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*Patrimoine contemporain et rénovation de logements : élaboration de politiques et expériences pratiques à Göteborg (Suède)*

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# Modern heritage and housing renovation: Policy development and practical experiences from Gothenburg, Sweden

*Patrimoine contemporain et rénovation de logements : élaboration de politiques et expériences pratiques à Göteborg (Suède)*

Paula Femenías, Sanja Peter and Mattias Legnér

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## Introduction

- 1 Post-war housing stock has been the focus of modernisation and transformation in Sweden since the 1980s. Arguments for making alterations and new investments have included the technical deficiencies of the buildings, plus social problems relating to exclusion and segregation in suburban locations. The architecture itself has often been viewed as part of the social problem, with substantial alteration to the character of buildings forming part of the solution<sup>1</sup>.
- 2 In the late 1990s, the idea was launched of transforming these housing areas into front-line demonstrations of future sustainable living<sup>2</sup>. The Swedish Government financed a series of sustainable investment programmes, some of which targeted the transformation of post-war housing.<sup>3</sup> Since then, housing renovation has been framed

by ambitions of energy efficiency. However, the goal of a decarbonised housing sector is still a long way off<sup>4</sup>. The European Commission recently introduced a new 'renovation wave' strategy, aimed at doubling the renovation rate and supporting employment in the building sector<sup>5</sup>. Accordingly, the Swedish Government has budgeted EUR 4.3 billions for energy efficiency measures and other necessary renovations of multi-residential buildings in a budget running to 2023.

- 3 These intensified housing energy renovation policies address issues surrounding the potential effect on architecture and the cultural value of housing stock. Compared to older housing, the modernistic architecture of post-war housing from the 1960s and 70s has had little recognition as part of our common built heritage. Rather, post-war housing architecture has become emblematic of failed housing policy.
- 4 Gothenburg, Sweden's second-largest city<sup>6</sup>, recently published its Historical Environment Programme of modern heritage<sup>7</sup> for residential and non-residential buildings. This paper describes the background and development of historical environment programmes in Gothenburg and aims to critically discuss the influence of renovation and energy retrofitting on the value designated to post-war housing areas. It then presents three suburban housing developments in the north-eastern part of the City which have been designated part of the Modern Historical Environment programme of Gothenburg. These three cases were selected to illustrate three different levels of renovation: one careful renovation/restoration, one medium level renovation which preserved the main character of the area and one major renovation with substantial impact on the original architectural style. The renovations were completed before, or in parallel with, the publication of the Modern Historical Environment programme. The question is how this is, or was, affected by the evaluation that heritage officials made of the areas' cultural value.
- 5 The starting point for discussion is the framing of contemporary housing renovation by national and international energy and climate policy and from social concern for the residents. In Gothenburg, municipal housing companies have an explicit directive to use careful renovation<sup>8</sup>; that is, they must exercise care with respect to tenants. No tenant should be forced to move due to renovations and related rent increases.
- 6 The paper builds on document studies and the authors' many years of experiences working with (or observing) the processes of designation and renovation in Gothenburg.

## The development of a Modern Historical Environment programme

- 7 Gothenburg's population grew rapidly during the 20<sup>th</sup> Century, from 100,000 inhabitants at the beginning of the century to half a million by its end. This large population growth may be traced back to the City's industrial and technological development. This came to reshape its physical map, with approximately 80 percent of Gothenburg built during the last 100 years. The architectural progress during this period was based on rationalised construction and is sometimes characterised as a social movement for change rather than a question of architectural style.
- 8 At the beginning of the 20<sup>th</sup> Century, a national sociopolitical programme was formulated aimed at creating good housing for all inhabitants<sup>9</sup>. At the time, Sweden's

working class had one of the lowest standards of living in Europe, with unhealthy indoor environments and a lack of individual bathrooms, hot water and central heating. Lasting from the 1930s to the 1980s<sup>10</sup>, this political programme for a “people’s home” (*folkhemmet*) generated investment in new construction and the management of older housing stock. The programme was implemented after WWII with large-scale construction of housing in semi-urban locations. As the pace of construction was not high enough to keep up with demand, the Million Homes Programme (*miljonprogrammet*) was launched in 1965 and lasted until 1975. The goal of delivering 100,000 new homes per year for ten years was accomplished by using industrialised construction methods.

