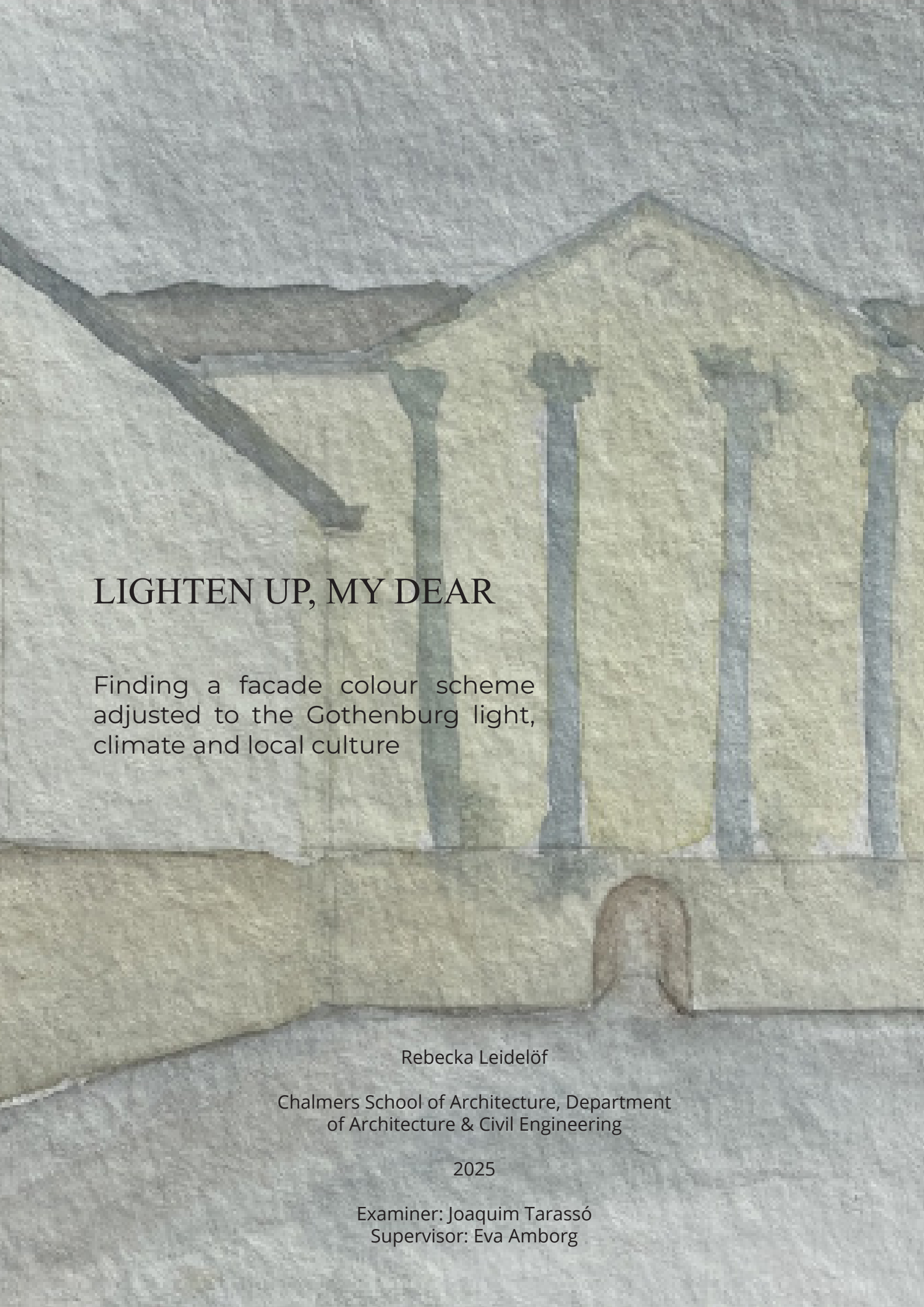

LIGHTEN UP, MY DEAR

Finding a facade colour scheme adjusted to the Gothenburg light, climate and local culture

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Thank you!

Eva – special thanks for going out of the ordinary as a supervisor. Your knowledge and interest in this thesis have been more than I have ever expected.
Joaquim – thanks for your experience and gentle and inspiring guidance.
My office people – for the good office vibe and the coffee breaks through this work.
Family and friends – for support and encouragement.

Dedication..

To farmor and farfar, Bo & Birgit Jacobson – for encouraging my painting and learning since I were a kid. And for sharing the Chalmers years with me.

ABSTRACT

Every place in the world has its own unique light and weather conditions, and so does Gothenburg. In this place there are long days of sun and clear skies in the summer. It is also a long period of short days and heavy overcast weather in the winter. The closeness to the sea makes the air humidity high, and curtains of fog rolling over the city, dressing it in a mild grey blur. This creates the sensation that the sky is trickling down over the houses, and hangs close above the head of the people living there.

These seasonal specific climates, weather, sun and light conditions have an impact on us humans. Seasonal depression and dysregulation of the circadian system due to lack of sun and daylight is more common in northern countries. When the weather is one impressive grey scale with poor light, the perception of depth and contrast and space becomes limited.

Architecture has an important role in creating environments where the physical space is creating wellbeing for humans. In relation to light and colour and the outside environment, this thesis is looking into the role that facades play in Gothenburg. How is the colour scheme on the facades in a urban space in Gothenburg relating to the specific light and weather conditions, and how can colours be used to increase the wellbeing in a specific site?

The methods used are a site study of a welcoming space such as Stilla Gatan, Kungsladugård. There intuitive research is applied by aquarelle painting, photography and written observations on site. Further research of literature and case studies in art and architecture is done. It leads to the creation of a toolbox that is applied to and tested at Landalagången, Landala.

The toolbox covers aspects of colour, light and climate such as; sun angle, shadows, contrasts, reflections, nuances, blackness and colour intensity, geometry and scale, culture history and the surrounding environment.

The outcome of the toolbox analysis leads to a design change proposal of Landalagången's facades. It adds to the topic of colours and wellbeing to enhance the wellbeing of people spending their time and living their lives within these coloured facades.

Keywords: *colour; light; Nordic; climate; weather; facade*

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BACKGROUND

I surely knew wanted to work with colour for my master thesis, I found it a fascinating subject I wanted to dive deeper into since colours instantly affects me and my mood.

I quite fast understood that if I want to work with colour I also have to work with light, since without light no colour, as my supervisor Eva put it.

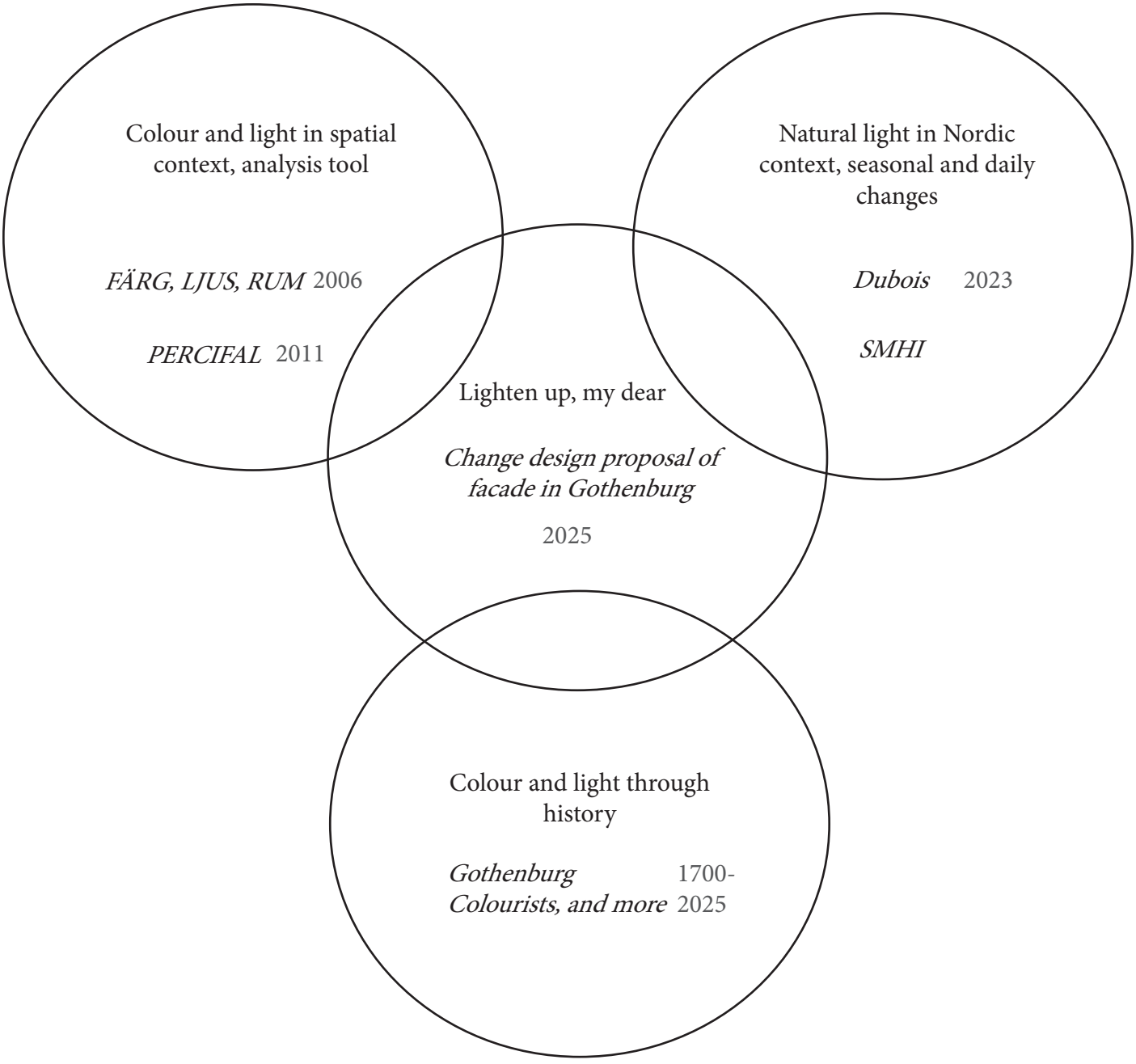
About light. It was then in November in Gothenburg and the days are short, and the weather is most often covered in a thick lid of clouds. It was simply a lack of light.

I had been frustrated about this period of the year throughout all my study years in Gothenburg.
I now started to think if there were a way of connecting theese subjects; colour-light-weather.

To apply it to an architectural situation I found colours of facades in the urban environment of Gothenburg suiting to study. The colour of the facades are affected by the daylight and weather, and they affect us humans that is passing by and living our lives surrounded by them.

And that was the starting point of this thesis.

EXISTING KNOWLEDGE AND WHAT THIS THESIS BRINGS TOGETHER



This thesis is adding on to the existing litterature, adding the aspect of outdoors (the natural light and location based circumstances) and the historical aspect (of colour within art and architecture based from Gothenburg) to the existing studies of colour and light.

EXISTING THEORIES AND METHODOLOGIES

Forskare och praktiker om FÄRG, LJUS, RUM (2006)

About: colour, light.
An anthology edited by Karin Fridell Anter and Ulf Klarén. The book features texts written by colour specialists, researchers, etc. (15 colour and light specialists from companies and academic disciplines). A first big try to bring the disciplines of colour and light together. Previously, these were handled separately. But they always interact in human experience.

PERCIFAL (2011)

About: colour, light, room. Study guide.
Part of SYN-TES (2010-11) that was a research project at Konstfack (colour and light specialists from companies and academic disciplines) that describes itself as the first and largest effort to bring together the disciplines of colour and light.
PERCIFAL is a study guide on perceptual analysis of colour, light and space. Eligible as an analysis tool in scientific contexts. Recommends “well-articulated architectural shape, where the light treatment has a clear purpose”. It has a focus on interiors and artificial light, even if it is not strictly not for exteriors/natural light.

Marie-Claude Dubois, Dagsljus, belysning och hälsa: Hur planerar man med det nordiska ljuset? (2023)

About: Natural light. Our Northern light. Architecture.
Adding the aspect of the natural light / daylight. Dubois work describes the specific charaqteristics of the Nordic light. Scarse near the winter solstice and abuntant near the summer solstice. Slow sunrises and sunsets, and light from a low sun angle and with a weak intensity. Dubois work is a good starting point for understanding the specifics of our Northern light and how it affects us.

SMHI (statistics)

About: Climate and weather in Gothenburg
It is even so important to take into account in Gothenburg – since here we have a higher rate of days with overcast sky than other Nordic cities, even more decreasing the intensity of the available daylight.

Gothenburg colourists (1930)

About: Colour and light through history
Captured colour and light within our Nordic context in the art. Starting point of a dive in colour history within art and architecture. Connection to this thesis' site study by one of its members, Åke Göransson 1902-42, living at the second site study Landala.

ADDITION TO THE FIELD

Lighten up, my dear (2025)

About: colour, light + daylight + history
This thesis adds the aspect of natural light. Of the outside. And that includes weather as not included before. Connects every project to the environment and context that is inevitable to be related to.
It is a study of colour and light in a space, but an exterior one. Bringing the aspect of changing light conditions into the topic – seasonally and daily (climate and weather). A collected look at colour and light in relation to our Northern daylight and history of colour. Includes a theoretical background, a timeline of art and architecture, a toolbox (analysis tool) and a change design proposal.

AIM & QUESTION

Aim

To investigate how colour schemes of facades in Gothenburg can be chosen according to climate and daylight conditions and how it is placed within the history of colour.

Question

-How can the colour on facades be chosen and applied with regard to light- and climate conditions in Gothenburg in a harmonic way?

-How does the colour scheme place itself within the history of colour?

METHOD

A combination of quantitative and qualitative methods is used. The work started with theory reading of available research to understand where the topic of light and colour within architecture is today. A timeline of colour in art and architecture is constructed to understand the history.

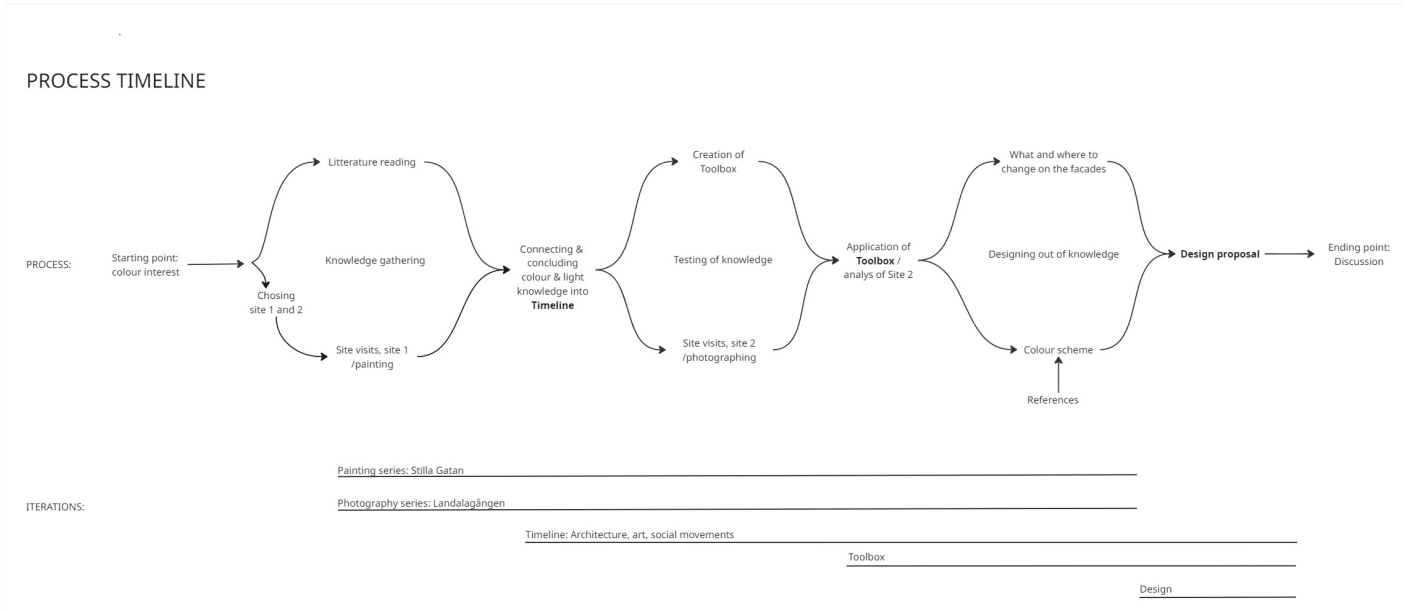
Secondly, and also parallel to the theory reading, is aquarelle painting of site 1 (Stilla Gatan). It consists of visiting the site over several occasions from January to April and every time do one aquarelle painting from the same viewing point. It is a qualitative method involving personal feelings and perceptions of the light, the colours and of welcoming/unwelcoming space etc.

The results from the theory reading and the aquarelle painting is used to construct a toolbox. This toolbox does conclude what aspects to take into consideration when deciding colour schemes for facades in Gothenburg.

The toolbox is tested by application by analysis at site 2 (Landalagången). To collect data to analyse this site is also visited over several occasions from January to May. Every time one photograph is taken and compiled witht the others. From the results of the analysis a design proposal and colour scheme are derived. The colour scheme is iterated several times to refine the result.

Collecting reference projects is ongoing over the time of the thesis - by photographing, painting and collecting NCS-codes when passing by relevant urban spaces and façades. The NCS-colour code system is used as a language to talk about exact nuances of colours. It enables to collect codes from built environments, compare references and as a language for the design phase of the thesis.

This toolbox is then compared with available similar research.



