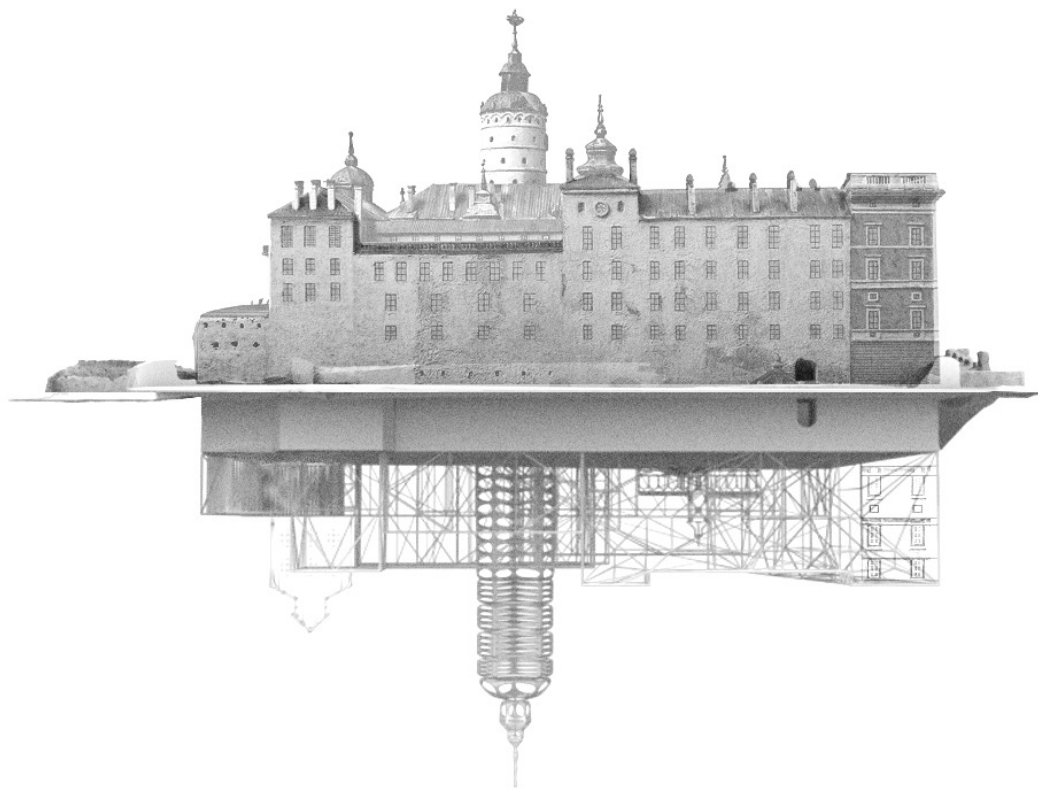


# TEMPORAL JUXTAPOSITIONS

*Views of an Alternate Timeline of Gamla stan*



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*Chalmers School of Architecture  
Department of Architecture and Civil Engineering*

*Examiner: Jonas Runberger  
Supervisor: Kengo Skorick, & Jonas Lundberg*



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**Temporal Juxtapositions**  
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I grew as an individual before I grew as an architect.

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I thank all the friends I made along the way.

Finally, I thank my parents for always being there for me and cheering me on, it would not have been possible without your support and belief in me. I eternally thank my late grandma whose memory will always remain alive within me.

## ABSTRACT

What would it be like to re-imagine lost structures from the architectural history of a place and project them into an alternate present?

The premise of the thesis is to bring attention back onto lost forgotten architectural moments from history and re-imagine their attributes and potential once retrieved and re-imagined through computation tools. If these lost physical moments were to survive the concept of time; how would they appear in the present? And what would their qualities be? Can this approach be a way of form-finding?

The thesis envisioned an alternate present where the past and the present meet in a time-defying context. The nature of architectural imaginations manifest in different forms and consequentially explore the potential lost structures can hold once seen through the lens of speculative design tools.

In order to experiment with lost buried values -- both physical attributes and form of lost architectural structures, the lost original "Tre Kronor" castle was selected. The lost castle provided a canvas and testbed to deploy and test different methods and approaches to speculative design. The process seeks to explore

both the original form and spatial configuration of the lost castle, in addition to re-imagining the different parts of the castle once introduced into the speculative context of an alternate Gamla stan.

The thesis was an open investigation into speculative design aspects and how reflecting onto the past can serve as a platform to make more self-aware speculations into the present, and consecutively the future.

A final outcome presents itself in the form of the Nya Gamla Stan - another reality presented in text and illustrations. Nya Gamla stan is where temporal juxtapositions introduce a sample of the results of the thesis research. In addition to a catalog of all digital models created in the process.

Keywords: juxtaposition, form-finding, temporal speculation, fiction, counter-factual, alternate reality.



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## INTRODUCTION

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## PERSONAL BACKGROUND



Osama Oso Rahahleh

## ACADEMIC BACKGROUND

Bachelor of Science in Architecture  
Jordan University of Science and Technology



## Studios

1. Design and planning for social inclusion
2. Crash Course Beyond Sustainability
3. Sustainable Architectural Design
4. Matter, Space, Structure (3)

PROJECT BACKGROUND

Juxtapose

/ˌjək-stə-ˈpōz/

*To place (different things) side by side (as to compare them or contrast them or to create an interesting effect)*

*Juxtapose. 2021. In Merriam-Webster.com.*

The driving factor behind the thesis was the effect of juxtaposition. When applied visually, it is a specific visual effect used by artists and designers to bring out and highlight a specific character or quality.

In order to create that effect, many tools and approaches were deployed. Such as using historical monuments that captured a certain unique narrative. In this thesis a castle in Stockholm that was destroyed after a fire and completely rebuilt in a new form, hence interacting with the juxtaposition of a castle that existed in a certain form hundred of years ago, with its current form and context. That provided the thesis with a clear element of time, a present/past factor.

To further investigate and showcase the effect of juxtapositions, the tool of counter-factu-

al thinking was used, the speculative tool of “what if...”, which is when you describe a parallel narrative that opposes the actual event. CAD tools that we have now to help us with specific tasks were also used to visualize and build an archive of speculative forms and structures, derived from a historical monument that no longer exists in its original form.

Then to utilize this archive, a series of speculative imaginary illustrations was conducted to bring this approach to the viewer’s mind and imagination.



1. Chair series entitled “Juxtaposition” by creative collective 97cm



2. Juxtaposition in art, painting titled “The Son of Man” (1964) by René Magritte

René Magritte often used juxtapositions in his work. In “The Son of Man” he juxtaposed the ordinary imagery of a man standing still with an unrelated random apple floating in the air in front of him. This contrasting imagery of combining realistic elements with unrealistic ones captures a visual juxtaposition.





3. Residential landscape by DKO Architecture (2016)  
Waterloo Street, Australia



4. The Museum of Military History by Daniel Libeskind  
Dresden , Germany



5. Great court at the British Museum by Foster + Partners  
London, The United Kingdom

The effect of Juxtaposition was always part of architecture, whether as an intentional design element incorporated for its visually appealing qualities, or as a natural result of design and renovation.

In figure 3, Waterloo Street warehouse embodies a juxtaposition in the form of an expansion of the heritage old warehouse structure. The Juxtaposition can be seen as a co-existence of the old and the new. The new part is covered in a metallic shell that constructs the brickwork of the original old warehouse.

Figure 4 shows another form of juxtaposition in architecture, in Dresden's current military

museum which re-opened in 2011 you can see an even more daring juxtaposition. A contrasting sculpture-like avant-garde mass penetrates the old structure of the building. It was used to show the difference between two different interpretations of what military history represented in the past as opposed to now.

As for the great court at the British Museum in figure 5, Foster + Partners added an innovative roof structure that juxtaposed the older existent part of the museum.





6. Church of San Procolo  
Veneto, Italy

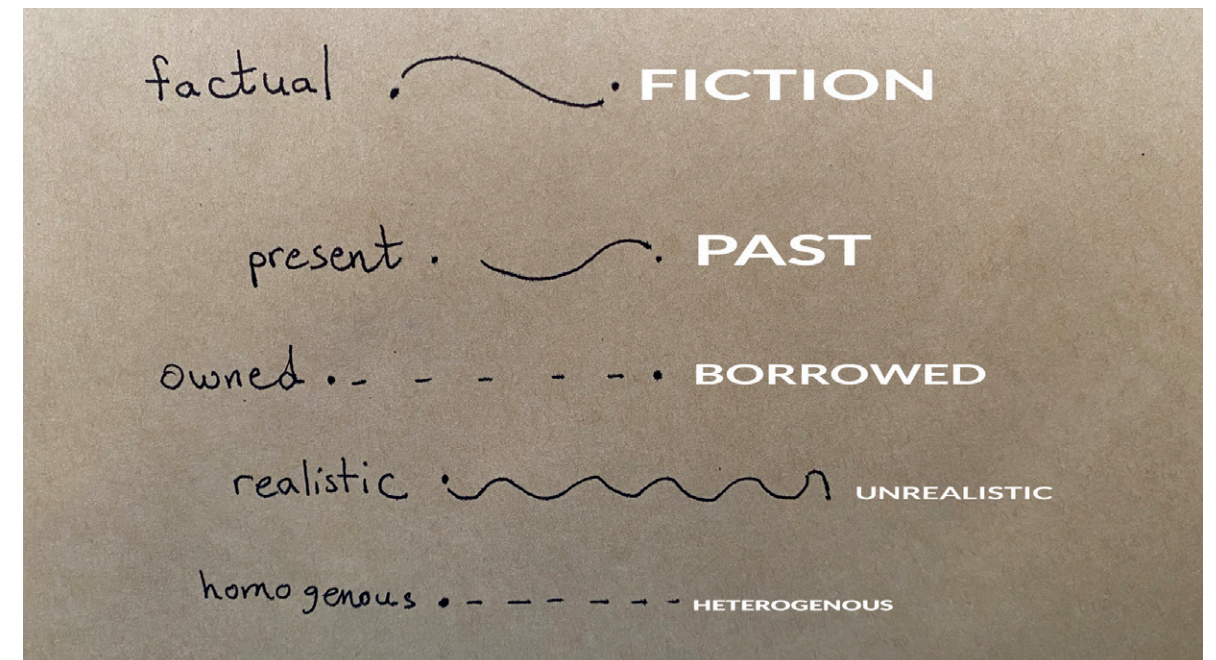


7. Santa Maria degli Angeli church, designed originally by Michelangelo Buonarroti  
Rome, Italy

In figure 6, a juxtaposition effect can be seen as a result of Spolia, where an element is taken from one building then added and adapted to another building. The effect resulting is curious and intriguing, where elements do not necessarily fit the concept and style of their new host building, but the results are interesting and eye-catching nonetheless.

a result of architects and artists adding to the church in the centuries following Michelangelo Buonarroti's original design in the 16th century. The juxtaposition is created by different styles across different disciplines and contributions.

In figure 7 however, the juxtaposition effect is



Summary of juxtapositions (By author)



## THESIS QUESTION AND AIM

What if we could revive lost forms from a context's memory and bring it into the "now"?

How can forms from the historical depository be re-imagined using contemporary design tools and contextualized within a new imaginary context?

The potential of utilizing fiction in an architectural discourse, while exploring the notion of form referencing using historical monuments?

The aim is using alternate realities to inspire and evoke alternate solutions, the goal of the thesis is not to present a solution but rather put forward a fictional context and scenario in order to serve as a discursive effort to evoke alternate ways of thinking.

As a testing bed to investigate and delve deeper into juxtaposition as a tool, the castle of Tre Kronor was chosen. It made a good choice for this topic and investigation because it's a castle that went through a fire that destroyed it to the ground in the past, and yet an iteration of the castle exists today in the present. The contrast in these two versions of the castle had potential to test and experiment with the notion of juxtaposition aimed for in this thesis.

Tre Kronor was a castle in Stockholm, transformed into a royal castle in the mid 13<sup>th</sup> century. It burnt down in 1697, alongside the national library and royal archives - which

made the country's early history difficult to document (William-Olsson, 1959)

After the majority of the castle was demolished, the new Stockholm Royal Palace was built on the same location and completed in 1754.

The history of the castle plays a role in the thesis premise, including its spatial configuration, elements from the castle that has striking character, and the functionality of the original spaces.



8. Govert Camphuysen's painting from 1661 depicting the castle 36 years before the fire



According to John Crispinsson's description of Magnus Jacobson's book "Slottet Brinner!" the castle of Tre Kronor was the gateway to new art in Stockholm, new architecture, and new music (Jacobson, 2005).

At the time period it existed, the castle was a symbol of the Sweden's great power. 1697 marked a difficult year for Sweden, Karl XI died of stomach cancer. The priests said the country will walk the shadowy valley of death after the king died. People of Stockholm were not doing well (Jacobson, 2005).

The fire that burnt the castle to the ground was a total disaster for Sweden's image as a great power. The castle of Tre Kronor was Sweden's symbol of power (Jacobson, 2005).

Jacobson refers in his book to the castle - which had Tessin as the castle architect - as a "jumble of extensions, alterations, and additions", from a medieval castle with thick walls to renaissance pinnacles and towers, and it was

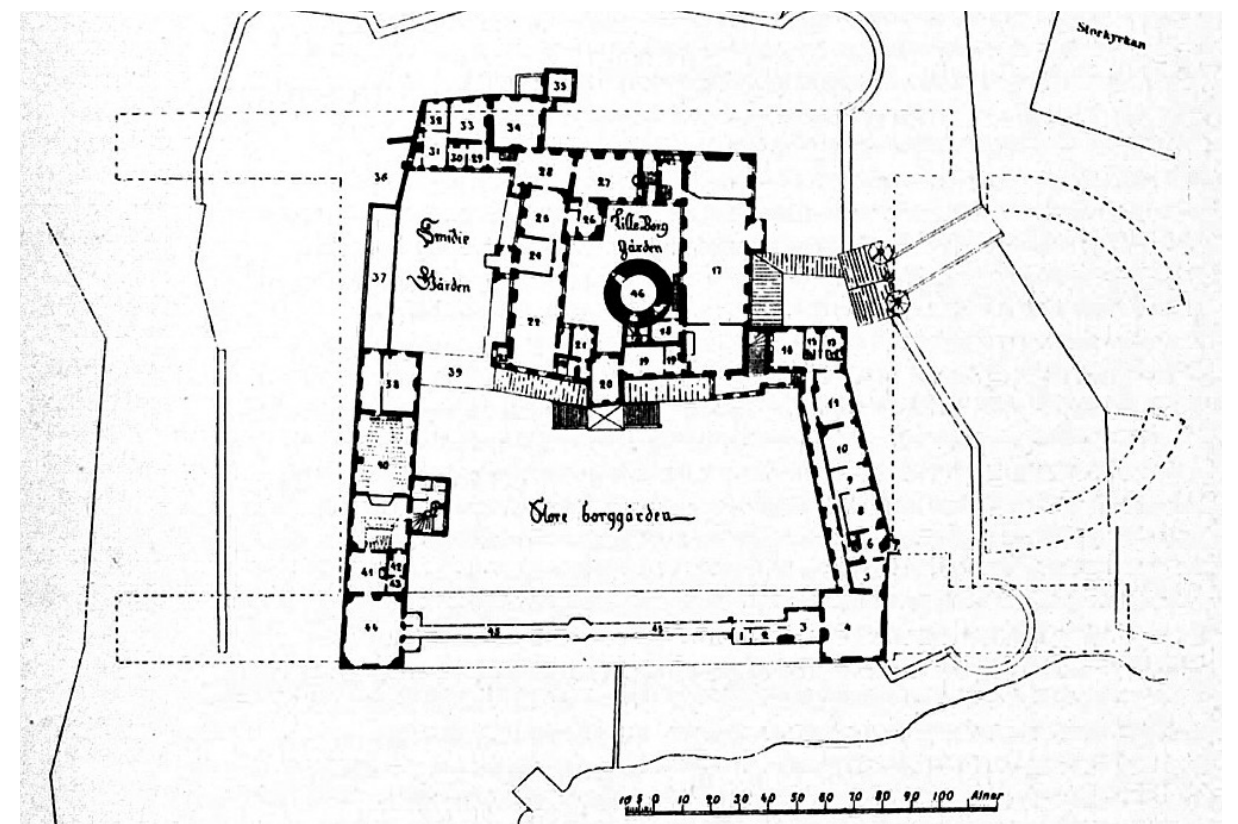
on its way to become a roman square. He also mentions that the castle housed an army of maids and servants along with their families. (Jacobson, 2005)

At a meeting 3 days after the fire, Tessin was instructed to produce a drawing more regular and organized than before. And so he did. Six weeks after the fire Tessin presented his new master-plan. The new plan resembled a scaled up roman house. (Jacobson, 2005)

Upon reflecting on the history of the castle, it was clear than the castle as a whole was an amalgamation of different eras and styles. It was characterized by an organized chaos of additions and alterations. The castle was a symbol of power, regardless of functionality. Linking this information to the premise of the thesis, It was apparent inspiring to imagine how the castle continued to be a growing iteration, taking different forms and shapes from every period of time it existed in.



9. Johan Fredrik Höckert's painting from 1866 of the royal family escaping castle fire



10. Original Tre Kronor floor plan and Royal Palace floor plan overlapping

## METHODS AND TECHNIQUES

### OVERVIEW

The original castle had its own characteristics and elements that differ completely to what the royal palace looks like currently. The journey of exploration started with selecting different elements and forms from the castle and recreated in 3D-modelling softwares.

After a visit to the Tre Kronor museum which lays in the underground floor of the current royal palace, photogrammetry was used to scan remnants from the original castle in addition to physical models of what the castle looked like at the time.

Having obtained these recreated 3D-models and 3D-scans, an act of

amalgamation took place where different combinations and arrangements were explored. The aim is to try to unlock the potential of these structures and to achieve the effect of juxtaposition. The effect will play with the concept of scale, mixing these past remnants with the present context and projecting it into an alternate timeline.

The setting of this alternate timeline was further outlined and defined.

Finally, in the last phase the focus was on narrating the outcome, illustrating the fictional context, and illustrating the fictional proposal and what it entails; master-plan, perspective views, and bird-eye views capturing the essence of Nya Gamla stan.

“Because of the scientific and technical revolution that has been the hallmark of our modern era, man will have to adopt a completely new outlook if he is to assume responsibility for the future” (Dahinden, 1972, p. 7).

The future referred to in “Urban structures for the future” appears as an artificial urbanized context that is simultaneously an input and output of social changes, that both feed into each other. (Dahinden, 1972)

The book also points out the need to

comprehend both advantages and disadvantages in the form of possible benefits and consequences brought by these futuristic scenarios and developments.

Reflecting on this, it was decided that consequences needed to be pointed out as a possible aftermath of the outcomes. And a discursive approach was adopted, the proposal does not provide answers, but rather provides a platform for discussions and thoughts to be shared.

## DELIMITATION

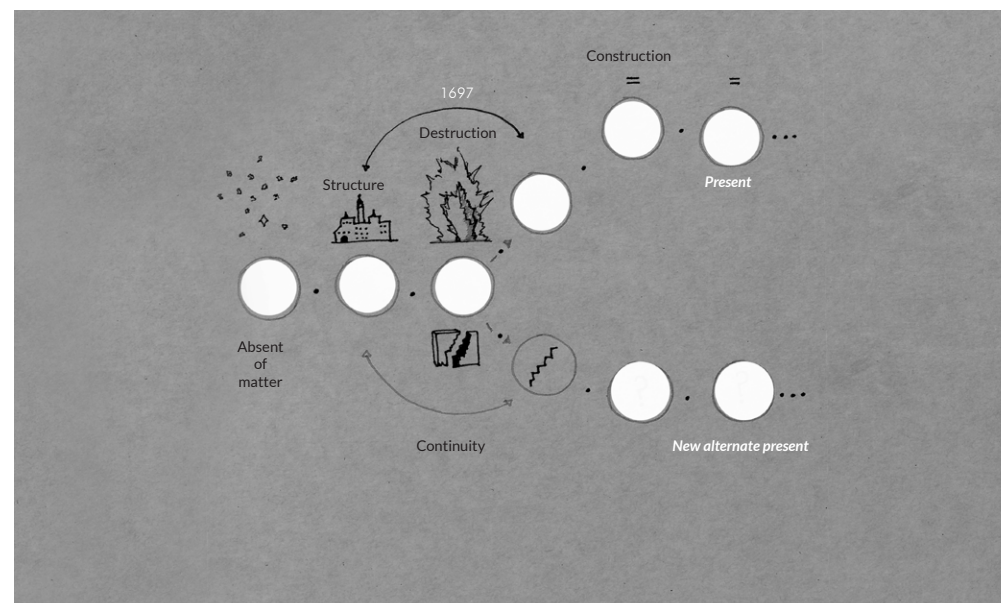
“Another well-established form of thought experiment is the counterfactual. A historical fact is changed to see what might have happened” (Dunne, A., & Raby, F, 2013, p.82).

The counterfactual was used in many movies, books, and TV shows, such as “The Man in the High Castle” which is based loosely on a novel of the same title by author Philip K.Dick. The show is a look at an alternate present where World War II ended differently with the Axis powers winning the war and ruling the world.

Counterfactual can provide a platform for designers where they can exercise their imagination and future-based thinking skills by designing and speculating on a parallel alter-

nate world rather than predictions. A story helps to attract and immerse the viewer into that parallel world, as a narrative that leads to that outcome (Dunne, A., & Raby, F, 2013).

The thesis took leads from these thought experiment techniques and a storyboard of visions and illustrated narratives were created in order to bring the parallel Gamla Stan to the viewer’s mind and imagination. The counterfactual element was; what if the old castle of Tre Kronor did not burn in 1697, but survived and influenced its surrounding and context.