- 9 The quest for rational, modernised housing also resulted in large-scale demolition of older stock<sup>11</sup>. When the older buildings and neighbourhoods started disappearing, people reacted. The old, wooden architecture had picturesque heritage qualities linked to traditional social ways of life. In the late 1960s, resistance to these demolitions was organised and discussions on the nature of cultural heritage rose to a new level<sup>12</sup>.

## Evolution of the legal protection of built heritage

- 10 Swedish cultural heritage legislation has existed since 1633. Today, it takes the form of the Historical Environment Act (1988:950).<sup>13,14</sup> Specific heritage objects or sites are nationally listed, with protection in place for highly regarded monuments. Objects considered of outstanding or enduring historical significance are largely buildings older than eighty years.
- 11 During the 1960s, new planning regulations were created, such as the National Environmental Interests (*riksintressen*, areas of national interest for cultural heritage in Sweden).<sup>15</sup> In the mid-seventies, the European Heritage Year movement and the Amsterdam Declaration laid the foundations for later changes to the heritage legislation, the inclusion of protection for ordinary buildings and an emphasis on the need for social concern in preservation matters.<sup>16</sup> As a result, many Swedish municipalities initiated building inventories.<sup>17</sup> Reaction against large-scale urban renewal during mid-20<sup>th</sup> Century urban reconstruction in Sweden was another contributing factor to the development of new preservation strategies. Sometimes, protests were used to influence legislators to extend protection beyond historical monuments.<sup>18</sup> Applicable to various kinds of built structures, the Swedish Planning and Building Act (PBL) from 1987 is currently the most important legal instrument for heritage protection. PBL states that all alterations to existing buildings should be made with careful reference to the existing values, and prohibits the disfigurement of particularly valuable buildings.

## Local programmes for the historical environment

- 12 Local programmes for the historical environment are municipal planning documents used as a guideline for assessing the potential impact of planning and construction activities on cultural-historical values. Preservation of built heritage is officially governed by regulations and laws and local municipalities have the greatest responsibility for their legal interpretation.

- 13 Such local programmes are not protective *per se*, but do provide essential information on the history and characteristics of historical environments, as well as grounds for their inclusion. The programmes support officials, developers and consultants, plus the general public. Under PBL, owners are obliged to maintain the standard of their properties. Municipalities with concentrated heritage stock (like Visby on Gotland) produce more detailed building programmes, known as building ordinances (*byggnadsordning*)<sup>19</sup>.

## Gothenburg's first programmes for the historical environment

- 14 In Gothenburg, the first official local programme for preserving the historical environment dates back to the 1960s. The city underwent one of the largest renewal schemes in Europe. The demolition of the working-class districts in Landala and Haga was met by protests from citizens' groups and also involved local academic institutions.<sup>20</sup>, <sup>21</sup>With the expansion of the City, plus the demolitions, initial inventories of older buildings were begun, alongside the excavation of archaeological sites. These early inventories focused on central city areas and prominent buildings from various periods before the 1950s.
- 15 With the 1970s oil crisis, the Swedish Government acted rapidly and launched an energy-saving plan to eradicate oil dependency<sup>22</sup>. Measures were taken to improve the energy and heating systems in existing housing and make building envelopes more energy-efficient. These measures were often applied without consideration for the original architecture [fig. 1]. Windows were replaced with different types and new maintenance-free materials (such as composite boards and steel) replaced or covered wood and brick façades. Working-class housing and timber constructions were often altered with energy efficiency measures compared to higher status brick buildings<sup>23</sup>. Notably, housing constructed after 1930, which at the time was a limit for what was considered cultural valuable building stocks, have been disfigured on a broader scale. The rapid, large-scale changes driven by these energy plans drew the attention of alert heritage officials to the vulnerability of unlisted heritage.

Figure 1



Example of an insensitive 1970s energy retrofit of working-class housing, Gothenburg (Sweden), 2017.  
© Paula Femenías.

- 16 In 1978, all municipalities were tasked with developing a local Energy Saving Plan. To prepare for this, Gothenburg's City Planning Office started large-scale documentation of housing stock, covering its construction and cultural-historical values. This new inventory included suburban areas and recent building stock not included in earlier inventories.
- 17 During the 1980s, preparations were made to launch another programme for Gothenburg's built historical environment, Valuable Environments (*Värdefulla Miljöer*). This programme focused on built neighbourhoods rather than just individual buildings.
- 18 Towards the end of the 20<sup>th</sup> Century, the above political documents on heritage listings were combined into two volumes on the historical environment, focusing on what had been constructed before the 1950s<sup>24</sup>.

