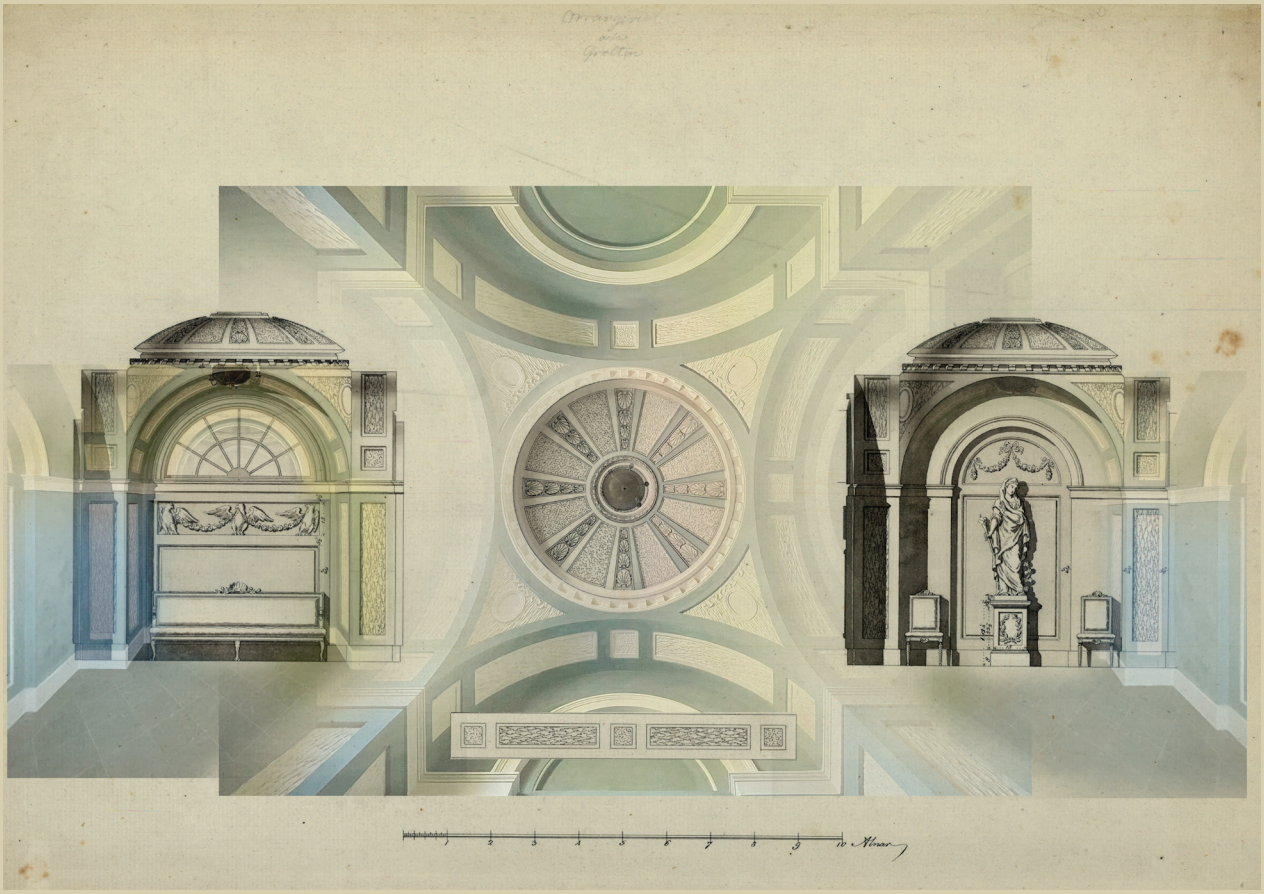
TECTONIC & SCENOGRAPHIC

To examine the scenographic use and elements in architecture



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Matter Space Structure, Spring 2023

Tectonic & Scenographic

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Master Thesis in Architecture
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Scenography is a tool, enabling us to give form and create space for the imagination, not in a given and fixed space, but through the shift from real space to imaginary space and back.

(M. Mazlouman, J. Ancelot, B. Pigot, ENSA PLV)

Collage of original drawings and photographs

Aim of study

Topic ***Scenographic – To describe the difference, origin, use and future of the scenographic architecture versus the tectonic.***
What basic conditions are given by the tectonic and what ”false presumption” we find in the scenographic.

Site ***Gunnebo House in Mölndal – I want to use the Estate of Gunnebo as a starting point in a neoclassical building and garden facility where the post-baroque and scenographic traces are clearly legible.***

Design ***A Theatre building – I have chosen to design a theatre building because the entire building addresses imagination and anticipation. It is in itself a container for unreal environments and emotional expressions.***
The directed and experience-based architecture and garden architecture of the 18th century is regular and clearly legible, and the need for an addition in the form of a theatre has long been present at Gunnebo House and Garden.

Abstract

Designing a theatre in relation to Tectonic and Scenographic characteristics.

If the tectonic architecture clearly shows how the different elements of a building fulfill the function of carrying load or in themselves constitute a load, then what is the non-tectonic architecture and what does it do? Is it to be called scenographic because it places itself above nature's laws of mass and weight – does it pretend to invalidate the laws of gravity? Is there a dividing line between what we call scenographic architecture and what we would call scenography in architecture?

The starting point of this thesis is based on my personal experience as a photographer on one hand and opera singer on the other. As a photographer and filmmaker, you are constantly looking for new backdrops and set designs, as a stage artist on the other hand, you actively approach a set scenography that should enhance both the script and the characters to capture the audience and tell a story.
Using this as a starting point, I want to investigate in what sense scenographic properties and expressions can be used in relation to the built environment, and does the use of this make us *actors and extras* in the landscape of architecture?

I have on several occasions used Gunnebo House and Gardens (Mölndal, Sweden) as a backdrop and set design for photo shoots. The property has been partially reconstructed and buildings have been posthumously erected although never realized during the 18th century. The basis for the reconstructions is a collection of over 200 drawings that the architect Carl Wilhelm Carlberg (1746-1814) left in his legacy. In the drawing collection one can find everything from landscape and facades, to chiseled details of interiors, furniture and tiled stoves.

This thesis project claimes the Gunnebo estate as its site of investigation. It was designed by Carl Wilhelm Carlberg in the mid 18th century and is located just outside Gothenburg.
The former landowner, John Hall, was at the time one of the most prosperous merchants in Sweden and the family had a major palace in the city centre of Gothenburg, wich contained a private park with a theatre, ballroom and a naturalia museum. However the summer estate Gunnebo was completed without a theatre, even though this was in fashion during the era.
My aim with the thesis is to propose a theatre building at the site. It was never designed, there is no documentation or drawings of such a building, but the estate is clearly made to host a spectacle with prominent guests such as kings and nobility.
With its gardens and walking paths, the main building and park is a popular excursion destination during the summer months. Theatre, classical concerts, weddings and plays are held inside the house and in parts of the garden. I believe this further strengthens my project.
Through site analysis in various techniques and literature studies, I want to propose a building that relates to the discussion of scenographic architecture and that submits to a neoclassical structured estate designed for spectacles. The MSS (matter, space, structure) studio has been a tool and an opportunity to investigate the site and to anchor a future design in the formation of theory that concerns the subject of tectonics and scenography in architecture.

CHALMERS
UNIVERSITY OF TECHNOLOGY

Table of Contents

Author´s Background

Education

Chalmers University of Technology
Gothenburg, Sweden
2018 – 2023
Master program in Architecture and Urban Design
- Matter, Space, Structure, Master Thesis Project
- Matter, Space, Structure 3 "prep. course MT"
- Matter, Space, Structure 2 "After Building"
- Matter, Space, Structure 1 "Out of Context"
- Bachelor's degree

Gothenburg Opera Studio
Gothenburg, Sweden
2002 – 2004
Masterclass based Opera School at GöteborgsOperan and Sensus Bildningsförbund.

Gothenburg School of Photography (Fotoskolan Göteborg)
Gothenburg, Sweden
1997 –1999

Centro di Cultura per Stranieri, Universitá di Firenze
Florence, Italy
1995-1996
Language studies (Italian)
Art History, Etruscan History, Contemporary Italian Art and Music History

Employment / work

Photographer Martin Skredsvik
Gothenburg, Stockholm, Barcelona
1998 -2023

Architect Martin Skredsvik
Gothenburg and Stockholm
2019 -
Reformation of a Villa in Lidingö
Attic conversion at Aschebergsgatan, Gothenburg

Filmlance / SVT Drama
Gothenburg, Sweden
2017-2018
Production coordinator, TV-series The Spring Tide
(S02E01-10)
Art Department props photographer

University of Gothenburg, Department of Conservation
Gothenburg, Sweden
2013- 2019
Teacher in photography and image documentation

FilmHouse AB
Gothenburg, Sweden
2010-2015
Various commercials (cinematographer) and pilot production (director) for SVT (Hannu's Home, Life at the Opera)

Gothenburg Opera
Gothenburg, Sweden
2014 - 2015
TV-producer, cinematographer

Shoot Production / SVT short
Lysekil, Sweden
2006
Costume Manager, Mask Design

Gothenburg Opera
Gothenburg, Sweden
2006 - 2012
Singer / Tenor

Natural History Museum (GNM)
Gothenburg, Sweden
1990 - 2007
Hall attendant, guide, receptionist, telephone operator, janitor, marketer, photographer.

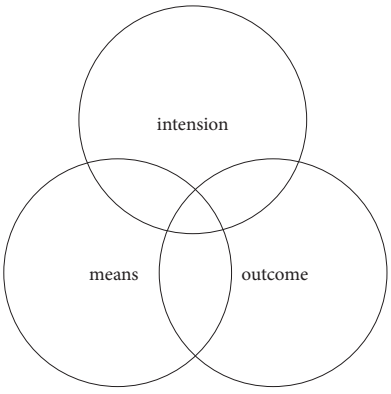
INTRODUCTION

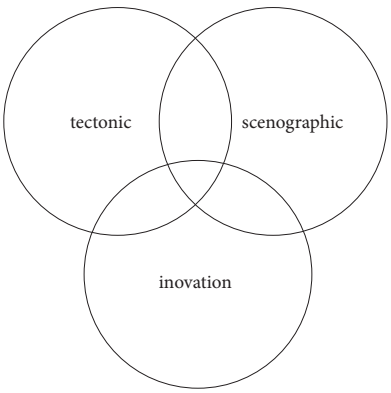
Background

My interest in the subject of scenographic architecture was originated when I studied art history in Italy. I had to familiarize myself with the political and religious reforms that took place in Europe during the 16th century to understand the Baroque and its origin. The fact that *cause and effect* could give such clear expression in the built environment fascinated me and I became aware of how we still relate to spectacular and eye-catching design.
When the effects of architectural outcome has a higher priority than its functions, when scenographic values become more important than constructional or functional ones, we as architects are often inclined to resort to scenographic expressions.
The scenographic is not to be confused with style. It can "wear" all eras and styles, but the clearly scenographic design is often the effect-seeking and the non-tectonic. Jeff Kipnis relates to this as the "imperative of greatness" and how technological innovation leads to increased tectonic and scenographic freedom.
Putting this discussion in a historical context is, in my opinion, very exciting. I suspect that we are more inclined to preserve our cultural heritage when it contains spectacular and eye-catching elements than when it bears traces of vernacular and more simplified architecture, which not infrequently could be categorized as tectonic.

Intention - as in the pupose of a building, park or urban context.
Means - the agent or the instrumentation who carries out the intension.
Outcome - the result once the design is fulfilled.

Tectonic - a design expression that shows the logical interaction between cause and effect.
Scenographic - as in non-tectonic and the room or facade as a whole.
Inovation - technical limitations that change over time.





Thesis questions

What is Scenographic Architecture in comparisons to Tectonic Architecture?

How can it be used in the setting of a neoclassical estate like Gunnebo?

How could I design a theatre in this context and bring this reasoning into a design process?

Method and process

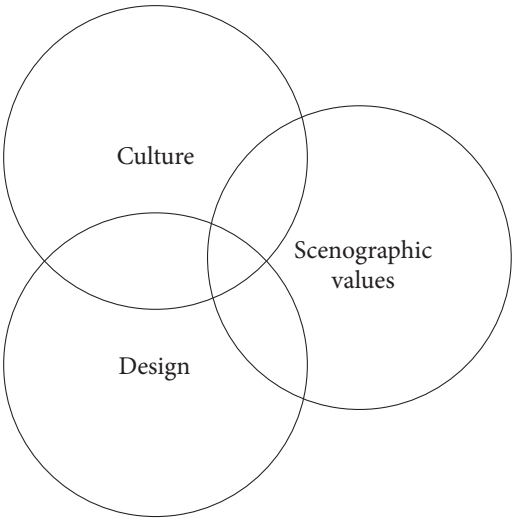
- Reflecting on theories regarding scenographic and tectonic expressions in architecture in the context of architectural history.
- Defining design guidelines to follow in regards to the theories and discussions on scenographic architecture vs tectonic.
- Use the rules laid out by the historical references presented in the material/drawings regarding theatres in general and Gunnebo/Carlberg archive drawings, to make drafts, intepretations and iterations of design proposals.
- Make iterations and investigations based on different techniques related to the references (both written and drawn). Evaluate and allow the outcome to push the method forward.
- Traditional and digital drawing combined with modelling.

Tools

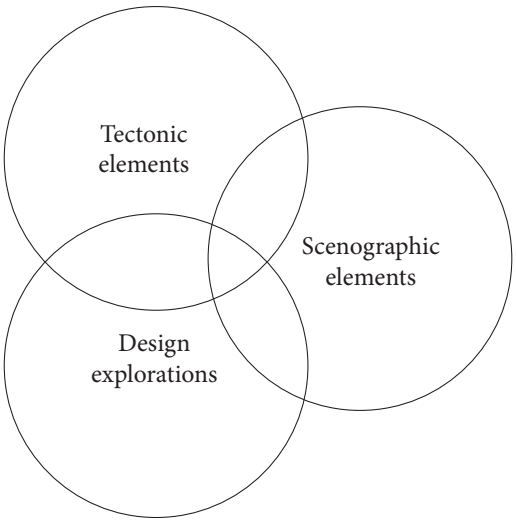
- Photography and photogrammetry to capture specific features of the site or in built references.
- Collage techniques to capture the level of detailing and level of execution in the existing architecture, original and reconstructed, to use as a working reference.
- Litterature studies to take part of the discussion on scenographic vs tectonic architecture.
- Litterature studies to design a theatre set in the context of Gunnebo House and the 18th century.

Strategies

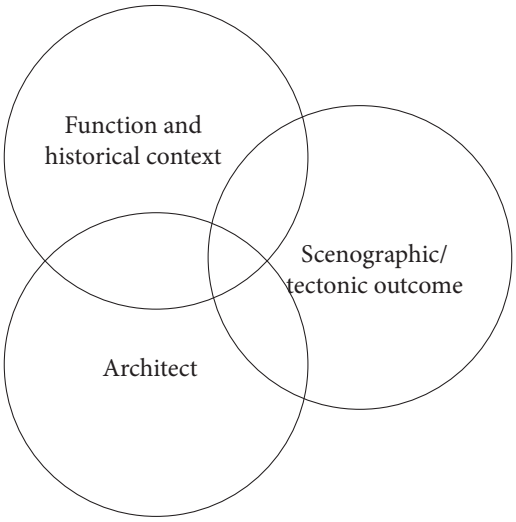
The Site as in a post Baroque estate - Design leads to a performance with the help of scenographic features, customs, culture, manifestation of wealth.



The Process as in designing a theatre - Notice tectonic and scenographic elements to add a new layer and reflect on function and design outcome.



The Building as in a scenographic project - architecture leads to a built event with the help of tectonic and scenographic elements, historical research and drawings.



CONTEXT

Antique Gothic Vitruvian Grotesque

The Tectonic and Scenographic space
- two principles for the classicist architecture

How does the shape of the classic expression relate to the space as a whole?

Classicism spans more than five hundred years in the history of architecture. From 15th century Florence to the first decades of the 20th century and is considered to have ancient architecture as a role model and source of inspiration. It is basically based on the grammar of the column order (the classical orders) and can be divided into five different orders with or without a pedestal (Günther 2006). However, this is no guarantee that the architectural elements are in the place they originally were meant to be and this affects the relationship between detail and whole. Due to the long span of time the classicism covers (around half a millennium), it undergoes extensive development within the framework of its own conditions. This leads to it accommodating more than one way of relating to composition and detail.
Depending on how one divides this extensive period, one can conclude a large number of different groups. Another way to tackle this diversity of stylistic expression, however, is to look at art and its division into styles.
According to Stefan Günther, art historians usually divide classicism into the following; Renaissance, Mannerism, Baroque, Neoclassicism, Empire and Historicism (with various subdivisions). In the book Klassicismens Interiörer, he divides the construction of the classical interior into two different principles – the tectonic and the scenographic. These are not tied to classicism in particular, but are to be seen as structures in relation to what is considered to be load-bearing, as in tectonic,

Claude Perrault, France 1676. A copper-plate version of the classical orders where the various parts could be read and memorized.

or effect-creating in relation to an imaginary perception of space, as in scenographic.
This approach can theoretically be seen as a development of the Swiss art historian Heinrich Wöfflin's (1864-1945) categorization into tectonic-painting (tectonic-pictoresque) and as a comment on the british architect Kenneth Frampton's (1930-) ideas on tectonic-scenographic architecture. In this context, Wölfflin has defined a decisive difference between linear-picturesque as a focus on the object in itself and the interest in the object in its context.
As an art historian, Wölfflin's conceptual world does not focus on the architectural context, but his principles are nevertheless applicable. Frampton, on the other hand, describes in his texts on Critical Regionalism an opposite relationship between the tectonic architecture and the randomly arranged architecture, the scenographic.
The challenge in this case is not to describe the tectonic, but to create a concept to illustrate the expected movement or expansion of an architectural design. Movement, change and the scenographically arranged as in the opposite of the tectonic. According to Günther the term scenographic can also be regarded as the creative force and willpower that governs and maintains space, building and landscape during the baroque phases of classicism. This is not a normative practice, but still useful for a practical implementation of how to design a space or structure. Nor is it a new way of trying to illustrate the architectural space. The terms tectonic and scenographic have in this sense shifted over time. During the late Baroque, this phenomenon was categorized as Antique versus Gothic, while Michelangelo's disciple Vasari named the difference in terms of Vitruvian versus Grotesque. These terms were mainly used to describe the detailed placement of the classical orders in rooms or facades, not to assess the overall impression of an architecturally composed complex.
Ever since the renaissance, people have been fascinated by the prerequisites of architectural tectonics and how in the ancient world materials could be mastered by carrying loads. The most obvious in this era of the science of geometry can be said to be the Roman arch. With architects such as Leon Battista Alberti (1404-1472) and Andrea Palladio (1508-1580), the idea of the five classical orders is growing in general application. This was mainly based on archaeological findings and Vitruvius' book Ten books on Architecture (30-20 BC). Despite this fact renaissance architects like Michelangelo (1475-1564) and Giulio Romano (1492-1546) get a freer picture of how the orders relate to each other, what we can call scenographic classicism is born.
This becomes the starting point for what we will later call Baroque and during this time architecture knows no limits in its relationship to the geometry of the five orders. Columns and pilasters with associated capitals and plinths can be furnished indefinitely as long as the overall effect is taken into account.
With this as a background, I want to point out that Gunnebo is not a Baroque facility, despite that it carries the strong language of the baroque scenography in how it is supposed to be experienced.
In my investigation, I have taken note of these scenographic elements and tried to interpret them into what I would like to call an echo of the baroque. When we refer to tectonics today, it does not have to be classicistic, on the contrary, it rarely is, we rather mean that a tectonic building is a building that clearly shows how it is composed and how it handles load and strength.