Sketch showing the concept of counterfactual history (by author)

To fully utilize fiction and speculative-thinking in this study, higher priority was placed on visualizing the different parts of the thesis; such as the form refabrication syntax library, and the alternate reality context to inspire the imagination of the viewer and receptor. The notion worked better the more tangible it appeared.

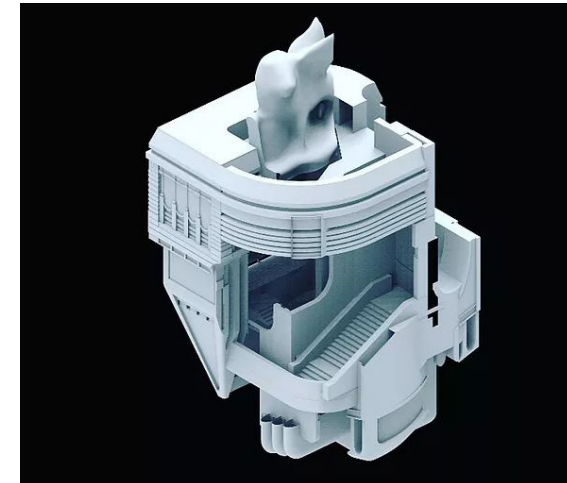
The social aspects of the fictional reality was touched upon but without a direct political agenda. The different interpretations are up to the viewers, and an integral part of what thought experiments entail.

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## REFERENCE PROJECTS

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### QUASI PROJECT–QUASI THEORY



11. Giacomo Pala (2018) by Jörg Stanzel & Riccardo M. Villa

This installation showcased at the 2018 Unfolding Pavilion in Venice exhibits an intriguing new identity of Venice. It is an amalgamation of past and present elements of Venice.

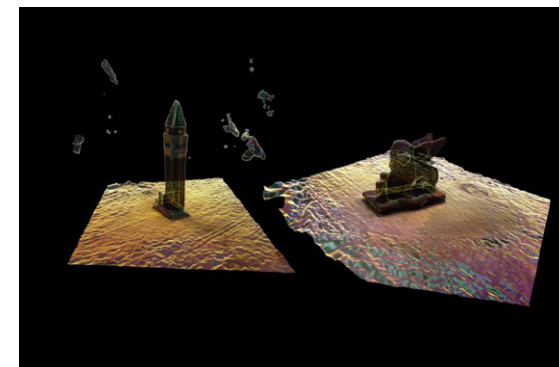
The new identity of Venice presented by this installation is a juxtaposition of Venice's past and an imaginary interpretations and fragments based on scanned objects from its present.

The pavilion project process started by scanning multiple objects and souvenirs from around Venice, and transforming them into digital entities that can be

manipulated and mixed into other designs and monuments from Venice.

The resulting amalgamations and forms reflect a new different identity of the city that is hidden. These formed amalgamations contrast Venice's actual reality, yet they are derived from its context.

This installation and the process that led to it played a role in the selected experiments in the thesis. Approaches such as scanning objects from the context and juxtaposing them with the actual context at different scales and in forms.



12. 3D-scanned objects from the city and used them as objects to be estranged in a new composite



## EXODUS

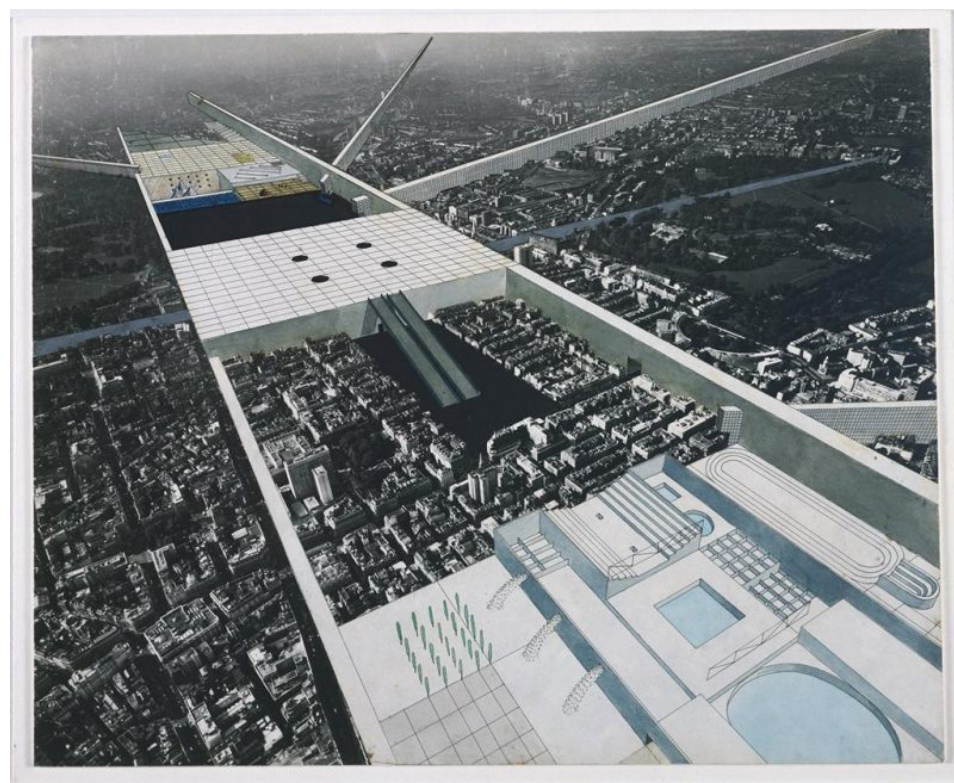
According to Rem Koolhaas, Exodus needs a 'fundamental belief in cities as the incubators of social desires, the synthetic materializations of all dreams' (Koolhaas, 2005, p. 253).

In Koolhaas' eyes the world we inhabit is an imaginary projection that is does not represent reality.

Exodus is a series of illustrations and drawings and mixed-media collages that represent an ideological statement in the context of London. The speculative proposition provides a juxtaposition of a narrative that

contrasts what lays outside its walls. It is an open urban space where people can escape into, voluntarily.

This project was chosen as a reference for the thesis for its powerful provocative illustrations and their link to the conveyed ideology and statement of the proposal. The mixed media approach to illustrations was also an inspiration, in a way it represented a juxtaposition of representational methods; in this case collaging, and watercolor.



13. Project "Exodus" (1972) by Rem Koolhaas, Rem Koolhaas, Elia Zenghelis, Madelon Vriesendorp, & Zoe Zenghelis



14. "Exodus", a speculative voluntary prison cutting through London

"Each of the ten square zones within the central strip are particularly programmed spaces in which people exist — if you will — through a narrative beyond the remit of capitalist apparatus." (Teismann, 2018, p.58)

"Exodus" manifests an imaginary scenario where individuals seek refuge in a walled community within the metropolis of London. It is bold, striking, and polarizing. It cuts through the built-environment of Lon-

don unapologetically with its contrasting shape of a long extending strip.

This imaginary haven is driven both by architectural fantasies and socio-political motives. It is a loud statement, both visually and functionally.



## SUPERSURFACE

Supersurface as described by Superstudio is "...a reconsideration of the relations between the process of design and the environment through an alternative model of existence" (Lang & Menking, 2003, p. 24).

Supersurface was showcased during the Museum of Modern Art's exhibition "Italy; The New Domestic Landscape" in 1972. The film consists of a series of illustrations and collages that represent a utopian life-style of a society in an alternate reality.

The film has an anti-war statement, and shows the natural desire of societies to live a peaceful life safely.

The depiction of an alternate narrative that's very contrasting to contemporary living was an interesting feature of Supersurface, also the dream-like nature of the movie brings the radical proposal closer to the viewer's mind.

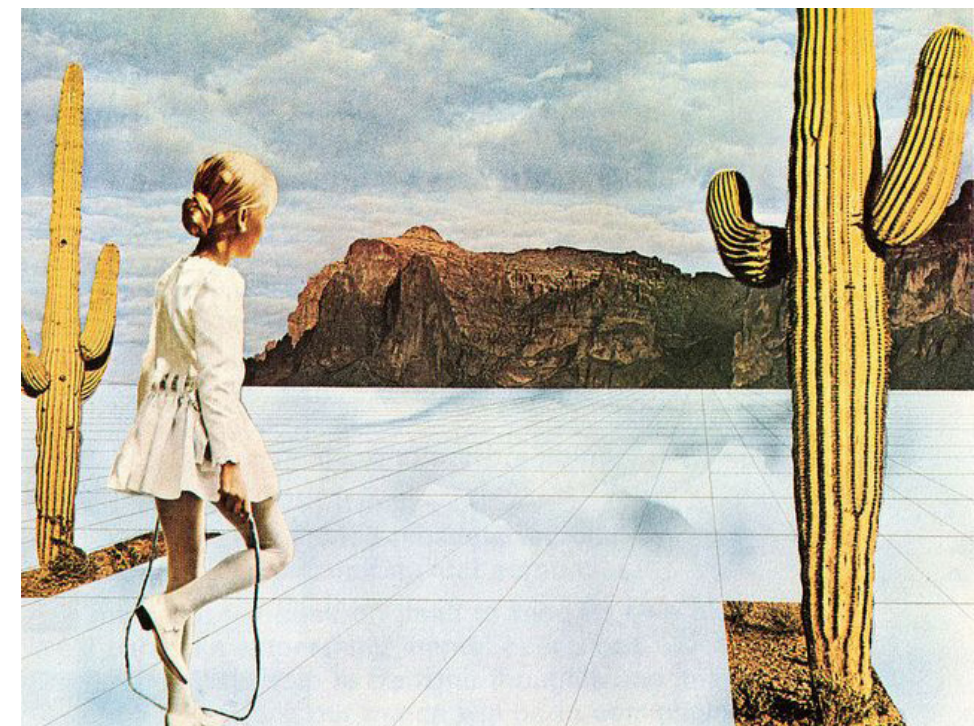


15. "The Happy Island", a film still from "Supersurface" (1972) by Superstudio

The combination of simple words and illustrations helps create an atmosphere of a puzzling vision. The film juxtaposes ordinary.

The film juxtaposes ordinary activities such as ironing clothes and jumping rope with an unfamiliar context that does not resemble any realistic environment. There is a re-

flective infinity grid that expands at ground level and creates a surface for all ordinary daily-life activities to take place on. The film's approach is discursive and works as a canvas for all design disciplines to reflect on the practice.



16. A film still from "Supersurface" (1972) by Superstudio

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## PROCESS

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### PHASE 1: MUSEUM VISIT AND PHOTOGRAMMETRY

Upon further reflection on juxtapositions and their properties; it was noticed that the visual effect of juxtapositions can be striking and appealing, furthermore, they can also serve as a lead towards less rigid appearance in contemporary architecture practice and provide more character related to the context that might not be physically tangible at the current time. Form referencing in architecture is common, and there are many sources and approaches to find a form suitable for a certain design or proposal. The process aimed to use the Tre Kronor castle as a testbed for form referencing based on juxtaposing its old original forms with computed iterations made via CAD and contemporaneity digital design tools.

What if this juxtaposition can be achieved by recreating old historical forms using contem-

porary design tools that we have at our disposal today? Can that investigation be utilized and activated as a form-finding tool?

In phase 1, a site visit to Tre Kronor museum was conducted, which is a museum that celebrates and showcases the history of the castle. From its early beginnings to the many iterations of Tre Kronor before it was burned to ashes due the big fire that occurred in 1697.

The different models of Tre Kronor were digitally scanned using photogrammetry, and the iteration that was completed by 1663, according to the tour guide, was chosen because it was the iteration of the castle that existed at the time of the fire before it was lost forever.



Photo taken of the Royal Palace as it stands today (by author)





Photo taken at Tre Kronor museum, Stockholm

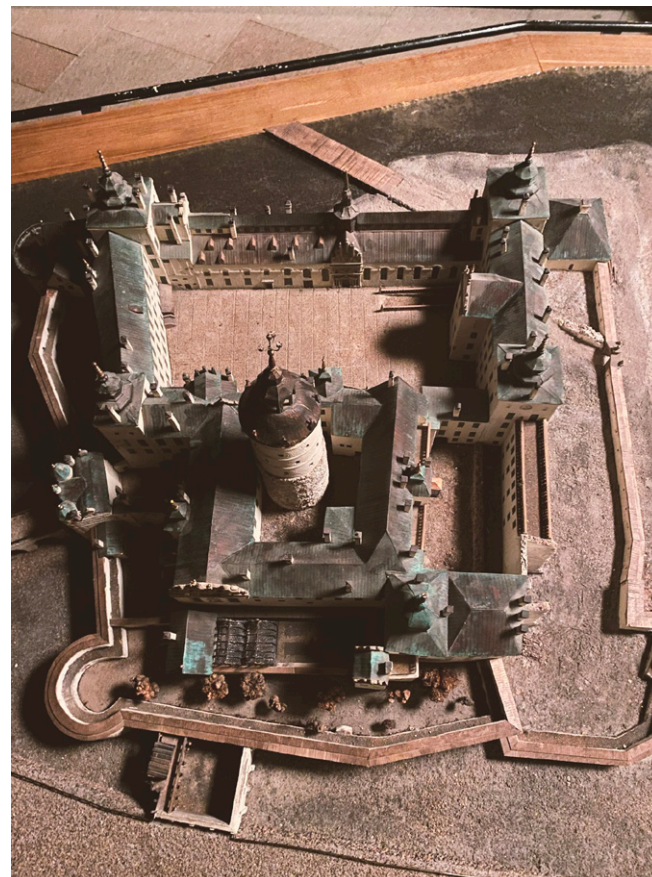
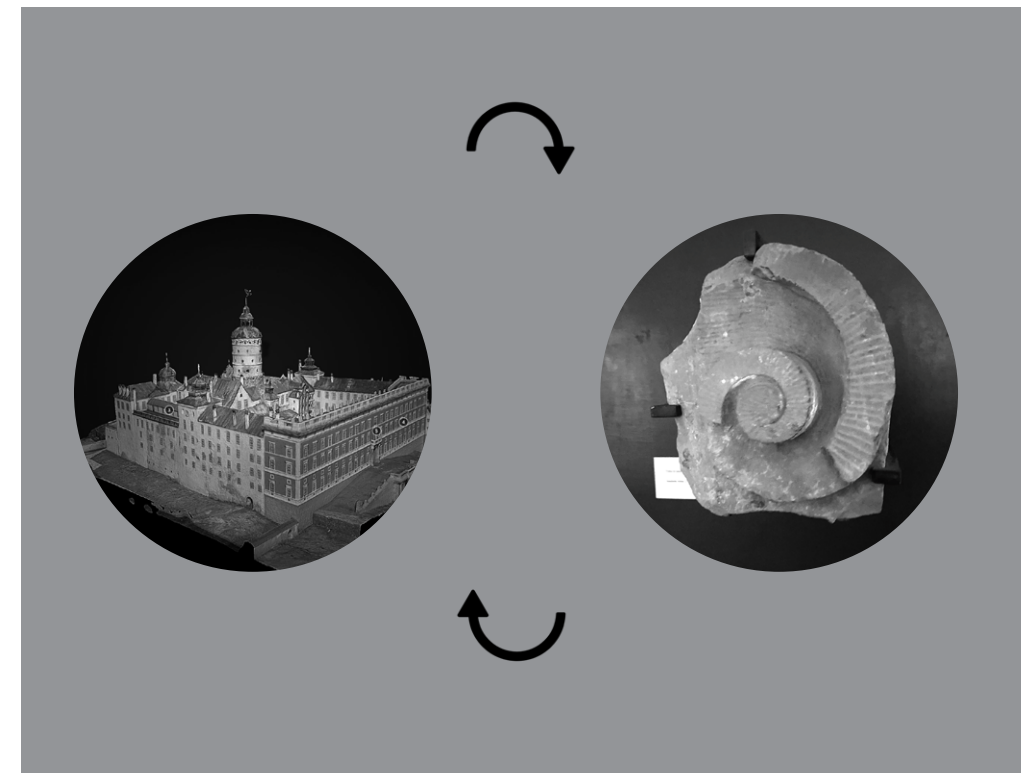


Photo taken at Tre Kronor museum, Stockholm



Navigating the scale via 3D-scanning different objects of various scales

Utilizing photogrammetry to scan a model replica of the original Tre Kronor castle and then scanning remnants from the original facade - sandstone 1600s

This back and forth in scale was another juxtaposition within itself that provided more possibilities.

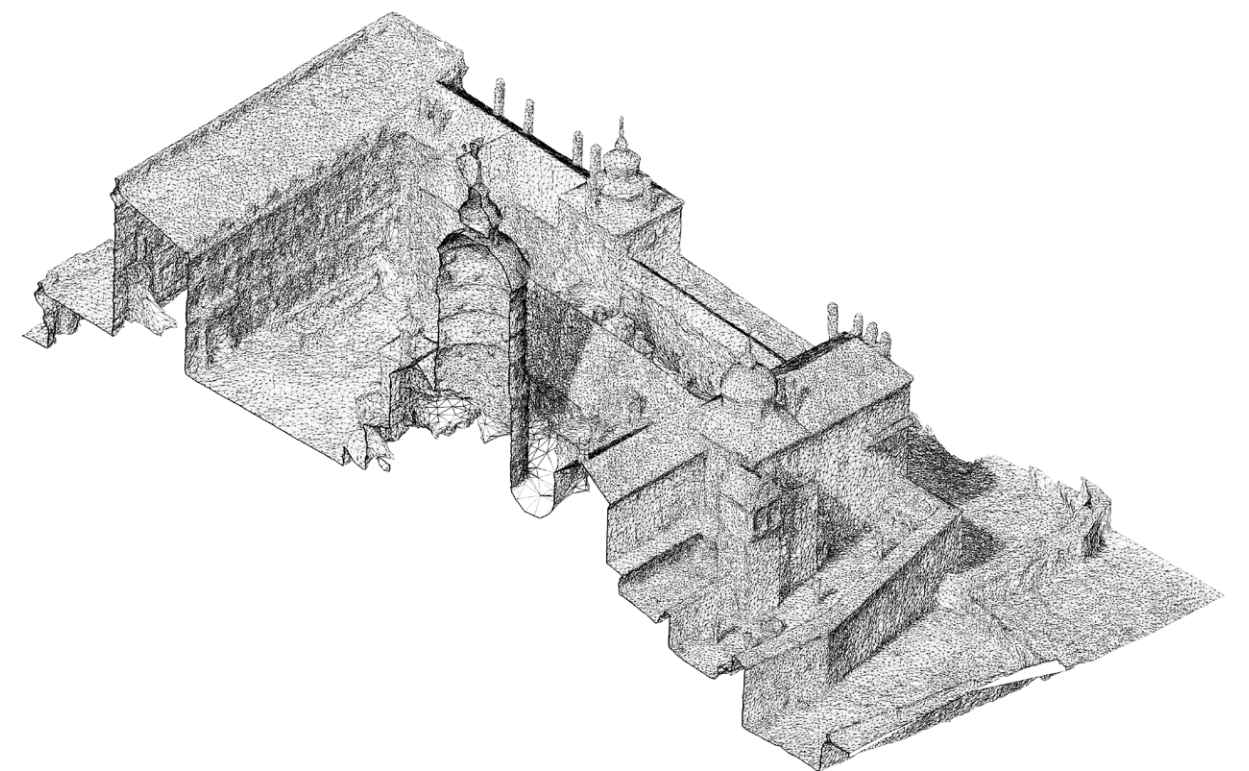




Photogrammetry of remnants and artifacts from the original castle's facade



Photogrammetry of model of the original castle as displayed in Tre Kronor museum



Slicing through generated model to further understand the castle's form and configuration (By author)

## PHASE 2: REMNANT INVESTIGATION



Cube from the past, made by replicating and duplicating the scanned remnants into one entity (By author)



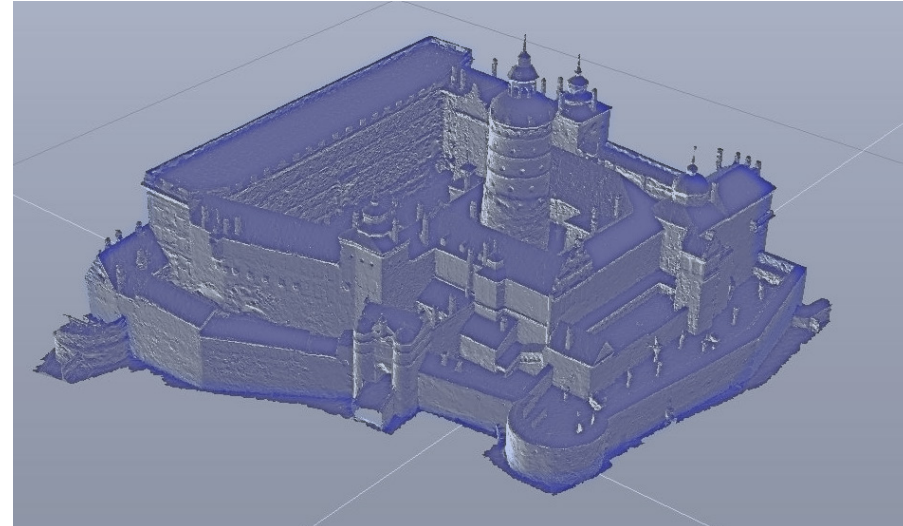
Cube from the past, made by replicating and duplicating the scanned remnants into one entity (By author)

The intent of this experiment was to scan and capture surviving remnants of the original castle using photogrammetry, and creating a manufactured relic of these facade remnants using CAD tools.

A new surface of uniquely contextual textures arises.