References

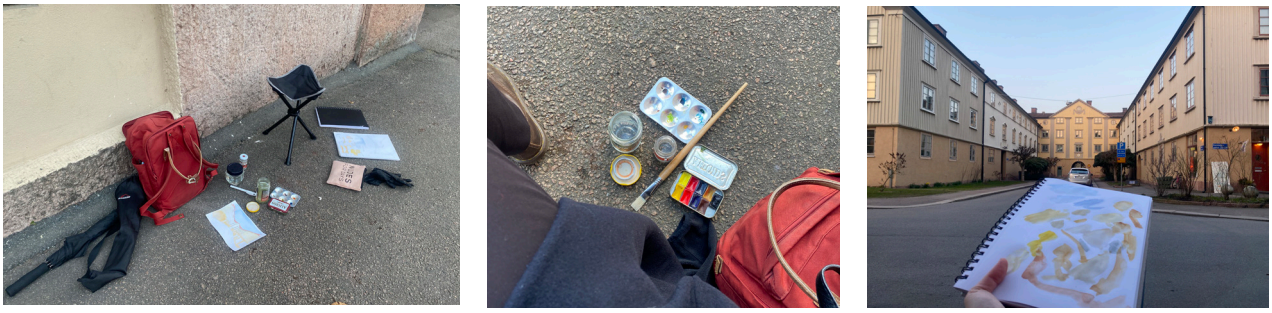
Visiting a site over time to paint the same motive is a method that has been tried before. One reference is the series of the Rouen Cathedral that Claude Monet did in the 1890's. My tuitor Eva Amborg did the same kind of series of Rue des Volubilis, Paris, in 2017.

Figure 1-5: Rouen Cathedral (Wikipedia, n.d.)

Figure 5-10: Doften av Paris (Amborg, 2017)

On site

Aquarelle painting is especially suiting to capture the light of a site. The paint is placed in several layers and adding more darkness with every layer. That means that the light and especially the lightest parts has to be identified even before the work starts (Ramberg, 2023). Below is shown the equipment needed for painting on site.



Setup and equipment when painting on site at Stilla Gatan.

DELIMITATIONS

Climate and weather conditions are limited to Gothenburg.
Culture history will have a general Swedish and specifically Gothenburg focus.

The analyse of the sites are limited to the exterior, with focus on the façade colour and texture. The roof, ground and other building exterior elements will also be noticed. How the inside conditions are, for example daylight amount, will not be considered.

Artificial light will not be in focus, if so shortly mentioned if it exists on site. The thesis examines daylight amount and angle from the sun.

The observations on sites are carried out from January until May, therefore the conditions during June-December are not investigated.

SITES

The two sites this thesis is looking into are Stilla Gatan in Kungsladugård and Landalagången in Landala. The sites are subjectively chosen, from my impressions while visiting them. When studying the subjects of colour, light, climate and cultural history I wanted a reference site that is a good example to study and learn from. Stilla Gatan is one of my favourite streets in Gothenburg and I always become in a good mood while visiting it. Therefore I chose it as my reference site. Then I needed a site where I propose a facade design change. Landalagången is a place where I feel at unease instead, and I would rather pass by than staying for a long time. Therefore Landalagången is chosen as a change proposal design site.
Stilla Gatan as to gather knowledge from, and Landalagången as a site to apply a change of facade design. They work as study objects.

Figure 11: Aerial photo of Gothenburg (Lantmäteriet, 2025)

STILLA GATAN

It is a street I have come across occasionally over the years living in the city. It is a quite short street, parallel to the big main street going through Kungsladugård. Every time I have gotten a special feeling while passing it. I have been filled with calm, curiosity and slowed down my steps and started to look around at the building facades. It feels like a soft and welcoming place. So, when zooming over the map of Gothenburg I landed on this site, and I would dare to call it my favourite street of Gothenburg.

Stilla gatan is in a residential area consisting of Landshövdingehus, a typical Gothenburg building type (Caldenby, 2022). Stilla Gatan is located within the quarter with a butterfly shape. The quarter, Blodnävan, is built 1923 (Familjebostäder, n.d.). The butterfly shape is drawn already on the urban plan of Albert Lilienberg from 1916 and the buildings were finalized by Johan Jarlén and K. S. Hansson.
Landshövdingehus is consisting of three floors, the two top in wood and the ground floor in stone. The façade ornaments have a rich variety. They follow the changing architecture styles from the period when they were built, and Landshövdingehus has been built in Gothenburg from 1875 to 1940 (Caldenby, 2022).
Stilla Gatan has a 1920's classicism. The architects, including city engineer Lilienberg, of the time wanted the houses to be experienced as background walls in the room of the city (Caldenby, 2022). Ornaments are there, lighter than earlier 1800's and still existing as the later modernism picked them away. The colour scheme is light and calm, often with contrasting colours on the façade versus windows, doors and ornaments. *Detail picture of window and façade*. The depth of 9 meters, the maximum heigh of three floors and the spacious courtyards gave a lot of daylight in the apartments, giving a good living standard to working class families also (Caldenby, 2022, 29).
They were a widely spread building type over the city, and the clear typology and possibilities to pre-manufacturing of elements made it rational and economic to build (31). Half of the population lived in a Landshövdingehus by 1930, the poorer half (Caldenby, 2022).
The innovation of building one stone floor and two wooden can be dated back to the city architect Victor von Gegerfelt. There were laws and regulations due to common fires regulating wooden houses to maximum two floors. At the same time, it was a housing shortage for workers. Adding a stone floor, by calling it a "foot-wall" and taking advantage of that that foot-wall did not have a maximum heigh regulation, made it possible to build three floors (27).
Today, Stilla Gatan is appreciated by the people living in the area. The ground floor is of slätputs. The wooden floors have ornaments, thin ones that are applied to the façade. Different colour, like the grey on pilastrarna on the central façade. Changing on the northwest and the southeast façade, different architects. Melting together very well, only noticeable if one is looking carefully. The colours are changing and creating five different sections along the street on the upper floors. Small changes in colour, harmonic together. The ground floor has the same orange all the way, binding it together.

Figure 12: Aerial photo of Stilla Gatan (Lantmäteriet, 2025)

Stilla Gatan - characteristics

Figure left: Three floors are typical for Landshövdingehus. The ground floor in stone, and the two upper ones in wood.

LANDALAGÅNGEN

Landala is a central part of Gothenburg. The buildings that are seen today were planned and built between 1971-1985. They were built during miljonprogrammet and according to the ideals of functionalism with enhancement on big, open courtyards and light into the buildings. The building type that was standing on the site before was Landshövdingehus. They were torned down due to the sanitation wave in Gothenburg.

This thesis is looking specifically at Landalagången, built 1971, at the same site at where Åke Göransson where living in a Landshövdingehus in his time.
The site consists of two parallel buildings facing each other. They are each seven stories high, 140 meter long and 11 meter deep. They are standing with a 30 meter distance from each other, creating a courtyard in between them.
The buildings seem to be created out of modules. Each module consists of one entrance, balconies on the floors above and then windows to the left and to the right of the central balcony/entrance part. This module is repeated seven times next to each other, creating the whole 140 meter wide building. Then two of this kind of building is placed facing each other, facing north-west and south-east..
The horizontal and vertical load bearing structure in concrete is visible both on façade and balconies. Then the big areas of façade is covered in dansk sjösten. The balconies have a sheeted covering, the entrance has a metal door construction and a wall of tiles next to it. The sides of the entrance are consisting of oiled wood ribs.
Little thought seems to be spent on the outside esthetics. It had to be quick when built, nytta, hållbarhet, skönhet. Beauty seems to not have had the time for. According to todays needs, of taking care of what is already existing. Therefore this site is chosen as a transformal study site, seen as to finish it by adding the beauty aspect.

Figure 13: Aerial photo of Landalagången (Lantmäteriet, 2025)

Landalagången - characteristics

One of two buildings, the one out of sight is opposing this one. Each building consists of seven modules like the right picture.

Central of each module is five stories of balconies and on the ground floor an entrance. The facade material is ”dansk sjösten”.

The darkest parts are the entrances which are melting together with the winter vegetation. The lightest parts are where one building get direct sun and it then also reflects on to the other opposing building,

THEORY

Colour & light - what is it?
Gothenburg light & weather
Colour
The NCS-system
Local culture

COLOUR & LIGHT - WHAT IS IT?

Colour is the visible part of the light spectrum. The frequences between 390 nm and 770 nm is visible for the human eye, but also UV (UVA and UVB) and infrared (NIR) radiation affects us (Dubois, 2023). Outdoor light, daylight, is especially important since modern windows filtrate and do not let UV and NIR radiation through. It is needed to get enough vitamin D. To decrease Myopia (UVA) that leads to decreased sight and blindness.
Light is necessary for our biological clock, called the circadian system (Dubois, 2023). It regulates day and night. Especially daylight does this, better than artificial light. Daylight has an even distribution of colours, a continuous spectrum. Compared to artificial light sources (see figure XX) it is rich in blue light.

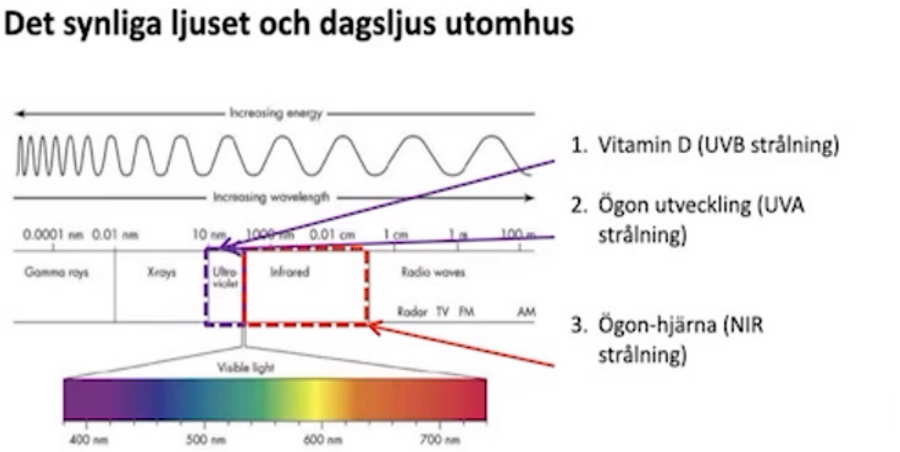


Figure 14: Daylight and visible light (Dubois, 2023)

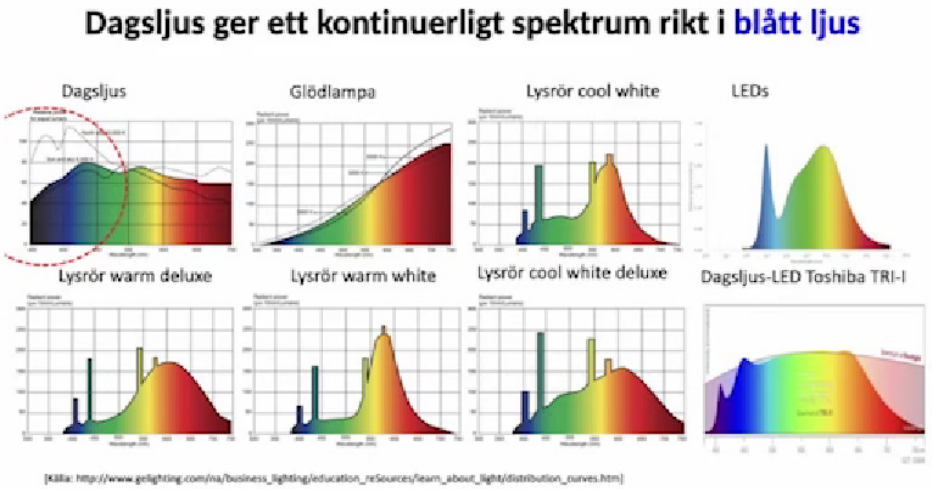


Figure 15: Daylight is rich in blue light (Dubois, 2023)

This blue light is important for the third receptor in the eye, except from rods and cones. Rods and cones are image creating, this thirt receptor is not. Instead it is of especial importance for the circadic system (Dubois, 2023). It regulates cortisol, melatonin and attention, se figures below. Above this, it regulates and improves mood, sleep, cognition, metabolism, stress response, immune system, cancer and more (Dubois, 2023). Simply put, the daylight plays a very important role in our wellbeing.

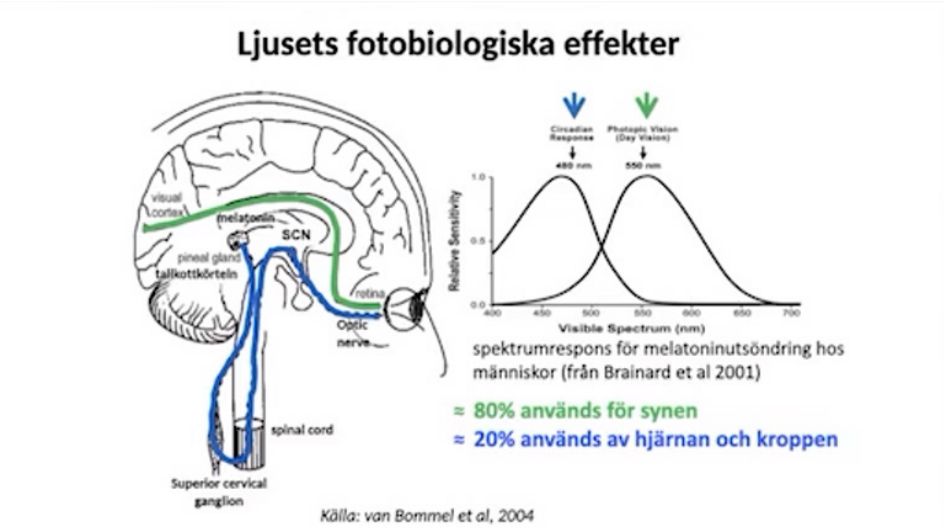


Figure 16: Blue light is used by the brain and body (Dubois, 2023)

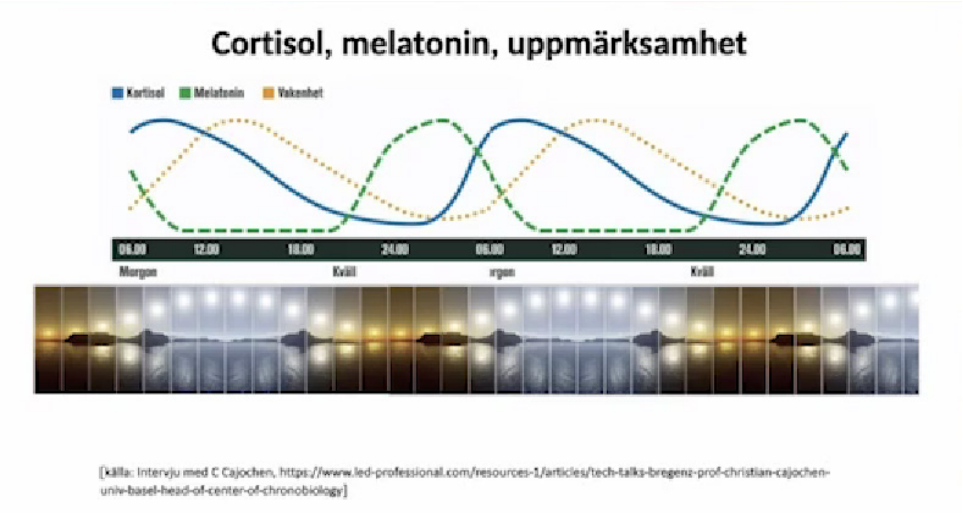


Figure 17: Daylight including blue light regulates cortisol and melatonin and therefore our sense of wakefulness and tiredness(Dubois, 2023)

GOTHENBURG LIGHT AND WEATHER

Light

Gothenburg is located on 58° N, 12° O. This means that the amount of daylight changes over the year, and that is one of the specific things with the northern light (Jacobsson, 2008). In the shortest winter day, around day 0, the sun is up between 8:00 and 14:30. In the longest summer day, around day 180, the sun is up between 02:00 and 20:00.

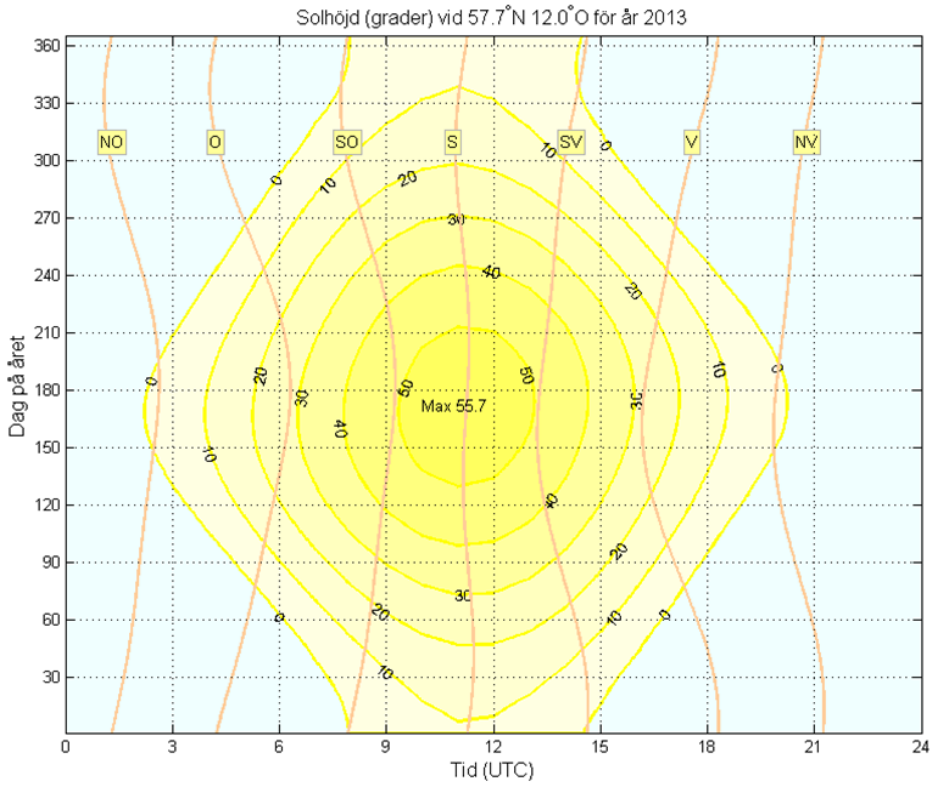


Figure 18: Solbanediagram (SMHI, 2013)

A sufficient amount of daylight is a biological need for us humans, and in these Northern parts of the world the seasonal related depression and dysregulation of the circadic system is more common than in other parts of the world (Fridell Anter, 2006).