## Modern architecture as heritage

- 19 In the late 1990s, the National Heritage Board initiated a national Major Cities Project (*Storstadsprojektet*).<sup>25</sup> The Board wanted to explore and acknowledge the cultural and historical legacy of the country's major 1955–1975 expansion during a period known as 'the record years'. Under this project, inventories of buildings and environments from the late 20<sup>th</sup> Century were taken in Sweden's three largest cities (Stockholm, Gothenburg and Malmö). Gothenburg's inventory was completed in first years of the 21<sup>st</sup> Century. It then took almost another twenty years to summarise and analyse the documented material, which eventually resulted in a third volume of Gothenburg's local Historical Environment programme called Modern Gothenburg (*Moderna Göteborg*)<sup>26</sup>.

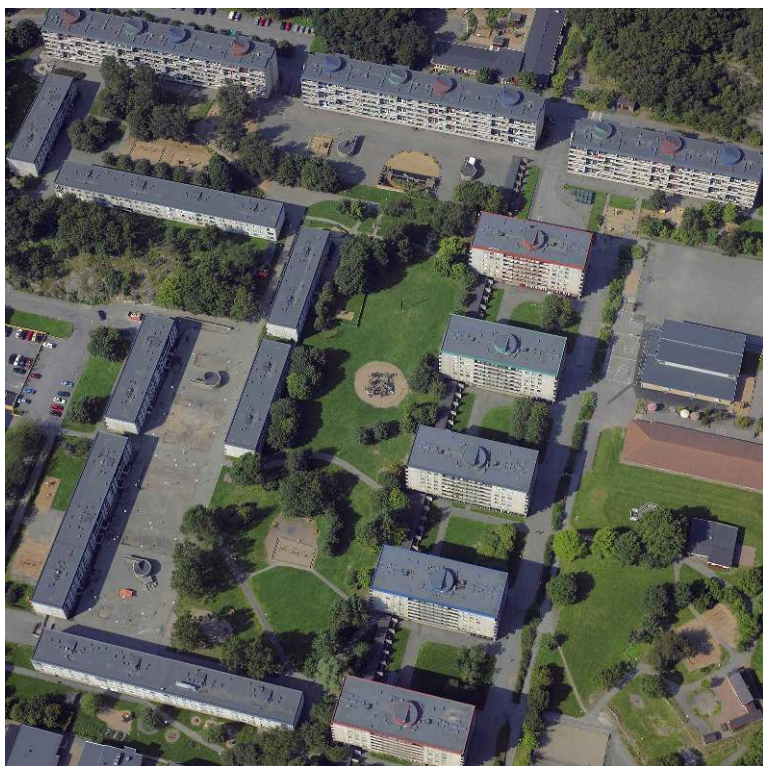


- 20 The process of designating modern built heritage differs from designations of earlier built heritage. This is due to the large scale and volume but also relates to authenticity, as various objects and areas will have already been altered through renovation. Modern Gothenburg focuses on the typical but also the unique, dating from a time when almost two-thirds of Gothenburg's buildings were built. The programme highlights typical building components, environments and the origins of planning ideas. It provides guidance and a more in-depth interpretation of what needs to be provided in the work with detailed planning processes.
- 21 The processing of material for the programme was similar to the work conducted under earlier heritage programmes. The selection was based on addition and deduction but with one main difference: a much larger volume to study. This required a method of searching for uniqueness in what was being rationalised and typified. Apart from quantity, the modern stock also has more resilient qualities than older stock. At the time, a prevalent method for evaluating tangible heritage, the Unnerbäck Method (*Unnerbäckmetoden*),<sup>27</sup> was endorsed by the National Heritage Board. This method emphasises the fact that a designated object should provide knowledge and understanding of various historical events and contexts, including alterations. Furthermore, it allows the addition of different perspectives, tangible and intangible<sup>28</sup>. Through the model, historical, social, functional and aesthetic qualities are added or subtracted, to estimate an approximate heritage value.