Architecture as a linguistic metaphor
John Summerson and The Classical Language of Architecture

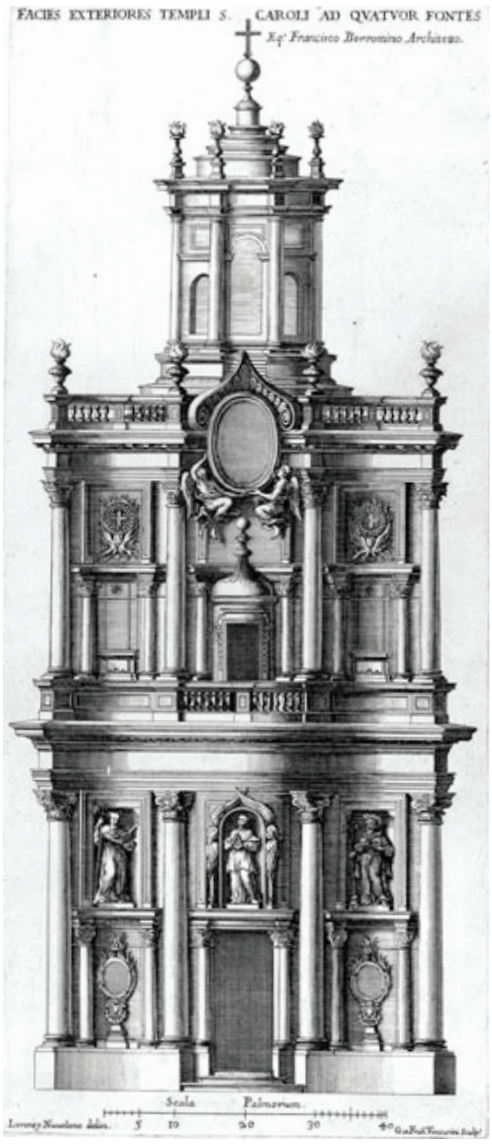
John Summerson (1904-1992) can be credited with popularizing the notion of scenographic architecture in his book The Classical Language of Architecture, where he attributed it to the baroque era. In his treatment of G. C. Ottavio Scamozzi's La Scala, Summerson showed how the Baroque theatrical scene was structured to shape an overall experience, with scenographic architecture serving to convey a sense of movement and heightened emotions.
As John Summerson describes the rise and birth of the Baroque the reference to the written and spoken language is according to my project very appropriate. He begins his explanation in Michelangelo's Medici Chapel in Florence (1519-24) and how Mannerism makes its way into the austere Renaissance. He explains: "Manerism means very much what we mean when we talk of a person being mannered– that is to say, affecting to imitate a type and in doing so showing an artificiality, an affectation of manner."
He emphasizes that Mannierism is not an architectural style, but rather a mood of a time. He believes that mannerism is not to be regarded as a "language" of its own, but rather adds color and enriches its vocabulary. In the same way, one could see the scenographic. The single word carries no meaning, but it is like in poetry the meaning of the beautiful phrase that counts.

Development of the tectonic concept
according to Gottfried Semper (1803-1879)

The term was first coined by 19th century architect Gottfried Semper in his essay "Style in the Technical and Tectonic Arts." He divided building into two components - scenographics, which is the ornamentation and visual impact of a structure, and tectonics, which is the structure and design of a structure itself. Tectonics are cohesively associated with formal, structural and material dynamics, while scenographic elements are concerned more with an emotional and dramatic narrative.
As for the historical uses of these two concepts, scenographic elements were more emphasized in temporal-based architectural styles such as baroque and neoclassical, where a complete building must reflect itself as an ornamental whole. Meanwhile, tectonics has been through a resurgence in modern architecture due to its emphasis in functionality and spatial awareness instead of the appearance.
Gottfried Semper was the most influential thinker to develop the idea of tectonic architecture. In his book Der Stil, Semper argued for the importance of structure in architecture, stating that it was the formative creative principle. He differentiated between form and ornament, insisting that form should take precedence in architectural design.

Michelangelo Buonarroti, The tomb of Lorenzo Medici, 1524-1534, marble, San Lorenzo church, Florence.

Ospedale degli Innocenti by Filippo Brunelleschi (1419, Florence)



San Carlo alle Quattro Fontane by Francesco Borromini (1646, Rome)

Wölfflin's historical concepts

The Swiss art theorist Heinrich Wölfflin (1864-1945) published the book "Kunstgeschichtliche Grundbegriffe" in 1915. In the book, Wölfflin launched ten concepts with which one can characterize the external features of works of art (both visual works of art and buildings). Based on these concepts, Wölfflin formulated a theory about the development of art. He claimed that if you placed two works whose date of creation was unknown next to each other, by testing them against the ten concepts, you would be able to determine which was the older and which was the younger. Although Wölfflin exaggerated the validity of his method, it must be stated that it works well at least when it comes to determining whether a certain work was created during the Renaissance period or belongs to the Baroque period (if the work was created roughly before or after c. 1600).

Wölfflin arranged the ten concepts in five pairs of opposites as in the arrangement below. The concepts are:

LINEAR	PICTURESQUE
SURFACE	DEPTH
CLOSED FORM	OPEN FORM
DIVERSITY	UNITY
CLARITY	AMBIGUITY

Madonna di Cardellino by Rafaello Sanzio (1505-1506, Florence)

Madonna dei Pellegrini by M.M. Caravaggio (1605-1606, Rome)

LINEAR means that all the sub-forms in a work are clearly demarcated from each other; the boundary between two sub-forms forms a clearly legible line (a drawing made with lines does not necessarily have to be linear).

A work is PICTURESQUE when the partial forms have fluid transitions between them. In linear works, one should be able to clearly distinguish between figure and background. In picturesque, the distinction between figure and ground can be unclear.

SURFACE in this context means that the viewer gets the idea of spatial depth by the room appearing to be layered so that all the layers are parallel to the main picture plane. You can clarify this for yourself by thinking of a theater stage, where the boards of the stage floor and the backdrops are all arranged parallel to the stage opening.

By DEPTH, Wölfflin means that the idea of spatial depth in an image arises through lines or shapes that are arranged obliquely in relation to the main image plane. (diagonally into the image space, like a zigzag road in a landscape). In works with plane-parallel layering, symmetrical arrangements are often present; in works with forms directed obliquely into the image space, asymmetric arrangements often occur.

CLOSED FORM means that the work within its physical boundaries (the image within its frame, sculptures and buildings within its outline) appears to be complete. The part shapes are not intersected by the frame or outline.

OPEN FORM occurs through cuts at the frame or through the use of incomplete partial forms. The viewer is enticed to complete the overcut forms in the work. Closed form tends to appear together with symmetrical form systems, open together with asymmetrical ones.

DIVERSITY we find a work in which we distinguish a variety of different, clearly separated sub-forms. For example, you can paint a tree by rendering a number of branches and even individual objects like leafs.

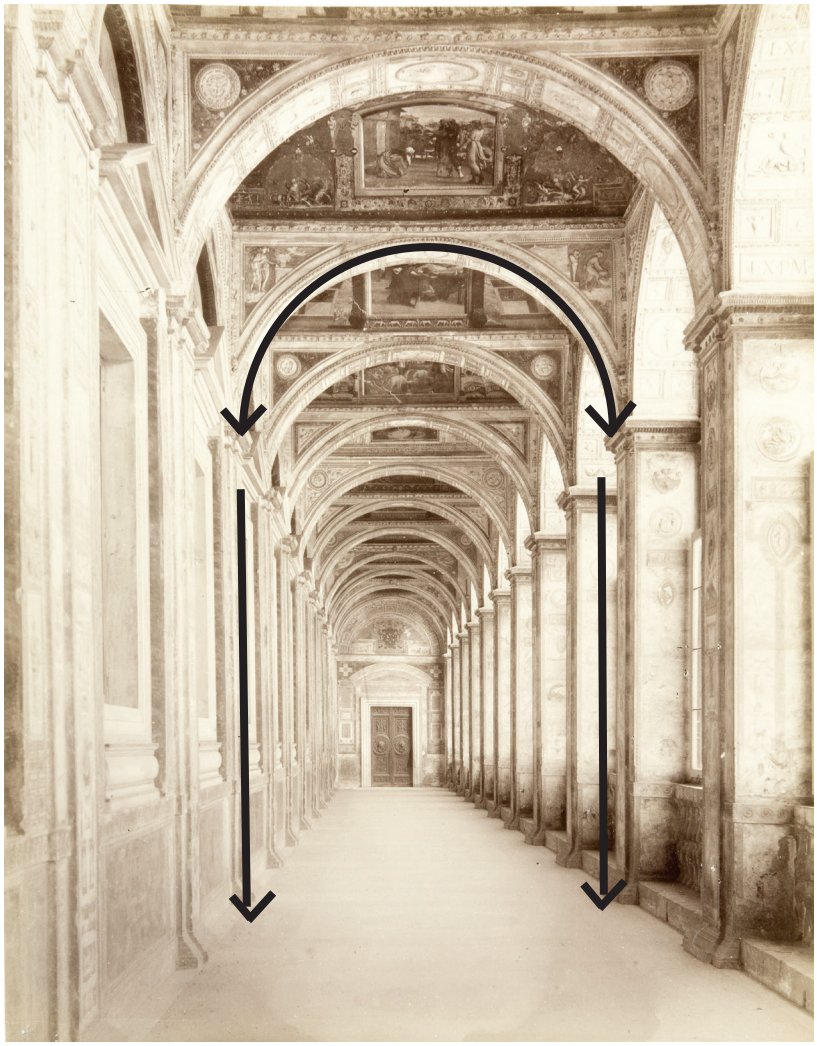
UNITY exists when we immediately think we feel a wholeness. You can e.g. with a spot of color and some shading create the impression of a whole tree. Note that diversity is not the same as plot, and that a work in which the parts are unified cannot claim to form an artistic whole because of this alone.

CLARITY immediately connects with diversity. The work immediately appears as overview, whereby symmetrical arrangement, triangle and circle composition, etc. can contribute to leading the viewer's gaze.

AMBIGUITY means that the viewer has to correct himself. The main thing in the work is perhaps pushed aside; minor things might be the first to catch the eye, but the viewer experiences the search for the main thing as something positive.

The tectonic space in Classicism – a stacked whole (according to Günther)

Typical of the tectonic room (or facade) is that its various parts have been stacked on top of each other with the same logic as an ancient temple built of stone.
Each component carries an other placed on top of it. A pedestal supports a column that supports a beam, etc. Sometimes the roof rests directly on the architrave of the column, but usually these are separated by a decorated molding. This frieze often carries a cornice molding and supports the coffered ceiling of the room. Similar as the order that can be seen in a roman temple. If you reverse the description and start from the load of the roof, you can see how the weight of the decorated ceiling is carried from ceiling to floor through bounded fields and geometric shapes such as window arches with circular segments and columns with verticals and horizontals geometrical segments.
The weight of the building mass is taken care of in a way that creates a harmoniously completed, well-balanced and static entity.



Loggia in the Vatican by Rafaello Sanzio, (1517-1519)

The scenographic space in Classicism - the compressed detail and the organically composed whole

The scenographic spatial principle could not exist without it having been preceded by the tectonic, since it is historically based on the five classical orders, but creates something new from these elements. It is important to point out that this development is gradual and many rooms and facades with scenographic features contain reminiscences of a tectonic structures. However, most often the column order is treated according to a different logic than in the original grammar. After 1650, most interiors were built without independent columns and only the most luxurious rooms were built with a classic arrangement and then usually with pilasters. The scenographic space is not made up of stacked parts that rest on each other in the same way as the tectonic space. For the creators of the scenographic room, there was no challenge in describing how the parts of the room are controlled by their weight, quite the opposite.
At the end of the Renaissance, architects and artists were fully occupied proving that they could overturn the classical rules of load and weight. Instead, the Baroque becomes a competition were ovals, ellipses, broken pediments and rolled up mouldings outshine each other which later ends in the most scenographic of the classicist styles – Rococo.
When describing the whole of a room, you usually start from an overall perspective where you combine all visible elements, but according to Günther, this whole change starts small. In the so-called base profile, a change occurs when it goes from being made up of a semi-circle to assuming a more semi-elliptical shape, as if it was subjected to pressure.
In Gunnebo's salon, one interpretation could be that the ceiling is exposed to pressure, while at the same time expressing a flexibility and creating the expectation of expanding upwards.

Gunnebo House by C.W. Carlberg, (1778-1796)

OPERA - a brief history

El Gran Teatro del Mundo (The Great Theatre of the World)

Is a play by the Spanish poet Calderón de la Barca and was first performed in 1645. In this comic drama he transferred the ancient image of the world as a play to his own time. In front of God and heaven, people appear as actors. The script they perform is their own life and the stage they play on is the world. This can be seen as a strong metaphor for how the Baroque takes over the Christian world and how scenographic and theatrical expressions spread from art to architecture and music.
The metaphor "the theatre of the world" pervades the entire Baroque, the cultural epoch that stretches from the end of the 16th century until the latter part of the 18th century.
It was a time of sharp contrasts with the Reformation spreading from Germany and a papacy that needed to reassert its supremacy. In France, Versailles was created and the European kings competed in manifesting their power and their direct connection to God.
Art and architecture played a dual role during this era. It would make an impression on the subjects and at the same time convey an ideological content. The authorities had the theatre's scenery designed to give the illusion of a perfect world. This can be clearly seen in the churches and palaces of this time. The Baroque is "a game...a search for effect. As far as its characters are concerned, the baroque is ultimately cold, even though the surface is full of movement and warmth. With all its richness of images in ever-new compositions, it still leaves a sense of emptiness behind" (B.Borngässer/R.Tomas, Könemann 1997). Despite the fact that Baroque did not define its contemporaries as precisely Baroque (Caldenby/Nygaard, Stockholm 2011), there was a criticism of the architectural expression. For example, the Italian writer Francesco Milizia already at the end of the 18th century complains about "the exaggeration of the bizarre, an excess of the ridiculous" and then mainly as a criticism of Borromini's facades in Rome.
When it comes to the theatre and the rise of opera during this era, it is an astonishing period with international celebrities such as Monteverdi, Händel and Scarlatti.

Perspective of the ideal royal palace, Paul Decker's Fürstlicher Baumeister (1711-16)

The Birth of the Operahouse

The presence of opera is not born overnight. In northern Italy, singers and instrumentalists have entertained in the noble salons since the Middle Ages (and before) and the performances gradually evolved into what are called *Intermedia* in Florence during late 1580s. Already during the Renaissance there were Florentine societies that tried to recreate the ancient tonal scale and reconstruct the Greek tragedy with musical instruments and song.
During the 16th and 17th centuries, Europe's royals and nobles were entertained with performances consisting of dance, music and song. Often for several hours with large meals and invited spectators. These could take place in the palace's great halls, or in a scenographic garden. It is only during the 17th century that the building we call the Opera House emerges.
In northern Europe, a new culture arises around the ballhouses and horse riding stables wich often are converted and rebuilt into Opera Theatres (Ulriksdals Castle, a.o.).

A public theatre

At the opening of the first theatre built specifically for opera purposes (Venice, San Cassiano, 1637), an opera company was imported from Rome. To the Cassiano Theatre (which unfortunately no longer exists), the wider, bourgeois audience was admitted by paying an entrance fee, in contrast to earlier practice, when opera performances were a privilege of the nobility. The company became profitable and in the following decades over ten opera houses were opened in Venice. The city thus became, alongside Rome and Naples, one of the 17th and 18th century's most vibrant opera centers. (András Batta, Opera, Cologne 1999)
In Sweden, the first opera houses were built about a hundred years later, with the Gustavian Opera House in Stockholm being by far the most prominent. This after the Stockholm's Ballhouse was considered too cramped and outdated, but it should be mentioned that they coexisted for a period. The Swedish Royal Opera (1773), the Royal Dramatic Theatre (1788) and the Royal Ballet (1773) originally had their premises in the Ballhouse. (Ny svensk teaterhistoria. 1, Teater före 1800, Gidlund, Hedemora, 2007)
Due to the Swedish king Gustavus III's great interest in the theatre, we still have three of the world's best-preserved baroque theatres in this country; Drottningholm, Ulriksdal and Gripsholm. The Gustavian Opera House in Stockholm was demolished in 1892

Demolition of Carl Fredrik Adelcrantz's Opera House in Stockholm, 1892

A theatre in the shape of a horseshoe

The ground layout of the Teatro Farnese in Parma shows an open Roman-style arena. Stage and audience spaces are not strictly separated from each other, something that later becomes a characteristic of the Baroque theatre. This took shape with the rebuilding of the Teatro dei SS. Giovanni e Paolo in Venice in 1654. Instead of the democratic stands of the classical amphitheater, the horseshoe shape is retained but loggias and balconies are introduced.
This was a new way to capitalize on the visitors with private boxes and different grading between standing guests on the orchestra and seated guests in the horseshoe shaped balconies. An opera visit during this time looked very different to what we imagine today. The performances were long and the audience loud. During a performance, food was served in the foyers and the more well-off guests brought their own chefs and kitchens to the theatre. (A.Batta, Opera, Cologne 1999). This building method became a model for the Italian opera house. Owning a box became a status symbol and wealthy patrician families passed these seats down for generations. The early opera house's orchestra was used both as a dance floor at festive balls and as standing seat during performances.

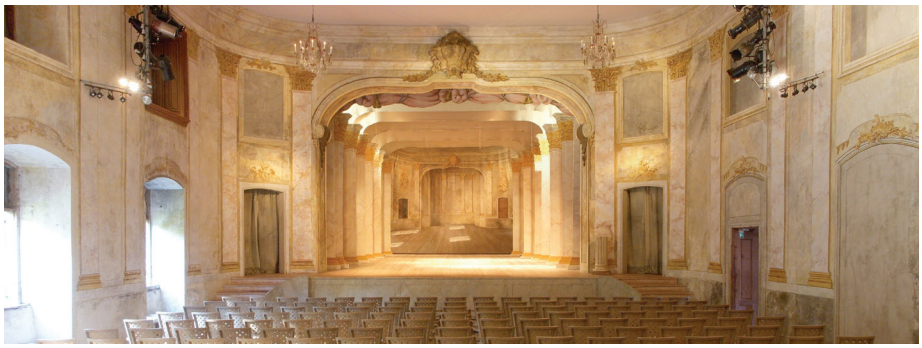
Teatro Farnese in Parma, Giovanni Battista Eleotti (1618)

Opéra Royal du Château de Versaille, Ange-Jacques Gabriel (1770)

Queen Lovisa Ulrika – her sister and son

Luise Ulrike 1720-1782 was the Queen of Sweden and the daughter of Frederick William I of Prussia. She was also the sister of Frederick II and Wilhelmine of Prussia and the mother of Gustavus III of Sweden and she had a major impact on bringing the opera theatre to Sweden. Ulriksdal's Castle Theatre and the Drottningholm Theatre are both the result of her big ambition. Her older sister built the Magravial Opera House in Bayreuth. King Gustavus III built the theatre at the Castle of Gripsholm.