Weather

This thesis is looking from January-May. The winter where there is some snow, and mostly an overcast sky. Fog and rain are common due to its proximity to the sea and relatively south location in Sweden. The vegetation is mostly brown. Then clear sky is coming back more and more when spring arrives. Sun and cloudy comes and goes. In March the length of the days are quickly shifting into longer and longer. Greenery starts to be seen.

The combination of short daylight and the common overcast sky is a situation where seasonal related depression and the problems with the circadic system is at high risk. Therefore the built environment in Gothenburg should make sure to take care of the daylight that is as much as possible during that season.

COLOUR

Colour provides us with guidance and helps us navigate the world. Historically, it has aided our survival—Is the fruit ripe? What time of day is it? In nature, colours serve either to stand out or to camouflage (Sivik, 1995). I suspect that Landalagången belongs to the later category.

“Colour is visual information – it evokes thoughts and emotions and triggers our reactions” (Sivik, 1995, p. 35). Every surface has a colour. Visually, we perceive shapes because humans (and animals) can detect the colour differences that form them (Sivik, 1995).

Therefore, colour can be used as a tool—one of many—we apply in the design of our physical environment. It can make a space feel defined; for example, using darker wall colours increases the sense of enclosure. Red and blue hues evoke associations of warmth and cold respectively. These effects are scientifically validated, while others remain more subjective. This thesis will operate in both the “perceived” and the “measurable” dimensions due to the inherently complex nature of colour.

It is well established that colour affects us both physiologically and psychologically—particularly when considered as part of the light spectrum. The “sense of an enclosed space” is directly correlated with the darkness of the wall colour, while hue itself has minimal impact in this regard (Sivik, 1995).

According to Hård, Küller, Sivik, and Svedmyr (1995), warm and cool colours evoke associations with temperature (Küller, 1995). Additionally, colour activation and patterns stimulate the brain’s electrical activity, thus having a direct physiological effect on people. The psychological impact of colour lies in its ability to evoke emotions (Sivik, 1995).

THE NCS-SYSTEM

To dive into the world of colour and light we need a proper language to accurately distinguish between all the subtle nuances that is in the colour universe. One way to do that is with the NCS system. It is swedish developed in the 20th century. It is scientifically developed by how we perceive colours, meaning it is developed by visual judgement and the steps in the system is based on what the eye can distinguish (Fridell Anter & Klarén). It is possible to use for all material surfaces and between industries. Each colour is given a code. To arrive at this code the systematisation takes its start in six elementary colours:

The six elementary colours are black, white, yellow, red, blue and green within the NCS-system.

Figure 20: The six elementary colours of the NCS system (NCS, n.d.)

The NCS colour circle consists of the yellow, red, blue and green. If the hue is purely yellow, the code includes a Y. If it is pure red it includes a R. If the hue is exactly in between yellow and red the code is Y50R, meaning that it is a yellow with 50 & of red in it. Furthermore, Y30R for example, means yellow with 30 % red. The Y50R and Y30R gives to different hues of orange.

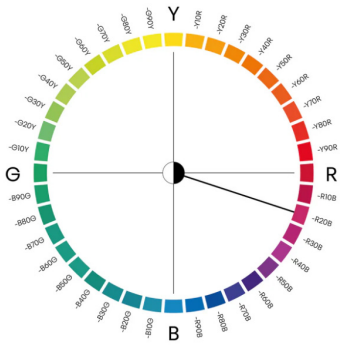


Figure 21: The NCS Colour Circle (NCS, n.d.)

The colour circle is then expanded into the colour space. Here the black and white is added to the other four colours. This creates the change of blackness within a hue. The blackness is the first numbers of the NCS code and is a value in percentage. 10 means 10 % of perceived black for example. The further from the black-white center of the Space, the stronger the chromaticness. The blackness and chromaticness together is called the nuance.

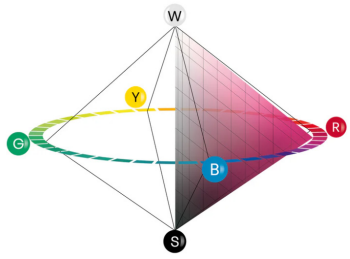


Figure 22: The NCS Colour Space (NCS, n.d.)

From the Colour Space triangles can be extracted. They represent the all possible nuances within a specifik hue. There is a triangle for every hue.

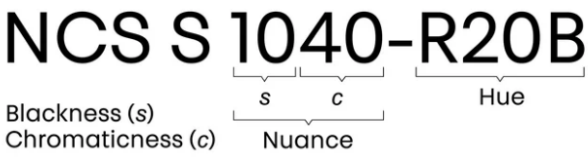


Figure 19: The NCS Notation (NCS, n.d.)

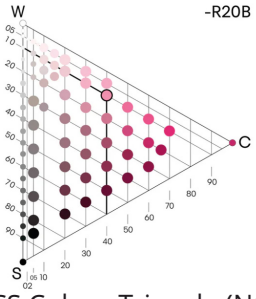


Figure 23: The NCS Colour Triangle (NCS, n.d.)

LOCAL CULTURE

Northern light

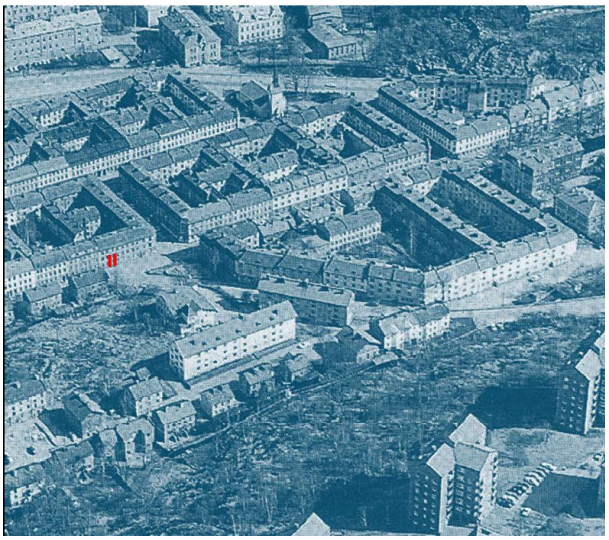
Before mentioned change in daylength. Normal here, not happening in the whole world. Long sunrises and sunsets. Shadows that comes from the side, coloured by the trees or whatever that it is passing in its way into the window. Reaching deep into the building. Specific for the northern light. For example, in the south of Europe, daylight comes more from above, stronger and slipping down the facades, not reaching into the buildings as much.
Long blue hour, long sunrise, day, long sunset, long blue hour. Night length varies throughout the year. In the winter it is normally dark when entering work, and dark when going home from work. In the summer it is instead important to find a good blind to get enough dark hours for a proper night of sleep. The in between time when day changes into night was historically spent as a resting time, called “kura skymning” (Jacobson, 2008).

Colours through history

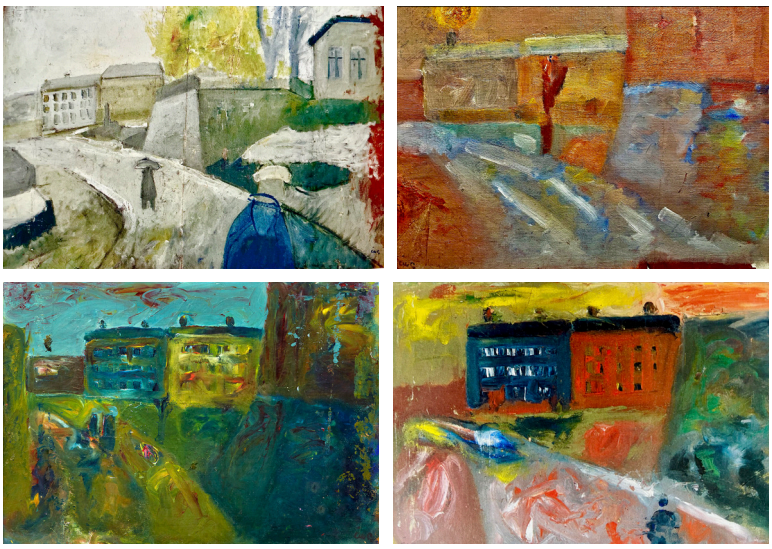
The association to colours is sometimes a collective thing in a country or a region, and sometimes individual (Sivik, 1995). Common/shared references create belonging between people. In this thesis the local colour history springs from an artist that lived within the site, Åke Göransson. He lived in Landala the absolute majority of his life, from 1902-1942 (personlig kommunikation, Lund, 2025) and painted the view out of the window of the apartment he lived in. He is one of “Göteborgskoloristerna”, a group of painters that used colours in new and expressive ways. Colourful, breaking with older stricter ideals. Tor Bjurström was headmaster at Valand and inspired Åke Göransson and other Gothenburg colourists. Tor Bjurström had studied at Academie Matisse in Paris. Matisse was specifically interested in colour, saying that “I feel through colour” (Néret, 2022). That is the story of how one master’s love of colour got spread all the way from the French strong sun until the Nordic countries, Gothenburg and Landala. The love of colour got adapted to the local Nordic light and Gothenburg weater conditions. That can be seen in examples from Göranssons painting series on the next page.

PAINTER FROM LANDALA

Åke Göransson was an artist that was living in Landala at the time it was Landshövdingehus. He painted a series of paintings from the view from the window of the apartment where he lived, capturing light and weather over changing seasons. Like Monet, Eva Amborg and the work within this theses. Thanks to Åke Göransson, there is a colour palette from Landala preserved from earlier times.



The red stripes markes the windows of the apartment where Åke Göransson lived. The left picture is showing the area as when he lived there. The right one as it is today, touching the corner of one of the two buildings that are part of this thesis.



Some of his paintings to the left. To the right his collected colour palette.

Figures 24-30: Colours and light Åke Göransson (Lund, 2025)

TIMELINE

The timeline:
Architecture
Social movements
Colour & light
Art

Connections

Stilla Gatan





Architecture

Gustavian 18th century

Neoclassisicm 1880

National romanticism 1910

Nordic classicism 1920

Functio 1940

Social movements

Living close to nature is desirable, due to the bad air in the newly industrialised cities.

Wave of demolition for 'remediati to decrease sicknesses.

Colour & light

The minimalist Scandinavian aesthetic can be traced back to the 18th century. Then pale colours were common.

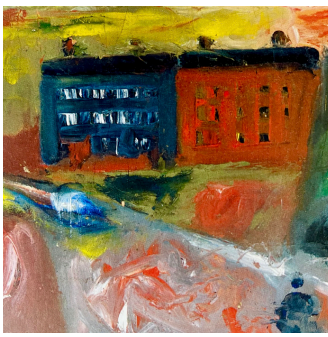
That is probably due to the Nordic light. With short hours of daylight in the winter a pale interior is capturing the little existing light.

Historically, natural pigments such as earth and plants has been used to produce the colours.

That gives a limited and mute palette , consisting of pigmer as umber, terra and ochre. It is National romanticism and Cl

With the funct Ornaments we had strong col pigments. Impo sometimes miss



Art

Impressionism 1894

Rouen Cathedral, West Façade, Sunlight
Claude Monet

National romanticism 1898

Kurragömma
Carl Larsson

Expressionism & Fauvism 1908-1911

Académie Matisse, The Sheaf (1958)
Henri Matisse

Gothenburg colour 1932-33

Gatan blått hus. Gult
Åke Göransson

Landalagången





nalism

'Folkhemmet' 1950

Million programme 1965-1974

Postmodernism 1980

Contemporary 2010-

What is next?

on'

Housing shortage, 1000 million new housing units to be built.

Increasing interest for handicraft and colors.

tionalism came a focus on light. re not anymore. Some buildings ours - now possible with synthetic rted to Sweden the colours were ed, due to black and white photos.

With the increase of synthetic pigments came a possibility of using stronger colours. As seen in textile patterns in 'Sport' and architecture in 'Läppstiftet'.

Colour on the rise again. Strong colours as in expressionism (Matisse and Linnéa). For 2025, muted colour palette again.

d colour nts such seen in assicism.

During the 'folkhems'-period the light feeling stayed, and the colour palette went more pale and with gentle colours. Pastel shades. Interior changed into light furniture.

The contemporary architecture is elevating the white color since the beginning of the 21th century. Inspiration from the minimalist functionalism, and what was thought to be a white period then.





rism

Modernism 1955

Sjuan
Arne Jacobsen, H55

hus

Postmodernism 1972

Sport
Ingela Håkansson-Lamm, 10-gruppen

Postmodernism 1980

Collected pieces
The Memphis Group

'Ljust & fräscht' 2000

Wall poster
posterwall.se

Contemporary 2022

Mural
Linnéa Andersson

Figure 31: see complete reference list at "REFERENCES - figures"

CONNECTIONS FROM TIMELINES

Bright colours during Gustavian era. Continued until the national romanticism. Heavy colours, a lot of ornaments. Details. Handicraft. Connection to Carl and Karin Larsson.

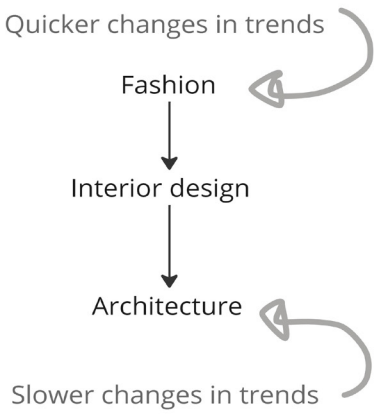
At the same time further south, in France, Henri Matisse dedicated his life to colour and explained the relation as “I feel through colour so my pictures will always be organized by it” (Néret, 2022). He was a part of the fauvism and expressionism movement, and counted Claude Monet as one of his predecessors in the impressionism.

Matisse started Académie Matisse in 1908, in Paris, and many nordic painters studied there. One was Tor Bjurström, headmaster at Valand. There many of what would become the Gothenburg colourists studied. Examples are Sigrid Hjertén, Isaac Grünewald, Karin Parrow and Åke Göransson.

1923 is Stilla Gatan built. Comeback for lighter colours, in the national classicism, an in between period between national romanticism and functinalism (Caldenby & Engström, 2022). Åke Göransson is living in another Landshövdinge-building, in Landala. Here he paints his series of the view from his kitchen window.

Some decades later is the rise of functionalism. Light and healthy. Out with the old. Tearing down and building completely new neighbourhoods in Gothenburg. Most of Landala landshövdingehus is teared down and replaced by buildings from the million programme. They are the ones still standing today.
There were little time to build all that housing, and the sense of detailing, colours and handicraft decreased.
Today strong colours can be seen again, as in Linnéa Andersson’s mural painting, which has a lot of similarities with the cut-outs from Matisse.

What is then next within architecture? Art and interior design has often been an indicator for what will come next.

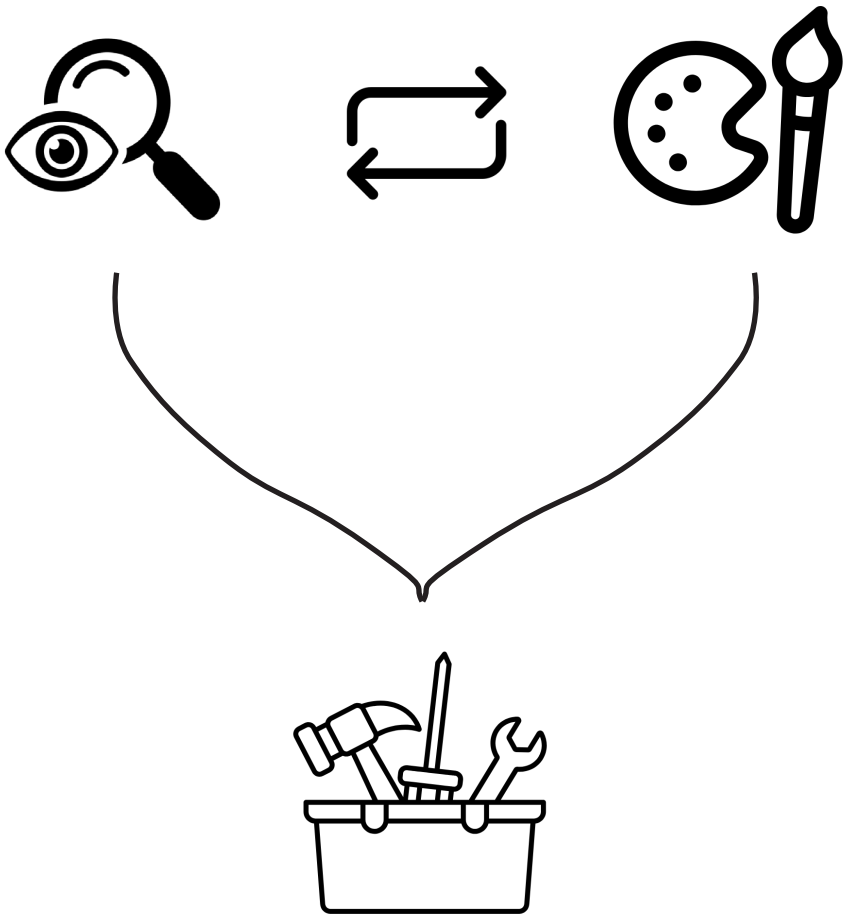


Interesting to look at fashion and interior design as a tool to predict upcoming trends in architecture. Color is on it's way back.

