

DEPARTMENT OF CONSERVATION

FINDING TRACES OF THE MODERN MOVEMENT IN GOTHENBURG, SWEDEN

Implementing personal value through visualisation as a conservation tool

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Finding Traces Of The Modern Movement In Gothenburg, Sweden *Implementing personal value through visualisation as a conservation tool*

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ABSTRACT

The organisation Docomomo International is engaged in the It looked at how Docomomo International is able to raise awareness documentation and conservation of the built environment related to the Modern Movement. Therefore, it was essential to discuss what this means for our modernist heritage. The focus here was on whether traces can be found within the Swedish built environment as the buildings in generally aren't thought of so highly.

Two case studies were selected for this purpose, the districts of Södra Guldheden and Örgryte in Gothenburg, Sweden.

of this type of heritage as a conservation tool. Yet, the main focus was on whether analysis based on personal visualisations could be a way to show how traces can be found in the city of Gothenburg.

Using these visualisations, it was revealed that personal characteristics of a place within the built environment could be seen as personal values.

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I. Introduction

When we think of conservation of the built heritage, we automatically assume that we are talking about the older buildings.

Buildings that have existed for centuries, such as churches, castles or other historical buildings, current ruins (ruins of buildings that seems to have been there as long as someone can remember) and so much more. But the built heritage is of course much broader then buildings only.

Every change humans have made in the natural environment could be considered as built heritage as well as changes in relief, canal, woods that were created, etc. Besides built heritage, we also have the built environment itself which is also a part of heritage. This built environment refers to the human-created environment, in which people live, work and interact with, also plays an important role in shaping the quality of life, health and well-being of individuals and communities.

It also influences various aspects of human behaviour, social interactions and environmental sustainability. Urban planning, architecture, civil engineering and other related disciplines are involved in designing and shaping the built environment to meet the needs of society.

However, constructions of the past century are unfortunately not thought of as having any value as they are considered too recent, but that is not the case. So we can see in history that after the industrial revolution and the enlightenment, a lot has changed towards new ideologies. With the emergence of factories, people experimented with concrete, steel, glass and prefabrication and ensured mass production. This resulted in building becoming more efficient and therefore cheaper. So, this caused the identity of architecture to change by shifting away from ornamentation and detailing which was of high importance for much throughout history. From an architectural point of view, much changed around the two world wars. Advances in technology and enhanced knowledge of the properties of building materials allowed for more experimentation. The wars forced people to start thinking about building more quickly, more cheaply and more efficiently as many places in different countries were now in ruins. Yet, this also indicates that a new era had arrived. The Modern Movement was not just looking at how people should build in the new society, it went broader than that. For instance, people started designing clothes and how to behave. It went so far that people started sketching themselves how to walk in a certain way.

Since Sweden, and in general Scandinavia, has had a slightly different architectural history than Central Europe, traces of The Modern Movement are not always obvious to recognize. For example, Sweden has a typical "*folkhemmet*" culture during the 1940s, which falls during the architectural period of the International Style, and "*miljonprogrammet*" culture started in the 1960s that could be considered (post)modernism.

But, these two periods of time are not defined architectural styles but also elaborate on social themes within different contexts such as social aspects, urban development in response to housing shortages and so on. This requires us to start looking at how these types of styles can fall within The Modern Movement and where the qualities are within its environment. As a researcher within this theme, it is not only important to examine what is happening in the present, but also to look at the past with a critical eye to form a picture to predict and shape it to the future. For instance, the relationship of a neighbourhood with its environment is significant, not only on an architectural level but also on a sociocultural level. By checking what is going on at different levels, it is possible to engage with this and work with it actively.

1. **Research Problem and Questions**

Within the history of architecture, modernism has been influential for our contemporary lifestyle. This (architectural) movement has brought many advances within the domain of urban built environment. Not only did it give more job opportunities in newly built neighbourhoods, but also the creation of more public spaces which resulted in more social interaction with the people who live in these neighbourhoods.

However, this architectural movement is not yet socially accepted to the general public in Sweden. One reason is that people often find these buildings characterless by having little to no ornamentation. Another factor that influences the opinions of the general public is that these buildings from this period are often made of concrete. These reasons may stem from the fact that Swedish (traditional) architecture often consists of wood or bricks that gives a "warmer" look than a grey construction. Though there is a shift within the architecture and heritage community that this is an important part of our Built Heritage. To help preserving the remains of this architectural movement and to enhance its acceptance within society, the organisation Docomomo International was founded in 1988. One can see that their focus is often on documenting and conserving the tangible aspect. Nevertheless, it is also important to document the intangible aspect. The intangible aspect of cultural heritage is frequently overseen, or is not as obvious to make clear to the wider public. Therefore, from the heritage point of view, artistic value is often overlooked. It is thus important to look at how to make these artistic values clear among experts but also towards the general public in order to create more awareness for this fairly new heritage. There has been a lack within the conservation field and critical heritage studies of using visualisations as a supporting research method. While words tell, images speak. The question then is whether images can help establish the documentation of intangible heritage within the tangible heritage. In particular, this thesis would examine the relationships between the buildings and the environment in which it is located.

Therefore following questions arose and will be examined in this thesis:

- 1. In what way can the Swedish "*folkhemmet*" be considered as a part of The Modern Movement?
- 2. How visible are the traces of The Modern Movement in Gothenburg, Sweden?
- 3. Is there a way to create awareness around The Modern Movement within Sweden?
- 4. How can visualisation add value within the conservation of these built environments?

2. Aim

The aim with this research is that this could be a start of a debate within conservation practices, so people come to understand what modern heritage is, what their values and their principles are but also the importance of visualisations. A possible conclusion could be that different approaches and perspectives to this topic can be created. The most important goal is to create awareness, through visualisation, about this recent history within the Swedish environment, as many Swedes consider this as 'ugly' and 'dull' architecture. Yet, it brought us many new points of view regarding society and ways of constructing buildings as well as how we live nowadays are strongly influenced by modernism.

3. Objectives

This research will mainly focus on the Swedish built environment in relation to the architecture that characterises the Modern Movement. Besides, the international organisation Docomomo responds to this and is involved in the documentation and conservation of this architectural period. Not only buildings, but also parks, interiors, etc. that are related can be a part of this organisation.

The goal that will be achieved here is to look for traces of the *folkhemmet* and functionalistic culture and other expressions of functionalistic structures in the city of Gothenburg, Sweden. In addition, it will be examined whether *folkhemmet* can be seen as part of The Modern Movement for Sweden itself. It will, as well, be explored whether visual tools can be used as a way of understanding the dissimilarity and how the relation between buildings and their environment can be seen.

4. Limitations

There will not always be the opportunity to see the interiors of the selected buildings, as they are private buildings. Next, language also plays an important role. Since my Swedish is limited, translating texts will be a challenge. Here, the personal aspect and necessary intonations may get lost.

Due to the practicalities of the move of archives of the City Museum in Gothenburg to another location, it is not possible to gather additional information that is not online available in these archives until 2024.

This results that not many historical maps, plans, letters can be consulted.

5. Used Methods and Outline

Applying research methods was important to answer the questions raised within this research.

First and foremost, developing a theoretical framework explaining the principles of the Swedish built environment was crucial. The values and ideas behind them are explained through literature study.

Secondly, it was important to investigate what Docomomo International means and how their approach is within a Swedish context.

Using digital platforms such as Google Scholar, Scopus, ProQuest, the University of Gothenburg library and the Chalmers University of Technology library were a good guide throughout this research. By using these platforms, it was possible to get a wide range of scientific articles and books relevant to this study. Here, the 3-phase method was used by reading the abstract of the articles and scanning diagonally through the headings and reading the introduction and conclusion. In addition to reading articles available online, physical visits were also made to libraries. The Humanists Library at the University of Gothenburg and the Architecture Library at Chalmers University of Technology were the libraries that offered the most useful information within this research.

In addition to a literature study, short interviews were conducted with board members of Docomomo Belgium and Sweden. This ensured that background information was quickly gathered. While underpinning these interviews, a semi-structured approach was the most practical as this gave room for open-ended answers, yet the questions provide a structure within the interview. Interviews were also conducted with architects teaching at Hasselt University, Belgium. This was because there is a certain attitude between the architect and the conservationist, but an interdisciplinary approach was important.

Because of this interdisciplinary approach, it was decided to actively search for traces of the Modern Movement within the city of Gothenburg (Sweden) from the researcher's point of view. Here, an exploratory research-oriented approach was adopted in the choice of determining the case studies. According to Robert Yin, it is important to start by planning how you will observe your case studies (Yin, 2018). So walking and wandering around the city was a must.

Next, to define the case studies was important by identifying and establishing the logic behind the case studies. After this step, two case studies were selected: the districts of Södra Guldheden and Örgryte. These two districts are both located in the city of Gothenburg. The approach to these case studies was using a combination of collecting data through literature study, with written text providing information, and consulting 'The Digital Museum', where historical photos are made available ensured to get a better picture. The Facebook groups '*Det Gamla Göteborg*' and '*Gamla bilder från Göteborg*' also provided a valuable resource that was used to gather information, such as photos and accompanying comments.

As both selected case studies are a neighbourhood, this resulted in multiple examples of modernist architecture being discussed within each case study that were relevant with the research questions. A theoretical framework was then considered within each case study from a participatory observational point of view. Using myself as a tool to observe and understand the neighbourhoods was beneficial. After all, as a foreigner, my point of view differs from people who have lived in Gothenburg all their lives. It was also a methodological way to clarify the personal emotional experience through visual abstraction and thus gain a clearer understanding of the main qualities and characteristics within the case studies.

This idea originated from Gordon Cullen's book "The Concise Townscape", in which he talks about "the visual impact a city has on those who live in it or visit it" (Cullen, 1961, p.7). Whereas Cullen's main method was by focusing on the historical environment by analysing this type of vision using mainly photographs, here a view was taken from the point of view of modern heritage. Not only through photographs, but also through (manipulated) sketches and drawings of the selected case studies, it was shown that emotional aspects can be represented and capture elements that words cannot describe. The process of these illustrations was done through the use of two A5 sketchbooks. Different mediums including charcoal, graphite pencils and fine liners were used for the drawings. Watercolour was also used when focusing on the colour aspect. A reflex camera, a Nikon D5600 was also used to capture additional imagery. With the "manipulated" sketches, it was meant that photos were added afterwards via Adobe Photoshop 2022 and the background texture of the drawing was removed from the sketch paper to create a better rendering.

It is also important to address that the researcher in this case can be seen as a visitor of these neigbourhoods.

II. Context

6. Introduction

This context chapter provides a theoretic framework with an introduction where the focus rests on understanding what Modern Movement architecture is in Western and Northern Europe as well as the basic preservation principles within architectural heritage. Furthermore, this chapter also includes a deeper look at the Swedish Built Environment to explore what Modern Movement architecture means within a Swedish context. Finally, it zooms in on the non-profit organisation Docomomo International, which documents and preserves modern movement heritage.

6.1. Modern Movement Architecture within Western and Northern Europe

"Isn't the authentic idea of its social, technical and aesthetic presence the most important value of the Modern Movement" (Cunningham & Maxwell, 1998).

Despite European architects considering themselves as being modernists, they used other labels to identify themselves (Khan, 1998). It mainly had to do with the visions and beliefs of the architects themselves. For instance, Walter Gropius, Le Corbusier and Mies Van der Rohe could be founders of modernism inside Europe, but so could Adolf Loos and Bruno Taut. Adolf Loos meant a lot to modernist architecture.

For instance, he is the developer and creator of the *Raumplan¹*. Villa Müller is the best-known example to reflect this. The layout of rooms have a free composition and are asymmetrical. Staggered axes allow

working with height differences. This is how Loos applied split levels. His aim was to ensure that each space has its own identity with a strong visual contact. Each space is decorated differently to set the mood. Despite the interior of this building, the exterior is completely different. From the outside, it is a cubist and abstract volume and has one colour: white (Leus, 2017). Peter Behrens was strongly influenced by Alois Riegl's aesthetic valuations (Watkin, 2015). His best-known work is the AEG Turbine Factory in Berlin-Moabit, where he designed a large hangar out of steel and glass (ibid., p.584).

Bruno Taut, a member of *Arbeitsrat für Kunst*² pleaded for a new *Gesamtkunstwerk*³. In the 1919 manifesto, it was stated that art and people must form a unity whereby art will no longer be a wealth for the few. Masses should be experienced and lived with the aim of merging all art forms under the wings of a grand architecture (Frampton, 2001, p.147). He was also a very strong advocate of colour and believed in the *Existenzmaximum* where people's lives should be expanded by their living environment (van der Hoeven, 1994).

In addition, he is known for the mythology of glass, where he was convinced that it had a new fresh perspective on the world and the modern man (Watkin, 2015).

¹ Literally means 'spatial plan' or 'a plan of volumes', a staging of activities within an interior in which the resident is the actor

² In English: "Work-Council for Art". It is a group of German architects who founded this in 1918. Bruno Taut, Otto Bartning, Walter Gropius, Erich Mendelsohn, and Max Taut. Their ideals were a fusion of the arts under the wing of architecture 'Bauprojekt' (Wilson & Stevens Curl, 2015).

³ Literally means 'a total work of art', the goal is to create everything from architecture to design to art

Next Walter Gropius, a former employee of Behrens, was also a member of this *Arbeitsrat für Kunst* and succeeded Bruno Taut as chairman. In 1919, he founded the Bauhaus, an academy of applied art and architecture, in Weimar, Germany. Its principles were based on the architectural programme designed by Bruno Taut, including the concept of *Gesamtkunstwerk* (Frampton, 2001).

Inside the Bauhaus, he always tried to bridge the arbitrary divisions between practice and theory, craftsman and artist, but also between the head and the hand, the intellectual and the manual worker. His aim was to be able to reunite the joint enrichment of both (Marston Fitch, 1960). Both men and women were here educated in different fields. But due to pressure from Nazism, the school moved to Berlin in 1932, where it officially closed its doors after nine months (Frampton, 2001).

In the Netherlands, 'De Stijl' was founded in 1917 whose most important members are Theo Van Doesburg, Piet Mondrian, J.J.P. Oud and Gerrit Rietveld. What typifies the 'De Stijl' movement is its abstractness in which it worked only with primary colours that were combined with white, grey and black. This was translated into its art, design and architecture. Good examples are the composition paintings by Van Doesburg, who also came into contact with Gropius, and Mondrian, as well as Rietveld's Schröder House in Utrecht, the Netherlands.

He also designed the very famous Red and Blue chair. Theo Van Doesburg was keen to move towards 'a visual architecture' (Frampton, 2001). 'De Stijl' assumed that "*the object of nature is man, the object of man is style*" (ibid., p.176).

Another pioneer is, Mies Van der Rohe who was also a member of the Bauhaus. He is known for his statement "less is more" where he puts an emphasis on maximum effect with minimum use of materials as well as his conviction for rationalisation and standardisation.

The German Pavilion, also known as Barcelona Pavilion is his most famous work where a pure architectural formal language is present. Here, for instance, there is an asymmetrical placement of partition walls, made of polished marble, which creates open internal areas (Watkin, 2015). These walls are non-bearing. The roof is supported by cruciform stainless steel colums. (Ionescu, 2017a). This was made possible because he used a grid, which allowed him to easily create open spaces. His designs are often based on a grid and is clearly visible in other of his works such as, Villa Tugendhat and Weissenhofsiedlung where once again steel construction was used in each case.