## Skolspåret – a careful renovation

- 22 The first designated example is Skolspåret, a residential area with six hundred rented apartments located in a neighbourhood called Hjällbo. Skolspåret was designed by architect Arne Nygård (1925-2014) and built in 1968-1971 by a municipally-owned housing company called Samhällsbyggen. Hjällbo has long been characterised by social exclusion and is currently designated by the National Police as a particularly vulnerable area. Most of the housing in the area, including Skolspåret, is currently owned and managed by Poseidon, a municipally-owned housing company.
- 23 The area consists of fifteen buildings, in a mixture of lamella buildings and tower blocks, situated with their entrances facing three central courtyards, located above a large parking deck [fig. 2]. Consistent with the ideals of separating traffic modes at the time, Skolspåret was designed as a car-free area. The buildings are made of prefabricated concrete elements and their façades are decorated with circular recesses moulded into the concrete [fig. 3]. Elevator machine rooms on the roofs and entrances to the subterranean garage are designed in shell-like shapes, clad with sheet metal and profiled concrete. A canopied pathway from local public transport leads to the area and is lined with specially provided sculptures.
- 24 Modern Gothenburg highlights Skolspåret's structure, architectural expression and social ambitions of the time<sup>29</sup>. The rationale for the heritage designation highlights the unusually careful design of an otherwise rather typical structure. Despite some changes, the architectural expression is well-preserved, with particular attention to detail, artistic embellishment and façade profiling.



**Figure 2**

Aerial view of Skolspåret (Sweden), 2016.

© Unknown photographer (Gothenburg City Planning Office).

**Figure 3**

Decorative layout of the façades at Skolspåret (Sweden), 2021. The entrances to the underground garage and rooftop elevator machine rooms are also visible.

© Sanja Peter.

## Heritage designation as a vehicle of social leverage

- 25 In 1999, The County Administrative Board gave Hjällbo a heritage subsidy. This was used to renovate the canopied pathway. The same year, the Board initiated a project called Metropolitan Architecture and Heritage and Hjällbo was designated one of four areas of national concern for social investment.<sup>30</sup> The recognition of Hjällbo's heritage value was in sharp contrast to its negative depiction during national investigations.<sup>31</sup> Skolspåret's owners were inspired by the positive media attention given to the heritage subsidy and saw an opportunity to garner heritage recognition, support social development and regain tenants' confidence.
- 26 The early 2000s saw advanced discussions on listing Skolspåret as a national monument. Ultimately, there was no listing as the owner wanted to avoid future heritage restrictions.<sup>32</sup> Nevertheless, the owner was keen on the contemporary development and the planned structural renovation of the area was carefully implemented. The balcony fronts were reconstructed using the original moulds and most of the original design was generally preserved [fig. 4]. However, instead of the hardwood window-frames being renovated, they were all replaced with new aluminium-framed windows.

Figure 4



Details of the façade and the reconstructed balcony fronts, Skolspåret (Sweden), 2021.

© Sanja Peter.



## Solar Houses – socially driven transformation

- 27 The second example, Västra Gårdsten, is part of a neighbourhood called Gårdsten located on two plateaus separated by a green valley. As with Skolspåret, Västra Gårdsten's architect was Arne Nygård and the client was Samhällsbyggen. The landscape architect was Edvard Jacobson. The area was built in 1968-69 and consists of twelve interconnected courtyards, with housing blocks running north-south [fig. 5]. Each courtyard is surrounded by lower, three-level lamella blocks to the east and west and by eight-level gallery blocks (*loftgångshus*) to the north and south. In a design inspired by Le Corbusier, the gallery blocks stand on pillars, providing a visual connection between adjacent courtyards [fig. 6].
- 28 The area's designation was made based on its careful architectural design using simple pre-fabricated elements creatively for variety.<sup>33</sup> Artistic ambitions are found in the façade details and gable decoration. The staircases of the gallery blocks are part-glass and part-concrete. When illuminated at night, these staircases make the blocks widely visible in the surrounding area, giving it a distinctive silhouette. A pathway leading through the whole area is lined with larger sculptures. There are glimpses of a spectacular view down the valley, with the Göta älv river leading to Gothenburg centre.

Figure 5



Residential area of Västra Gårdsten, Gothenburg (Sweden), 2016.

© Unknown photographer (Gothenburg City Planning Office).