PAINTING

Methodology
Observations / the Paintings

METHODOLOGY

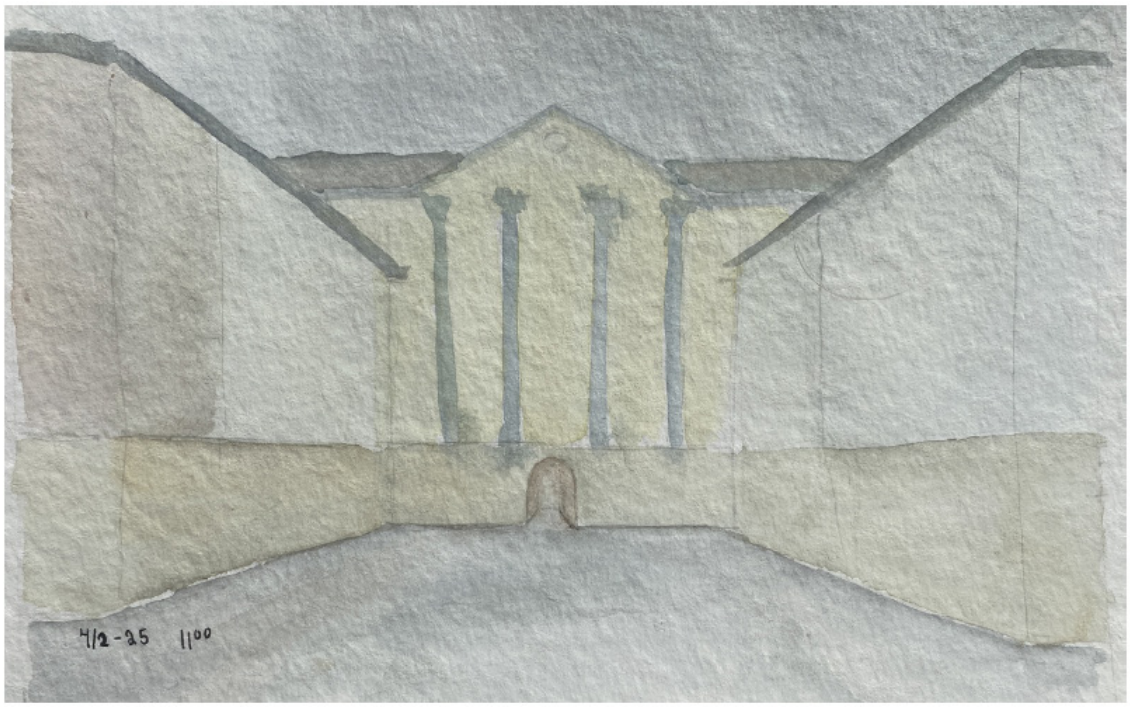


Observations through repeated painting leads to a toolbox.

THE METHODOLOGY OF OBSERVATION THROUGH REPEATED PAINTING

I used the method of aquarelle painting for my analysis of Stilla Gatan. Painting a site requires time spent on site. It requires the site to be properly looked at, analysed and reflected upon. To take impressions, reflect upon them, and then choose which of them to express on the paper. The choice of aquarelle as a painting technique is due to its constant relation to light and colour mixing possibilities. A painting is made upon several layers of colour where the darkest areas have the most layers. That requires the painter to identify the lightest and darkest areas (and therefore the whole light situation on site) before starting the painting. The absolutely lightest parts can advantageously be left unpainted. With the use of primary colours precise colours can me mixed. I used a palette of eight colours; yellow, red and blue in a cold and a warm version and complemented by two earth pigments as a shortcut for some mixes. The pigments used were Cadmium Lemon, Carmine, Ultramarine, Cadmium Yellow Medium, Cadmium Red Light, Blue, Burnt Umber and Yellow Ocher. When sitting down on the little painting stool I am slowing down. The eyes wander around, the sounds are heard. Everything that my senses usually registers and notices subconsciously with my everyday pace starts to become aware and conscious for me. And from here I start to be able to lay the puzzle of what those usually subcontious impressions where. What is it that impacts my impression of a site? Why do I feel at ease, good, happy and calm when walking at Stilla Gatan?

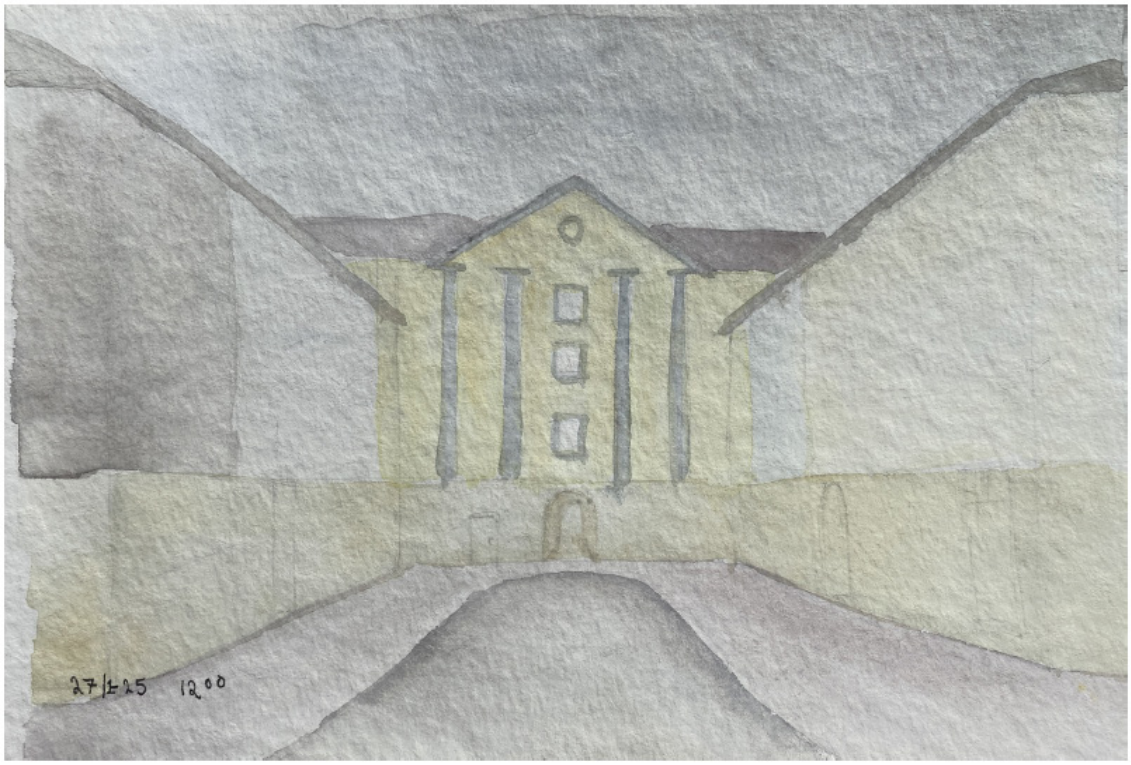
OBSERVATIONS



OBSERVATION ONE

Painting one, 27/1 12:00
I notice subtle shifts in colours along the facades. From a quick glance I first thought it all was one colour. When looking longer I notice that it is changing every 15 or 30 meters. I enjoy it while painting. I have something to let my eyes rest on for longer – it is interesting and sparking curiosity within me. Is that one to the right a little more greenish beige? Ah, it is actually quite green. The one opposing, would I call it a white or a peach one? It is manageable, I can see the beginning and the end of each colour area from my position. I can relate myself in the space with this scale. *Scale of colour patches.*

Scale



OBSERVATION TWO

Painting two, 4/2 11:00
I notice the overall greyness of the site today. When mixing the colours, and this one I am painting from a photography since it became too cold to stay outside, I realise there is not much differentiation between the aquarelle mixes on the paper. It all stays in a very limited/restricted part of the whole possible colour universe. Grey would be the word to describe the overall feeling. All colours is in the middle range of blackness. It is not dark, but neither light. The chromaticness is quite low. The hue stays in between yellow, orange, brown and grey. *Contrast / lack of colour contrast*

Colour contrast

OBSERVATION THREE

Painting three, 10/2 12:30
This day the sun is out for the first time, and what a difference it makes. The site is suddenly much more vivid. The shaded versus the sunlit parts are contrasting to each other. These differences are enhancing the depth in the site. The right shaded side is calm, resting and the opposing left side is glowing in light and getting the attention of the eye after this previous long overcast period. This new painting is making the older two dull and flat in comparison. *Sun and shadows – light contrast*

Shadows

OBSERVATION FOUR

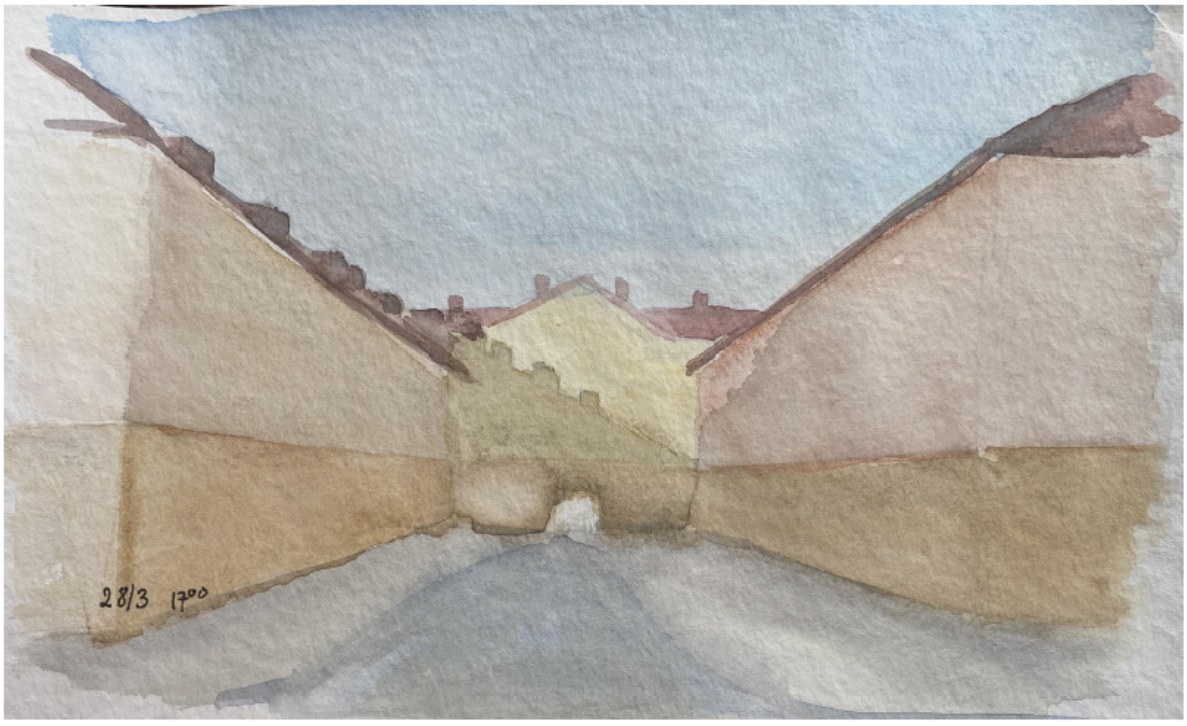
Painting 4, 11/2 17:00
17:00 o'clock in the middle of February means the start of shift from day to night. It is the time when the sunset and the blue hour meet. The sun is low and shining onto many of the windows, making reflections in the glass. What is seen in this reflection is the blueing sky, a slightly deeper blue than in the full daylight. These reflections are giving the site a calm liveliness and a depth. A kind of glitter/shimmer that is not blinding the eyes. For a Gothenburg reference – like the glitter/shimmer on the water on a calm evening. *Reflections*

Reflections

OBSERVATION FIVE

Painting 5, 20/2 11:00
I am continuing to pay attention to the windows on this next visit. I notice they have a contrast in colours compared to the facades. The contrast is seen on all ornaments and details in relation to the overall façade colour. For the windows, it is like putting mascara on myself, it makes the eye stand out more from my face since the black mascara and light beige skin tone has a high contrast between them. Theory connected to this is contrast enhancement. *Depth.*

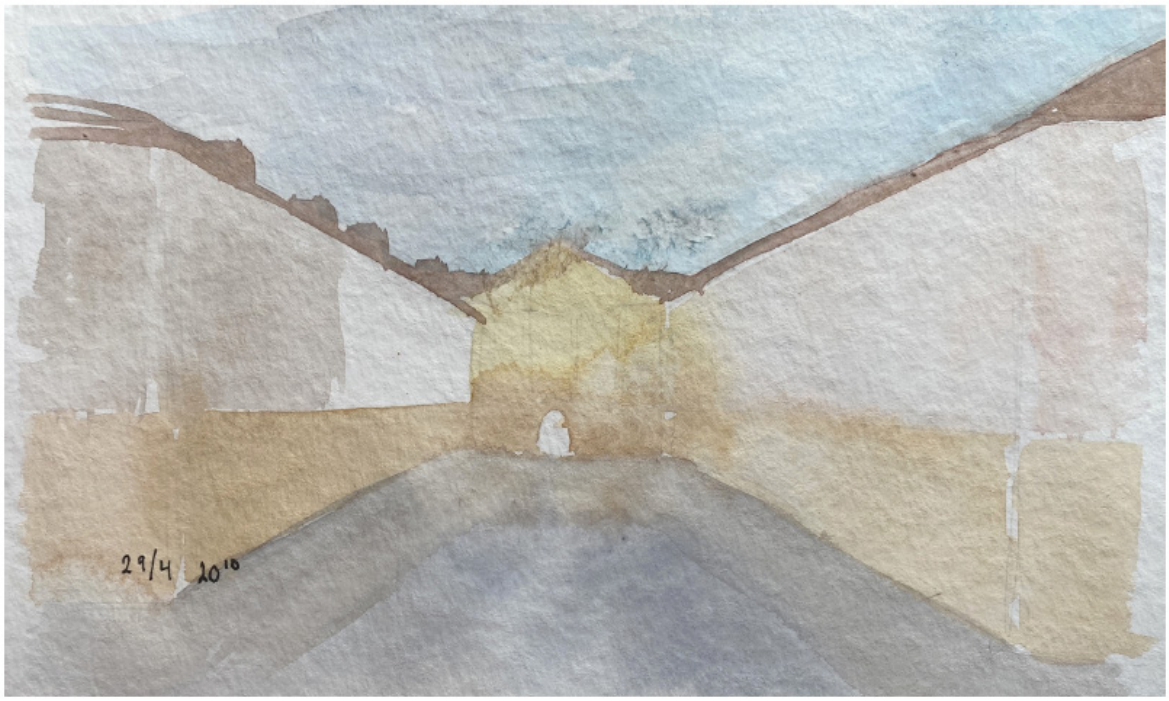
Depth



OBSERVATION SIX

Painting 6, 28/3 17:00
Most central in my motif is the yellow façade. This yellow has been pale, it has been glowing and all kinds of varieties. But I have always seen the sun coming from the right of me, making the right half of the façade in shadow and the rest in the sun. This time when I sit down it is the opposite and at first, I am very confused. I then realise that now later in the year when the sun stays up longer it also reaches further northwest. Today it has happened to reach to the left of me behind my back before going down. This is a good lesson of that the colour and light conditions change over the year. What is in the sun for parts of the year is in shadow others. For this site it is good that both sides has windows that can reflect light to the one opposing façade that is in shadow at the time for example. Seasonal change. Weather. *Layers.*

Layers



OBSERVATION SEVEN

Painting 7, 29/4, 20:10
The last visit. Now it is 20:10 and it is more daylight than when I visited at 17:00 the 11/2. It is still daylight now. The blue sky is well contrasted to the dark redbrown roof. It feels like the sky is high above the buildings due to this contrast in colours. It is also feeling as if the buildings are well placed on the ground: firmly resting with it and not melting together. The orange ground floor has a high colour contrast with the grey asphalt, the same occurrence as with the roof and the sky. Therefore, how a building is perceived is related to how it meets its surroundings. *Meeting with surrounding.*