### PHASE 3: CASTLE FORM STUDY



Tre Kronor slottet reconstruction

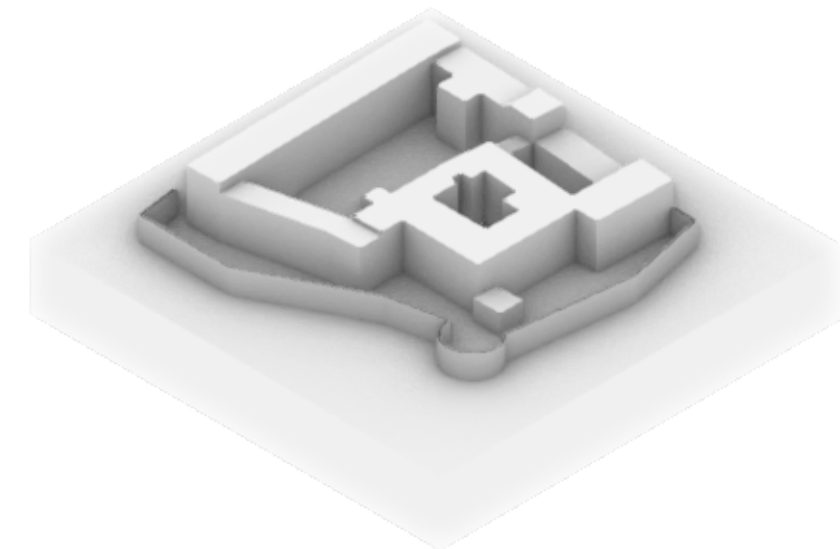
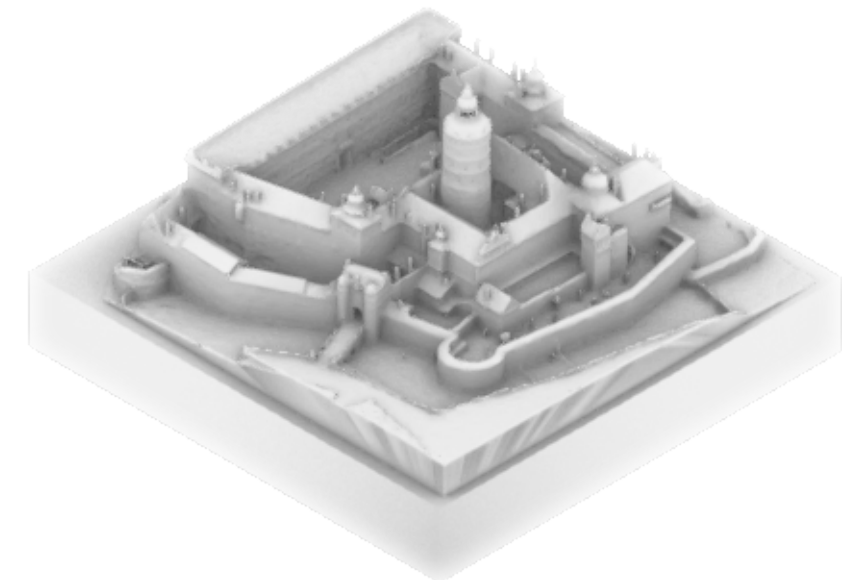
The journey and process was very iterative in nature, and that directly stemmed from the nature of the thesis topic.

A sketch 3-Dimensional digital model was produced by curating and fixing the digital scan of the castle model exhibited at the “Tre Kronor” museum. The initial scan wasn’t as clean as desired to be worked with and manipulated, therefore a lot of mesh-mending was required, and softwares such as “mesh mixer” and “MeshLab” were utilized in the process.

In order to make working with and understanding the form of the castle, separate units and parts of the castle were chosen and re-modeled from scratch using CAD, and a surviving section drawing and a plan drawing from the original castle, both obtained through a visit to the museum. The re-modeling of the chosen parts was a research of its own, it served as a tool to understand the geometry and details of the different parts of the castle and also finding ways to capture these moments as accurately as possible.

The clarity and precession of these digital models worked to the advantage of the recreated versions that were added later to a syntax library. The new versions were not replicas per se. The original dimensions and proportions were preserved, and the general outline kept as original. However, the syntax and language that weaves and shapes the whole object differs from one iteration to another.

The reason for that was to use the different castle parts as testbeds, and to reflect on the juxtaposition of these old forms seen through the lens of new CAD tools and techniques. Further accentuating a new layer of juxtapositions where CAD tools are a living entity that can produce with the guidance of the designer and architect new interpretation of old structures from centuries ago.



Main volume study

To further investigate the castle’s original fabric, a study of volumes was conducted. Abstract volumes were created adjacently and according to the volumes that created the castle.

The proposed fictional design respected and followed the outlines of the original volumes, to keep the consistency

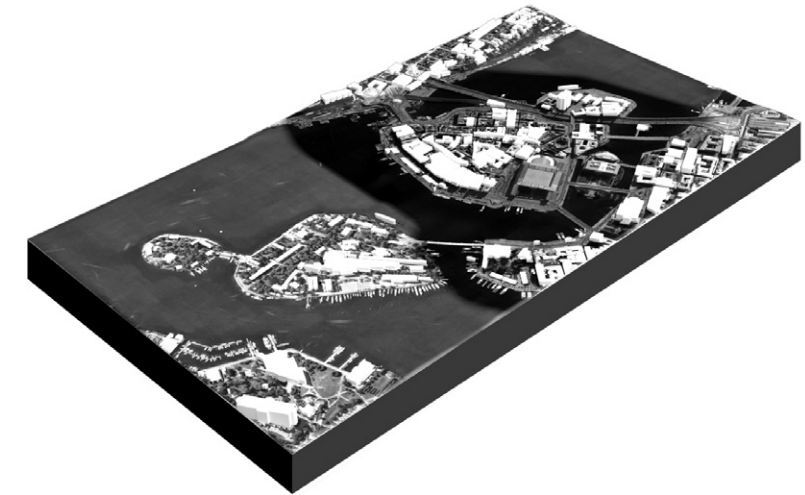
of the idea of maintaining proportions and layouts throughout the research. All efforts in an attempt to test what character would emerge from that process.

Respecting and following the layout and outline of the castle, yet re-fabricating everything inside from walls, columns, roofs, tactility, and surface shape.

#### PHASE 4: CONTEXT STUDY



Gamla stan - Stockholm



Gamla stan

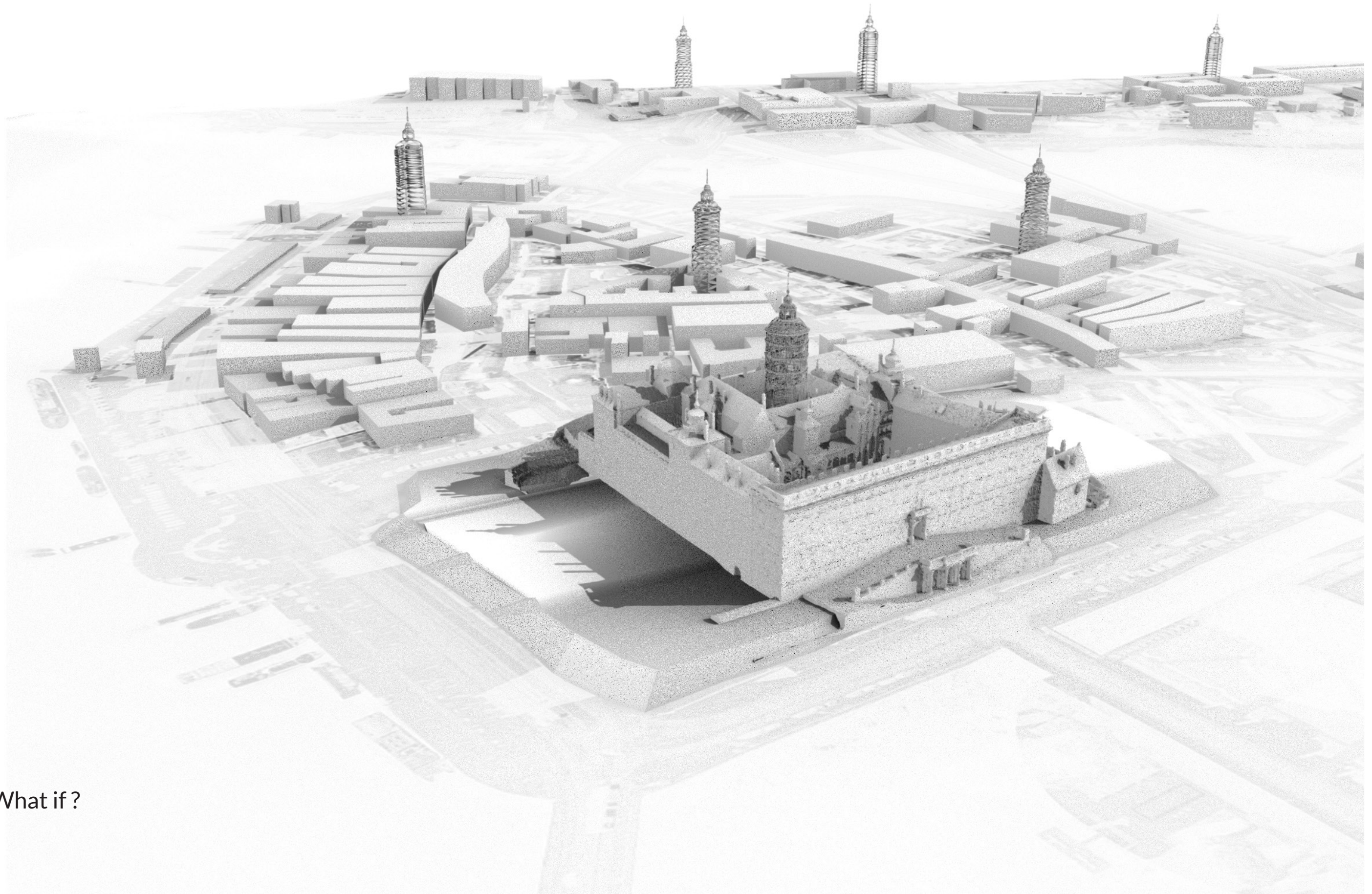
The old town, “Gamla stan” in Swedish, in Stockholm is estimated to date back to the 13th century. The town’s architecture is inspired by North German architecture.

Gamla stan is where the current Royal Palace is located. The current palace follows a baroque style.

The investigation revisits the original castle of Tre Kronor, and how its survival

could have impacted the context of Gamla stan. First step was taking a look at the current Royal Palace within the current fabric, then juxtaposing the original Tre Kronor with the current fabric as a visual tool to reflect on an alternate timeline where the castle has survived the fire.





What if ?





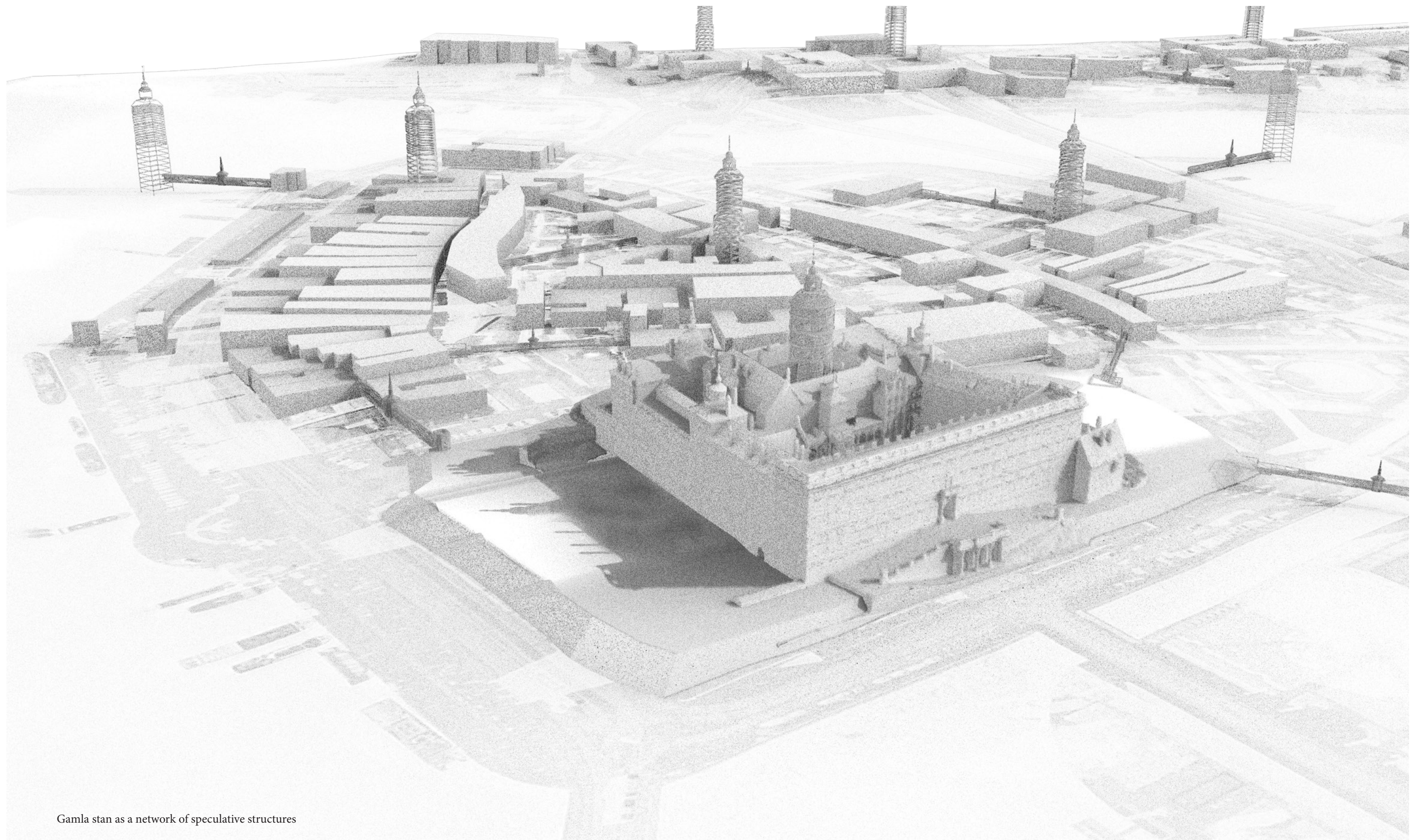
Gamla stan with Stockholm's Royal Palace in its current state - 2021





Positioning the castle of Tre Kronor in its 1697 state before the fire in Gamla Stan's current fabric; a juxtaposition of the past and present intersecting in one visual frame.





Gamla stan as a network of speculative structures



## PHASE 5: SYNTAX LIBRARY

In this phase the objective was denying the agency of the material in its original state, and focusing on the pure form and proportions; creating a time-defying bridge between forms from the past and present-day contemporary design tools.

The experiment started with dismantling the castle into different integral parts that were thought to define its character

within its original state and form. The tower of the castle which was the main symbol of Tre Kronor was the main focus with the most iterations.

The tower had a long journey with varying functions and multiple expansions, leading to its final height and form before the fire. It encapsulates a hidden past and a forgotten story.

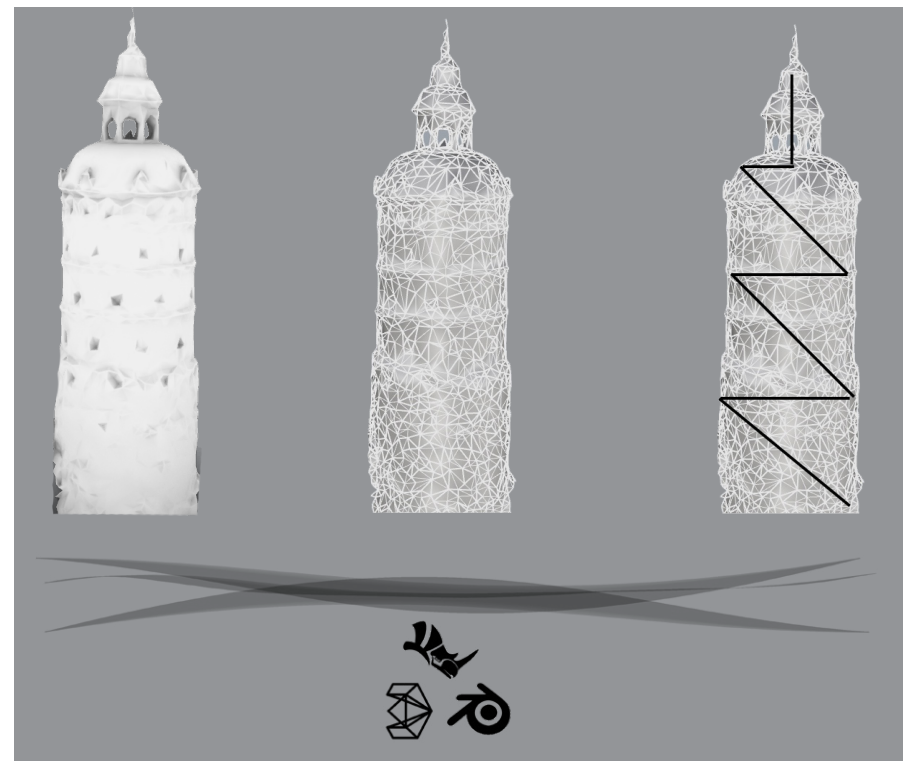


Diagram depicting the recreation of an old historical form via CAD digital tools  
(By author)

Generating surface-points alongside the form through Rhino 3D scripting

Variables: Density, relation between the points in the grid, whether to generate a closed surface or wireframe.

The number of surface-points determine the density and output geometry.

Once the relation between the surface-points is determined, line connections are formed.

These generated lines and connections were then enveloped in a closed form, or converted to a 3-dimensional structure.

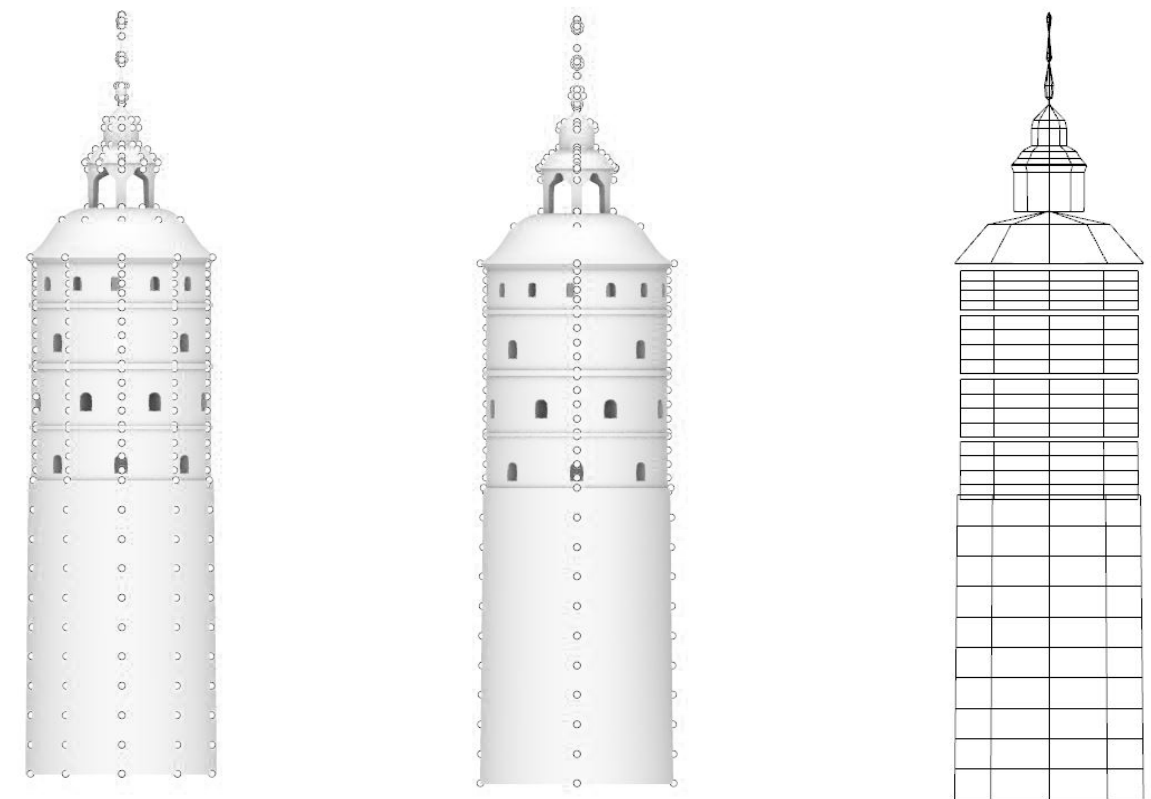
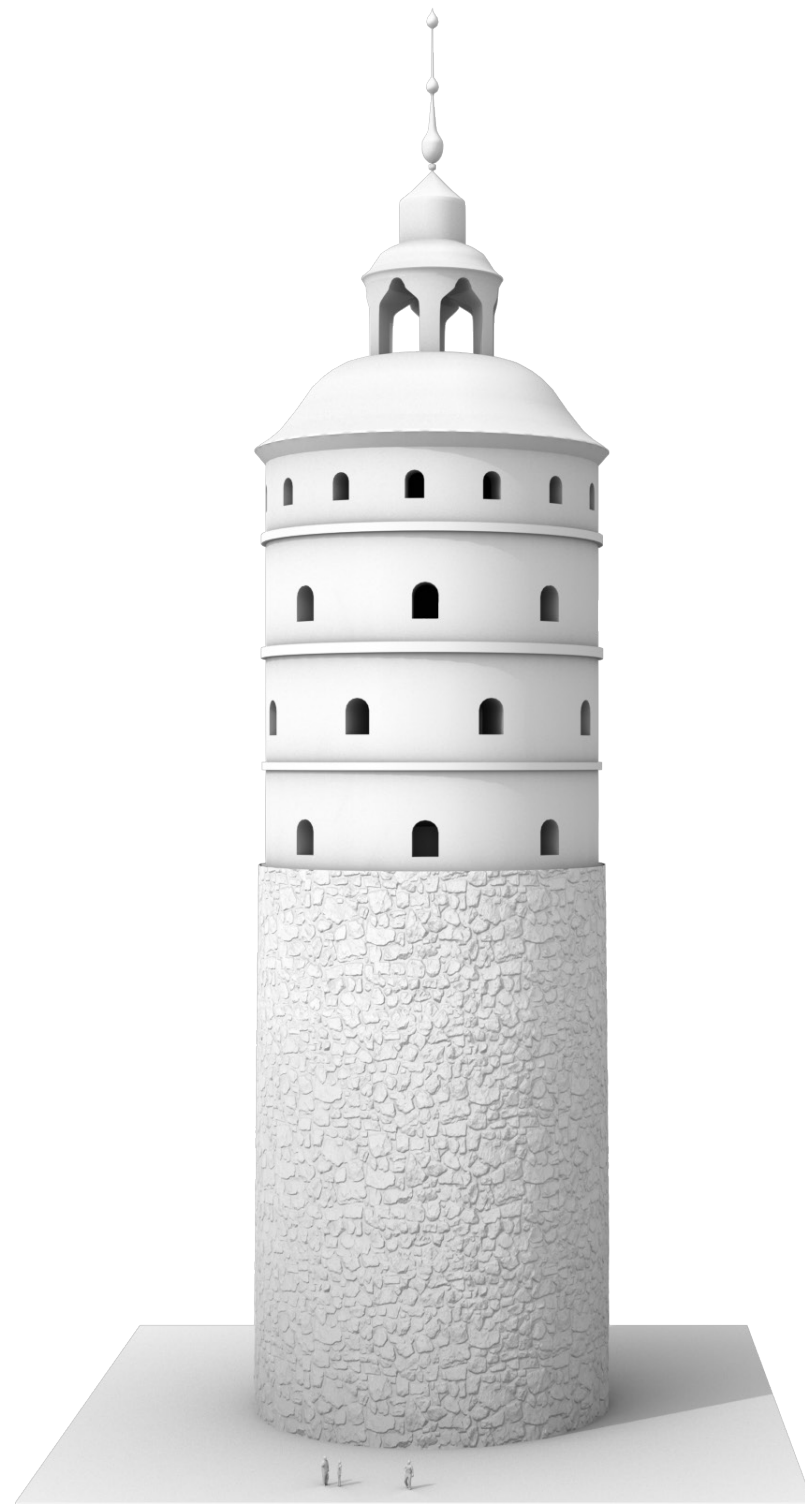