Figure 6



The visual link between the courtyards, Västra Gårdsten, Gothenburg (Sweden), 2021.

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## Environmental transformation as a vehicle for social change

- 29 In 1996, Gårdsten was one of the most socially vulnerable residential areas in Sweden. It was characterised by health problems, unemployment and a low occupancy rate<sup>34</sup>. Established in 1997, Gårdstensbostäder, the municipal housing company was tasked with regenerating and developing the Gårdsten district. A demonstration project for sustainable renovation was initiated in 1998 to boost this regeneration. It was conducted in collaboration with Chalmers University and funded by the European Demonstration Programme SHINE, plus local development funds. The architect was Christer Nordström Architects. The Solar House transformation concept combined energy efficiency, solar energy and social ambitions. To support social interaction, greenhouses and common laundry facilities were built on the ground floor.
- 30 The project was renowned for combining climate action and solar energy with social action, including job creation. According to early reports, the combination with solar energy has achieved a reduction in energy use of almost 40%. In 2005, the Solar Houses received the prestigious World Habitat Award. Considerable efforts have since been made to improve the quality of services and commerce in the area. The increased attractivity has led to new investment in housing and the area has been removed from the national list of vulnerable areas.
- 31 The energy renovation has only partly affected the area's characteristics [fig 7 and 8]. For example, exposed gable façades were externally insulated while others were left untouched<sup>35</sup>. The original idea of courtyard formations has remained, alongside the robust but unique structure. The area has kept its profile of illuminated glazed

stairwells at night-time. The pathways under the pillar buildings were filled with new greenhouses. One argument for filling the pathways was that they formed unpleasant wind tunnels. However, while the wind tunnel problem was a problem on highest part of the plateau, the greenhouse project was unfortunately executed only on the lower pathways and consequently not solving the wind tunnel problem.

Figure 7

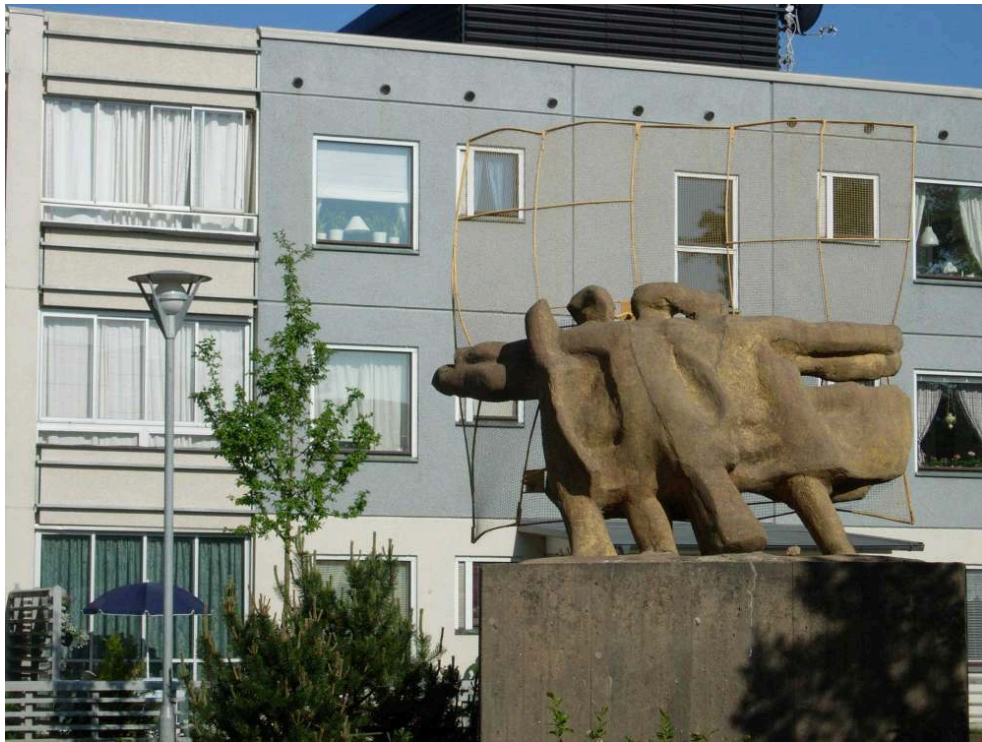


Solar Houses in Västra Gårdsten after renovation, in the back the high-rise blocks with solar panels on the roof, Västra Gårdsten, Gothenburg (Sweden), 2016.