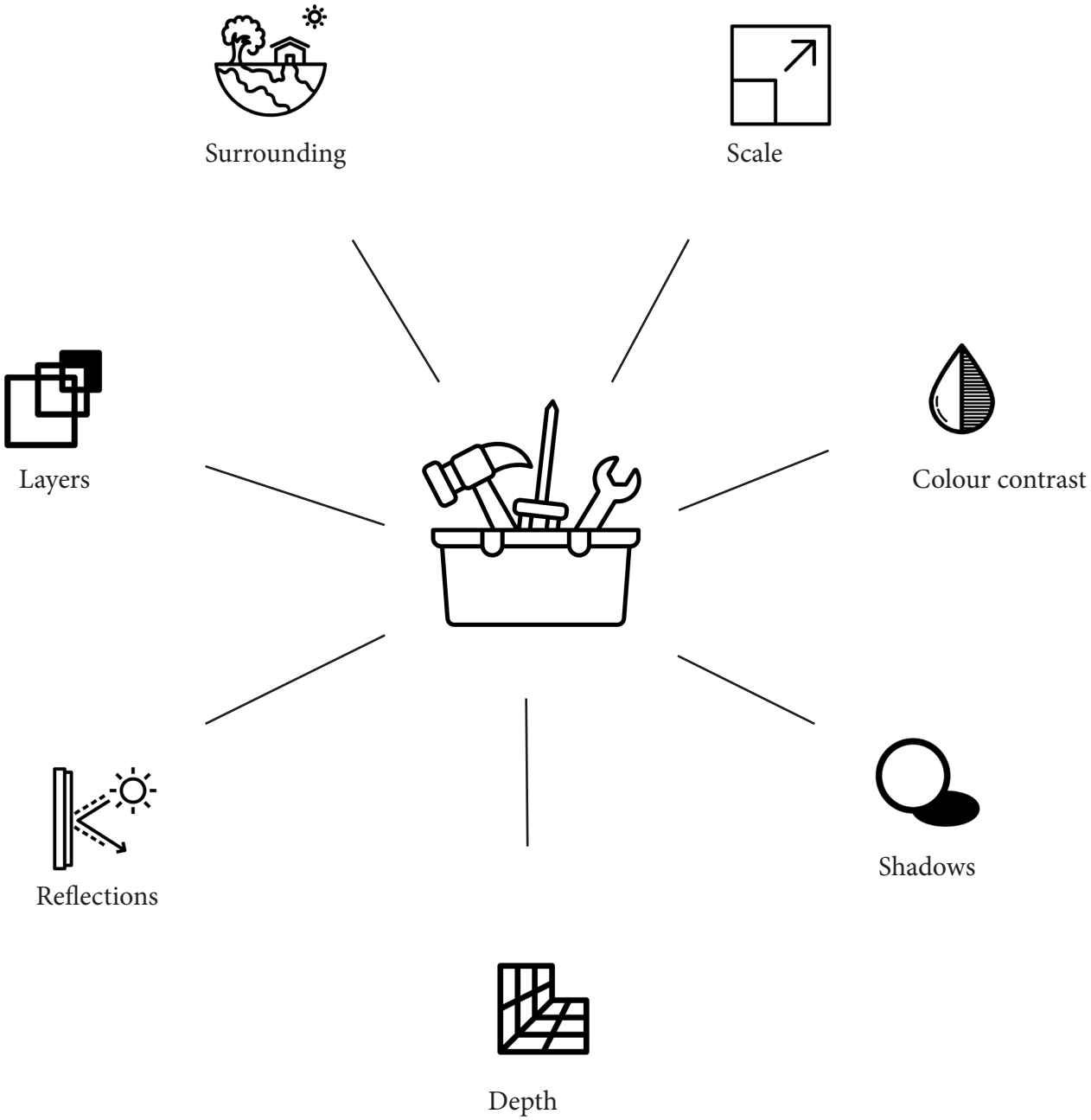
Surrounding

TOOLBOX

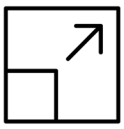
Overview

Scale
Colour contrast
Shadows
Depth
Reflections
Layers
Surrounding

THE TOOLBOX



The toolbox is the summary of learnings from painting on site. It consists of seven tools for analysis of light- and colour conditions of an outdoor built environment. It is derived from painting at site visits and theory reading as methods. It is observed over changing light, weather and dates. The summarized experiences and learnings are in these seven tools. It gives a language for the light and colour experience.



Scale

To have a language to talk about scale and to relate different projects to each other, I decide to have a human (median length of a woman and a man in Sweden) as base units to relate the projects to.
I decide upon that because architecture and the built environment is in the end perceived through this perspective. The city is in reality experienced in an everyday life by us people that are living and visiting it, not through theoretical bird-eye renderings or top-down city maps. Therefore I find it important to relate the scale of a building to the eye level of a human, it will show how you feel in the place. Do you feel big or small? Do you have an overview of the whole site or do you only see a small fragment of it? On the top of your vision, do you see an endless façade or do you see the sky? Can you see what the neighbour across the street is cooking for dinner, or can't you distinguish if there is anyone living there at all? What does that do to us as humans? To feel connected and as a part of the area?
Scale was decided by fire safety for the Landshövdingehus. Height of two or three levels were common then. The lengths of one unit was between 15 and 30 meters. Units placed next to each other, but the units often still separable by the eye.
Landalagången decided by need of housing. Miljonprojekt's streets at places by the sizes of the vehicles that built the site. The modules of what was quick to put together, to multiply and to maximize people in a specified area. Lower ceiling height inside. Taller and wider buildings. Big inside. Small outside. Not built for you, built for the machines.
The scale can be manipulated / changed by the use of colour. Division of facades into smaller parts by different colours (as in Stilla Gatan. Also example of that happening in Sandarna for a miljonprogram/funktionalismbyggnad). Or opposite, do connect several buildings or details by a unifying colour. The scale can also be taken down by choosing different colours for first floor, the other floors and the roof, for example. Or by making details such as entrance, windows or balconies in a differentiating colour from the façade.

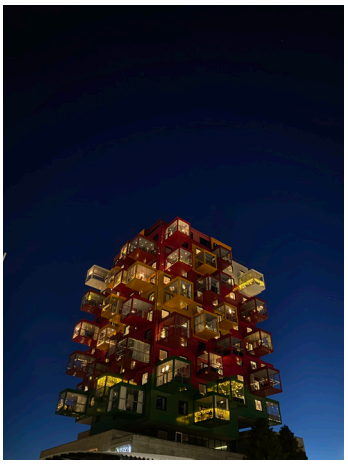
References from visited places:

Morges, Switzerland: The houses are narrow and four stories high, making each building able to comprehend for the people passing on the street.

Colour contrast

To look at contrast (in colours) because related to the climate, there is seasonally a lack of it. With the overcast sky, the clouds are taking away the direct sun and the existing natural light turns mild and without much shadows. It flattens the experience of what you have around you. Distances, like what is sticking out and what is sunken in, is harder to understand. Also, if parts are aligned or differentiated in depth. Colours can be a substitute and an alternative tool to keep these basic and needed navigation tools still. Example: The painted stoned, always there. Real – when overcast sky the thickness fades away.
For navigation in the built environment. What is closest to me? What is further away? Natural reaction as to red is closest, and blue is furthest away.
When analysing / planning a project, think of how the colour contrast is on site. Low? High? A balance is desired. Too low – difficult to navigate. Too high – Tiring, alarming and unnaturally sharp. Not harmonic and resting to spend a long time at maybe.

References from visited places:



Örnsköldsvik: The facade colours have high contrast to the evening sky.

Avenyn, Gothenburg: The facade colour have a low contrast to the surrounding sky and ground.

Avenyn, Gothenburg: The blue signs have a very high contrast to the beige and grey palette of the rest of the environment.

Shadows

The seasons and days when the sun is shining we have the shadows to work with also, as one fun tool. Can be non-existent, can be sharp. A spectrum.
A sunny and a shadowy part is a kind of light contrast (in comparison with the colour contrast above). Navigation. Distinguish depth.
They change over the 24-hour, and over the year. Short or long. Sharp or diffuse in the edges. Existent or non-existent.
The need of both sun and shadow in a outside place is valued. Vinter and spring – the first warm arrays of sun is welcomed by people stopping and turning their faces toward the sun. Soaking in the D-vitamin. In the middle of the summer, a shadowy part of the courtyard is what makes a hot day manageable.
Notice the type of shadows, and their extent. Notice how it changes over the day and the year. Is there specific places that feel too shadowy or too bright?
Shadows can have a decorative role also. The pattern from a tree reflected on the façade behind.

References from visited places:

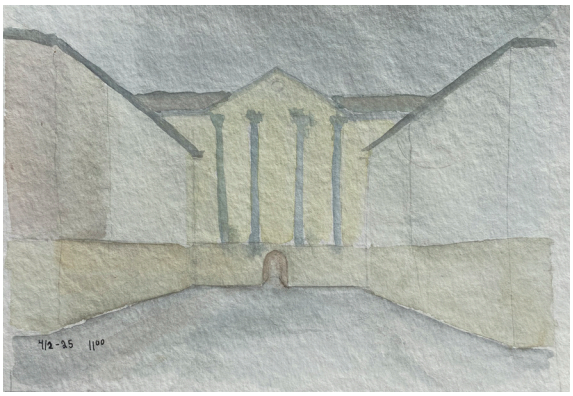
Sharp cast shadow. Lausanne, Switzerland. Soft cast shadow in Gothenburg. Pictures taken the same afternoon.

Figure 32: Soft cast shadow (Amborg, 2025)

Depth

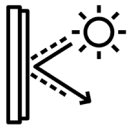
Colour contrast + shadows (the sun and the shadow can be seen as light contrast) together creates a sense of depth. The depth is a more overall impression of the site. Zoom out and take subjective notes. This tool is especially important to analyse with in different weather. The overcast weather takes away all the depth that is created by the play between light and dark from the sun (and shadow). Take notes of how the impression is in that condition.

References from visited places:



Stilla Gatan: The impression of depth is very different between these two paintings. When I have painted the colours with bigger differences to each other, and when the weather was sunny, those two factors are giving the right picture a higher sense of depth.

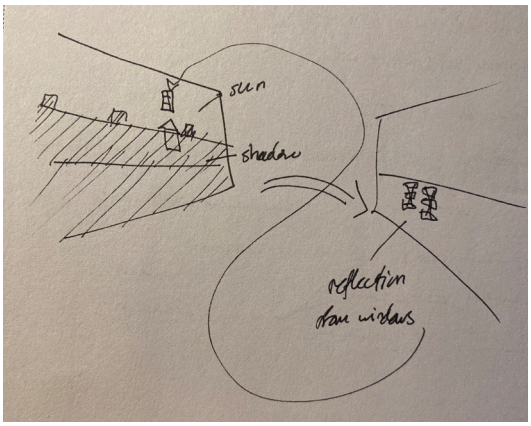
Camogli, Italy: A sense of depth is created by painting on the facade. The facade is completely flat, but the painted shadows and colour differences creates an illusion for the eye.



Reflections

Look for light reflections because it has an impact on depth, detailing and the aliveness of a site. The reflections move with time and day.
Especially Gothenburg, with low light and cloudy, it is wise to make use of the sunshine that is. To direct it to more places by reflection. Reflection is commonly occurring from window glass onto opposing façade. Theoretically from glossy enough materials. A way of enhancing and directing light when it can be sparse of it. Coloured by the colour of the reflecting space.
Look out for too striking reflections – can be perceived as blinding and uncomfortable.

References from places I have visited:



Stilla Gatan: Left: a sketch on how the daylight hits the left facade, gets reflected in those windows and shines onto the right

Layers

This part of the toolbox is closely connected to the nr 4; depth.This tool is also looking at depth but in a specific way. That specific way is layers and by this we can specifically look at the foggy weather in Gothenburg. Look at the layers in the built environment because they can be connected to the fog that rolls in at certain weather. Creating layers can be used as a measure of fog density and closeness. It highlights the fog and how it rolls in and out. It is a way of making people pay attention to local weather phenomena. It is possible to create a yardstick with the built environment. Repetitive moments with a gradation. Facade changes. Entrance numbers. Or a fixed point that is sometimes visible and sometimes not.

References from places I have visited:

Chalmers overlooking Karlatornet, Gothenburg: Whether or not the Karlatornet highrise is visible from my study spot at Chalmers.

Lausanne, Switzerland: fog and clouds rolling in, making fewer layers of mountain tops of the Alps visible.

Surrounding

Relate the colour to the surrounding. In what context is this project located? Nature or built environment. Always in a context of something. Also the historical layer, the cultural history of the site. How to fit the new within that? How to relate it to the surrounding (either by contrasting or harmonizing with it, or a mixture).
What colour are existing in the surrounding?
How does it change during day vs night, and in summer vs winter? In the spring, when all flowers start to blossom? In November, when the trees are naked? In January, when the ground is sometimes white instead of green? Or brown?
Is there light or dark colours in the surrounding? Is there one or a few colours that at a first impression is more striking/occurring? How is the overall palette?
In nature: look at ground, vegetation and sky.
In built environment: look at buildings and smaller things on site, and the visible buildings next to the site. Look at facades, doors and windows and roofs. Is there any other thing that is taking a lot of your interest? At Landalagången, there is a wooden fence. One level high, but following your side when entering from the north entrances, and one of the first thing that presents you to the area.
Light: when and how does the light reach your site? Possible reflections or shadows? Does the existing facades suck all the existing light or do they pass it on?

References from places I have visited:

Mölndalsvägen, Gothenburg: facade colours contrast with the sky. Facades percieved as strong in colour but still has a lot of blackness in them.

Kålltorp, Gothenburg: The dark brown brick facade above melts together with the sky which creates the feeling of the sky hanging very low, and the buildings difficult to distinguish.

Figure 33: Mölndalsvägen (Amborg, 2025)

ANALYSIS OF LANDALA

Preparation work
Photography series
Analysis by toolbox
Change proposal

ANALYSIS BY TOOLBOX

The toolbox is applied for an analysis of Landalagången. Each tool will in the end be evaluated with good conditions (green) or bad conditions (red). If mixed, yellow will be used.

PREPARATION WORK

ANALYSIS OF SITE

As a preparation for the toolbox appliance, the site has been studied over time by regular visits and the creation of a photography series.

PHOTOGRAPHY SERIES

27 January 16:39
2 C

12 February 13:34
2 C

12 February 15:36
1 C

14 March 12:06
3 C

3 April 2025, 16:35
9 C

28 April 21:14
10 C

2 May 16:09
13 C

8 May 8:50
12 C

9 May 10:09
11 C

Between the different photos it is possible to see the changing light, colour on the facades, colour on the surrounding and how the shadows move with the season and weather. In the first visits, the vegetation except the grass is brown/grey and does not cover much of the facades. The facades themselves are percieved as colder in the colour when the sky is cloudy and warmer and a bit more pink when the weather is sunny. When the spring arrives the trees get green leaves that cover the first floors. The sun also reaches further down the facade. Compare April 3rd and May 2nd for example. Regardless of season and weather though, the entrances on the ground floor are always hidden from sight upon arrival due to the vegetation, the shadowing and the covering balconies.

Scale

The two buildings are creating an open flow through the courtyard. The facades are flat except the balconies. It is airy but also unpersonal since the buildings are not enclosing at all. Not a restful place. The scale is bigger than Stilla Gatan. High walls, 7 stories high. The buildings are 140 m long and the space between the courtyard approximately 30 meters. Feeling small as a human. ”Not built for you, built for the machines”. That feeling I get when standing on the courtyard. I notice more facades than I notice sky. I can not count the amount of entrances, because they disappear into the back and they are many enough that makes them hard to distinguish from each other.

Comparison between the scale of Landalagången and Stilla Gatan. Number of floors, size of colour patches and detailing are significantly different.

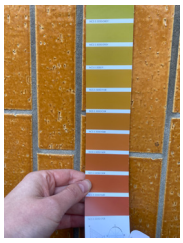
RESULT OF ANALYSIS

= a minus: unhumanly big scale

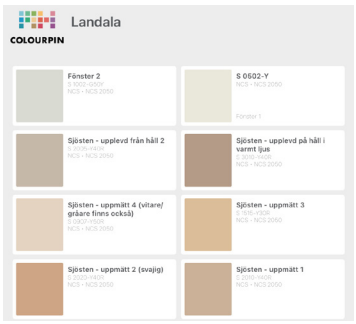
Colour contrast

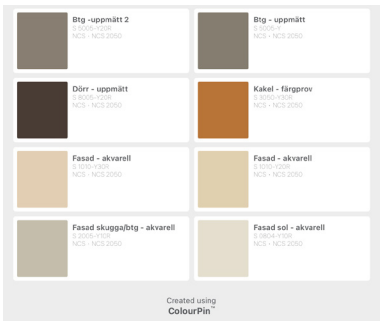
Low contrast, colourwise, on facades overall. Grey - monotone and corresponding with overcast weather. Also quite the same blackness on the ground, but in the spring the asphalt and the vegetation creates some more contrast to the rest of the ground (grass). The roof is different, it is red compared to the grey/beige facade and the blue/grey/black sky.
When seeing the building from the side, which one does upon arrival, the side of the entrance melts together with the winter trees (natural wood). When seeing the entrance from close, standing in front of it, one sees the strongest colour on site. It is made of orange tiles. It is the same on all entrances (7 times 2 buildings).



Above: measuring of the specific colour on the facade by NCS Index.
Below: measuring the facade colours by NCS Colour pin.



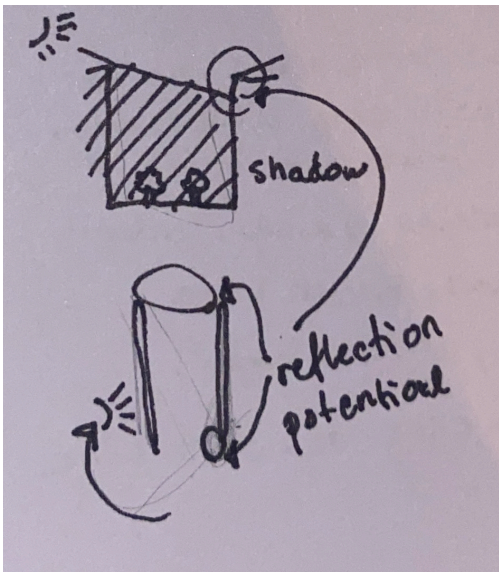


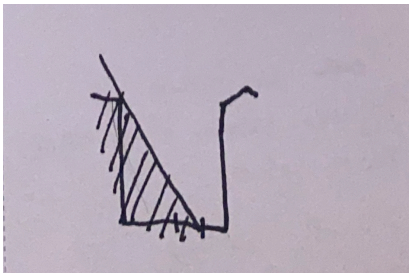
RESULT OF ANALYSIS

= a minus: too even colour scheme, too low contrast
a plus: the blackness and cromaticness of the entrances orange suits well

Shadows

In January: the ground and the two facades are in shadow. Only one of the roofs including the 7th floor is reached by the sun in the middle of the day.
In March: One facade is in the sun, half of the ground also. The sun on the facade stays until the afternoon.
There is apparently quite a big difference of the amount of shadow on the facades over the change of months.