Lovisa Ulrika of Prussia (1720 - 1782), Queen of Sweden



Salon and Proscenium at Ulriksdals Castle – Confidencen, Solna Sweden

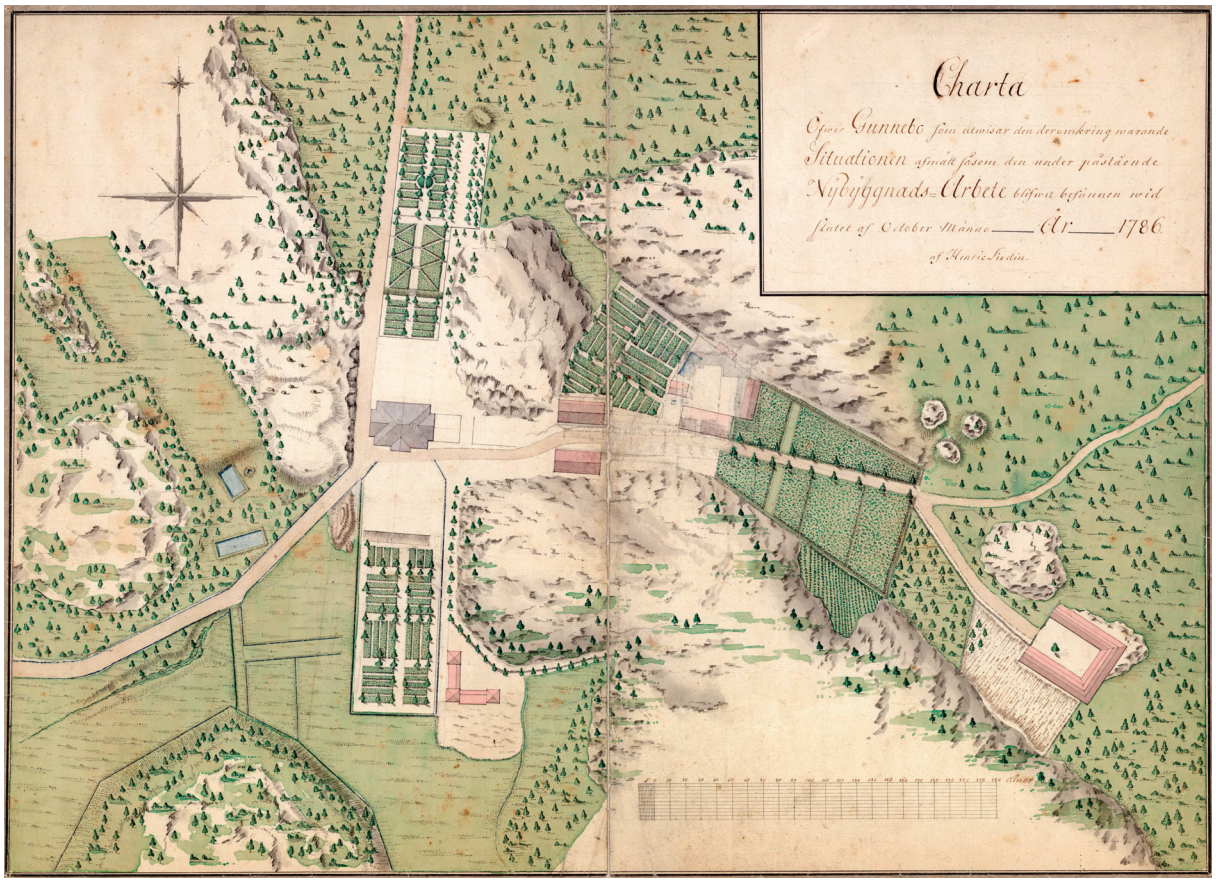
Wilhelmine of Prussia (1709 - 1758)

Salon at the Markgräfliches Opernhaus, Bayreuth Germany

Gustavus III of Sweden (1746 - 1792)

Proscenium at Gripsholm Castle, Mariefred, Sweden

THE SITE



The Site

Gunnebo House and Gardens (Gunnebo Slott och Trädgårdar) is located in a beautiful natural reserve in northeastern Mölndal just south of Gothenburg. In a wooded area on a hill between the scenic lakes Rådasjön and Stensjön lies a villa designed in 1778. What makes it unique is that the entire facility was designed by the same architect and that a major reconstruction project has taken place at Gunnebo since the 1990s. It was on behalf of merchant John Hall that the Gothenburg city architect Carl Wilhelm Carlberg in 1778 began the work on a neoclassical villa with associated French-style gardens, wings, orangery and greenhouses. The property was built starting 1782 and completed in 1796 and bears traces of Carlberg's *grand tour* in Italy, France and England. For a long time it was believed that the villa was influenced by British originals, but recently everything points to Carlberg's greatest source of inspiration being French. The main building is a timber structure clad in wood paneling painted a sandy yellow color to mimic French sandstone. Park and Corps-de-logis have undergone several changes since completion and with the project "Gunnebo back to the 18th century" a reconstruction work has contributed with several new buildings as well as the reconstruction of lost parts of the facility. The place is a popular tourist destination with beautiful promenades and a nice cafe, and in the summer there are theatre activities in the park. The villa is often the location for weddings, conferences, photo and film shoots.
In addition to the homogeneous and well-executed reconstruction, it should be mentioned that properties from this era are rare in Western Sweden.

Corps-de-Logis

The main building consists of a total of three floors and an attic. The house is located on top of a hill and spreads out in the south like a souterrain house. The location of the villa is quite logic considering that this used to be the plot of a large farm house dating back to the 16th century and that in the callar is a well supplied with water from a natural spring. In the basement, Carlberg placed the big kitchen with room for maids and servants as well as a more elegant entrance under the large exterior staircase.
The entrance floor is completely created for guests and social evemts. It contains a one-story suite with an oval entrance, salon, sitting room, dining room and Mrs. Hall's bedroom. The large salon forms the hub of the entire facility and its ceiling height extends over two floors, which also makes Gunnebo unique for the West Swedish 18th century.
From the big salon you can enjoy the south garden via a large terrace and the room is decorated in French neoclassicism with statues and stucco work by the Italian plasterer Gioacchino Frulli (1766-1801). This is the property's largest room and, together with the gardens, constitutes Gunnebo's most striking space.
Upstairs are simpler bedrooms for guests which can be reached via two separate staircases. The layout is horseshoe-shaped to accommodate the upper part of the salon.

The north facade
The northern facade is two storeys high and consists of two wing-like projections which are connected by a loggia with columns in colossal order. This is the building's main entrance and here we are met by three French entrance doors. A frieze with festoons rests on the columns. In the upper shadow of the loggia, we find stylized balconies with an upper foyer behind them on the guest floor.

The west facade
This facade is dominated by a balcony and a giant slatted window. Central to this part of the house runs the internal grand staircase. Behind the gray wooden doors on the ground floor, you can reach the house's built-in well.

The south facade
This facade is the more private with direct access to the sunny part of the garden. Centrally, a risalite can be seen crowned with a classical pediment. In order to create a harmonious rhythm in this facade, the windows of the second floor have been replaced by a relief depicting peasant chores. This frieze is cast in lead. Outside the arched French windows is a terrace, below it an arcade where you can drive a horse and carriage for weather-protected entrance.

The east facade
This facade, like the west facade, consists of a centrally placed ricalite which, at the top, ends with a classical temple theme. This facade is also crowned by a lunette window placed in the middle of the pediment. Mrs. Hall's wardrobe has a built-in false window.

The wings

The original wings were destroyed by fire in the 19th century, but are today rebuilt according to Carlberg's drawings. Today, it houses a souvenir shop, a study room and a small conference room as well as staff quarters. Originally this was the place for horses and carriages with accommodation for the coachman and servants.

The orangery

It has long been known that Gunnebo's absolute pride was its orangery. Tropical plants were collected in this building, and above all different kinds of citrus. During the 18th century, this was the absolute luxury and being able to offer bergamot, oranges or even pineapples could today be compared to the finest Russian caviar. In summer, the trees had to be left outside for pollination, but to protect the precious plants from frost, orangeries were built and were heated during winter. In Gunnebo's orangery, there are several masonry heaters and a smaller residence for the gardener or orangery caretaker. It should be emphasized that Gunnebo Castle is primarily intended as a summer house.

The original orangery was neglected during the 19th century and was finally demolished to be replaced by a simpler greenhouse. Since 2013, the reconstruction of Carlberg's orangery has been under the direction of the architect Stefan Günther. The building has been rebuilt using old craftsmanship methods and in the left tower there is a garden grotto. The official inauguration took place in the summer of 2022, but several wood carvings are missing before the building is completely finished.

The greenhouse

The greenhouse is the only building that lacks original blueprints in the reconstruction of Gunnebo. However, there are some sketches and drawings preserved and it is known today that the house was originally longer as it was flanked by smaller conservatories. This was a social building (just like the orangery) and the house's location on a raised stone terrace shows that it was once a lavish and highly prioritized place in the compound.

This building carries functional and practical attributes with large greenhouse windows fitted with reflectors. This is to guide the low sunlight down over the cultivation beds that rest below. The first years the house was white, but today it has been painted in the same palette as the main building and wings. With its austere facade, Gunnebo's greenhouse makes a modern impression on the visitor and the building's primary function is clearly shown in the facade. This house is creating its own hierarchy over the utility and kitchen gardens.

Park and garden

The salon
This room is the hub of the entire facility. With double ceiling height and richly decorated walls, this space takes up almost a third of the villa's total volume. The walls are mirror-clad flanked by pilasters and carvings. Double doors lead to the other rooms on the ground floor and facing the south park are three French windows opening onto a limestone covered terrace. Both the ceiling and the interior of the room are decorated with Frulli's plasterwork.

The dining room
The dining room is located in the western part of the room suite and looks rather small, but is sized for 25 seated guests. Adjacent to this is a pantry with crockery and linen storage. In this part, in the 18th century, drinking water could be pumped up directly from the underlying well. On the wall facing the great hall is a tiled stove with a built-in plate heater.

The main entrance
The oval entrance is accessed from the north side and takes the visitor straight into the salon. In each weather there are niches with statues of Frulli.
Alongside this public entrance is a private entrance for both Mr Hall and Mrs Hall.

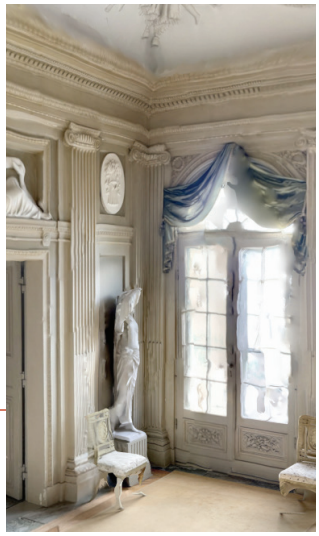
The sittning room
On the east side of the great hall is a room for coffee, punch and board games. This part of the suite adjoins Mrs. Hall's bedchamber which, according to the French manner, is a semi-public room with a bed canopy and richly ornate tiled stoves.

Detail of the salon, photogrammetry.

The east wall of the salon, collage of various original drawings and interior photographs.

Tiled stove in dining room.

Reception rooms of the Corps-de-logis, photogrammetry.

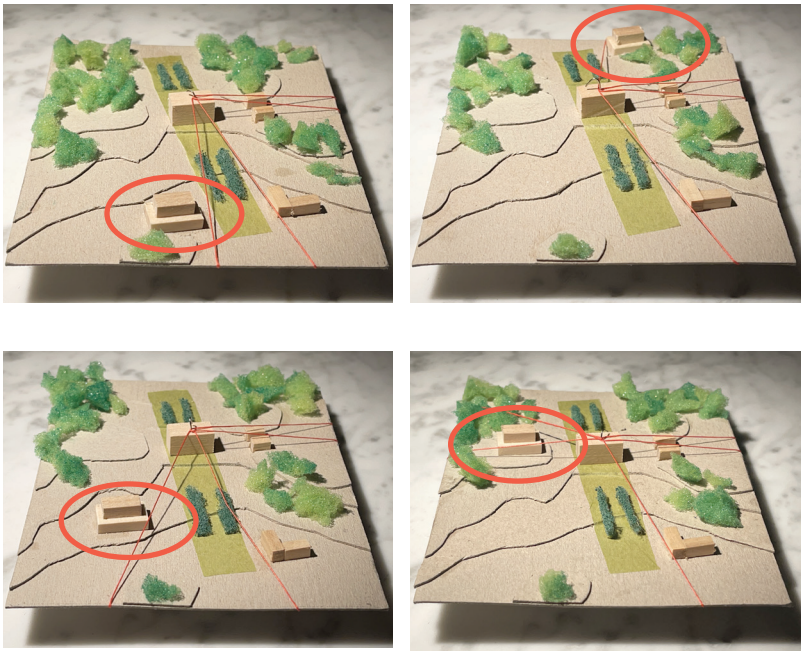


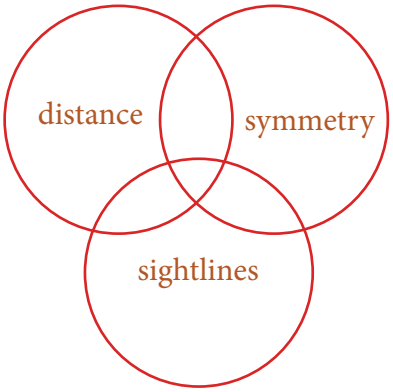
Detail of the salon, photogrammetry.

Bed with canopy in Mrs. Hall's bedchamber

Placing a Theatre

In order to find the right location for an addition such as a theater, I have started from the facility's various axes and viewing angles. When I interpret Carlberg's plan, I see that everything in the arrangement starts from the main building's large salon. In a symmetrical and well-balanced system, the garden and terraces spread out as an extension of the interior.
The house is at the top of the architectural hierarchy, and it is therefore of great importance that a theatre building is arranged in such a way that landscape and buildings maintain their mutual relationship. An addition cannot stand above the scenographic starting point, but must follow the predetermined script of how one should experience Gunnebo as a guest.
The volume of the building would have to be adapted so that it relates to the volume of the castle and the symmetry of the French garden.





Landscape and Garden

Experiments with conceptual models of landscape and axiality. How a newly added volume can relate to existing hierarchy and historical context.

Symmetry - how the central axis of the garden creates mirrored motifs towards the castle.

Sight lines - from the castle's great salon, executive floor, terraces and connected parterres.

Distance - to the main building and other buildings such as the orangery and wings.

(**Topography** - flat and accessible enough to accommodate a theater building.)

Distance - to the main building and other buildings such as the orangery and wings.

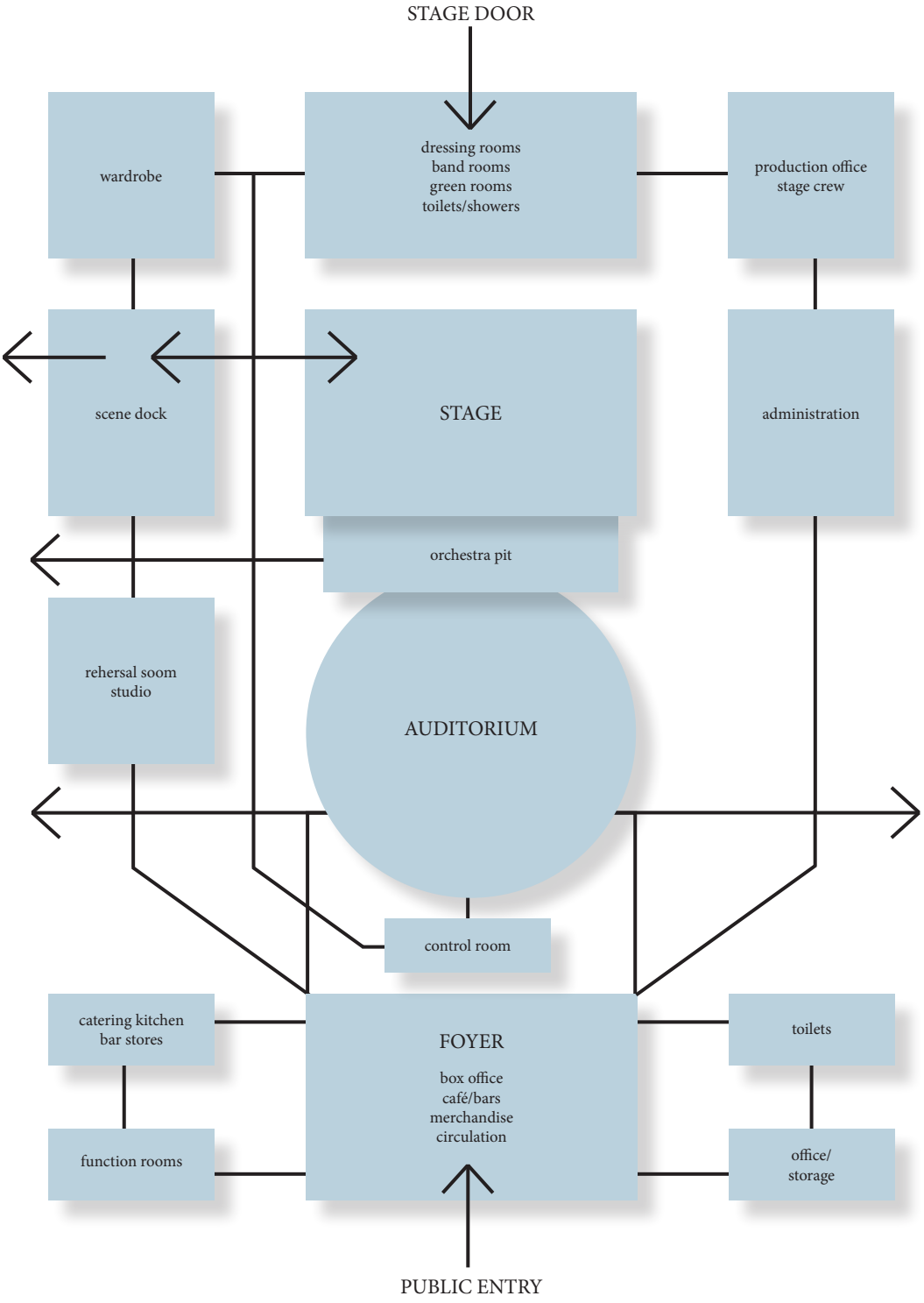
With these parameters in mind and the fact that the newly reconstructed orangery creates an asymmetry in the otherwise completely symmetrical south garden, I have chosen to place the new building as a panding on the west side of the central axis. Since the elevation descends towards the south, it still creates an open view to the south and the linden alley, which today ends in a shrubbery, getting a natural extension to the theater's intended entrance.

Site suggestion just south of the main building to mirror the orangery and maintain the symmetry of the south garden.