In France, it was Le Corbusier who represented modernism. As an example one can consider the prototype *Maison Dom-Ino* where he demonstrated his five points of architecture:

- 1. Free and unrestrained flow of interior space for ground plan (*les toits-jardins*) through column-and slab rather than partitioning;
- 2. Separation of exterior from interior façade (*le plan libre*) providing unencumbered panoramic aesthetics of the surroundings;
- 3. Use of reinforced concrete columns (*les pilotis*) to uplift and bear the load of walls;
- 4. Horizontal lighting through opening strips or ribbon windows (*la fenêtre en longueur*) providing equal lighting while enhancing landscape visuality; and
- 5. Roof gardens or terrace (*la façade libre*) in flat structures, as protection, promenades, offering light and spatial ventilation to replace a building's occupied space (Poon, 2020).

Maison Dom-Ino is a standardised object that consisted of three concrete slabs, and the interior remains empty. As a result, walls have no load-bearing function. It became the guiding principle for his next works. Villa Savoye is another good example of the application of these five points. He also created a measurement system 'The Modulor' where he looked at the ideal proportions (length-width) and assumed that the ideal man was 1.78m (Leus, 2017).

In Northern Europe, a different approach was taken towards the 'new modern' architecture. Here, styles such as national romanticism and Nordic classicism became important features. Alvar Aalto is a very well-known example within modernism in Scandinavia. Aalto was strongly influenced by the Swedish architect Gunnar Asplund, who actively encouraged the international modern architectural style in Sweden (Watkin, 2015).

Both Asplund and Aalto were trained under the 'old' methods of architecture but Aalto was also characterised by *Gesamtkunstwerk*, as he designed everything down to the smallest details. But what he was most famous for was working with mainly local materials such as wood (Watkin, 2015). Villa Mairea in Noormarkku in Finland is a good example, where he displays Finnish material influences. His aim was "to bring the material world into harmony with human life" (Ionescu, 2017b). Clearly modernist elements are present here through the simple volume, flat roof and flat surfaces. The interior is visually very rich due to the careful choice of materials and the amount of wood.

One can therefore conclude that, according to these designers, the transition to new architecture was based on the following principles: shift to the so called *promenade architecturale*, designing plans on a

grid and/or the *Raumplan* that allows for a free layout, the *plan libre* and the shifting of axes. As well as the restriction of ornamentation.

Eventually, between the two world wars, the *Congrès Internationaux d'Architecture Moderne* (CIAM) was founded with the aim of spreading principles of The Modern Movement. Some well-known members were, Hendrik Berlage, Le Corbusier, Gerrit Rietveld, Walter Gropius, Alvar Aalto and Uno Åhrén (Mumford, 2000). The architects that represented the *Neue Sachlichkeit* dominated the early meetings but after French architects joined as well (Khan, 1998). The topics that were mainly discussed were urbanism, housing standards and social concerns of architecture.

6.2. Principles of architectural heritage conservation and preservation

In order to engage in preserving and conserving modern heritage, it is important to know how different heritage principles work and where they originated from.

The French Revolution (1789-1799) is considered an important turning point in the history of monasticism because it was a period of political and social radical upheaval within the monarchy of France (Plevoets & Van Cleempoel, 2019). This upended traditional ideas about religion, monarchy and aristocracy.

After this revolution, a centralised state emerged, intertwined with architectural protection on a national policy through which the first national museum was founded by Alexandre Lenoir (Carughi & Visone, 2017). The artefacts on display came from revolutionary seizures (ibid.).

Accordingly, a restoration movement was founded by Eugène Emmanuel Viollet-le-Duc. For him, restoration meant the return to the original form of a monument through a comparative analysis of monuments of the same era. Therefore, he thought Baroque façades should be removed to return to originality. In addition, he denied the fact that all buildings undergo organic change over time. He felt that people needed specific skills, knowledge and methods to carry out restoration works (Otero-Pailos, 2023). He went on to find that the thing and the restoration are both modern and says: *"To restore a building is not to preserve it, to repair, or rebuild it; it is to reinstate it in a condition of completeness which could never have existed at any given time"* (ibid., p.61)⁴.

However, there was a lot of criticism of his method of thinking, leading to the rise of an anti-restoration movement in England led by John Ruskin and William Morris. In the chapter *The Lamp of Memory* in *The Seven Lamps of Architecture* (1849), Ruskin introduced his concept of conservation. Lamps referred to the basic principles of the values and qualities of architecture such as power, beauty, sacrifice, obedience and memory (Jokilehto, 2018). Then he saw a building as an organic thing and described it as "*We have no right whatever to touch [the buildings of past times]. They are not ours*" (Price et al., 1996, p.323). Hence, a building could decay and eventually become a ruin.

William Morris, a student of John Ruskin, is mainly known for his Art Nouveau styles and the Arts and Crafts Movement in England. However, he was concerned about the quality of restoration works which eventually led him into socialist politics to raise this concern (Otero-Pailos, 2023). As a result, he founded the Society for the Protection of Ancient Buildings (SPAB) in 1877 (Jokilehto, 2018). His aim was to strive to preserve the original state of historic buildings and protect them from architects and not from time or neglect (Otero-Pailos, 2023). For both Morris and Ruskin, a sign of age, both object and building, were seen as an essential element and beauty of age (Plevoets & Van Cleempoel, 2019).

Camillo Boito proposed reconciling the dualistic views of his contemporaries Ruskin, Morris and Viollet-le-Duc in his work on modes of restoration. His theory establishes that judgements during interventions are based on values (Otero-Pailos, 2023). He then conceived to divide restoration art into three categories namely architectural, archaeological and picturesque restoration (ibid.).

Eight principles that restorers and architects were proposed that can be used to remodel buildings without creating confusion about what is old and what is new (Plevoets & Van Cleempoel, 2019). These principles are:

- 1. Difference in building materials;
- 2. Difference in style between the new and the old;
- 3. Exhibition of removed old pieces installed next to the monument;
- 4. Descriptive epigraphy carved on the monument;
- 5. Description and photographs of the different phases of the world placed in the building or in a place near it, or description printed in a publication;
- 6. Suppression of profiles or decorations;

⁴ Original source: Eugène Emmanuel Viollet-le-Duc (1854-68). *Dictionnaire raisonné de l'architecture française du Xie au XVIe siècle*. English edition: *On Restoration*. London (1875)., p9-17, 20-22, 27-28, 35-50, 62-65, 67-69, 71. Retrieved from (Otero-Pailos, 2023, p.61)

- 7. Inscription in each restored piece of the date of restoration or of a conventional sign;
- 8. Notoriety (Boito & Birignani, 2009[1893], p.76).

In Austria, Alois Riegl was a leading figure within the development of heritage conservation and preservation. In his book *Der Moderne Denkmaltkultus: Sein Wesen und seine Entstehun*⁵ (1903), he mainly discusses the value assessment of historical monuments.

He goes on to say that every object and monument has two types of values namely its artistic and historical values. Under memorial values, we have the historical value that means everything that was there is an inextricable link in the chain development that is irreplaceable (Price et al., 1996). Then there is the age value that expresses itself on the aged appearance of the object or monument and its accompanying imperfection (ibid). When it comes to contemporary value, it is the integrity and autonomy of an object that are valued to the exclusion of all others to the extent that it increases awareness of historical distance (Zerner, 1976).

These value assessments are then divided into (1) memorial values with age value, historical value and intended commemorative value as well as (2) present-day value with use value, art value, newness value and relative art value (Jokilehto, 2018)

Value assessments then became an important starting point in heritage conservation. Figure 1 on the next page gives an overview of the most important values for each selected Charter.

Alois Riegl's valuations became an important component of the Charter

of Athens (1931) and the Venice Charter (1964). The Athens Charter is the first international congress of architects and technicians of historical monuments where seven solutions were proposed and recommends to use of purposes that respect the historical or artistic character of buildings as well as ensure their sustainability (ICOMOS, 2011a).

The seven solutions according to the Athens Charter:

- 1. International organizations for restoration on operational and advisory levels are to be established;
- 2. Proposed restoration projects are to be subjected to knowledgeable criticism to prevent mistakes which will cause loss of character and historical values to the structures;
- 3. Problems of preservation of historic sites are to be solved by legislation at national level for all countries;
- 4. Excavated sites which are not subject to immediate restoration should be reburied for protection;
- 5. Modern techniques and materials may be used in restoration work;
- 6. Historical sites are to be given strict custodial protection;
- 7. Attention should be given to the protection of areas surrounding historic sites (ICOMOS, 2011a).

In the introduction of the Venice Charter the term authenticity with a duty is used to represent the fullness of authenticity (ICOMOS, 1971). However, no specific definition was written. For example, under Art.7 of Conservation, it states that monuments are closely linked to the history that bears witness to it as well as the environment in which it stands (ibid.) The Nara Document (1994) is devoted to the term authenticity. Here its valuation of authenticity plays a very important role within

⁵ In English known as 'The Modern Cult of Monuments: Its Character and Origin'



Figure 1. Values within heritage, based on classification from Dogan (2020)

cultural heritage studies and conservation and restoration planning: "knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity" (UNESCO et al., 1994). According to the San Antonio Declaration (1996), authenticity is linked to identity, history, materials, social value, dynamic and static sites, stewardship and economy (ICOMOS, 2023).

Integrated conservation is an important part of the Amsterdam Declaration (1975). It states, that "*integrated conservation requires the promotion of methods, techniques and skills for restoration and rehabilitation*" (ICOMOS, 2011b). Indeed, it is important that traditional building materials and methods should remain available and matching techniques should continue to be used. Whereas the Amsterdam Declaration mentions that architectural heritage is not only about the individual but also about the environment, the Appleton Charter (1983) goes further. It emphasises that an important aspect of preserving cultural heritage is managing the urban environment. As well as principles regarding the preservation of relocation, upgrading, use, and additions of environmental control as the valuation.

When thinking of an environment, the spirit, *genius loci*, can also be an important part within its heritage.

The Quebec Declaration (2008) sets out actions and measures concerning these genius loci with the aim of protecting and promoting, both their social, spiritual and living nature (ICOMOS Canada, 2008).

In addition to ICOMOS, UNESCO is also a significant organisation

focused on preserving and protecting heritage relevant to universal human values. The first convention was in 1972 whereby cultural heritage understood sites, groups of buildings and monuments (UNESCO, 1972). Later conventions mainly discuss important themes related to heritage, such as in 2015 sustainable development.

Besides conferences and conventions on cultural heritage, there are also important individuals who reflect and engage in discussions on what heritage itself is. According to Rodney Harrison, heritage is not just a thing, but can take place in different forms (Harrison, 2013).

Values and understandings are an important part of cultural heritage. For instance, Laurajane Smith introduces the 'Authorised Heritage Discourse (AHD)' for, relying on knowledge claims by aesthetic, power and technical experts (Smith, 2006).

The ideology of AHD embraces the concept of grandeur and the splendour of large-scale structures, recognising the inherent importance of artefacts and sites intertwined with the passage of time. It values the expertise of both scientific and aesthetic perspectives, seeking a harmonious consensus within society while promoting a sense of national unity and progress (ibid.).

Contrasting with this is Jorge Otero-Pailos' notion of "experimental conservation". Proponents of this view cherish their autonomy in selecting objects that may be considered ugly or distasteful, or objects that do not seem worth preserving. Often overlooked or excluded by conventional narratives, these objects possess the inherent ability to challenge societal norms and shed light on the often neglected material, social and environmental impacts of development that governments and corporations rarely acknowledge (Otero-Pailos, 2016).

Yet the risk here is that valuable elements of an object or monument can change.

On the other hand, Dean Sully talks about three conceptual frameworks of conservation: people-based conservation, materials-based conservation and value-based conservation where he suggests redefining the 'minimal intervation' to each of these concepts (Sully, 2013).

Other approaches to conservation may be to view heritage as a sector, factor or vector (Janssen et al., 2017). Here, Janssen et al. (2017) speak of heritage as a factor approach to be seen under an economic framework, heritage as a vector perspective gives a look at the intangible aspects of heritage and heritage as a sector, according to them, is its conservation mechanisms (ibid).

In this regard, Ashworth et al. (2007) addresses and considers also that a direct focus on the study of the past is necessary within heritage studies. Instead, the selection of heritage resource content, representations and interpretations is based on the needs of the present and intended to be passed on to a future audience (Ashworth et al., 2007).

7. Swedish Built Environment

7.1. Swedish Traditional Architecture

During the 1890s, a period of rapid industrial and economical growth was present. As in other parts of Europe this caused a significant change in these industries within Sweden. The second phase of Swedish industrialism was achieved after the breakthrough of the early industrial sectors as well as that of the steam engine (Eriksson, 1998). Then one can observe that mechanical engineering was further developed and specialised/optimised. Besides mechanical engineering, there was also the consumer goods industry that had a strong growth factor (Caldenby, 1979).

Both industries settled in strategic locations, i.e. nearby or in cities and the demand for urban adaptations became high (Nilsson, 2017).

Indeed, this resulted in more and more jobs being created in and around the cities, pushing more families to move towards them. So, an exponential increase in population numbers ensued. Here, Gothenburg can be taken as an example.

In this harbour city, there was a rapid population increase namely, from 76 000 inhabitants in 1880 to 130 000 in 1900 (Caldenby, 1979).

In Sweden, The Labour Movement emerged and the Social Democratic Party was formed in 1889. Inside Swedish society, these are going to play an important part throughout a long period (Eriksson, 1998).

Fredrik Sundbärg wrote in 1897 in "*Ord och Bild*" that Sweden's rural towns looked very much alike. It could come right out of the same factory he said (ibid., p.32). By this saying Sundbärg took a hard line against the rulers' engineering skills and ideologies. The features Sundbärg cites

here are typical farm houses. Similar dwellings are also called '*den lilla röda stugan*' in Swedish common speech, meaning little red hut (Figure 2). It is a small detached house, which is seen as a Swedish traditional building form. It consists of a cubic wooden structure painted in red and the corners and window frames are usually painted in white. The little house is built on a heavy stone foundation. This heavy foundation prolongs the lifespan of the house.

During the late 19th century and early 20th century, these types of houses were more often built for the middle class as summer houses. However, these houses were adapted to the modern way of living. It had to offer up to comfortable living. Thus, it had to have bathrooms, wardrobes, kitchen, living space, etc. What was also typical of these summer houses was that, whenever possible, it had a view of the water from a large glazed veranda (Eriksson, 1998).



Figure 2. Swedish traditional house "den lilla röda stugan"

Fredrik Sundbärg, Lars Israël Wahlman, Per Olof Hallman and Carl Westman soon became well-known figures during the 1890s within architecture and urban planning. They quickly became important figures within the architectural movement National Romantic Style.

The actual question is what this architectural movement means within a Swedish context. The fact is that in Sweden, the meaning of this style is the search for the old traditions, namely the nationalistic aspect. Here, one can also take the *Zeitgeist*, or better, the time spirit, of George. W.F. Hegel into consideration. For example, studies were done by Lars Israël Wahlman looking at farm houses and villages in Sweden and how they were built (Caldenby, 1979). In these rural building types, Wahlman saw "a synthesis between man and nature" (ibid., p.121.) For example, the *'lilla röda stugan'* is a good illustration of traditional housing construction (see paragraph on previous page).

Within cities, (wooden) houses caused safety problems as well as hygiene problems. In addition, city dwellings were often small, dark, and often shared by many people leading to poor living conditions. As wood quickly caught fire, these wooden houses were soon replaced by higher-end stone buildings (Nilsson, 2017).

In the early 20th century, cities began to be built more and more from bricks. The outcome was that demand for the Swedish brick industry increased. This gave rise to the development of railways and explosives as well as improved means of transport (Bedoire, 1974).

Hence, building with bricks became an important feature for the National Romantic Style. Besides bricks, granite and roof tiles are also typical materials from this architectural style in Scandinavia. For example, the Röhsska Museum in Gothenburg is a good example (Figure 3, p.27). This museum focusing on art, design and fashion was designed by Carl Westman. The construction took four years and was complete in 1914. The museum consists of red handmade bricks (Röhsska, n.d.).