© Paula Femenías.



Figure 8



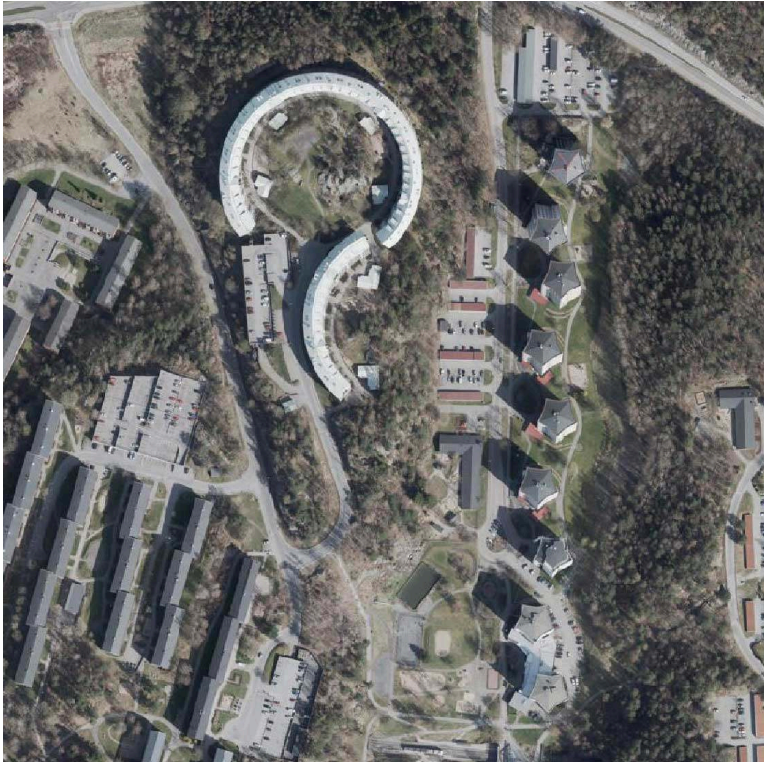
Detail of facades and original sculpture, Västra Gårdsten, Gothenburg (Sweden), 2016.

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## Stacken – a passive-house project

- 32 The third case, the “Stacken” collective house is one of nine multi-residential tower blocks built with a star-shaped floorplan in the northern part of a suburb called Bergsjön. The “star houses” were designed by GAKO office through architect Lars Ågren (1921-2006) and built in 1967-1968<sup>36</sup>. The construction method was novel and rationalised: the central stairwell was built first and then apartments were added all around it, forming a star shape. The blocks are laid out like a beaded ribbon in a north-south direction from the tram station, following a sloping edge to the north and with a small green area to the south [fig. 9]. Each tower block has 35 apartments, with five identical three-bedroom apartments on each floor. The star-shaped floorplan permits views and sunlight from different directions. The façades are made of profiled concrete elements.

Figure 9



Aerial view showing the layout of the star towers, Bergsjön, Gothenburg (Sweden), 2016. Stacken is the last block in the row towards the upper part of the picture.

© Gothenburg City Planning Office

- 33 In the mid-1970s the housing market had become saturated and many apartments in the suburbs lay vacant. The last block in the row of star houses was converted into collective housing in 1980; the first of its kind in Sweden. It was called Stacken<sup>37</sup> and drew its inspiration from ideas about collective living, driven by architects and debaters in a Swedish group *Bo I Gemenskap* (BIG).<sup>38</sup> Ågren, the original architect for the area, was one of the initiators of the conversion and led the project on behalf of the municipal housing company. The design process involved the users and laid the ground for a functioning working community. The collective facilities included a kitchen and dining area, workshop premises and a day-care centre. The dining room became the heart of the collective house. In 2000, Stacken was sold to the tenants who formed a rental cooperative to manage the building. Today, Stacken consists of individual households, plus smaller communities hosted in larger apartments created by fusing several apartments.