DESIGN PROPOSAL

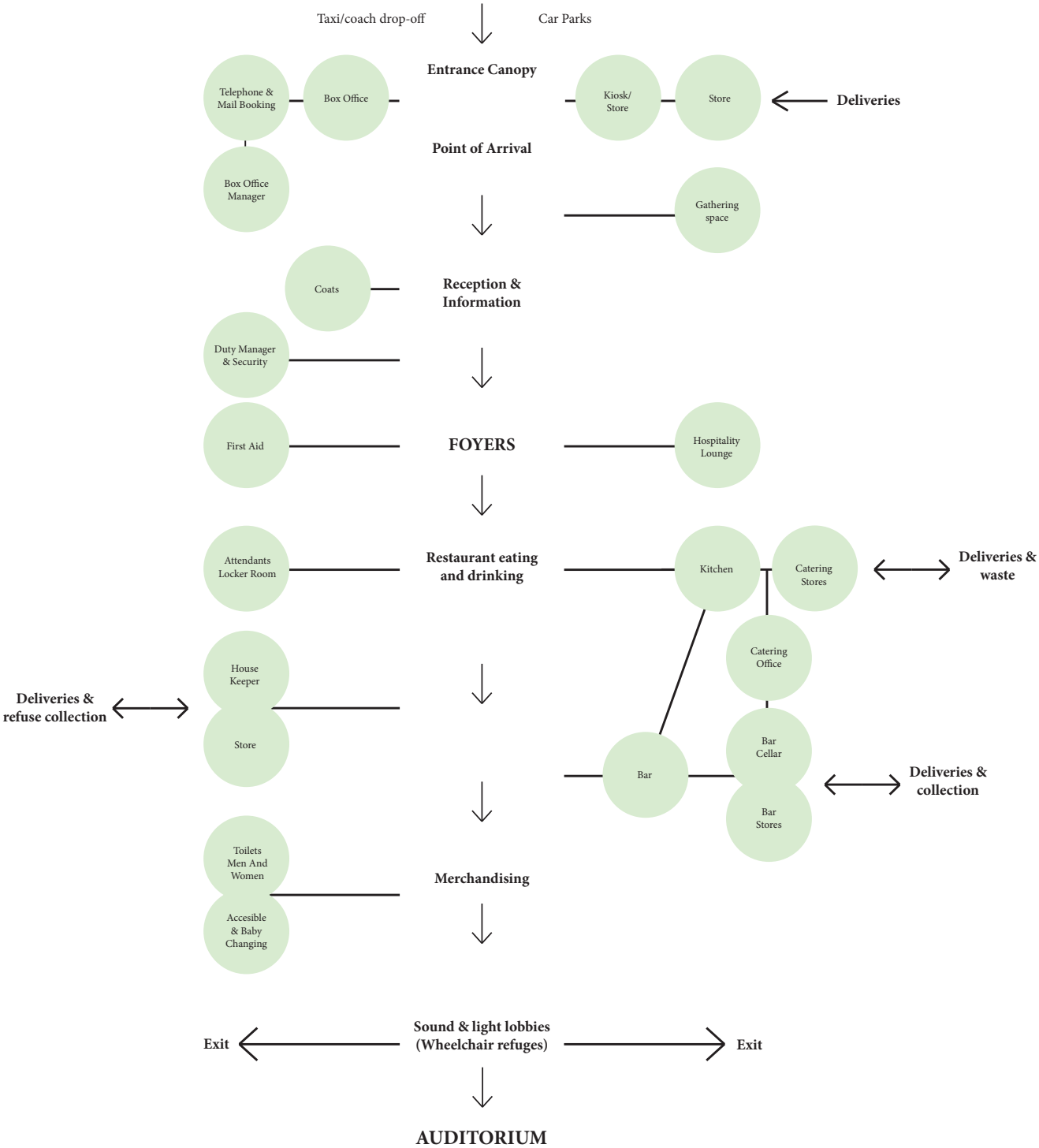
Planning the building

The theatre consist of several different elements that should be organised into a coherent architectural whole. It is a **public building** in the front, a semi i**ndustrial production facility** at the back , with an **auditorium and stage** at its centre, usually an acoustically sealed space, often of considerable volume



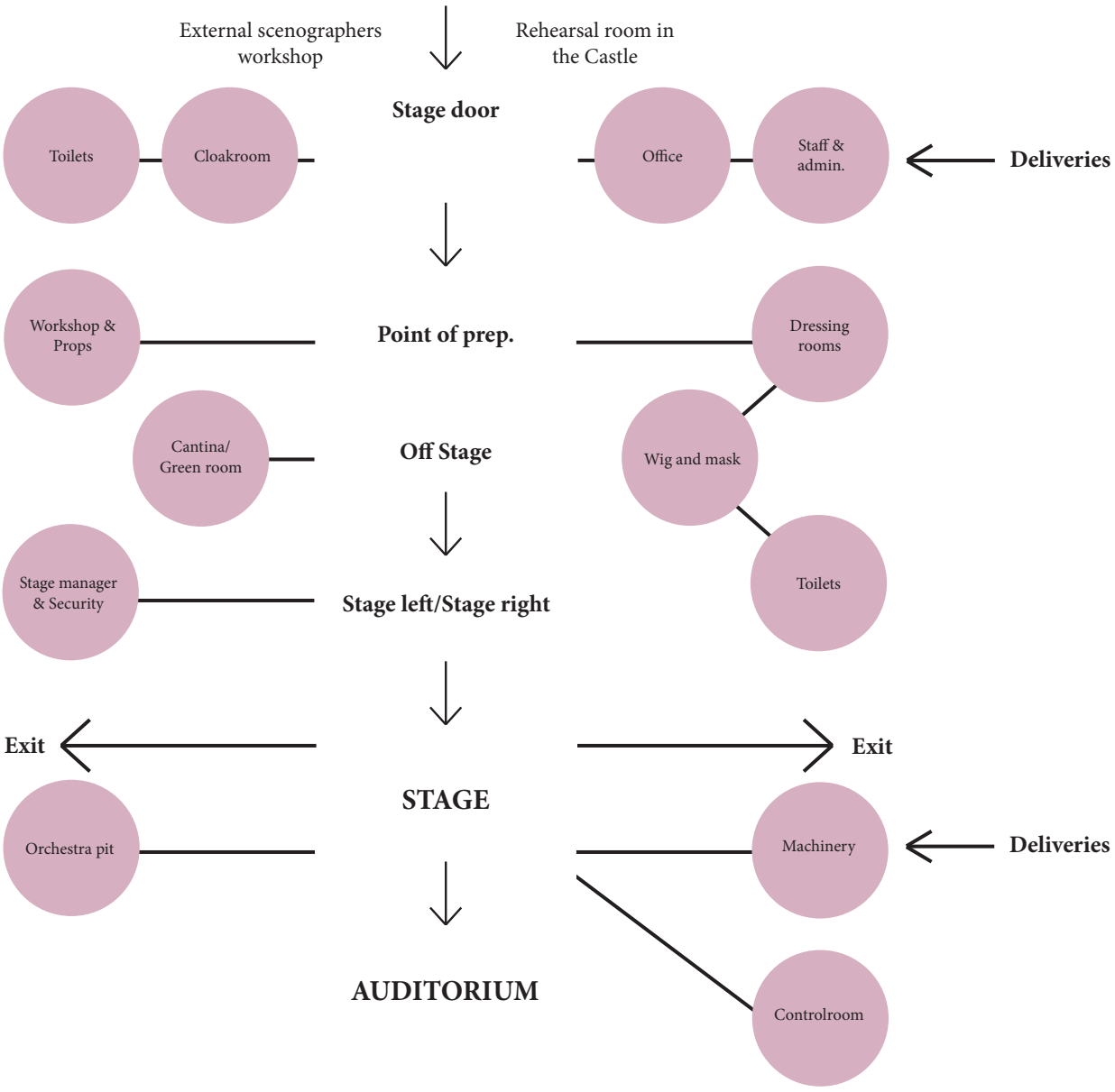
Front of house

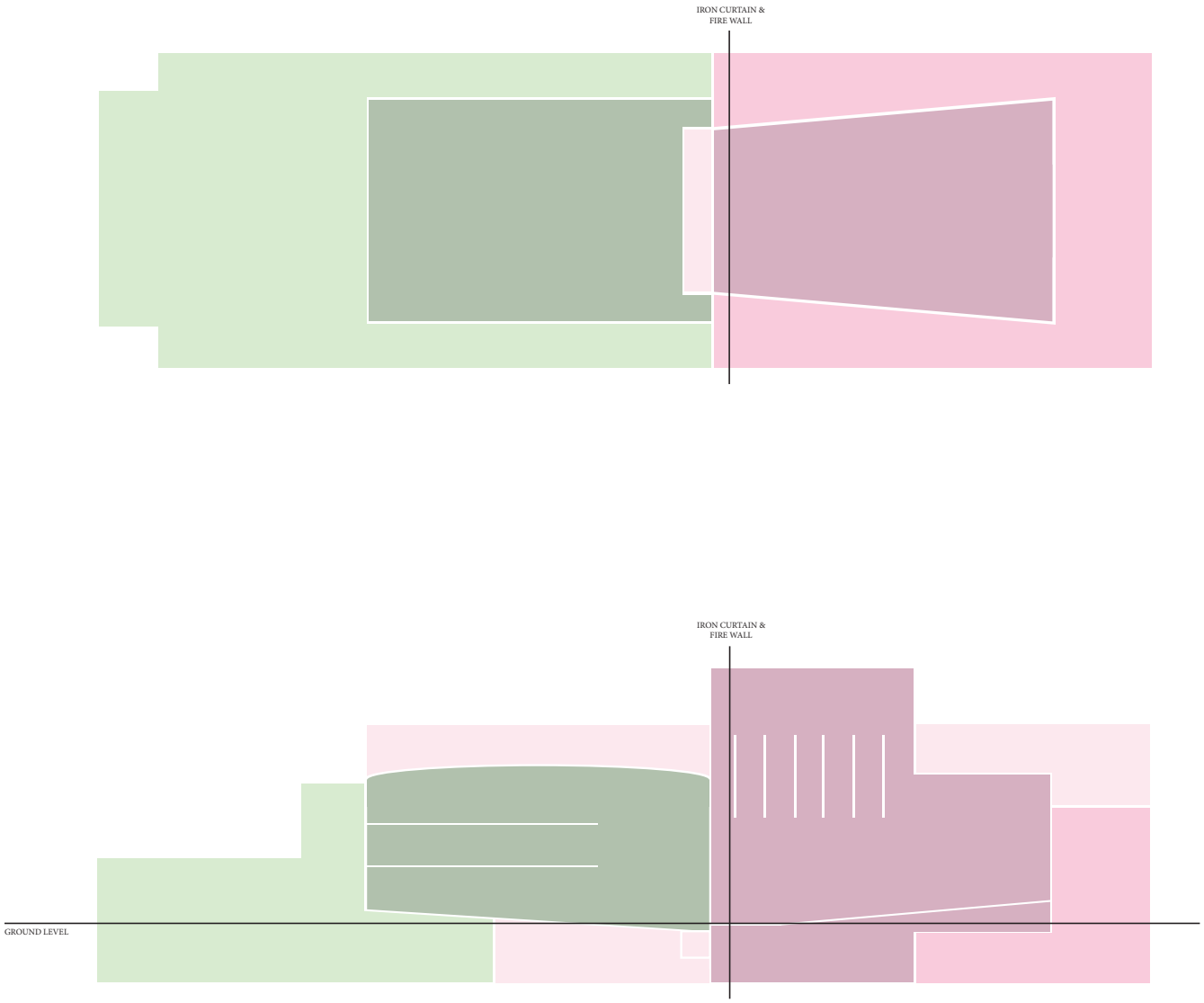
The theatrical experience commences upon arrival at the theatre. Routes from car park and pedestrian walkways through the French garden passing the castle to the main entrance need to create a sense of arrival while taking account of safety and accessibility requirements.



Back stage (Back of house)

The part of the theatre to which the public do not normally have access. In this part, technicians, service personnel come together with actors and musicians. Normally, each category of staff has its own flow chart, but since this theater is small in scale, the staff groups will have to co-exist.





AUDITORIUM

PUBLIC CIRCULATION

WORKING STAGE

BACKSTAGE AREA

SERVICE ROOMS / PIT ORCHESTRA

The Building
Definition
Theatre, Opera, Concerts, Lectures, Conferences, Seminars, Weddings, Baptisms and funerals (?).

Basic Requirements
Stage, Auditorium, Orchestra pit, Foyer, Small catering and box office, Toilets, Audience wardrobe, Stage machinery, Changing room, Costume, Mask- and Wig shop.

Optional Requirements
Outdoor stage, Workshop, Rehearsal room, front staff wardrobe, Outdoor seating foyer...

Security Aspects
Evacuation, Fire safety, Fall protection, Hanging stage load, stage Lighting, Danger of crushing, Theft/Burglary.

Heating and Energy
Heat pump, tile stoves, electricity, candles, manpower and possibly horse-driven stage machinery(?)

Building Material Framework
Natural stone plinth, timber, truss construction in pine with band-folded sheet metal on wooden panel. Outer casing made of glass or acrylic (bent sheet metal or possibly textile/screened metal).

Stage
Floor, under and overstage machinery wooden trusses and panels with plasterboard, and iron curtain.

Auditorium
Wooden floors, terraces, balustrades and balconies, Plafond in canvas, upholstered furniture and wooden benches, Proscenium, Cornices, Pilasters and Columns in wood and papier mache(?)

Entrance and Foyers
Floors in brick and patterned pine, Interior walls in timber (whitewashed), Green-glazed tile stoves, Outer walls in glass or textile(?)

Ventilation in auditorium and stage
Optimum would have been to be able to create a sufficiently large air exchange with the help of self-drafting.

Ventilation toilets and kitchen
Negative pressure generated exhaust air with ventilation room located in the basement.

Area
Footprint 18x35m (630 sq.m.), 1 cellar, 2 floors (public) 4 floors (staff space)

Front of house
Footprint 18x21m (378 sq.m.)

Foyer
420 sq.m. on 2 floors (staircase not subtracted)

Auditorium
168 sq.m. + 18 sq.m. balconies

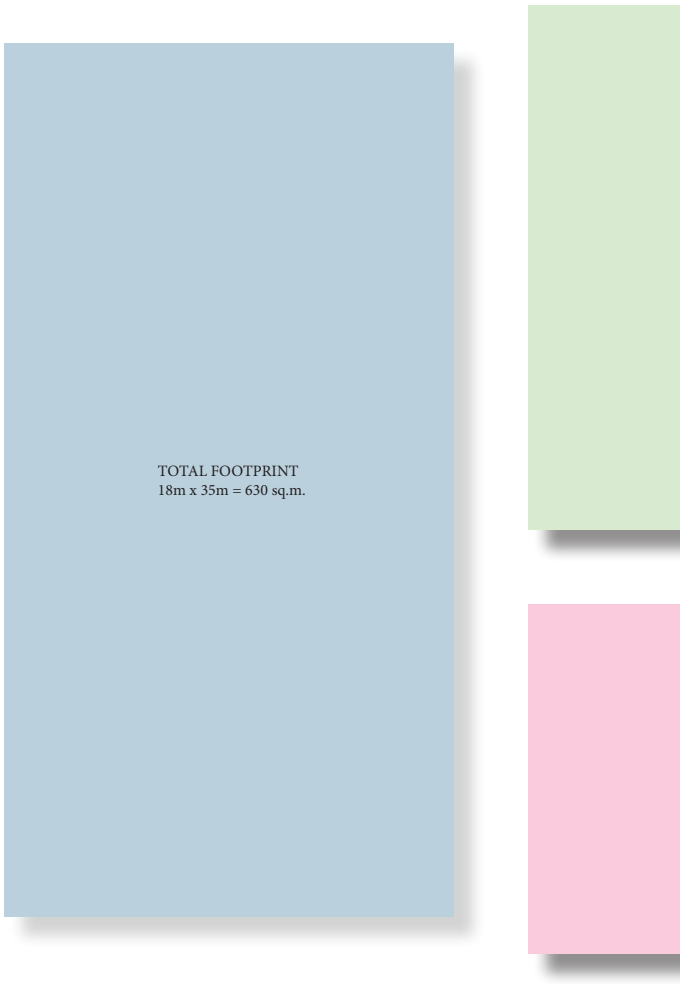
Back of house
Footprint 18x14 (252 sq.m.)

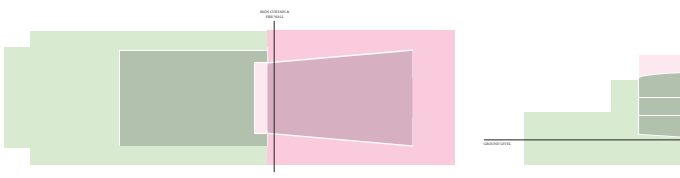
Back stage
528 sq.m. on 4 floors (staircase not subtracted)

Service / staff
approx. 250 sq.m.

Stage floor inc. Proscenum
120 sq.m.

Stage Machinery
120 sq.m on 2 floors





OUTDOOR DINING/
AMPHITHEATRE (?)
approx. 250 sq.m.

FRONT OF HOUSE
18m x 21m = 378 sq.m.

FOYER
2 x 210 sq,m.
= 420 sq.m.

AUDITORIUM
168 sq,m.

BALCONIES
18 sq,m.

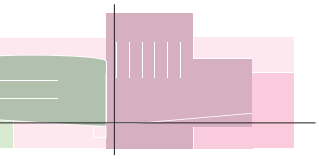
BACK OF HOUSE
18m x 14m = 252 sq.m.

BACK STAGE
4 x 132 sq,m.
= 528 sq.m.

STAGE
120 sq,m.

MACHINERY
2 x 60 sq,m.
= 120 sq.m.

SERVICE FACILITIES
approx. 250 sq.m.



Design work in six steps

1 A fusion of the buildings on the site, orangery and main building. Hand sketch and watercolors.

2 I've tried to grasp tectonic parts of the facility and then mainly window construction and design in the orangery and greenhouse. This in combination with the 18th-century theatre's stage house and scale.
Taking note of and designing trusses (Adelcrantz) to get free working height above the stage and auditorium.

