

The background is a complex collage of architectural photographs. The color palette is dominated by warm, golden-yellow and light blue tones. The images show various modern architectural elements: multi-story apartment buildings with balconies, curved walkways, and a swimming pool area with people. The text is overlaid on this collage, with the author's name at the top and the title in large, bold letters in the center.

LEENA MAKKONEN

# MODERN ARCHITECTURE IN HELSINKI



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# INTRODUCTION

BUILDINGS REPRESENTING modern architecture are an important part of the Helsinki cityscape and a valuable part of our building heritage. Modern architecture has a special status in our country, as Finnish building stock is fairly young and about 95 % of buildings have been completed after 1920.<sup>1</sup>

This publication tells about the value of our building heritage, which is both temporally and spatially close to us. There are presented sites with different functions related to everyday life, residential areas and individual buildings, schools, commercial buildings and hospitals. There are also cultural buildings, sports venues and transport-related buildings. The sites are all listed as Finnish modern architectural key sites in the approved register of the international architectural heritage organisation DOCOMOMO<sup>2</sup>. They all are sites of national significance.

Construction of the sites happened in the period between the 1930s and 1970s when there were large developments in both Finnish society and architecture. Functionalism initially emerged as an unprejudiced new trend. Then in the 1930s the recession slowed down construction, and barely surviving that, Finland along with other countries was forced into war. Preparation for the Olympic games, first for 1940 and then 1952, led to the birth of a number of buildings and areas in Helsinki. After the war, functionalist purism gave way first to romanticism and after that came the golden age of Finnish architecture in the 1950s. Although shortages of building materials made construction difficult after the war, the need to construct housing and schools to replace those destroyed in the war and to answer the needs of the baby boomer generation was strong. In the following decade, a major change happened in building technology with the gradual adoption of prefabricated

materials and mass production came to the construction industry. A lot was also built in the 1970s. The quality of the housing in the decade was problematic, but quality was achieved particularly in public buildings. This publication aims to provide background information on the early phases of the sites in the context of recent history. In this way the value of the buildings can be understood more clearly.

Some of the sites presented are protected by town planning or under the Act on the Protection of Buildings, others still remain unprotected. Many of the sites are in good condition and they are still used for their original purposes and some of them have recently been restored. Unfortunately a few of the sites have fallen into woefully poor condition and some valuable characteristics have been repaired in a reckless manner. One of the aims of this publication is to increase the appreciation of modern architecture and to help understand the values underlying its protection.

The manifestation and design theory of modernism in architecture is a highly diverse, international phenomenon of the 20th century. It involves a strong condemnation of historicism. Modernism does not accept the reconstruction of historical styles. It focuses on design integrity, so that among other things, the façades of the building match the organisation of the interior. Modernism also has passion for technological development and mass production. In addition, it includes social goals. For instance it aims to achieve good housing conditions for all social classes. This involves economical construction and "mass" architecture. On the other hand modernism also includes some "hero architecture". One of the most important lessons in modernism is the emphasis that functionalism places on the purpose of the building (e.g. Louis Sullivan, 1896)<sup>3</sup>. Modernism emphasizes that only the

useful is essential, it seeks rationality and sees ornament as a "crime" (Adolf Loos, 1908).<sup>4</sup> In particular, the 1930s modernism was dominated by functionalist idiom, which was based on the internationally adopted ideas of the five principles developed by Le Corbusier (1927)<sup>5</sup>. Functionalism in urban planning emphasises the ideals of bringing health, light, air and sun to the housing sector.

There is already a multiplicity of research and literature on Finnish Modernism in architecture. Basic works on the subject such as Raija-Liisa Heinonen's research describing the breakthrough of functionalism, the book on 1950s architecture "Sankaruus ja arki", as well as Timo Koho's publications on the history of Finnish modernism provide a broad cross-section of the stages of development in modernism. Valuable information can be found in various academic papers, in particular I could mention Johanna Hankonen's doctoral thesis on suburban building, Anne Mäkinen's research into the architecture of the Defence Forces and Hilikka Högström's studies carried out on the Olympic buildings. Historical studies have been made of various buildings exist, containing important information on the sites regarding their maintenance and restoration. Monographs have been published on quite a number of Finnish architects, including detailed information on their work. In addition, valuable sources used in making this publication have included articles in *Arkkitehti* (The Finnish Architectural Review), especially the older magazines, in which contemporary assessments and descriptions of the sites by the buildings' designers can be found.

While information is abundant, there has not been a collated publication on Modernism in Helsinki as yet. This publication presents basic information on the sites and also describes their present state. It is intended that the

publication would be an inspiring guide book that leads readers to go and explore the sites and make their own observations on the ground.

The book was authored by architect, Dr. Tech. Leena Makkonen. The pictures come from the Helsinki City Museum and the Museum of Finnish Architecture archive material, the City planning Department's own photographs, and the images taken by photographer Kari Hakli especially for this publication. The layout and the artwork were done by graphic designer, Mika Kettunen. The publisher is the Helsinki City Planning Department which is also responsible for care of the built cultural environment.

An exhibition on the same subject as in this publication is being organised at Laituri, the Helsinki City planning Department's information and exhibition space from 9.8. to 8.9.2012.

# HOUSING

HOUSING CONSTRUCTION has been a key architectural sector at various times. Many renowned architects have been active reformers in housing conditions. Among other areas, housing design was close to the heart of Alvar Aalto. According to him, *"The housing problem is undoubtedly one of the most important things we need to solve. Our whole civilization rests on what our homes are."*<sup>6</sup> Aalto's own house in Riihitie in Munkkiniemi exudes a strong personal feeling, even though it complies with functionalist themes.

The open minded architecture of the armed forces' Autokomppania (Helsinki Motor Transport Company) barracks was one of the first examples of functionalism in Helsinki. The completed barracks show how generally rugged military architecture can also be comfortable. At the time it was written *"The freshly constructed building does not seem at all like typical barracks for the military, on the contrary it seems like a fun dwelling place for real people."*<sup>7</sup>

The first functionalist residential areas, with their attempts to create lightness and wholeness, were carried out later in Finland than in Central Europe, not until the late 1930s.<sup>8</sup> These developments can be seen in Taka-Töölö in Helsinki. The principals clearly emerged as the area was constructed in various stages, mainly in the 1930s. The Olympic Village, completed at the end of the decade, could be nominated as one of the most important examples of Finnish functionalist residential architecture. The purism of movement is integrated taking the features of the natural environment into consideration. The Olympic Village is also an early example of public-utility housing. The same objective was set for the construction of the Käärmetalo (Serpentine House) apartment building next to the Olympic Village, when the City of Helsinki set about a programme to deal with the post-war-time shortage of housing.

The architect Hilding Ekelund's impact on the creation of housing in Helsinki has been considerable. Residential architecture was his speciality. According to him, *"An ordinary residential building cannot and must not become so called great architecture,"* even though *"the temptation to make the simple architecture of a residential building into something special and revolutionary is sometimes too great."*<sup>9</sup> Ekelund was already involved in the Olympic Village, and in the 1950s his touch was seen in the Sahanmäki area in Maunula.

The Kisakylä (the games village for the postponed Olympics) main accommodation building for the Olympic athletes of 1952 is very similar to the original Olympic Village. To achieve economic efficiency it was intended to construct Kisakylä as one target construction area, but the goal was not fully achieved at the time.

Only in the 1960s, when housing construction became the centre of the building industry, both quantitatively and in relation to construction methods, did standardisation, rationalisation and large-scale production come into the picture. Pihlajamäki became a pioneering site for large scale area construction in the 1960s.



# ALVAR AALTO'S HOME AND STUDIO

1935–36

RIIHITIE 20

ALVAR AALTO

AFTER MOVING from Turku to Helsinki in 1933 Alvar Aalto and his family lived first in a block of flats in the city centre. Design on his own house in Riihitie street in Munkkiniemi began in the winter of 1935 and the building was completed the following summer. Alvar Aalto had already carried out large projects in other parts of Finland by then and had risen to international fame because of them, but the house in Riihitie was the first building he designed in the current Helsinki<sup>10</sup> area.

The Riihitie house became the family's permanent home, where Alvar and Aino and later his second wife Elissa Aalto lived for the rest of their lives. Aalto's office was located in the home, until a new office building was completed in 1955 in Tiilimäki.

The architecture of the Riihitie house repeats the basic themes of functionalism. The cube-like white building does not follow the strict lines of the movement's design language, but in designing the house, Aalto was discovering his own personal form of expression.<sup>11</sup> On the side of the house facing the street is a clearly frugal façade counterbalancing the openness and fairly rich design facing the private courtyard. A traditional pole fence, in contrast to the modernist architecture, lines the large yard.

On the lower floor is the living room and the kitchen and additionally the office, part of which continues up to the second floor. The entrance to both of them is through the front door. There is also an internal connection between the living room and the office. On the second floor is a bedroom and a small hallway. Upstairs there is a large roof terrace which, before the construction in the local vicinity and tree growth, commanded a broad view stretching to the sea. The terrace and garden are an integral part of the house; the indoor and outdoor spaces are interconnected with large-sized windows and



PHOTO: AAS



PHOTO: AAS

via the garden doors. In the design of each room as well as the outdoor spaces and terrace the direction of the sun and wind was important.<sup>12</sup>

In the design of their own home the contribution of both spouses, who were both architects, was important. The vast majority of the home furnishings are by Alvar and Aino Aalto. Many of the furniture and textiles were later to become classics available to the public. The interior brings a warm feeling with wood and a wide variety of wall coverings and fabrics. The spouses also designed the garden together.<sup>13</sup>

After the death of Elissa Aalto in 1994 the Alvar Aalto Foundation together with the City of Helsinki and the Ministry of Education acquired ownership of the house in 1998. Since 2002, the house with its original interior has functioned as a museum. In the early 2000s, the house was carefully renovated paying special attention to "*The temporal strata, the patina of age, sensitivity to detail and above all the powerful spirit of the place*".<sup>14</sup>



PHOTO: AAS



PHOTO: HKM

## THE AUTOKOMPPANIA BARRACKS AND GARAGE

BARRACKS 1934–35, GARAGE 1934–36  
MECHELININKATU 32  
MARTTA MARTIKAINEN

THE HELSINKI AUTOKOMPPANIA (Motor Transport Company) barracks and garages could be considered Martta Martikainen's main piece of work for the Construction Bureau of the Ministry of Defence.<sup>15</sup> It was the 30-year-old architect's first independent design task and it was a demanding and at the same time very instructive work. The architect's goal was to bring a sense of humanity to the grim architecture of a military barracks. Although highly functional, it did not need to be austere.<sup>16</sup> In addition to its comfort, the press hailed the functionalist architecture of the barracks by saying that it was "*The most splendid and up to date in the Nordic Countries.*"<sup>17</sup> Martta Martikainen herself received a great deal of attention in the daily and periodical press at the time, as in the 1930s women were a minority amongst Finnish architects.<sup>18</sup>

The Ministry of Defence sought to rationalise the design of the barracks<sup>19</sup> and in the 1930s

various recommendations on the optimal measurements for types of barracks arose. It was also sought to further the functionality and durability of the building. The materials were strong, with mosaic concrete floors, and door handles and stair railings made of steel bars and steel tubing.<sup>20</sup> Improved hygiene was seen as an important objective and part of the health-care for the conscripts. For this reason, easy to clean surfaces and light colours were recommended.<sup>21</sup> On the ground floor, on the rear wall in the large dining room, the architect designed a large map of the world. In the map Finland is coloured gold.<sup>22</sup>

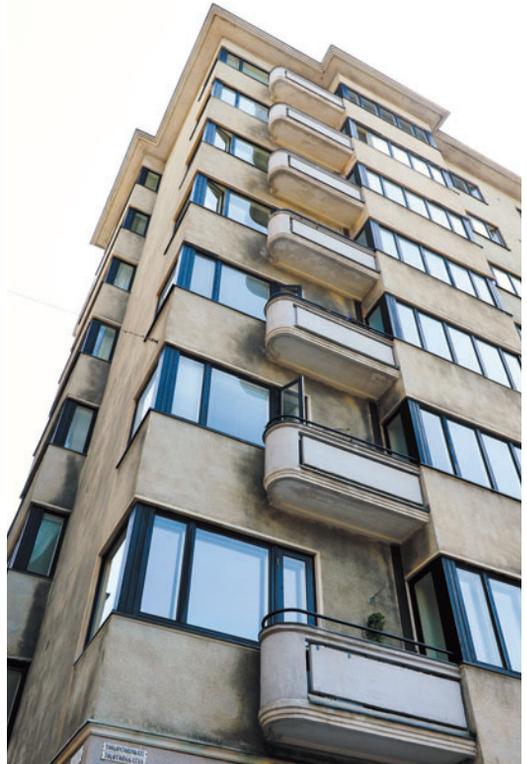
The accommodation wing and lecture halls which comprise the shorter wing create the base form of the L-shaped complex. The barracks floor plan is based on a side corridor, which is advantageous for the supply of light and ventilation. The wide corridors could also be used in due course for things such as gymnastics.<sup>23</sup> The side corridor on the street corner side curves in a semi-circular form facing outwards. In the wall of the corridor on the street side is a set of ribbon windows,

which reflects the continuity of the movement, while the courtyard facing barrack room windows are individual instead. The stairwell is visible as a projecting part of the façade and its vertical windows allow you to see the activity within. The exterior walls are of brick masonry, smoothly plastered and originally painted white.

The garage is a low, separate building to the west side of the barracks. Its design was based on the needs of cars and transport. The way in takes place between shallow rounded wings which surround the doors. The wide span of the hall allows the interior space to be used freely. The garage service station facilities were an extension of the garage in their own wing on the courtyard side. The petrol pump canopy with its graceful concrete edging is the central theme for the courtyard.<sup>24</sup>

The original user of the building the Autokompania (Motor Transport Company) moved out of the building in the early 2000s, leaving the barracks with highly well preserved internal facilities and details. Since then, the building has been empty while a new use for it is being considered. The empty state of the building has led to the rapid erosion of its condition.





# TAKA-TÖÖLÖ RESIDENTIAL AREA

1930–39

THE BUILDING OF the Taka-Töölö residential area was started on the basis of a Jugend/Art Nouveau plan, which was the result of a town planning competition for the whole of Töölö, arranged at the turn of the century.<sup>25</sup> The plan was however criticised and it was changed in 1916 with the main idea of opening up the block structure. Small blocks were combined and yard wings were removed. Still, the criticism continued, and a number of changes were again made to the plan which enabled the blocks to become more open and less rigid.<sup>26</sup>

In the early stages of construction the plan still reflected traditional thinking and the buildings also had classical ornamental details, wide eaves and pillar like themes. Gradually, the buildings began to display features of functionalism, especially the façades of the buildings. This moved progressively towards an increasing reduction and simplification in the design. On smooth plaster surfaces there were no longer hardly any decorations. There was an exception in the 1920s and 1930s, when there was a short Art Deco period recognizable in the façades and stairwells. The façades were otherwise painted in pale colours to increase the sense of lightness and hygiene. The function of the different rooms could be seen in the varying sizes of the windows. Bay windows brought more light into the interiors. Exterior doors were designed carefully using chrome and large areas of glass. Stairwells were sometimes very simple, but the best of these designs involved artists and master craftsmen in addition to the architects.<sup>27</sup>

The initial closed block structure and deep framed buildings did not really allow for the reformed housing plans. So the functionalist ideals of lightness and the appropriate use of space could not be achieved. It was only in the final stages of the construction of Taka-Töölö that it was possible to implement the goals of pure functionalism in the architecture of the buildings and in respect to the town plan.<sup>28</sup>



PHOTO: SRM



PHOTO: SRM

Despite the progressive nature of the area's planning, modern methods were adopted rather slowly in construction technology. Though externally in accordance with functionalism, the early Töölö buildings had a load bearing brick wall.<sup>29</sup> This gradually shifted towards a mixed frame, where thick walls at the core of the building were replaced with reinforced concrete columns, though other vertical load bearing structures were made of brick masonry. The walls for ground floor shop premises were later sometimes replaced by large display windows achieved through the use of the concrete pillars. Over time the wall construction also became thinner thanks to the use of better heat insulating air-bricks. This is how the residential area grew and building became more economical.<sup>30</sup>

# THE OLYMPIC VILLAGE

FIRST STAGE 1939–40,

SECOND STAGE 1941–48

HILDING EKELUND, MARTTI VÄLIKANGAS

THE OLYMPIC VILLAGE is one of the major sites representing Finnish functionalism and a key work in the overall development of Finnish housing architecture. The implementation of the area was a continuation of social housing efforts initiated by the state and City of Helsinki in the 1910s to alleviate the housing shortage and prevent speculation. As such, it is the first genuinely non-profit construction site in Finland.<sup>31</sup>

The Olympic Village was to be completed in Helsinki for housing the 1940 Olympic Games athletes, but the final end-users would be not so well-off families, low-paid civil servants and professional workers. The apartments were dimensioned in size so that the residents' income would be sufficient to pay the rent.<sup>32</sup> Construction of the area began in January 1939. The war shifted the Olympics, but the construction of the housing area continued throughout the war years.

The Olympic Village developer Helsingin Asunto-keskusosuuskunta Haka commissioned a draft town planning proposal from an architectural group including Alvar Aalto, Hilding Ekelund, Kaj Englund, Georg Jägerros ja Martti Välikangas.<sup>33</sup> On the basis of the proposal Ekelund and Välikangas continued with the work. They made only minor changes to the initial study. The placement of the houses changed slightly and they additionally developed a number of new types of housing. In the first stage, Ekelund and Välikangas planned the buildings together, though in the later stages Ekelund worked alone.<sup>34</sup>

The Olympic village implements the principals of functionalism in urban design, in healthy living and living close to nature. The placement of the buildings does not follow a rigidly rectangular coordinated system typically used elsewhere in Europe. In its place the starting points for the design are the properties of the environment, the topography and the general landscape.



PHOTO: LG



PHOTO: TR

The rocky, forested environment merges into the whole and the building style is open and loose. In the architecture, themes taken from other Nordic countries can be seen as well as influences from Mediterranean building culture.<sup>35</sup> The diagonal placement in relationship to the street line of many of the buildings is also repeated as a theme in the architecture of the houses, in the various placements of bay windows and balconies. The buildings represent a pure line of the so called “white functionalism”, but also on the other hand have the spirit of 1920s classicism e.g. in the gently pitched ridged roofs.<sup>36</sup>

In the first stages of construction the apartments in the buildings were relatively small but light, because they either went from



PHOTO: KM



PHOTO: HKM



PHOTO: HKM

one side of the building to the other or were situated at the ends. In the second stage of construction the size of homes had to be reduced and one extra apartment was situated on each floor. For this reason some homes had windows on one side only. The houses built in the first phase also had balconies which raised the standards of the apartments noticeably, but in the post war economic conditions it was no longer possible to build them in small apartments. Although the apartments were built in accordance with the ideology of functionalism to be practical and sparse, even the small apartments had quality.<sup>37</sup>

The environmental plan for the area was drafted by landscape architect Elisabeth Koch. Landscape architect Paul Olsson completed the plans for a number of the residential buildings. The yards in the Olympic Village vary from gardenesque, wooded or rocky yards depending on the natural circumstances. A half-open yard space is common to all the yard types and the plots contain a lot of natural trees. The access drives and service areas were mainly designed to be gravelled surfaces, while garden paths and seating areas were slate covered.<sup>38</sup> The Olympic Village's area has remained fairly close to its original state.