Diagram depicting the process for generating the syntax library (By author)

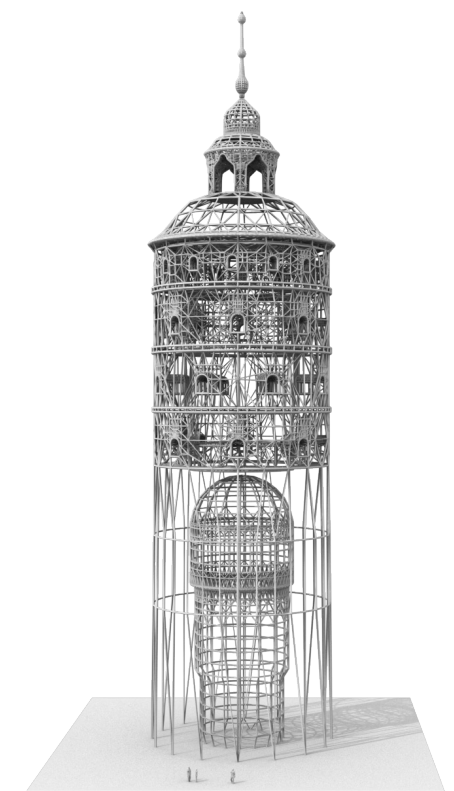
# SYNTAX LIBRARY: TOWER



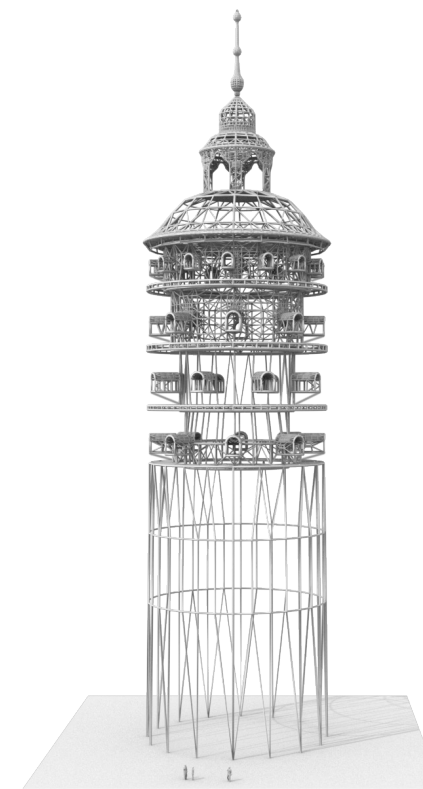
Tower in its original state, before being re-fabricated



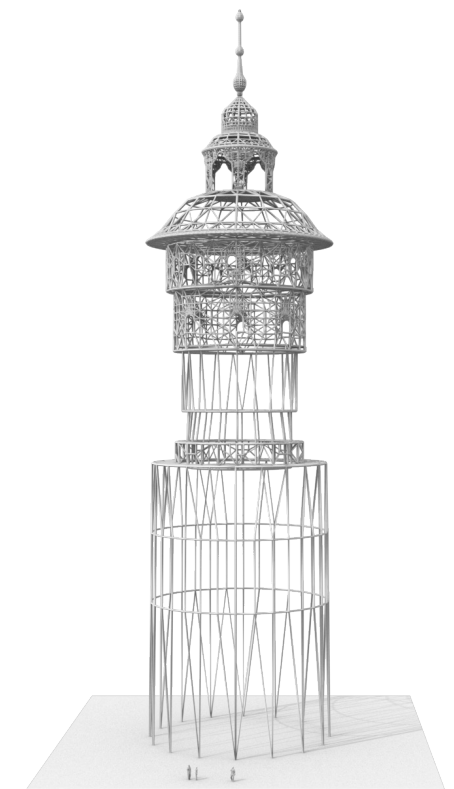
Tower in its original state; materiality denied



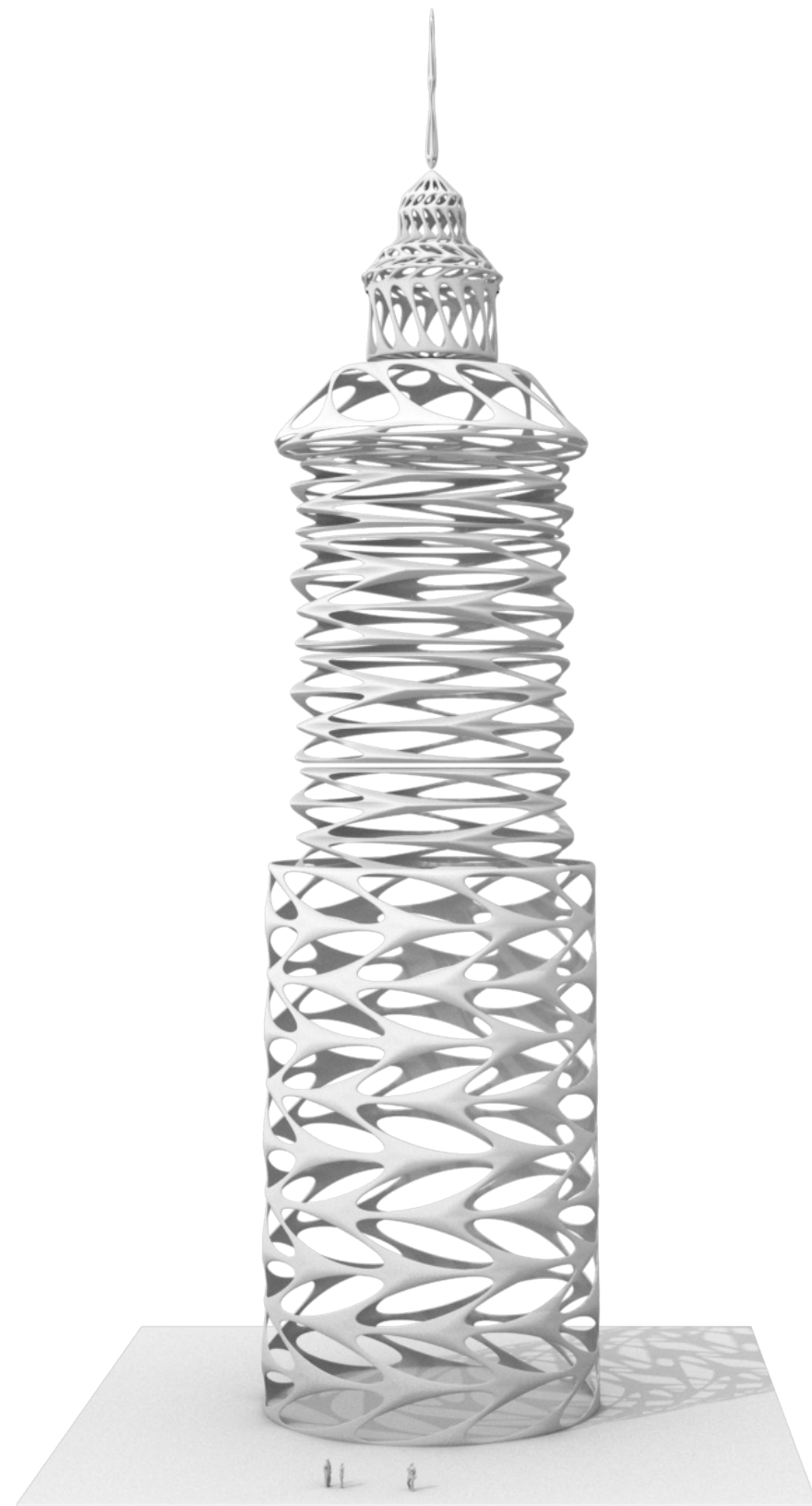
Wireframe skeleton re-fabrication (1<sup>st</sup> iteration)



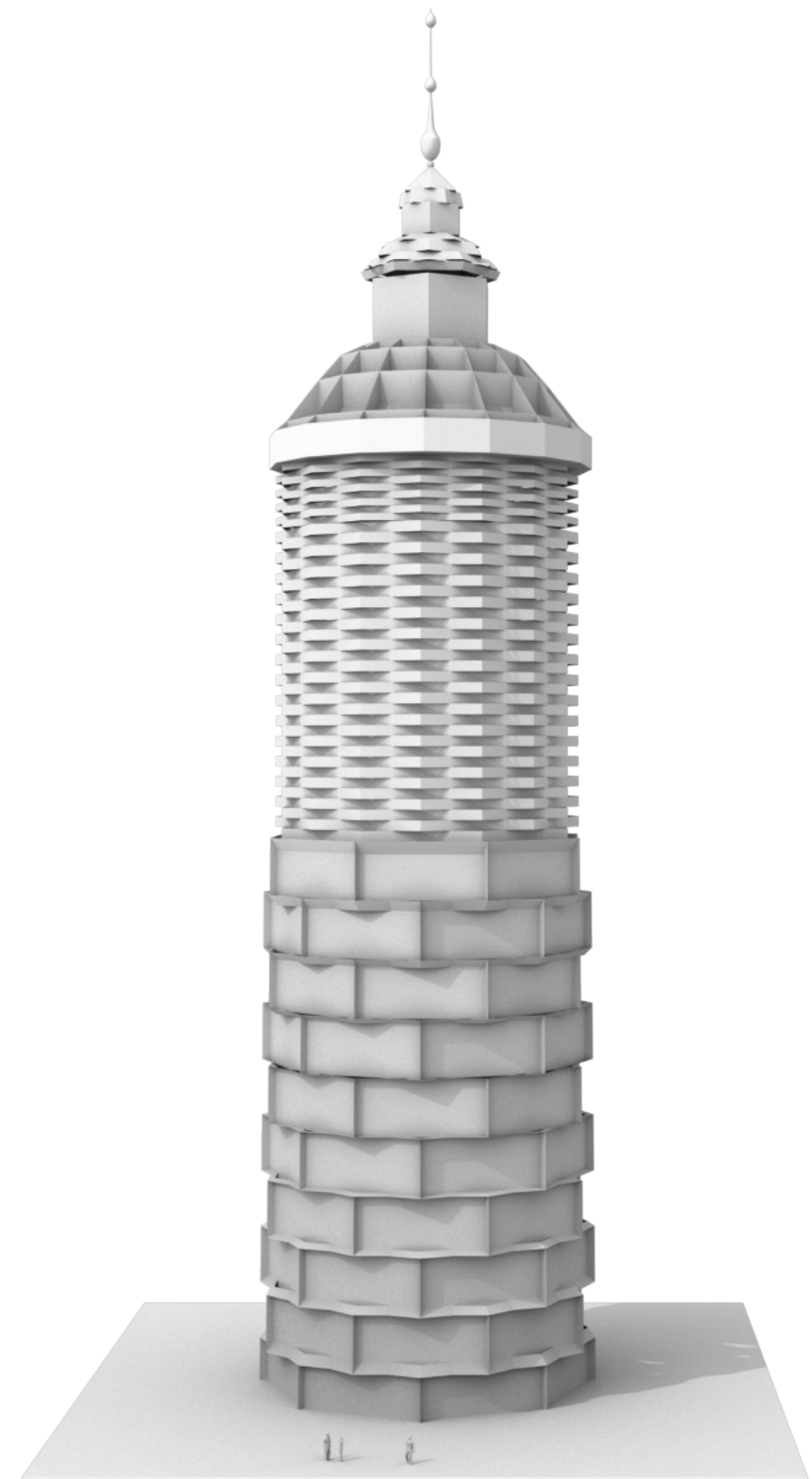
Wireframe skeleton re-fabrication (2<sup>nd</sup> iteration)



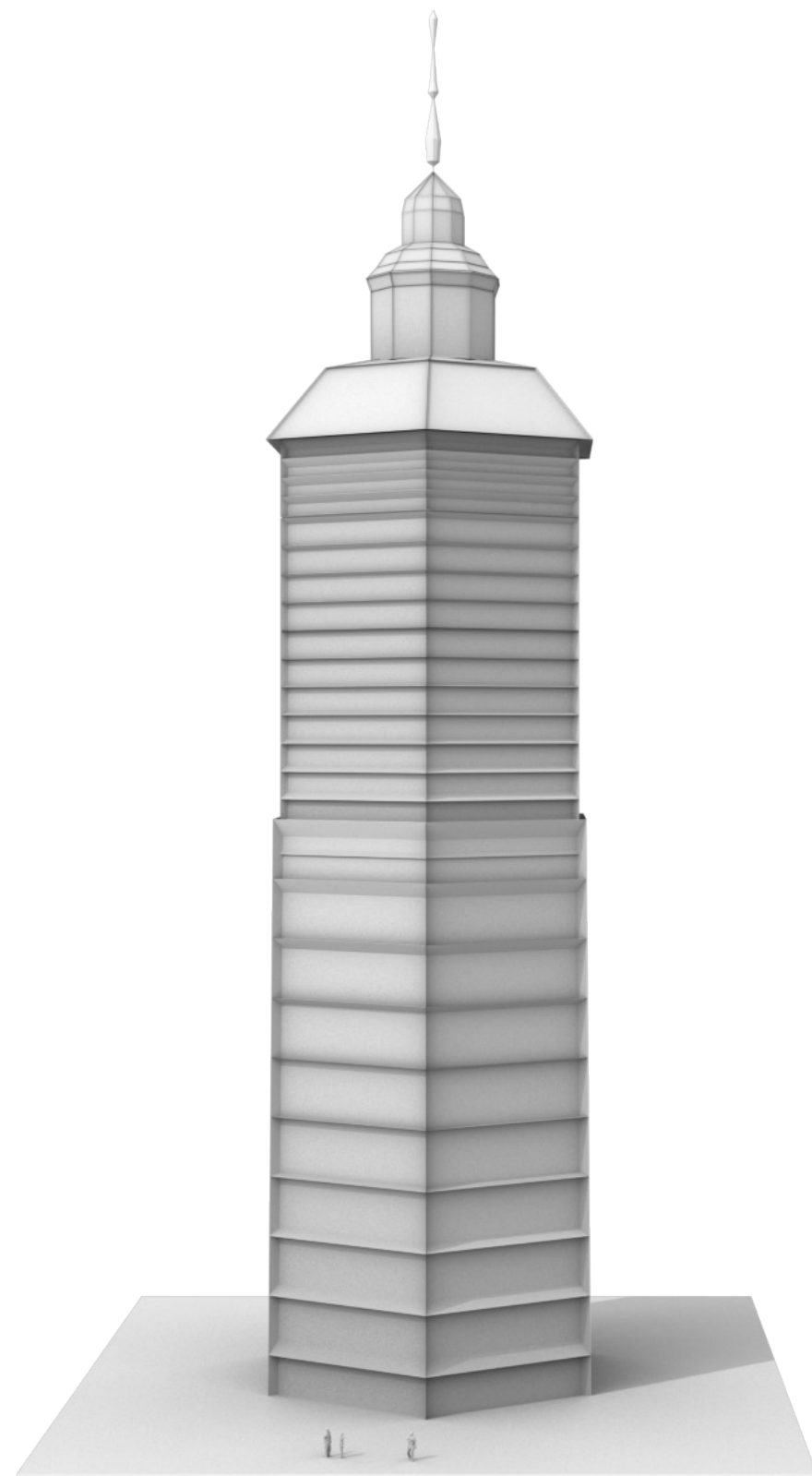
Wireframe skeleton re-fabrication (3<sup>rd</sup> iteration)



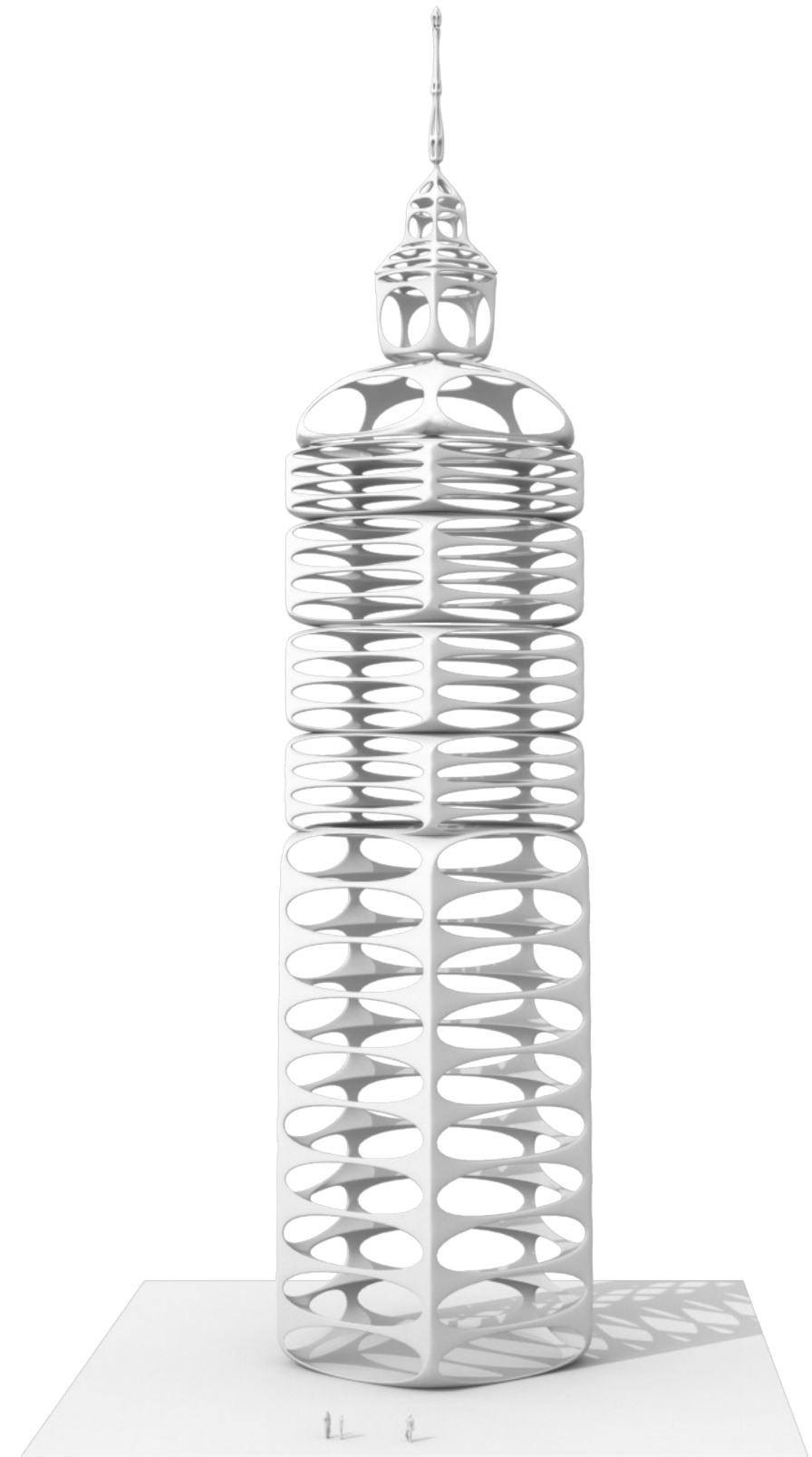
Diagonally ribbed re-fabrication



Panel-based re-fabrication (1<sup>st</sup> iteration)