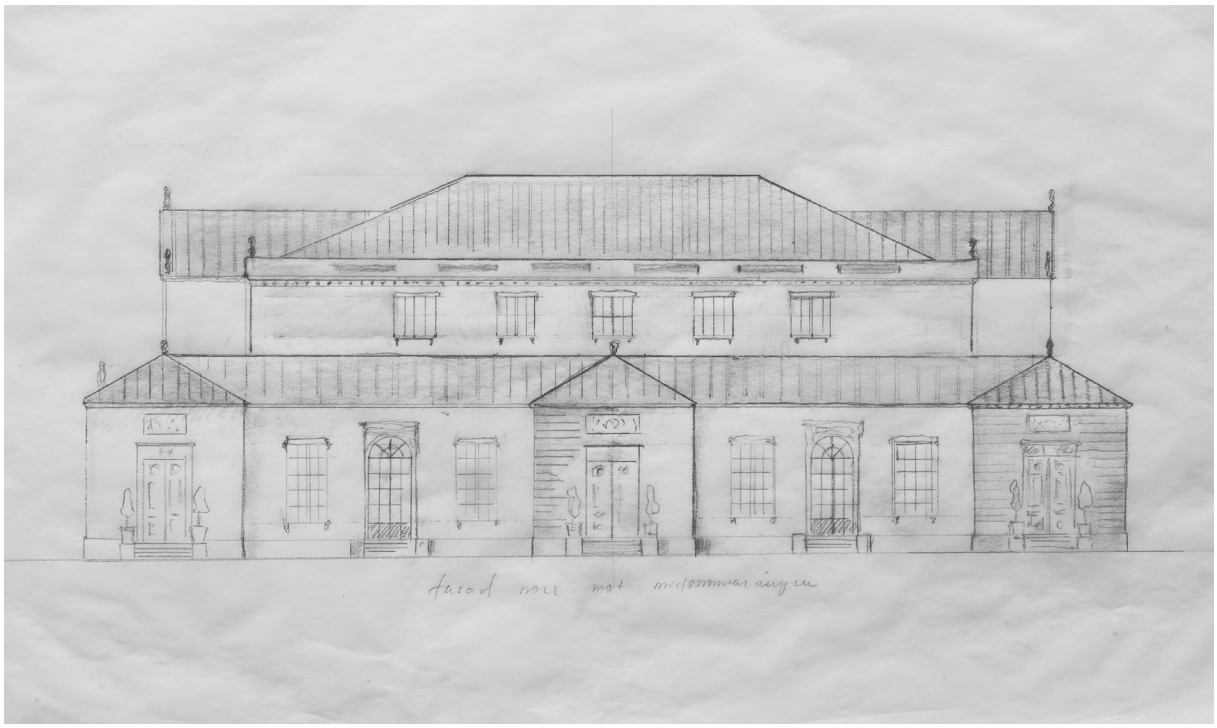
3 Turn the exterior inward in a mannerist way (San Lorenzo's new chapel) and create a kinship with the rest of the facility.

4 Exaggerate Carlberg's window construction to let light into foyers and to be able to use natural daylight on stage.

5 Be inspired by contemporary scenographic expressions such as in the National Museum of Qatar by Koichi Takada Architects and complement the postwork with CL wood or shape-cut timber.

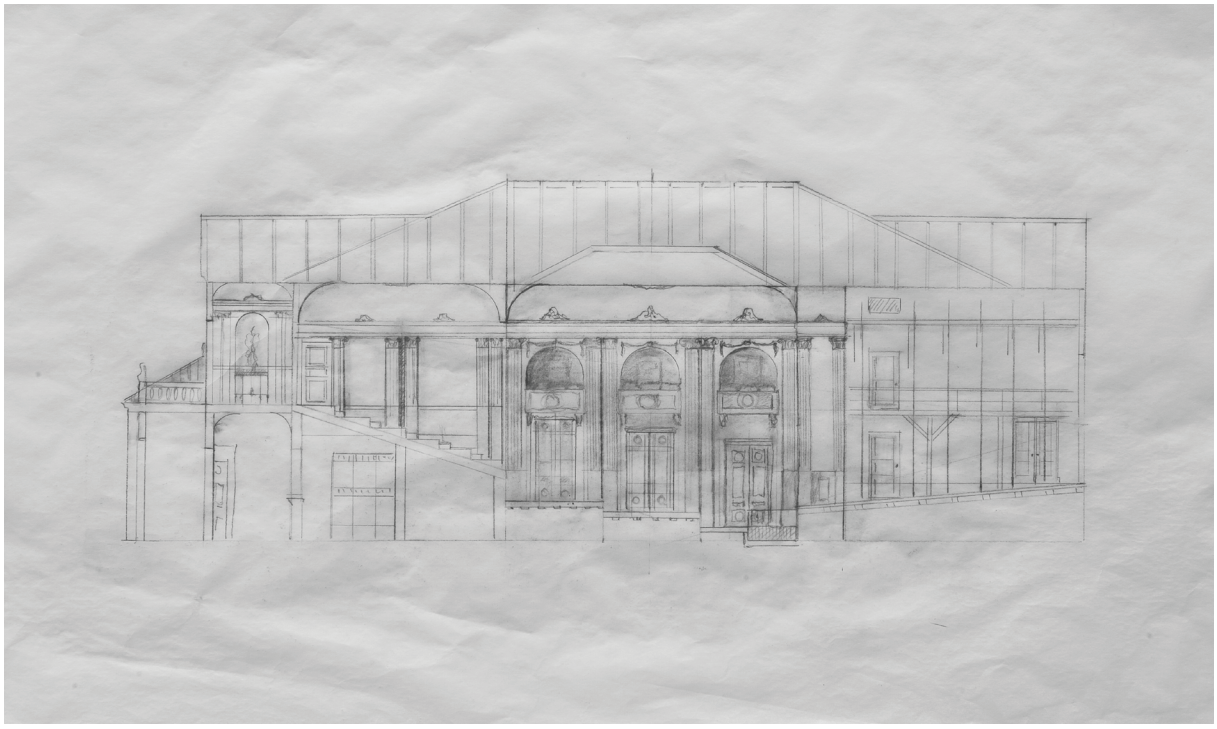
6 Using a sketch model to clearly show how tectonics can become a container.
Design using a physical model to address the issue of tectonics and scenographic expression

Phase 1. The eastern facade
Pencil drawing of facade with ground floor inspired by the orangery and auditorium/stage house by Crops-de-logis.

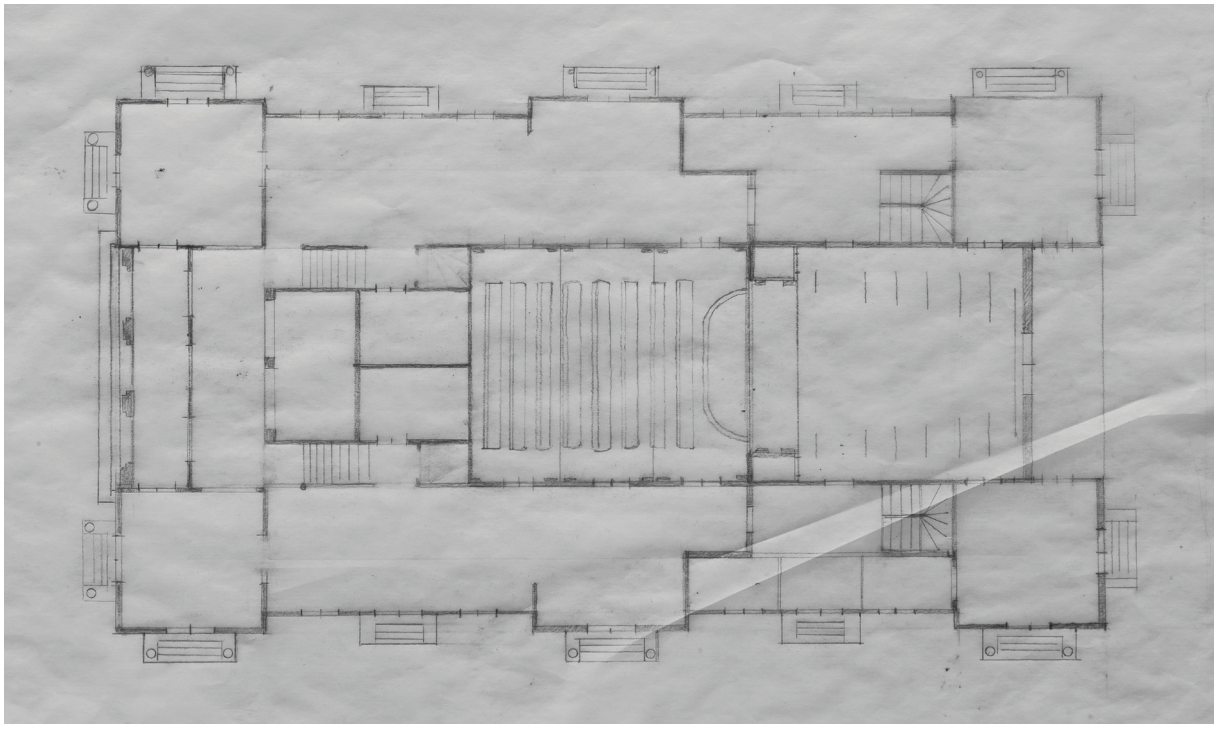


Phase 1. The southern facade
With a timbered house body in the center and foyers and back-stage as a collar around the center.

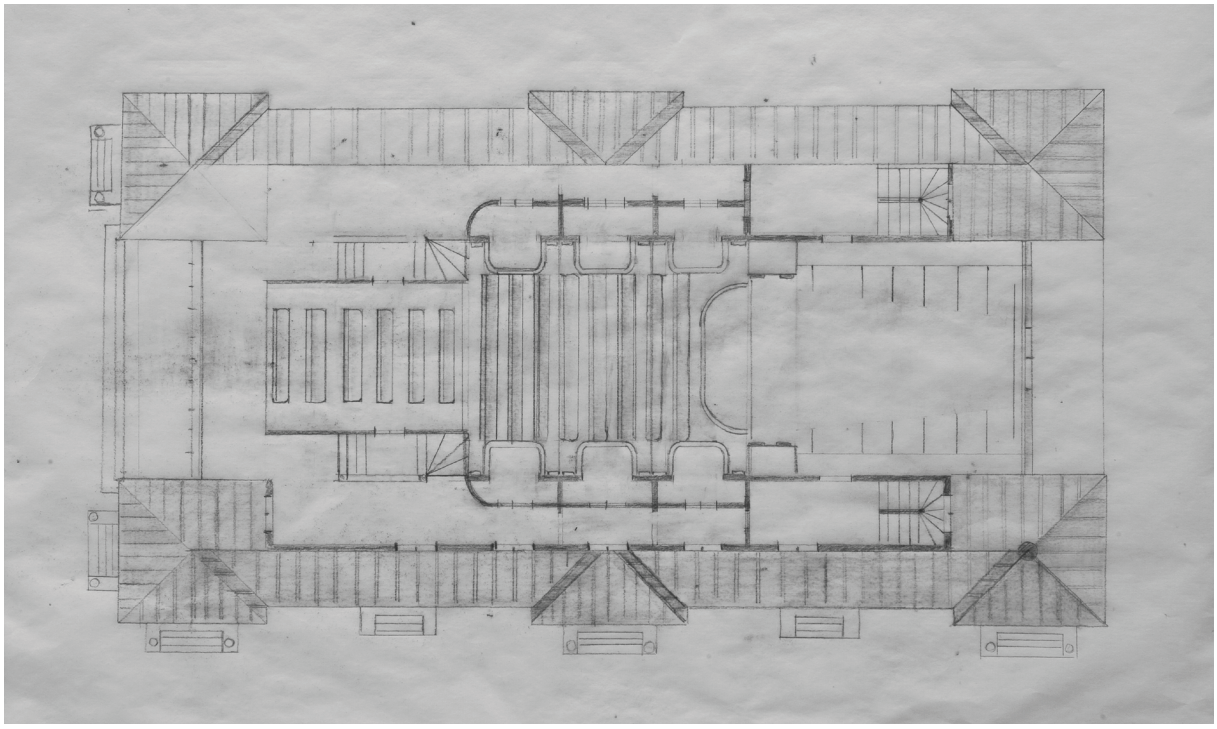
Phase 1. Interior auditorium, watercolor.
Elements such as pilasters and prisms inspired by the main building's salon and Carlberg's interior drawings.



Phase 1. Interior section auditorium, stage and foyer, pencil.
Elements such as pilasters and prisms inspired by the main building's salon and Carlberg's interior drawings.



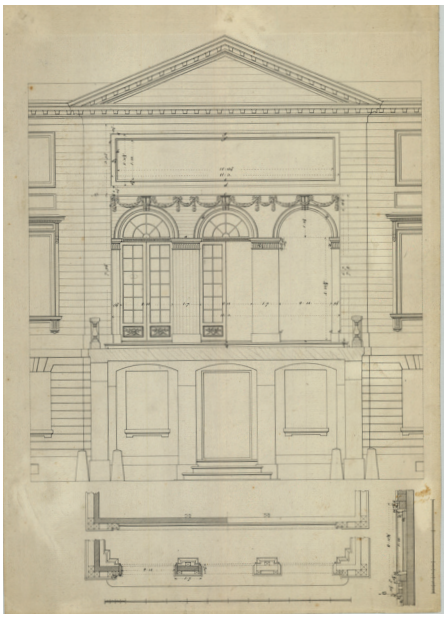
Phase 1. Floor plan, pencil
Ground floor with layout of auditorium and stage house.

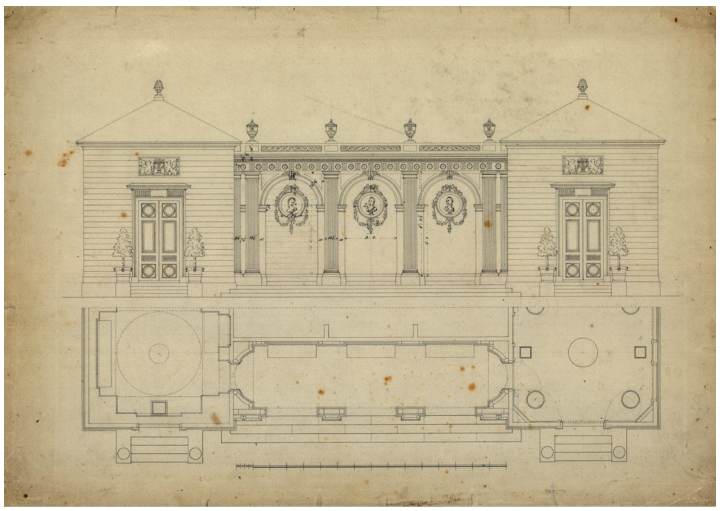


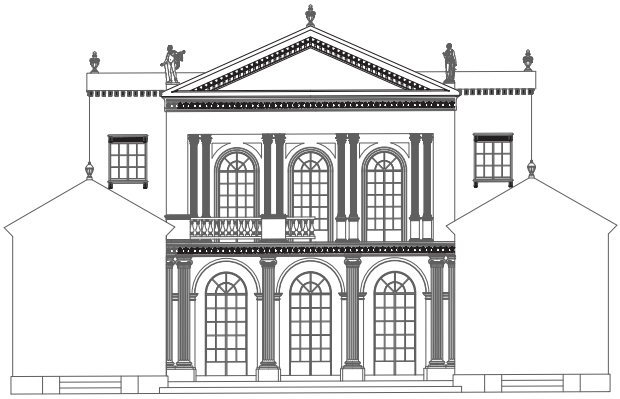
Phase 1. Floor plan, pencil
2nd floor with layout of auditorium and stage house, roof.

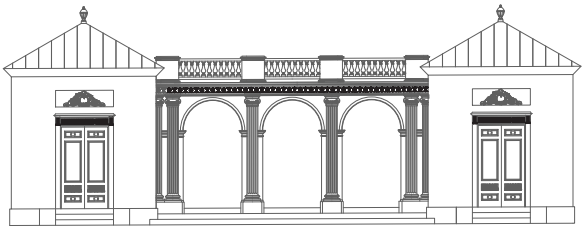
Phase 1. Proscenium, watercolor
Section with foyers and balconies.

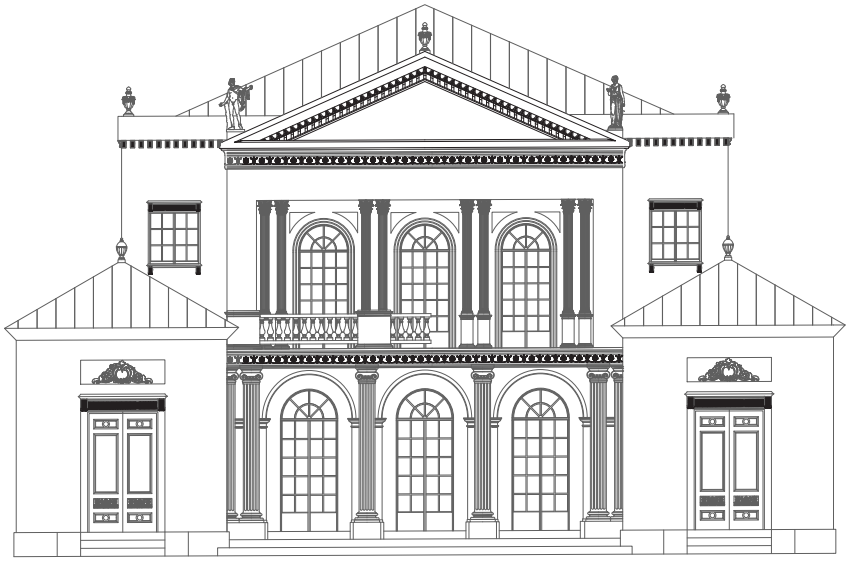
Phase 1. Detail study, watercolor columns and pilasters, double doors.