PHOTO: HKM

## KÄÄRMETALO (SERPENTINE HOUSE APARTMENT BUILDING)

1949–51  
MÄKELÄNKATU 86  
YRJÖ LINDEGREN

AFTER THE COMPLETION of Taka-Töölö, before the war, housing construction had been virtually at a standstill. In the late 1940s the City of Helsinki wanted to contribute to

solving the post-war housing problem and set up a committee to prepare non-profit building. The following year the program looked at a number of site areas. The aim was to achieve cost benefits in difficult times of scarcity by developing the projects simultaneously. One of the areas was a quarter in Käpylä along the Mäkelänkatu road.<sup>39</sup>

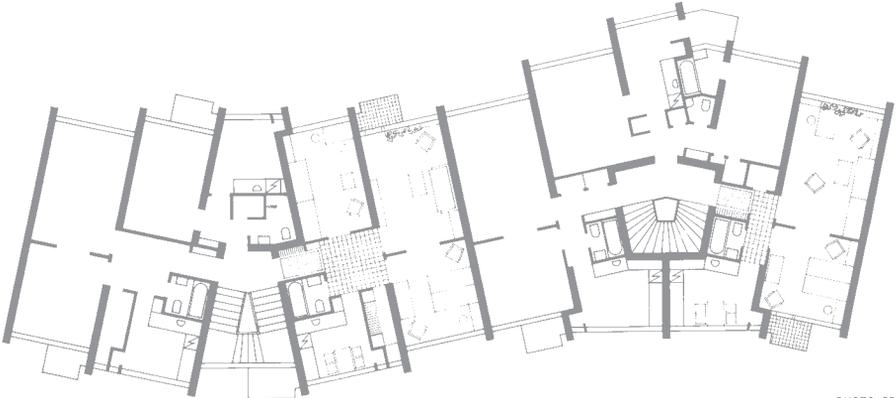


PHOTO: SRM

The original design plans placed a number of L-shaped residential buildings in the area.<sup>40</sup> Lindegren's office, however, got a free hand to develop the plan. Since the whole neighbourhood was now to be implemented at the same time, it was reasonable to consider the complex from a new starting point.<sup>41</sup> Thus, the solution was totally changed. The complex consists of two meandering serpentine like long row blocks and the courtyard building along the street, which includes a nursery for the residents of the house, a sauna, swimming pool, a heating and electrical facility and a laundry. The two residential buildings include a total of 190 residential units with an average floor area of a little less than fifty square meters. The courtyard building also originally housed a few apartments. The head of the second building had some commercial space for the sale of milk, meat and a general store.<sup>42</sup>

A key design goal was to adapt the buildings to the naturally varied terrain, and the undeveloped part of the plot was to be preserved as naturally as possible. The planting plan for the area is likely to have been made by



PHOTO: SRM



PHOTO: TR

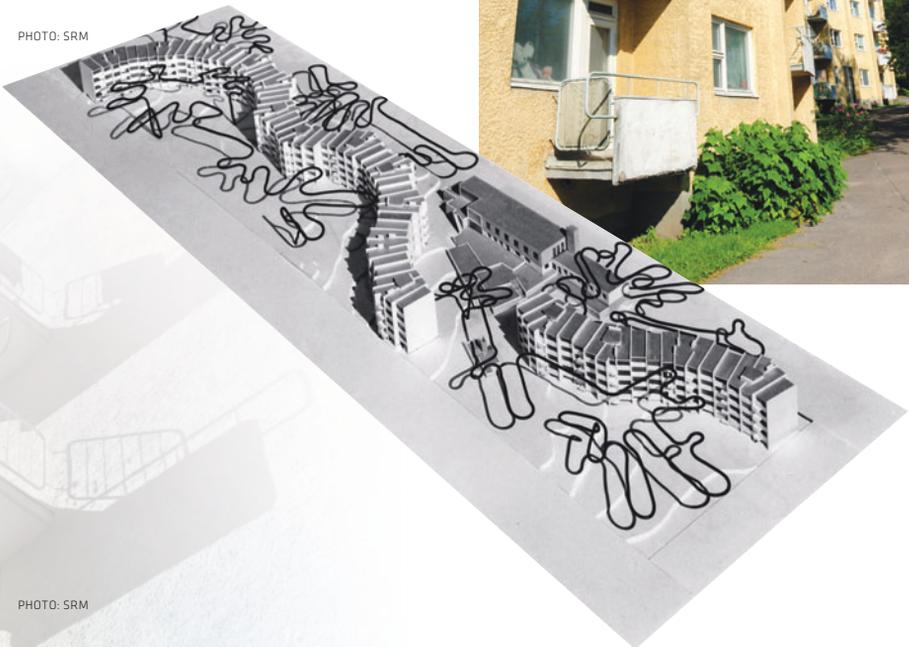


PHOTO: SRM

PHOTO: SRM



PHOTO: TR

landscape architect Elisabeth Koch. The yard is located to the west of the residential building and is sheltered from the noise of the traffic. Thanks to the shape of the building, small garden niches are formed on both sides of the zigzag sections.<sup>43</sup>

The serpentine shape arises from repeating two different kinds of oblique shaped parallelogram sections. The main rooms are all regular in shape, the oblique angles are in the kitchens, other auxiliary rooms and in the stairwells. The transverse load bearing walls of the apartments are also visible in the external shape of the building. In both section types of the building there are three apartments around each level of the stairwell. Two of them extend from one side of the building to the other and one opens only on one side. Nearly all the flats have a balcony. The details in the stairwell, metal railings and wooden handrails, have the restrained decorative style of the 1950s. The colour scheme for Käärmetalo was planned by the artist Eino Kauria. He not only defined the exterior paint colours but also the colours for the interior in both the stairwells and the apartments.<sup>44</sup>

The courtyard building<sup>45</sup> meanders on the garden side while it follows the street side in a straight line. The use of materials on the façades is richer than in the residential building, the wall surfaces are plastered both smooth and profiled. On the street side there is a tall base section made of granite. The building was restored in the 1980s and the facilities are still in use as they were originally intended. There is still a children's day-care centre in the building and the sauna and swimming pool are fully working. In addition, the courtyard building contains the common technical facilities for the housing association.<sup>46</sup>

Post-war housing and architectural ideals are clearly displayed in Käärmetalo. The principles of functionalism; healthy living conditions, the lightness in the apartments as well as standardisation are all combined with organic forms of architecture and earthy materials. Despite small changes and renewed windows the buildings have retained essentially the same form as when they were built, but the condition has deteriorated. They require some thorough repairs.

# SAHANMÄKI RESIDENTIAL AREA

1951-56  
MAUNULA  
HILDING EKELUND

HILDING EKELUND'S main residential architecture from the 1950s is most probably the Sahanmäki area in Maunala, where he further developed the earlier planning principles from the Olympic Village. In Maunala, a Scandinavian idea with a diverse range of buildings was implemented. Despite the diversity of the building types the complex has a uniform appearance and is exceptionally coherent. Ekelund achieved this as he could design the entire area himself.<sup>47</sup> The complex consists of four single point blocks, three long blocks and twenty terraced houses. The long blocks and pointblocks are located on the top of the hill and the terraced houses are in three rows running parallel to the slope below them. Two of the long buildings are curved in shape and conform to the shape of the slope, the third is straight and gently stepped.

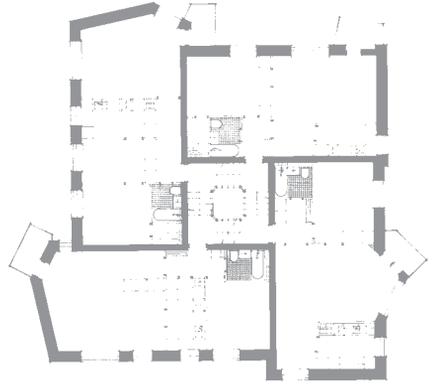


PHOTO: SRM



PHOTO: SRM



PHOTO: KH



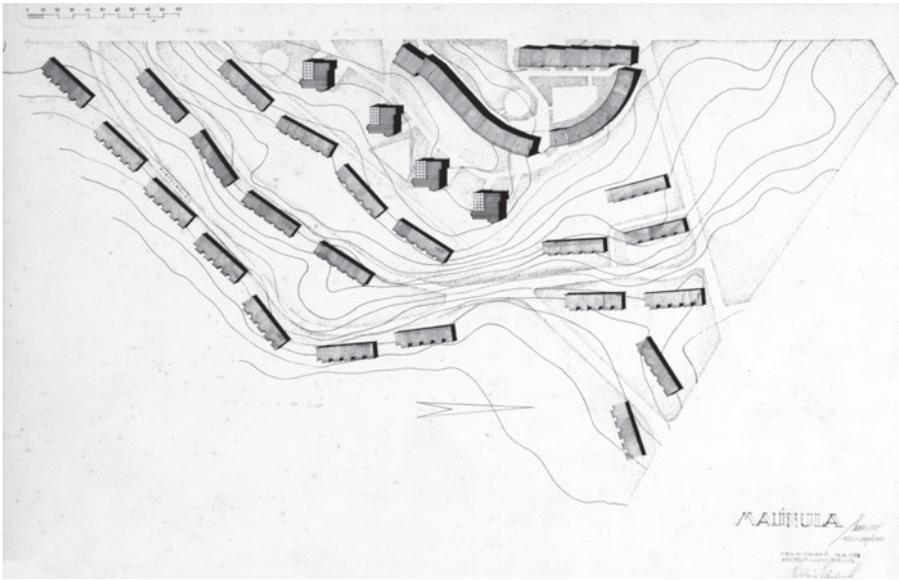


PHOTO: SRM

The asymmetric roofs of the single blocks catch the eye. The apartments are located around the central staircase so that each one has its own pedestal level at its entrance. All the apartments are different in layout. Each floor level has three two-room apartments and one three-room apartment. All of them have a balcony jutting from the frame of the building. The entrance to each block is highlighted with light bricks and the steps with slate. The houses originally had a shared roof terrace for the residents but this has subsequently been built over.<sup>48</sup>

The terraced houses border the street spaces and between them the view opens up and down the slope. The houses have floors on two levels matching the slope of the hill. There are two types of terraced houses and in each one there are five apartments. The homes are situated in various ways relative to each other and the surroundings, depending on which floor and on which side of the house the entrance is situated. Ekelund had already been interested in terraced houses, but he developed this style of house in particular during the 1950s. In that decade, the terraced house became a more common alternative in residential building.<sup>49</sup>



PHOTO: KH

Ekelund and landscape architect Elisabeth Koch designed the yards of the blocks of flats together. Unfortunately it has not been possible to determine who planned the gardens of the terraced houses.<sup>50</sup> The Sahanmäki residential area in Maunula is seen a high-quality residential environment even though it is modest by nature and rather minimalist. The complex is rather loosely constructed, but in many parts the different types of buildings in their varied rhythms create a small scale urban space. The spirit of post-war architecture can be seen in the area, which is based on functionalism with "*the emphasis on human values in architecture.*"<sup>51</sup> The use of materials is abundant, typical of the times, but which however submits to an overall expression of calm and peace.<sup>52</sup>

# KISAKYLÄ (OLYMPIC GAMES VILLAGE 1952)

1950–52

PAULI SALOMAA

BECAUSE THE EARLIER games were cancelled, the original Olympic Village was not used at all for its intended function, but had already been taken into use for housing. For the games of the summer of 1952 Kisakylä was constructed near it, where around 7,500 male athletes were mainly housed. Kisakylä was the largest construction project handled by the Olympic Construction Office. The complex included fourteen residential buildings, which had a total of 565 residential units. Indicative of the Olympics the houses were given names such as “Lähtökuoppa” (“Starting Pit”), “Maali-viiva” (“Goal line”) and “Voittaja” (“Winner”).<sup>53</sup> The sizes of the apartments ranged from approximately twenty to about a hundred square metres. In addition to the residential houses an office building for the games and a heating plant with commercial premises were built.

The whole complex consists of three separate groups. The largest group is located immediately south of the Olympic Village on the other side of Koskelantie. Two buildings are located westward along Koskelantie and two on Sofianlehdonkatu. The buildings located to the south of the Olympic Village form an asymmetric L-shape and the Sofianlehdonkatu buildings are in a U-shape, so that they form a semi-closed courtyard area. Further west along Koskelantie, the houses are straight and slightly stepped. The architecture, though slightly varied in different areas, is very similar to the Olympic Village.

Due to scarce resources, economy and efficiency was emphasised in every way in building Kisakylä. With this view in mind the buildings were designed in such a way that they could immediately be taken into residential use after the games with no changes needed.<sup>54</sup> Originally construction was intended to be carried out uniformly and simultaneously in the area using a single construction company. To avoid risks, however, ultimately the work was divided between various construction companies. Thus the standardisation made in the planning stage was not fully utilised and

construction took place mainly using traditional methods.<sup>55</sup> Standardisation, however, was used in kitchens and bathrooms, which were based on a few types of solutions.<sup>56</sup> It was significant that in the Kisakylä prefabricated stairwells were used. Approximately three hundred prefabricated stairwells were made for the area, which were the first in our country. The stairwells were manufactured on site, not yet in factories. The industrial manufacture of stairwells did not begin until 1954.<sup>57</sup>



PHOTOS: TR



# PIHLAJAMÄKI RESIDENTIAL AREA

1959–64, 1968<sup>58</sup>

OLLI KIVINEN, LAURI SILVENNOINEN,  
ESKO KORHONEN

PREFABRICATED BUILDING had already been discussed in Finland in the 1950s, but Pihlajamäki was the first site where fully prefabricated techniques were applied to the construction of apartment buildings. The builders of the area, Helsingin Asunto-keskuskunta Haka and Helsingin Sato Oy, were pioneers in the Helsinki region at the time. The architect Lauri Silvennoinen played a significant role in ensuring that it would be possible, using prefabrication techniques, to create an architecturally high-quality residential area.<sup>59</sup> Silvennoinen was very interested in this new opportunity of the day and also became acquainted with international developments in the field.<sup>60</sup>

Olli Kivinen drew up a town plan for the area for ten thousand inhabitants. An international garden-city ideology can be seen in the town plan, which is adopted here in the wooded terrain of the surroundings. Pihlajamäki can well be described as a forest city.<sup>61</sup> The area stands out against the forest environment forming a sculptural landmark reflecting the utopian city ideals of Le Corbusier. There is plenty of empty space around the buildings, which was characteristic of 1960s urban planning.<sup>62</sup> Pihlajamäki was built in a richly varied natural landscape with lots of rocky outcrops visible. The architecture accentuates the terrain. The white buildings and rocky forest contrast with each other. The borderlines between the parks, garden, streets and forest are not clear. In the low-lying areas there are some low-level public buildings while up the hill, blocks of flats follow the curves of the terrain. The tower blocks are located on the tops of the hills. Residential streets surround the blocks from the outside. The shopping centre is located according to the urban planning principals of the time, in the middle of the apartment complex and traffic hub.<sup>63</sup>



PHOTO: HKM



PHOTO: SK



PHOTO: SK



PHOTO: KM



PHOTO: SK

The northern portion of the area was given to the building company Haka for construction. The building planner was the housing department of Kulutusosuuskuntien Keskusliito, and the work was led by Esko Korhonen. For the construction of the south-west part of the area the Sato corporation arranged an architectural competition and the winner Lauri Silvennoinen came to design the houses.<sup>64</sup> The competition required types of apartments that would allow industrial building methods to be used. It is this aspect of the Pihlajamäki project which is interesting regarding the development of prefabricated

construction techniques. In the first stage of construction the tower blocks were implemented using form-work techniques, while in the second phase longer blocks were made using entirely prefabricated techniques.<sup>65</sup>

The average floor area for apartments in the whole Pihlajamäki area is about sixty square meters. There are just a few types of houses. The buildings are clear featured. Most of the buildings in the Haka portion are long blocks of three stories. The large long masses form secluded yard areas in their midst. A special feature is a non-standard type of building, with two double-storey rows of terraced houses on top of each.<sup>66</sup> The long rows of flats in the area constructed by Sato form a wall. The inner part of this area contains tower blocks and long rows of flats.<sup>67</sup>

When completed, Pihlajamäki received a lot of positive attention, but soon the conversation turned more critical, moving towards the rising ideals of a more densely built urban environment. In the 1970s, construction of a shopping centre and some new architecturally modest residential buildings on the north side made the area more dense.



## SCHOOLS

HELSINKI MODERNISM includes many different types of school buildings. In the architecture of the Metsätalo university building there can be seen features of classicism in addition to the mainstream functionalism of the period, as the location in Kaisaniemi between the Empire style centre and the later urban fabric set special requirements for the designer.



PHOTO: HKM

The Santahamina Cadet College might not have been carried out if the Olympic host role that Finland received in 1940 had not spurred on the project. The college represents high quality and advanced architecture, which the Construction Bureau of the Ministry of Defence developed in the 1930s.

The Helsinki School of Economics is an excellent example of Finnish architecture after the war, which is characterised by its warmth and decoration. These properties can be considered not only a reaction to the post-war situation, but also a diffusion from Sweden.<sup>68</sup>

In the 1950s once the effects of the war began to abate and the baby-boomers grew to school age numerous school buildings were built. The number of students at Helsinki University also grew rapidly along with the need for new facilities. The Porthania building was built, which is one of the most important university buildings from that period. The building has recently been renovated as has the Helsinki School of Economics. The renovations have managed to highlight the special values inherent to each of the buildings.

The Meilahti Primary School is one of the first examples of a new type of planning to be seen in school architecture. At the time one was freed to develop different variations, in which the architect's main objective was to optimise the conditions for the students. The Helsinki Workers' Institute Annex completed in the 1950s is a sleek, simple and clear lined building, which is so hidden by the main institute building on Helsinginkatu that for many people it has remained completely unnoticed. It can rightly be considered an outstanding piece of Finnish modernism.

# METSÄTALO BUILDING, HELSINKI UNIVERSITY

1938–39

UNIONINKATU 40

JUSSI PAAATELA

A NUMBER OF buildings forming a complex for the Faculty of Agriculture and Forestry were originally planned for the Kaisaniemi area. However, the project was interrupted due to the preparations for the Olympics because the money reserved for the faculty was needed for construction for the games. Then the war further moved the implementation of the plan. In the end, once the planning continued, it resulted in a single building containing the Faculty of Forestry and the Forest Science Research Institute.<sup>69</sup>

The surrounding mixed-age buildings set the starting point for the design of the building. The Metsätalo building displays strong aspects of functionalism, which manifest in the cube-like basic form of the structure, the asymmetry and the ribbon windows of the Fabiankatu and interior details. The closed block structure however refers to an older era and the building

has many features of classicism such as symmetry and the monumental aspects of the premises. The tall, narrow windows facing the courtyard and park refer to the strict regular order of classicism.<sup>70</sup>

The main entrance is located in the side of the building facing the square courtyard, where you enter under an airy pergola. The other entrance from Fabianinkatu lies opposite, on the same axis. Between them is a light walk-through entrance hall. The classrooms and research facilities are located in two wings on both sides of the central corridor, which ends at one end in a bright stairwell and lobby and at the other end in a sizeable window. In the central wing on the third floor there is a wide corridor, which opens out onto the courtyard and was also designed to be used for educational purposes. Following the functionalist theme there is additionally a flat roof terrace with seven greenhouses, designed for a variety of forest science experiments.<sup>71</sup>



PHOTO: HKM

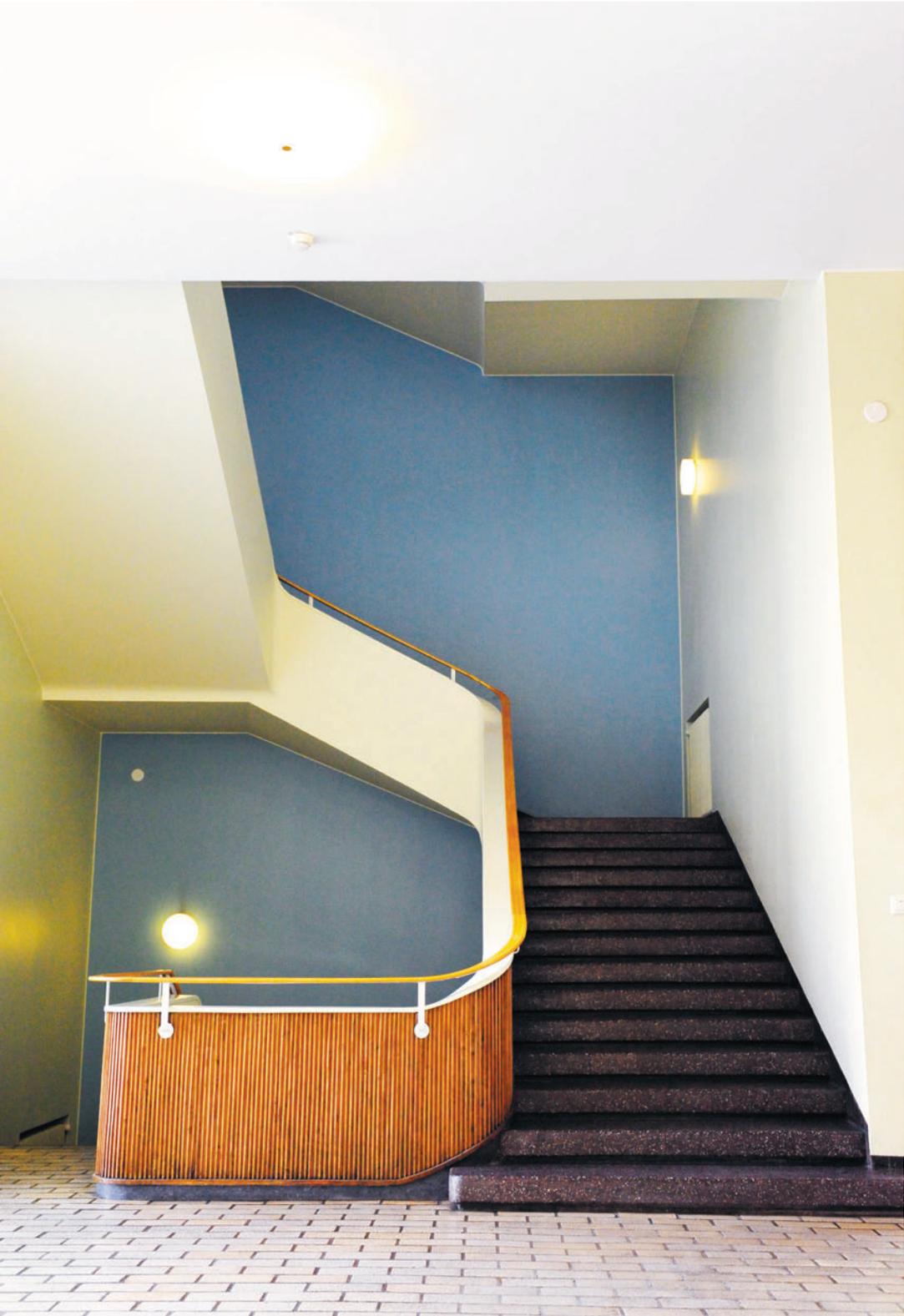


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PHOTOS: TR

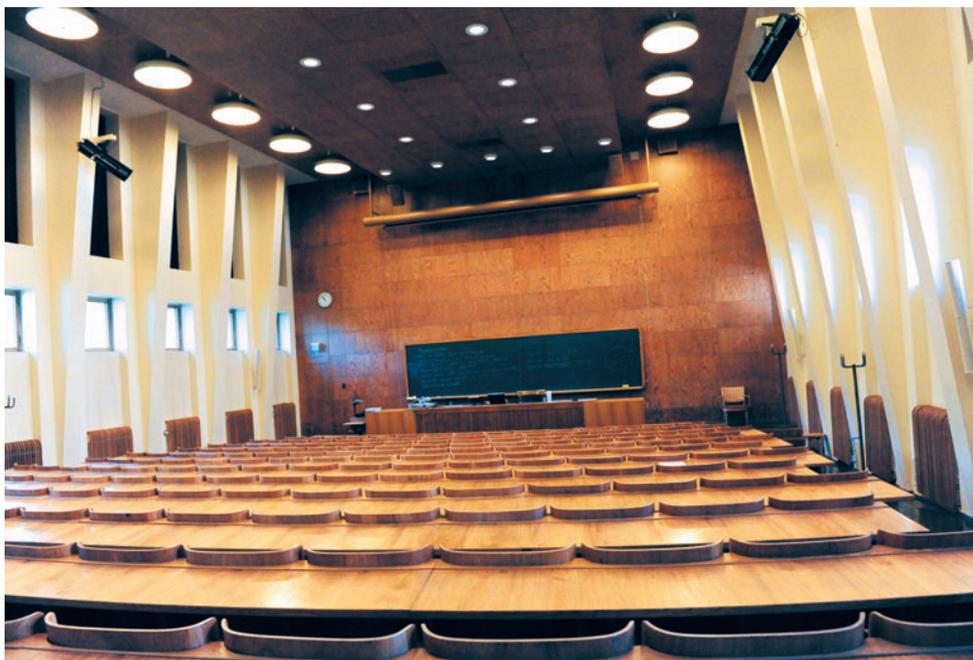


PHOTO: TR

The building interior<sup>72</sup> has been designed using a total of seven different species of trees, which is befitting for a school of forestry. The large lecture hall on the first floor is a magnificent example of this. The principle floor material consists of rubber matting. The main entrance hall floor is made of glazed ceramic tiles, which have a nice patina and the stairways are made of mosaic concrete.