Left: section of the couryard showing the shadowed amount in January.
Above: Same section of the shadowed amount in March.

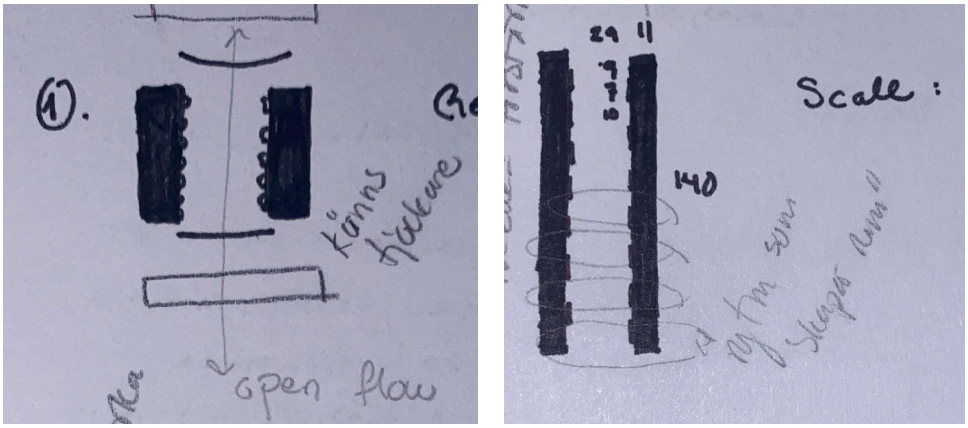
Left: The entrances are often in shadow due to the wooden fence of the sides and the balconies above.

RESULT OF ANALYSIS

= a plus: the interesting change of amount of shadows between the months.
a minus: the shadowed entrances.

Depth

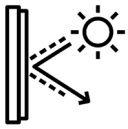
The whole place feels flat. Flat horisontally along the facades. Flat vertically up the facades. The only depth is made by the balconies. Today, that depth is not beautiful, more disturbing. Like an ugly break from the flat and homogenous facade. Can it instead be used to give an interesting and harmonic depth and rythm to the buildings? Also, is it possible to get the two facing facades to communicate with each other, to stop the highway feeling in the courtyard?



Left: arrowing illustrating the feeling of a highway through the courtyard due to relatively flat facades.
Right: Takingnotes of the only part of the buildings that are stopping the highway feeling; the balconies. They are creating some kind of depth on the facades, and they are mirroring each other on the two oppocing facades.

RESULT OF ANALYSIS

= minus: flat - not much variations in facade or colours



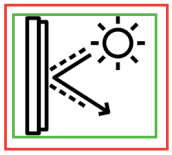
Reflections

Quite a lot of reflections (in late March/early April). The windows on the east facade reflect well light to the opposing west facade. Can the balconies be used ass such reflectors also? Should there be a medium/high gloss on the concrete pilars and beams carrying the balconies also? The ”ceiling” of each balcony is also raw concrete, and does not reflect basically any light. Instead it sucks it in and makes theese ceilings dark when standing in front of the entrance and looking upwards.

Above: a lot of reflections on Landalagången, in the same manner as earlier observed at Stilla Gatan.

Left: the raw and matte concrete at the ceiling of the entrance and balconies above.

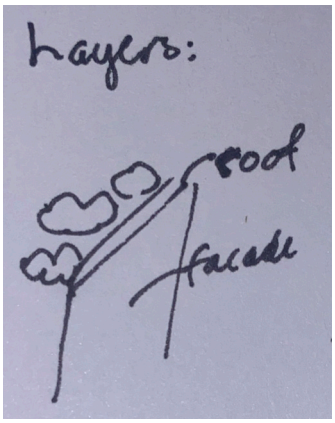
RESULT OF ANALYSIS



= plus: a lot of light reflections that are spreading the daylight and creates beautiful patterns on the facades.
minus: matte surfaces that does not take advantage of the existing daylight and possibility of further reflection of it.

Layers

Here it would be interesting to see if the 7 entrances can be used as fog notifiers? And also making sure that the roof is making a sharp distinction between facade and sky, because that makes the sky on a foggy day less heavy.



Left: a sketch of the roof could work as a line between the facade and the sky when it is overcast. The purpose would be to differentiate the sky from the grey facade and therefore make the sky feel less heavy.
Right: The uniform entraces of today.

RESULT OF ANALYSIS

= minus: The uniform entrances. Big potential though in turn into a fog density notifier.

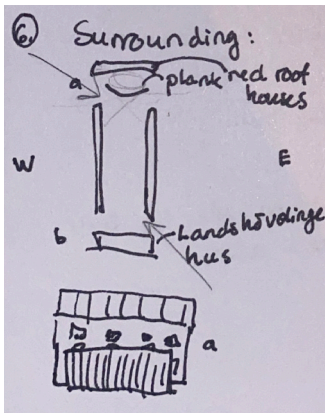
Surrounding

Other buildings

Landshövdingehus on the south side. Colour scheme similar to the one in Stilla Gatan. Red roofs, very visible due to Landalagångens courtyard being raised one floor (parking space underneath). Warmer colours than Landalagången. Almost same blackness and intensity, bit a tad higher. On the north side there is a unpainted wooden fence, ca 2 meters high. Behind that is a very red house, both facade and roof.

Nature

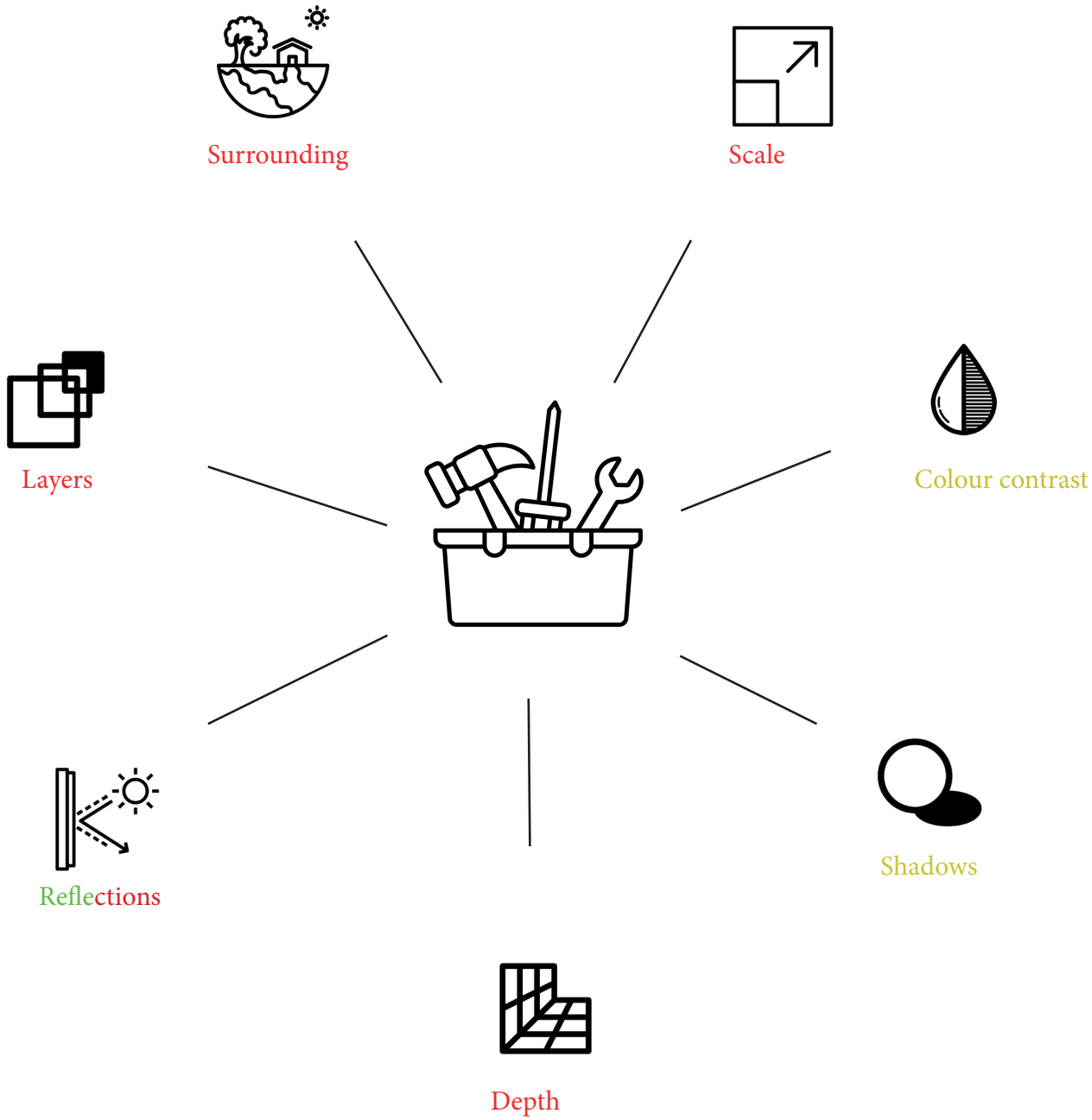
Asphalt and bushes and grass is covering the courtyard. In the winter the colours are dull, the overall blackness high and reflection is low. In spring there is white, pink, light green and other colours upcoming. The trees, bushes and flowers seems to be well chosen to give an alive garden in spring and summer. The sky is seen a lot, but one is needed to tilt the head upwards to recognize it since the facades are that high. The eyes are not naturally going there otherwise.



RESULT OF ANALYSIS

= minus: the analyzed buildings are not interacting much with the surrounding. More colours and detailing can be picked up into the buildings that are being analyzed.

ANALYSIS CONCLUSION



A summation from the analysis of what is wanted to change (in red) and what to keep or enhance (green). The yellow ones have both things to keep and to change.

CHANGE DESIGN PROPOSAL

HOW TO CHANGE

Increase **contrast** at entrances from greybrown winter vegetation.

Give the ground floor a feeling of resting on the ground

→ High chromaticness on the ground floor with tiles in different colour.

Create the feeling of the sky feeling light above the building

→ Roof colour that is **contrasting** with grey

Highlight the balconies to decrease the **scale** of the building. And to create **depth** between facade and balconies.

→ Increase **contrast** with colour and material on balconies compared to the **surrounding** 'sjösten' and the concrete parts.

Create life in the 'dansk sjösten'

→ Paint the concrete in white to highlight the yellow/color of the 'sjösten'. White that **contrasts** with the 'sjösten'.

Reference back to the impact of **history**

Create a colour scheme that sustains over time: balanced, beautiful, uplifting

→ Use white, blackness and variation in hue, like in the **surrounding** 'Landshövdingehus'. That are colours that are lasting over time for the eye. Calm and stability. Then add a tad more of the colourfullness, thanks to the learnings from the Gothenburg colourists and the joy of light from the functionalism.

Reflect the light that is hitting one building down to the courtyard and the opposing building

→ With **reflections** on the 'sinusplåt' on the balconies and the white painted concrete

Create liveliness and **depth** in the flat circumstances

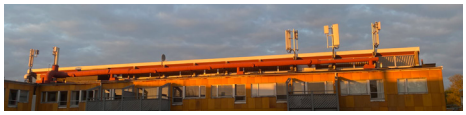
→ Work with **shadows, reflections** and tactile materials (for example wood in entrance and 'sinusplåt' on balcony sides).

Make it possible to notice clearly when the fog is rolling in and how long the sight is

→ Different colours on the balconies along the facade, working as a measurement tool of **layers**

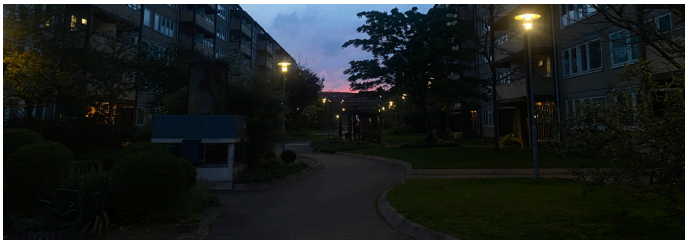
WHERE TO CHANGE

Roof colour and contrast



Roof meeting with sky - changing the colour of the roof so it has a higher contrast to the dark and overcast sky. Se example on bottom left of desired outcome. Example is taken at Studiegången, Gothenburg and has a ligher red that contrasts more with the greyblue sky. Here the contrast is further enhanced by the strike of sun, as will be the circumstance in the same way in landalagången when the sun comes out.

Entrance contrast



The entrances - changing the colour cheme so that the entrances does not melt together with the surrounding vegetation. Pictures are showing the circumstances with green vegetation and growngrey vegetation.

Entrance colours

The entrances and balcony sides - today all 14 of them are the same. To make the scale smaller on site and to easier locate one owns entrance there should be a variation of the colours. A colour scheme of four to seven colours would suit.

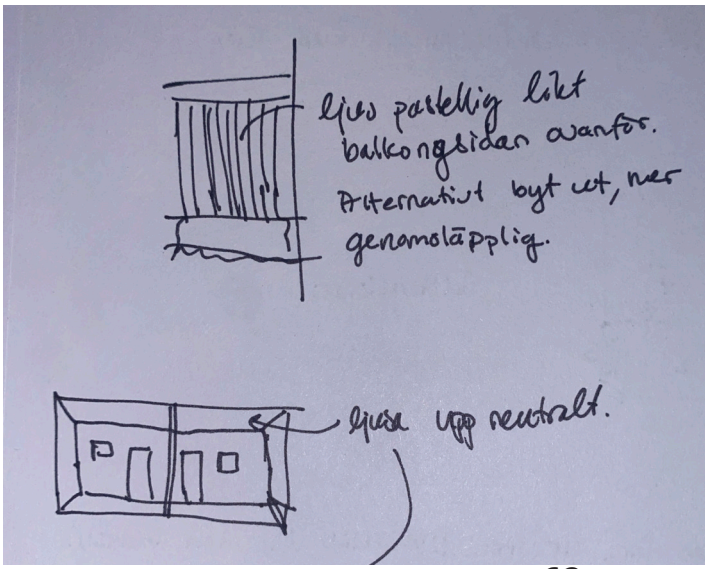
Balconies

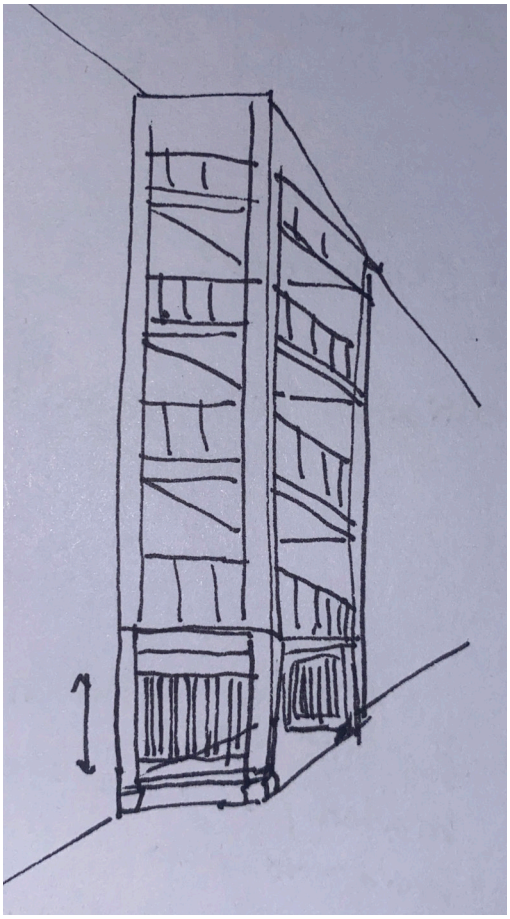
The proposal for the balconies is to change the sides of them into ”sinusplåt”. That has the two strengths of reflecting more light than current material, and at the same time with the structure give a play of shadows on the balcony itself which will give a level of detailing for now missing at Landalagången.

Figure 34: ‘Sinusplåt’ on balconies (Hogstad Aluminium AB, 2024)

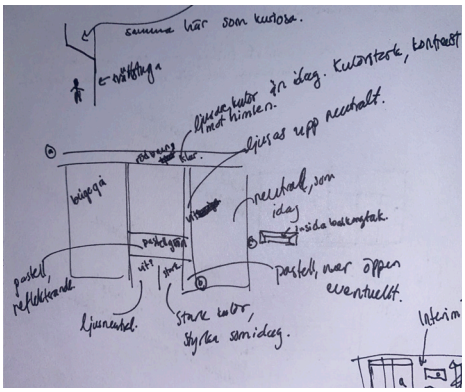
The sides of the balcony structure on the entrance floor should also be changed. Today it is wood that is dark and melting together with the vegetation in the winter. It is also closing the view when standing in front of it. It should be changed to something lighter, both in structure and colour. A neutral white or following the same colour as the balconies above would suit.