Westman was not alone in using bricks, other architects from this movement also featured it heavily. It went so far, even though these architects initially knew this was not historically accurate, that they assumed with time that building with bricks was a traditional way of building.

In fact, according to the architects, it was important that the material they were building with constituted an intrinsic reality, where expressing the qualities of different bricks was very important (Eriksson, 1998).

Apart from the nationalist aspect, interest in technical and practical matters was thus also considered. For this reason, 'romanticism' is quickly replaced by 'realism', as this is taken into account. Whereas there was a lot of inspiration from rural homes in the countryside, National Romanticism nevertheless translated differently in the cities. Thus, it was important to look at the design, materials and the outline of a building. Because of this, some historians feel that the term National Romanticism is incorrect and prefer to use the term 'national realism' (ibid.).

A typical example of a residential area in the National Romantic style is in Gothenburg, Sweden. Namely, it concerns the residential area Landala Egnahem built in 1914 (Rundqvist, 1982).

These houses are semi-detached, open or placed together as row houses. Indeed, there is a great variety as they vary in scale. For instance, there are larger family houses or just smaller houses and are built of wooden structures with a gable roof or mansard roof. The neighbourhood is characterised by unity, as they all have brown-painted wooden façades with red roof tiles (Figure 4).

After the turn of the century and after the National Romantic Style, Nordic Classicism has made its appearance in Scandinavia.

This architectural style has influences mainly from neoclassicism and vernacular architecture. Scandinavian architects returned to their own neoclassical traditions, creating a neoclassical way rather than producing abstract forms that looked entirely new (Caldenby, 1979). It can be seen early on that Carl Westman made this transition and became an important figure.

Ragnar Östberg, Ivar Tengbom and Gunnar Asplund are also wellknown representatives in Sweden who applied this style. It so happens that there was a tradition within the Swedish architectural world that involved educational trips. Here, architects went to learn in other parts of Europe about a different way of building and made records in their sketchbooks (Eriksson, 1998).

However, this movement experienced a turning point when The Stockholm Exhibition was exhibited in 1930 and when '*Acceptera*' was published by Gunnar Asplund in 1931. The end of this movement is considered at 1930. As a result, a 'modern' way of thinking emerged. These are explained further in the next section.



Figure 3. Röhsska Museum, Gothenburg



Figure 4. Landala Egnahem, Gothenburg

7.2. Modern Principles

7.2.1. Functionalism

With the outbreak of World War I, much had changed within Central and Western Europe in terms of architecture. With the emergence of reinforced concrete, major changes took place. This resulted in new construction methods, but also new ways of building with existing materials caused a change. For instance, it became possible to create buildings with clean lines, open floor plans and light interiors. It offered architects more flexibility to build, and a new style of thinking, a modernist way of thinking, gradually emerged.

Swedish functionalism emerged in the early 20th century and became a dominant architectural and design movement in Sweden. The terms Swedish functionalism or 'Swedish Grace' are also sometimes used to emphasise this style (Wedebrunn & Docomomo Scandinavia, 1998).

It was affected by international modernism but developed its own specific characteristics.

In Scandinavia, it mainly focused on National Romanticism influences (Lane, 2000). This is because the architects, including Gunnar Asplund and Alvar Aalto, who introduced functionalism were trained under National Romantic ideals (Cornell, 1985).

During the Stockholm housing exhibition "*Bygge och Bo*", standard houses were first presented with functionalist features, but it was still heavily influenced by neoclassicism. The humanist character was thereby guaranteed by the development of everyday tasks and on a vernacular basis (Linn, 1985).

Slowly, though, a shift was visible and more distance was taken from classical architecture (Mikkola, 1985). However, there was never a real break between functionalism and classicism¹ (Linn, 1985, p.90). Within Sweden, functionalism is strongly emphasised through a combination of the national and purposeful pursuit of rationalism (Hübinette, 1999). But focusing on logic was also an important feature for Swedish architects (Chirokova, 2014). Focusing on social reality and functional requirements were also an important part of it (Cunningham & Docomono International, 1998).

HSB Riksförbund² was founded in 1923 in response to a housing shortage in Sweden (HSB Riksförbund, n.d.). It was run by Sven Wallander (Wedebrunn & Docomomo Scandinavia, 1998).

This organisation ensured that all housing had to be equipped with modern facilities and where the maintenance of the buildings was important.

A large number of '*landshövdningehus*'³ were built in Gothenburg in the 19th century because the need for accommodation for the working class was necessary, but also in the early 20th century these types of housing were build (Figure 5). These apartment buildings are characterised by a stone foundation with two or three floors built of wood.

Swiss architect Alfred Roth, for example, together with Ingrid Wallberg, designed many of these types of houses for HSB (Hall, 1991).

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¹ Citation of Strengell, G (1928). Byggnaden och den moderna smaken i Sverige. Stockholm. p.110-112. Retrieved from Linn, 1985, p.90.

The National Association of Tenants' Savings and Building Society

³ In English: governor's houses. They were built in the 19th century as a solution for the housing shortage.

The first apartment buildings under HSB were built in Gothenburg in 1926 (Caldenby, 1979).



Figure 5. example of a landshövdningehus from HSB, Gothenburg

The 1930 Stockholm exhibition is important for Swedish architecture. It was thanks to Gunnar Asplund and the Swedish Craftsmen's Association that this initiative was taken (Rudberg, 1998b). Stemming from the Swedish successes at the 1925 Paris exhibition where the International Exhibition of Modern Decorative and Industrial Arts was presented (Gedin, 2018). Other exhibitions of the 1920s also provided inspiration for this. However, the new radical architecture was accused of losing its Swedish identity (Näsström, 1930).

The aim was to promote the ideals of functionalism and the achievements of Swedish modernity and design. What it also ensured was a good

combination of social participation, functionality as well as the beauty of materials concerning architecture. Thus, everyday things concerning living were in the spotlight including utensils, way of living, domestic crafts and applied art (Rudberg, 1998b).

After the Stockholm exhibition, the manifesto "*Acceptera*" was released in 1931 by Asplund, Gahn, Markelius, Paulsson, Sundahl and Åhrén. Here, they write only about the future and the present, and everything associated with the past becomes unthinkable (Gedin, 2018). They write in the manifesto, "*We do not need the outgrown forms of an old culture to maintain our self-respect. We cannot sneak backwards out of our own time. Nor can we jump past what is difficult and unclear into a utopian future. We can only look reality in the eye and accept it in order to master it.*"⁴ (Asplund et al., 1980).

In other words, the authors wanted to ensure that people accept their way of thinking and dare to look into the future and understand the current living situation.

7.2.2. Folkhemmet

Under the leadership of Prime Minister Per Albin Hansson in the 1930s,

Citation from Asplund et al., 1980, p.197-198

Original in Swedish:

- Vi har inte behov av en gammal kulturs urvuxna former för att uppehålla vår självaktning.
- Vi kan inte smyga oss ut ur vår egen tid bakåt
- Vi kan inte heller hoppa förbi något som är besvärligt och oklart in i en utopisk framtid
- Vi kan inte annat än se verkligheten i ögonen och acceptera den för att behärska den.

the Swedish welfare state was significantly expanded and extensive social reforms and policies were introduced. The *folkhemmet*⁵ vision fostered a strong sense of collective responsibility and a commitment to creating a more inclusive society for all Swedes. It became a cornerstone of Swedish social policy and shaped the country's approach to social equality and social welfare for decades.

The concept and its architectural ideas provided a guiding principle for social development in Sweden (Hübinette, 1999). So they wanted to create a society characterised by equality, solidarity and social welfare. Thus, they started working with loan of houses and renting them out. It also promoted modernist ideas as the ideology that every citizen should have access to affordable housing (Wedebrunn & Docomomo Scandinavia, 1998). Simply put, therefore, it can be said that the goal of *folkhemmet* was from the people, to the people. Eva Rudberg mentions in *"Folkhemmets bostäder 1940-1960:[svenskt bostadsbyggande under 1940- och 50-talen]"* (1987) that in 1928 it was in fact Per Albin Hansson of the Social Democratic Party who introduced this concept of *"folkhemmet"* (Engfors, 1987).

Inside the Social Democratic Party, it was important to research social housing. These issues were dealt with by functionalist architects.

A strong focus was put on the high demands of housing construction and planning (Wedebrunn & Docomomo Scandinavia, 1998).

As this work required a lot patience and effort, it constituted a strong expansive force that strongly encouraged social mobility. Thus, at the same time, it meant that smallness and closedness strengthened and ensured success around ethnic and cultural uniformity (Larsson, 2008).

Ensuring optimal daylight and optimising ventilation inside a home was essential. To this end, parallel housing blocks called '*lamellhus*' were built in the 1930s. Such a housing block has the characteristic of consisting of two or more floors above ground with at least two staircases, but no elevator. This type of dwelling was strongly influenced by functionalism. sometimes they were also placed in group at perpendicular to each other instead of parallel.

In 1945, a building programme was approved by *Riksdag* to solve the housing shortage, as cramped housing was still a major problem.

These policies were based on the work of the Social Housing Commission '*Bostadssociala utredningen*' established in 1933 (Linn, 1998). Housing construction in Sweden was part of the material realization between 1946 and 1964, when 900,000 dwellings were produced (Kortedala Museum, n.d.).

For instance, room studies were done looking at: bathrooms, kitchens, habits, general functionality and spaciousness as well as the furniture market and research on storage systems (Boalt & Lindegrens, 1987). A well-known example is the Swedish kitchen standard '*Svensk köksstandard*' that originated from the ideas of Osvald Almqvist (Wedebrunn & Docomomo Scandinavia, 1998). Women were used as a measurement for the kitchen, as in the 1950s housewives became a thing as men began to earn decent amounts (Rudberg, 1987).

Within Järnbrott in Gothenburg, there is a well-preserved residential area with the *folkhemmet* ideals (Figure 6). These row houses still retain the general "*character of a small town in the true spirit of the folk house*" ⁶

⁶ In Swedish "*karaktär av lummig småstad i sann folkhemsanda*." in Antiquum AB, 2018, p. 8

⁵ In English *folkhemmet* is called "people's home"

(Antiquum AB, 2018). The way these houses are arranged is typical. For instance, the winding and organic forms are a feature of the garden city, but also the simple façades with pointed roofs and plain wood panelling make the neighbourhood form a whole, but asymmetrical gabled roofs made of red bricks are also typical of the 1950s houses (ibid.). Since the city planning director at the time, T. W. Olson, had a clear view for the city to expand, he aimed to protect nature and open spaces as much as possible (Göteborgs Stadsmuseum, 2014a).

Here in Järnbrott, the relationship between nature and people is strong in this example. For instance, there are landscaped parks in front of the houses on Radiovägen, but it is also surrounded by small-scale woods.



Figure 6. Järnbrott, Gothenburg

7.2.3. Miljonprogrammet

Despite Sweden being neutral during World War II and thus not suffering from war damages, the housing shortage was enormous both during

and after the war. It can be related to the baby boom of the 40s from which these kids became adults in the 60s, and also that immigration had increased (Eriksson, 1996).

Throughout the 1960s, politicians looked for solutions to not only construction needs but also the necessary workforce for it (ibid.). So, the state was increasingly forced to directly intervene in production and investment, for example, mechanical engineering in Gothenburg increasingly became an export industry. However, often houses were still in poor condition, leaving a large number of people to live in unhealthy and poor circumstances. (Larsson, 2008). Between 1960 and 1975, about 50 national committees were set up to build residential properties (Caldenby et al., 1998).

The *miljonprogrammet*⁷ was an answer to this housing shortage. Indeed, the aim was to convert the housing shortage into an adequate amount of housing, in other words, a surplus. This would shorten the length of waiting lists for families waiting for a house to become available. So where the homes of the *folkhemmet* did not seem adequate, the homes of the *miljonprogrammet* should provide solutions.

Being convinced that industrial growth and rationalisation would lead to better living conditions, it was assumed that almost everyone in large urban areas should live in new build housing (Hall, 1991).

Basing itself on methodological research on housing habits, architects took the opportunity to start experimenting, but it got a lot of inspirations of Swedish functionalism from the 1930s (Arnstberg, 1996). The designs were in collaboration with public housing companies in Sweden. Economic and social motives were often central (Rudberg, 1998a).

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In English miljonprogrammet is called "Million Home Programme"

Indeed, it came down to the designer's power of expression regarding materials namely concrete and untreated materials.

So, it was important to build with prefabrication, making construction fast and efficient. Programmatically planned variability, installation of limited technical systems and adaptability of building techniques came from the user side (Rosenberg, 2012). This allowed for an easier placement of technical systems, as it was more universal building than designing an individual complex.

The most common house type was slatted, three-storey houses, but attic houses, point houses and disc houses were also built during these periods (Särnbratt, 2006). Nevertheless, connecting neighbourhoods were of importance as well. Karl-Olov Arnstberg here refers to architectural ideological themes that express romantic engineering ideals for the *miljonprogrammet* (Arnstberg, 1996).

First, among the themes, one can highlight the qualities of suburbs by looking at the ideas in terms of welfare, measurable values and equality. Next, it is important to make a suburb operate as optimally as possible by providing a proper layout and planning. Lastly, the overall human needs are of importance and need to be adapted to neighbourhoods (ibid, p.29).

A strong example of the *miljonprogrammet's* vision is the apartment complex in Beryllgatan designed by HSB in 1969. The complex is located in the district of Tynnered, Gothenburg (Figure 7).

Precast concrete structures made it easy to erect this building fast and corner pillars made it easy to support the whole complex.

Chromed sheet steel was used to construct the gates. HSB took care to limit the monotonous nature of this construction method. As a solution, they were going to provide stone inlays, as well as create different patterns on the façade (Göteborgs Stadsmuseum, 2014c). Claes Caldenby makes here the observation that the functionalist vision of concrete decks held open by pillars for flexible planning was realised in only a small proportion of all buildings (Caldenby, 1998, p.147).

But, the *miljonprogrammet* received a lot of criticism in the 1970s. It was because many felt that these complexes looked uniform and consisted mainly of concrete. However, concrete was not predominant, but plaster, wood, sheet material and brick were used more for building the façades (Särnbratt, 2006). Additionally, flat blocks were considered unsafe, dull and unaesthetic (Ristilammi, 1994).

Furthermore, since many houses were built during this period, there was a surplus. Thomas Hall says that this resulted in about 25 000 housing units being vacant in 1975 (Hall, 1991). Indeed, this poses a problem for maintaining these complexes, which is unfortunate since these apartment complexes were built out of strong materials.



Figure 7. Beryllgatan, Retrieved from Ny vy Mäklare (n.d.)

7.3. Timeline of Architectural Styles

That a particular style or period changes overnight is not the thing. There is always an overlap.

For example, the National Romantic style runs into Nordic Classicism where Swedish Functionalism runs into Nordic Classicism but, according to Linn, there is no break (Linn, 1985).

Explained before, Figure 8 on the next page, shows that *folkhemmet* falls completely inside functionalism. However, the major difference is that *folkhemmet* does not only have many influences from this style, but there is also a very strong role for the social aspects of housing and living.

A shift between *folkhemmet* and *miljonprogrammet* is noticeable. While *folkhemmet* was mostly active during the 1940-60s, *miljonprogrammet* arose during the 1960s. However, these periods are not defined architectural styles but they had influences from different styles.

During *folkhemmet* in Sweden The International Style, modernism and functionalism were architectural styles that were ruling in Europe. Influences of these styles can be noticed in the then newly build districts in Sweden as can be as an example seen from the designs of Ingrid Wallberg.