The first stage of a two phase restoration plan for the Metsätalo building was carried out in the 2000s and the whole building was given over to be used by the Faculty of Arts.<sup>73</sup> At the start of the repairs the original state of the building was in many respects very well preserved. The best preserved were the central and northern wings used by the university.<sup>74</sup> The aim of the restoration project was to preserve as much of the old as possible. The courtyard, halls, corridors and some of the classrooms as well as the visual appearance of the building were to be restored to their original condition.

PHOTO: HKM

However, the first phase of the restoration had to enable the more efficient use of space which led to the new layout of the classrooms. In the second phase, the division of the rooms was mainly preserved.<sup>75</sup>

In several places the designers were forced to reflect on the separation of the new and the original. In the first phase the aim was to hide all new technology, while in the second phase some technical installations were placed on display in accordance with instructions from the National Board of Antiquities. The floor coating on the third floor corridor required partial renewal. The solution was to merge a new coating with the old one so as to maintain the sense of coherent space. That is why the mat changes from the old to the new in the middle of the corridor as unobtrusively as possible.<sup>76</sup>

# SANTAHAMINA CADET COLLEGE

1939–41

SANTAHAMINA  
OLAVI SORTTA

BEFORE THE SANTAHAMINA building complex was complete, the Finnish Military Academy operated in various buildings in Helsinki city centre and Munkkiniemi. However the school lacked proper sports facilities and funding was applied for their construction on several occasions, but to no avail. The turning point came in 1940 as Finland was to organise the Olympic Games. At that point the decision to go ahead with the construction was rapidly made. The new cadet school would also be able to provide accommodation for the Olympic athletes, because it was clear that the proposed Olympic Village would not have sufficient space for all of them. The selected location at Santahamina would also provide good training facilities for the athletes.<sup>77</sup>

The main designer in the Construction Bureau of the Ministry of Defence was Olavi Sortta.<sup>78</sup> Construction began in the spring of 1939 and the topping out ceremony was held in August of the same year, but the work was interrupted by the war. However, during the interim peace the construction could be continued and the school was completed in 1941.<sup>79</sup> There were a total of six buildings built in Santahamina: the school itself, the canteen, the course building, the barracks, the officers' dwelling and the stables.

The building of the swimming pool had to be particularly justified. Eventually arguments regarding the Olympic athletes' needs as well as the importance of the good physical condition of the officers and the fact that in many other countries swimming pools were built in similar institutions, won the day. The Cadet College swimming pool was built and at that time it was only the second public indoor swimming pool in Finland.<sup>80</sup> The pool was built as a separate wing connected to the school building and can be accessed through the main entrance lobby. It is an unusually beautiful space with its clear basic form, glossy painted round columns and light glass walls. A special feature of the swimming



PHOTO: KH



PHOTO: SA-ARKISTO

pool is the adjacent semi-circular sauna that resembles an amphitheatre.<sup>61</sup>

The centrally located canteen building, also housing a banquet hall, is an impressive architectural ensemble. Of all the buildings in the area it has the most finished architecture both internally and externally. The canteen and the banquet hall reside on the second floor, on either side of the central hall. The façade has stylized helmet-themed reliefs. Similarly, there are many indoor decorative motifs, involving themes such as military figures. The columns are painted in silver and gold, emphasising the dignity of the premises.<sup>62</sup>

The Cadet College was the last building to be designed by the Construction Bureau of the Ministry of Defence. After the war, military buildings were mostly designed by private architects and the Ministry retained a supervisory role.<sup>63</sup>

The intended 1940 Olympic Games were never held, but when the 1952 games were organized, the cadet school provided accommodation and training facilities for the Finnish Olympic team. Since then, the College has and continues to serve as the National Defence Academy.



SANTAHAMINA CADET COLLEGE



PHOTO: KH

# HELSINKI SCHOOL OF ECONOMICS

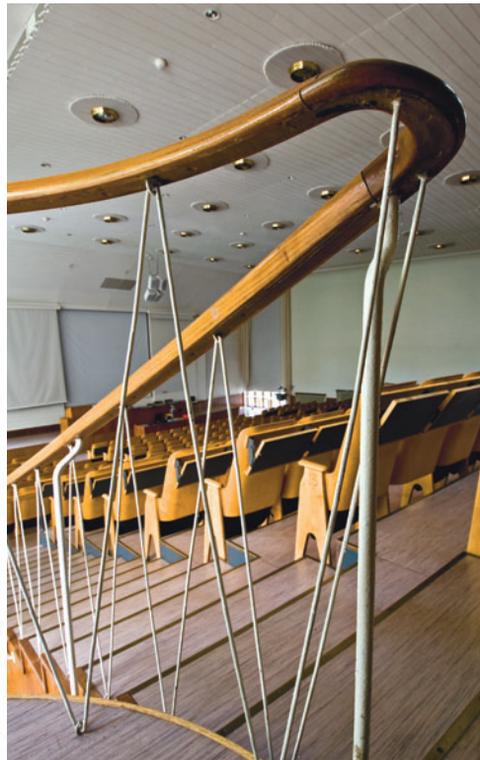
1941–50, RUNEBERGINKATU 14  
HUGO HARMIA, WOLDEMAR BAECKMAN

THE PLANNING AND construction process for the Helsinki School of Economics took nearly ten years. Preparations were begun during the interim peace years between wars and an architectural contest was held for the school's design. The contest finished in the summer of 1941. The planning was immediately continued based on the winning proposal from Hugo Harmia and Woldemar Baeckmann, but construction was delayed because of the war and could only begin in the summer of 1948. Despite the post-war shortages in building materials and recurring strikes, the work progressed rapidly and the school was completed in the spring of 1950.<sup>84</sup>

The irregular shape of the city block dictated to a large extent the basic structure of the building and the placement of the different premises within it. Similarly, the school's operational and educational requirements were important starting points for the planning. No actual classrooms were positioned above the fourth floor as the lift was originally intended only for the teachers. The classrooms were situated optimally for sunlight and rooms requiring silence were positioned so that they were sheltered from the noise of the streets. The building is clearly divided into different functional sections. In addition to the entrance hall, the central wing houses a large lecture hall, dining room and a banquet hall.

The banquet hall was designed as a multi-purpose space as it was also meant to be used as a venue for concerts, meetings and balls. For this reason it has an even floor and the seats are movable. The shape and materials of the hall were chosen in regard to their acoustic properties, and some adjustments could be made with the turning plates positioned in the side walls.<sup>85</sup>

The use of natural materials such as brick and lacquered wood are characteristic to the building. Subtle decorative elements can be found in several places such as the floor of the main lobby and on the ceilings, doors and railings. The solid interior was mainly designed by architect Sakari Nironen.



PHOTOS: KH



PHOTO: SRM



PHOTO: KH



Olli Borg and Ilmari Tapiovaara designed the furniture for the most important spaces. Otherwise the furniture was standard-made. All the lamps were designed by Paavo Tynell.<sup>86</sup>

In post-war Finland, public buildings were sometimes decorated in a colourful manner. Works of art that are permanently attached to the building are an integral part of the architecture.<sup>87</sup> A ceramic relief by Michael Schilkin highlights the entrance of the School of Economics. The relief was made at the Arabia ceramics factory.<sup>88</sup> Schilkin also designed the fountain in front of the building which relates to the sculpture “Liikevoitto” (“Profit”) by Aimo Tukiainen.



PHOTOS: TR

Later, the building underwent some minor changes, such as the raising of the southern wing in 1955 and the building of a ventilation engine room extension in the 1980s.<sup>89</sup> In the late 1990s the building was restored<sup>90</sup> and the most important parts of it were preserved in a manner fairly close to the original state. The changes that were made in the main rooms of the building, such as in the lobbies, lecture halls and the banquet hall with its impressive wooden interior were limited to the very minimum. Other facilities and their fittings were restored so that they would be closer to the original. Most of the artwork, fixed furniture and other equipment had largely been preserved and the new furniture was designed to match them.<sup>91</sup> The look and spirit of the 1940s has been preserved very well in the restoration.



PHOTO: TR

## MEILAHTI PRIMARY SCHOOL<sup>92</sup>

1949–53

JALAVATIE 6

VILJO REVELL, OSMO SIPARI

THE MEILAHTI PRIMARY School became an important symbol for a modern and non-schematic type of school architecture.<sup>93</sup> The jury of an architectural competition held in 1949 thought that many of the proposals diverged successfully from the conventional school designs.



PHOTOS: HKM



PHOTOS: TR

The winner was the proposal named “Piha” (“Courtyard”), by Viljo Revell<sup>94</sup> and Osmo Sipari. When the pictures of the winning proposal were published, they raised some critical comments. The solution was thought of as strange and it was suspected that the oddly shaped school building would become rather expensive for the city. However, the tone of the criticism changed entirely when the school was completed.<sup>95</sup>

The Meilahti School was among the top-priorities in the City of Helsinki’s school construction plans, because the area had a severe shortage of school facilities. The timetable for implementation was accelerated by the goal of building as many schools as possible before the Olympic Games of 1952, as they could then be used to provide accommodation for the athletes and guests.<sup>96</sup>

Built of red bricks the freely curving two-storey building forms a sheltered courtyard facing the south. The southern side has a ribbon window while the rear façade is more closed. The layout within the school building is very clear. All regular classrooms are located on the south side and special classes on the opposite side. The sports hall, also used as a banquet hall, and the dining room are located centrally in the immediate vicinity of the entrance. A curved passageway is either the central or side corridor depending on the part of the building.

The shape of the ceiling was a subject of much debate during the various design phases. The competition jury deigned that the flat roof with skylights proposed for some parts of the building should be replaced with a solution better suited for the Finnish climate. The jury also deemed the saw-tooth shape roof proposed for another part of the building as unnecessary. Eventually, Revell and Sipari were forced to change all the roofs to either a pitched or saddle roof. In the implementation the decking material was also changed from copper to galvanised iron plating. Revell was very precise about the tone of the brickwork required for the façade. The first bricks that were supplied to the construction site he rejected as too dark. Similarly, he was very demanding of the quality and surface structure of the concrete sections and wanted the board-like shape of the moulding to remain visible.<sup>97</sup>



The fixed interior was designed by Olli Borg who worked as an interior designer in Revell's office. Revell also tried to get the commission for designing the movable interior fittings, as he did not think that the ready-made collections were suitable. However, the city did not agree to this. In the second-floor lobby there is a fresco "Vauhtia ja odotusta" ("Speed and

waiting") by Onni Oja, depicting human figures.<sup>98</sup>

The school building has been preserved to this day without any significant changes, but its condition has deteriorated in many respects. In 2011, preparation for its first large-scale renovation was begun.



PHOTOS: TR



PHOTO: SRM

## PORTHANIA BUILDING, HELSINKI UNIVERSITY <sup>99</sup>

1950–57  
 YLIOPISTOKATU 3  
 AARNE ERVI

PORTHANIA HAS been executed on the basis on Arne Ervi's proposal for the public architectural competition and its follow-up competition in 1949, which he won unanimously.<sup>100</sup>

The Porthania building blends harmoniously with its environment. The architecture of the façade is neutral, so the building does not conflict with the nearby Empire-style neighbourhood, but rather adapts to its appearance. The outside of the building reflects its internal rhythm. The front yard is an important part of the building complex, not only functionally but also in terms of the cityscape.<sup>101</sup>

Throughout his career Arne Ervi was enthusiastic about developing new technical solutions in construction. In particular, his contribution towards introducing prefabricated industrial materials was significant.<sup>102</sup>

The Porthania building is a pioneer in technology using prefabricated building elements and upon completion it was presented in numerous trade publications.<sup>103</sup> Indeed, construction in-situ would have presented difficulties in the cramped city centre. The prefabricated units also made it possible to accelerate the construction schedule. In addition, according to Ervi it was a great way to achieve graceful,

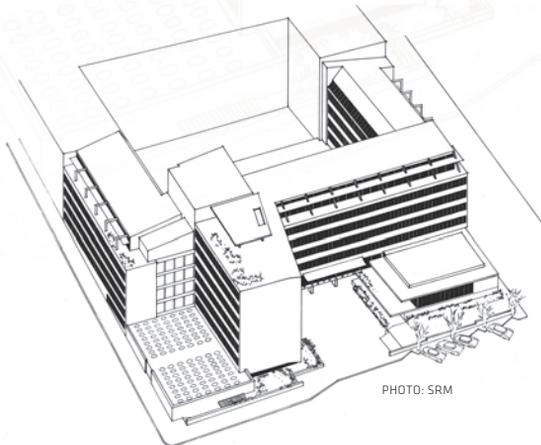
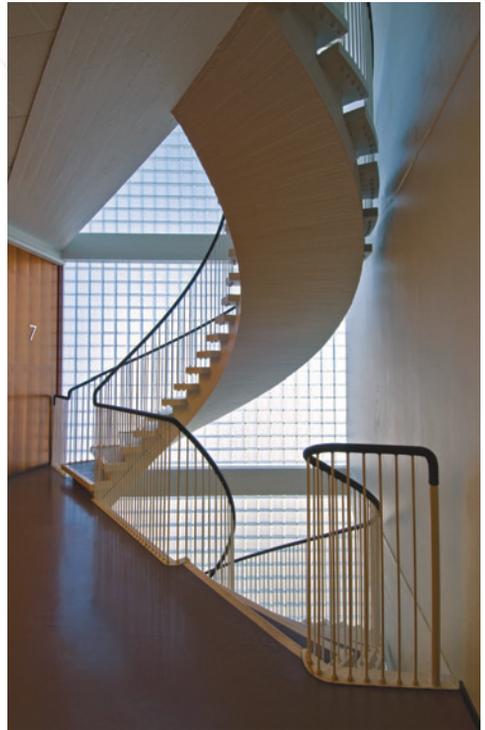


PHOTO: SRM

lightweight structures and this way to fulfil the intended spaciousness and lightness of the building.<sup>104</sup>

The rapid developments in university life and its changing requirements were taken into account in the design of the building. The possible need for rearranging the facilities was thought of from the very beginning, which is why the structure was designed to be flexible. All partition walls are lightweight and portable and the number of columns has been minimized. The upper portion of the walls has been made out of glass where possible, which gives the space a sense of continuity and provides some natural light in the central corridor. The interior design also plays an important role. Ervi's architectural sensitivity occurs specially in the careful details and thoroughly considered choice of materials.<sup>105</sup>

The building was restored<sup>106</sup> at the beginning of the 2000s and it is one of the most successful restoration works of modern architecture in Finland. Renewing the tiled sandwich panels of the exterior walls would have required dismantling the entire façade, so instead only the damaged areas were treated and the exterior surface was cleaned. Bringing the technical systems of the building up to modern standards was no easy task. However, it was possible to situate the ventilation engine room inside the building's framework and with skilful placement of the ducts most of the original architectural appearance could be preserved.<sup>107</sup> None of the interior patina was hidden and as much as possible of the original interior design was saved. In some places the designers were forced to make choices between preservation and renewal. The stairwell's glass brick wall was largely broken and blackened in such a way that no light showed through any longer. Therefore, the original idea of the wall was lost. For this reason it was completely replaced and once again it lets the light inside. However, it was felt that a fairly worn cork wall in the corridor should be preserved, although its size had to be reduced due to some disintegrating cork plates. All in all, the work was guided by an effort to subtly achieve a balance between the new and the old.<sup>108</sup>



PHOTOS: KH

# HELSINKI WORKERS' INSTITUTE ANNEX

1955-59  
HELSINGINKATU 26  
AULIS BLOMSTEDT

THE HELSINKI WORKERS' Institute includes the classical main building<sup>109</sup> on Helsinginkatu and behind it the extension bordering Alppikatu. The original building plan already included the extension of the building. The first plans were drawn up in the early 1930s. The excavation of the site began, but work was suspended due to the preparation for the 1940 Olympic Games. Then, the war stopped the implementation of the project. It was not until the 1950s that the planning could be continued. The first drafts were drawn up in the city's construction office, but it was soon concluded that the work should be outsourced because the resources were insufficient. Aulis Blomstedt was chosen for the job.<sup>110</sup>

The old and the new parts of the building are placed parallel on the site, the rear of which ends in a rock wall. The extension consists of the banquet hall with its stage and foyer, a student canteen, two large lecture halls, and a dozen classrooms. In addition, three apartments were built into the building.<sup>111</sup>



During his career Aulis Blomstedt became deeply versed in the theory of architecture and contemplated on the basic concepts, such as form and harmony. Blomstedt developed the Canon 60 theory of harmony, which is implemented extensively in the extension.<sup>112</sup> In the extension's finished realisation there are clear references to the ideals of the De Stijl group. In their ideology this Dutch group emphasizes order, clarity and simplicity. Also the group's colour scheme, although slightly tinted, is repeated in the different types of planes of the building.<sup>113</sup> The influence of Blomstedt's role model, Le Corbusier, is also evident. The five basic principles that he developed appear in the building with the exception of the roof garden. The western wing, which holds classrooms, has been raised onto columns and the column-beam system enables the orthodox ribbon window façade.<sup>114</sup>

There is a long dark blue-grey closing wall in all of the four floor's lobbies. All the other walls and the stairway of each floor have their own colour; on the first and second floor it is green, on the third it is red and the fourth has yellow surfaces. The interior also has a lot of lacquered wooden surfaces that softens the colour

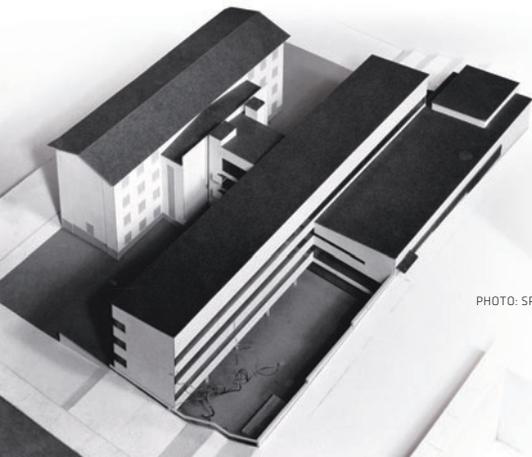
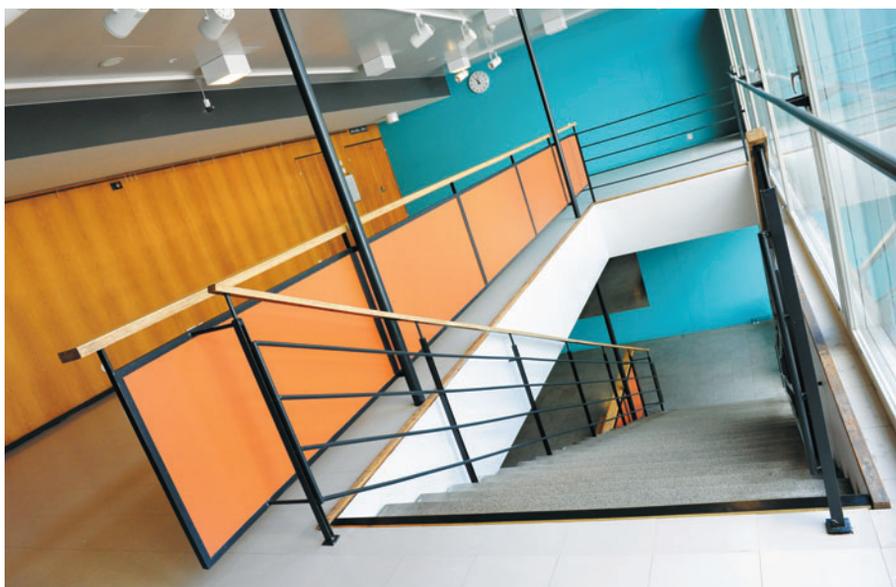


PHOTO: SRM



PHOTOS: TR

scheme. The interior is sparse and undecorated, except for the curtain of the banquet hall. Blomstedt designed the curtain himself with its geometric patterns based on rectangular shapes and small circles. De Stijl colours are also repeated here. Another feature that deviates from the simplicity of the rest of the building, but is still an essential part of it,