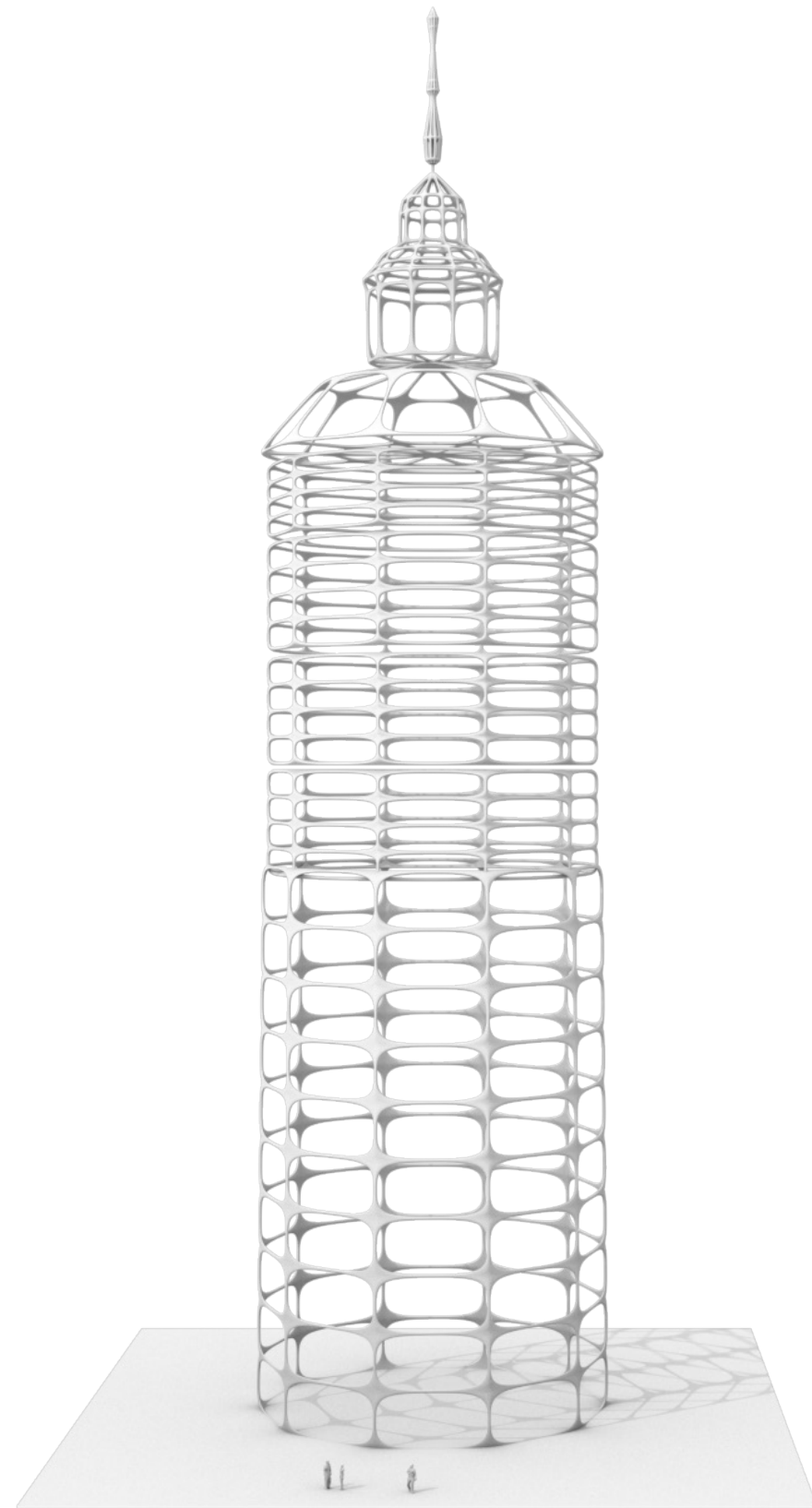


Panel-based re-fabrication (2<sup>nd</sup> iteration)



Pentagon-based oval re-fabrication



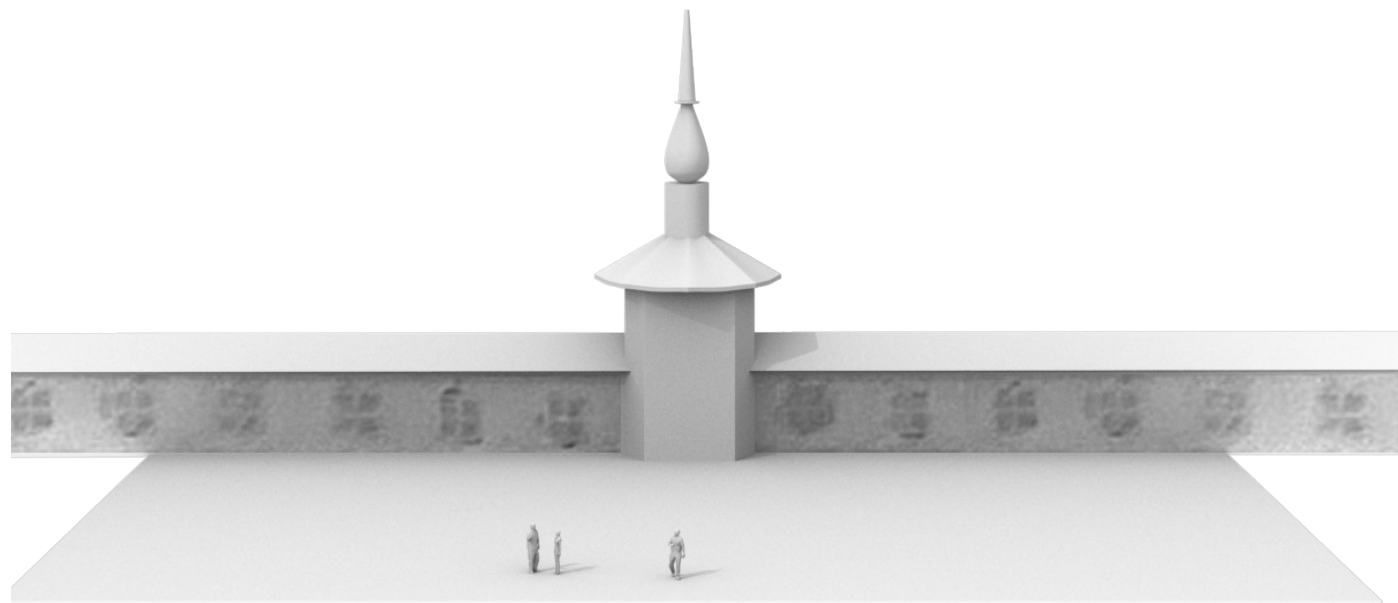


Decagon-based vertically-ribbed re-fabrication



Abstract square-based re-fabrication

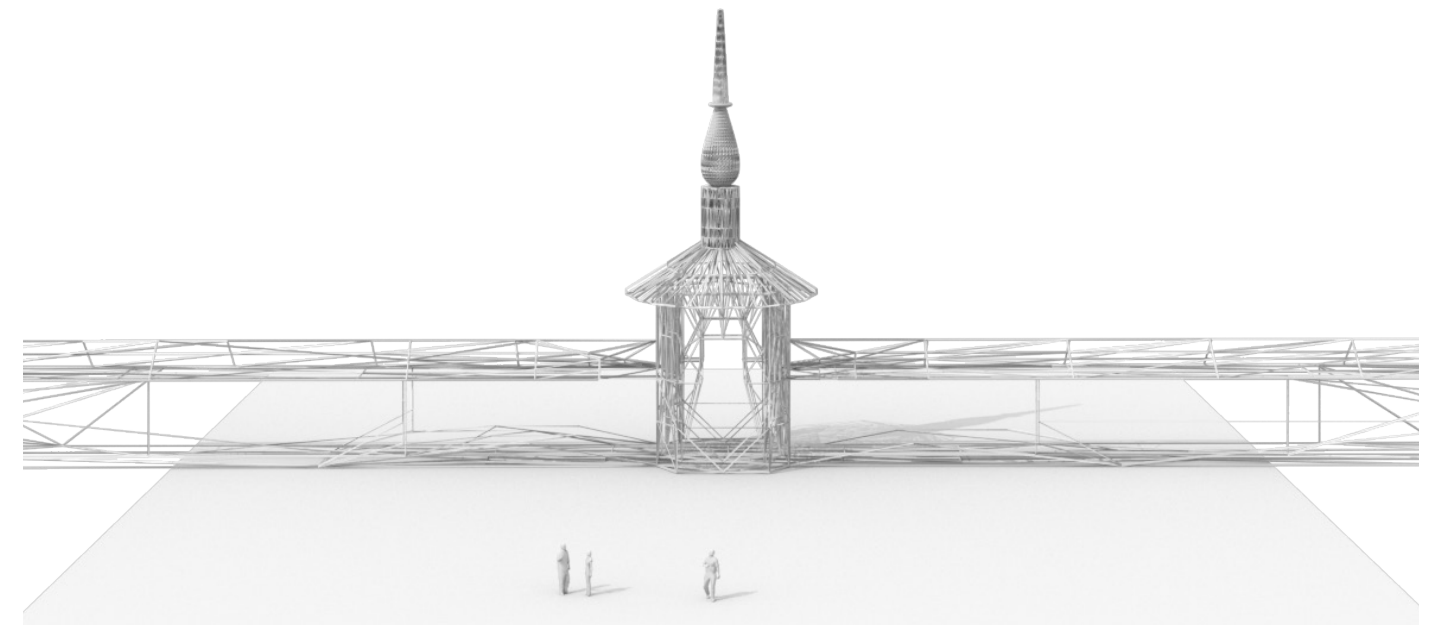
## SYNTAX LIBRARY: LINEAR LIBRARY



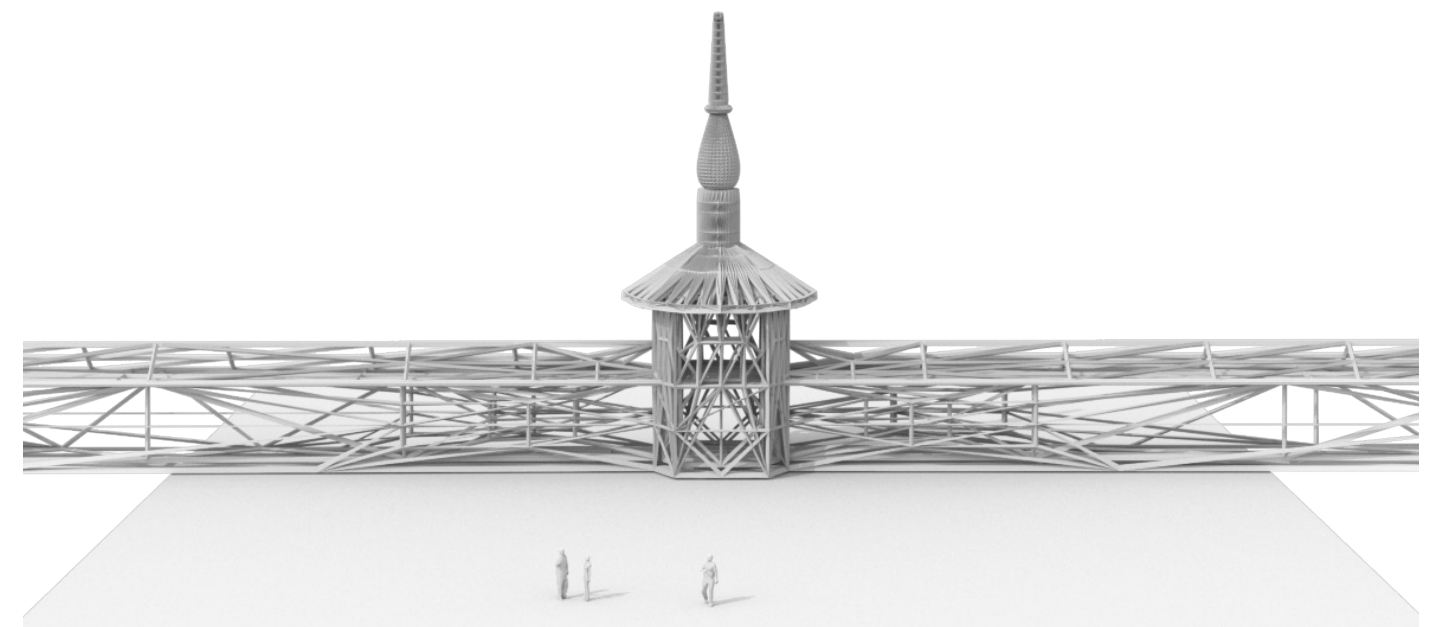
Linear library in its original state, before being re-fabricated

The linear library which was called at the time the “green corrdior” due to its green interiors, was a uniquely shaped linear library that extended on one edge from western to eastern part of the castle around the inner courtyard. The central part of the library was a reading area with a lot of daylight penetrating the space.

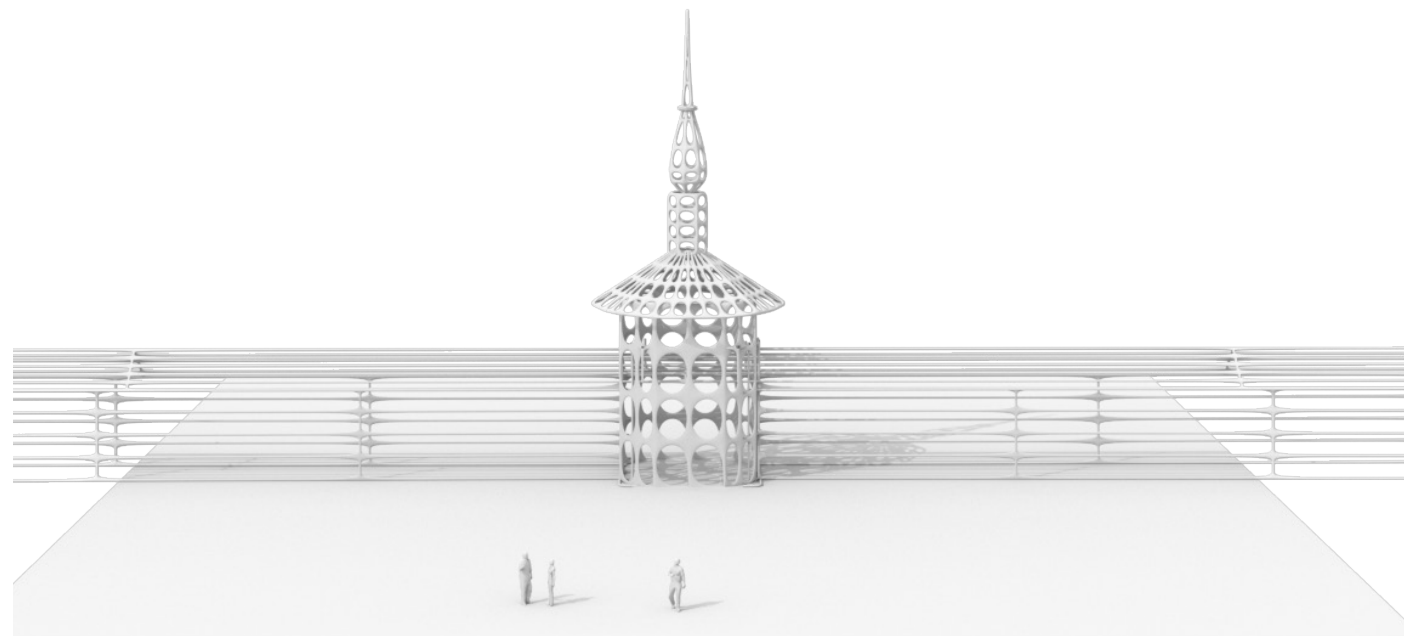
Same for other structures of the castle, several iterations were constructed with different syntax and 3D-modeling tools.



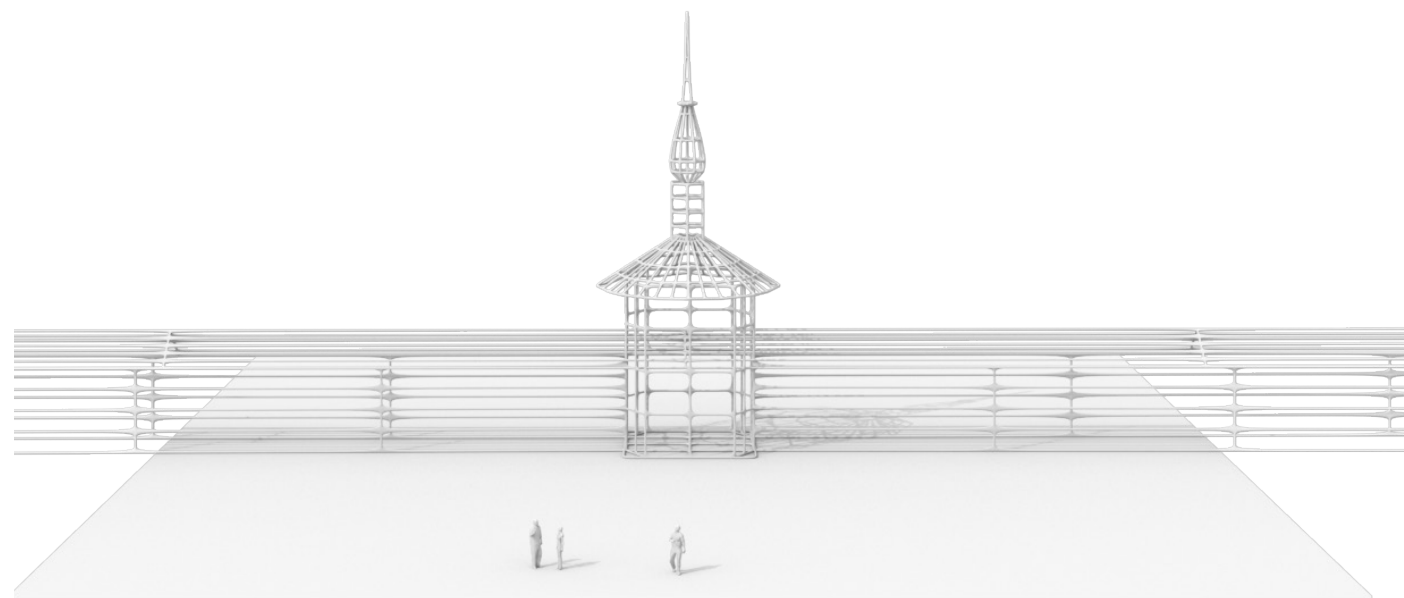
Wireframe skeleton re-fabrication (1<sup>st</sup> iteration)



Wireframe skeleton re-fabrication (2<sup>nd</sup> iteration)