In addition, according to Johan Rådberg, building low-rise buildings was more economical than high-rise buildings because high-rise buildings required, amongst others, lifts and additional ventilation which was not the case with low-rise buildings (Gedin, 2018). This resulted in parallel apartment blocks that would define this housing type.

As there was a significant housing shortage within Sweden it was important to build quickly quality housing. Also, this change in approach starting from the need for new housing had a great impact on how to meet the demands of society inside the architectural profession. For example, Rosenberg (2012) says that "design for the built environment was already part of a model based on a scientific approach where invested interest was primarily the domain of the building industry (Rosenberg, 2012, p.97)". For example these building were directly designed and linked to district heating systems (Holgersen & Hult, 2021).

Herefore, one could place *miljonprogrammet* rather in the postmodernist framework, high-tech as well as brutalism due to the shift from functionalism to structuralism.

When it comes to determining which housing type is the most common used here, it can be established that it is three-storey slatted houses, but loft houses, towerblock and vertical houses are also more common (Särnbratt, 2006).

Yet, this is something open to debate to define these styles more in detail and what they meant within a Swedish context.



Figure 8. Timeline of architectural styles with an indicator where *folkhemmet* and *miljonprogrammet* fit in

8. Docomomo International

8.1. Introduction

Docomomo International (further in the text referred as Docomomo) is a globally known non-profit organisation that focuses on neighbourhoods, buildings, cities and landscapes within The Modern Movement. This international organisation was founded at the School of Architecture of the Technical University of Eindhoven, The Netherlands by architect and professor Hubert-Jan Henket and researcher and architect Wessel de Jonge in 1988(Docomomo International, 2022). Docomomo stands for **Do**cumentation and **Co**nservation of the **Mo**dern **Mo**vement. From its name it can be deduced that Docomomo aims to promote the documentation, preservation and making an inventory of the most important buildings, housing estates and sites of the Modern Movement. Inside Docomomo, historians, architects and curators work together to exchange knowledge with the aim of bringing attention to the general public (Hübinette, 1999).

8.2. Docomomo – organisation, vision and approach

Since The Modern Movement architecture is still very recent within (architectural) history, and so far there has been little recognition of this heritage nowadays. As it is often ignored, or its historical value is still undervalued, therefore it would be fundamental for the general development and common vision, as well for the conservation philosophy if the architects shared the ethos of modernity (Guillet, 2007). Yet it did introduce many innovative ways of thinking in architecture, urbanism and planning. It is therefore important to deepen our knowledge of this movement. However, the Modern Movement architecture can be seen very broadly. It often starts with Art Nouveau and moves up to

Postmodernism. Value determination plays an important role to see if it fits inside Docomomo or not.

In 1992, Docomomo developed an important tool: ISC/Registers (Guillet, 2007). Its purpose is to involve regional and national divisions in the documentation of modern buildings and sites. So the aim is actually to develop an inventory of notable buildings as well as 'common/everyday' buildings (Docomomo International, 2022). This international register is fully in line with Docomomo's goals as stated in the Eindhoven-Seoul Statement¹. In fact, anything related to The Modern Movement will be taken into account. This can range from architecture to landscapes, so it is very broad. Next, the selection criteria were expanded from the scope of application on both a geographic and chronological level. Since then there have been many different examples in various categories: sites and neighbourhoods, urban planning, gardens and landscapes, infrastructures, industrial complexes

- Eindhoven-Seoul Statement as stated on the Docomomo International website:
- Bring the significance of the architecture of the Modern Movement to the attention of the public, the authorities, the professionals and the educational community.
- Identify and promote the surveying of the works of the Modern Movement.
- Promote the conservation and (re)use of buildings and sites of the Modern Movement.
- Oppose destruction and disfigurement of significant works.
- Foster and disseminate the development of appropriate techniques and methods of conservation and adaptive (re)use.
- Attract funding for documentation conservation and (re)use
- Explore and develop new ideas for the future of a sustainable built environment based on the past experiences of the Modern Movement.

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and civil engineering works, as well as furniture, interiors, alterations to existing buildings and architectural industrialised elements (Guillet, 2007, p.155).

In fact, Docomomo's missions are to: (1) exchange ideas on preservation technology, education and history, (2) instigate responsibility for this recent architectural heritage, (3) generate interest in the ideas and heritage of The Modern Movement, and (4) act as a watchdog when important Modern Movement buildings anywhere are threatened (Docomomo International, 2022).

Unfortunately, beyond the descriptions of the ISC categories, there is no more information on them to be found. Nor do they have their own page or website.

However, it appears that ISC/Interior Design are planning to collect the sheets created to be able to put them on a website. This is because documenting interiors is very important, as usually this aspect inside The Modern Movement is the most threatened.

Besides the ISC/Register, Docomomo proposed an assessment method by taking into account specific aspects. These emphasise structural elements, the use of new materials or the programme as well as data on conservation methods based on the state of the selected cases (Palomares Figueres, 2018).

Considering that not all buildings are equally important, they do not all need to be conserved in the same way. Therefore, it is important to start looking at each case as an individual one and consider the motive of a selected case. From the moment a building meets the definition of modernity, the object must demonstrate, aside from its design, that it was innovative. It must be more than just the idea of the moment but also an image for the destructiveness of time, in fact it can be that they want to preserve a building just because its admired within a community and financed on a local scale (Cunningham & Maxwell, 1998). As an example, Cunningham & Maxwell (1998) say that the motive for making a particular case shouldn't obscure its presence. They mention that the purpose of preservation is actually not the end goal in itself, but it can be seen as a means of evaluating legacy and providing a platform for the future (Cunningham & Maxwell, 1998).

Consequently, not all buildings may be fully restored as they have a lower value compared to other buildings. However, it is still important to conserve these buildings. After all, one effective way of doing this is to document them properly.

Sketches, interviews, photographic images, video images, models, CAD drawings or even VR models can be a great way to help conserving these buildings.

In addition to the international aspect of Docomomo, one can also look at the national level. This is understood under Docomomo International as a "chapter".

It appears that in terms of documentation, a lot has already happened within Northern and Western Europe. This is because many pioneers of modernism have started work here as well as that there are resources to be able to look into this. Though one can note that this is not the case for non-European countries.

One can, however, see a shift within Docomomo and countries like Brazil and The United States of America have been very active in
recent years. In Africa, there are not as many resources for documenting heritage, but this is being worked on. It is because the conservation of heritage within Docomomo is less, the examples are more pristine. This makes it important to do more research in this part of the continent. Asia in contrast is not very active, but there are several Asian chapters present.

Most chapters operate with a simple membership organisation. It means that it is organised by members who pay membership fees. In addition, there are also working members. They are experts with their own field of expertise within the organisation. They are the ones that will thus actually do things for Docomomo and are engaged in the day-to-day running of the chapter.

What you do and how much is done is completely free, but 'homework' must be done. This implies making sheets on heritage within your own chapter. This is submitted at the congresses organised every two years. By submitting these sheets, the chapter has assured voting rights (Informant 1).

The advantage of being your own organisation is that you are free from a link to official bodies. This allows you to do whatever you want. For example, you can issue opinions on immovable heritage within the country, as well as criticise a particular patrimony. The chapter in Belgium works with a website where they publish all kinds of things related to The Modern Movement. Thus, one can find books, files, journals and other things on this website. They also have an interactive map 'The virtual exhibition' where masterpieces of The Modern Movement can be consulted. In addition, they organise (online) lectures and excursions (Docomomo Belgium, 2023). Finland and Denmark have been active over the years. This is because Finland has the Aalto foundation that plays a big role in it. When it comes to Denmark, it is run mainly by a group of enthusiast. Sweden and Norway have had difficulties to keep their chapters going (Informant 2). So, it is worth noting here is that for Sweden their chapter have been under the radar for a long time. Yet, it has been a member of Docomomo International since 1990. During the period 1990-1998, the coordinator for Sweden was Eva Rudberg. Here, the Swedish chapter organised a conference in Stockholm in 1998. It was the fifth conference entitled "Vision and Reality" which looked at the social aspects of urban planning and architecture in the Modern Movement. Since then, Claes Caldenby has represented Swedish Docomomo (Tuomi & Paatero, 2007). He got support from his appointment at Chalmers University of Technology and ran it for some years. After him it was an antiquarian and architect who took it over but it was hard to keep it going as they didn't have institutional support (Informant 2).

However, the last publication in which Docomomo Sweden was mentioned as organisation was in 2013 in "Survival of Modern - from Cultural Centres to Planned Suburbs". This book was published by Docomomo of the Baltics and Scandinavia (Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway & Sweden).

Since then, articles were published for other countries within Docomomo, but not under Docomomo Sweden itself anymore. However, the Swedish Docomomo recently had their first meeting again in May, after being closed for at least ten years they officially restarted their chapter (Informant 2). III. Case Studies

In this chapter the goal is to find traces of existing (in)tangible remains of The Modern Movement within Gothenburg.

First of all, a theoretic framework will be conducted of the selected case studies Södra Guldheden and Örgryte. After that there will be a focus on an analysis through visualisation from both case studies.

Here it is important to reflect on who you are as a researcher and where you stand for as an individual being. It is necessary to reflect on what your capabilities are to analyse these case studies, what you are capable of, what your personal interests are and what your background actually is. Which is because all of these elements will have an impact on the visualisations in this research.

9. Introduction

Having studied interior architecture with extensive knowledge around adaptive re-use, since upper secondary school ensures that you will look at what subsequent case studies mean and how they behave in the landscape in which it is located from a rather architectural point of view. Indeed, adaptive re-use is considered being a small niche branch within conservation studies in which older buildings with significant values are reused in a contemporary context.

However, the case here is not work with existing buildings and design something new for them but rather to figure out why these case studies are important for the Swedish Built Environment.

By walking around the city and reading a bit of literature about Docomomo International, a selection of case studies has been made. Literally emphasised a 'bit' of literature here, as it is important that you also want to select subsequent case studies from a rather 'unseen' and 'unprecedented' way. Of course, the first step was to read broadly what Docomomo stands for and what this organisation is engaged in. So, in subsequent case studies, a look can be given for where traces of The Modern Movement may lie. Here, the idea was that more reading into this topic will allow to create an objective framework. Then the intention was that reflecting on what this could mean within the Swedish context in relation to Docomomo, so this would be based on objective information as well as my subjectivity due to my background.

This chapter consists of two selected case studies, the neighbourhood Södra Guldheden and the neighbourhood Örgryte in Gothenburg, Sweden (Figure 9). The reason these case studies were selected was based on preliminary literature studies. That way, it was possible to know with what critical eye to look while walking through the city. Whereas buildings in the residential area Örgryte, reflect more the stereotypical aspects of modernistic architecture, such was not the case with Södra Guldheden. Each case study starts with information on the buildings that might be considered a part of The Modern Movement, using a literary study.

In addition, personal interests are not just about (interior) architecture, but enables also to reflect on why people place these buildings and why they do it. So, it is followed by the emotional aspect experienced by the researcher.

A walk through the residential area is represented. What stands out? How does it relate to the environment in which it is located? How does this place actually feel compared to the rest of its environment in which it is located? Does it feel rather alienated or does it just fit nicely within its urban context. Therefore using visualualisation through images might be a crucial tool to shown these aspects that can't be written.

Reflexing what your capabilities are is, of course, a more complex thing to think about. For instance, you know of yourself that you are capable of going to facts and gathering information from a chosen case study or not. However, your background will always influence some parts of the research you are doing. Gathering enough basic knowledge of materials and structures thanks to your background and previous studies makes research possible. It is thus the question if you as an individual are able to represent the best possible balance between objective and subjective information surrounding these case studies.



Figure 9. Examined case study zones within (1) Södra Guldheden and (2) Örgryte

10. Södra Guldheden, Gothenburg (Sweden)

Background information

It is worth pointing out that Södra Guldheden further emerged from the ideals of building the Norra Guldheden housing estate. Indeed, it turned out that Södra Guldheden was built on the basis of the residential ideals "*Bo Bättre*" presented to the public in Norra Guldheden in 1945. This ideology emerged because Sweden scored poorly within the living standards in Europe (Caldenby et al., 2021).

In "Byggnader i Göteborg : [Buildings in Göteborg]: en guide till 1900-talsarkitektur", Claes Caldenby (1979) writes that housing problems could be solved where the functionalists did not show enough enthusiasm. In addition, Norra Guldheden was the first mass housing estate in Sweden, inspired by ideals adopted from the United States (ibid.). This concept of this housing ideal is explained in the book:

"The concept of the neighbourhood unit was introduced. It was believed that a small unified group could be a means of defending democracy against mass mentality. The woman would take on two roles/ that of being a housewife while the children are small, and thereafter that of a working woman. Practically designed flats, home help centres and children's playschools would make household work lighter." (Caldenby, 1979, p.95.)

Therefore, it can be said that Guldheden was built to both facilitate and allow the formation of family life (Nilsson, 2018, p.203). So, emphasising relationships between people was a key feature that emerged from the German functionalism within the development of urban planning, but keeping the thought of building many quality apartments (Sjölin, 2005). Around the years 1950-55, the residential district Södra Guldheden was

built with Doktor Fries Torg as its community centre and was based on the plan of 1948 (Rundqvist, 1982). This residential area is characterised by its high and low apartment buildings. Nine apartment buildings were built in 1950 and later in 1955 the centre Doktor Fries Torg.



Figure 10. Situation plan (Grey: Guldheden - Purple: Casestudy are of the selected buildings)

Both Doktor Fries Torg and the apartments called *punkthusen*, were designed by Jan Wallinder and Sven Brolid.

It reflects urban planning ideas and architectural ideals from Gothenburg in the 1950s (Caldenby et al., 2021). A fully implemented traffic differentiation and interconnected green spaces became an important feature within the design of this urban place (Lönnroth et al., 1999). *Vattenbyggnadsbyrån* introduced this traffic differentiation (Caldenby, 1979).

Here, it was then opted from a design point of view to narrow streets and provide fewer parking units (Bladh & Hammarson, 2008).

Doktor Fries Torg is the most significant centre inside this residential area. It consists of two parallel buildings with services on the ground floor. The architecture of these buildings are prominent. Red-painted walls are divided by concreted terraces on the upper floors where the apartments are located. The services at the ground floors are (convenience) stores, including the supermarket *Hemköp*, a pizzeria and a pharmacy. At the end, there is a library and a swing dance club on the left.

There are also schools nearby, for example the primary school near the *punkthusen* by Jan Wallinder and Sven Brolid. Across this square, there is the Guldhedskyrkan that has been built later in 1966 and designed by the architect Helge Zimdal (Rundqvist, 1982). Behind the housing blocks near Doktor Bex Gata, a watertower takes an important view of the neighbourhood.

The watertower was designed by Nils Erinar Eriksson and has been in use since March 19th in 1952 (Rundqvist, 1982).

The square itself has its own tram stop called Doktor Fries Torg and tram line 10 runs centrally through the neighbourhood. You can see this when you find yourself in the park Guldheden Lekplats.

10.1. Punkthusen

Location:	Doktor Liborius Gata and Syster Aina Gata in
	Södra Guldheden, Gothenburg, (Sweden)
Architects:	Sven Brolid & Jan Wallinder
Year:	1950
Index:	urban planning, neighbourhood



Figure 11. Punkthusen at Syster ainas Gata

Background information

Both the streets Doktor Liborius Gata and Syster Aina Gata show a unique character when walking from Landala Engham to Guldhedens Lekplats. Nine high-rise apartment buildings¹ become visible. As one can see (Figure 11), the apartment buildings are planned separately from each other and connected with the park, called Guldhedens Lekplats (Figure 13).

These principles of building can be derived back from the Swedish *folkhemmet* with influences of functionalism. It also has influences from the ideal of urban planning in the 1940s, where tall apartment buildings were becoming standard from the 1950s onwards and these nine flat blocks were one of the first (Caldenby et al., 1998).