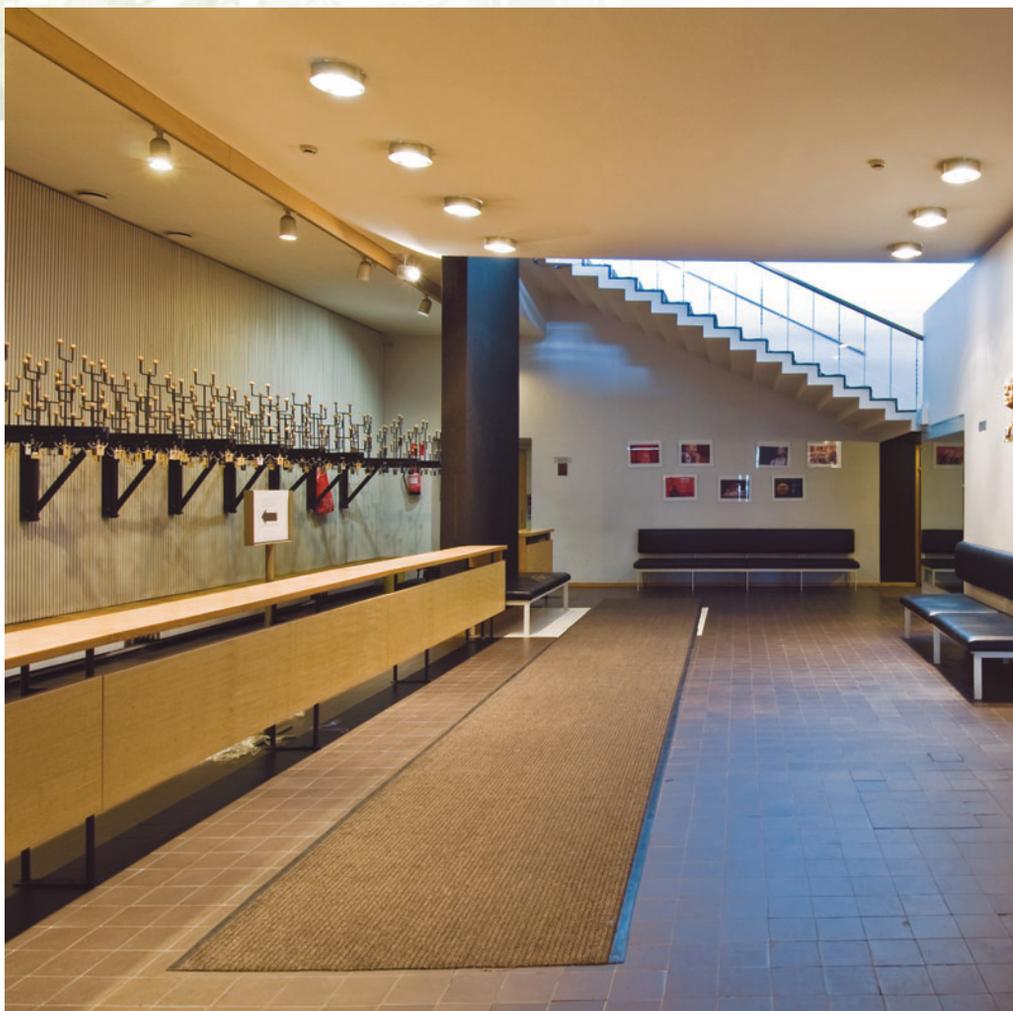
is an abstract painting titled "Contrapunctus" by Sam Vanni. It is positioned in the lobby of the second floor, where Blomstedt designed a place for it. With its exceptional combination of materials, colours, furniture, lamps and paintings, the building forms a complete work of art.<sup>115</sup>

# CULTURAL BUILDINGS

DESPITE ITS minor size the Small Stage of the Finnish National Theatre designed by Kaija and Heikki Siren is one of the most outstanding pieces of modern Finnish architecture. Immediately after its completion it received extensive international attention. The building

was strikingly modern for its time, rational and simplified to the last detail. Kulttuuritalo (the House of Culture), designed by Alvar Aalto around the same time and one of the main works of his so called red brick period, is rather different in character, being warm and expressive.

The Helsinki City Theatre designed by Timo Penttilä is in his own view perhaps one of his most important works. The reception by his



colleagues however upon its completion was not entirely glowing, as by the end of 1960s there existed two distinct schools of thought and there was an atmosphere of heated debate between them.<sup>116</sup> Finlandia Hall was completed in its final design in the 1970s,

only a little before the death of Alvar Aalto. It is perhaps the most-known public building in Helsinki and in its architecture Alvar Aalto created a synthesis of the many themes he had developed in his earlier projects.<sup>117</sup>

## THE SMALL STAGE OF THE NATIONAL THEATRE<sup>118</sup>

1951–54  
LÄNTINEN TEATTERIKUJA 1  
HEIKKI SIREN, KAIJA SIREN

A NEW TYPE of studio theatre in connection with the construction of the National Theatre had already been considered in the 1940s, but funding could not be arranged at the time.<sup>119</sup> Neither did it succeed in the following decade, in the post war years when public funds were needed for many other purposes. So the theatre extension was largely carried out through open fund raising and voluntary work.<sup>120</sup>

Construction work of the Small Stage was completed in 1953 and it was inaugurated the following year. It was the first theatre built in Finland after the war.<sup>121</sup> At the same time its completion marked a historical shift in Finnish theatre, as the National Theatre became the first theatre to have two separate stages. The theatre also represented new and open minded forms of expression.<sup>122</sup>

A key starting point in the planning was its location on the edge of Kaisaniemi Park. The artificial pond in the park was an integral component of the composition.<sup>123</sup> The cube-like figure of the theatre building forms the end of the park and when viewed from that direction it hides the old theatre that lies behind it, leaving only the stage tower visible.



PHOTO: KH



PHOTO: KH



PHOTO: HKM



PHOTO: KH

The main material for the façade are dark brown ceramic tiles. The seams between the tiles are also dark brown in colour. There are white glass plates in the spaces between the windows and door openings.<sup>124</sup> For the arcade pillars Heikki and Kaija Siren initially planned a white glass covering but during the construction phase the material changed to steel. The window frames are made of ash, as are the exterior doors. In the north façade are three doors to the theatre premises and one which originally led to the restaurant.<sup>125</sup> The steel framed canopy with its delicate draw-bars above the entrance is the only refined detail jutting from the otherwise unassuming façade of the building.

The entrance hall, main staircase and the upper foyer form a series of spaces that gradually lead the audience to the auditorium. The focal point of the spatial composition is the upper foyer with the windows opening broadly to the park.<sup>126</sup> Originally, the building was designed to include facilities for the theatre school. They were located on two floors above the foyer. A hundred-seat restaurant with a small dance floor, named Teatterigilli, was located directly next to the entrance lobby a few steps below street level.<sup>127</sup> The restaurant facilities were taken over for use by the theatre in 1976 and the small Willensauna-stage was located there. The change had little visible effect on the façade. The restaurant's elegant name plate was removed and the inside of the windows were covered with black sheeting.<sup>128</sup>



PHOTO: KH

## **KULTTUURITALO (HOUSE OF CULTURE)**

1952–58, STURENKATU 4, ALVAR AALTO

KULTTUURITALO WAS designed for a combination of three types of activity, which can be seen in the external shape of the building. The three parts of the complex are grouped in a U-shape facing Sturenkatu.

The dominant section containing the concert hall, auditorium and restaurant is free-form in design. In contrast the cube-shaped office part appears systematic and regular. These two parts are joined by a lower wing, in which are located the entrance hall and lecture rooms. A long canopy structure runs parallel to the street and forms a small intimate way to the entrance, where there is a sculpture by Wäinö Aaltonen titled, "Suomalaisen työmiehen käsi" ("The Finnish Laborer's Hand"). The sculpture symbolizes the building of Kulttuuritalo. This is because the building was largely built by members of the Finnish Communist Party working as unpaid volunteers.<sup>129</sup>

The different nature of the separate parts of the building is also reflected in the materials of the façade. The façade of the office part is made from copper, while the concert hall is made of red-brick. The hall's irregular shape required specially shaped bricks. Aalto developed a wedge-shaped brick for this purpose, which was adaptable to all of the required surfaces, and which enabled the architecturally impressive façade.<sup>130</sup> Kulttuuritalo is a masterpiece from Alvar Aalto's red-brick period from the 1940s to the 1960s.



PHOTO: AAS



PHOTO: AAS

The properties required for high-quality cultural events and musical performances dictated the form of the concert hall. The surface claddings of the hall include a lot of timber for its advantageous acoustic properties.<sup>131</sup>



PHOTO: VP



PHOTO: HKM



PHOTO: KH

In its history Kulttuuritalo has served as a popular concert venue as well as a place for a wide sphere of activity including different kinds of communities, societies and clubs. For example the Radio Symphony Orchestra was based there for decades before moving to the Helsinki Music Centre (Musiikkitalo), when it was completed in 2011. The Theatre Academy was also located in Kulttuuritalo for a few years in the 1990s. After that the National Board of Antiquities department for historical buildings moved there. In the near future the NBA will move entirely to Kulttuuritalo and to the adjoining building, the former Helsinki College of Home Economics.<sup>132</sup> In this context, the two buildings will be renovated thoroughly.<sup>133</sup> The large hall will still be used as a venue for concerts and events.





## HELSINKI CITY THEATRE

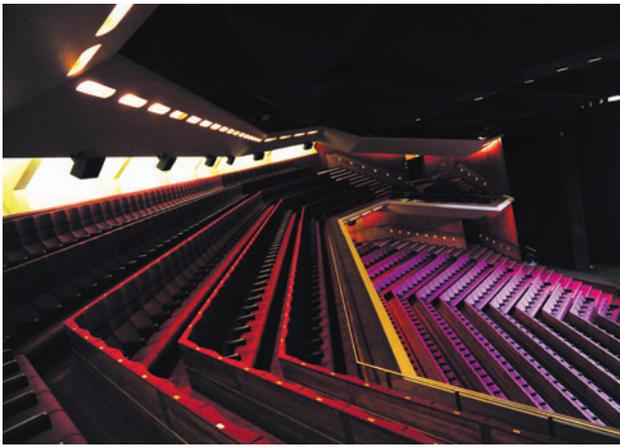
1959–67

ELÄINTARHANTIE 5

TIMO PENTTILÄ

THE PROPOSAL SUBMITTED by architect Timo Penttilä won the architectural design competition organised in 1959 for the Helsinki City Theatre.<sup>134</sup> The building was not completed until the fall of 1967, almost ten years after publication of the competition. In 1987, a separate extension was built for the north side designed by the same architect within which the small theatre, Studio Elsa, operates. To a large extent, it has a similar approach to the official theatre building.

The location of the theatre on a large plot at the Eläintarhanlahti shore had not been well defined in the competition program.<sup>135</sup> Penttilä's plan was based on the specific nature of the landscape. The horizontal lines conform to the landscape and the building blends into the surroundings with its granite wall. The stage tower is prominently featured. The theatre building is located in the back part of its plot partially embedded in a steep rock slope. The stages and storage facilities are located against the rock. The public areas are grouped together on the south side of the building into a long band so that both the entrance hall and the lobby of the large stage allow the widest possible visibility through large window to the park and the aquatic landscape. In turn, the intimacy of the small stage is emphasised, so that its lobby is located in the interior of the building without any exterior view.<sup>136</sup> Also, the staff would have liked sweeping views to the park from their facilities, but for the uniform appearance of the building, the architect placed only upper windows for them and a few glass bay windows for the common facilities of the staff.<sup>137</sup>



The facades are clad in light ceramic tiles, which Penttilä designed in various shapes in different parts of the building.<sup>138</sup> The interior materials range according to the function of the spaces. The entrance lobby floor is made of Carrara marble; teak and plastered surfaces are on walls of the public spaces; and the walls of the auditorium are fabric-covered in parts.<sup>139</sup> Brass is widely used. It is used in

window frames, banisters and handrails, as well as in the lighting. The same range of materials was continued in the original furniture of the lobby, in the square white marble tables and in the chairs made from brass and black leather, which were designed and made especially for this building. The lobby furniture was replaced in the autumn of 2007. The theatre organised a design competition for art design university students and the new furniture was done in accordance with the design proposed by the winner. The theatre based its change on feedback from the audience about the discomfort of the furnishings.<sup>140</sup> Thus, the sense of a comprehensive work of art of the lobby premises was lost.

For the stage, the closest possible interaction was desired between the audience and the theatrical presentation. Therefore, the stands are a gently curved and wide shaped. Thus, the number of seat rows and their distance to the stage is small. In turn, the greatest possible versatility is emphasised in the space planning of the small stage.<sup>141</sup>

Extensive renovation is expected during the next few years for the theatre, which until now has been preserved in large measure in its original appearance.<sup>142</sup>



PHOTOS: TR





PHOTO: AAS

## FINLANDIA HALL

1962–75  
 MANNERHEIMINTIE 13  
 ALVAR AALTO

FINLANDIA HALL was part of Alvar Aalto's city centre plan, a task that he received from the City of Helsinki in 1959. The plan consisted of a large fan-shaped terrace square, a series of cultural buildings as well as an extensive park starting from the Mannerheim statue. As a result of several disagreements, the city centre plan was never carried out.<sup>143</sup> Alvar Aalto's goal will be implemented in small measure when the Töölönlahti beach area is built into a high-quality public urban space in the future.

Finlandia Hall was inaugurated in December 1971. The Congress Wing design began during the construction of the main building and was completed in 1975. The main building and the Congress wing form a functional whole. A large concert hall, as well as a separate chamber music hall form the main part. The Congress Wing contains a number of meeting rooms of various sizes.



PHOTO: HKM

The main entrance leads to a spacious hallway, from which a broad staircase ascends to the lobby, restaurant and halls. The main lobby, along with its staircase and balcony walls, is one of the most impressive interior spaces designed by Aalto. The heart of the building is naturally the performance hall space with its sculptured balconies and acoustical cladding. It provides a festive setting for concerts and meetings. The furniture, lamps, floor and wall surfaces, stair railings, and all the details are part of a comprehensive work of art.

Finlandia Hall is unquestionably one of Helsinki's most significant architectural and urban visual gems, but it has not proven unproblematic in all its features.

Soon after the completion of the building, the marble slabs of the facades began to crack and buckle. Heated debate arose concerning the principles of the facade repair. One party to the discussion was in favour of a more durable type of stone. The defenders of architectural values and the city's visual appearance were in favour of retaining the original material, which was eventually adopted.<sup>144</sup> The solution has unfortunately not proven to be durable as the tiles have later buckled.



PHOTO: VP

Also, criticism began to arise about the acoustics of the concert hall very soon after launch. The bottom shape of the hall and the quite unusual structure of the false ceiling structure proved to be a problem as relates to the reverberation time of sound. Through roof structure repairs and a few other smaller measures, however, a satisfactory outcome was reached.<sup>145</sup>

Now, classical music concerts have mostly moved to the nearby Music Centre (Musiikkitalo) completed in 2011. On the other hand, light music concerts and fairs, conferences and exhibitions are held at Finlandia Hall. Due to this change, the construction of new exhibition and meeting facilities were viewed as necessary. The recently completed extension<sup>146</sup> is located on the Töölönlahti side in the space that had originally been reserved for parking and the loading bays. The extension, along with its public facilities and cafe, is also justified because Finlandia Hall will have a new standing when the beach area changes are completed. The extension is made respecting the characteristics of the building and maintaining the original idea of the interaction between the white marble volumes and the interior retracted glass wall areas. The original facades farther back and the details have been preserved. The new structures have been made as unassuming as possible.<sup>147</sup>



PHOTO: AAS

# BUSINESS AND OFFICE BUILDINGS

THE POHJA LIFE Insurance Company building designed by Oiva Kallio in Kaisaniemi is thought to be the first functionalist building in Helsinki.<sup>148</sup> Largely that is how it appears, because the ribbon window motif, the first floor with large shop display windows and the roof terrace are repeated in a manner reminiscent of international modernism in the architecture of the building.<sup>149</sup> Lasipalatsi is one of the first buildings representing functionalism in Helsinki. The trend had already achieved some status in Finnish architecture by the time of completion in the mid '30s, but Lasipalatsi is among the first implementations of a particularly clean-cut and expressive appearance.<sup>150</sup>

The first architectural competition was held in 1948 for the design of the National Pensions Institute Building, but for number of reasons the project failed, and the design got an all new starting point a few years later. A triangle-shaped plot was selected for the building location in Töölö, which was formerly reserved for the Opera House.<sup>151</sup>

The Bensow House is located in a central and visible location. The deep and narrow plot was the starting point for the architecture and for a series of courtyard spaces. The magnificent staircases, whose existence many people passing by are completely unaware of, are the highlights of the building.

When Eteläranta's Teollisuuskeskus Building was completed in 1952, it became the most important example of Finnish architecture's return to modernist lines in the post-war decades. It is a significant key work of the rationalist architectural trend in Finland.



PHOTO: HKM

The natural connection between the Rautatalo building to its environment was an important starting point for Alvar Aalto. But equally important was the interior, which along with its piazza is like a slice of Italy in Helsinki.



## POHJA LIFE INSURANCE COMPANY BUILDING

1928–30  
KAISANIEMENKATU 6  
OIVA KALLIO

WHEN COMPLETED in late summer of 1930, the Pohja building attracted quite a bit of attention. The streamlined building representing the new functionalist trend sharply differed from its surroundings. The reviews included statements both admiring and condemning the modern design language, but some even criticised the building as being architecturally obsolescent.<sup>152</sup>

A few years earlier, the judging of the architectural competition did not happen by consensus, but functionalism sharply divided the opinions of the jury.<sup>153</sup>

The Pohja Building has many features completely in line the doctrines of functionalism. It has a pillar frame, ribbon window motif and roof terrace. The building, however, is not entirely orthodox. The idea of a free layout of the facade is not realized because the pillar frame reaches up to the facade,

and the seemingly continuous window strip is in fact cut by each pillar. The discontinuity is covered with black glass. The architecture also includes classical themes. They include the decorative motifs of the street level floor pillars, the decorative moulding above the high showcases, the wide eaves, and the decorative portion of the facade by the side stairwell.<sup>154</sup>

The main staircase is an impressive space. Each floor level has circular hallway linked to the stairwell. The second storey passageway originally had impressive vitrines. In the centre of the building frame, there is an atrium at its broad end into which the upper level floor office spaces open. Beneath the atrium is the entire heart of the building, the Pohja Company's former customer service hall on the 3rd floor,

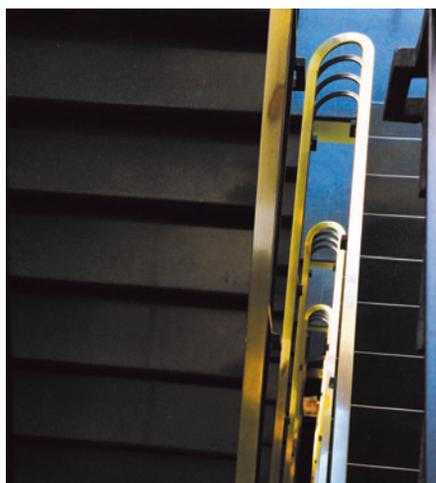


PHOTO: TR



PHOTOS: SRM

which is surrounded by a circular gallery. The nine-metre high space in the middle of the office floors has a glass roof.<sup>155</sup> The completed office space of the building was described as follows: *“The office hall extends through the two floors in a quite extraordinary circle. It’s like a small theatre, where the gentlemen of the office sit in the first loft and the office ladies are in the floor boxes... Light comes through the roof from a large glass circle. The furnishing is modern to the smallest detail.”*<sup>156</sup> As with the other spaces in the building, the customer service facility is also currently leased to a private company. The space is preserved intact. The colour is now completely white, but could be returned to its original condition at any time.



PHOTOS: TR

The Pohja Building’s interior design solutions, tubular steel furniture, plywood doors and rubber flooring were in accordance with the spirit of the time or even ahead of it.<sup>157</sup> Hygienic, tubular steel furniture became more common quickly after the breakthrough of functionalism, especially in public places, and at a slower rate in home interiors. The plywood was favoured because of its domesticity, and rubber, in turn, became a popular flooring material in the 1930s.<sup>158</sup>

# LASIPALATSI

1934-36

MANNERHEIMINTIE 22-24

NIILO KOKKO, VIILJO REVELL, HEIMO RIIHIMÄKI

A CENTRAL BUILDING lot, the so-called Turku barracks area, had long been in secondary use. There were a petrol station and old barracks, and part of the area was bordered by wooden fences. The area was state-owned. In the autumn of 1933, discussions were begun to transfer it to the City of Helsinki's ownership, when a group of young architects, Niilo Kokko, Viljo Revell, Heimo Riihimäki, Arvo Aalto and Olavi Laisaari, became interested in the lot and presented the city's administrators with their idea for the construction of a bazaar and for temporary use of the area.<sup>159</sup> The initiative led to a good result. Revell, Kokko and Riihimäki, remaining members of the group that made the proposal, were able to implement the principles of the new international trend. Lasipalatsi was jointly built by the cooperative companies SOK and Valio. The companies were open-minded, avant-garde builders and interior decorators, and understood how architecture could symbolise a corporate image.<sup>160</sup>

The small building is a complete work of art, as it was uniformly designed down to the interior-details and neon signs on the facade. There is a lot of glass. The interior premises are easily perceived through the large shop windows from the street. The ground floor retail units were all originally walk-through, now only a part. Revell, Kokko and Riihimäki also designed much of the furniture in the building. The colours and murals were designed by Eino Kauria and the lighting by Paavo Tynell.<sup>161</sup>



PHOTO: AP



PHOTO: TR

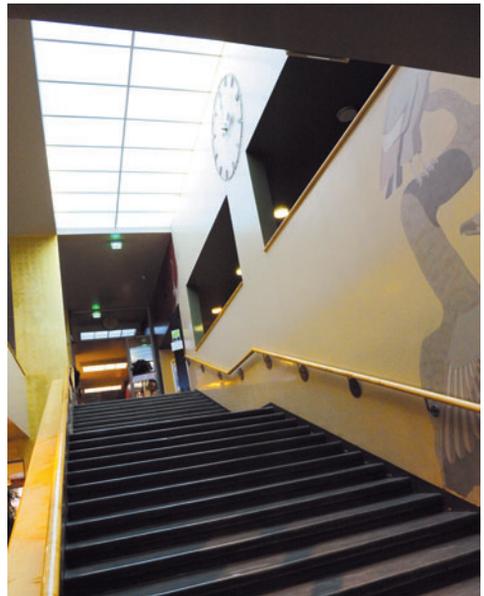


PHOTO: TR



PHOTO: HKM

Lasipalatsi was filled with small shops, with over twenty at its peak.<sup>162</sup> The city's first ice cream parlour opened in Lasipalatsi, when the depression of the 1930s eased off and there was enough milk for such a purpose.<sup>163</sup> The Bio Rex cinema was completed on the upper floor, which is still in operation, but is smaller than the original.