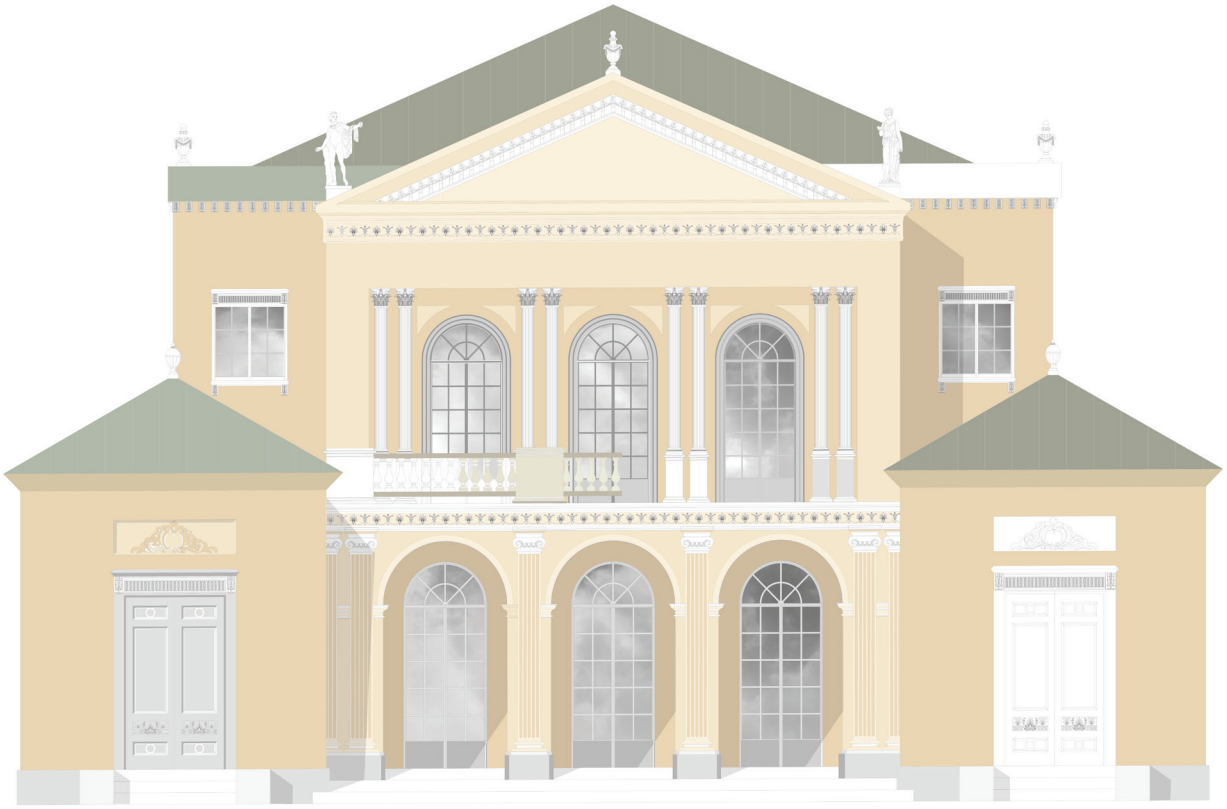


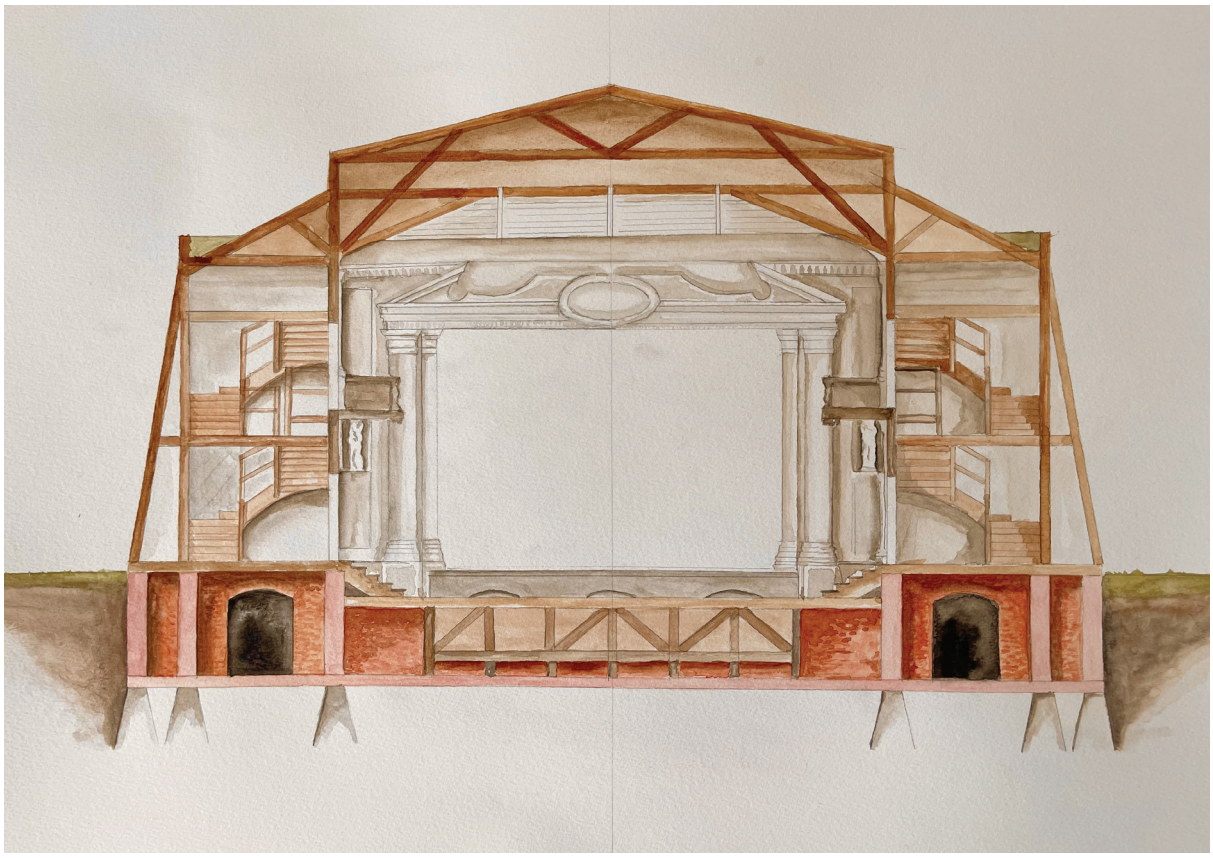




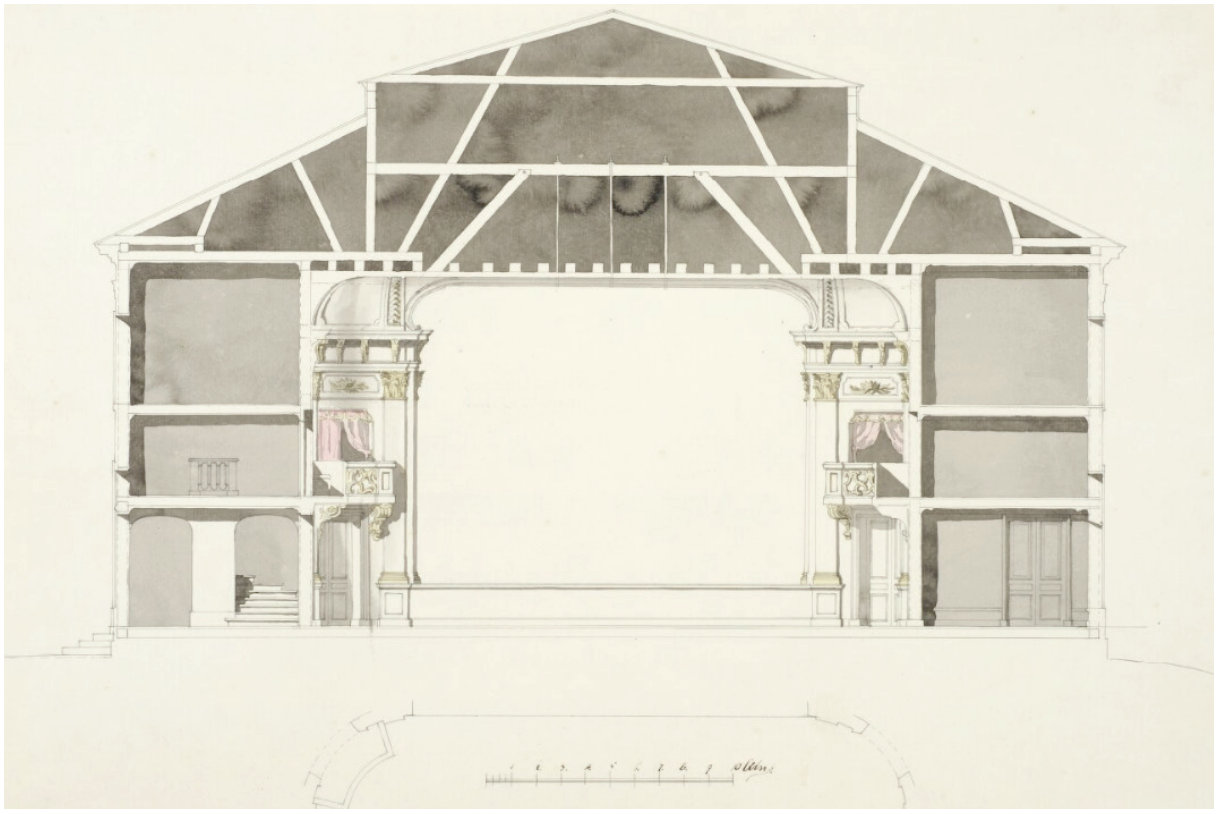




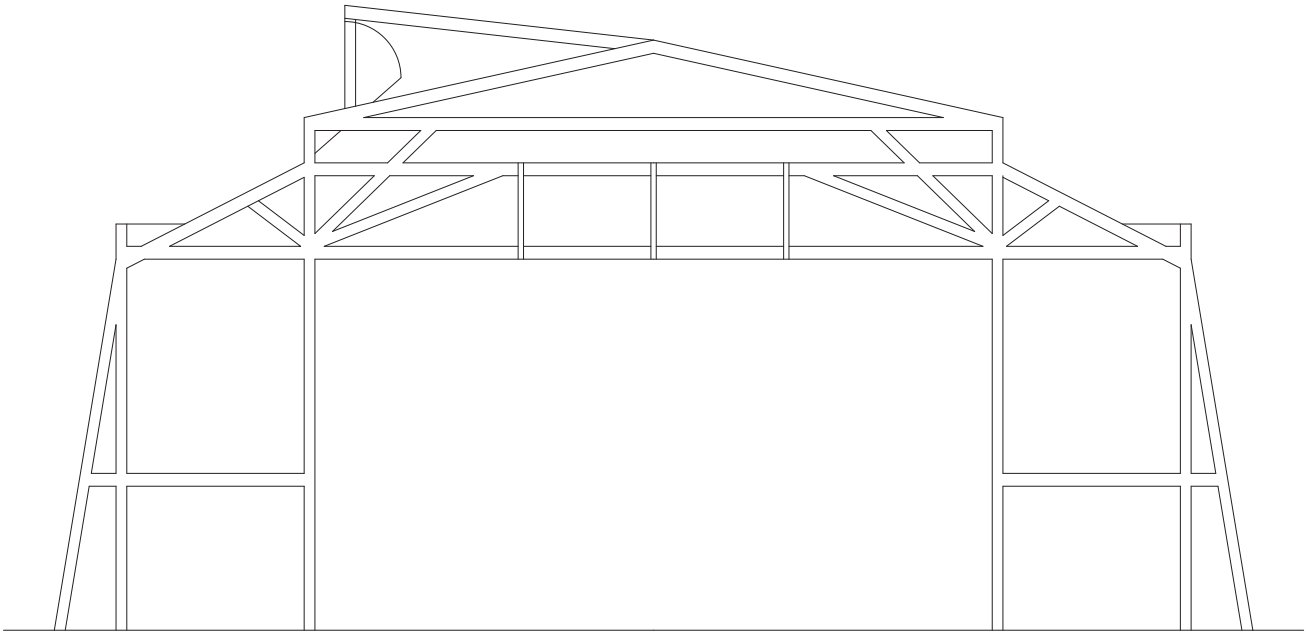




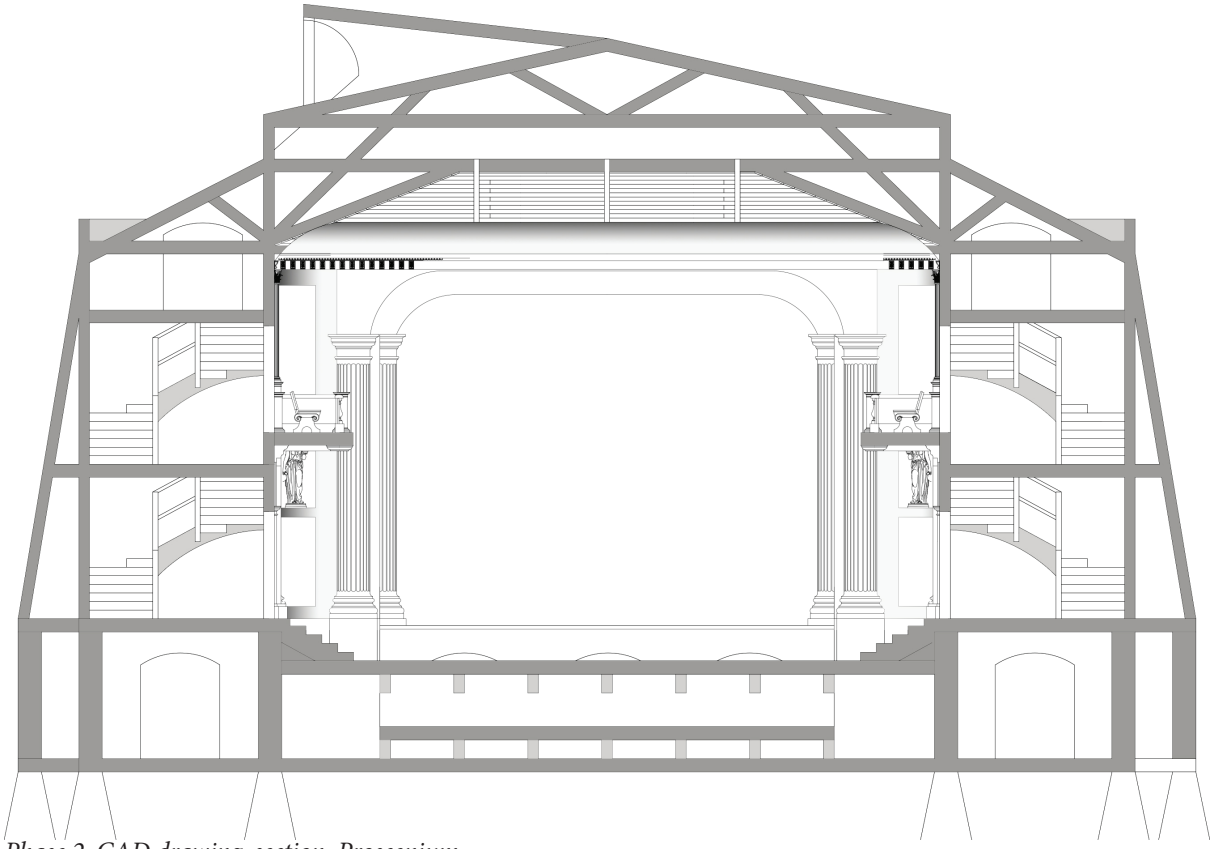
Phase 2. Section, proscenium and truss construction, watercolor.
With inspiration from Adelcrantz's construction, try to isolate the load-bearing height from the scenographic interior.



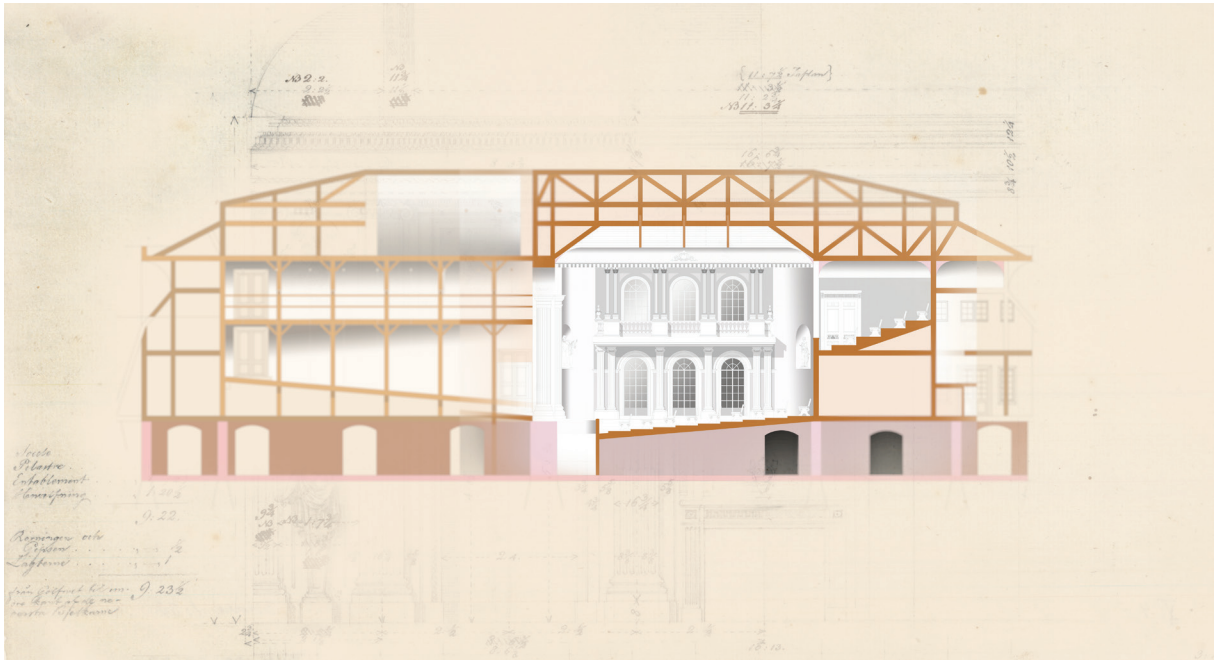
Phase 2. Section, proscenium and truss construction, Carl Fredric Adelcrantz (1716 - 1796)
Construction of Drottningholm's Palace Theatre.



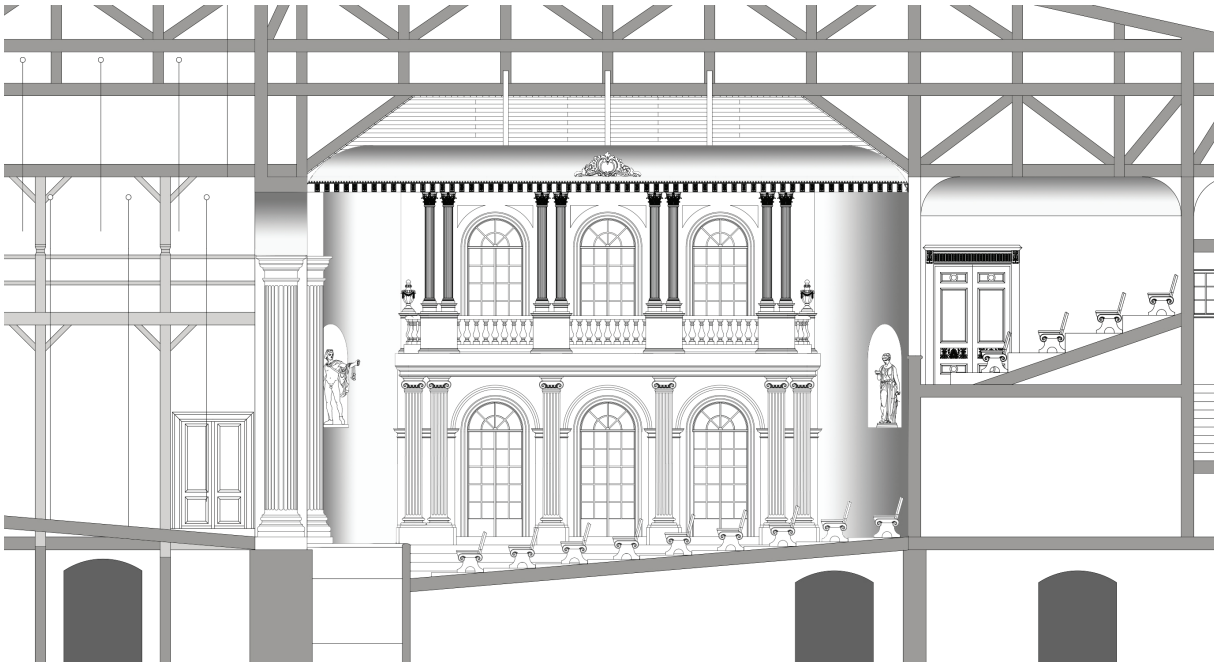
Phase 2. CAD drawing
Sketch for supporting parts with Carlberg's angled window panels added.