## The passive-house project

- 34 Driven by political objectives and personal ambitions, one tenant (employed at the time as a project assistant at Chalmers University of Technology) began a renovation project in 2016 to turn Stacken into an energy-efficient passive housing block. The retrofitting package included balanced ventilation with heat recovery, façade and attic insulation, new windows and electricity-generating Photovoltaic solar panels over the entire façade<sup>39</sup> [fig. 10]. The story goes that the low cost of solar cells made it economically



viable to cover the entire façade to the north as well. The total cost of the energy renovation was estimated at EUR 400,000 and was partly funded by the Swedish Energy Agency as a research and demonstration project.

Figure 10



Stacken after the energy retrofit, Bergsjön, Gothenburg (Sweden), 2021. The star-shaped tower building has been nicknamed the Death Star by some of the inhabitants. In the background is a building in its pre-energy-retrofit state.

© Sanja Peter.

- 35 The passive house project was supported in a majority vote by members of the housing collective, but a smaller group of tenants felt that regard for aesthetics and historic values had been overridden.<sup>40</sup> The initiator of the renovation project believed that cultural preservation hinders sustainable development. Also, the Stacken's community has faced challenges due to this major renovation. For safety reasons, the dining room, which was central to the community, is no longer in use. A fire escape and external stairs removed prior to the renovation have not been replaced. A lot of money was invested in completing the energy renovation, so, replacing the external stairs was not a priority.
- 36 Stacken was officially designated a heritage object in 2017; in parallel with the transformative energy retrofit. It was also nominated as an example of a specific building type (a turbine house), representing part of Gothenburg's modern building-technology history. Another reason for Stacken's designation was its unique contemporary social history as a collective house. During the long process of finalising the heritage programme, the building was altered substantially. However, the proposed transformation was initially interpreted as adding a new layer of history to the property, retelling the story of the Million Homes programmes and the 21<sup>st</sup> Century's quest for sustainability.

## Discussion and conclusion

- 37 This paper has shown how actions taken since the 1960s have led to a broader interpretation of heritage value, plus an expansion of the protection of historical monuments to include modern structures.
- 38 The example of Gothenburg shows how a Modern Historical Environment programme, Modern Gothenburg, has been developed and how the heritage values of three cases of post-war housing have been taken into consideration. The example points to several challenges with the selection and designation of modern heritage. By comparison with listing older built heritage, the sheer volume and scale make the designation process more complicated. The presence of repetitive building types makes it difficult to decide whether to select just one building, or all of them.
- 39 The process of designating modern heritage has shown that traditional heritage protection instruments may sometimes prove inadequate. In this context, designating an object refers, on the one hand, to recognising an example of a specific building type and construction methods and, on the other, to its socio-historical context. Thus, both tangible and intangible values are acknowledged. Many post-war housing areas have already been altered in such a way that their original design has been affected. The experiences from the designation process for Modern Gothenburg show that modern heritage qualities are more robust and resilient to changes than older built heritage. The method used is based on the idea that an object should provide knowledge and inform about historical events; thus the designation allows layers of change to be included. The historical environment documents are meant as practical guidelines. Thus, it is essential to acknowledge various levels of understanding if they are to be useful during planning processes.
- 40 Modern Gothenburg will be put to the test in the coming decades, as it has been predicted that Gothenburg will expand by 150,000 inhabitants. There are plans to densify post-war suburban areas, to deal with housing shortages. This may compromise a prominent feature of these areas; the openness and spacious green areas surrounding the blocks. Meanwhile, existing buildings will be targeted for modernisation, energy renovations and the introduction of solar panels.
- 41 The cases of post-war areas presented in this paper provide examples of the opportunities and consequences for modern heritage of modernisation and energy renovation. The renovation of Skolspåret was practically a restoration. Twenty years on, new renovations and energy savings are anticipated. The future will reveal the impact of Modern Gothenburg on new renovations in that area. The Solar Houses in Gårdsten are an example of how social and environmental ambitions have been balanced with the safeguarding of specific, tangible characteristics of the original architecture. The case of Stacken illustrates how major energy savings may be achieved, albeit with devastating consequences for the authenticity of the area. Stacken is on the fringe of what defines tangible and intangible cultural heritage. Its energy retrofit has altered both the material qualities and the social concept of collective living. The renovation was carried out in parallel with the designation process. One may only speculate whether the outcome would have been different, had the programme been published before the renovation was approved.