A restaurant named Lasipalatsi was located on the second floor and extended across the entire Mannerheimintie side of the building. It was the heart of the entire building with its roof terrace and winter garden. The restaurant operated for a little more than a decade, until a larger, new restaurant was opened opposite it in SOK's new commercial building.<sup>164</sup> The closure of the restaurant began the years of Lasipalatsi's decline. Spaces were divided up into smaller ones, and many new enterprises, even those unsuitable for the premises, became the users of the building.<sup>165</sup> Finally, in the 1990s it was

realized that this was a gem of modern architecture and that something needed to be done about the matter.

Thus, in the mid-1990s, the city, as owner of the building, began to develop its operations. Missing values of the building were recovered through careful renovation.<sup>166</sup> With the exception of Bio-Rex's relatively well-preserved interior, not much of the original remained in the interior spaces. The designers studied the original plans and the ideas and spirit came from them. The restoration of the functional and aesthetic ideas was considered to be the primary aim. Renovation designers say that the decision to use "*old details required special effort*" in the new parts, and it did not correspond to their ideology. In the case of Lasipalatsi, a modern building being at issue, the approach turned out to be justified, as the details similar to the original are still appropriate.<sup>167</sup> In addition, the idea was achieved to preserve the building as a total work of art.

PHOTO: NN

# BENSOW HOUSE

1938–40

ETELÄESPLANADI 22

UNO ULLBERG

PLANS FOR Bensow House<sup>168</sup> were completed well ahead of the war, but in the following years the building process was delayed by many problems caused by military operations. Anyhow, the facilities were launched in the autumn of 1940.<sup>169</sup>

The building is located in an important and prominent place on the south side of Esplanadipuisto in front of the Erottaja plaza. The plot is deep and narrow, which meant challenges with respect to the lighting conditions and layout. The architect solved the problem by placing four-storey building frames in the plot's long sides and two wider wings across the plot to combine them.

Thus, an interesting series of spaces is formed with two inner courtyards, through which the office spaces receive natural light. The rear internal courtyard only opens from the second-floor level. To reach the inner courtyard, which opens to the street side, as well as the shops there, one enters through a gateway, the ceiling of which is clad in bottle-bottom-shaped blue tiles. In the centre of the entrance is a driveway to the basement space, which makes a visit to courtyard a bit less inviting. Along the Eteläesplanadi side is a triangular plaza bordered by the street and buildings.



PHOTO: HKM



PHOTO: TR



PHOTOS: TR



The street and courtyard sides are quite different in nature. The courtyard facades are plastered and painted white, with an appearance that is close to functionalism principles. The street facade is clad in three centimetre thick greenish-grey sawed soapstone tiles, with shop floor pillars of polished granite.<sup>170</sup> The Bensow House was a pioneer in its time, as facade tiling became more widely used starting from the beginning of the 1940s, and only after the war did more valuable material begin to appear in the facades of commercial buildings.<sup>171</sup> The Dan Ward flower shop originally operated on the ground floor on the street-side of the building as well as the Lyhty (“Lantern”) restaurant, the premises of which continued to the second floor. The neon lit advertising texts in the facade of the modern building were designed to be revised easily without damage to the facade tiling.<sup>172</sup>

When designing the office space, the architect applied the modernism idea concerning flexible modification of room spaces. The building was designed in pillar-structure so that the room facilities could be combined and divided according to need.<sup>173</sup>

The building has three spiral staircases for vertical traffic. The staircases receive light through the roof’s glass tile dome. In particular, the eight-storey, street side main staircase with its details and colours is an impressive space. The decorative and romantic spirit is linked to the expression of the architectural features of the time.

# NATIONAL PENSIONS INSTITUTE BUILDING

1948, 1953–56

MINNA CANTHIN KATU 5

ALVAR AALTO

THE NATIONAL PENSIONS Institute Building fills an entire city block. To avoid the pompousness of a large building, Aalto divided the premises into different heights and seemingly separate wings that are nevertheless linked together either on the ground or below ground level. The solution distinguishes the public building from the closed block structure formed by the residential buildings.

In the middle of the building complex, above the street level is a small courtyard, which corresponds to the idea presented in many of Aalto's buildings concerning an open public square for all. The square, however, was in operation only for a short time, because it had to be closed to the public in the 1960s due to vandalism.<sup>174</sup>



PHOTO: SRM

The facade of the ribbon windowed building is red brick, copper and black granite. The main entrance located on the west side corner is surprisingly discreet and modest. The building is operationally efficient and rational. The starting point for the plan was to create a humane working environment despite the large scale.<sup>175</sup> According to Aalto, the window grouping was not only an aesthetic choice but a solution chosen with a view towards working conditions. It was important for the architect that in addition to mechanical ventilation each room have *"the biological benefit of natural ventilation and a window that opens"*.<sup>176</sup> The window structure and hinging is a special solution that the architect designed for the National Pensions Institute Building.

The building is divided into hierarchical sections, on the one hand related to the position of the staff, and on the other, to the publicity of the premises. The most central and largest space is a three storey high central hall with beautiful prism shaped skylights, originally intended for customer service. The hall is no longer in use for customer service, but now serves as an auditorium and exhibition space.



PHOTO: AAS



PHOTO: AAS



PHOTO: HKM



PHOTO: AAS

The architect's touch can be seen in the interior of the building and its details. In many areas the surfaces of the walls and pillars are coated with different colours of curved, rod-shaped tiles designed by Aalto at the Arabia factory.<sup>177</sup> Aalto developed variations of his standard furniture for the National Pensions Institute Building. He also planned new types of lighting there that were later used in some of other buildings, as well. The completed design is particularly evident in the meeting rooms and management level. They are richly decorated in wood and textiles. Other office rooms are "more or less to normal standards".<sup>178</sup> The building's library is small and intimate. It looks a lot like Aalto's Vyborg library completed in 1935.



PHOTO: SRM



PHOTO: SRM



TEOLLISUUSKESKUS INDUSTRIAL CENTRE



PHOTO: SRM



PHOTO: HKM

## TEOLLISUUSKESKUS INDUSTRIAL CENTRE

1948–53

ETELÄRANTA 10

VILJO REVELL, KEIJO PETÄJÄ

THE TEOLLISUUSKESKUS INDUSTRIAL Centre is the first building after the war decade that again followed the tradition of modernism in a situation in which Finland, after a short slump, was again rising to a new international era. A rational ribbon window façade and structural clarity represent pure modernism; the use of slate and tile, however, still refers to the reconstruction period.<sup>179</sup>



PHOTO: SRM

The construction of the Confederation of Finnish Employers office building was in progress for a long time. When it became clear that Helsinki would get the Olympic Games for 1952, the idea was born to also attach a hotel and restaurant facilities to the building to serve guests of honour.<sup>180</sup> An architectural competition was held in 1948 for the design. At issue was the reuse of an entire city block. The "Ratas" ("Wheel") proposal, whose designers were Viljo Revell and Keijo Petäjä with assistants Osmo Sipari and Eero Eerikäinen, won first prize. Revell and Petäjä continued designing in the implementation phase.<sup>181</sup>

The aim was to get the building largely up and running under a tight schedule by the Olympics. Despite an exceptional situation in construction, strikes, rising costs and material shortages, the objective was achieved. For economic reasons, the plan was, however, changed from the competition phase proposal. Contrary to the architects' plans, more profitable shop and restaurant spaces were put on the second floor instead of auto parking.<sup>182</sup>

The splitting of the entire building mass into two parallel wings, tapering towards the ends lightened the entire structure. The spacial structure is clear and systematic throughout. The lowest levels were reserved for shops, office space went from the third floor up and the three upper floors were reserved for the Hotel Palace, meeting facilities and a restaurant.<sup>183</sup> The entire vertical traffic and the rise of pipe and cable networks were focused in two main stairwells and the elevator groups between them.<sup>184</sup>

The facade made from elements represented progressive technology for its time. The exterior walls are clad in varying sized polished tiles made from white cement and dolomite grinds and powder.<sup>185</sup> The Teollisuuskeskus building also was a pioneer as relates to ventilation. It had the first mechanized ventilation in Finland.<sup>186</sup>

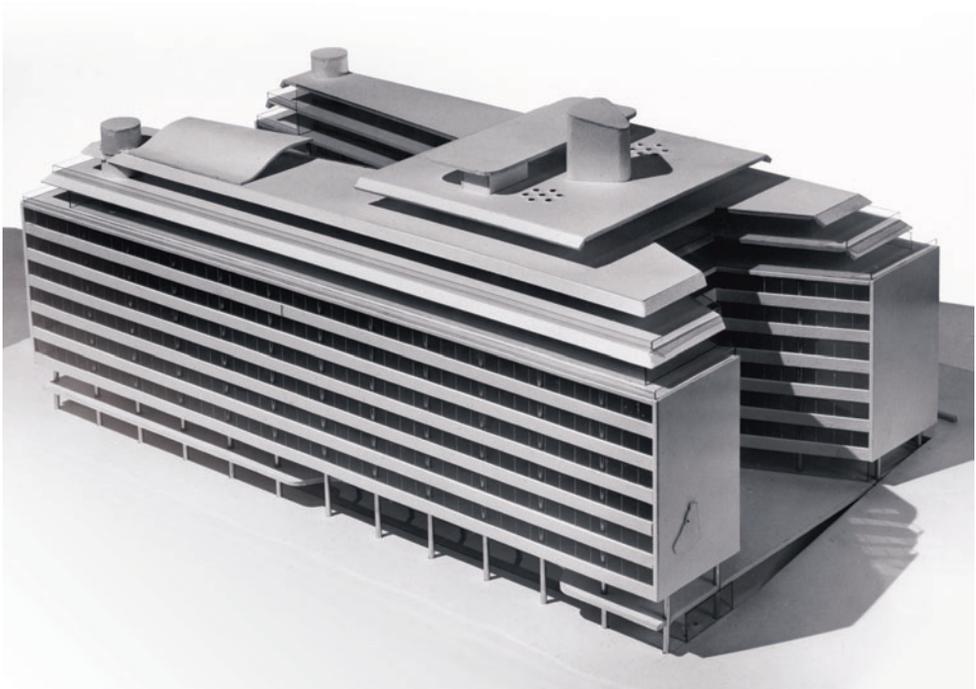


PHOTO: SRM



PHOTO: SRM

The decor, surfaces, furniture and details of the building were designed to have an inherent connection to the rational architecture of the building. The original materials were brick, teak, restrained fabrics. The furniture made of bent steel and plywood.<sup>187</sup>

In the last few years, the building has undergone many changes. The top-floor sauna facilities have been converted to office and meeting spaces. The second floor cafe and restaurant facilities have been recently converted into office spaces, however, the essential features of the entrance hall floor have been preserved. The biggest change occurred when the operation of the Palace Hotel ended a few years ago and was replaced by offices. The corridors and elevator lobby remain essentially unchanged, even if their use has changed. Also maintaining the brick



PHOTO: SRM

wall and pillars was essential. These, as well as the street-level lobby materials, such as the slate floor, still retain the original atmosphere. The slate was originally continued up to the sidewalk, but in the 1990s it was removed from the outside and replaced by asphalt.<sup>188</sup>

# RAUTATALO OFFICE BUILDING

1951–55  
KESKUSKATU 3  
ALVAR AALTO

THE RAUTATALO BUILDING solution shows Alvar Aalto's ability to focus on the comprehensive relationship formed between the building and its surrounding environment. He extensively studied the Rautatalo environment, even up to the railway station construction. The neighbouring red brick commercial building designed in 1920 by Eliel Saarinen and the low Domus Litonii building on the other side, posed design challenges.<sup>189</sup> Aalto decided on a solution in which *"the structure relates harmoniously to its neighbouring group without any structural imitation"*.<sup>190</sup> On this basis, the idea arose of a net-like facade. The same theme also appears Aalto's other commercial building planning for central Helsinki.<sup>191</sup>

Although Aalto carefully weighed the position of the building within the cityscape, according to the architect's own words, *"Rautatalo was*

*built from the inside out"*.<sup>192</sup> The heart of Rautatalo is its central hall. Aalto called the space *"the Marble Courtyard"*. The facility was presented in its competition proposal to be a total of seven storeys high.<sup>193</sup> In the implementation phase, however, the client wanted a more economical option and the Marble Courtyard became only three stories high. Aalto wanted the yard to have an Italian atmosphere, as Italy held huge significance to him as a source of inspiration. His dream of the covered *"piazza"* was realised with the implementation of the the Marble Courtyard.<sup>194</sup> The courtyard receives natural light through round skylights.<sup>195</sup> When it is dark, the light comes from outside lights fastened above the skylight windows. The floors are made of Carrara marble and the loft corridor walls are made from travertine. Aalto wanted to give further special treatment to the travertine surfaces, namely, *"a genuine feeling, roughly the same as that naturally found on the rain-soaked slopes of the Italian riviera"*.<sup>196</sup> He also took a stand on the planting related to the Marble Courtyard's fountains, that,



PHOTO: SRM

according to him, should follow the architectural forms, namely, they too should refer to Italy. This how Aalto instructed the landscape architect Paul Olsson.<sup>197</sup>

The most famous of Aalto's door handle designs, the Rautatalo handle was first introduced in this building. Aalto designed the interiors on the ground floor and for the located around the Marble Courtyard. For the furniture of the Colombia coffee shop operating at the Marble Courtyard, he designed small square shaped, metal legged, wooden tables with armchairs coated with black leather and three-legged stools. When the building was being renovated<sup>198</sup> during a change of user in the 1990s, the new owner decided to renovate the interior of the café. The original furniture was moved to storage and partly to Alvar Aalto museum collections. Later, they luckily found a location at the cafe of the Academic Bookstore. The furniture that is now in the Rautatalo building has been done in accordance with the original design.

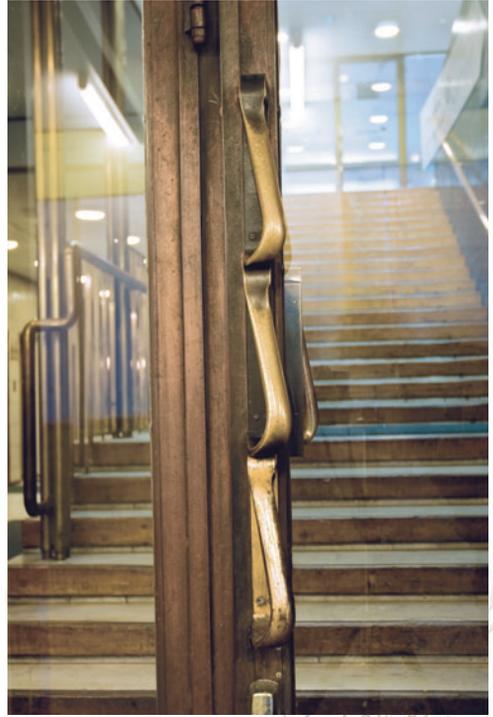


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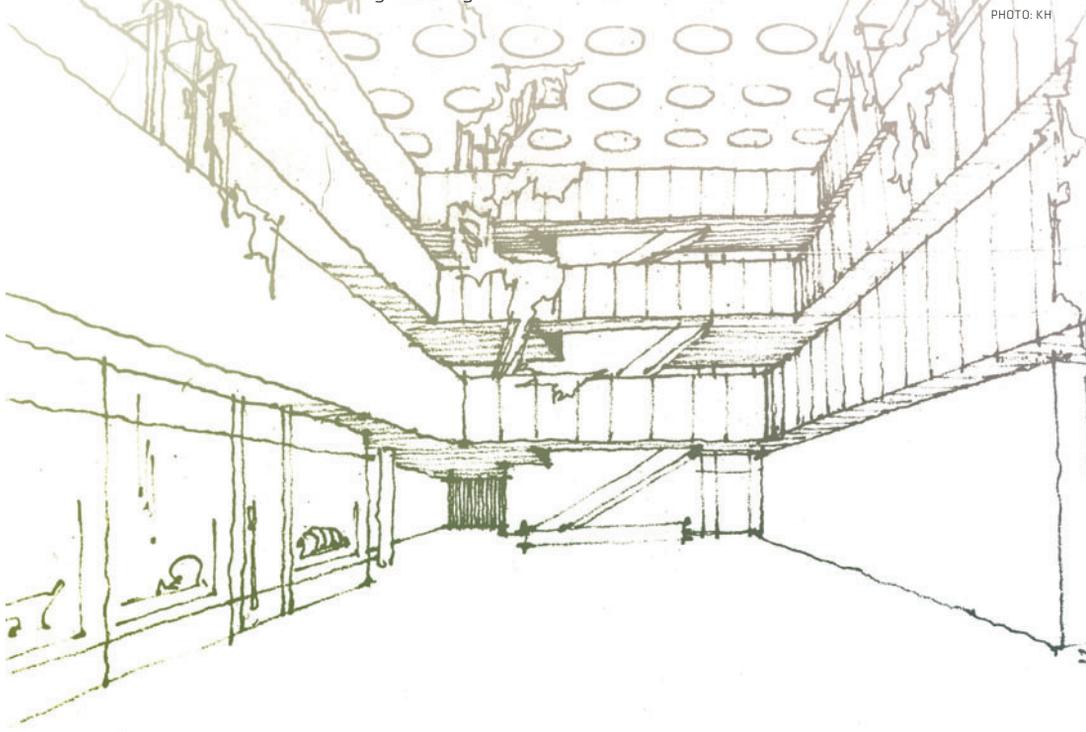


PHOTO: SRM



PHOTOS: AAS

# HOSPITALS

TWO HELSINKI hospitals that were very different in appearance arose roughly within a single decade. The Tilkka Military Hospital well represents the pure form of functionalism – after all, hospital design was a type of architectural subfield to which aspirations towards hygiene and health are naturally suited. Lastenlinna (“Children’s Castle”) is functionalistic in its basic solutions, but more striking is its decorativeness. In the reconstruction era after the war, during which this building’s gradual construction took place, it was characteristic for the plaster of the exterior walls to be treated in various ways. The relief-like facade of the Lastenlinna Children’s Hospital is one of the most richly decorated facades from that time.

## TILKKA MILITARY HOSPITAL

1934–36, 1957–65  
MANNERHEIMINTIE 164  
OLAVI SORTTA

THE PLACEMENT OF the Helsinki military hospital Tilkka was determined on the one hand by the optimisation of the patients’ health considerations and on the other hand by how it was thought that diseases spread before modern understanding of bacteriology. Thus, a new hospital was placed far away from the then center of town, on high terrain.<sup>199</sup> Tilkka was designed in the Construction Bureau of the Ministry of Defence, and the lead designer was Olavi Sortta.<sup>200</sup> Also, the curved expansion part completed later was designed by him.



PHOTOS: TR



PHOTO: HKM



PHOTO: HKM

Sortta was, in addition to architect Elsi Borg, a hospital specialist trained by the Construction Bureau of the Ministry of Defence. Many solutions used in their jointly-designed Vyborg central military hospital, completed in 1931, were also used as models for Tilkka. Tilkka once represented Helsinki's most modern and most advanced hospital architecture. Its appearance and basic form are more in accord with functionalism than other hospitals built for Helsinki in the 1930s, for example, the Red Cross Hospital and the Women's Hospital.<sup>201</sup> Its structure is, however, primarily traditional. The load-bearing exterior walls are brick and plastered. Similarly, the windows are therefore not ribbon windows but there are distinct apertures in the wall. The floors and stairwells, however, are cast in concrete, as are the semi-circular balconies of the nine-story tower part. This balcony solution was also otherwise unique in Finland.<sup>202</sup>

The hospital had a total of two hundred and fifty patient beds. The top floor ward was reserved for officers. Officers' rooms were single or double rooms, and were better equipped than the rooms of the soldier patients, the largest of which were halls for sixteen people. The patient rooms were located on the south-west side of the middle corridor for favourable sunlight,

and the utility rooms of the ward were located on the darker side of the corridor.<sup>203</sup> The operating rooms and auxiliary rooms are clustered around an octagonal corridor extension. The model is probably from the United States or from the Swedish Kalmar Hospital, whose drawings were published at the time of Tilkka's design.<sup>204</sup> Patient room doors



PHOTO: TR



PHOTO: TR

were double leaf doors. They were open during the day in the military hospital to maximize light; when open they were in a recessed wall cavity and thus did not interfere with the corridor traffic.<sup>205</sup>

The hospital interior walls and ceilings were painted with glossy paint, as such reflective

smooth surfaces were considered hygienic. The colour design was drafted by Eino Kauria. Architect Sortta described the solutions as follows: *"It is attempted to get joy and light in all parts of the building with colour. Generally, bright, clear colour shades are used; the most frequent colours are light blue, greenish-yellow, and cyan. The chimney, around which a second spiral staircase runs, is painted a glowing red that describes outwardly the heat that is travelling inside it."*<sup>206</sup>

The walls of the main floor have three wall reliefs. One of them is 12 metres long and located in the main lobby. It is designed by Ragnar Ypyä, "The Fight between Good and Evil," and symbolises Finland's position as a neighbour of the Soviet Union.<sup>207</sup> The other two are gold-plated replicas of Elias Ilkka and Erik Bryggman's heroic statue relief "The Horsemen" designed for Helsinki's Old Church Park.<sup>208</sup>

The operation of the Tilkka Central Military Hospital ended in 2005. With extensive renovation, the hospital was changed into a nursing service and wellness centre.<sup>209</sup> Of course, large changes were made within the building, but a lot of what was original is still there.