In this way, the storage spaces are provided in one central place and do not distract from the interior. Depending on the chosen apartment block, you have the sunrise coming from the East or the sunset from the West. Light plays an important role inside the living space. Presumably, it was the architects' reason for placing these buildings in the urban context this way. Something very characteristic of a good home under the standards of the *folkhemmet*. Not many windows are provided facing North, for the sake of limiting light, and presumambly for the cold as well. Based on the plans, only



1 These buildings are better known under the name *punkthusen*

Figure 12. interior kitchen *punkthus*, taken by Sune Sundhal in 1962 (Retrieved from Digital Museum)

kitchens facing north were provided with a window (Figure 12).

The glass stairwell is fitted with a lift and the technical installations are provided on the South side.

Caldenby et. al. (2021) mention that "*the architects called the process of planning to fit together without making any rooms too big or too small 'crossword solving*"² (Caldenby et al., 2021, p.124). While you enter the inside of this glass stairwell, you see the hallways. Each floor is built up of a mezzanine with two apartments per level (Figure 13).

The wall across the stairwell has at each level a different colour that repeats itself. This is also seen with the terraces at the six buildings located on Doktor Liborius Gata. The colours of the balconies are primary colours (red, blue, yellow) and secondary colours (green and orange). Inside the stairwell of these building, the same colours are represented again on each floor.

At Syster Ainas Gata, the balconies have different colours. Here a gradient of blue colours has been used.

² Quote in original language (Swedish): "*Att få planera att gå ihop utan att några rum blev för stora eller för små kallade arkitekterna för 'korsordslösande*" (Caldenby et al., 2021, p.124)



Figure 13. implantation [left] & plan appartment [right], (Caldenby & Chalmers Tekniska Högsköla, 1979).

10.2. Stores at Doktor Bex Gata

Location:	Doktor Bex Gata in Södra Guldheden,
	Gothenburg, (Sweden)
Architect:	Henning Orlando
Year:	1950-1951
Index:	retail



Figure 14. Stores at Doktor Bex Gata



Figure 15. interior postoffice, taken by Yngve Hellström on July 29th 1954 (Retrieved from Digital Museum)

Background information

Next to the Doktor Sydwos Gata tram stop there is the remarkable building with its boutiques. It was designed by the architect Henning Orlando in 1950-51. Riksantikvarieämbetet (n.d.) reports that the architect worked for *Riksbyggen*. They also mention that the building had various retail functions. There was a post office (Figure 15 & Figure 16), photo studio, paint shop, laundry and hairdresser as well as the supermarket Konsum (Riksantikvarieämbetet, n.d.). Konsum is the ancestor of the current supermarket chain Coop. This supermarket is still in this building to this day, as well as other small boutiques. Thus, it can be seen that the building has continued to perform the same function over the years.

The exterior of the building is very striking as it has a trapezoid shape, more specifically an irregular quadrilateral (Figure 14).

The building consists of one storey and the ground plan is horizontal. Flat red roofs accentuate this shape. The façade consists of plaster that is painted green. The original windows and doors are still present, and the window profiles consist of fine aluminium with a decorative wooden element.



Figure 16. exterior postoffice by Yngve Hellström on July 29th 1954 (Retrieved from Digital Museum)

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10.3. Doktor Fries Torg

Location:	Doktor Fries Torg in Södra Guldheden,
	Gothenburg, (Sweden)
Architects:	Sven Brolid & Jan Wallinder
Year:	1955
Index:	urban planning, square



Figure 17. Doktor Fries Torg

Background information

Next to the *punkthusen*, at the cross-section, this square was built by Jan Wallinder and Sven Brolid for Göteborgs Stads Bostads AB during 1951-53 (Lönnroth et al., 1999). In contrast to Wallinder & Brolid's other designs in the district, these buildings are low and horizontal (Figure 17). It may also be noted that colour is used in the façade in the form of terracotta-coloured plastering. Flat gabled roofs with no gutter edging reinforce the sleek exterior (Lönnroth et al., 1999). The buildings have three floors, with commercial functions on the ground floor (Figure 18 - No. 4). The floors above are apartment buildings. Each

floor (Figure 18 - No. 4). The floors above are apartment buildings. Each apartment has a balcony located inwards, so it is aligned with the façade. For their being, these apartments were spacious and consisted of four to six rooms. In fact, it was intended that these flats could be rented out to doctors who work at the nearby hospital Sahlgrenska (Caldenby et al., 2021).

At the entrance to the square, facing east, there is a sculpture in the pond (Figure 17 & Figure 18 - No. 5). This sculpture, designed by Palle Pernevi, is called "*Fina Fisken*", in Swedish this is an expression that means if something goes well or good. In English it would litterally mean beautiful fish or fine fish, but a better explanation would be that something goes swimmingly. It was inaugurated in 1961. Later, in 1992, it was extended south of the square by building a library, forum and community centre (Lönnroth et al., 1999) (Figure 18 - No. 1,2,3). It stands on the edge of the rock and is surrounded by the nature of Guldhedsdalen. It was based on Brolid & Wallinder's original plans.

From this one can conclude that this square is strategically placed and serves as an easy recognition spot as well as a meeting point.



Figure 18. Doktor Fries Torg (Caldenby & Chalmers Tekniska Högsköla, 1979).

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10.4. Guldhedskyrkan

Guldhedens Kyrkbacke at the border with
Södra Guldheden, Gothenburg, (Sweden)
Helge Zimdal
1966
church



Figure 19. Guldhedenskyrkan

Background information

The intersection at Doktor Fries Torg has a noticeable church (Figure 19). One can perceive that this church is not a traditional one. Architects in Sweden could indulge in designing churches, here they had fewer restrictions imposed by the state versus designing residential areas. What makes this church stand out is that it consists of abstract volumes placed against each other. Two volumes with angled flat copper roofs, a higher and lower part, connect by a chimney.

The volumes consist of whitewashed walls. In addition, the striking bell tower is located on the west side and consists of wooden panelling (Sidén, 2001).

To the east where the street Syréngatan is located, is an apse, also known as a niche. Something else worth noting is that there are very few windows on the exterior walls, something that is atypical for church design.

Contrasting with the white of the exteriors, are the dark interiors. Its entrance is in the centre of the church and is accessed via a circular concrete staircase. The concrete was cast in wooden moulds, revealing the pattern of wooden slats. In fact, the interior consists of dark red bricks and a stone floor. It can also be noted that the building consists of two floors. On the ground floor, there is the church hall, a sacristy, a kitchen, vestibule and a congregation hall. The floor below originally consisted of a storeroom, toilets, a youth house and a boiler room.

The church hall itself has simple furniture, for example, with pine benches on the one hand as well as padded leather chairs (Sidén, 2001).

11. Örgryte, Gothenburg (Sweden)

Background information

Just a few kilometres outside the centre of Gothenburg lies the district Örgryte. In the 18th century, this area was considered a nature reserve because of the beauty of its landscape. For instance, there are lakes, hills and forests (Wadell, 1988).

In the 19th century, there was population growth because of emigration. Wealthier people from the city started buying land in Örgryte to set up summer residences or purchased small farms to stay there permanently (Caldenby, 2006).

For some time, there were discussions ongoing to merge the then independent village of Örgryte with the city of Gothenburg to become one of its districts. This was finally achieved on the first of January 1922, with Örgryte becoming part of the city of Gothenburg (Rundqvist, 1982). Örgryte was redivided into several neighbourhoods including Gårda, Torp, Bö, Skår, Lunden, Kallebäck, Sävenäs and Kålltorp where those names were named after old farms (Lönnroth & Stadsmuseet, 1999). For example, Skår used to be part of the parish Örgryte, which consisted of Östergården and Västergården in the 18th century (Göteborgs Stadsmuseum, 2014a).

The urban design that was supposed to be finished by Albert Lillienberg was further elaborated by architect Nils Olsson in the 1920s. Olsson designed himself many houses for Örgryte Trädgårdsstad (Wadell, 1988). According to Olsson, everyone should own his house and the parcel it is built on. Only park areas and garages would be shared (ibid.). During the 1930s, Uno Åhrén was the head of city planning in Gothenburg.

According to him, it was important to create communal spaces near detached houses (Rudberg, 1981). By this he meant mainly the green spaces inside a neighbourhood such as parks and playgrounds, but also other facilities.

Erik Friberger followed the ideology of Åhrén. As such, ideologies for functionalism inside the city were formed (ibid.). He was also convinced that houses outside the city should be available to be rented out to people who did not want to or were unable to buy anything, as well as that terraced houses would save land (Krus, 1989). Much of the villas were categorised under classicism (Lönnroth & Stadsmuseet, 1999). But since there were, no doubt, clients interested in building modern buildings, Örgryte became a place for architectural innovation. For this reason, many building projects were realised with a functionalist character by clients who dared to go modern (Caldenby, 1996).

Ingrid Wallberg certainly had an influence in this, she herself lived in Stora Gårda and designed dwellings on several streets in Örgryte as well as doing the urban planning. Some of her examples can be found in Brödragatan, Silvandersgatan, Bångejordsgatan, etc.(Brügge, 2020).

Some of the dwellings that express themselves in this district are shown on Figures 20 and 21. For example, Villa Wallberg in Prytzgatan is very distinctive, as well as the street Skårsgatan. In Bö, a district within Örgryte, you have a residential area almost entirely designed by Ingrid Wallberg. Not far from here, at 800 metres, is Villa Lange designed by Erik Friberger.



Figure 20. Situation plan of Villa Lange and the residential area

Figure 21. Situation plan of Villa Walberg and the street Skårsgatan

11.1. Villa Wallberg

5,



Figure 22. Villa Wallberg

Background information

At the corner of Prytzgatan street, there is a white volume that stands out from the other houses. But the process of building this house suffered many setbacks. Initially this house was meant to be the home of the architect Ingrid Wallberg and her son.

But due to the multiple setbacks during the development of this project she eventually decided not to live in it (Axelsson, 1993).

The first version of the house that Ingrid Wallberg and Alfred Roth designed in 1929 (Figure 23, p.52) was a bold choice, it was a white volume consisting of several floors. Le Corbusier's influences were very much present, in fact, Ingrid Wallberg worked for him for a while as her sister was married to his brother (Sommar, 2006).

Her influences of working there are mainly the 5 points of architecture and the ideas of Le Corbusier's purism that he wrote in his personal conceptual manifesto in the essay "*Les Cinq Points de l'Architecture Moderne*" (Poon, 2020)¹.

1

1.Use of reinforced concrete columns ("*les pilotis*") to uplift and bear the load ofwalls;
2.Free and unrestrained flow of interior space for ground plan ("*les toits-jardins*") through column-and slab rather than partitioning;

The Five Points of Architecture according Le Corbusier:

3.Separation of exterior from interior façade ("*le plan libre*") providing unencumbered panoramic aesthetics of the surroundings;

4.Horizontal lighting through opening strips or ribbon windows ("*la fenêtre en long-ueur*") providing equal lighting while enhancing landscape visuality; and

5.Roof gardens or terrace ("*la façade libre*") in flat structures, as protection, promenades, offering light and spatial ventilation to replace a building's occupied space (Poon,2020).



Figure 23. Plan from August 20th 1929, Retrieved from Brügge (2020, p. 189)



Figure 24. Plan from December 1th 1932, Retrieved from Brügge (2020, p. 198)

For instance, the plans included horizontal windows all over the façade, along with a roof terrace, as well as the white-plastered façade. The walls would be constructed of iron columns and cellular concrete, the basement walls of hollow cement bricks and concrete and the inner floors of wood (Brügge, 2020). Unfortunately, it caused quite a commotion. The original plans of this house were never approved. In fact, it went so far as to have an appeal drawn against the building permit (Axelsson, 1993). But the architectural duo who together founded R&W did not give up, despite the fact that it would not offer uniformity in this neighbourhood. Towards the end, the final appeal was rejected in court, considering that the neighbours did not agree with the architectural style (Sommar, 2006).

Unfortunately, Alfred Roth decided to return to his home country of Switzerland, but Ingrid Wallberg decided to continue with the design. Figure 24 shows another plan, dated December 1th 1932 that has a strong modification compared to the initial 1929 plan.

To this day, it is still a very strong white cube-shaped house but, you can see that the roof terrace has been dropped as well as the strongly present horizontal windows. Four large windows were directed towards the walls and the high window of the staircase (Brügge, 2020). Neither was this version approved.

After several reworked plans, it was a fourth version that was finally approved on 7 May 1935 (Figure 25, p.53). In this version, a low gabled roof was added, eliminating the roof terrace. On the street side, the large horizontal windows were reinstated. Since the house was intended to be only 2.1 metres from the public road, despite the minimum regulations being 4.5 metres, a front garden was designed that would serve as an

enclosed courtyard and screened off by two-metre-high walls to fulfil the duty of protecting the environment and staying in the style of the neighbourhood (Brügge, 2020).

The engineer Birger Johansson completed the design drawings with technical details (Brügge, 2020).

Gustaf Antonsson was the building master (Byggmästaren, 1936b). Finally, the house was built in 1935 and the building master obtained permission to add an attic (Axelsson, 1993). The final approved version was less radical than the original plans.

On the contrary, the approved version is not exactly the one we know today, for instance, the roof was changed again. This was because an attic space had to be added. This was designed with a curved staircase above it and the shape seems to be a small box (ibid.). It resembles boat architecture because of the choice of balcony railing. The round windows thus give the illusion of being in a boat. A roof terrace was again provided from the attic space.



Figure 25. Plan from January 24th 1933, Retrieved from Brügge (2020, p. 200)

11.2. Skårsgatan

Location:	Skårsgatan in Örgryte, Gothenburg,
	(Sweden)
Architects:	Börje Eliasson, Rudolf Hall, John Niklasson.
	Ville Berglund, Arne Lindqvist, Erik
	Holmdahl, Erik Sjöström, M. Samuelsson,
	Ragnar Dahlberg & Algot Werner
Year:	1937–1945
Index:	private house, functionalism, urban planning



Figure 26. Skårsgatan

Background information

Skårsgatan is a very long road in the South-East of Örgryte that is slightly different from a typical Swedish street with villas (Figure 26). In fact, this street is known for its functionalist villas. This was after the negotiations in 1931 with the Jakobsdal/Jakobshöjd real estate company to build single housing, since the land on which Skårsgatan was to be built was part of the old property in Jakobsdal (Anderson et al., 2007).

In 1936, Uno Åhrén drew up the town plan for Skårsgatan in which the northern area has detached villas, a retail and residential building (Lönnroth & Stadsmuseet, 1999).These houses were on average designed for middle-class families. The programme of Åhrén mainly emphasised new architecture with functional technical solutions (ibid.).

What makes the buildings distinctive from others are their white plastered façades, flat roofs and their cubic forms with balconies.

Börje Eliasson designed most of the houses for this street (Caldenby, 2006). However, there were restrictions in terms of building dimensions.

These were set by the city plan. They include the distance from the main façade to the nearest property boundary which is 1.5 metres and the distance from the street is 5.8 metres (Anderson et al., 2007). As such, the houses range between 8.5-10 metres in depth and façade length between 9.6-11 metres (ibid.). Börje Eliasson made sure that not every house looked the same, playing with the layout of balconies and windows. Other architects who built in the street often had more repetition in their designs than Börje Eliasson (Figure 27, p.55).

On a structural level, where construction is concerned, most of the houses



Figure 27. Skårsgatan with the architects of each house, dash means unknown. Based on the plan in Anderson et al. (2007, p.55).

were built with wooden structures, except for house No. 64 by Ville Berglund. This villa has a supporting structure by means of wooden planks covered with chipboard and finished with lime cement plaster (ibid.).