- 42 Skolspåret and the Solar Houses in Gårdsten show how to use modern heritage as a starting point for renovations and transformations. An ethnographic study was conducted after the renovation of Skolspåret<sup>41</sup> to capture tenants' perception of the heritage values and results of the careful renovation. The study concluded that architecture and design have little relevance to the well-being of residents but that other, more practical values (such as safety and a clean area) are more important. Nevertheless, the fact that Skolspåret was considered important and attractive by others was established as a positive value among residents. Moreover, at the time, the whole process resulted in residents having an increased interest in architecture.
- 43 Culture as a vehicle for sustainable development is an aspect that has been emphasised in recent national and international agendas. The "Global Sustainability Goals" align urbanisation, environmental protection, and energy savings with social and cultural goals<sup>42</sup>. UNESCO defines culture as a key driver of change<sup>43</sup>. The updated Swedish architectural policy<sup>44</sup> envisions well-designed built environments as necessary if there is to be real change towards an improved society. This relates to such thing as design for health, wellbeing, and integration. Recently, the European Commission launched its New European Bauhaus programme. This seeks to combine ambitions for energy renovation and a transition to a circular economy through design. EC President Von der Leyen has declared that Europe needs not only environmental or economic projects but also a new cultural project<sup>45</sup>.
- 44 The contribution and impact of Gothenburg's Modern Historical Environment programme are yet to be evaluated but there are already a few examples of the programme leading to change. The demolition of two modern monuments has been prevented<sup>46</sup> and the development of plans for a few suburban areas has been adjusted to include modern heritage values.

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## ABSTRACTS

Post-war housing stocks have been in focus for modernisation and transformation since the 1980s. Technical deficiencies and social problems related to exclusion and segregation have been arguments for investments. The architecture has been seen as part of the problem and alterations to its character have been important in finding solutions. Lately, policy for energy efficient renovation and decarbonisation of the housing sector has put the modern housing stock in focus again. With reference to the lack of common appreciation and understanding of the historical and cultural value of the post-war housing, this paper discusses current policy and its implementation.

The paper begins by looking at Gothenburg, the second largest city in Sweden. The development of a Modern Historical Environment program is presented with its application in three examples of housing. These cases exemplify the opportunities and consequences of modernisation and energy renovation on modern heritage. The designation of modern built heritage differs from the designation of older constructions due to its scale and volume. Designating an object refers, on the one hand, to recognising an example of a specific building type and construction methods and, on the other, to its socio-historical context. Thus, both tangible and intangible values are acknowledged. Modern heritage is characterised by its resilience to alterations and allows layers of change to be included, informing about historical events.

Le parc de logements d'après-guerre a fait l'objet de modernisation et de transformations depuis les années 1980. Les insuffisances techniques et les problèmes sociaux liés à l'exclusion et l'isolement ont été des arguments en faveur des investissements. On a estimé que l'architecture faisait partie du problème ; les transformations de sa physionomie ont donc été importantes pour trouver des solutions. Récemment, la politique de rénovation énergétique et de décarbonation du secteur du logement a placé à nouveau le parc de logements modernes au centre de l'attention. Cet article traite de la politique actuelle et de sa mise en œuvre en évoquant le manque de reconnaissance et de compréhension des valeurs historiques et culturelles des logements d'après-guerre.

L'article prend comme point de départ Göteborg, la deuxième plus grande ville de Suède. L'élaboration du programme « Environnement historique moderne » y est présentée ainsi que son application dans trois exemples de logements. Ces cas illustrent les possibilités et les conséquences de la modernisation et de la rénovation énergétique du patrimoine contemporain. La qualification du patrimoine bâti contemporain diffère de celle du parc immobilier ancien de par son échelle et son volume. La désignation d'un objet se réfère, d'une part, à la reconnaissance d'un exemple de type de construction spécifique et de méthodes de construction et, d'autre part, à son contexte sociohistorique. Ainsi les valeurs matérielles et immatérielles sont-elles reconnues. Le patrimoine contemporain se caractérise par sa résilience face aux transformations et permet aux différentes strates de changement d'être incluses, informant sur sa profondeur historique.

## INDEX

**Keywords:** value designation, Modern heritage, post-war housing, energy renovation, architecture, cultural values

**Mots-clés:** patrimonialisation, Göteborg, Suède, patrimoine contemporain, logements d'après-guerre, rénovation énergétique, architecture, valeurs culturelles



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