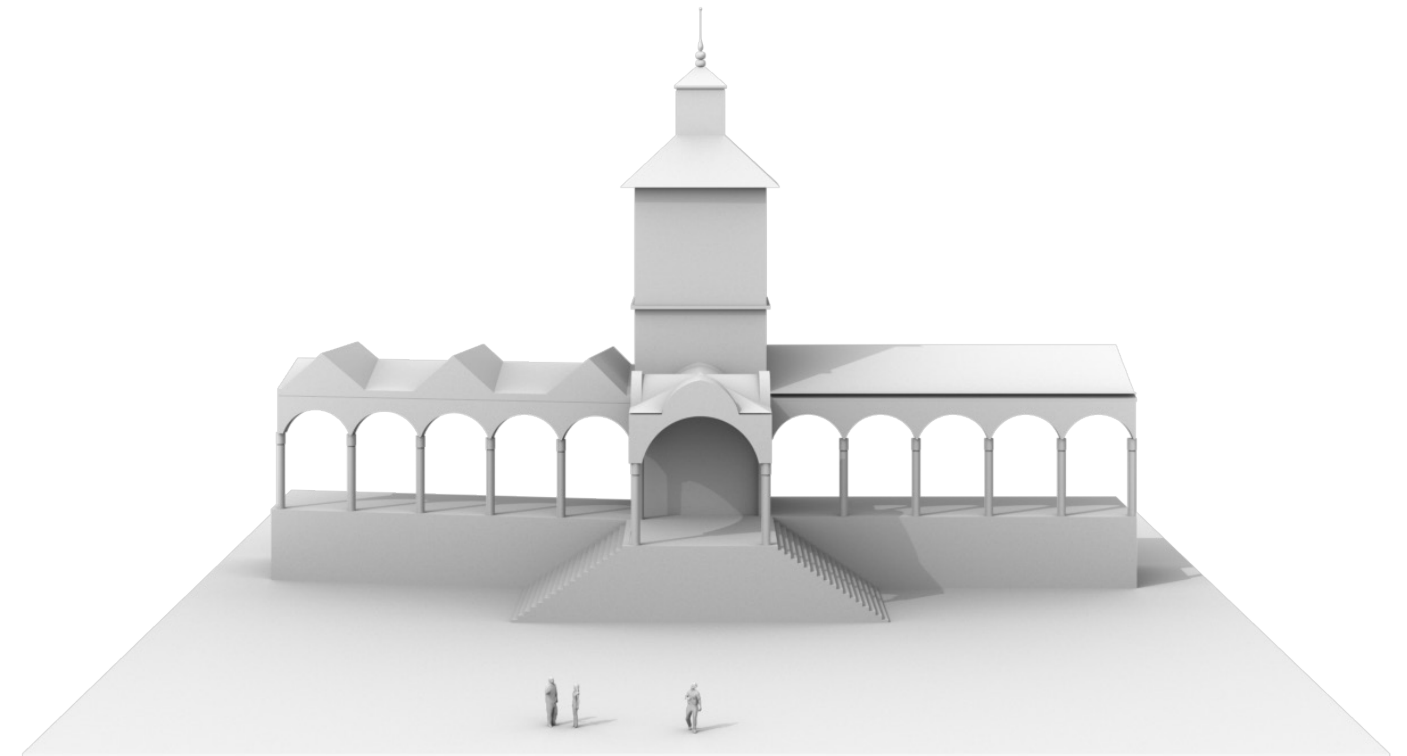


Ovally-ribbed re-fabrication



Rectangular-ribbed re-fabrication

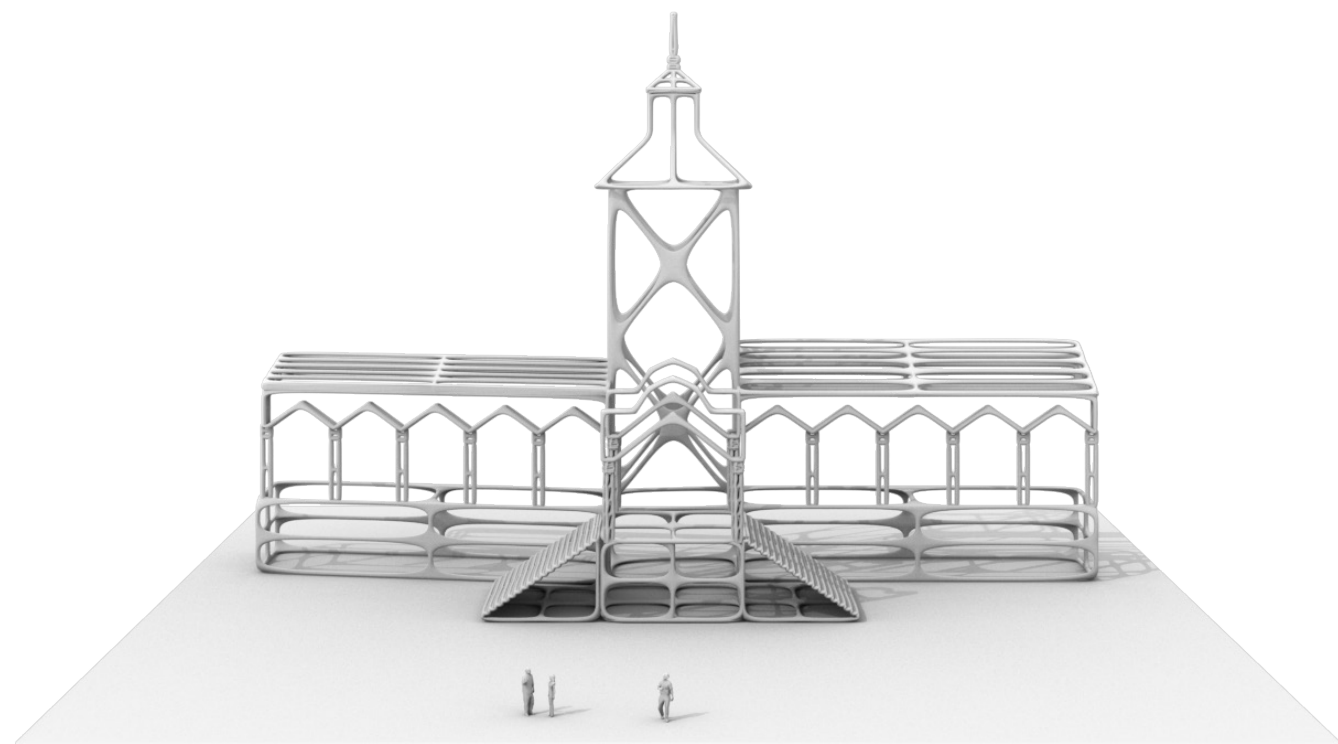
## SYNTAX LIBRARY: MAIN ENTRANCE PATIO



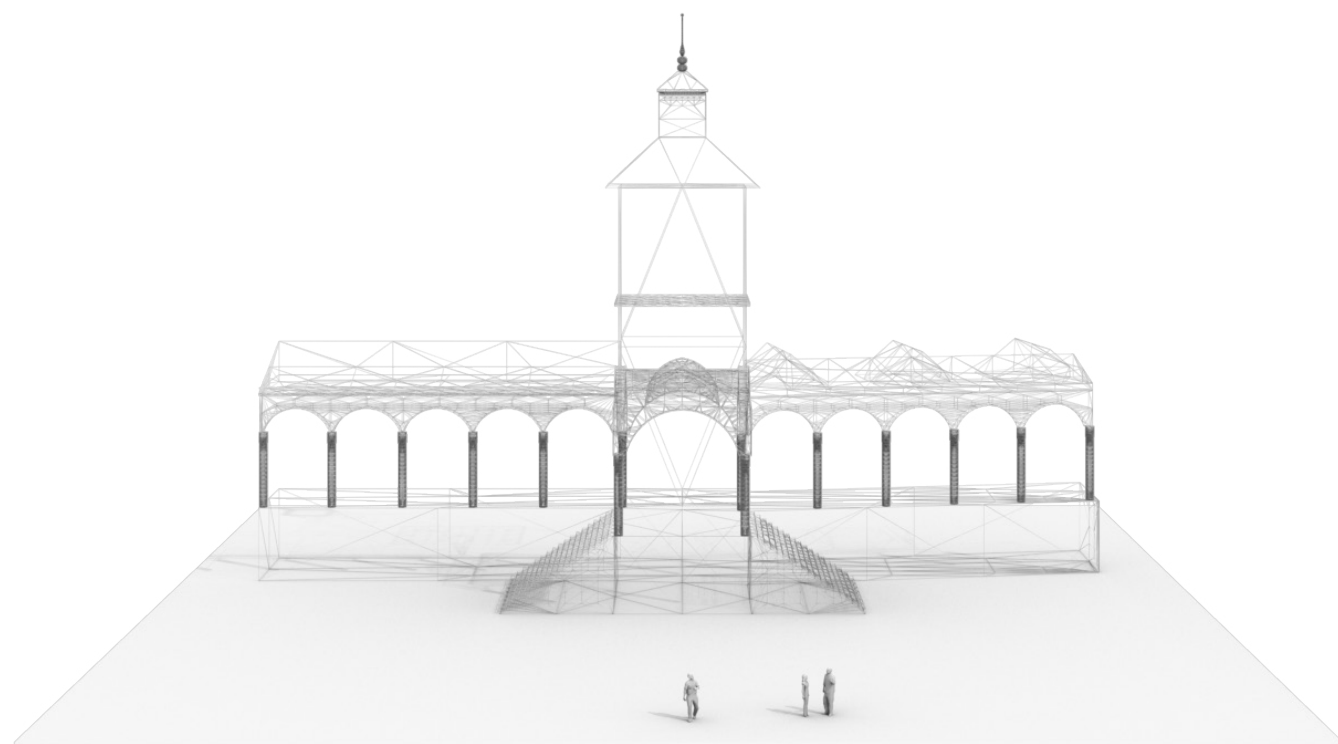
Main entrance patio in its original state, before being re-fabricated

Entrance patio, leading from the inner courtyard into the castle. The aim is to deny the agency of its initial materiality, maintaining its outline, footprint, and proportions and investigate how it could be re-fabricated and re-imaged via contemporary tools.

Several iterations were constructed with different syntax and 3D-modeling tools.



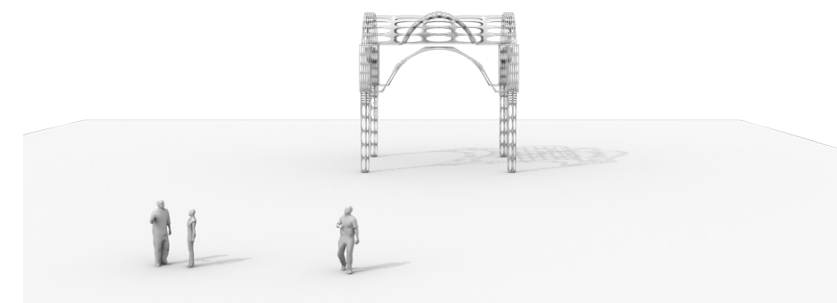
Diagonal and oval-based re-fabrication



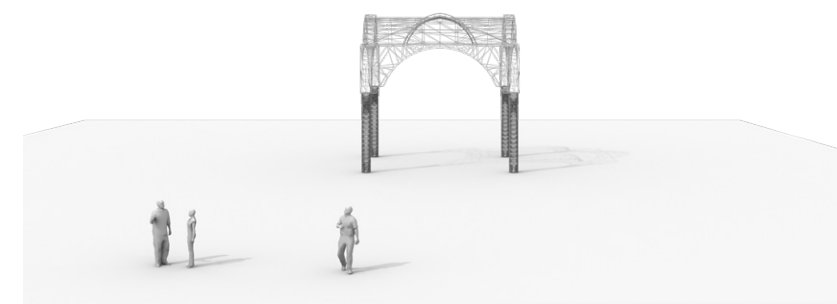
Wireframe skeleton re-fabrication



Entrance vault, before being re-fabricated



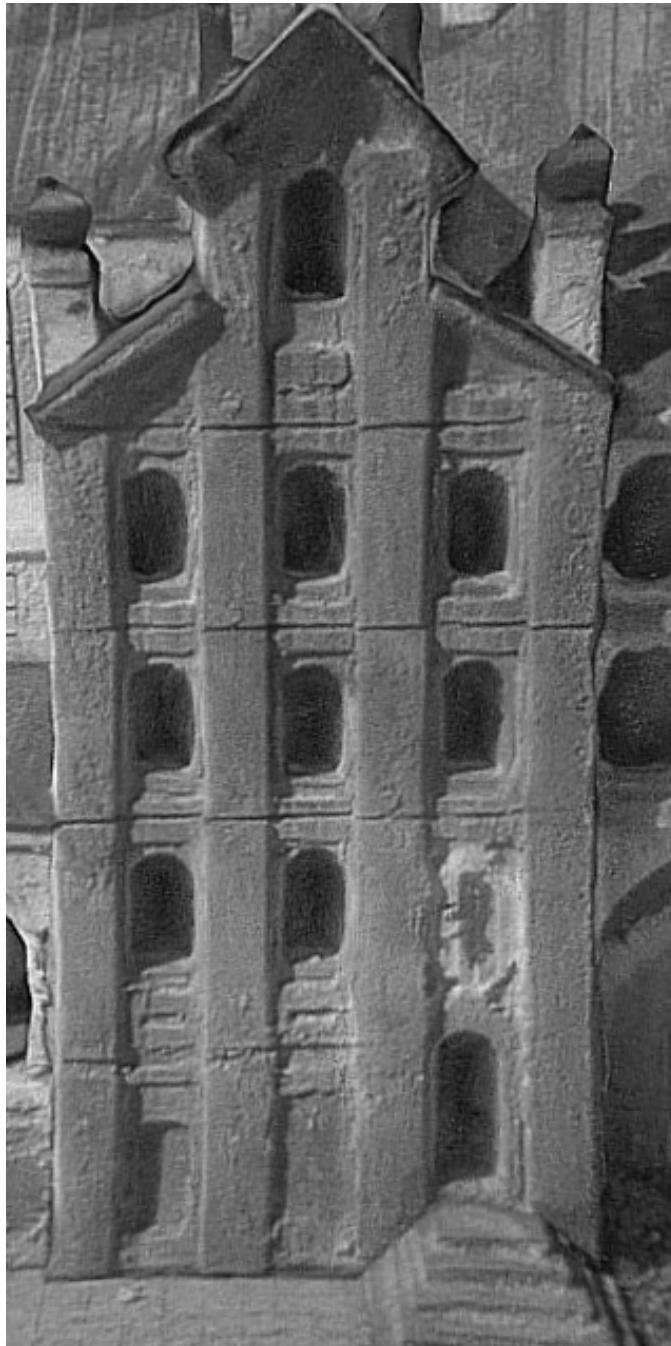
Parallel-ribbed re-fabrication



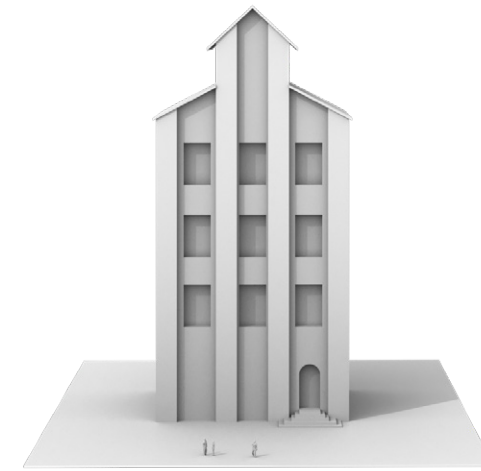
Wireframe skeleton re-fabrication



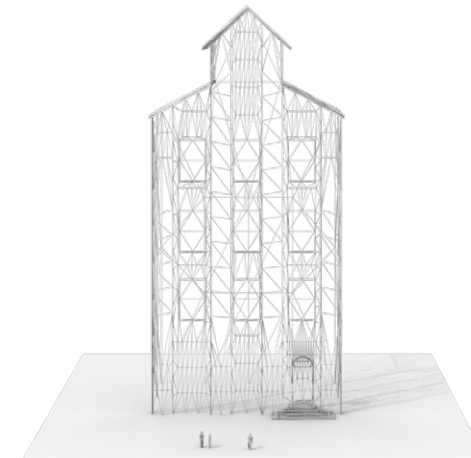
# SYNTAX LIBRARY: MULTI-STORY UNIT



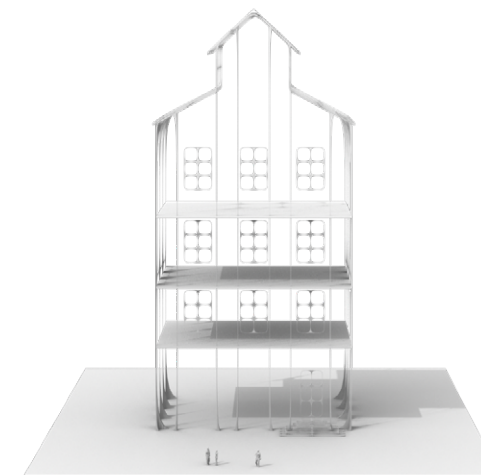
Multi-story unit its original state, before being re-fabricated



Multi-story unit, before being re-fabricated



Wireframe skeleton re-fabrication



Parallel-ribbed re-fabrication

## REFLECTIONS

The experimentation started with a wire-frame study, having the original form of the tower as the foundation.

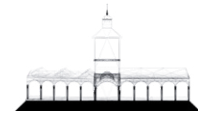
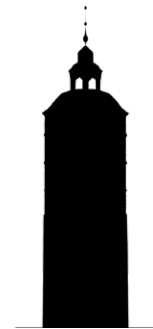
Computation and both 3D softwares Rhino and Blender were used to determine the points along the surface and generating wire-frames that captured the original form. This maintained the same proportions and outline of original structures.

Following that, the wire-frames were stripped down and simplified as an investigation to reflect on to what extent

that simplification can happen before the tower loses its character.

Finally, a catalogue of different language forms based on simple 2D shapes that intersect and overlay the original form was created. Reflecting on this birthed new ideas for other chosen structures.

All investigations were in an effort to re-imagine a form from the hidden past of a place using contemporary design tools and what they can visualize and create.

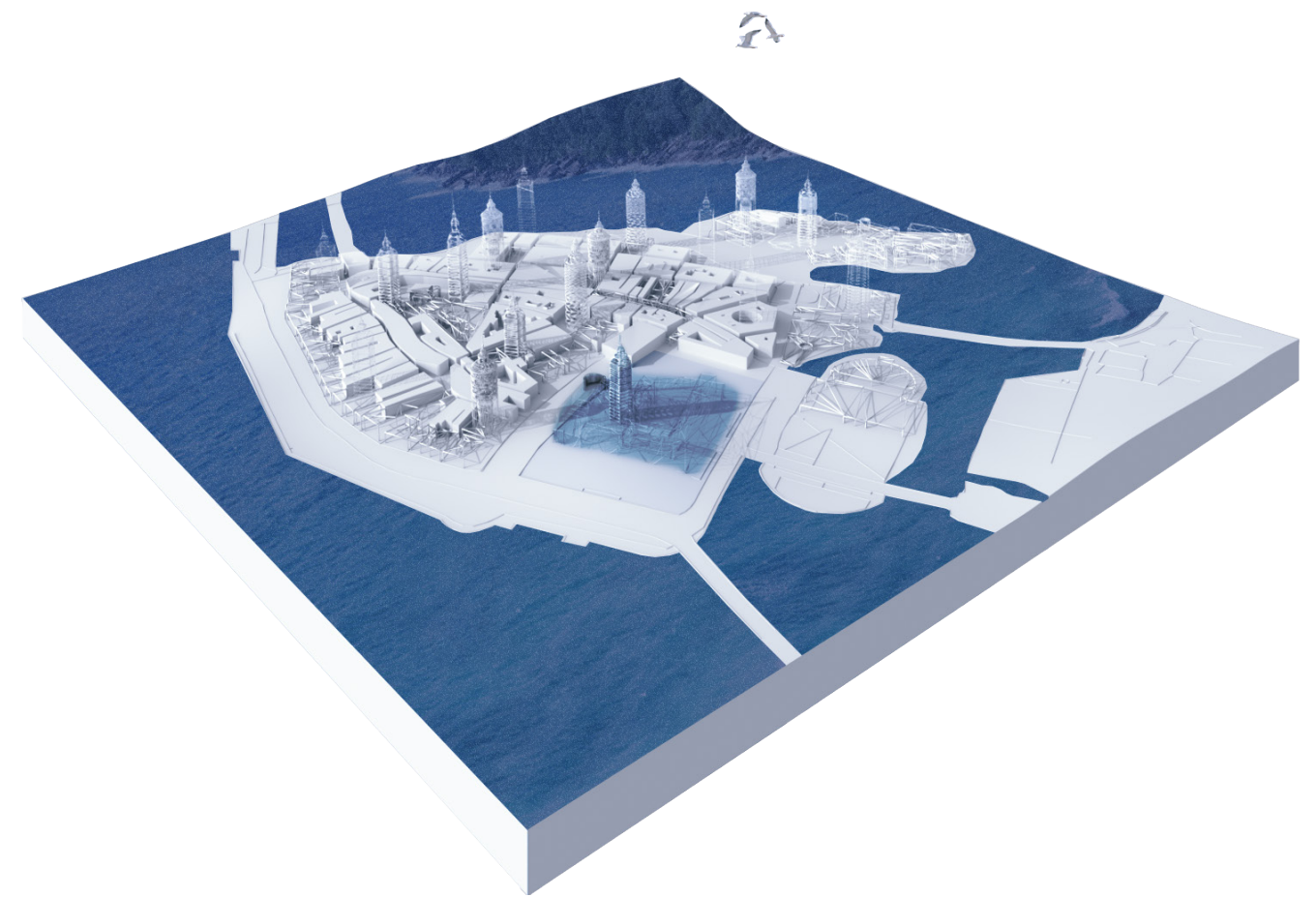


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## VIEWS OF *NYA GAMLA STAN*

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## NYA GAMLA STAN MASTERPLAN

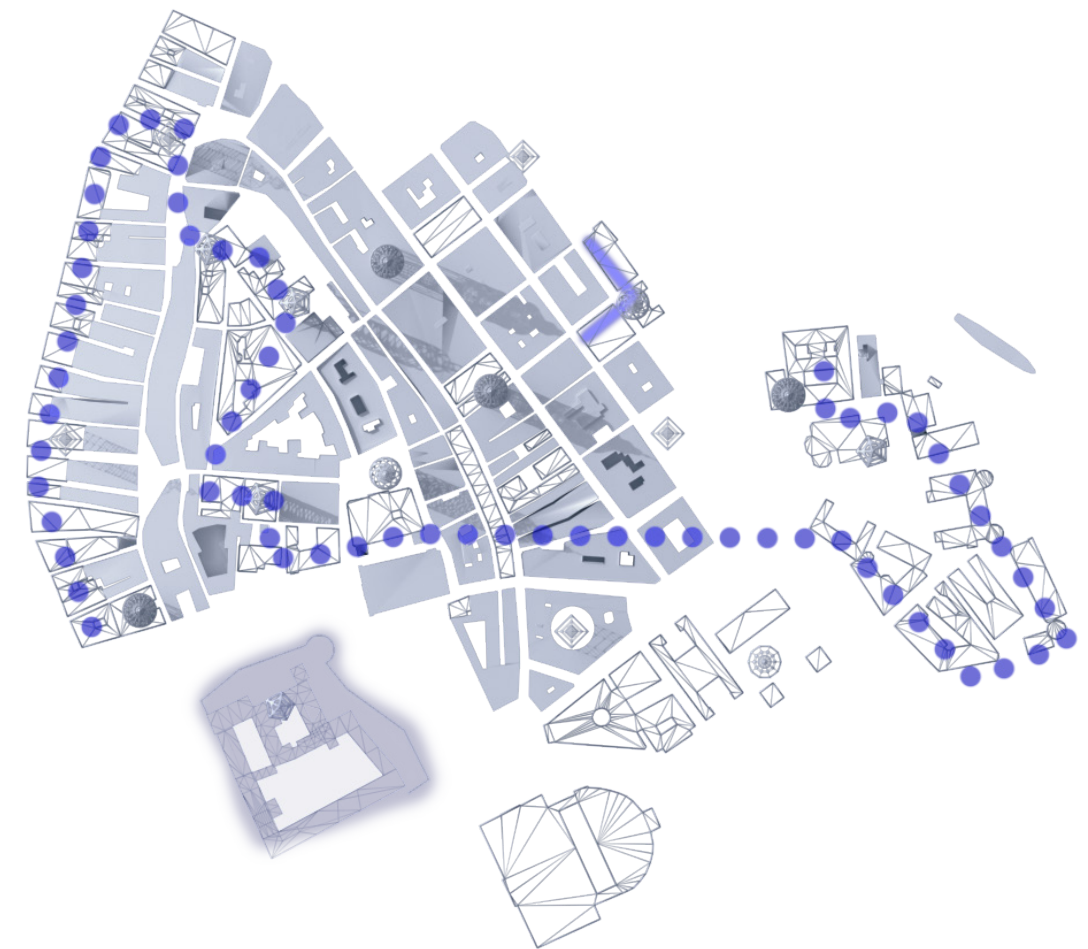


Bird-eye view of Nya Gamla stan





Masterplan of Nya Gamla stan



Masterplan of Nya Gamla stan

Location: Nya Gamla stan, Stockholm

Landmarks:

■ Nya Gamla stan pavilion network

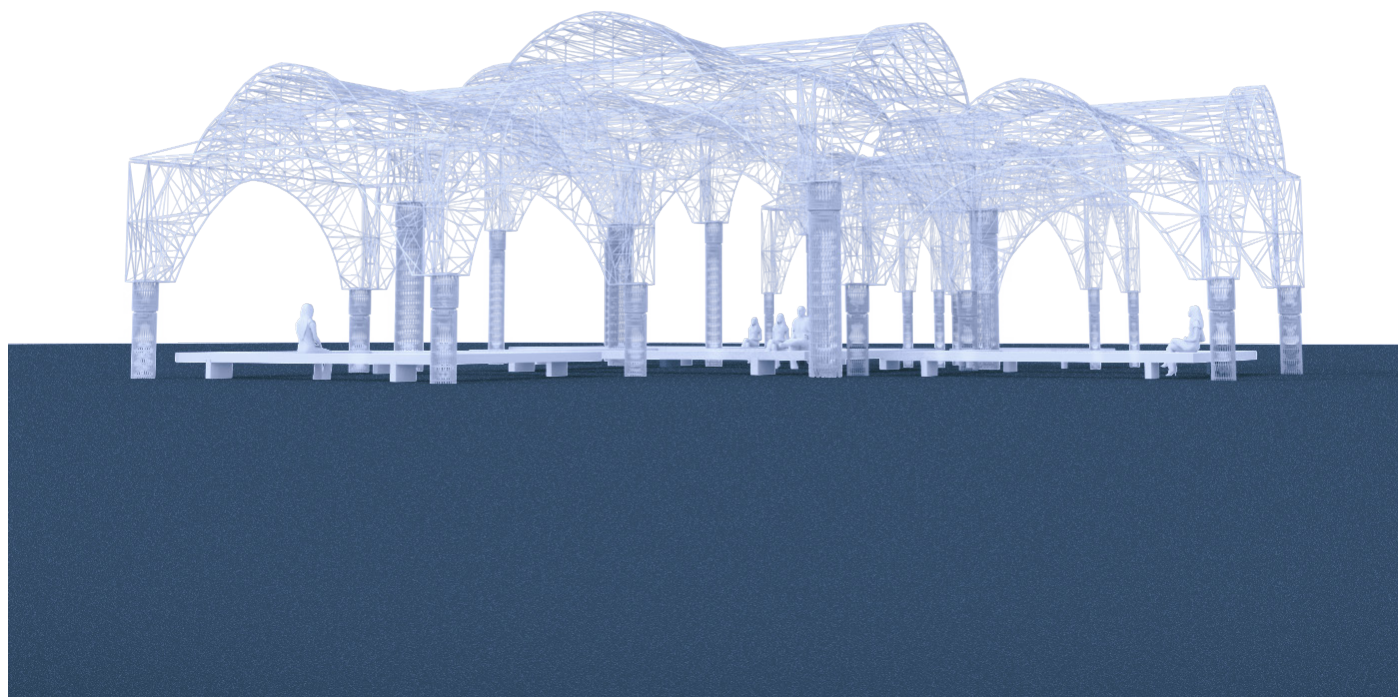
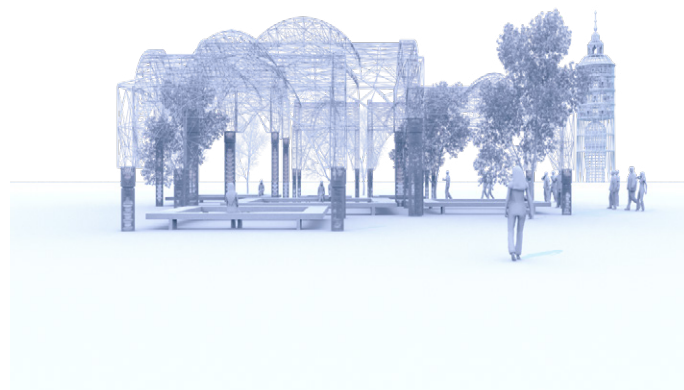
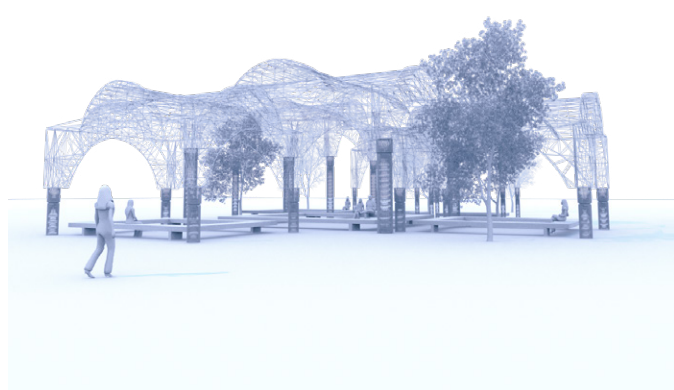
■ Tre Kronor public castle

■ Corridor Library

Special events:

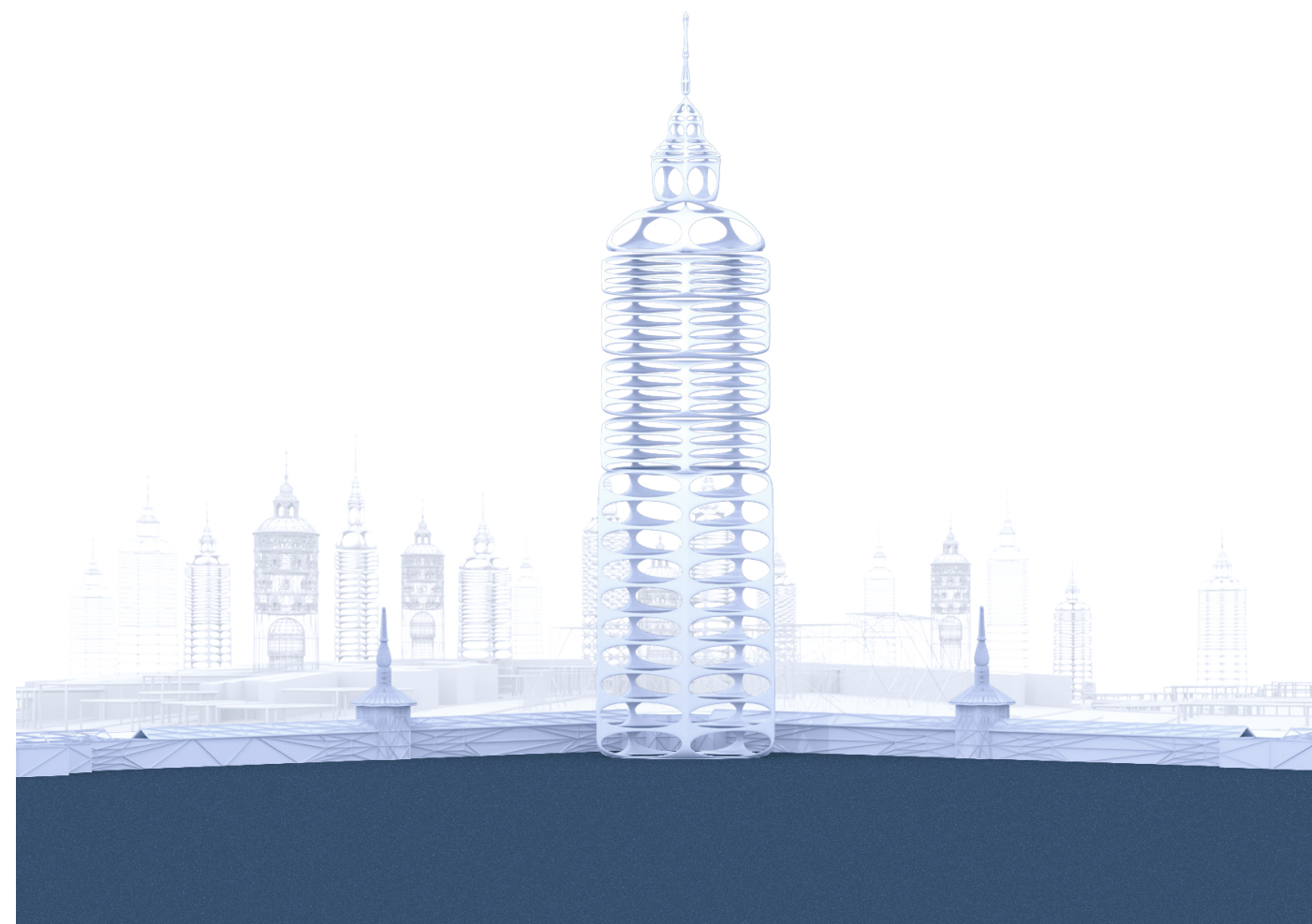
7th of May, a commemoration of Tre Kronor

## NYA GAMLA STAN PAVILION NETWORK



Spatial qualities formed by juxtapositions define the character of Nya Gamla stan

## CORRIDOR LIBRARY



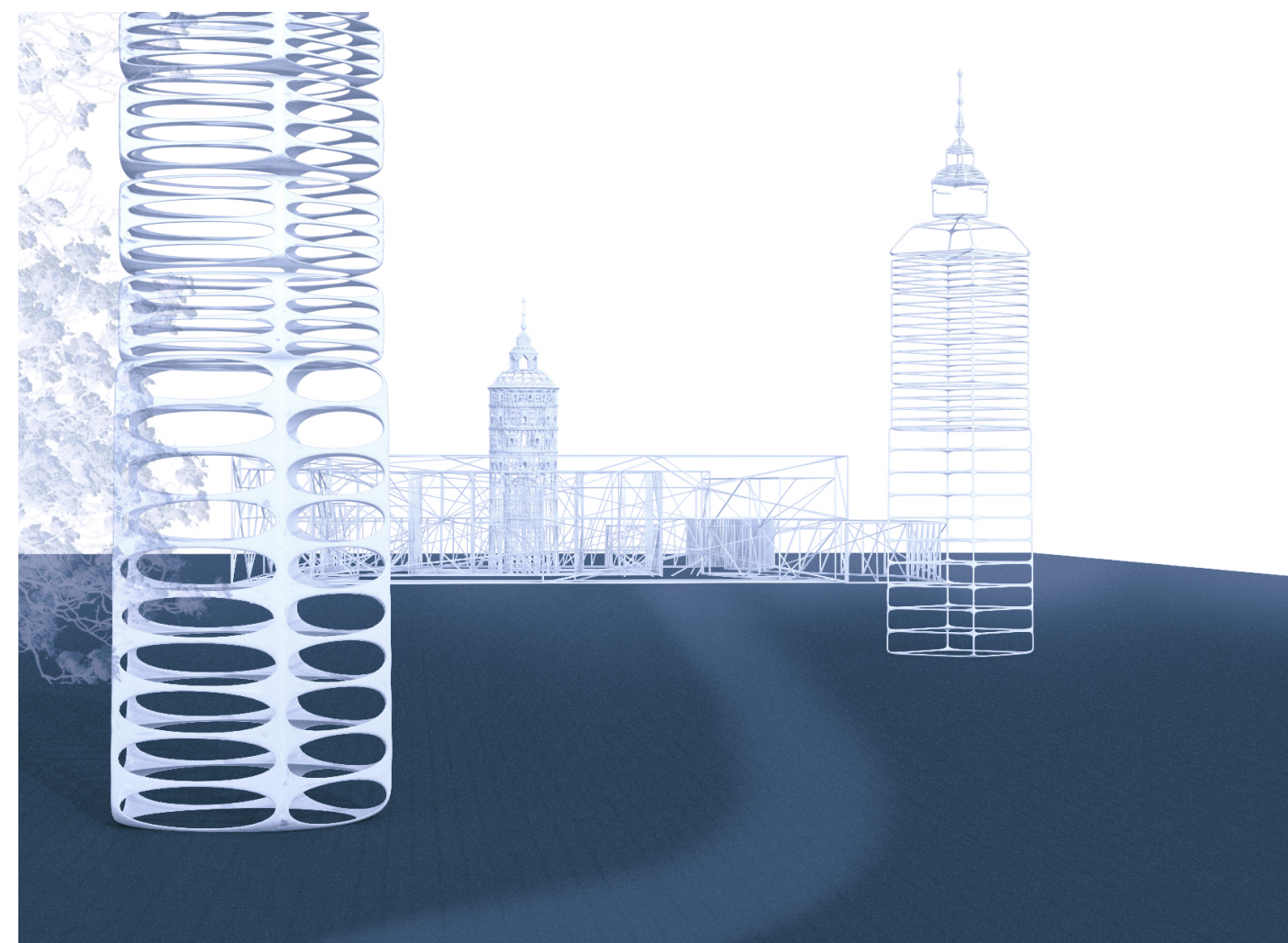
The history of Gamla stan is manifested and visible at all times





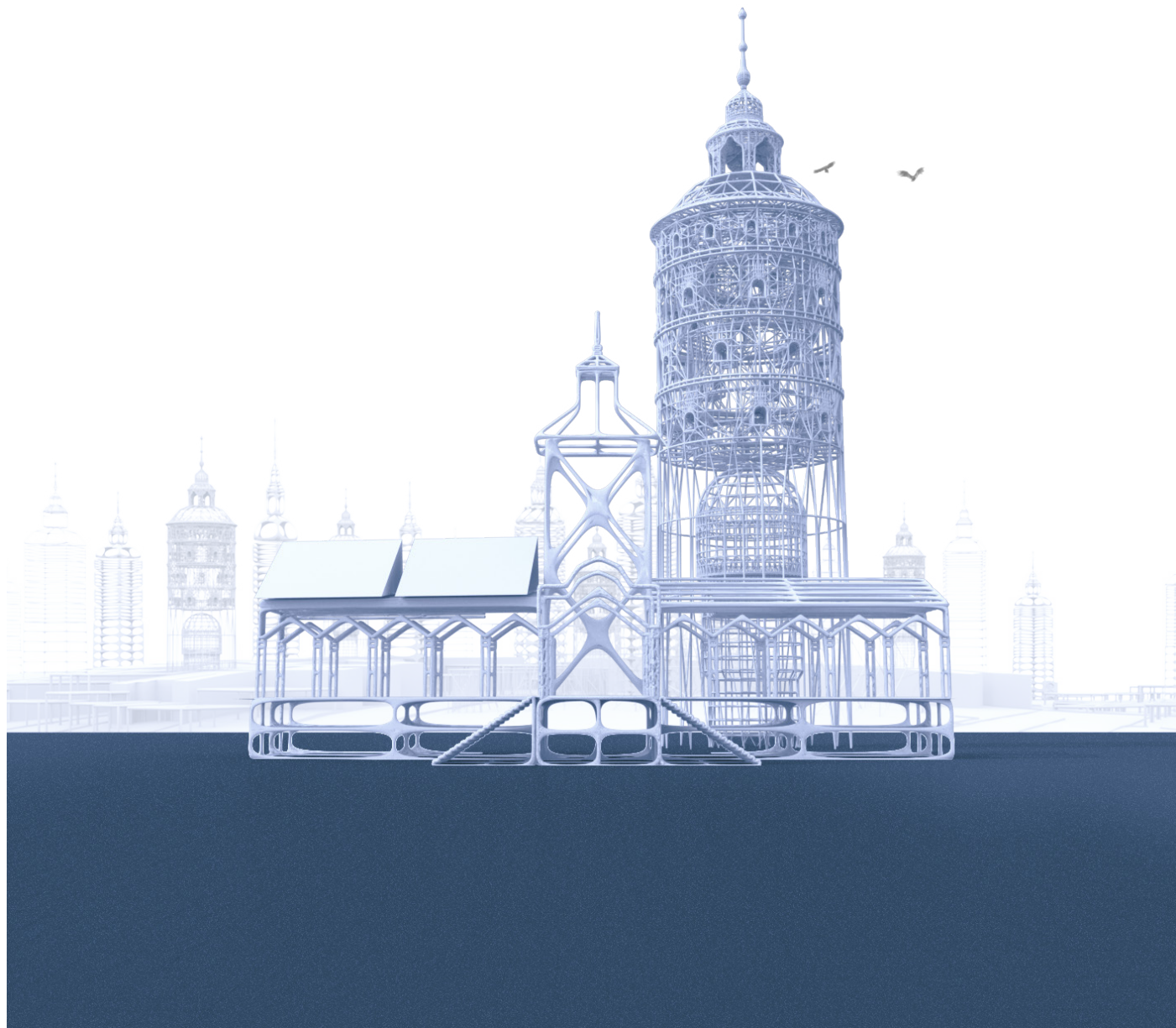
Towers adorn the skyline of Nya Gamla stan

## TRE KRONOR PUBLIC CASTLE



The variety in which these structures were created help with way-finding around the town





Structures celebrating Tre Kronor populate the town

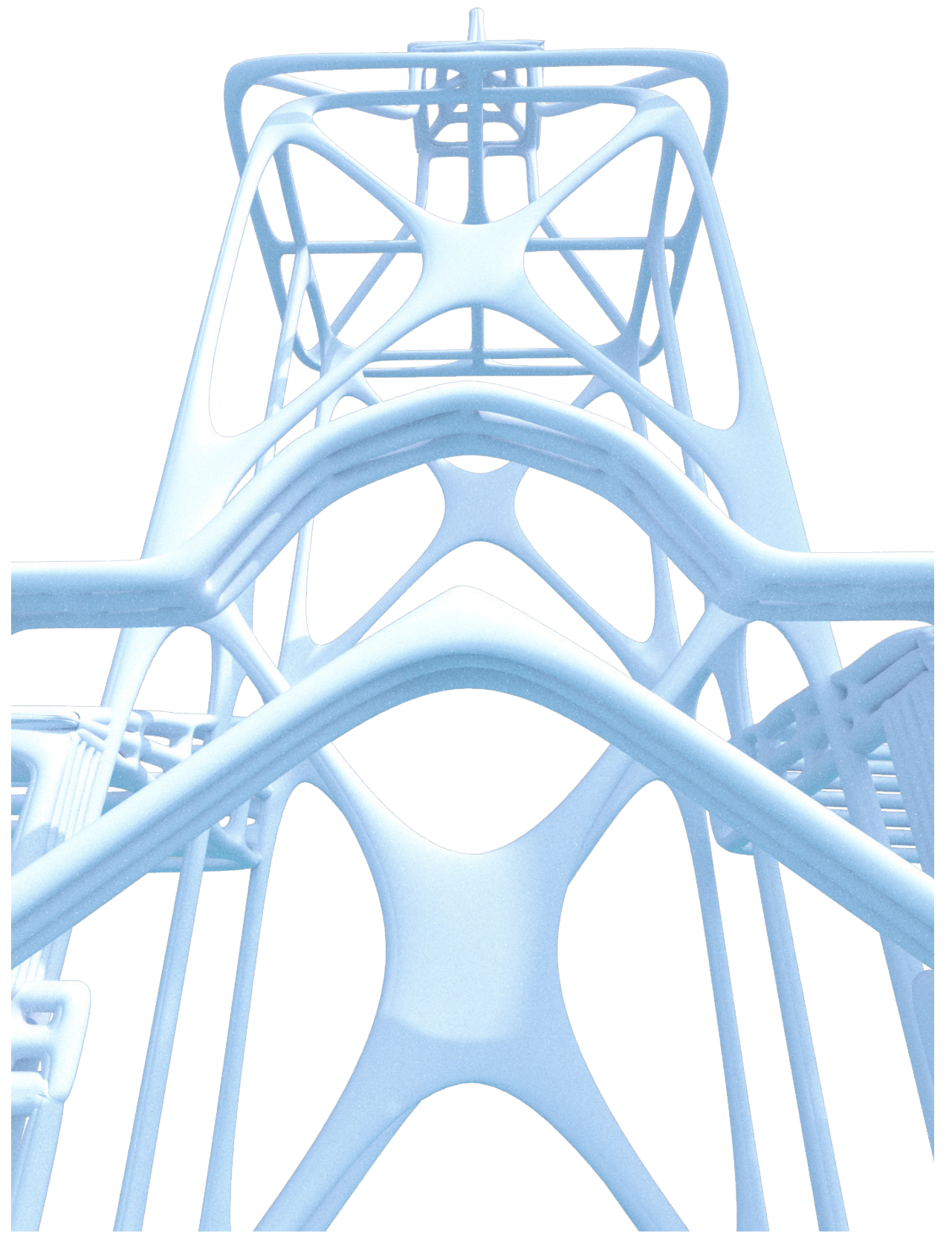


Light is everywhere





Open square designed with an amalgamation of elements

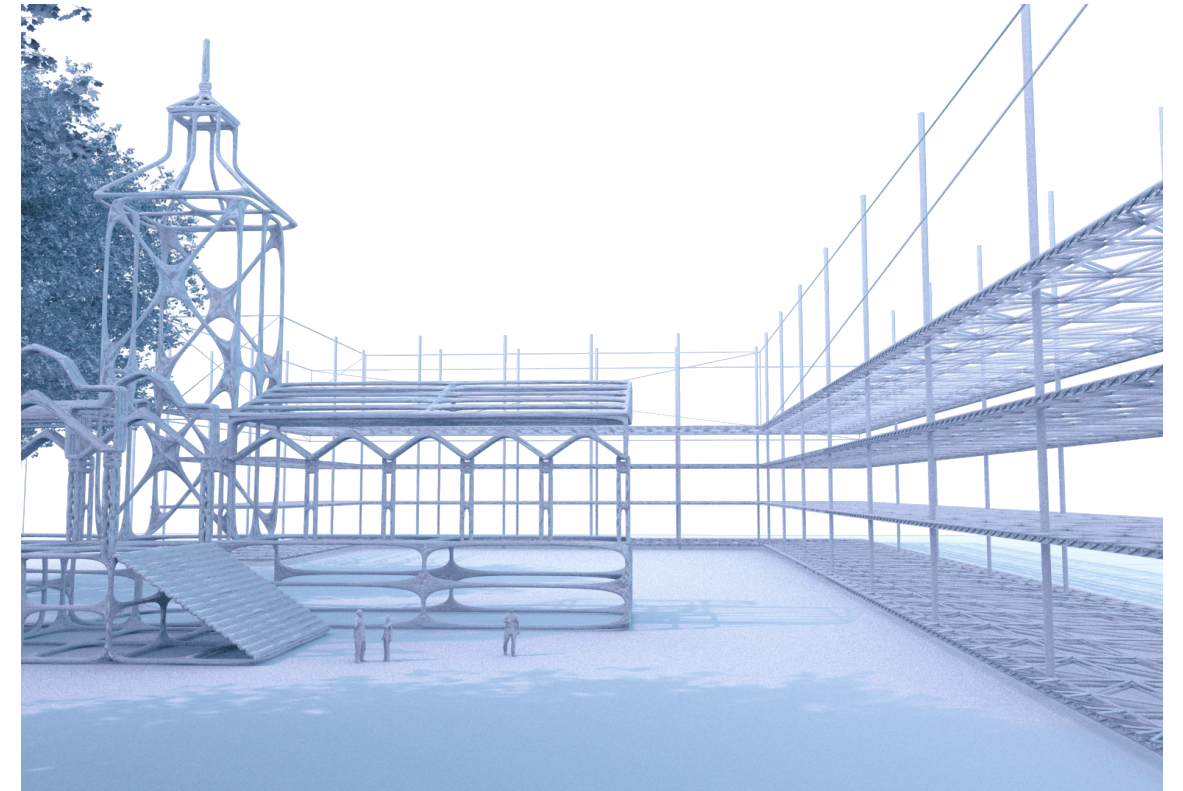


Open spaces take different forms and shapes to allow different atmospheres for different activities