Rudolf Hall designed house No. 48 with the function of a retail and residential building (Figure 28). On the ground floor, there is an interior design shop called Solgläntan AB, a publishing house Soderpalm Publishing AB, a marketing office Include Marketing and a barber shop Salong Constanze.

The first floor consists of apartment buildings with set-back terraces, aligned with the façade. A notable feature here is that this building has yellow plaster on its façades, while the other flats are characterised by white façades.



Figure 28. Skårsgatan No.48

11.3. Villa Lange

Location:	Barrskogsgränd 13 in Örgryte, Gothenburg,
	(Sweden)
Architect:	Erik Friberger
Year:	1938
Index:	private house, functionalism



Figure 29. Villa Lange in 1938. Retrieved from Lotta Krus (1989, p.44)

Background information

Less commonly known is the house that is located at Barrskogsgränd in Bö, a subdivision of Örgryte. It is the house, better known as Villa Lange or Elementhus. However, what is currently visible is not how it originally looked. For this reason shows Figure 29 the original house that is designed by the architect Erik Friberger.

He designed this house in 1938 for Elsa Lange and it was executed by AB Fribärande Täkonstruktioner (Krus, 1989). Furthermore, during the period 1926-1954, he was provincial architect in Gothenburg (Caldenby, 2002).

The way the 1938 house was supported resembles to pilotis, 'anticlassical' columns of Purist villas (Sommar, 2006). The structure of the house was raised by steel I-beams that were fixed in prefabricated concrete slabs by nuts and irons. In addition, heavy thermal insulation was brought on the floor above the clearances.

The ground floor had no insulation, so the temperature would be livable in summer, according to Friberger. All the floors were covered with linoleum. The roof was double-covered with Icopal roofing leather. The materials used for the exterior cladding were thin single-profile chipboards (Friberger, 1939).

In Byggmästaren (1939) under Elementhus by Friberger, it states that through this house it was discovered that construction could also be carried out during bad weather conditions without having a detrimental effect on the building stock (Friberger, 1939).

However, we see that the roof structure of this house was not optimal.

The slope was too flat so the roof had leaks. These were replaced by a sheet steel roof with a sufficiently wide roof edge (Krus, 1989). In the current situation, it was opted to go back for a flat roof, this with modern solutions to prevent leaks.

Figure 30 shows that the current house [4] no longer resembles the original house [1]. One knows that by the thesis of Lotta Krus (1989) that the ground floor was completely renewed in 1989. At the same time the façades were painted blue (Krus, 1989).

Through Google Streetview, one can see that in October 2020, the house was painted white and a room had been built on the side of the house next door [2].

In another Google Streetview image, one can see that in August 2022, the ground floor has a red-tinted façade, with traces of blue. Presumably the white paint wall was repainted causing the façade to be torn off first [3].

However, on the side of the house, we see that on top of the expanded space, a storey was placed on it. In the current state of renovation, one can see that the house no longer resembles its original condition. On the front façade here, we only see that on the first floor, two windows were fully retained.

The other window seems to be slightly smaller, presumably a bathroom was provided here. The I-beams are no longer visible and a new wooden cladding has been installed that is painted white.



Figure 30. Transformation over the years

11.4. Residential area

Location: Bångejordsgatan 1-15, 2-16; Brödragatan 18-26, 28-36, 38-46, 66-78; Silvandersgatan 19-23, 25-37; Lillkullegatan 6B-8, 8B-10A, 10B-12; Daltorpsgatan 15-29, 16-28 in Örgryte, Gothenburg, (Sweden)
Architects: Ingrid Wallberg & Börje Eliasson Year: 1934-1938
Index: housing, residential area, functionalism



Figure 31. Residential area

Background information

In Bö, a sub-region of Örgryte, there is a residential district with a functionalistic character (Figure 31). It was Ingrid Wallberg who designed this neighbourhood in function of the city architect Uno Åhrén. Wallberg wrote a letter to Anna the sister of Albert Lilienberg. It was written in this letter that: "*Furthermore, I have prepared a town plan for an area in Örgryte and I have a contract that, if the town plan is approved, I will carry out all the house drawings (such a thing has not yet happened in Sweden, I mean that an architect has been given such an extensive commission*)"¹ (Brügge, 2020, p.237). Eventually, she soundly received this commission, except one terrace house complex was built by Börje Eliasson at Brödragatan 66-78 (Anderson et al., 2007).

The first terraced houses at Bångejordsgatan 1-15 were built by Ingrid Wallberg in 1934. The complex rests on a loam foundation and consists of two floors and has a pointed roof. The framework consists of planks (Caldenby, 2006). The floors are supported by a brick structure, which provides the possibility of easily installing horizontal windows. The interior of a terraced house is characterised by the oak staircase and the exterior is made of plastered wooden boards that were subsequently covered with Steni gable boards in 1980.

¹ Original citation in Swedish:

[&]quot;Vidare har jag utarbetat stadsplan till ett område i Örgryte och har kontrakt på att om stadsplanen godkännes få utföra samtliga husritningar. (Något sådant har ännu inte för/e/kommit i Sverige, jag menar att en arkitekt fått ett så omfattande uppdrag.)"(Brügge, 2020, p.237) 58

After inspection, Birger Johansson drew up the construction drawings that were subsequently built in 1935 (ibid.). This refers to the row houses at Bångejordsgatan 2-16.

These houses were built on flat blasted foundations, with the ground floor constructed of brick and the walls of the upper floors of highporosity bricks (Caldenby, 2006).

The façades were plastered from cement-built timber called "tretong"² (Byggmästaren, 1936a). Wallberg also opted for a pointed roof here.

The houses on Brödragatan are also very characterising. For instance, terraced house complex with No. 18-26 was drawn in 1936. These houses have recessed entrances, each of which has a subtle individual colour (Brügge, 2020). The entrances have front gardens, providing extra privacy in spring and summer.

The row houses are built of brick that is then plastered and, like the row houses in Bångejordsgatan, have two floors. However, these houses have a generous roof terrace.

On the side facing the street, it is rather seperated by a few small windows, but on the long side of the façades, large windows are used. Complex No. 38-46 was designed in 1937 and executed in 1938. Also during this period, three two-family houses were built at Lillkullegatan (ibid.). A single terrace house complex exists in Brödragatan street, though, that was not designed by Ingrid Wallberg but by Börje Eliasson. It concerns No. 66-78. He chose to stay in the same style by plastering the façades in white, but decided to opt for a more traditional saddle roof (Anderson et al., 2007). The choice of a pitched roof is probably

because flat roofs have not yet been studied well enough as well as the rainy climate in Gothenburg.

Two large flat blocks designed by Ingrid Wallberg are located on Daltorpsgatan street. They have a combination of a flat roof with semicurved roof construction as well as a slightly slanted roof.

On the southern side that looks towards Brödragatan, there are terraces with a large courtyard. The façades on the street side consist of windows, each of which is separate but horizontally positioned in relation to each other except for the windows on the stairwell above the flat entrances. The windows consist of metal window frames and the entrances have stone frames on the left and right sides. Some door frames consist of

steel construction and others of wood. On the east façade of complex No.15-29, the façade consists of large and tall window frames.

The short sides of the houses have four garage doors at the street level and are constructed from a concrete foundation. Building complex No. 15-29 are white plastered while No. 16-28 has a façade cladding raised by vertical wooden boards.

Silvandersgatan No.19-23 was built of brick and cellular concrete construction, with part of the roof being flat and sloping (Brügge, 2020). No. 25-37 consists of a similar construction, but not every house has a patio and a terrace on the first floor. The houses provided with these features are house numbers 2, 29, 33 and 37.

In the present, the row houses with No.19-23 as No.25-37 are clad with wooden cladding placed vertically. Only No.27,29 and 33 have white plastered façades. Presumably this was how it was originally intended by Ingrid Wallberg and these houses are still in the most original state.

² Sometimes wood chips and sawdust are mixed into the sand-cement mortar. Tretong is a sawdust-rich cement mortar that was cast on site as a subfloor in residential buildings for several years beginning in the 1950s in Sweden.



Figure 32. Daltorpsgatan 15-29



Figure 34. Brödragatan 66-78



Figure 36. Bångejordsgatan 2-16. Picture from Fritz Bruce in Gustaf Antonssons samling. Retrieved from Brügge (2020, p.241)



Figure 33. Daltorpsgatan 16-28



Figure 35. Brödragatan 28-38. Picture from Fritz Bruce in Gustaf Antonssons samling. Retrieved from Brügge (2020, p.257)



Figure 37. Silvandersgatan 25-37

12. Casestudy analysis through visualisation

This subchapter looks at the analysis of the case studies Södra Guldheden and Örgryte.

It can be challenging to combine the perspective of a designer, researcher with that of a conservationist - what do they see as the same and what is different for them? By looking at what personal analyses of case studies are, a lot of things can be noticed from both sides.

On the one hand, one can look at that in a way which Georg Simmel describes as "subjective culture". He assumed that the individual desires a certain level autonomy in social life in which own thoughts are produced that can be transformed into more or less specific creations (Simmel, 1997). These particular creations can be translated into personal visualisations looking at what he calls "objective culture", namely material matter, something tangible.

Indeed, it is important to put these characteristics together to start determining values within a heritage framework. Value determination is something that has long been an important factor within heritage following Alois Riegls' book *Der Moderne Denkmaltkultus: Sein Wesen und seine Entstehun* where he reflects that there are two types of values, historical and artistic values (Price et al., 1996).

Karl Mannheim says that: "there are certain realities of our lives – such as experience, thinking, and so forth – that do not resemble the physical world at all and yet play as great a role in our lives, if not a greater one, than those that belong there (Mannheim, 2012, p.295)". Here we can go even further than that, these experiences tell stories. These stories are often told from a personal point of view, making that subjectivity becomes an important viewpoint. Storytelling is nothing new within the artistic field, but is often still pushed aside within heritage as it often lacks "objective facts".

So it is important to start looking at those subjective and objective data that can be used to paint an overall picture.

According to Isabelle Doucet, within architecture storytelling can be seen as a critical design tool within environmental imaginaries (Doucet, 2022). For instance, she says:

"Different stories allow for different sensitivities vis-à-vis the questions, problems, hopes, and realities we work from. Stories can induce a sense of care, concern, and responsibility. And, as critical historiographers and ethnographers, among others, have argued, (hi)stories can also overlook and ignore and therefore make one forget events. Stories can create hope as much as they can mislead. When focusing on their critical capacity, storytelling offers one possible tool for exploring different imaginaries (Doucet, 2022, p.39)".Here it is mentioned that from a historical point of view, these kind of stories are often ignored. Stories are important within heritage but also towards the future storytelling is important. When people think of stories, written or spoken forms of sources are often automatically thought of. But could visuals not play a more effective role by visualising things when we talk about architecture? Take the following paragraph as an example:

As you are wandering around looking for traces of the Modern Movement and sensing what they still could mean, what kind of feelings they do arise within you, this necessarily will mean that you are becoming part of the analysis itself.

Your knowledge, your interests even your feelings of the moment may influence how you look at things, how you interpret them. So you must know and be aware of yourself. The study will become a personal study but with a focus on the same observations within both case studies.

For example: on movement, shape, focus, colour, detail, contrast, etc. The term movement means looking at the movement of people, and other factors in the natural environment.

Here one can look at what influences wind has on trees and bushes, how dogs move, and so on. By observing shapes, it is possible to see if there are similarities or differences inside built environments and how this translates inside the space.

Focus, on the other hand, allows one's own eyes to filter features allowing one to look at a particular feature within the environment.

It is the focal point, the point to which most attention is focused. This is related to detail, but detail focuses on a small, subordinate part out of a bigger picture. So here you go one step further on the focus that the eye captures.

Observations of colours are associated with what humans can perceive with the naked eye inside the built environment in this case.

Finally, in contrast, for example, one can look at whether differences between opposites and similarities can be observed within a neighbourhood.

Not only does this reflect a form of interpretation, but in this way a form of objectivity is created by subjective data from illustrations.

Couldn't these observations from personal viewpoints contribute to a scientific investigation within conservation? In my opinion, yes since the personal aspect can be made to that so-called subjective culture of

Simmel.

For him, this was the ability of individuals to produce, transform and enhance objective cultural elements for their own needs (Gross, 2012). However, one can go further and transform these needs into needs for the society we live in. This subjectivity can teach us to think in a different critical way. Yet, this is also something where it can be considered as being integrated within the value assessment of heritage.

Let us learn again to look empathetically to the past and learn to appreciate its value for what it is. Let us call it our "personal values" of the individual that includes not only the emotional, sentimental but also the intangible values. It can be shown through visualisations.

Using different media: sketches and drawings, photographs, aquarelle and manipulated images make these visualisations possible through our mimesis, the visual ability that enables creativity.

According to my opinion, this valuation can form a part inside Jorge Otero-Pailos' concept of experimental conservation, as he assumes that "experimental preservationists choose objects in order to test their potential as heritage — to verify or refute hypotheses about their capacity to become valued objects we cannot imagine future generations living without (Otero-Pailos, 2016, p.6)".

12.1. Södra Guldheden

Background information

Throughout different times and different days, the same route has been followed. The times that were chosen were around 08:00 in the morning when people left to work, around 13:30 just after lunch and at 17:00

when people arrived back home.

In total five times this place was visited.

It was a conscious decision to walk the same way each time. This resulted in observing the same information, but each time from a different point of view. Curiosity plays an important role here, as well as knowledge, movement and so on during the months of November, December, January and February. Based on photos and (manipulated) sketches, the focus was on different points of view. Next pages will provide a visual representation of how the walks have been experienced.

The starting point of the selected walking route was the Doktor Weltzins Gata bus stop, which can be reached via bus 63¹. Thus, the walk was taken towards the supermarket *Coop* on Doktor Bex Gata.

Here one may observe that the water tower can be seen between all the trees. However, the visual eye can set up filters. One can literally look through the trees, this is not the case with photography. By sketching this phenomenon, the water tower is seen at the centre of the perspective of the footpath. Thus, attention is drawn to the water tower. Following the path, the tram stop called Doktor Sydows Gata is reached. This allows you to take tram 10, which passes through Guldheden. It is a busy stop, as several people get on and off the tram.

The first feeling created by seeing Coop is that it has an unusual shape. The building is very dynamic and seems to have been pulled out of perspective. A quadrangle, but not a square, yet a rectangle. It is a trapezoid. Perspectives are created and it is consistently interesting from a different point of view. At the end of the street, on the right side, there is a bridge where there is a nice view across the *punkthusen*.

The bridge crosses the train track that runs through Guldhedens Lekplats. Here one can go down via steps.

One emerges onto the green field, which forms a beautiful white carpet of snow in winter. People gather here and play with their children.

Walking further, one arrives at the square Doktor Fries Torg, here one's attention immediately goes to the parallel horizontal buildings. However, you soon notice that Palle Pernevi's sculpture glows when the sun shines on it.

Across the square is the Guldhedskyrkan, a very striking church. Both the *punkthusen* and this church demarcate the modernist part of the district and contrast with Landala Egnahem.

A residential area that consists of terrace houses that were constructed on the basis of traditional Swedish wooden houses.

The following pages illustrate the analysis of Södra Guldheden through visualisations.

¹ When this research was conducted the bus 52 was the one that was used, but Västtrafik replaced it now with bus 63

Focus

One may observe that the water tower can be seen between all the trees. However, the visual eye can set up filters.

One can literally look through the trees, this is not the case with photography.

By sketching this phenomenon, the water tower is seen at the centre of the perspective of the footpath. Thus, attention is drawn to the water tower.



Figure 38. Water tower becomes a focus point

Movement

Movement becomes visible to the eye through the movement of the leaves. Not only the leaves create interesting aspects of movement, people are taking their dogs out, taking their kids out for walks or simple getting some fresh air as well as going to jog.