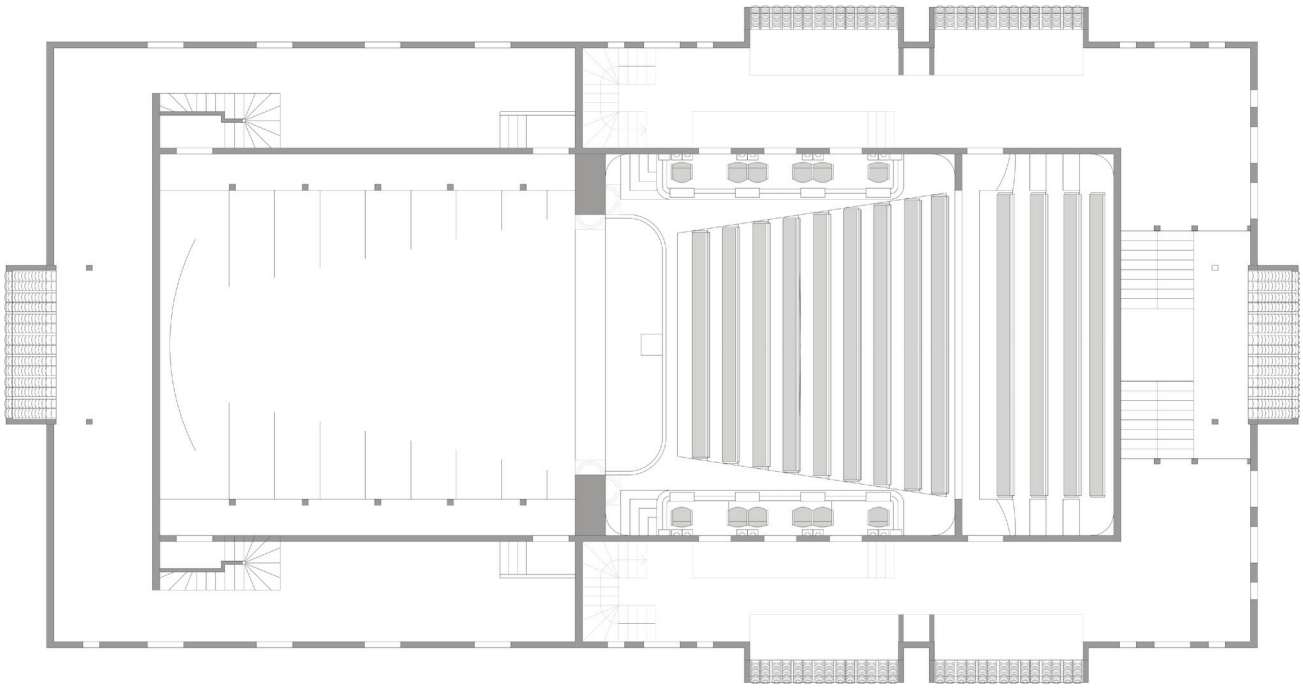
Phase 2. CAD drawing, section, Proscenium
Study in joists and levels



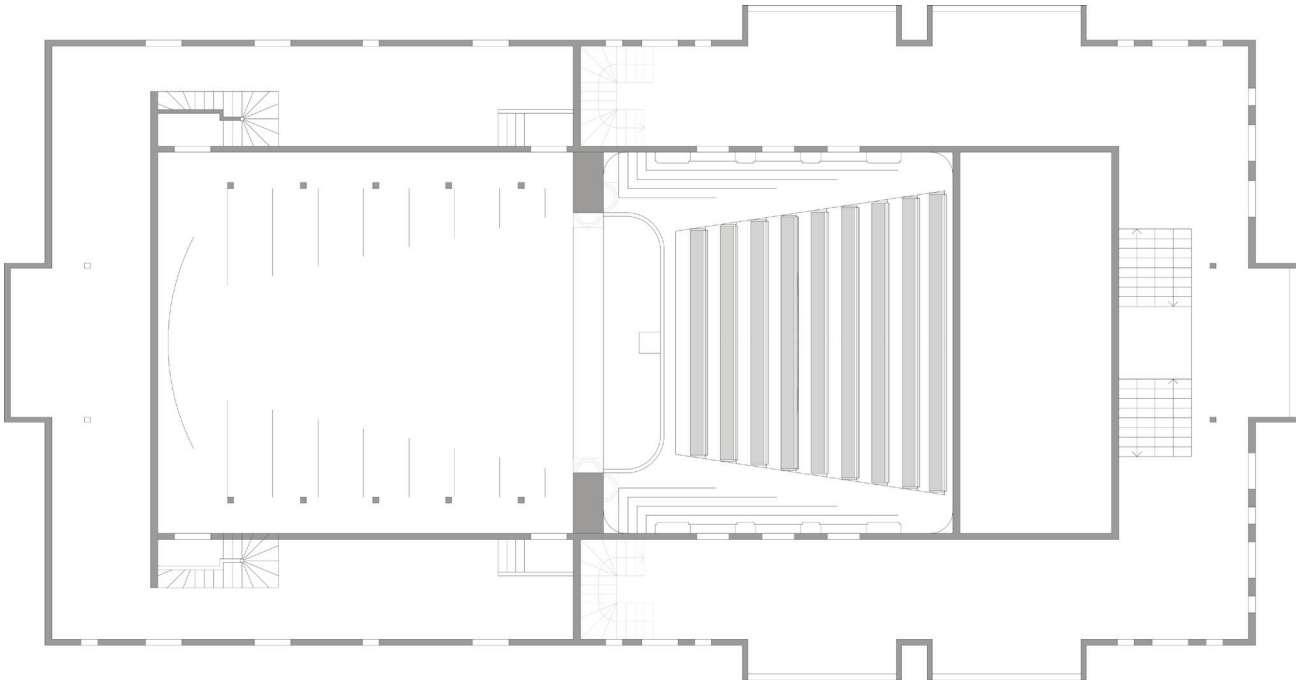
Phase 3. Section, various techniques.
Historicizing drawing with exterior elements facing the interior.



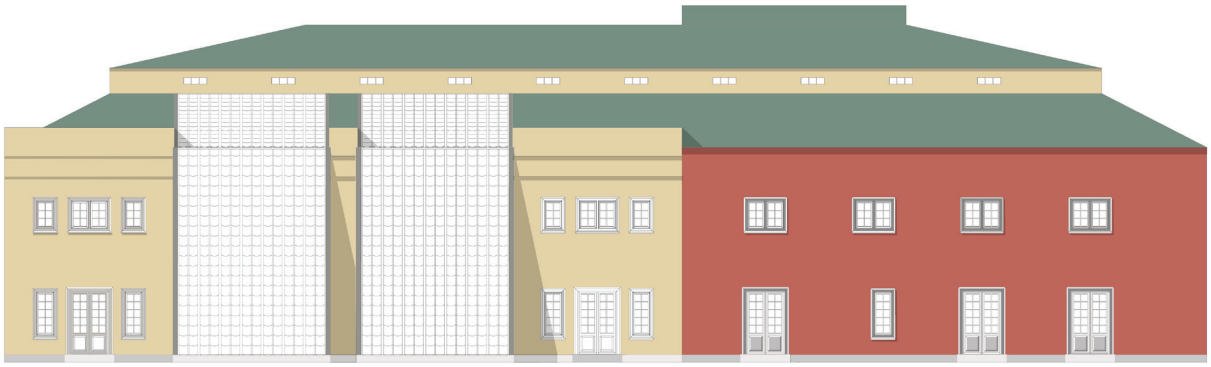
Phase 3. Section, detail, various techniques.



Phase 3. Floor plan
Upper floor with stairwells and balconies.



Phase 3. Floor plan
Mezzanine level with a rough layout in the distribution of public spaces.

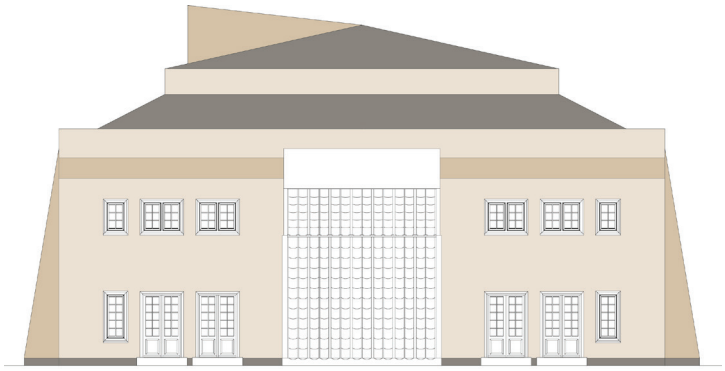


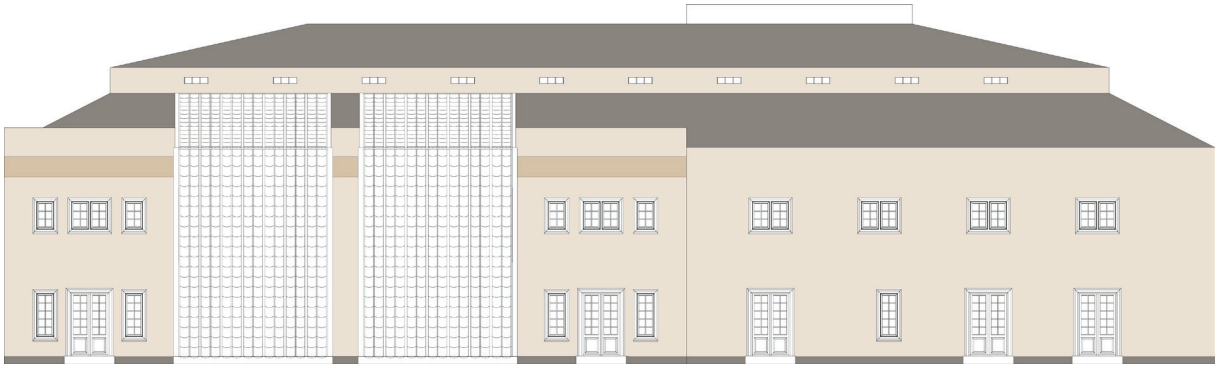
Phase 4. north facade
Inspired by the greenhouse and economy buildings in the area. Test with oversized window sections in the foyer and over stage.

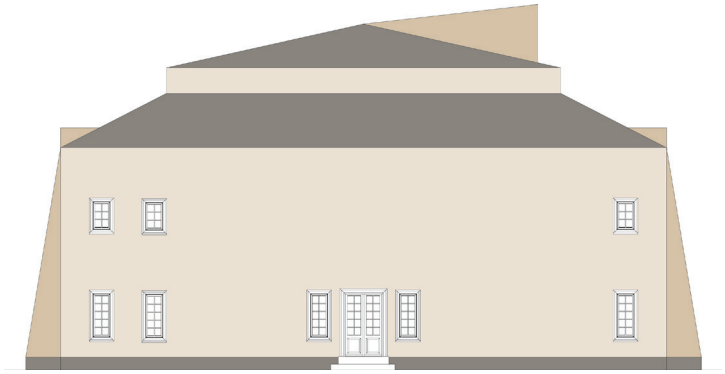
Phase 4. Greenhouse, interior and constructure of The orangery (pictures from gunnebo.se)

Phase 4. Concept model, wood and cardboard
Testing the interaction between a tectonic envelope and a scenographic interior, mockup for final presentation

Phase 4.
Principle of how the final design can be shown in a section, where function, construction and gradual change from scenographic to tectonic become clear.