PHOTO: HKM

# LASTENLINNA CHILDREN'S HOSPITAL

1938–48

LASTENLINNANTIE 2

KAARLO BORG, ELSI BORG, OTTO FLODIN,  
OLAVI SORTTA

THE COMMISSION FOR the Lastenlinna Children's Hospital design was received by Kaarlo Borg, who was a good friend of the hospital's medical director, Arvo Ylppö. Borg, however, died during the work in 1939. In that situation, the work was continued by his sister, Elsi Borg together with



Olavi Sortta and Otto Flodin. Lastenlinna was built into a rehabilitation centre for children in need of care for health or social reasons. It was also operated as a children's nurses' training institute. In addition, staff and student housing was placed within the building.<sup>210</sup>



PHOTOS: TR

Construction of the hospital was intertwined with the stages of World War II. Excavation work started just before the war broke out at the end of 1939, but the actual construction work was started only in 1946. Because of the war, there were financial problems related to construction and a shortage of materials. In spite of these, the construction work went relatively quickly and Lastenlinna was inaugurated in late 1948.<sup>211</sup>

The complex includes a four-storey curved wing of the hospital, a twelve-storey nurses' apartment tower, and a low central wing connecting them that acts like a traffic hub. The concentration of traffic minimises transit, and is thus an optimal solution from a hygiene viewpoint. The curved shape avoids the monotony of long corridors. The relatively low height of the curved and central parts contribute to fire safety. The patient rooms and balconies are located on the light side of the central corridor, and utility rooms on the other side. The corridor gets light from the ends and also through the corridor walls of the patient rooms that are partially made of glass. The roof level of the central part operated originally as a terrace, which had access both from the hospital wing and from the tower.<sup>212</sup>

The impact of a long period of time, which lasted from the approval of the plans to the completion of the building, is visible in the architecture of the Lastenlinna hospital. The complex is in accordance with functionalism in its basic composition. The facades were originally planned to be plastered and white, but from Elsi Borg's proposal mineral plaster was used. The plaster surface, in itself quite lively, was decorated with embossing and reliefs and sculptures designed by Sakari Tohka. Colours on the facade further enhanced the decorative effect.<sup>213</sup> When the solution was completed it raised criticism among the most strict functionalists. The relief-like surface was also considered to be problematic regarding hospital hygiene.<sup>214</sup>

In the 1950s, Lastenlinna was expanded. The designer was Elsi Borg who had already retired at that time. A four-storey annex was attached to the hospital wing corner and a new single-storey wing was built parallel to the street, Linnankoskenkatu. Thus, the

courtyard became closed. The expansion contained also spaces for a hospital school which at that time was unique in Finland. The facade of the expansion portion was also mineral plaster, however, the decoration was less than in the old part. The plaster surface



PHOTO: TR



PHOTO: HKM

is outlined by vertical and horizontal seams, which create the impression of a facade made from elements.<sup>215</sup> Initially, the old and the new parts were clearly distinguished from each other, as they were joined by a lighter connecting part. Later, however, the connecting part was built over.

Now, in this 2010 decade, the fate of Lastenlinna is at stake because the operation of a modern hospital in old premises currently in poor condition has proven problematic.



PHOTO: TR

# SPORTS

A MYRIAD OF different types of sport buildings were built for Helsinki when the city was preparing to first receive Olympic games in 1940 and then moved back to 1952 because of the war.<sup>216</sup> Sports architecture is a type for which functionalism, with its health-promoting goals, is suited naturally. The Olympic buildings are the first broad group of functionalist structures in Helsinki and are unique in Finland.<sup>217</sup>

Helsinki's Olympic Games and their multi-stage preparation was of great importance for the whole of Finland. They symbolise the rise of the country back to its feet having survived the devastation of the war and its opening to the outside world. The City of Helsinki was strongly committed to the implementation of the Olympic buildings. In addition, the City's economic investment was significant, accounting for a quarter of the entire budget.<sup>218</sup> The Games came at a time when Helsinki was otherwise developing strongly, for example, though the construction of new residential areas and annexations. The functionality of the Olympic buildings as public sports facilities after the games was an important goal from the very beginning, as a shortage of resources made it impractical to invest only in competitive sports.

A lot of preparation had been done for the cancelled 1940 Olympic Games; many of the sports buildings were nearly finished when the Second World War broke out, which led to the cancellation of the games only three months before their start. The Rowing Stadium, the Velodrome and the Olympic Stadium were more or less ready even before the war. The Swimming Stadium was almost finished. After the war when Finland was given a second chance to organise the games in 1952, construction continued and the unfinished Olympic buildings were completed.

A lot of buildings in Helsinki are more or less related to the Olympic Games, after all, the city had to be made to look impressive before the international competition and much more was needed than just sports arenas. Thus, for example, the Malmi regional airport and Santahamina Cadet College have links with the Olympic construction. Also, many other buildings intended originally for other uses were used for the needs of the Games. For example, the tennis courts on the third floor of the Auto Palace were used as the venue for the Olympic basketball matches.<sup>219</sup>

## OLYMPIC STADIUM

1933, 1938, 1940, 1952

PAAVO NURMEN TIE

YRJÖ LINDEGREN, TOIVO JÄNTTI

THE STADIUM WAS the first of Helsinki's Olympic buildings, and it was to be the focal point of the sporting events. As such, it affected the architecture of the other Olympic buildings. The unifying form of the building became white functionalism.

The Stadium project had been prepared for a long time before it got its official start through the establishment of the Stadium Foundation.<sup>220</sup> The site location was the subject of lively discussion. Architectural circles criticised the Foundation's proposal of the present location in Töölö because it was feared that the Central Park area would be destroyed by the needed traffic arrangements. In the opinion of the critics, the place did not provide opportunities for the creation of a monumental impression. Decentralising the functions around the city was even suggested. One of the justifications for the selection of the current location was economic viability by being near the centre.<sup>221</sup>



PHOTO: HKM



PHOTO: HKM

Jrjö Lindegren and Toivo Jäntti won the architectural competition held in 1933 for the Olympic Stadium design.<sup>222</sup> The construction of the stadium was a huge effort both financially and technically, and its completion was a total multi-step chain of events. The first phase, essentially complete, was launched in 1938. At that time it was not known that Finland would get the Olympic Games. However, that same summer Tokyo announced that they would be abandoning the Games, and in the autumn Finland was told that it would get to host them. Then a stadium expansion was immediately begun, as facilities were needed for the games for more than 60,000 spectators.<sup>223</sup>

Soon, however, the war interrupted the project preparation.<sup>224</sup> Construction, however, continued during the later years of the 1940s, when news came that Finland would host the Olympics in 1952. Frequent strikes and post-war material shortages impeded construction, but gradually the stadium was completed. After the Olympic Games, various temporary structures were dismantled, such as the wooden stands and press areas. Subsequent extensions include the tax office facilities, a hostel and the expansion of the sports museum.<sup>225</sup>

The Stadium was an impressive site in its time due to its advanced and simple elegance of its concrete structures. A curved and rotating concrete parapet, only seven centimetres thick, served as the facade of the north and south sides and was at its time an example of the advanced skill of its builders. Reinforced concrete was used in the stadium in much greater quantities than was generally used at the time.<sup>226</sup>



Upon its completion, the slim tower rising to a height of seventy metres became a hallmark of the Olympic Games. The tower, which is exposed to weather, has had to be renovated several times, most recently in 2011.

Also, the stadium has been repaired in many different stages, especially in connection with preparations for major sporting events.<sup>227</sup> Thorough repairs were made again when Helsinki was named to host the 1994 Track and Field World Championships. The concrete structures had crumbled badly and the stadium was partly banned from use. The technical defects were studied carefully, but the history of the stadium was not studied before work was already underway. Repairs were thus made in technical terms without assessment of the historical significance of the structures.<sup>228</sup> The reinforced concrete that was ultra-modern in its time was largely demolished, and the stairways of the stands were renovated using prefabricated elements. The main grandstand had been better preserved under a roof,

so for its part it was sufficient to reinforce its structures through repair. From a distance the appearance of the Stadium is largely preserved, but the authenticity has been lost. The solution attracted heavy criticism.<sup>229</sup> Prior to the 2005 Track and Field World Athletics Championships, the stadium got a new covering for the audience areas. The aerial canopy is distinguished from the old structures as a positive new element.<sup>230</sup>

On the whole, despite the changes weakening its value, the Olympic Stadium in its monumentality and clarity remains one of the great works of Finnish architecture. The essential part of the value of the building is its importance as a symbol of modernistic ideology, Finnish athletic spirit and, at the same time, internationalism. It remains to be seen how the values of the stadium will be preserved in the future, as, once again, a major renovation is planned. The goal would be that the stands would be covered nearly completely, the benches replaced, and also all of the interior spaces renovated. It should be completed for the centenary of Finnish independence, by the end of 2017.<sup>231</sup>



# MESSUHALLI HELSINKI EXHIBITION HALL

1934–35, 1950

MANNERHEIMINTIE 17

AARNE HYTÖNEN, RISTO-VEIKKO LUUKKONEN

AN ARCHITECTURAL COMPETITION for the design of the Exhibition Hall was held, ending in late February 1934. The competitors' task was to design a fair and exhibition space, which could be adapted to holding parties, concerts and conferences, as well as sporting events. The first prize was given to Antero Pernaja and Ragnar Ypyä and their assistant, Martta Martikainen. The solution was structurally quite clear, absolute, pure and architecturally daring, but, nevertheless, was not implemented. Instead, the Finnish Fair Corporation commissioned new drafts from the prize winning competitors, namely Pernaja and Ypyä, second-comers, Risto-Veikko Luukkonen and Aarne Hytönen and the third prize winner Alvar Aalto. Among the proposals, the proposal of Hytönen and Luukkonen was selected as best and chosen as the basis of the design.<sup>232</sup>

Construction work began in the summer of 1934 at a time when construction costs had risen sharply with construction having gained

speed after the depression of the early 1930s.<sup>233</sup> Therefore, the entire plan was implemented in a reduced form and construction materials were used economically. A four-storey showroom with prominent advertising surfaces was left out. The same thing happened with the 16-storey hotel expansion that the architects put forth, since there was no money for it in such a tight economic situation.<sup>234</sup> The Exhibition Hall was brought into use already by February 1935 and fully completed by summer.

Upon completion, the Exhibition Hall was advertised as Finland's largest hall space. Its roof trusses are reinforced concrete double jointed arches that are supported on reinforced concrete walls in the direction of an arch. The Exhibition Hall became a pioneer in the construction of arch halls. The architects also sought advanced solutions for the ventilation and lighting arrangements since the requirements for an adaptable space were particularly demanding.<sup>235</sup>



PHOTO: MT



PHOTO: HKM

Already at the inaugural exposition in 1935, it was noticed that the hall was cramped. Extensions were contemplated in 1949, and the approaching Olympic Games supported the idea. This resulted in building an extension in the north end of the building with Hytönen and Luukkonen again as its designers. The features of the extension correspond to the older part; even the interiors differ only slightly from each other.<sup>236</sup>

Exhibitions were moved from the building in the mid-1970s. Currently, there are primarily sports facilities there, and the name has changed to the Töölö Sports Hall. Many changes have weakened the building's architectural values. In practice, very little is left of the original.<sup>237</sup> The thermal plastering of the originally sleek and streamlined building has left the plinth and windows in a recess. The large display windows on the Mannerheimintie side, which were meant for exhibiting high-quality domestic production, are now in secondary use.<sup>238</sup> The southeast end is dominated by restaurant necessities.



PHOTO: HKM



PHOTO: TH



PHOTO: HKM

## VELODROME

1938–40  
MÄKELÄNKATU  
HILDING EKELUND

BIKE RACING is a relatively new sport in Finland. Track-runs have been organised only since the 1930s when the competitions were held on the running tracks of common sports fields. Since a proper track was missing when the Olympics were awarded to Finland in 1938, experts together with the City of Helsinki started to consider how to make the cycling events possible. The great economic challenges brought by arranging the games forced the decision-makers to save in every possible respect. They wanted to find out if the Olympics could be arranged without an expensive, international-standard, sloped cycling track. The International Cycling Union and the Olympic Committee rejected the idea, so the design was continued. Next, the option of a wooden temporary track was explored. Such had been used, for example, in the Berlin Olympics in 1936. Cycling enthusiasts, however, were definitely in favour of a perma-

nent track. The advantage is that the inside of the track could be used in many field events. Thus, it was finally decided that a reinforced concrete cycling arena would be built.<sup>239</sup>

The velodrome was decided to be placed in Käpylä, which had good traffic connections. In addition, the proximity of the Olympic Village influenced the location selection. Hilding Ekelund was chosen to design the velodrome in the autumn of 1938. Both the design and construction work then progressed rapidly, and as early as June 1940 the track was opened for practice. The velodrome was largely finished when the Continuation War broke out in June 1941. Before the actual Olympic Games in 1952 only minor finishing work was done. The Olympic Building Office was the primary designer, whose head architect was Pauli Salomaa.<sup>240</sup>

The velodrome is located between the two pine-tree covered hills so that the more northern of them acts as an open auditorium. The main audience area is on flat ground.

It has a total of two thousand seats, half of which are covered. The natural auditorium fits over four thousand viewers. For the Olympic Games another two thousand seats were arranged on overlooking cliffs. The total number of spectator seats was then more than eight thousand.<sup>241</sup>

The cycling track was to be, above all, safe and free from defects. Building a high-quality track in Finland's climate required expensive structures and handwork. The oval inclined track is four hundred metres long and 37 degrees at its sharpest angle. The track's facade is a concrete railing that follows the shape of the track. As a fun detail, the rear wall of the auditorium has circular light openings, as does the end wall of the public entrance lobby. There is a connection by tunnel from the sports area inside of the track to the locker room facilities underneath the main auditorium.<sup>242</sup>

The velodrome was in fairly bad condition before it was restored at the turn of the 2000 millennium.<sup>243</sup> The restoration has been in large part able to preserve the building's architectural values. Although the cycling track was restored, the length of the track and the lack of safety structures mean that international races conforming to modern standards are no longer possible.



PHOTO: HKM



PHOTO: HKM



VELODROME



PHOTO: HKM

# ROWING STADIUM

1938–40

MERIKANNONTIE  
HILDING EKELUND

BEFORE THE ROWING Stadium, Helsinki did not have an international standard rowing arena since rowing at the international competitive level was not a well-known event in Finland. When Finland was chosen to host the Olympic Games, the need arose for the construction of an arena suitable for rowing and canoeing.

The Rowing Stadium was built in a scenic spot on the peninsula at Taivallahti. The site was selected, among other things, for its good transportation and nearby hotels and restaurants. The choice was, however, criticised as critics felt that the buildings would undermine the scenic values of the area.<sup>244</sup>

The rowing stadium design was launched in the autumn of 1938. In addition to the architect Hilding Ekelund, the committee preparing the rowing and canoeing competitions took an active part in its design. Models for the stadium were sought in central and southern

Europe. In Ekelund's drafts, all of the buildings were initially sleek functionalist buildings, the material for which he intended reinforced concrete. The first fanciful ideas were, however, tossed out because of financial considerations. The stand was made of concrete, while the other buildings have wooden frames.<sup>245</sup>

The main stand was completed in 1939 and the unfinished stadium was used in the summer to test it as a competitive arena before the war interrupted building. Work continued in the spring of 1940. At the end of the decade, the waterfront areas were repaired and piers built. In preparation for the 1952 games, the finishing of the Rowing Stadium moved to the Olympic Building Office where Pauli Salomaa worked as the main architect.<sup>246</sup>

There is an outwardly broadening visor covering the stand. One of the few details in the building are the circular light openings on the back wall and the inwardly tapered columns between them. Under the stand are various utility rooms related to the rowing.



PHOTO: HKM



PHOTO: HKM



PHOTO: HKM

In 1950, when the games were approaching, an uncovered concrete stand extension seating a thousand people was built in front of the main viewing area.<sup>247</sup>

When the Olympic Games came up in 1952, it was noted that the location was too exposed for high levels of seafaring. Therefore, the rowing competitions were held at a more northerly track and the stadium itself was only used for the canoeing competitions.<sup>248</sup>

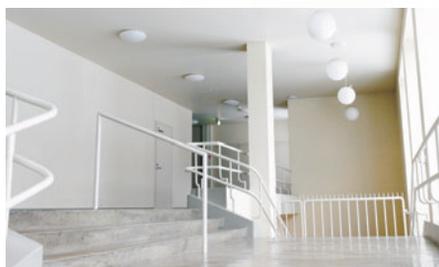
On the east side of the Rowing Stadium there is a two-storey clubhouse. In addition, the complex has a boathouse rented to rowing clubs. The original boathouse was destroyed in a fire in 1995, but a reconstruction based on Ekelund's design was built. The clubhouse has been renovated at the turn of the millennium when minor changes were made, particularly in the interior spaces.<sup>249</sup>

After the Olympics, the rowing stadium has operated primarily for rowing and canoeing training and recreational use. Finland's oldest and largest canoe clubs are also located in the immediate vicinity. In the summer, theatre and group singing performances have also been organised there.



## RUSKEASUO RIDING HALL

1938–1940  
RATSASTIE  
MARTTI VÄLIKANGAS



PHOTOS: TR

THE 1930S IN Finland was a golden age for horse riding. The sport was practiced in the Laakso Arena, built in 1936, and Finnish riders were successful in international competitions.<sup>250</sup> The Laakso Field also enabled the organization of international equestrian competitions, but when word came of the hosting of the 1940 Olympic Games, it became clear that there would be a need for good horse stables and a covered track for training. Thus, the Helsinki City Council decided that a riding hall for the Olympic Games would be built on the north-east side of the Laakso Arena in Ruskeasuon on the edge of the Central Park.<sup>251</sup>

Just like the architects of all the Olympic buildings, the designer of the riding hall, Martti Välikangas, who was the chief architect of the Building Authority, had to drop his initial plan due to economic reasons. No savings could be made in the dimensions of the building, but otherwise everything should be made simply. A steel-reinforced concrete roof structure was replaced with wood and roofing material was chosen to be an affordable felt; also compromises were made in the interior decoration. Of the three horse stables planned, only two were carried out. The immediate surroundings were left unaltered.<sup>252</sup>



The riding hall was completed and opened for use after the Winter War in the autumn of 1940. At that time, the hall was declared the biggest in the Nordic countries. An audience of four and a half thousand people could be accommodated during races and seven thousand for occasional boxing matches.<sup>253</sup>



The roof of the large rectangular building is supported by arches. At the top of the roof is a skylight with a string of windows that extends the entire length of the building. There is also a ribbon window at the top of the stands. The riding hall, particularly its use of space and purpose, has been modified over the decades several times. It has been used as a streetcar and bus garage as well as a car show exhibition space.<sup>254</sup> The hall was renovated at the start of the 2000s. Originally the riding space was as long as the hall, a total of one hundred meters long. This was bordered by stands on both long sides. Now only part of the original great hall is available to riders; the rest of the hall contains different types of sports facilities. Although the impressiveness of the large hall space has been lost due to the repartitioning, many original features of the building still remain.





## SWIMMING STADIUM

1938–52  
HAMMARSKJÖLDINTIE  
JORMA JÄRVI

THE SWIMMING STADIUM is Finland's first outdoor swimming pool. Prior to its completion, Helsinki had no even-temperature pool, a requirement for international swimming competitions. In order to make such a pool, multiple options were considered: heated beach-side pools with salt water, temporary pools or a permanent outdoor pool. The last option was chosen. The Swimming Stadium was placed in the Eläintarha park, where the

stadium would serve well the needs of ordinary residents of Helsinki after the Olympics.<sup>255</sup>

For the 1940 Olympics, draft proposals were ordered separately in 1938 from Gösta Juslén and Ilmari Niemeläinen. Both proposals had advantages. Authorities preferred the proposal of Juslén as it resembled a public bath. The proposal of Niemeläinen, in turn, was more like a competition arena and thus supported by swimmers. When no consensus was reached, the responsibility for design was given to the city's construction office.



PHOTO: KH

of 1949, the architect Järvi was invited to continue planning, but by this time the entrance had not been built according to his plans.<sup>257</sup> The architect had presumably wanted it to be similar to that of the Olympic Stadium: not symmetric, but with the entrance on the southwest side.<sup>258</sup>

With the Olympic Games in mind, a 50-metre pool was built for swimming and water polo, as well as a smaller square diving pool. With future use by amateur swimmers in mind, training and children's pools were also built. Two hundred audience places were considered adequate for normal competitions but under interim arrangements the number of seats could be increased to up to eleven thousand. Permanent stadium seating borders the pool only on one side; the other sides are open to the surrounding natural environment for sunbathing and sports. The grandstand was designed to be slightly curved with optimum visibility in mind. Its positioning on the pool's west side blocks the glare of evening sun and allows sunlight to come in from the south.<sup>259</sup>

Advanced reinforced concrete structures were made by hand. The architecture is finished, with details planned with great care. White and red colours were chosen to complement the blue of water and green of the lawn.<sup>260</sup> Originally the wall of the grandstand's pillared walkway was a broken-red, but now the grandstand is completely white.<sup>261</sup>

Care was taken to preserve the natural feeling of the area. The spaces outside the Swimming Stadium were designed by Jorma Järvi along with city gardener Bengt Schalin. The implementation was, however not quite according to plan.<sup>262</sup>

The Swimming Stadium was renovated in the mid-1990s under the supervision of the National Board of Antiquities. The interior has undergone many changes and the facilities have been modernised. Water purification technology has changed since the 1950s, so it has been possible to convert the large machinery spaces into gyms.<sup>263</sup>

However, due to a lack of resources in the office, the head of the department Gunnar Taucher asked a private architect, Jorma Järvi, to take the assignment.<sup>256</sup>

The war complicated the design and construction in many ways. It prevented experts from visiting and studying similar facilities abroad; only Stockholm could be visited. Water purification machines ordered from England were destroyed when the ship carrying them was bombed in the North Sea. Supplies ordered for the swimming stadium were spoiled at the Port of Turku. After the war in the summer

PHOTO: HKM

# TRANSPORT

A HELSINKI SHIP traffic centre had been planned since the turn of the 1920s. The implementation began only in 1938, when the old Ullanlinna shipyard began its transformation into the over 300-metre-long Makasiini pier (Makasiinilaituri). Locations were reserved for three buildings in the South Harbour, one of which would be a passenger pavilion. The war, however, interrupted development plans, and construction was not begun. When word was received that the Olympic Games were coming to Helsinki in 1952, the plans received attention again and the buildings' design could commence.<sup>264</sup>

Flying was a part of the modern lifestyle of the 1930s - however, mostly for the elite. The completion of the Malmi airport allowed the connection of Finland to important countries and demonstrated to the world Finland's modernity. Malmi Airport was Finland's first permanent civil aviation airport and until the early 1950s it was also the most important flying route to Finland.<sup>265</sup> It continues to serve a purpose close to its original one, now being used by aviation enthusiasts.