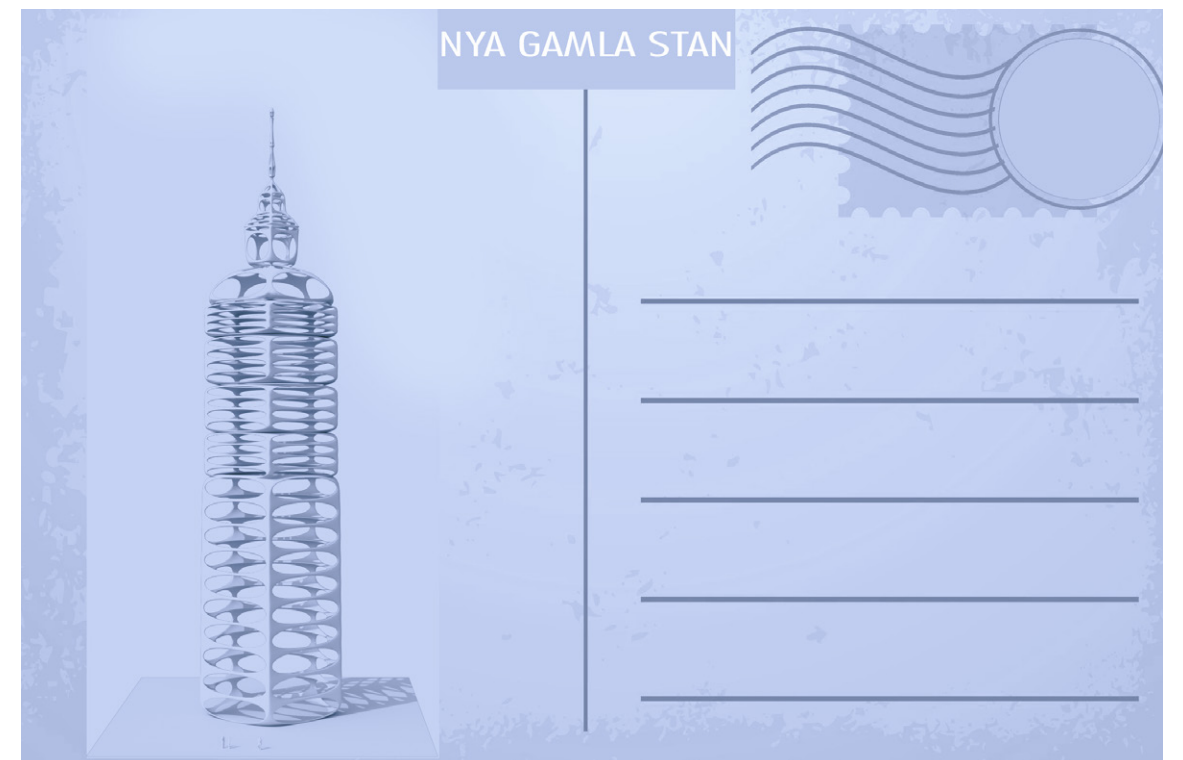




The public castle of Nya Gamla stan is open to the public, and the people decide on the activities that take place in it



The public castle of Tre Kronor is open to the public 24/7



The public castle of Tre Kronor is considered the main landmark of Nya Gamla stan





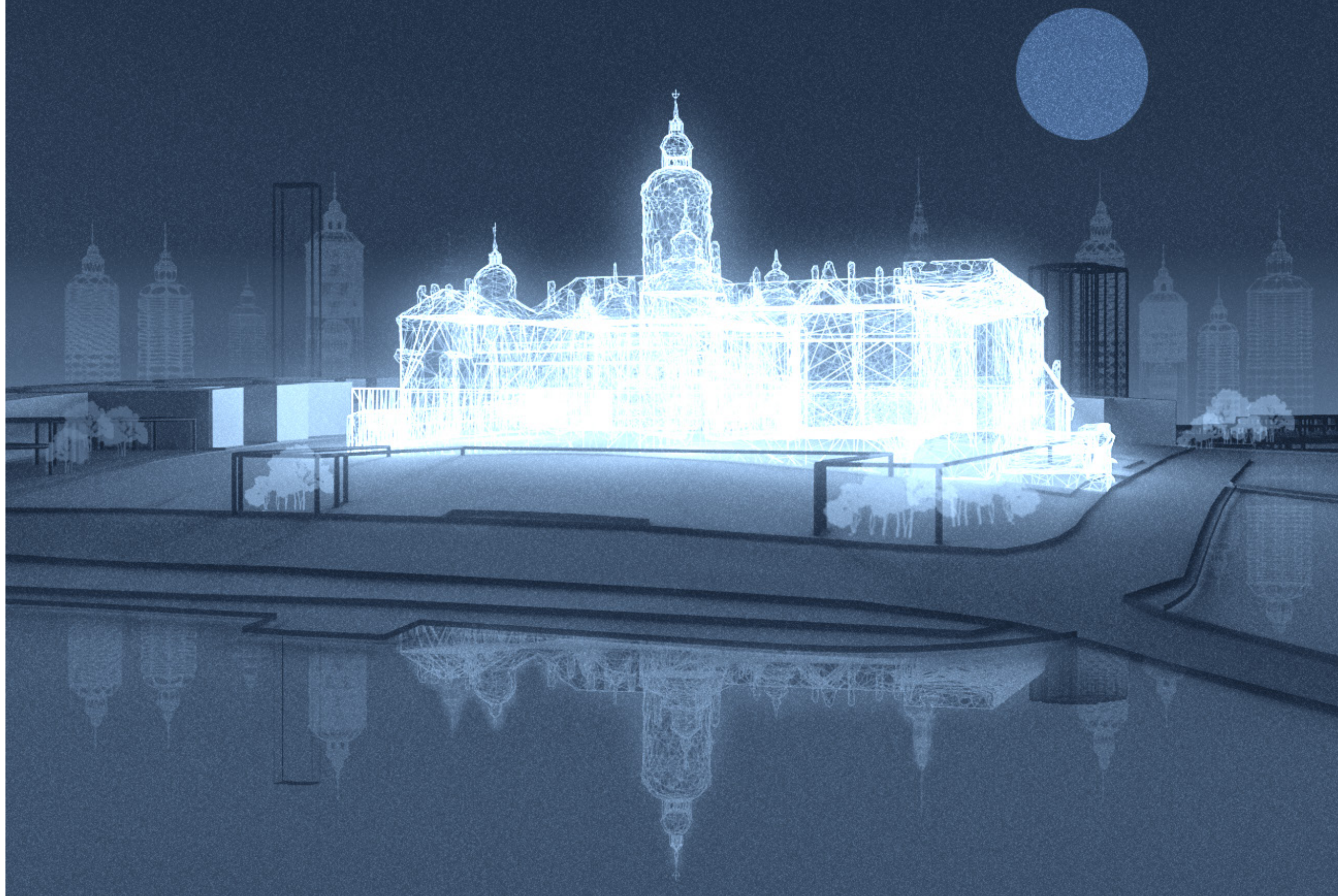
Walkways and paths hold a memory of the past, tangible memories surround the spaces



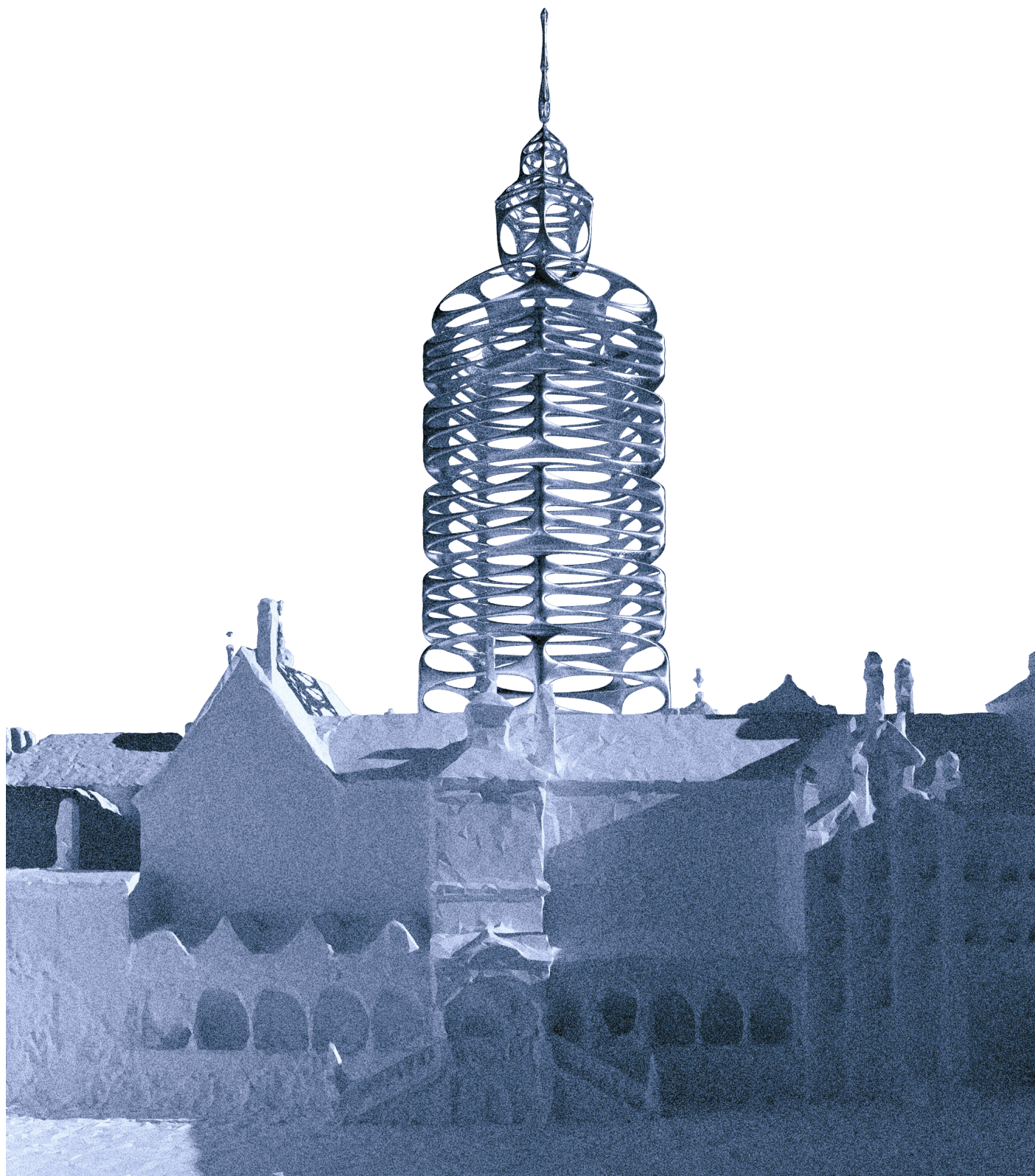
Public spaces aren't unique or defined as such, all spaces are public



"Every year on the 7<sup>th</sup> of May, it's tradition to have the original Tre Kronor projected again, as both tradition and socially sacred symbol of the city"













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## SUMMARY

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Visual juxtapositions as a driving force behind the thesis proved to be complex once the aspect of time was given priority. The research and investigations were experimental in nature and thoroughly iterative. Each investigation led to another, and resulted in a web of results and open questions whose answers were up to interpretations.

An emphasis was put on visualizing the temporal juxtapositions to the viewer as much as possible, in order to make the topic comprehensible. Form-finding using historical monuments seen through the lens of computation showed potential.

Interesting architectural qualities resulted that both hold contemporary and his-

torical configurations and aesthetics.

Reflecting back on the aim of the thesis, the thesis did manage to evoke intrigue in the minds of the viewers, not necessarily solutions. It is up to the viewer to interpret the alternate reality and what they take from it. The thesis presented itself as a thought-experiment and how alternate realities evoke interest to step outside the realm of reality and standard practice and perception of Architecture and design.



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# REFERENCES

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# REFERENCES

## TEXT

Dunne, A., & Raby, F. (2013). *Speculative Everything : Design, Fiction, and Social Dreaming*. MIT Press.

Jacobson, M. (2005). *Slottet Brinner!*. Lund: Historiska media.

Lang, P., & Menking, W. (2003). *Superstudio*. Skira.

Dahinden, J. (1972). *Urban Structures for the Future*. Preager.

William-Olsson, T. (1959). *The Royal Palace of Stockholm and Its Surroundings - past, present and future*. Byggnästarens förlag.

Pala, G. *Quasi Project - Quasi Theory*. Giacomopala. <https://www.giacomopala.com/quasitheory-quasiproject>

Koolhaas, R., Zenghelis, E., Vriesendorp, M., & Zenghelis, Z (1972). *Exodus*. The Museum of Modern Art, New York, NY, United States. <https://www.moma.org/collection/works/104692>

10. Teismann, M. (2018) *An Ideological City: Koolhaas’ Exodus in the Second Ecumene*. Editorial do Departamento de Arquitetura. [https://impactum-journals.uc.pt/joelho/article/view/\\_8\\_3](https://impactum-journals.uc.pt/joelho/article/view/_8_3)

Koolhaas, R. (2005). *Metropolis: Exodus or the Voluntary Prisoners of Architecture*. Prestel Publishing.

Dick, P. K. (2001). *The man in the high castle*. Penguin Modern Classics.



## IMAGES

1. 97cm. (2019). “JUXTAPOSITION” [photograph]

Available from: <https://image-cdn.hypb.st/https%3A%2F%2Fhypebeast.com%2Fimage%2F2019%2F03%2F-97cm-juxtaposition-chairs-capsule-1.jpg?q=90&w=1400&cbr=1&fit=max>

2. Magritte, R. (1964). “The Son of Man” [painting]

Available from: [https://en.wikipedia.org/wiki/The\\_Son\\_of\\_Man#/media/File:Magritte\\_TheSonOfMan.jpg](https://en.wikipedia.org/wiki/The_Son_of_Man#/media/File:Magritte_TheSonOfMan.jpg)

3. DKO Architecture .(2016). “Waterloo Street” [photograph]

Available from: <https://archello.com/thumbs/images/2018/11/27/0WaterlooStreet-DKOArchitecture-PeterBen-netts-09.1543308089.0527.jpg?fit=crop&w=1240&h=627>

4. Bredt, B. (2011) [photograph]

Available from: [https://libeskind.com/wp-content/uploads/mhm08\\_2207c-bitter-bredt.jpg](https://libeskind.com/wp-content/uploads/mhm08_2207c-bitter-bredt.jpg)

5. Young, N. (2000) [photograph]

Available from: [https://www.archivibe.com/wp-content/uploads/2020/05/FP\\_NIGEL-YOUNG\\_GREAT-COURT-BM\\_COVER-IMAGE-800x400.jpg](https://www.archivibe.com/wp-content/uploads/2020/05/FP_NIGEL-YOUNG_GREAT-COURT-BM_COVER-IMAGE-800x400.jpg)

6. Luiz, J. (2016). ” Português: San Procolo - Verona” [photograph]

Available from: [https://upload.wikimedia.org/wikipedia/commons/c/ce/Spolia\\_-\\_San\\_Procolo\\_-\\_Verona\\_2016.jpg](https://upload.wikimedia.org/wikipedia/commons/c/ce/Spolia_-_San_Procolo_-_Verona_2016.jpg)

7. Available from: <https://sp.lyellcollection.org/content/specpubgsl/416/1/23/F2.large.jpg>

8. Camphuysen, G. (1661) The 400 year-old castle 36 years before the fire [painting]

Available from: [https://sv.wikipedia.org/wiki/Slottsbranden\\_1697#/media/Fil:Slottet\\_Tre\\_Kronor\\_1661.jpg](https://sv.wikipedia.org/wiki/Slottsbranden_1697#/media/Fil:Slottet_Tre_Kronor_1661.jpg)

9. Höckert, J. (1866). “Slottsbranden ... “ [drawing]

Available from: [https://en.wikipedia.org/wiki/Tre\\_Kronor\\_\(castle\)#/media/File:The\\_Fire\\_at\\_the\\_Royal\\_Palace,\\_Stockholm,\\_May\\_7th,\\_1697\\_\(Johan\\_Fredrik\\_H%C3%B6ckert\)\\_-\\_Nationalmuseum\\_-\\_18358.tif](https://en.wikipedia.org/wiki/Tre_Kronor_(castle)#/media/File:The_Fire_at_the_Royal_Palace,_Stockholm,_May_7th,_1697_(Johan_Fredrik_H%C3%B6ckert)_-_Nationalmuseum_-_18358.tif)

10. “Stockholm Castle during the Vasa Period (XVIII)” [plan]

Available from: [https://upload.wikimedia.org/wikipedia/commons/e/e0/Tre\\_kronor\\_plan.jpg](https://upload.wikimedia.org/wikipedia/commons/e/e0/Tre_kronor_plan.jpg)

11. Stanzel, J & Villa, R. (2018) [image]

Available from: [https://static.wixstatic.com/media/ad4119\\_9df320e25661490ebf38f4b57ff9cda1~mv2.jpg/v1/fill/w\\_600,h\\_600,al\\_c,q\\_80,usm\\_0.66\\_1.00\\_0.01/IMG\\_20180704\\_195749\\_273.webp](https://static.wixstatic.com/media/ad4119_9df320e25661490ebf38f4b57ff9cda1~mv2.jpg/v1/fill/w_600,h_600,al_c,q_80,usm_0.66_1.00_0.01/IMG_20180704_195749_273.webp)

12. Stanzel, J & Villa, R. (2018) [image]

Available from: <https://futurearchitectureplatform.org/media/cache/2f/80/2f806479fc4a7b0100e1a2a2d2efc619.jpg>

13. Koolhaas, R., Zenghelis, E., Vriesendorp, M., & Zenghelis, Z .(1972). “Exodus”.

Available from: [https://www.artstor.org/wp-content/uploads/2012/09/moma\\_11890001.gif](https://www.artstor.org/wp-content/uploads/2012/09/moma_11890001.gif)

14. Koolhaas, R., Zenghelis, E., Vriesendorp, M., & Zenghelis, Z .(1972). “Exodus”.

Available from: <http://socks-studio.com/img/blog/Exodus5-800x562.jpeg>

15. Superstudio. (1972). “The Happy Island”, a film still from “Supersurface” (1972) [drawing]

Available from: <https://drawingmatter.org/wp-content/uploads/2020/09/Superstudio-1--e1603727902348.jpg>

16. Superstudio. (1972). a film still from “Supersurface” (1972) [drawing]

Available from: <https://www.iltascabile.com/wp-content/uploads/2020/01/natalini-hero.png>