Birds fly, and rabbits jumps over the landscape during dawn.

As trams move through rails this can also be seen through with the naked eye of the visitor.



Figure 41. Car movement near punkthusen



Figure 39. Tram passing by, in the back you can see a glimps of the *punkthusen*

Figure 40. Corner buildings versus the walkway and trees



Figure 42. Punkthusen and the daycare



Figure 43. Horizontal from the stores and vertical aspect from the punkthusen in the back

Shape

During the walk, the buildings come across different types of shapes. For instance, you have the typical buildings with a saddle roof structure.

Although, it is noticeable that both the daycare, *punkthusen*, the church and the shops in Doktor Bex Gata have practically the same shape, namely a trapezoid. Only at the shops is it more distorted and putted on its side.

The rearfaçade of this building has the same shape as the side façade but it is mirrored and rotated against each other.

The *punkthusen*, day care and the church are all connected by a beam-shaped structure.





Figure 45. Guldhedskyrkan resting in the rocks

Figure 44. Backside Coop

Transportation

Moving easily within a city is essential. In this neighbourhood, public transport is very well organised.

For instance, there is the number 10 tram that literally runs through the Guldheden area, ending with its stop at Doktor Sydows Gata.

People get around not only by tram but also by bike, electric scooter or by walking. What is noticeable is that although cars are parked, they are used less frequently than the alternatives.

Figure 48 shows that the tram tracks run parallel along the punkthusen through Guldheden Lekplats.



Figure 46. Tramstop with Coop



Figure 47. Biking in extreme conditions





Figure 49. Guldheden Lekplats

Socializing

Urban development is not just about optimising buildings, public transport or opportunities for work. Meeting and socialising in a city is of great importance.

In Södra Guldheden, people are meeting at Guldheden Lekplats, where there is a playground for children. In addition, Doktor Fries Torg also provides an important centre for people to meet up.



Figure 50. Guldheden Lekplats during snowfall



Figure 52. Feeling of the main entrance



Figure 51. Main entrance punkthusen on eye level

Experience

The perception of the individual on the high-rise flat blocks is a significant one. The following fragment shows part of the researcher's thinking.

"I am now standing at the entrance where the stairwell connects building nr 12 & 13.

I am still standing in front of the entrance

and am currently looking up at the sky. It feels really very high. A moment of silence. Hear the birds. [Birds chirping in the background]. The snow literally falls on my face in a poetic way. It is just wonderful. I feel very small standing here and looking up, yet it is pleasant and not disturbing. But wow what a fantastic feeling this is!

I turn around from the entrance and see

the back of the building.

The glass stairwell is only on one side of the flat blocks, facing South. I know that because of the plans I studied. I would not have known that if I had visited the case study before I had seen the plans.

What you see is that they just have the same façade, but just no windows on one side.

My hands freeze when I hold my phone. [Literally eating snowflakes].

The windows are square shaped.

It almost looks like an abstract painting. This is not the stereotypical window design. By this I mean that they are not horizontal placed, but more vertical work has been done as well as not being rectangular shaped.

This is very interesting."

Colour

The façade colours of the apartment buildings that Jan Wallinder and Sven Brolid designed are sober. But as soon as you see the balconies, it becomes quite an experience of colours. For instance, there is a pattern of colour that repeats itself each time with the colours green, red, blue, orange and yellow on the balconies of the apartment buildings situated in Doktor Liborius Gata.

The façade colour itself is beige. Each apartment building has a number in one of the colours of the balconies.

However, the colour combinations of the flats in Syster Ainas Gata are more sober but there is a gradient of shades of blue that repeats each time on the balconies.

This also applies to indicating the number of the apartment buildings on the façade.

If one looks, one can see that the way of numbering on the façades in Doktor Liborius Gata (partly in partly out) and Syster Ainas Gata (completely in) are different.





Figure 55. Algae on façade of the *punkthusen*

Damage

The fact that the buildings were designed in the 1950s means that there are natural signs of deterioration. For instance, traces of damage can be found on the façades.

On the plaster, it is possible for algae to grow, but also cracks may appear.

Cracks usually occur due to moisture problems, causing water penetration. They can also occur due to tension from the building itself.

Maintaining these buildings is therefore important for the quality of life of the inhabitants, as moisture problems lead to fungi and therefore bad air quality.



Figure 56. Algae on façade with crack on Doktor Fries Torg



Figure 57. Cracks on façade of Doktor Fries Torg



Water intrusion

Figure 58.





Figure 62. Pattern canopy Doktor Fries Torg



Figure 63. Appartment doors inside *punkthusen*

Details

The first impression that the eye has is trying to outline the whole. However, the details determine the whole. Looking at the small aspects adjusts our image.

Details provide information that is thus an important part of the whole.



Figure 64. Side door *punkthus* near Guldheden Lekplats



Figure 65. Window detail store at Doktor Bex Gata

Figure 66. Window detail store at Doktor Fries Torg
Contrast

Shapes can be in harmony with each other, but can also have contrasting qualities. For example, there is an interplay between organic-dynamic. This can be seen in the round arch of the tram stop Doktor Fries Torg contrasting with the straight shapes of Doktor Fries Torg and the church itself.

Contrast such as light-dark is noticeable in the church. The white façades opposite the dark wooden bell tower.

High-low contrast is being felt between the church and the *punkthusen* on Syster Ainas Gata as well as horizontally-vertically.



Figure 67. Tramstop Doktor Fries Torg with Guldhedskyrkan across the cross-section



Figure 68. Guldhedskyrkan next to the tall *punkthusen*

12.2. Örgryte

Background information

As Örgryte is a large area, there were different ways of walking through it during the visit. The choice was influenced by the case studies themselves. At first, the selection was only about two individual villas, Villa Lange and Villa Wallberg. But, soon other buildings were noticed that could certainly add value during the analysis process of this residential area.

As in the case study analysis of Södra Guldheden here too, it has been decided to work with sketches, collages and images.

On average, the start of this route was taken from Korsvägen where tram number 5 was taken until the Bäckeliden stop. From there, the walk went towards the north where Villa Lange at Barrskögsgränd is located. The first thing you notice is how much greenery there is, not only by trees or parks or not, but also the hedges surrounding detached houses. A 10-minute walk from Villa Lange (about 750 metres) leads to the residential area that Ingrid Wallberg designed. Via this route, one quickly notices that the neighbourhood consists of detached houses, but the Handelsbanken building is very prominent.

Then, the walk went further towards Skårsgatan, located about 13 minutes apart. The road to this street consists mainly of typical Swedish individual houses built of wood with a pitched roof. Skårsgatan, however, stands out for its cube-shaped blocks.

Finally, the walk was towards Villa Wallberg at Prytzgatan with about

a 5-minute walk to take tram number 5 again. Here, too, are typical Swedish houses or Swedish row houses dominant.

The same visiting hours as in the case with Södra Guldheden have been chosen: around 08:00, 13:30 and at 17:00. The visits here were varied within two seasons, the late spring and summer during the months May-July.

The following pages illustrate the analysis of Örgryte through visualisations.



Figure 69. Corner of Bångejordsgatan 1-15

Figure 70. Focus of the new Church of Örgryte





Focus

Attention can be engaged with the naked eye. Your eye focuses on things based on personal interests and characteristics. Here, for instance, attention was immediately drawn to the corner house at Bångejordsgatan 1-15 because of the white façades.

The new church at Örgryte is also a focus point standing out above the dwellings in the surrounding streets.

When one stands in Prytzgatan and the sky has cleared, attention is immediately drawn to the centre of the city.

This makes the hotel Gothia Towers immediately very noticeable, as well as the water tower in Johanneberg and Liseberg.

While at Villa Lange the black gutter pipe draws all the attention.



Figure 72. Villa Lange in 2023 with a reference to the old balcony. Old picture retrieved from Byggmästeren 1939, p.21

Details

At times, it is important to look at the smaller details rather than the bigger picture. In this way, new things can be observed. The individual who observes will ask questions.

These questions can range from how something is constructed, but also proportions on a small-scale level can become important and be questioned.



Figure 74. Detail of the connection between garage, wall and balcony of the building on Daltorpsgatan 15-21.







Figure 75. Roof terrace with balcony railings on Brödragatan with stained glass

Colour

Colour can be represented in all kinds of ways. It can range from an accent colour, a material or an entire surface in a particular tone.

For example, a wooden door can offer warmth to white-plastered façades. Coloured window frames indicate a form of life.

After all, the environment and weather also have an impact on these things. In summer and spring, more greenery is present, making the buildings speak more and feel more alive as opposed to during a chilly winter or a rainy day.





Figure 77. Skårsgatan No. 55



Figure 78. Brödragatan No.56

Proportions

Defining spaces inside a house is important for the resident's quality of living, but one may wonder about the layout of windows.

In this way, one can play with proportions, as well as rhythm and repetition in the façades.

In the case of the two Daltorpsgatan buildings, Ingrid Wallberg has created a pattern in which the windows of the habitable spaces are placed on one line, and the windows of the stairs are placed on mezzanines.

While in the case of Brödragatan, a conscious decision was made to provide as few windows as possible on the side façades to create more privacy.







Figure 80. Side façades of Brödragatan 18-26, 28-36 & 38-46





Figure 83. On Rangeltorpsgatan we see traditional terracehouses looking at the abstract cube of Villa Wallberg

Contrast

Figure 81. Villa Lange next to house No. 11



Figure 82. Daltorpsgatan

Designed residential areas are often built in harmony, but this is not always the case. When different architects are designing buildings in the same neighbourhood, there may still be some contrasts.

The most common, in fact, is the form of a certain building. Therefore, using proportions as well as the type of roof can create a contrast for example.



Figure 84. Bångejordsgatan's roof in a shape of a staircas

Greenery

For Örgryte, the concept of '*trädgårdsstad*' was very important, which can be perceived and felt while walking here.

There is greenery everywhere with a lot of variety like (front) gardens, hedges, bushes or trees. At the same time, the vegetation of the surrounding hills add a vertical relief to the environment.



Figure 87. Front gardens at Brödragatan



Figure 85. Skårsgatan 89



Figure 86. The hill on Lilla Danska Vägen looking at Villa Lange in the back



Figure 88. Tarnish and small cracks in the plaster



Figure 89. Crack in plastered façade



Figure 90. Fungus on the façade on Daltorpsgatan 15-29

Damage

Any building lives. Nevertheless, it is important to prevent damage and reduce deterioration as much as possible. However, it is therefore not inconceivable to experience signs of deterioration. Particularly not when it comes to dwellings built in the 1930s.

Reinforced concrete was just emerging and little study had been done on this, and the same was also the case with plaster. So, it is not uncommon for moisture problems to occur.

This may lead to the development of fungus.

Also, cracks can occur in façades, paint deterioration or the corrosion of steel structures.



Figure 91. Corrosion of steel, Skårsgatan 75



Figure 92. Peeling of paint



Figure 93. Peeling of paint and moist problems on Daltorpsgatan





Figure 95. Different chimneys per terrace house on Brödragatan

Figure 94. Different way of creating a pitched roof, Silvandersgatan 19-23

Shape

Shapes speak, shapes define the way one feels. For instance, a round organic shape will seem soft and familiar, but this could also symbolise movement.

In opposition to round shapes, you have more hard shapes, through sharp edges. This can evoke feelings such as fear or anger.

In Örgryte, the main focus is on simple cubic blocks with a pointed or flat roof.

The smaller details on Skårsgatan, for example, are round, which adds an extra dimension of dynamism. In addition, whereas each fireplace looks differently on Brödragatan, this ensures that feelings can variate.

One is made of brick, which gives a warm and familiar feeling, while a stainless steel chimney feels rather distant.



Figure 96. Round organic shapes on Skårsgatan No. 54 designed by Börje Eliasson



Figure 97. Round corners and windows, Skårsgatan No. 88



Figure 98. Skårsgatan with the functionalistic cube-shaped houses. The image of the cows are from Skårsgatan in the 1930's. Retrieved from Carlotta of Goteborgs Stadsmuseum

IV. Results and Discussion

The preservation movement has emerged in which CIAM had an important influence. It actually runs parallel to modernism and can be seen as a kind of counter-movement.

Vander Keere says: "It is a bit of a curious thing to use the conceptual framework on modernist heritage. This value proposition is manipulated in such a way to bring out other things and so you actually bring out old ghosts that awaken the whole of that dichotomy of it (Informant 4)"¹. By this he means that the whole of this preservation movement was designed to go against it.

Material valuation in modernist heritage is not always valid given that often buildings were not built exactly according to the plans, so last minute changes often happened. It is indeed important to understand the current conditions, the original context, but also the possible options for the future (Augustiniok et al., 2021).

In fact, this is something Gregory Ashworth also points out that the past can be manifested in the present in many ways (Ashworth, 2011). Also, "Not everything has to be preserved in the same way and not all buildings or buildingtypes of importance have to be physically conserved" (Cunningham & Docomomo International, 1998).

In addition, buildings are always changing and can start to deteriorate, deform from the original architecture or simply fall into disrepair (Logan, 2017). This is something that John Ruskin already pointed out back in the 19th century. Yet it is still worthwhile to start preserving the

thought of these buildings and gives us the opportunity to start applying conservation methods.

Even so, this does not take away from the fact that valuation is not a crucial element within heritage.

For instance, Augustionik et al. (2021) cite that one could also reflect on the original ideas that led to an architectural concept and use the umbrella term 'intentional values' for this matter (Augustiniok et al., 2021). With this concept they also refer to the way hidden architecture such as the accompanying associations and the users along potentially offer on the future appropriation of the design will have (ibid.)

One can also look at the definitions of modern heritage and modernist heritage. In my opinion, modern heritage is recent heritage, focusing on all that has been built recently, but also focusing on the 20th century. This is where architects, designers and artists experimented with new techniques and materials.

To this day, this approach continues to evolve and also belongs within modern heritage. Although the term modern architecture is better known as modernism, it fits more within modernist heritage, than modernism. This is because it is architecture built and designed within socio-cultural and artistic attitudes.

It also emphasised the rejection of predetermined rules and freedom of expression in art, literature, architecture and music as well as experimentation altogether. For instance, here it can be assumed that modern architecture fits within the modernist heritage and modern heritage within everything that has emerged from it.

After an interesting conversation with Dimitri Minten, value assessment

¹ Original citation in Dutch: "*Het is een beetje een merkwaardig gegeven om het begrippenkader te gebruiken op modernistisch erfgoed. Deze waardenstelling is zodanig gemanipuleerd om andere zaken naar boven te brengen en haal je dus eigenlijk oude spoken uit de kast die heel die dichotomie ervan wakkerschut*" (Informant 4)

of a building also came up. Indeed, he elaborates on it and speaks of a "residual" value (Informant 5).

By this he means that which remains of a given object or place, he says: "Look at material value of certain buildings, at the concrete construction, the bricks and then see if they have building history, social or urban planning relevance. If those materials still make sense to preserve or throw them away or move them to a landfill, then I also think that actually those buildings also have a residual value, and you can continue working on them again. So only take away that which is affected and not restorable but retain that which remains. In this way, there is room for palliative care or euthanasia of buildings (Informant 5)"².

For heritage, this is certainly a great fact to start thinking of the existing built environment in this manner as well, especially in relation to sustainability.

Value assessment is something that has been a key component within the preservation of the built environment for more than a century.

If we look at various conventions and charters, we see that there are values that are recurring.