## HELSINKI MARINE STATION TRAVELLER'S PAVILION AND THE MAKASIINI TERMINAL

1949, 1950-52

ETELÄSATAMA OLYMPIARANTA 1-3

AARNE HYTÖNEN, RISTO-VEIKKO LUUKKONEN

A COMPETITION FOR the design of the buildings for the Makasiini pier area was held in 1949. In addition to the passenger pavilion, a customs warehouse to be built later, the Makasiini Terminal, on the northwest side of the pavilion had to be planned. Plans were also required for the neighbouring streets and parking areas. Aarne Hytönen and Risto Luukkonen-Veikko's proposal won the competition.<sup>266</sup>

Construction of the passenger pavilion began in February 1951 and it was opened for temporary use in the summer of 1952. In honour of the year of its completion, the pier area was named the Olympic Pier (Olympialaituri) and the buildings there were called the Olympic Pavilion. The passenger pavilion with its solid ship-bridges was Helsinki's first modern passenger terminal.<sup>267</sup>



PHOTO: TR



PHOTO: SW



PHOTO: TR

Essential to the building design was the smooth flow of traffic; moving passengers and goods from point to point had to flow without disruption. With this in the mind, the location of the Makasiini pier was optimised. The six-metre height difference between the parking area and the harbour pier gave a chance to direct embarking and disembarking passengers over the harbour tracks by bridge. The Makasiini pier was originally used not only by passenger ships but also by cargo ships, and for the needs of cargo traffic much storage space was included in the building. The storage for goods was located beneath the main floor on the pier level.<sup>268</sup>

The harsh climatic conditions of the harbour and the wearing effects of large quantities of traffic were factors contributing to the choice of building materials. The bottom of the building facades were dark brick, and the second floor facade was made of yellow surfaced concrete slabs. The floor of the customs hall was made of upstanding timber, and the floor of the entrance was made of marble mosaic.<sup>269</sup> The complex includes an architecturally-impressive landward rain shelter.



PHOTO: TR



PHOTO: HKM

## HELSINKI-MALMI AIRPORT

1935–37, 1936–38  
ILMAILUTIE 9  
DAG ENGLUND<sup>270</sup>

THE CONSTRUCTION OF Malmi airport was prepared for a long time, starting from the early 1930s. Finland was under pressure to build a modern airport as civilian air travel was possible only during the summer with pontoon planes. In this respect Finland was far behind the rest of Europe's technological developments.<sup>271</sup>

Location options were thoroughly considered. In the end, a decision was made between Tattarinsuo and Tuomarinkylä. As Tuomarinkylä was considered suitable for housing construction, the location was chosen to be Tattarinsuo in Malmi. Drainage of the peatland for the airport would also help the housing development of the nearby areas.<sup>272</sup>

Construction of airports was also taking place elsewhere and a fear was that either the Stockholm or Turku airports would be completed before work in Helsinki was finished. This is exactly what happened. The Turku–Artukainen airfield was already completed in the autumn of 1935, and Stockholm's Bromma field in the following summer. The Malmi airport was opened to air traffic only in December 1936.<sup>273</sup> Officially, the airport was completed only in the spring of 1938 when the administration building was also finished.<sup>274</sup>

First, an airplane hangar was planned and built. It was Europe's second largest when completed in 1937. The hangar's dimensions were planned in such way that the commonly-used Junkers Ju 52 airplane would fit inside either frontwards or sideways.<sup>275</sup> The use of steel-reinforced concrete columns and steel truss beams allowed for large open halls to be built.



PHOTO: TR

The planning of the administration building was started in the early winter of 1936. The airport building was at that time in Finland a new and unknown type of building, which easily adopted the new architectural trend, functionalism.<sup>276</sup> The three-story building with a round layout and long wing buildings demonstrates the freedom of design enabled with concrete element construction. The arch and circular forms were common themes in functionalist architecture, but buildings where the floor plan is based on a complete circle were at that time quite rare.<sup>277</sup> The wing buildings which connect to the round part perpendicularly to each other were originally designed so that they could be expanded either by additions or with more floors.<sup>278</sup> The roofs of the wing buildings originally had terraces for a restaurant on the second floor of the round building.

The main building is currently far from its original appearance. In 1955, the round building received an extensive renovation of the facade.<sup>279</sup> The original, valuable mineral plaster surface was completely removed. Five centimetres of cork layer was fixed over the insulation and outer wall, and over this aluminium sheets. The wing buildings were renovated in the late 1960s when the first floor exterior wall received a brick covering. The granite stone foundation was removed and replaced by steel-reinforced concrete. The windows have also been replaced.<sup>280</sup> The condition of hangar looks worrying at the moment. The exterior wall plaster is in very bad condition and the doors and windows need refurbishment.

The Malmi airport with its buildings is one of the few airports in Europe which dates to the beginning of the aviation era and is still in its original use.<sup>281</sup> The continuation of its function as an airport is, however, under consideration, as there are plans to move airport operations away from Malmi.<sup>282</sup> A residential area has been planned in its place. A new location has not yet been found, however, and Malmi Airport will thus, for now, continue to be busy as a functioning recreational aviation centre.



PHOTOS: TR



PHOTO: HKM

# INFORMATION ON THE PROTECTION OF THE SITES

## ALVAR AALTO'S HOME AND STUDIO 1935-36

Alvar Aalto (1898-1976)

The building is protected under the Act on the Protection of Buildings since 1982.

## THE AUTOKOMPPANIA BARRACKS AND GARAGE 1934-35, 1934-36

Martta Martikainen (1904-92, from 1936 Martikainen-Ypyä)  
The buildings are without protection.

## TAKA-TÖÖLÖ RESIDENTIAL AREA 1930-39

Some of the public buildings, residential buildings and residential complexes in the area are protected in the town plan.

## The Olympic Village

1939-40, 1941-48

Hilding Ekelund (1893-1984), Martti Välikangas (1893-1973)  
Town plan in progress containing its protection.

## KÄÄRMETALO (SERPENTINE HOUSE APARTMENT BUILDING) 1949-51

Yrjö Lindgren (1900-52)

Town plan in progress containing its protection.

## SAHANMÄKI RESIDENTIAL AREA 1951-56

Hilding Ekelund

Town plan in progress containing its protection.

## KISAKYLÄ (OLYMPIC GAMES VILLAGE 1952) 1950-52

Pauli Salomaa (1907-83)

The site is not protected.

## PIHLAJAMÄKI RESIDENTIAL AREA 1959-64, 1968

Olli Kivinen (1921-99), Lauri Silvennoinen (1921-69),  
Esko Korhonen (1923-94)

The site has been protected in the town plan since 2008.

## METSÄTALO BUILDING, HELSINKI UNIVERSITY 1938-39

Jussi Paatela (1886-1962)

The building has been protected in the town plan since 1988.

## SANTAHAMINA CADET COLLEGE 1939-41

Olavi Sortta (1896-1968, originally Olavi Sahlbom,  
from 1935 Sortta)

The buildings are without protection.

## HELSINKI SCHOOL OF ECONOMICS 1941-50

Hugo Harmia (1907-52), Woldemar Baeckman (1911-94)  
The building is not protected.

## MEILAHTI PRIMARY SCHOOL 1949-53

Viljo Revell (1910-64, the architect used his original name  
Rewel until 1959), Osmo Sipari (1922-2008)

The building is not protected.

## PORTHANIA BUILDING, HELSINKI UNIVERSITY 1950-57

Aarne Ervi (1910-77)

The building is not protected.

## HELSINKI WORKERS' INSTITUTE ANNEX 1955-59

Aulis Blomstedt (1906-79)

The building has been protected in the town plan since 1989.

## THE SMALL STAGE OF THE NATIONAL THEATRE 1951-54

Heikki Siren (1918-), Kaija Siren (1920-2001)

The building is not protected.

## KULTTUURITALO (HOUSE OF CULTURE) 1952-58

Alvar Aalto

The building is protected under the Act on the Protection of Buildings since 1982.

## HELSINKI CITY THEATRE 1959-67

Timo Penttilä (1931-2011)

The building is not protected.

## FINLANDIA HALL 1962-75

Alvar Aalto

The building protected under the Act on the Protection of Buildings since 1993, regulations changed in 2002.

## POHJA LIFE INSURANCE COMPANY BUILDING 1928-30

Oiva Kallio (1884-1964)

The building is not protected.

## LASIPALATSI 1934-36

Viljo Revell, Niilo Kokko (1907-75), Heimo Riihimäki (1907-62)

The building is not protected.

## BENSOW HOUSE 1938-40

Uno Ullberg (1879-1944)

The building is not protected.

## NATIONAL PENSIONS INSTITUTE BUILDING 1948, 1953-56

Alvar Aalto

The building is not protected.

TEOLLISUUSKESKUS INDUSTRIAL CENTRE  
1948-53

Viijo Revell, Keijo Petäjä (1919-88)

The building is not protected.

RAUTATALO OFFICE BUILDING

1951-55

Alvar Aalto

The building is protected under the Act on the Protection of Buildings since 1991.

TILKKA MILITARY HOSPITAL

1934-36, 1957-65

Olavi Sortta

The building has been protected in the town plan since 2002.

LASTENLINNA CHILDREN'S HOSPITAL

1938-48

Elsi Borg (1893-1958), Kaarlo Borg (1888-1939), Otto Flodin (1903-69), Olavi Sortta

The building has been protected in the town plan since 1987.

OLYMPIC STADIUM

1933, 1938, 1940, 1952

Yrjö Lindegren, Toivo Jäntti (1900-75)

The building has been protected under the Act on the Protection of Buildings since 2006.

MESSUHALLI HELSINKI EXHIBITION HALL

1934-35, 1950

Aarne Hytönen (1901-72), Risto-Veikko Luukkonen (1902-72)

The building is not protected.

VELODROME

1938-40

Hilding Ekelund

The building has been protected in the town plan since 2009.

ROWING STADIUM

1938-40

Hilding Ekelund

The building has been protected in the town plan since 1999.

RUSKEASUO RIDING HALL

1938-40

Martti Välikangas

The building is not protected.

SWIMMING STADIUM

1938-52

Jorma Järvi (1908-62)

The building is not protected.

HELSINKI MARINE STATION TRAVELLER'S PAVILION

AND THE MAKASIINI TERMINAL

1949, 1950-52

Aarne Hytönen, Risto-Veikko Luukkonen

The buildings have been protected in the town plan since 2000.

HELSINKI-MALMI AIRPORT

1935-337, 1936-38

Dag Englund (1906-79)

The building is not protected.

## FOOTNOTES

1 Age of building stock according to floor area in Finland in 2010. Finland's environmental administration 2011.

[www.rakennusperinto.fi](http://www.rakennusperinto.fi)

2 DOCOMOMO is an acronym which comes from the association's name the, "International Committee for Documentation and Conservation of Buildings, Sites and Neighbourhoods of Modern Movement". DOCOMOMO is an international organization for the protection of modern architecture, which was founded in Holland in 1989. The Finnish DOCOMOMO working group began its operations the following year and it was registered as an association in 1991. *DOCOMOMO. Modernismin merkkitoksia Suomen arkkitehtuurissa*. 2002, p. 9.

3 Louis Sullivan stated in his thesis in 1869 that "form follows function" meaning that the form should always follow function in design.

4 See, e.g. Koho, 2000, pp. 11-14. Adolf Loos's essay "Ornament and Crime" was published in 1908.

5 The principles set out by Le Corbusier included using pillars for a raised building construction, which would allow the free use of the surface of the ground. The pillar structure also made possible a free floor plan and façade, ribbon windows and a roof garden.

6 Alvar Aalto's presentation "Schöner wohnen" in Munich on 11.15.1957. Schildt, 1997, p. 261.

7 "Autoliina, pohjoismaiden upein kasarmirakennus", *Helsingin Sanomat* 8.10.1935.

8 Heinonen, 1986, p. 227.

9 Ekelund, *Kunnallistekniikka* 1, 1954.

10 During the completion of the house Munkkiniemi was still a rural country area. It was not annexed to Helsinki until 1946 as part a larger regional integration.

11 *alvar aalto architect. The Aalto House 1935-36*, 2003, p. 71.

12 Aino and Alvar Aalto, *Arkkitehti*, 8, 1937.

13 *alvar aalto architect. The Aalto House 1935-36*, p. 34; Hipeli, 2004, p. 78.

14 Mustonen, *Arkkitehti*, 5, 2003. Tapani Mustonen is a restoration architect.

15 Martta Martikainen was assisted by Kyllikki Halme and Herbert Holmberg who took part in the planning of the barracks. The entire Autokompania complex includes the actual barracks and the closely linked garage and the Märtha Lilius-Tallroth-designed repair shop building (1938-39) which was converted into a military band school and service club in the 1970s. Jetsonen *et al.*, 2005, pp. 6, 7, 20.

16 Makkonen, 1999, pp. 47, 49.

17 "Autoliina, pohjoismaiden upein kasarmirakennus", *Helsingin Sanomat* 8.10.1935.

18 Mäkinen, 2000, pp. 62, 63.

19 In the Defence Ministry, architect Niilo Niemi, among others, gained familiarity with the design instructions for the barracks, which the architects of the Construction Bureau applied in their own work. The aim of the modern design of the barracks was to achieve hygiene. For that reason, among other things, the colours should be mainly light and discreet, because, "They keep the mind sharp and brisk and at the same maintain cleanliness and tidiness". Everything had to be, "practical and durable, elegant, simple but not ascetic." Niilo Niemi articles in 1934 and 1935 in *Sotilashallinnon Aikakauslehti* magazine quoting Anne Mäkinen. Mäkinen, 2000, p. 92.

- 20 Jetsonen *et al.*, 2005, p. 16.
- 21 *ibid.*, pp. 7, 15; Mäkinen, 2000, pp. 85, 86.
- 22 Makkonen, 1999, p. 49.
- 23 Mäkinen, 2000, p. 51.
- 24 Jetsonen *et al.*, 2005, p. 16.
- 25 The Töölö town planning competition was held in 1898 and was Finland's first town planning competition. The initiator was an architect called Lars Sonck who was one of the first advocates of Camillo Sitte's urban planning ideals in Finland. The Sitte school was characterised by its artistic ambition and free form town planning with attention to the form of the land, which sought to break away from grid patterns and rigid urban planning. After the follow-up competition, the final plan was jointly drawn up by the successful architects from the first stage of the competition Lars Sonck and Gustaf Nyström. The plan was confirmed in 1906. Nationally significant built cultural environments, National Board of Antiquities, 2009, www.rky.fi.
- 26 Changes to the plan 1929, 1935 and 1937. Heinonen, 1986, pp. 203-205.
- 27 *ibid.*, 203-205, 220-222; Lindh, 2002, p. 138.
- 28 The first functionalist town plan for Töölö was drawn up by Birger Brunila in 1935. Ole Gripenberg designed and subsequently built block 498 which was the first functionalist block to be built in Töölö. In the town plan amendment in 1937 Birger Brunila placed lines of houses along both sides of the street at Linnankoskenkatu, between which alternate courtyards and streets though the residential areas. This section represents Taka-Töölö's latest and most modern stages of construction. Lindh, 2002, pp. 43-45
- 29 Heinonen, 1986, p. 220.
- 30 Lindh, 2006, pp. 54-55
- 31 Helander, 1997, p. 20; Helander, *Arkkitehti* 8, 1983; Härö, 1992(a), p. 49.
- 32 "Olympiakylä", *Arkkitehti*, 1939, appendix.
- 33 Nurmi, 2010, p. 94.
- 34 Helander, 1997, p. 20.
- 35 Helander, *Arkkitehti*, 8, 1983; Helander, 1997, p. 20; Helin, 1997, p. 182.
- 36 Saarikangas, 1997, p. 202.
- 37 *ibid.*
- 38 Maria Karisto interview.
- 39 The Helsinki Housing Production Committee (asunto-tuotantokomitea) was responsible for building Käärmetalo on the behalf of Helsingin kansanasunnot Oy. Koskinen, 2011, pp. 6-8, 10.
- 40 The town plan of the quarter from 1939 was updated at start of planning phase. The new plan was drafted in 1949
- 41 Nikula, 1994, p. 85.
- 42 Koskinen, 2011, pp. 16, 26.
- 43 Koskinen, 2011., pp. 12, 16, 35; Maria Karisto interview.
- 44 *ibid.*, pp. 10-12, 30; Lindegren, *Arkkitehti*, 1950.
- 45 The company that operated the sauna and swimming pool in the courtyard building went bankrupt in 1979 and has not since been replaced. The housing association started plans to convert the sauna and swimming pool into family saunas and a laundry for the residents. The plan raised a lot of objections. The architecture society Rakennustaiteen seura and the Finnish Association of Architects (SAFA) took a formal position on the matter. Concerns were highlighted regarding blurring the architectural vision and destroying the ideology at the time of construction with its collective access to the facilities. This position won over. Sauna and laundry facilities were subsequently built in the basement of the courtyard building. *ibid.*, pp. 42, 54, 56.
- 46 Keijo Koskinen interview.
- 47 Helander, 1997, pp. 24,25; Helin, 1997, p. 187; Nikula, 1994, p. 85.
- 48 Maunula. Arjen kestäväää arkkitehtuuria 2007, p. 114
- 49 Saarikangas, 1997, pp. 202, 208.
- 50 Maria Karisto interview.
- 51 Helander, *Arkkitehti* 8, 1983.
- 52 Maunula. Arjen kestäväää arkkitehtuuria, 2007, p. 19
- 53 Härö, 1992(a), p. 53; Salomaa, *Arkkitehti* 5, 1954.
- 54 *ibid.*
- 55 Hurme, 1991, pp. 83, 84.
- 56 Härö, 1992(a), p. 54.
- 57 Hurme, 1991, p. 84.
- 58 The residential buildings were completed in 1964, the services a little later, by 1968.
- 59 Hankonen, 1994, pp. 142, 167, 217, 458.
- 60 Lauri Silvennoinen made study trips to France and other places to study the subject. Tuomi, 2008, p. 46.
- 61 The "forest city" name was invented as a critical term, when in the late 1960s there was a movement in the opposite direction emphasising more urban ideals and aims towards a more compact urban city grid planning approach. Hankonen, 1994, p. 467.
- 62 Niskanen, 2003, pp. 79, 80, 84.
- 63 Pihlajamäen maisemaselvitys, 2003, pp. 10-11, 14-15.
- 64 Kivinen, *Arkkitehti* 4-5, 1960; "Pihlajamäki residential area planning competition", *Arkkitehti* 1960, Appendix 3.
- 65 The prefabricated elements were prepared on site in a temporary production facility. The new technologies were carried out in co-operation with Swedish experts. A Swedish method was used, where the prefabricated interior wall elements were sized to the room and the floor sections were the size of the rooms' floors. Ahtee, *Arkkitehti* 10-11, 1964; Hurme, 1991, p. 105; Silvennoinen, *Arkkitehti* 10-11, 1964.
- 66 Korhonen, *Arkkitehti* 10-11, 1964.
- 67 Silvennoinen, *Arkkitehti* 10-11, 1964.
- 68 Koho, 2000, p. 86.
- 69 Mäkinen, 1989, p. 121; Paatela, *Arkkitehti* 11-12, 1946.
- 70 Davidsson, *Arkkitehti* 5, 2003; Mäkinen, 1989, p. 122.
- 71 Paatela, *Arkkitehti* 11-12, 1946.
- 72 The interior architects for the university side were Arttu Brummer, Engblom and Rumjantsew, while Maija Heikinheimo designed the interiors for Forest Science Research Institute. Mäkinen, 1989, p. 122.
- 73 The renovation was planned by Arkkitehdit Davidsson Tarkela Oy. The renovation of the former university side was completed in 2002, while the work on the Forest Research Institute side and the former garage was completed in 2009. In a name competition for the new users of the building it was determined that the name of the building should remain Metsätalo. Interview with Aki Davidsson, Jaana Tarkela, Miia Perkiö and Lasse Hämäläinen.
- 74 Jetsonen, Heikinheimo, 2000, p. 18.
- 75 Interview with Aki Davidsson, Jaana Tarkela, Miia Perkiö and Lasse Hämäläinen.
- 76 Some of the old rubber mat was so severely damaged that it had to be replaced. Luckily it was possible to commission new mats, as the Italian factory Mondo which produced them had successfully retained older models, so that new orders could be based on them. Interview with Aki Davidsson, Jaana Tarkela, Miia Perkiö and Lasse Hämäläinen.