Also, the ”ceilings” of the balconies are often visible when walking past. To paint them in a light, medium reflective colour would lighten up the whole impression of the site.





Module



Hand sketch of the proposed changes of a facade modular unit (balconies and entrance in the middle, surrounded by a window section on each side, see similarity to photo).

The roof will keep and enhance its contrast to the rest of the facade and to the sky. This will be done by a lightly lighter red than today.

A colour of low blackness and intensity. The same on all balcony sides on this module. For the 7 different modules there will be 5 different colours.

Have changing colour per module (5 colours repeated over 7 modules) that has the same blackness and intensity as the orange one today.

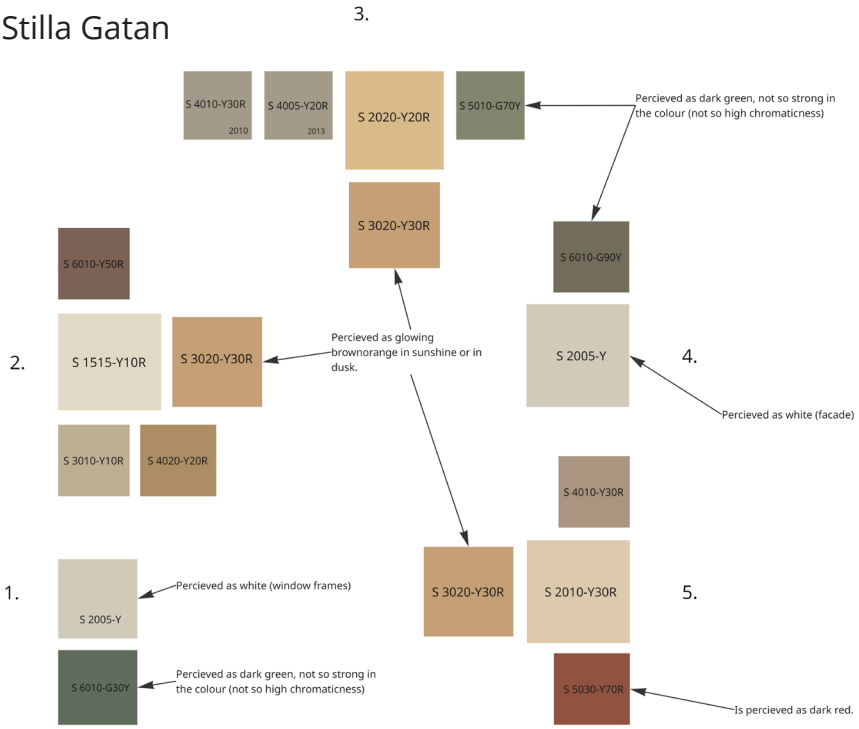
The concrete pilars and beams that carry the balconies will be painted light and neutral. In a close to white colour.

The entrance door will be a neutral and light colour. Wood to make it lighter than today. Same on the ceiling above. The wood is warmer, more welcoming and possible to do maintainence on than the metal door of today.

COLOUR SCHEME

References

Stilla Gatan



Observations of the colours from Stilla Gatan with neutral white as an example. S 0502-Y is usually percieved as a neutral white as an reference. Landalagången should have something close. The decision of adding a bit of red to the percieved neutral white at Landalagången is to not make the facade of 'dansk sjösten' seem pink due to contrast enhancement. Chosen NCS-code: S0502-Y10R.

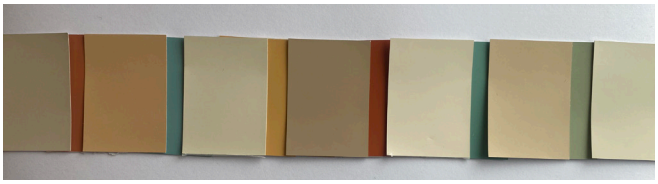
Landala, Åke Göransson

Åke Göransson is a part of the culture history of Landala. The painting series he did from his window view is made from the same exact location as one of Landalagången's buildings are located now. Therefore it is interesting and important to reference to his colour palette when creating the new colour scheme. The use of red, orange, blue and green is something that will be brought forward. Also quite strong in chromaticness and blackness. Could it suit the entrance level colours?

Mölndalsvägen 47, Gothenburg

A percieved chromaticness and blackness like this is desired. It contrasts nicely with the overcast sky, feeling like the sky is high and behind the facades instead of falling down on them.

Proposal for Landalagången



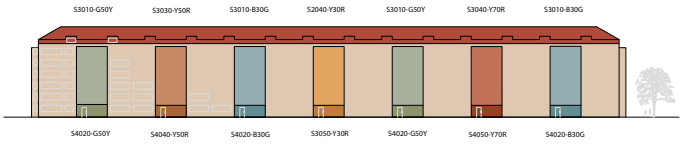
The chosen colours on the balconies as seen on the NCS test papers. The beige nuances are all the measured nuances of the existing facade made by the NCS colour pin.