For instance, the following values appear most frequently throughout the 20th century: historical, artistic and aesthetic value. From the beginning of the 21st century, the following values recur more often: identity, creativity, memory, spirituality, sociality and symbolic value. These are values that did not come about overnight. Look at Camillo Boito's first dialogue inside Restoration: "*I see a very bizarre corbel and begin to sketch it; my soul was worried; I have someone give me a ladder, and I climb to the top, I touch, hit, scratch, scrape: it was modern stuff. This is the problem I had to confront at each and every moment: do I see a thing of the thirteenth century or one of recent years?*" (Boito & Birignani, 2009, p.1).

Here one can assume that critical thinking and reflection are important aspects to start determining values. Boito also says that it is best not to restore, but to conserve. So, the intangible aspect is something that was already an important concern back then. Here one can go further if one looks at the Athens Charter where aesthetic value starts to play an important role in monument conservation. The aim here was to preserve the ancient character (of buildings, surroundings, etc).

Aesthetic value has been a common value assessment since then, but this can also be questioned. Especially when it comes to modernist heritage. This type of heritage more often has a negative connotation among the general population. It refers to people who know nothing about this type of heritage. The Washington Charter of ICOMOS in 1987 first recognised the link between urban planning and conservation. Spiritual factors and significance of historic sites in this context include not just the material structure but also the necessity to include the general public. (Kalman, 2014). The renewed version of the Burra Charter in 1999 further elaborates on the cultural significance and purpose of conservation, namely this significance of a place is important to preserve (ICOMOS Australia, 1999).

² Original citation in Dutch: "*Kijk naar materiële waarde van bepaald gebouwen,* naar de beton constructie, de bakstenen en kijk dan of ze bouwhistorische, sociale of stedenbouwkundige relevantie hebben. Als die materialen nog zinvol zijn om te behouden of om die weg te gooien of te verplaatsen naar een stort, dan vind ik ook dat eigenlijk die gebouwen ook een residuele waarde hebben, en dat je daar opnieuw verder aan de slag kunt gaan. Neem dus enkel datgene weg dat aangetast is en niet herstelbaar is maar behoudt datgene dat overblijft. Op deze manier is er ruimte voor palliatieve zorg of euthanasie van gebouwen" (Informant 5)

This research applied "personal value" to two case studies in the city of Gothenburg in Sweden, Södra Guldheden and Örgryte to explore whether this adds value within heritage studies. Thus, it was decided to look at all the tangible, but tried also to start visualising the emotional, sentimental and intangible aspects.

It was therefore also important to find out how obvious traces of modernist architecture were still visible in the city. It looked at what the individual considers important about what one sees, feels, hears and smells. Often the same path was taken and one would assume that one would perceive the same thing each time since one knows what is coming. However, this is not the case.

For instance, perception has a lot of influence on the individual, including momentary thoughts but also the weather conditions. Think of Martin Heidegger's *Dasein*, you are there in a certain place but what do you experience?

By making sketches and not photographic representations of what you see, you capture the impression of the moment, what you feel, experience in that very moment when you look at the building.

Imagine having a bad day, it is raining cats and dogs and yet you are expected to analyse or describe a neighbourhood. On such a bad day, the smallest thing can start irritating you and then when you try to portray a picture of that area at that moment, line determination can be just a little more erratic and less controlled.

It indicates a certain sensitivity of the individual and that image starts to speak more than a drawing, for example, generated in a vector programme³. This erratic character was indirectly strongly influenced by the fact that during certain moments of analysing Södra Guldheden, it was snowing. This caused hands to literally get numb from the cold, which made holding a pen almost impossible. Under the subsection 12.1. Södra Guldheden, we see that images like Figures 39 and 50 can indeed depict that heavy snowfall. However, this capriciousness was less present while visualising the case study in Örgryte (see subsection 12.2. Örgryte), as it was a sunny day here each time.

When it comes to the intangibility of feelings like stress or nervousness it does not seem evident to represent it still has a certain tangibility and this was visible when analysing the tram stop Doktor Sydows Gata. Here people get on and off the tram and the movement was so fast every time, there was a certain rush.

That hastiness is tangible, but the intangible is thus that which makes you nervous as an individual. Sentimental feelings are often linked to memories that include certain emotions. This is different for each individual, for instance, someone who remembers a playground as a nice happy moment and reminisces about the past will have more happy feelings than an another individual for which it may trigger bad memories.

It is therefore interesting how one would go along with translating this into an image. Scents are fleeting which makes them intangible, but on average, people consider what they smell important.

³ To explain this further, what is intended here is that one doesn't sketch with pen and paper, but instead utilises computer-based programmes such as, for example, CAD programmes (AutoCAD, ArchiCAD, Vectorworks,...) and programmes such as Adobe Illustrator. ProCreate on an iPad, or alternatives are also less suitable as here you can 'cheat' more by working with the eraser tool, which is impossible with a pen on paper, from my point of view.

Green areas create a fresh and clean smell, both in Södra Guldheden and in Örgryte there is greenery making these places pleasant.

Picture the rain falling after a hot day and that rain falling on asphalt or grass gives off a particular smell. That moment is often linked to a beautiful memory. And when this happens in a place you see for the first time, you are going to appreciate this place faster than, say, a place that smells of pipelines.

All these elements can be seen under Christian Norberg-Schulz's existential space where he specifically asks about the *genius loci* with the aim of starting to respect, acknowledge and recognise these specific characteristics of a place (Norberg-Schulz, 1971).

While this study mainly worked with the personal aspect through visualisation, the study of materials and their repair is something that can certainly be addressed to further research in relation to buildings of The Modern Movement. Visually, this study showed the injured elements, which can certainly be further investigated into how best to repair this, as here it was often about mould on exterior walls, cracks or corrosion on steel structures. Overall speaking it can be noted, that both in Södra Guldheden and Örgryte, the buildings inside each case study were fairly well maintained.

Once we start considering how the translation of values to the personal aspect goes, one can link various existing and recognised values to them. One can look at it from other disciplines, including architecture. Within architecture, storytelling is an important part of the design process. The stories that a designer presents to potential clients reflect on their imagination. Visual images are often of great help to make the other, as they are outsiders, to step in the story the designer is telling.

For instance, the previous paragraph about having a bad day can be a form of storytelling, not within an architectural framework but from a conservation point of view. This can then be explored further and includes part of critical imagination.

An essay written by Addison is 'On the Pleasure of the Imagination' which describes the pleasures that come from visible objects and where we evoke their ideas in our minds through a form of art (Grant, 2013). He also states that: "We experience pleasure because the mind 'compares the Ideas that arise from Words, with the Ideas that arise from the Objects themselves (ibid., p.56)⁴".

This is something that has a very powerful meaning on which one can further reflect on those ideas. These ideas can ultimately offer an important point of view within the conservation field. The idea in this research was to apply visualisations to take a personal point of view to start analysing a built environment.

So, these visualisations come from a certain imagination of the researcher, which is a combination of the experiences and perceptions but also that which can be perceived. If we put all those genes together and work in an interdisciplinary way, it can definitely add value within scientific and academic researches.

Next to the question whether visualisation can add value within conservation, it was also questioned whether the Swedish *folkhemmet* culture could be part of The Modern Movement. In this respect, one can conclude that it is definitely a part of it.

⁴ Addison, No. 411 of The Spectator, vol. 3, p. 536–537.

The reason behind is the whole idea of thinking.

When focusing back on that value assessment, the following characteristics can be considered: the quality of living, urban planning quality, organisational quality and the idea of minimum living (Informant 3). Indeed, the aim of the *folkhemmet* was to provide for that more inclusive society and create a strong sense of collective responsibility and commitment. This can be seen as a major organisational quality.

Another modern thought good was that every resident should be able to access affordable housing and more research should be done on social housing (Wedebrunn & Docomomo Scandinavia, 1998). A lot of time was also spent studying spaces (Boalt & Lindegren, 1987). The small scale is also something that was exuberantly discussed at the second CIAM Congress in 1929.

Here, Mart Stam advocated working back from dwelling to structures by linking several individual rooms that thus formed a dwelling and introduced the overriding functional standard of modern housing design *Existenzminimum*, focusing less on technical qualities (Kallis, 2021). In Sweden, however, much attention was given to how best to optimise ventilation and light in a smaller living environment and the social aspect in general.

Similarities can be found between the residential district in Järnbrott in Gothenburg and Ingrid Wallberg's residential district in Örgryte. Despite architectural differences such as in Örgryte, it has a very typical functionalist architecture, this does not take away from the fact that Järnbrott's residential district has no modernist thoughts.

Yet, similarities can be found. Look at the interconnection of the row

houses. They are connected in the same way as the row houses on Bångejordsgatan.

The arrangement of the neighbourhood is also designed in a similar way, and in both cases (front) gardens are an important part inside the urban planning. Such a succession of houses can be linked to the Zeilenbau that Ernst May introduced in Germany in the 1920s. Henderson (2013) mentions that this way of building was relatively cheap, more democratic than varied building that resulted in utopianism (Henderson, 2013). Accordingly, "every dwelling would possess the maximized conditions in relation to air, light, space, and the optimum arrangement to accommodate domestic life" (Heinz Hirdina, 1984).

When it comes to translating this to the story in Sweden, we see that they considered the same important features. V. Conclusions

One general conclusion is that the initial assumption is that conservators are more likely to look from an objective point of view and designers analyse the intangible aspects.

Also, designers are more likely to be pushed into a certain corner by heritage agencies (Informant 4). Yet why can't both parties take both into account each time? Why must one have more say than the other? That dualistic struggle could simply be avoided if people start using, and implementing, these so called 'personal' values. By putting these together and starting to analyse general similarities of the individual, similarities could be made much more easily. Of course, other aspects such as authorities and regulations also need to be taken into account when it comes to starting to protect the modernist landscape, but that personal aspect could be an important fact within all of policy.

When it comes to raising awareness of this modernist landscape, we see that Docomomo International certainly adds value.

In the case of Sweden, this organisation had taken a break for a while, but it proudly can be said to be back in business since this spring. Thus, the Swedish chapter could possibly proceed as in a way the Belgian chapter does by using digital tools and platforms and in doing so start creating awareness.

A good suggestion would be to also use a map where selected buildings can be displayed, as well as a website to make it more accessible. Traces in the city of Gothenburg are easily observable and this could be an interesting fact to do something interactively with this to create one or more guided city walks, like a smartphone application. So that we can highlight this heritage in the city in a positive way that will hopefully make people appreciate it more. This is definitely a possible path to investigate further in the future.

13. Future development

This research made us look at conservation methods in a different way. For instance, there are several possible ways in which this research could be a starting point.

As a first step, other methods could be used to present or to expand the visual aspects by adding motion and sound, such as with video recordings and sound recordings. It might be interesting to see how other people would "visualise" these places based on sound. But also by adding different aspects of personal visualisations, more objective results can be found in this way. Here, it is meant by looking at local residents inside a built environment, casual passers-by, architects, heritage experts, conservationist and project developers.

This creates another possible starting point where these interdisciplinary applications can be combined to create a new multidisciplinary method that can be used across disciplines.

Another possible area of research could be to look at socio-economic and cultural impacts and their sustainability possibilities. Since the Modern Movement architecture is a recent heritage and not only revolves around an architectural style within a Swedish context, but has also had an important socio-economic history, its impact on the local/ regional and national levels can be examined.

Here, we can look at the qualities of these residential districts, including quality of life, socio-economic aspects, cultural aspects, and so on.

The fact is that these neighbourhoods have many strong qualities and also valuable features to reuse. With reuse, we can then look again at the adaptive re-use of materials, residential areas, and so on. Again, visualisations can be an important aspect of the contribution to the critical view of the past, present and future.

14. Summary

"Finding traces of the Modern Movement in Gothenburg" is the reason for this research. The aim was to see if it was possible to find traces.

This resulted in the following questions:

- 1. In what way can the Swedish "*folkhemmet*" be considered as a part of The Modern Movement?
- 2. How visible are the traces of The Modern Movement in Gothenburg, Sweden?
- 3. Is there a way to create awareness around The Modern Movement within Sweden?
- 4. How can visualisation add value within the conservation of these built environments?

These questions were answered using a theoretical framework built up from a literature study and from conducting interviews. On this basis, it was possible to find out that Docomomo creates awareness of the Modern Movement and that *folkhemmet* does form a part of the Modern Movement in Sweden. It can therefore be concluded that Docomomo contributes to documenting, conserving and preserving the Modernist heritage. Recently, Sweden got its own chapter back, which makes for a bright future in terms of protecting everything about it.

Two case studies, the districts of Södra Guldheden in Örgryte, in Gothenburg contributed to the visibility of this patrimonium. It resulted that finding traces within the city is rather good.

This research and the approach of it contributed to finding ways to combine a personal analysis with a more classical heritage framework. Here, the concept of personal value can be introduced to represent the visualisation of personal characteristics within heritage. This is something that can offer an important turning point within value assessments of critical heritage studies. VI. List of Figures

Figures 2-6, 8-11, 14, 17, 19-22, 26, 28, 30-34, 37-42, 46-49, 51-59, 57, 59, 61-67, 69-71, 73-97 are made by the author.

Figure 1. Values within heritage, based on classification. Based on Dogan, H. A. (2020). Perception of the Modern Movement in Architecture as Cultural Heritage. *Art History and Criticism*, 16(1), 65–78. https://doi.org/10.2478/mik-2020-0004

Figure 7. Beryllgatan.

Ny vy Mäklare (n.d.). *Beryllgatan 17 – Tynnered*. [Photograph].https://www.nyvymaklare.se/till-salu/beskrivning/OBJ22172_1732296164

Figure 12. interior kitchen punkthus, taken by Sune Sundhal in 1962. Flerbostadshus Södra Guldheden Interiör kök [Photograph]. *ARKM.1962-101-2061*. ArkDes. Digital Museum. Retrieved from https://digitaltmuseum.se/011015010594/flerbostadshus-sodraguldheden-interior-kok

Figure 13. implantation [left] & plan appartment [right]. Retrieved from Caldenby, C. (1979). *Byggnader i Göteborg : [Buildings in Göteborg] : en guide till 1900-talsarkitektur*. Chalmers Tekniska Högsköla.

Figure 15. interior postoffice, taken by Yngve Hellström on July 29th 1954.

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g-guldheden-goteborg-den

Figure 16. exterior postoffice by Yngve Hellström on July 29th 1954.

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Figure 24. Plan from December 1th 1932. Brügge, A. (2020). *Ingrid Wallberg : arkitekt och funktionalist* (Första upp). Balkong Förlag. p. 198

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Figure 36. Bångejordsgatan 2-16. Picture from Fritz Bruce in Gustaf Antonssons samling. Brügge, A. (2020). *Ingrid Wallberg : arkitekt och funktionalist* (Första upp). Balkong Förlag. p. 241

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Figure 50. Guldheden Lekplats during snowfall.

Manipulated picture retrieved from Carlsson, A. (2014.06.21). *Guldheden, mitten av 50-talet, foton från Åke Carlsson*. Facebook group: Det gamla Göteborg. Retrieved from https://www.facebook. com/groups/7081806098/

Figure 60. Doktor Fries Torg.

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Figure 68. Guldhedskyrkan next to the tall punkthusen. Manipulated picture retrieved from Hedberg, M. (2023.01.27). *Tick-tack...foto från R.Rydheden in 1954*. Facebook group: Gamla bilder från Göteborg. Retrieved from https://www.facebook.com/ groups/2503444529896349/

Figure 72. Villa Lange with a reference to the old balcony. Old picture retrieved from Byggmästeren (1939). Elementhus. *Byggmästaren*, 3, p.21

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Informant 2: Claes Caldenby, professor emeritus at Chalmers University of Technology, interview on 10.07.2023

Informant 3: Marie Moors, *secretary Docomomo Belgium*, interview on 28.03.2023

Informant 4: Nikolaas Vander Keere, *researcher at TRACE*, interview on 02.02.2023

Informant 5: Dimitri Minten, architect, interview on 21.02.2023

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