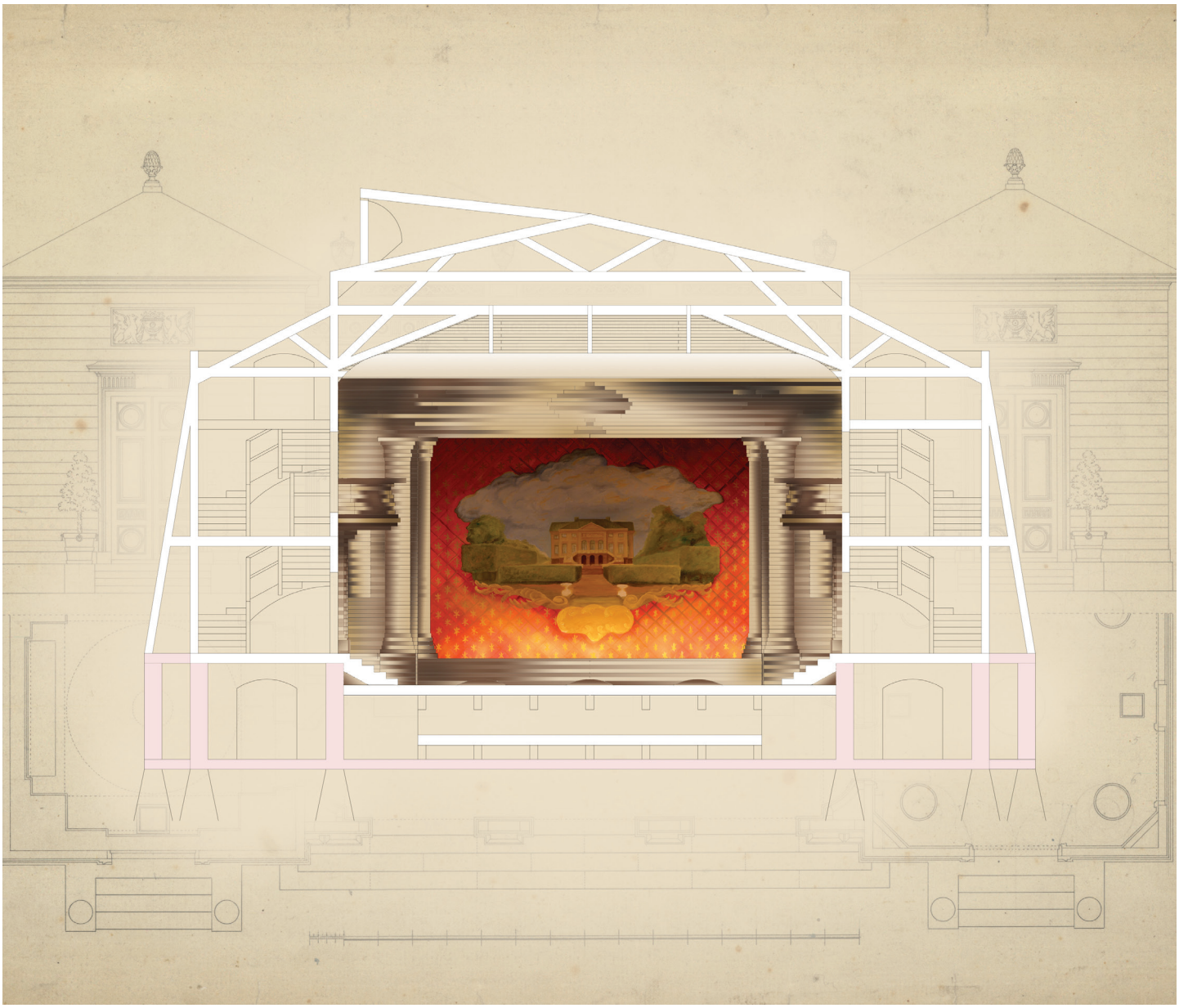


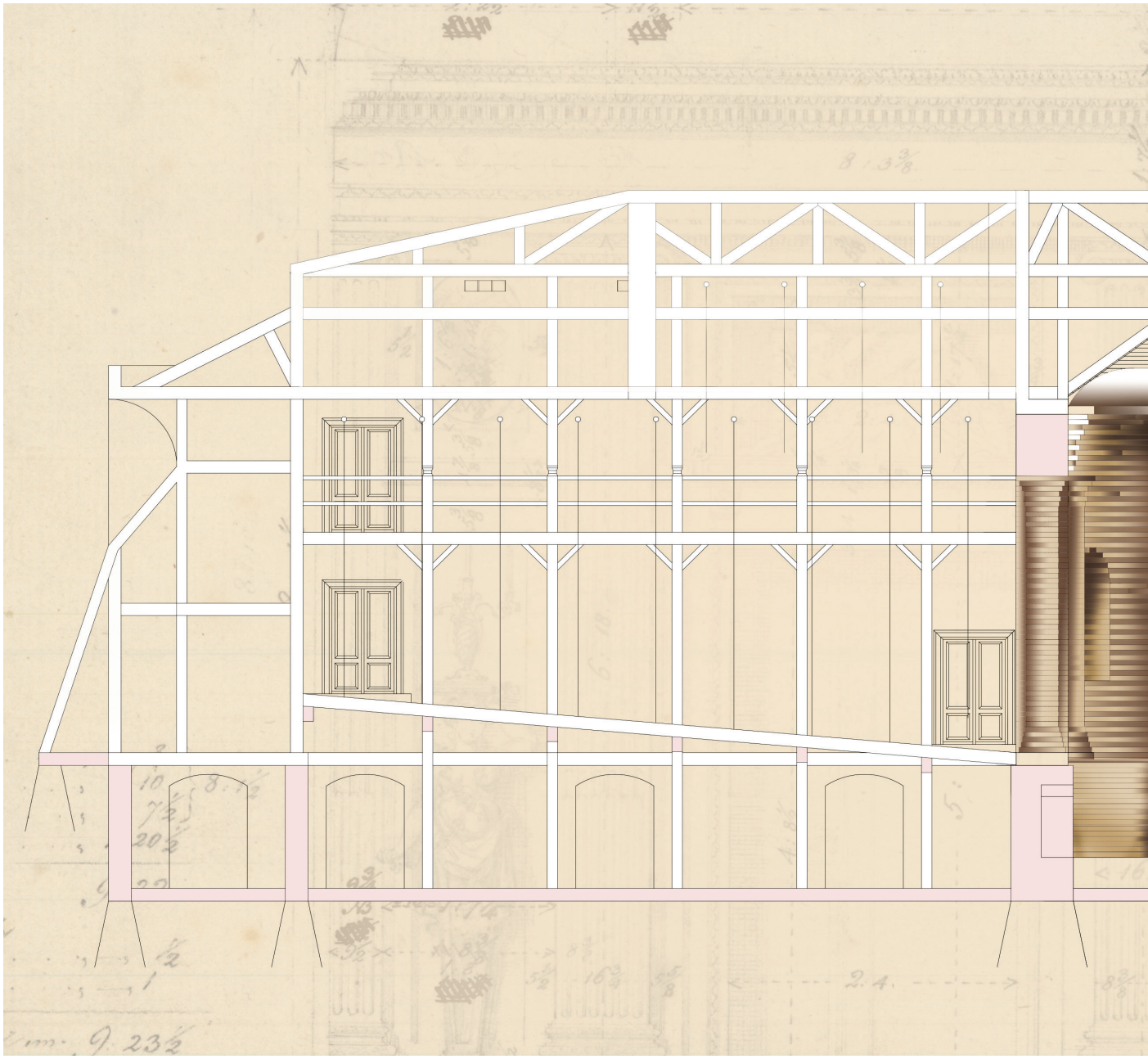


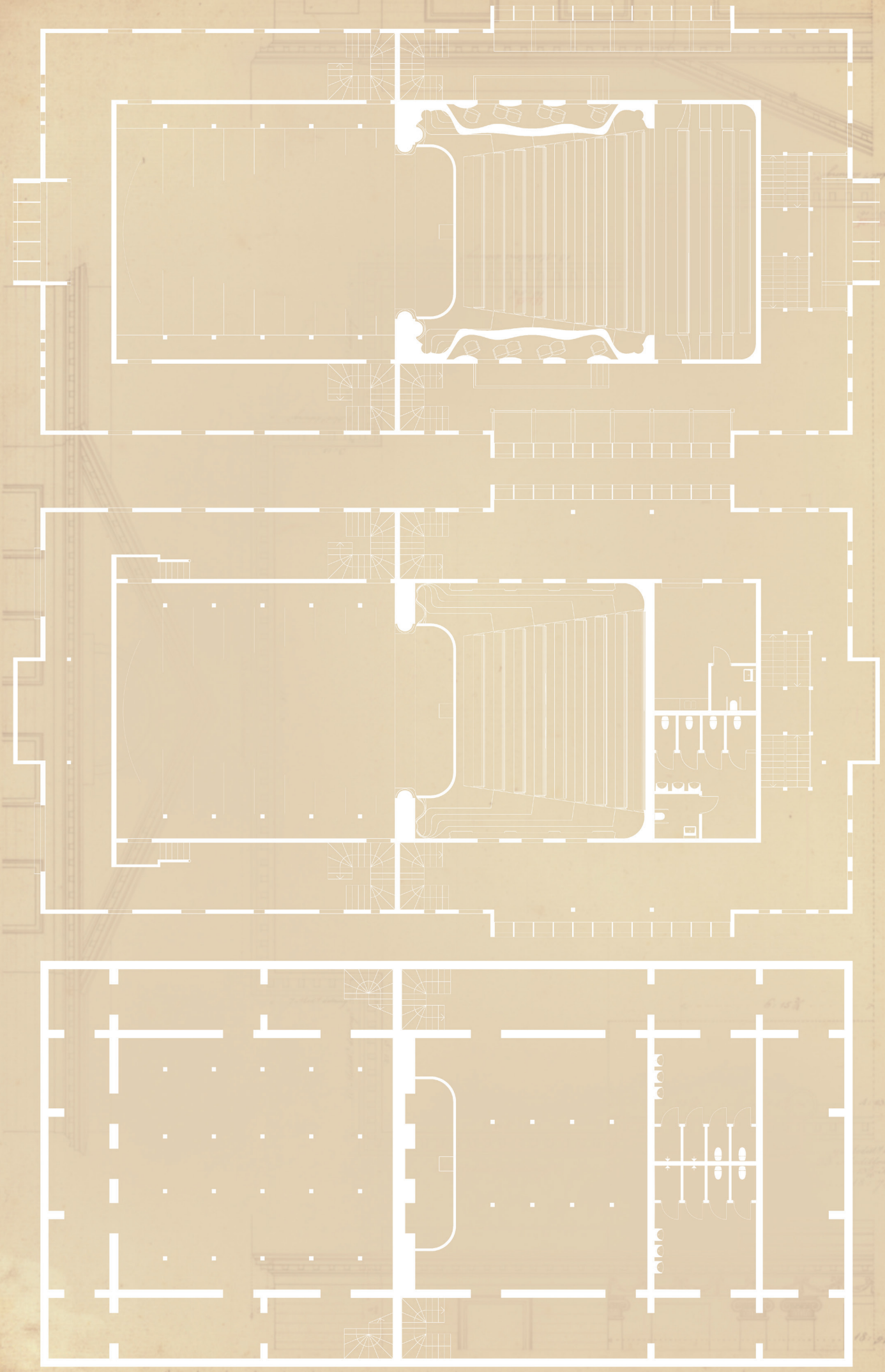


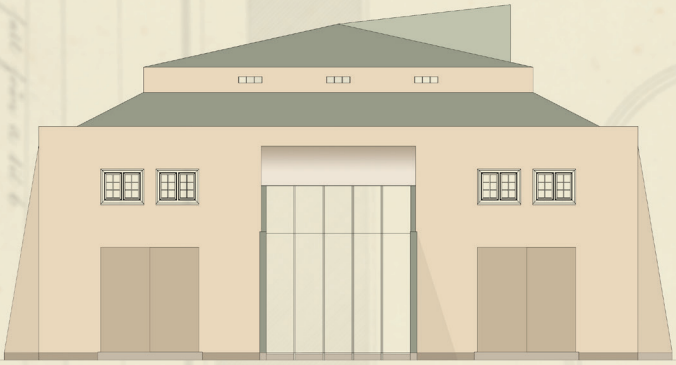
National Museum of Qatar Gift Shops by Koichi Takada Architects, Doha, Qatar

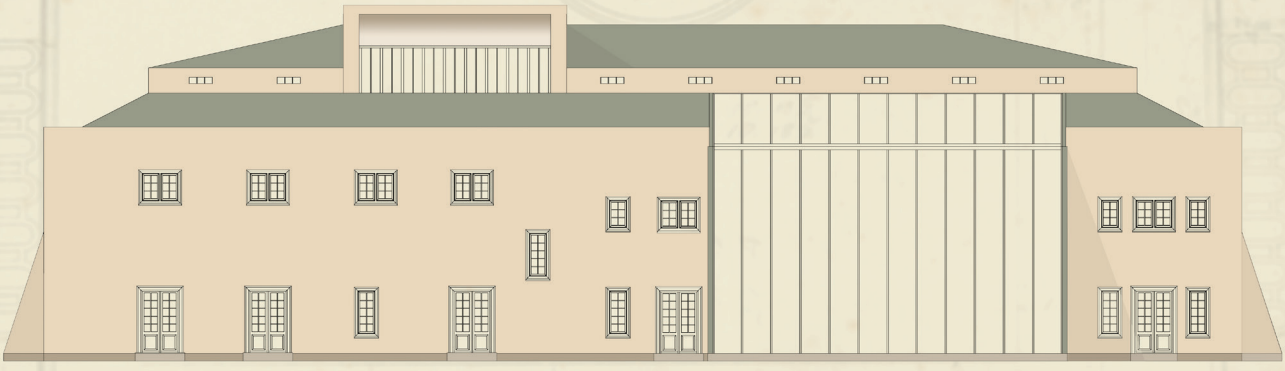
Phase 5.
A contemporary wooden construction with scenographic properties. The idea was born to experiment with stylizing the baroque elements of the auditorium, fixed in materials such as CL wood or timber.
(Courtesy of Arquitectura Viva and photographer Tom Ferguson)



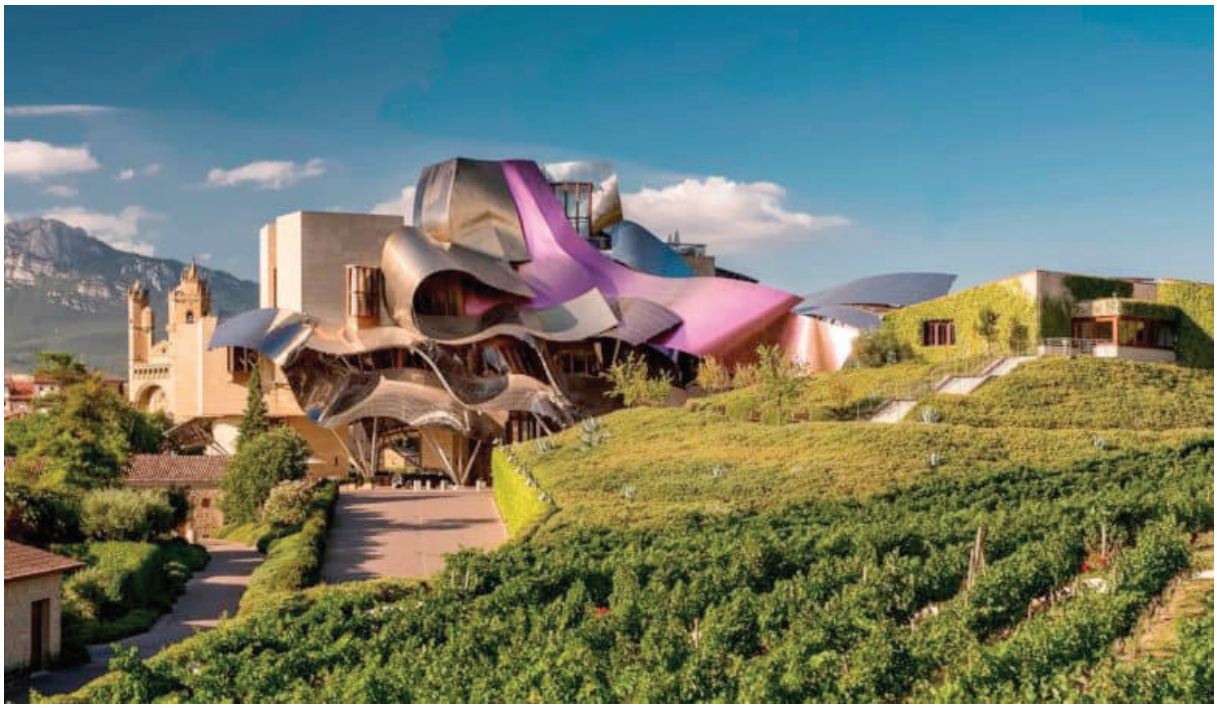








DISCOURSE

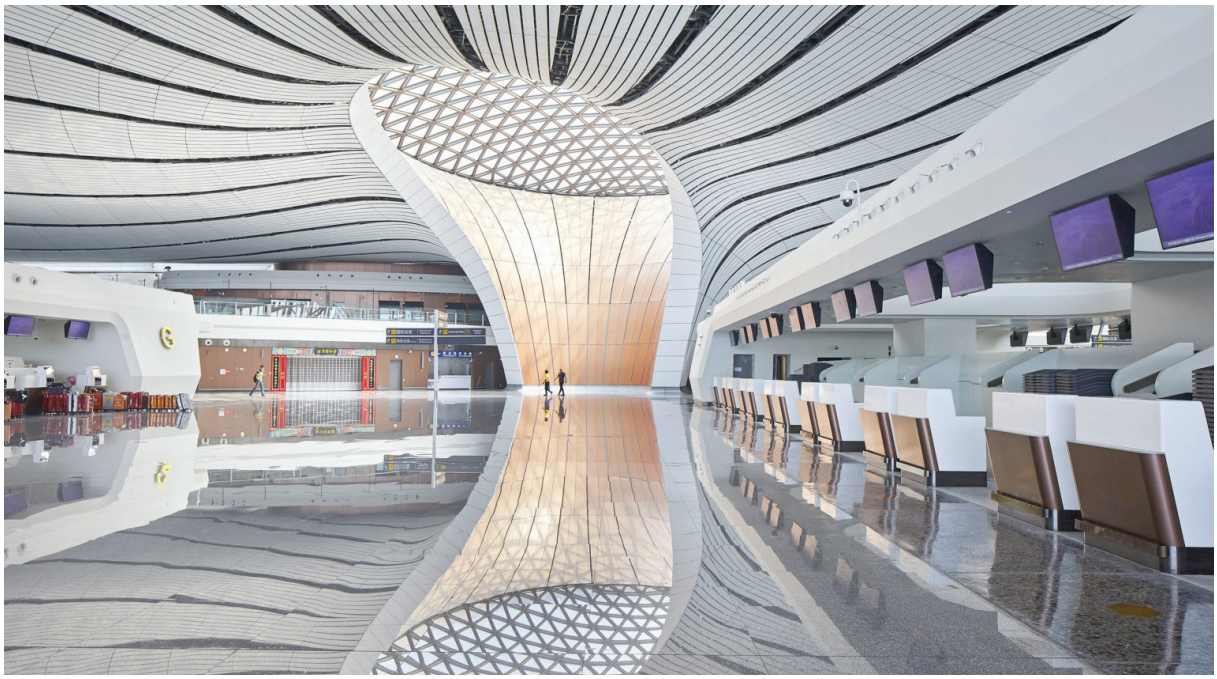


Frank Gehry, The Marques de Riscal bodega in La Rioja, Spain

The design process and development of this project has been a journey through classicism and its different stages and has gone from being a project that dealt with the production of cultural heritage to becoming a question about the operations of the scenographic space.
Investigating an 18th century facility can be interesting in itself, but to make the issue relevant in our time, one must see this project as a case study, where the discussion could be transferred to our contemporary context. Designing a 18th century theatre would not have been impossible, but seeing the difference in the tectonic container and the scenographic auditorium has been a mindbending experience.

I have tried to relate to how a room can hide another type of room and how a building's internal hierarchies can lead to (in this case) the auditorium being allowed to explode the joists and floor plan. The tectonic part of the structure can be seen as the logical while the scenographic as the irrational. The salon becomes a given backdrop in the performance regardless of the scenographic script on stage. The difference is sublime and we ourselves are used to experiencing it, but for the actors on stage it becomes the audience's backdrop. It not only helps the visitor to mentally prepare for the unreal, but helps to include the audience in the performance.

When it comes to the baroque's relationship to the scenographic space, it should be seen in its context. The style ideals and unwritten rules that had previously characterized the Renaissance were put out of play in a revolutionary way. If you see this as a model of how we today can see a mutual relationship between what building materials we have available and how we can create illusory and illogical constructions with the help of calculation programming, do we achieve a similar effect? The history of architecture bears witness to how the Reformation created the Counter-Reformation and how the ecclesiastical and royal power had to manifest its supremacy



Beijing Daxing International Airport by ADP Ingénierie; Zaha Hadid Architects, Beijing, China

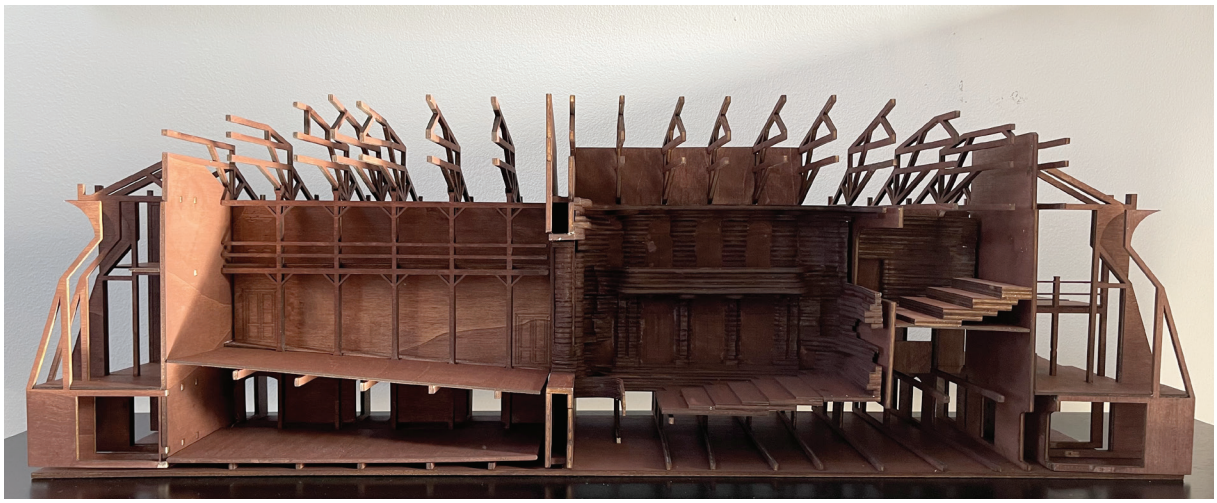
by breaking the classical order. Is it a similar pattern that is repeated when today's scenographic design language manifests itself in our cities? Who then is the sender and the receiver and what does the architecture want to do with its users? In the world of artistic expression, the question is perhaps easy to answer, but when it comes to so-called superstructures or purely effect-seeking architecture, perhaps the result can most be compared to the baroque?

If famous theorists such as Semper and Frampton isolated what we would basically call tectonics versus scenographic, in my work I have focused on which elements the baroque expressions took hold of. This must be said with the greatest respect for the discussion that was and is still being held regarding materials, surface layers and order, but my focus in this project has mainly been to look at the scenographic as an impact-seeking attribute. Perhaps not visible at first glance, but nevertheless a creator of a spatial event.
I want to point out that the theatre is only an object set in a certain space and time, a tool for observation. In a way misleading, because it is itself a place for scenography. Even so, it is a permissive place where we can see a building both as a machine and as a container, and a place where an imaginary expectation rests with the visitor. This on a site that is completely built according to a given script and a predetermined drama. Perhaps my curiosity in the subject is based on the fact that the line between the written drama and the built scenography is not always easy to distinguish. This may apply to a historic environment such as Gunnebo, but still a contemporary and modernist one. Naming things helps us understand and in a broader sense this exploration has helped my awareness to see traces of both the tectonic and the purely scenographic in urban spaces, buildings and interiors.

REFLECTION

In order to reflect on my exercise in locating the scenographic within architecture, I myself have gone back to my thesis questions. What is scenographic and how can I as an architect add something new to my toolbox for future projects? My conclusion is that scenographic elements are related to the tectonic ones. If you compare today's tectonic expressions with those of the Baroque, they have naturally changed. With the help of how we use materials such as steel, concrete and glass, we have been able to expand both the tectonic and the scenographic expression. By that I am mainly referring to deconstructivist buildings or superstructures that rise several hundred meters above their ground level. In the same way that the logically carried building or room has been given new possibilities since the 18th century, the scenographic ones have made a corresponding journey. The scenographic is dependent on the tectonic in order to create an effect. This effect, or expression, we still use in a similar way, namely to distinguish and accentuate certain buildings or rooms. Vain you may think, but this could also be part of the architect's task. Leaving aside when these principles are misused as means of power, one can see how they benefit man by helping to open our minds and stimulate our imagination. I then mainly think of buildings that, with a scenographic language, give a promise about what they contain or what we can expect to encounter on the inside. Art museums, concert halls, opera houses and theatres are all examples of when a building is a container for an immaterial experience. Perhaps in the same way that religious buildings once functioned in a catholic and baroque Europe?

In response to the question of when to use scenographic expressions in the design of places, buildings and rooms, I most humbly assume that when it comes to looking at the whole in comparison to detail, we should always use a scenographic mindset. When it comes to illusory constructing space with the promise of movement, it can create both a sense of spatial expansion and contraction. In these cases, the scenographic expression should be treated with great care.



Model, section 1:50 for final presentation

My biggest conclusion and lesson in this exercise has been to open my eyes to what can be read in how we experience and consume architecture. Summerson's comparison with language is unbeatable; if we see the tectonic as a sentence structured grammatically and completely correctly spelled, what type of language is not important (as in what type of architectural style). It is constantly developing with new innovations and borrowed words, just as architecture and construction are given new conditions in how we use the materials. If the scenographic is similar to a poem, the single word takes on a different meaning, so does the grammar.
Just as Summerson refers architecture to language, one could draw a parallel to music.
When defining architecture, we often speak in metaphors of rhythm, loudness and height, and perhaps what I then try to describe in this work could be compared to Bach and Stravinkij.
If Bach's fugues and cantatas are based on a strict contrapuntal structure, completely governed by mathematical and oscillatory conditions, one could see it as tectonic. Not only is it composed of intricate themes woven together in seemingly endless construction of notes, it is also attuned to the reverberation and acoustic space that were the preconditions for its performance. Could Igor Stravinsky's work The Rakes Progress be seen as a scenographic reaction to the tectonics of the Baroque, or the general tectonics of music? There are, of course, theories and research on the subject, but I'll leave that to someone else to investigate.

A flexible model made of paper and wood,
the scenography of a room. Gunnebo Slott salon
(pencil on paper)

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