PROPOSAL

Before and after
Facades
Module
Balconies & entrances

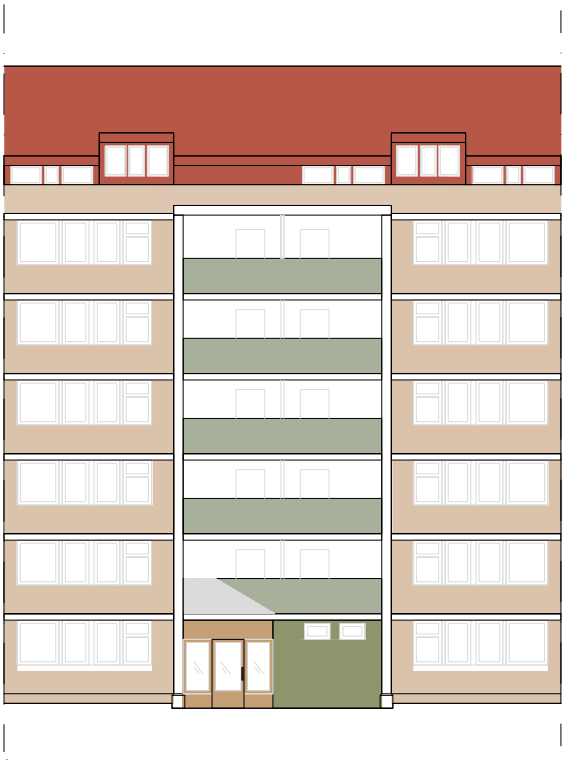
BEFORE AND AFTER

FACADE



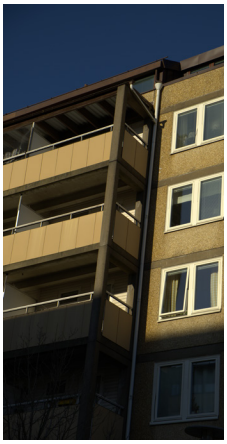
FACADE 0 10 20 m

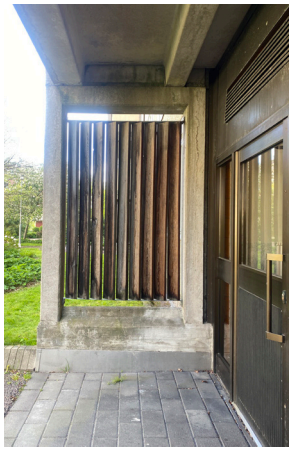
MODULE

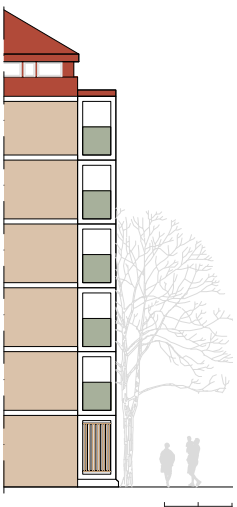


MODULE 0 1 2 m

ENTRANCE AND BALCONIES

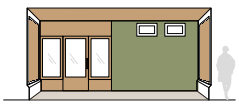






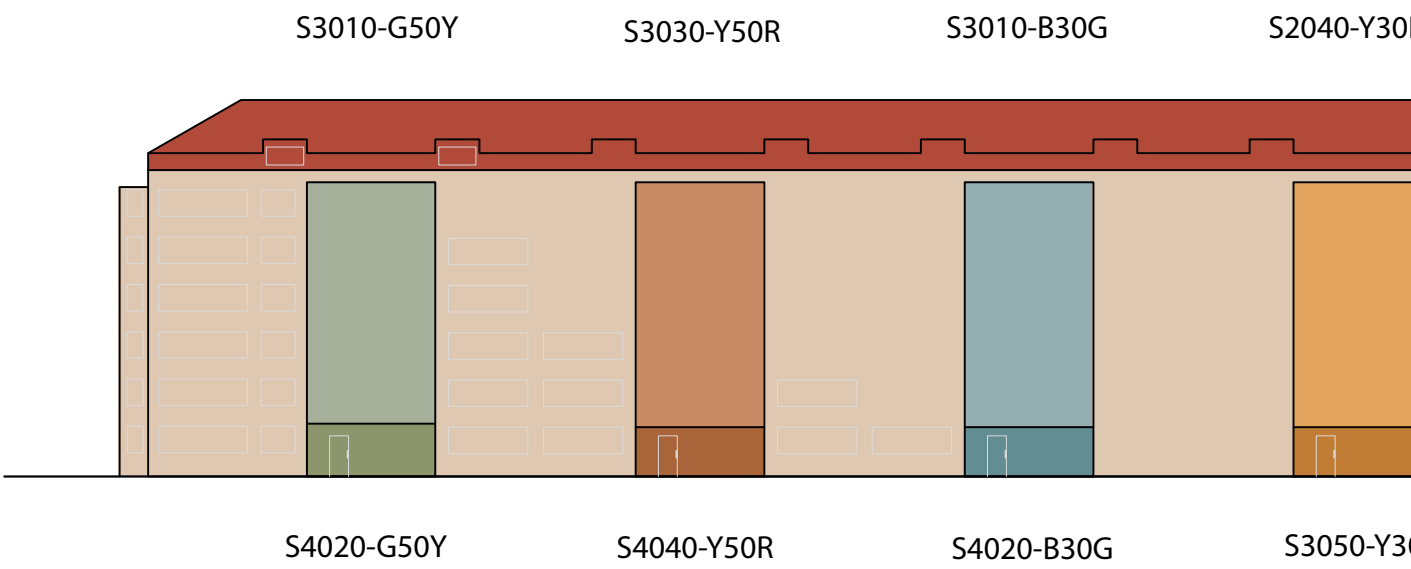
ELEVATION 0 1 2 m

FRONT 0 1 2 m

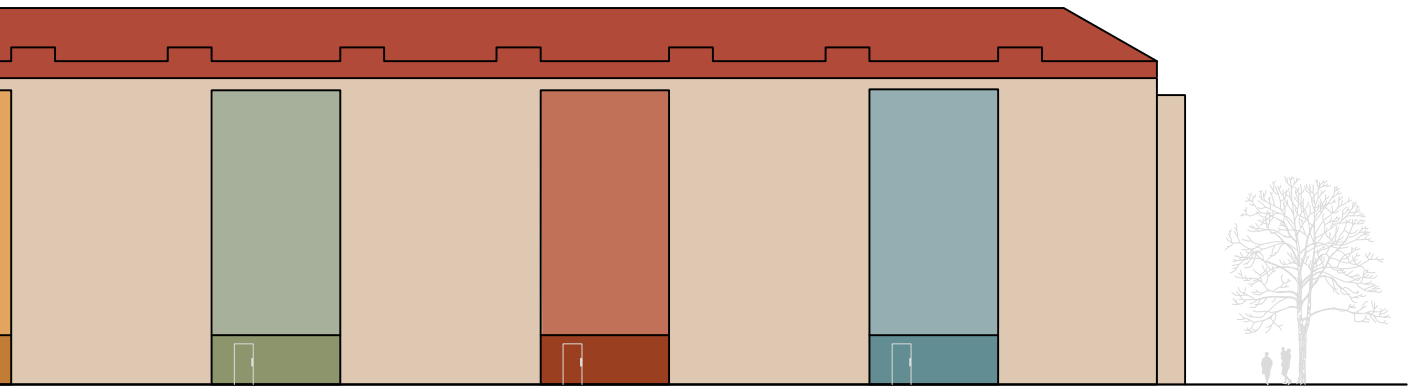


FRONT 0 1 2 m

FACADE


S3010-G50Y
S3030-Y50R
S3010-B30G
S2040-Y30
S4020-G50Y
S4040-Y50R
S4020-B30G
S3050-Y3

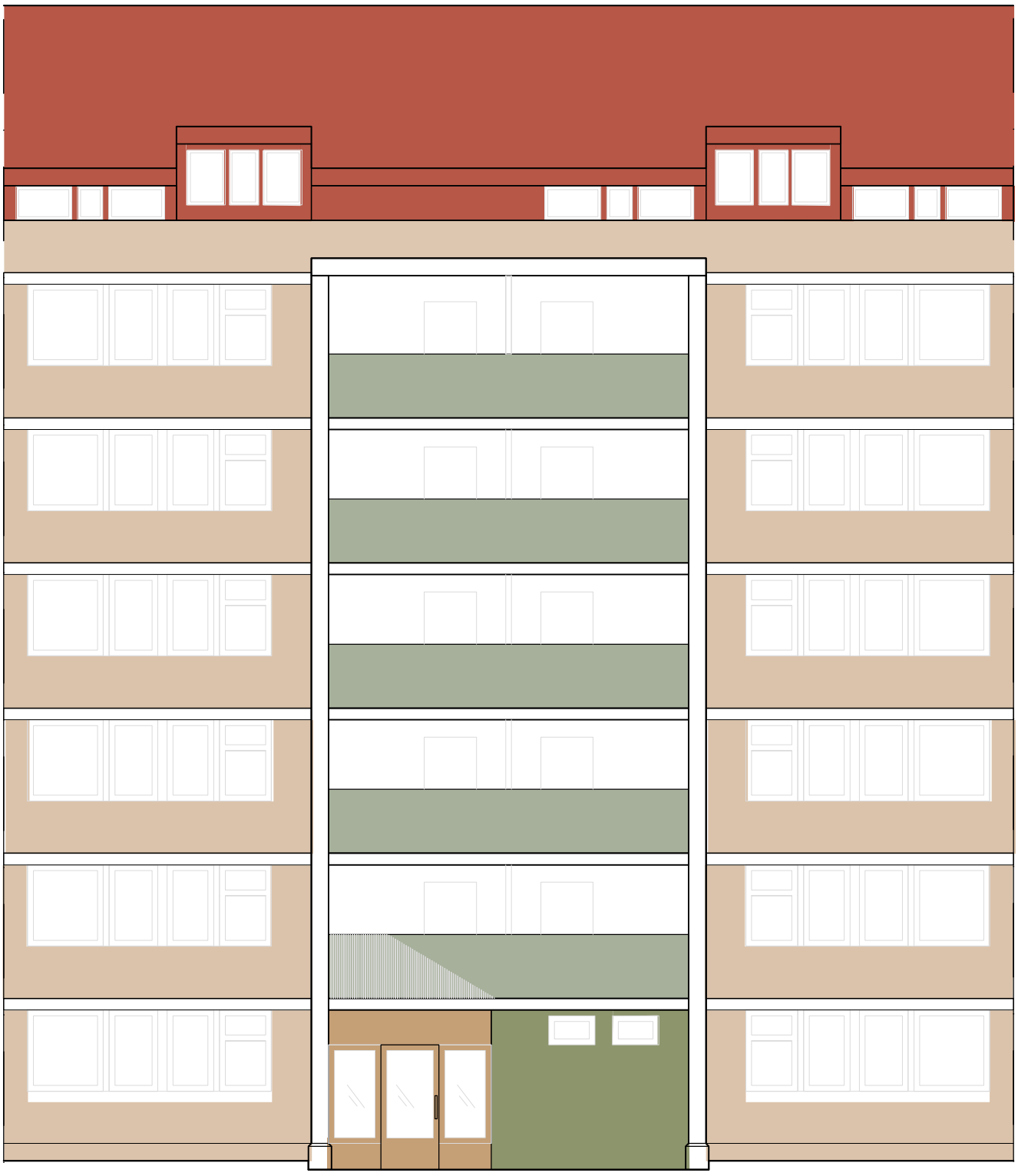
R S3010-G50Y S3040-Y70R S3010-B30G



0R S4020-G50Y S4050-Y70R S4020-B30G

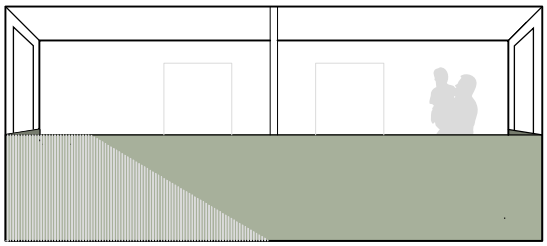
1:400

MODULE



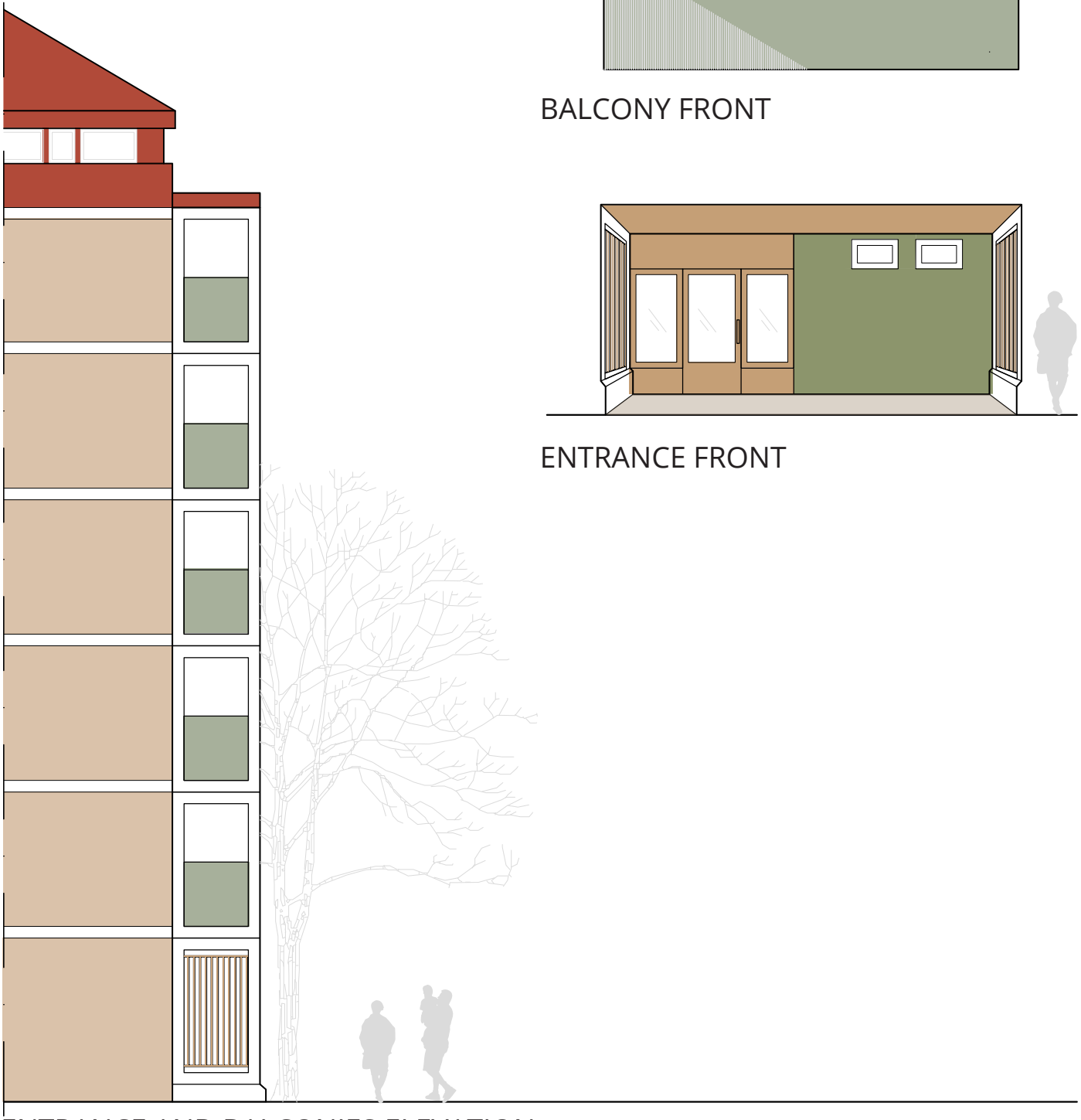
1:100

BALCONIES & ENTRANCES



BALCONY FRONT

ENTRANCE FRONT



ENTRANCE AND BALCONIES ELEVATION

1:100

DISCUSSION

Facades
Module
Side of balcony
Colour schemes
Conclusions and reflections

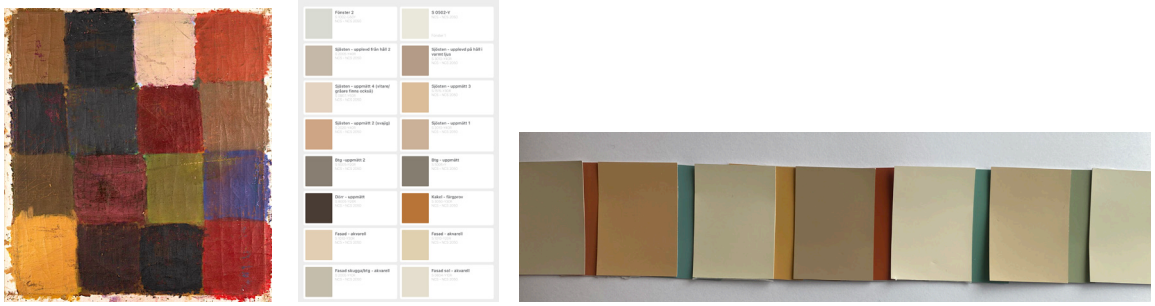
CONCLUSION & DISCUSSION

ABOUT THE DRAWINGS AND DESIGN PROPOSAL

The facades has gone from being homogenous and percieved as flat, to have more variation in them. It makest the site easier to navigate and gives more to the eye to rest on. This is important for the feeling of a site.
The variation between the entrances is breaking down the scale of the buildings, another of the parameters derived from the toolbox.
The use of drawing inspiration from an local previous painter gives a relation in time to the site.

THE CHOICE OF COLOUR SCHEME PROPOSAL

To start with, the proposed colour scheme is one proposal. I think there is more alternatives of colour scheme as an answer to the analysis of the toolbox at Landalagången. After coming back to Gothenburg after some time in southern Europe and east Sweden and now writing this conclusion, I think the colours of Gothenburg are quite dusty chill pastelle (light grey as in concrete buildings, asphalt and cloudy sky), light pink (like shrimps or “Bohusgranit”) and light blue (like the sea, and the sky the days it is not covered by clouds). How is my proposal of dusty but warm colours? A good complement? Creating a division to the quite often heavy sky, I hope. But I am also interested in how a more “spring” colour scheme would look, in comparison to my “autumn” one. My intention was never to copy Stockholm into Gothenburg. Gothenburg has a paler and foggier colour palette. But, I wanted to bring back the history of Landala and the use of bolder colour from the Swedish art and architecture history in general. Therefore I think my colour scheme is a way of connecting old with the future.



The Åke Göransson colour palette, the current colour scheme of Landalagången and to the right the proposed new colour scheme.

IS AN OVERCAST SKY PROBLEMATIC?

Is it really a problem with the overcast sky? It can be cozy and calming. In our lives we need reflection time and time for introspection and rest. As we need day and night. Maybe November-February has something good with it? But there is more than enough hours of overcast sky in Gothenburg to have time to experience introspection and rest. At some point it creates a disruption in the circadian system instead (see following text). The build environment has to respond to it in some way. And today it is not thought through. The built environment in Gothenburg is often melting together with the overcast sky. Contradicting with it instead is both enhancing it (by “kontrastförstärkning”) and showing its beauty. It is at the same time creating an environment that is easy and pleasant to navigate and live in. We do not want to get lost in the fog in our everyday life. But it is a part of our environment. And therefore, we should design an environment that works well within it.

THE IMPORTANCE OF LIGHT

Dubois describes how the different kind of light (wavelengths) affects us. The circadian system regulates alertness and sleep. We live in a place in the world where the natural light conditions (changing over the year) contradict our modern way of organizing our hours (rigid over the year). In wintertime and during overcast skies we get a lack of daylight and therefore alertness. To take care of the low but existing natural light that still exists, I think we have a big opportunity here with how we design our built environment. Capture, reflect, enhance the light there is by colour and material choices.

SUSTAINABILITY

There are a lot of “miljonprogramshus”. They are not appreciated today. There is a need to increase the vibe in those areas. Tearing down and build new, some voices say. That is not sustainable, neither social nor ecological. A place has its growth rings. Starting over will erase the identity and community that is existing. The apartments also often have well planned floor plans. Light and clever. Therefore, it is good to save them. It is the exterior that is very boring. The facades where not often given much thought and care when built. It is time to finish that now. That will save a lot of emissions from tearing down and new material. And it will also add a growth ring. A well grown one. This is to show care for the places that lack it as for now. It is suiting to do that by a well thought through colour scheme, light study and material choices.

REFLECTIONS ON THE LEARNING PROCESS

I started this thesis by parallell painting and reading. I created my toolbox out of the knowledge gained by painting. Afterwards I cross read/checked it with existing literature. I then realized very similar work was done. I discovered another “toolbox”, the PERCIFAL. A lot of literature by Fridell Anter, exterior façade paint for example. And daylight seminar by Marie-Claude Dubois. My focus then became to bring several literatures and knowledge areas together. The analytical tool similar to PERCIFAL, the knowledge of colour and light from Fridell Anter, and place outside with the knowledge from Dubois. And specifically in Gothenburg and connect it with the local colour history, with the help of Åke Göranssons work.
But I would have saved a lot of time by reading before. Since I basically repeated a lot of their work, especially the format for my toolbox that ended up being very similar in its structure to PERCIFAL. But at the same time, I were completely free from influence while painting and creating my toolbox then – and could later compare it with already existing work in a way I could not have done otherwise.

REFLECTION OF PAINTING AS METHOD

It is great to learn colour theory by muscle memory. I was using three primary colours when painting (and some shortcut helpers) – mixing and mixing and mixing to get wanted result. In the beginning it made me mad, now it goes without thinking. It is a good way of having to analyse the light, dark, warmth, cold, yellowness etc etc. It has sharpened my eye for what I see of colour and light. As sketching (with pen or pencil) has done for me earlier in sharpening the seeing of shapes, when taking a “kroki” course, for example. This skill is essential for architects and other artistic professions. I also want to add that is it cold to paint outside in Gothenburg in late Februari, early March.. Thanks to Samuel who lent me his heating pad!

CONTRIBUTION TO THE FIELD OF STUDY

This work has been travelling different fields: research and litterature reading, aquarelle painting on site, photographing, measuring NCS-codes on bypassing facades... and then the design proposal with all its iterations. It has given a broad view of the topic of daylight and colour related to climate. It is interesting to put all them together. I have seen colour and light put together, and also light and architecture. But I am happy to have brought all of them together into one thesis.

Shortly concluded, this whole is based on this formula:
Fridell Anter etc / SYN-TES (colour and light, analysis tool) + Dubois (Nordic light, sun angle, seasonal changes) + Gothenburg colourists (art history) + Gothenburg (weather) = Lighten up, my dear

This thesis is bringing fields of knowledge together. Karin Fridell Anter, Ulf Klarén and many others brought together colour and light in FÄRG, LJUS, RUM (2006). This thesis does now further expand the joined fields of knowledge by adding the natural light and outdoors aspect as well in one work. That includes the Nordic light, the sun angle, the seasonal changes in those two. This Marie-Claude Dubois has presented work upon. I finish of by adding a local aspect to this work. The local aspect is divided into two axes. One is geographically and the other is timewise. Geographically this thesis zooms in on Gothenburg, which is seen in the focus on local sites, region specific weather. The time axes are seen in the timeline that traces the history within architecture and art backwards with a starting point from Åke Göransson, Stilla Gatan and Landala. Finally, this thesis discusses a possible future development within colour in architecture.

TIMELINE – ARCHITECTURE ANALYSIS

What architecture do we build today? What are the ruling aspects? Is it good architecture? Good environments to live in? The machines measurements? The money and profit to the landlord and the building company?
Good architecture yes, but that is a subcontractor to the builder. Profit before architecture. Maximize the m2 for the office building. Good working environment? Do what is possible within that. Short-term profits. Does that create the best office space to work in and therefore is desired the most to rent? No. Housing project, new apartments. Turn the buildings so that they are cheaper to build in that hilly area. But then all the balconies will end up in shadow." The buyers won't realise that until after they have bought it, so go" from the landowner. Real examples from architecture offices. So today: not the human experience and good living conditions that ultimately decide. That is not the top deciding aspect. It is profit. Quick, short-term profit. To the building companies and landowners.
Of course, a profit is needed. But what about the timeframe and the percent? And what does it cost for the rest of us? All of us living in our built environment. How to change this current state? There are winds for increased handicraft. Since it is taking time (that is a scarcity) it becomes valuable, a status. Like William Morris and the Artc & Crafts movement. Elitistic? Well. What the bourgeoisie does the working-class copies. Remember "finrum" that was never used in the old workers/farmers houses in Sweden? From the bourgeoise in the beginning. Those who can, should pay for quality. There are Swedish handcrafters and craftspeople. Hire them. Build with quality again. Fair human conditions, as is not always the case today. For example, there was recently a death accident when an elevator fell from a building during construction and several people died.
Not a one or the other. Within this economy a profit is needed. But starting to see architecture quality as a value that increases profit. Quality in the built environment. The architecture, the materials. Good architecture increases the quality of life. As does all arts. And within the biological aspect architecture has a possibility/responsibility to ensure enough light and colour differentiation etc. It is cheaper for the whole society to start to understand these values of architecture.

HANDICRAFT ANALYSIS

Trends come again. Pale colours in the 18th century, similarities to the restricted colour palette we see today in what has been built in the 21th century. Not long after Gustavian and Neoclassicism in the 17th and 18th century came the National romanticism. It was inspired by the relatively strong and soft colours and shapes of our nature. I read the timelines I have created as waves on a sea. The same movement comes again. I therefore think we will see an upcome again in nature inspiration. Handicraft is again starting to become trendy.

The median age is lowering drastically in our sewing- and weaving group in my building complex, for example. More people are onto this. I see handicraft is rising. Friend who wants to sew her “folkdräkt”. People knitting. Young generation at the knitting cafes, learning from the elders and inventing new. Pottery classes are fully booked. Hiking is rising since the pandemic.
The rise of interest in handicraft and nature is as it was when Morris bought his dream home, the Red House outside of London. He filled the house with his friends and family and together they built furniture and painted walls until the whole house was finished. That was part of the start of the Arts & Crafts movement. What is seen in trends in handicraft often translates into interior and thereafter architecture of buildings. So, I think handicraft, colour and care of solid materials is on its way up also in architecture soon. That is placing my change design proposal right in time.

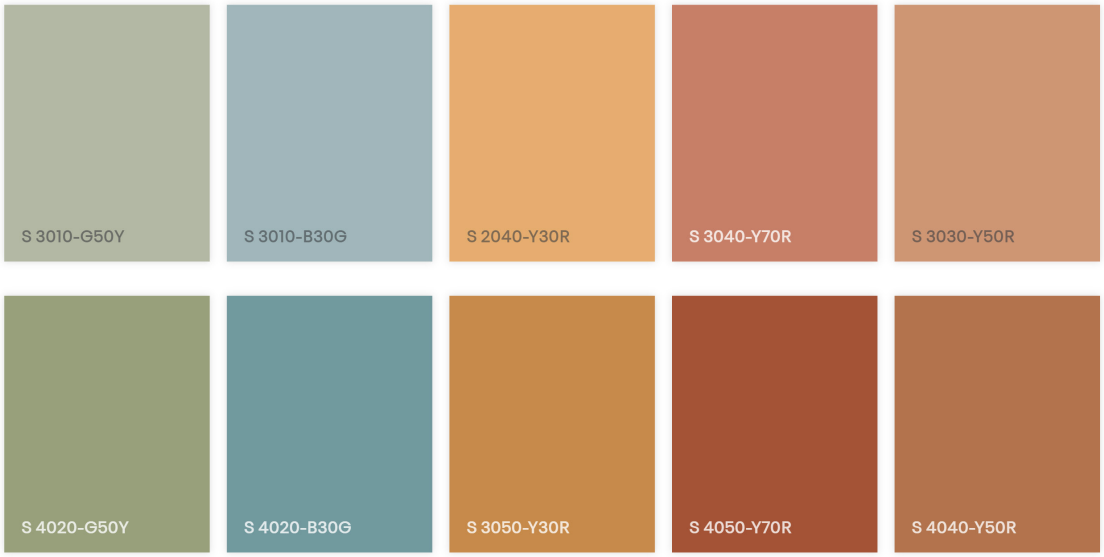
COLOUR ANALYSIS

I think this way of thinking of colour in architecture is just about right in time. Colours are on comeback, and now we need to be knowledgeable about it. Balance it with our home. Light and colours that we already have and exist within. As for the colour analysis in the 80’s, often said to teach you how the right colour will make your eyes pop, the right colour on our facades will bring the best out of our built environment. A joy to be around.
White period since the beginning of the 2000’s. Beige and grey. Even used so much that people want a mix of them both. And it got its own name. Greige.
Now when colour is on its rise again, after being nearly extinct for some decades, it comes back with full power. A lack of it, a need for it. Full blast. As Swedes when we have not seen the sun enough in our wintertime and the first spring sunrays reaches us – we want it all and stops in the streets to face them and soak it all in. As seen in decoration – Linnéa Andersson, popular the last years. Remembrance of Matisse’s work and colour palette – after him came the Gothenburg colourists that were also loving colour but adjusting it to Swedish (and other Nordic) light and surrounding conditions.
Our storages are empty, and our minds needs this colour stimulation again. As easy it is to overdose and get burnt by the sun the first spring days, it is to overdose with colour now. Too strong on entire facades (too high chromaticness and low blackness) to be pleasant in our Northern light context. After we have tried that, and there exists some examples built today that really pops out from its surrounding in an almost unnatural way, I think we will see a softer and more well-balanced colour palette over the upcoming years now. Maybe going back to traditional pigments by the increasing interest in traditional handicraft. The traditional colour palette from those pigments is higher in blackness etc, suiting their surroundings. That combined with developed education of colour related to our natural light and colour conditions here in the North should make for a pleasant built environment in the future.

THE FUTURE OF COLOUR

What is the close future for colour? After finishing my thesis work, I found the colour palette for 2025 from Jotun. The proposal from this theis has very close resemblances with it. This can be read as the work and conclusions within this theis has good connection and reliability compared with the external ongoing work about colour.

My proposal:



Jotun colour palette for 2025, NUANCES:

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