- 77 Härö, 1992(a), p. 59; Mäkinen, 2000, pp. 203, 204.
- 78 Originally Olavi Sahlbom, known as Olavi Sortta since 1935.
- 79 Mäkinen, 2000, pp. 203–204, 209–210.
- 80 The swimming pool in Yrjönkatu which was opened in the summer of 1928, was the only public swimming pool in Finland at that time. It is likely to have been used as a model for the Santahamina swimming pool. Mäkinen, 2000, pp. 205, 206.
- 81 Mäkinen, 2000, p. 207.
- 82 *ibid.*, pp. 209, 210.
- 83 *ibid.*, p. 210.
- 84 Jetsonen, 1995, pp. 2–6; “Kappakorkeakoulun piirustuskilpailu”, *Arkkitehti* 11–12, 1941.
- 85 Harmia, Baeckmann, *Arkkitehti*, 1950.
- 86 Other artists involved in the design included Yrjö Rosola, Kaj Franck and Dora Young. Harmia, Baeckmann, *Arkkitehti*, 1950.
- 87 The decorative architecture later received some strong criticism, as its contrast to the pure functionalism of the previous decade was so radical. Some professionals already had a rather negative attitude towards it in the 1940s. The young architects of the time labelled it “gingerbread style” because its romantic architecture concentrated on substantial detail rather than the structural aspects. The School of Economics can be considered as a symbol of this type of Swedish-influenced romanticism. Koho, 2000, p. 86.
- 88 The relief was chosen based on the results of an invited competition. Harmia, Baeckmann, *Arkkitehti*, 1950; Nikula, 1993, p. 143.
- 89 Jetsonen, 1995, p. 7.
- 90 The restoration was planned by the architectural office Arkkitehtitoimisto Nurmela-Raimoranta-Tasa Oy.
- 91 The new interior was designed by Jouni Leino. Lindholm, Raimoranta, *Arkkitehti* 2, 1999.
- 92 In a report from 2004, the school is now known as Meilahti Primary School, is rated as one of Helsinki’s most valuable school buildings. Makkonen, 2004, pp. 52, 89.
- 93 Throughout the 1950s the most common type of school building had several storeys, usually with two regular-shaped wings and a plastered façade. Helander, Rista, 1994, p. 74; Jetsonen, 1994, p. 46
- 94 Until 1959, the architect used his original name Rewell. He later changed his name to Revell which is most commonly used when speaking about him, e.g. by the Museum of Finnish Architecture.
- 95 Mannila, 2011(a), pp. 3, 13.
- 96 *ibid.*, p. 16.
- 97 *ibid.*, pp. 14, 18–22, 32–34, Figure Appendix p. 2.
- 98 The wall painting is the result of a fresco-painting course that was held by the Finnish Painter’s Union in 1953. The City of Helsinki awarded a grant for the course. Along with the City representatives and the members of the Finnish Painter’s Union, Revell also took part in selecting the painting that was to be executed and a draft by Onni Oja was chosen. In the end, the painting of the fresco on wet plaster proved too problematic, and he carried out the work using a dry-painting technique. *ibid.*, pp. 38, 108–111.
- 99 The institute building for Helsinki University was given the name Porthania as a tribute to the pioneering Finnish historian Henrik Gabriel Porthan. His influence in the research of the humanities was so valued that the name is a natural choice for an institute dedicated to the study of humanities. Linkomies, 1957, p. 5.
- 100 The following architects were invited to the competition: Pentti Ahola, Iiro Tukkila, Keijo Petäjä and Aarne Ervi. The proposed library extension to the other side of Fabianinkatu was left out of the implementation, because the government could not afford two simultaneous large-scale university building projects. A storehouse for books was built in the Institute building. In the implementation stage Ervi had two main assistants: Olof Hansson who had participated in the competition and Olavi Kantele. Ervi, 1957(a), p. 20; “Helsingin yliopiston instituuttirakennuksen uusintakilpailu”, *Arkkitehti* 1, 1950.
- 101 Ervi, 1957(a), p. 16; Jetsonen, *Arkkitehti* 2, 2011.
- 102 Ervi was the first director of SAFA’s (Finnish Association of Architects) standardizing office.
- 103 The main beams of the Porthania building were made in a foundry and tensioned on site, whereas the pre-tensioned floor and façade units came straight from the factory. The white clinker tiles on the façade were attached to the prefabricated units during the casting process. Hurme, 1991, p. 94; Shadow, 1957, pp. 36, 37, 38.
- 104 Ervi, *Arkkitehti* 1, 1960.
- 105 Lasse Ollinkari, Seppo Paatero and Esko Pajamies designed the interiors and Eero Paatela designed the lamps. There was also some cooperation with Paavo Tynell. Ervi, 1957(a), pp. 16–17, 20; Jetsonen, *Arkkitehti* 2, 2011;
- 106 The restoration was planned by the architectural office Nurmela-Raimoranta-Tasa Oy.
- 107 Nurmela, Remes, *Arkkitehti* 6, 2006.
- 108 Johansson *et al.*, 2010, p. 134; Nurmela, Remes, *Arkkitehti* 6, 2006.
- 109 The design of the main building was led by city architect Gunnar Taucher and was completed in 1927.
- 110 Aaltonen, 2008, pp. 36–38, 40.
- 111 Blomstedt, *Arkkitehti* 9, 1959.
- 112 Even though Blomstedt had not yet published his Canon 60 system, he applied it to the planning process. Blomstedt used the old part’s 360 cm module segmentation, which equals two standard sized people in dimension in the Canon system, for the largest spatial units and the load-bearing structures. However, the room height of 405 cm in the old part of the building did not fit into the spatial programme of the new part. So Blomstedt ended up using a uniform floor height only for the ballroom floor. The 360 cm main modules were divided into three main division types that were introduced in his theory as types 1, 2 and 3. The building’s colour scheme reflects this subdivision. Aaltonen, 2008, pp. 56–58.
- 113 The front panels of the balconies and the hanging screens on the courtyard rock wall are of a similar colour scheme as in the work of Theo van Doesburg, who was part of the group. However, Blomstedt’s colour scheme is a slightly different tint. Aaltonen, 2008, pp. 49–51; Koho, 2000, p. 35.
- 114 Aaltonen, 2008, pp. 47, 48; Helander, Rista, 1994, p. 26.
- 115 Aaltonen, 2008, pp. 51, 52.
- 116 Mukala, *Arkkitehti* 2, 2011.
- 117 In particular, it has many of the same characteristics as the Essen Opera House plan, which was designed a few years previous to it. Alvar Aalto designed the Essen Opera House in 1959 and the building was completed in 1986. The work was led by Elissa Aalto. Similar themes as those found in Finlandia Hall include the asymmetry of the hall, the acoustic upholstering and the combination of marble and cobalt blue tiles indoors. Schildt, 1994, p. 106.

118 The oldest part of the National Theatre was built in Rautatientori and was opened in 1902. It was designed by Onni Törnqvist (known as Onni Tarjanne from 1906). The first expansion took place in 1930 and was also his design. The Small Stage of the National Theatre was the second extension phase. After the design of the Small Stage, Kaija and Heikki Siren's office received several orders from the National Theatre. During the 1962 renovations of the Main Stage the premises were modernized radically and the decorative elements were replaced with clear basic shapes and smooth surfaces. "Kansallisteatterin talobiografia", 2000, pp. 32, 33; Schulman, 2003, pp. 132, 136; "Suomen Kansallisteatterin pieni näyttämö", *Arkkitehti* 6, 1955.

119 Heiskanen, Nevala, 2007, p. 98.

120 *ibid.*; "Suomen Kansallisteatterin pieni näyttämö", *Arkkitehti* 6, 1955. Extensive donations came from Maritime Counsellor Antti Wihuri and his spouse.

121 *docomomo. Modernismin merkkiteoksia Suomen arkkitehtuurissa*, 2002, p. 71.

122 Heiskanen, Nevala, 2007, p. 98.

123 "Suomen Kansallisteatterin pieni näyttämö", *Arkkitehti*, 6, 1955.

124 Siren, 1976, p. 186.

125 The doors were originally varnished. At present, the varnish on the doors is black, which is similar to the original colour. Mannila, 2011(b).

126 Siren, 1976, p. 188.

127 "Suomen Kansallisteatterin pieni näyttämö", *Arkkitehti*, 6, 1955.

128 Mannila, 2011(b).

129 Schildt, 2007, p. 673; Schildt, 1994, p. 93; Thompson, *pt*1, 2005.

130 Aalto, *Arkkitehti* 12, 1959(a).

131 Aalto, *Arkkitehti* 12, 1959(b); Schildt, 1994, p. 94.

132 The Helsinki College of Home Economics was designed by Elma ja Erik Lindroos and completed in 1956.

133 The renovation work is to be carried out by Arkkitehdit NRT.

134 The second prize was not awarded, and Aarne Ervi came in third, *Arkkitehtiutiset (Architect News)* 4, 2011.

135 Penttilä, *Arkkitehti* 10-11, 1967.

136 *ibid.*

137 Salminen, *Arkkitehtiutiset* 4, 2011.

138 *ibid.*

139 Maija Ruoslahti responded about the interior. Penttilä, *Arkkitehti* 10-11, 1967.

140 Bogdan Tsernjakevits won the competition. Salmela, *Helsingin Sanomat* 23.10.2007.

141 Penttilä, *Arkkitehti* 10-11, 1967.

142 The renovation is scheduled for 2016. At that time, among other changes, the building services of the theatre will be renovated to date. Seppo Lundgren interview.

143 Schildt, 2007, pp. 772-782.

144 The facade renovation was implemented in 1998-1999.

145 Acoustic improvements were made in four parts and were completed in the summer of 1977. Halme, *Arkkitehti* 8, 1977.

146 The construction of the expansion required modification of the town plan as well as the building protection decision made in 1993. The expansion was completed in the early fall of 2011; the designer was Arkkitehtitoimisto A-konsultit Oy.

147 Iso-Aho, *Teräsrakenne* 4, 2011.

148 Oiva Kallio also contributed to the breakthrough of functionalism as a competition judge. She, together with Martti Välikangas, chose the first Finnish functionalist winner in the Aitta-lehti villa competition. The closing date for the Pohja Office Building competition was two months after Alvar Aalto had presented the first sketches of the Turun Sanomat office building, considered one of Finland's earliest representatives of functionalism. The main blueprints of both buildings were completed at the end of 1928. Heinonen, 1986, pp. 217-219; Jeskanen, Leskelä, 2000, pp. 83, 84.

149 *DOCOMOMO. Modernismin merkkiteoksia Suomen arkkitehtuurissa*, 2002, p. 53; Jeskanen, Leskelä, 2000, p. 81.

150 Kairamo, 1999, pp. 41-45.

151 Aalto, *Arkkitehti* 1-2, 1958.

152 Jeskanen, Leskelä, 2000, pp. 81, 83.

153 In 1928, a competition was organised for two commercial buildings located directly opposite each other by the Pohja Life Insurance Company and the Eläkelaitos Elonvara pension company. The competition was open, but Oiva Kallio and Kaarlo Borg were specifically invited to participate. The competition period was short, lasting only about a month. Kallio won the competition for the Pohja commercial building. He finished second in the Elonvara competition, and the winner was Yrjö Lindegren. In both of Kallio's proposals, an inner courtyard, a highlighted main staircase, a pillar frame and ribbon windows are common features. "Elonvara's och 'Pohja's' eskisritningstävlingar", *Arkitekten* 8, 1928; Jeskanen, Leskelä, 2000, pp. 83, 84.

154 Jeskanen, Leskelä, 2000, pp. 81, 83.

155 Kallio, *Arkitekten* 8, 1930.

156 Nimimerkki Pohjames, *Helsingin Sanomat* 4. 9. 1930.

157 Jeskanen, Leskelä, 2000, p. 84.

158 Standertskjöld, 2008, p. 40.

159 At the beginning of 1934, the plot ownership change was completed and then an architect student group, now under the name of OY Lasipalatsi AB (later SOK and Valio OY became the new owners of Lasipalatsi AB), submitted a tender for the rental of the area. At the same time it drew up a town plan that included a bazaar structure and the bus station planned on the southwest side. In May 1935, the Lasipalatsi company made a ten year lease agreement with the city in order to build the planned bazaar building.

Kokko, Rewell, Riihimäki, *Arkkitehti* 1937.

160 Högström, 1999, pp. 20, 23.

161 Revell, Kokko and Riihimäki designed the furniture of the cinema, upper restaurant and kitchen. The colours of the theatre hall and the lobby along with linoleum cuts and the wall murals were designed by artist Eino Kauria. He also assisted textile artist Maija Kolsi-Mäkelä in the fabric planning of the cinema's curtain fabric. Högström, 1999, pp. 23, 24; Kokko, Rewell, Riihimäki, *Arkkitehti* 1937.

162 Kokko, Rewell, Riihimäki, *Arkkitehti* 1937.

163 Ilonen, Lukander, *Arkkitehti* 2, 1999(b).

164 Högström, 1999, p. 29. The Sokos department store and the hotel is the main work of architect Erkki Huttunen in Helsinki. The building was scheduled to be ready for the 1940 Olympic Games, but it was not completed until 1952.

165 *ibid.*, pp. 20, 27, 29.

166 The renovation was designed by Arkkitehtitoimisto Alli Oy, Pia Ilonen, Minna Lukander.

167 Ilonen, Lukander, 1999(a), pp. 47, 49, 53.

168 For the company that ordered the building, Ab Wilhelm Bensow Oy owned by counsellor of commerce Wilhelm Bensow,

- the 1920s and 1930s had been a time of steady growth making an investment such as the company's own business building possible. The Bensow Children's Foundation, which Bensow founded together with his wife, was the second entity ordering the building. The Finnish Literature Society SKS, Biography centre; Ullberg, *Arkkitehti* 5, 1941.
- 169 Ullberg, *Arkkitehti* 5, 1941.
- 170 *ibid.*
- 171 Standertskjöld, 2008, p. 86.
- 172 Ullberg, *Arkkitehti* 5, 1941.
- 173 *ibid.*
- 174 Penttilä, 2006, p. 79.
- 175 *Suomi rakentaa. Nykyarkkitehtuurimme näyttely Ateneumissa*, 1953, pp. 79–80.
- 176 Aalto, *Arkkitehti* 1–2, 1958.
- 177 Similar tiles were also used around the same time as the building of the Rautatalo building and later in a number of other buildings designed by Aalto.
- 178 Aalto, *Arkkitehti* 1–2, 1958.
- 179 *DOCOMOMO. Modernismin merkkiteoksia Suomen arkkitehtuurissa*, 2002, p. 63.
- 180 Finnish Employers' Confederation and the City of Helsinki had reached agreement at the start of the 1940s for the construction of the Conderation's office building concerning the acquired plot. Härö, 1992(b), p. 103.
- 181 Rewell, *Arkkitehti* 3–4, 1954.
- 182 *ibid.*
- 183 Along with the name of the hotel, the building is often called the Palace Building.
- 184 Niskanen, 1989, pp. 30,32; *Suomi rakentaa. Nykyarkkitehtuurimme näyttely Ateneumissa* 1953, p. 63.
- 185 Rewell, *Arkkitehti* 3–4, 1954; Standertskjöld, 2008, p. 86.
- 186 Niskanen, 1989, pp. 30, 32.
- 187 A group of talented young men were involved in the design of the interior spaces, including Antti Nurmesniemi, Olli Borg and Olavi Hänninen. Rewell, *Arkkitehti* 3–4, 1954.
- 188 Sari Saresto interview.
- 189 *The Domus Litonii* (G. P. Leander 1847, Jung&Jung 1929), located next to the Rautatalo building, was supposed to be replaced at some time by a more practical new building. Its significance was not recognized in the 1950s as it is today and in 2002 it was protected under the Act on the Protection of Buildings.
- 190 Aalto, *Arkkitehti* 9, 1955.
- 191 Stora Enso Oyj's head office was completed in 1961, Fabianinkatu commercial building 1965, Academic bookstore 1969 and Sähköatalo 1975.
- 192 Aalto, *Arkkitehti* 9, 1955.
- 193 Rautatalo building arose on the basis of the winning proposal of an invitational competition held in 1951.
- 194 Schildt, 1994, p. 139; Schildt, 2007, p. 638.
- 195 Aalto developed similar roof windows already in the 1930 in the Turun Sanomat building (1930), the Paimio sanatorium (1933) and the Viipuri Library (1935).
- 196 Aalto, *Arkkitehti* 9, 1955.
- 197 Aalto's instructions to Olsson, Undated document from the Alvar Aalto Foundation archives. Tuomi, 1998, p. 98.
- 198 Architectural office Sarc Oy designed the renovation.
- 199 The internal medicine department of the Helsinki Military Hospital was already operating at the same hospital area in the Tikka rest home before construction of the new hospital. Mäkinen, 2000, p. 21.
- 200 Olavi Sahlbom until 1935.
- 201 Both are Jussi Paatela's plans; the Red Cross Hospital was finished in 1932, and the Women's Hospital in 1934.
- 202 Mäkinen, 2000, p. 113; Mäkinen, 2008, pp. 20, 21, 30.
- 203 Mäkinen, 2008, p. 23.
- 204 Kalmari's Hospital was designed by architect Gustaf Birch-Lindgren, and the hospital was not completed until after the Tikka hospital in 1937. Mäkinen, 2000, p. 114.
- 205 "Hälsingins sotiilassairaala. Puolustusministeriön rakennustoimisto", *Arkkitehti* 10, 1936.
- 206 *Suomen Sotilas* 1936, as quoted by Anne Mäkinen. Mäkinen, 2000, p. 112.
- 207 Architect Ragnar Ypyä worked until 1936 in the construction bureau of the defence ministry. Makkonen, 1991, pp. 43–44, 49–51; Mäkinen, 1991, pp. 166–167.
- 208 Mäkinen, 2008, p. 26.
- 209 Parviainen Arkkitehdit Oy designed the renovations.
- 210 Henttonen, 1995, p. 125.
- 211 *ibid.*
- 212 Henttonen, 2010, pp. 65–69; Henttonen, 1995, p. 126.
- 213 The sculptures and reliefs reflect Lastenlinna's activities and the goals of its builder, Kenraali Mannerheimin Lastensuojeluliitto. *ibid.*, pp. 130, 133–134.
- 214 Henttonen, 2010, pp. 65–69; Standertskjöld, 2008, p. 84.
- 215 Henttonen, 1995, pp. 136, 137.
- 216 The success of Finnish athletes in the Olympic Games in the 1910s and 1920s inspired the Finnish to apply to host the games on several occasions in the 1930s. The games were awarded to Finland for the year 1940, when Tokyo, which had been awarded the games in 1936, was forced in the summer of 1938 to give up hosting the games due to the Japan-China war. Arrangements in Finland were started soon after the decision, and construction of competition venues began immediately. Because of the war the 1940 Olympics were cancelled, but were awarded to Finland again in Stockholm in 1947. The solution came in the second round of voting, with Helsinki competing with Los Angeles, Minneapolis and Amsterdam. The Helsinki Olympic Games were held during the time 1. 7. - 3. 8. 1952. Högstöm, 2001, pp. 10, 17; Nygrén, 1988, p. 23.
- 217 *Olympiarakennusten korjauseriaatteen*, 1996. pp. 10, 13.
- 218 Högstöm, 2001, p. 19.
- 219 The first two floors of the Autopalatsi (Auto palace) (1937) contained car bays and maintenance services. The designers of the building were architectural university graduate Helge Lundström and engineer Magnus Malmberg. The opening ceremony of the third floor of Tennispalatsi (Tennis palace) was held in the autumn of 1938. Lindh, 1993, pp. 8–11, 25–29.
- 220 The assistant city manager Erik von Frenckell had a significant role not only in the Stadium project but also in all the arrangements of the Olympic games. Frenckell had lobbied for building the Stadium since the 1910s. Much to his credit the Stadium Foundation was founded in 1927. Högstöm, 2001, pp. 79–81.
- 221 Koponen, 2002, pp. 7, 8.
- 222 Lindgren held the main responsibility for the project during the planning phase until his death in 1952. Jantti continued as the Stadium architect in its later phases until his death in 1975. Högstöm, 1993(a), pp. 1, 4, 50.
- 223 Högstöm, 1993(a), p. 8.

- 224 The games were cancelled, but on the days during which the games were to have been held the "homeland Olympics" were held in memory of athletes fallen during the war. Högström, 1993(a), p. 3; Högström, 2001, pp. 40, 42.
- 225 The tax office facilities were ready in 1955, a hostel in 1961 and an extension of the sports museum in 1963. Högström, 1993(a), p. 7; Railo, 1994, p. 41.
- 226 Högström, 2001, pp. 47, 48.
- 227 The most extensive reparations since the Olympics were made in 1970–71 for the European Track and Field Championships. The next largest renovation was performed when Finland was awarded the World Track and Field Championships for 1983. Högström, 1993(a), pp. 8, 9; Nygrén, 1988, pp. 23, 25.
- 228 Kairamo, 2006, p. 38.
- 229 Koponen, 2002, pp. 73–86; Railo, 1994, pp. 75–86.
- 230 An architectural competition was arranged in 2003 for the canopy design, and the architectural office K2S won the competition and was awarded the assignment.
- 231 Hakola, *Helsingin Sanomat* 8.2.2012.
- 232 "Helsinki Exhibition Hall competition", *Arkkitehti* 3, 1934; Makkonen, 1999, p. 56.
- 233 The order for the Messuhalli building was placed by Osuuskunta Suomen Messut (Finnish Fair Corporation), which received a plot of land from Helsinki City on then Turuntie, now Mannerheimintie road. Härö, 1992(d), p. 36. "Messuhalli. Ensimmäinen rakennusvaihe", *Arkkitehti* 1935; Härö, 1992(d), pp. 36, 37.
- 234 Heikinheimo, Jetsonen, 2002, p. 8; Högström, 2001, p. 70.
- 235 *ibid.*, pp. 70, 71; "Messuhalli. Ensimmäinen rakennusvaihe", *Arkkitehti*, 1935.
- 236 Heikinheimo, Jetsonen, 2002, p. 31; Härö, 1992(d), p. 38.
- 237 Heikinheimo, Jetsonen, 2002, p. 17,111.
- 238 "Messuhalli. Ensimmäinen rakennusvaihe", *Arkkitehti*, 1935.
- 239 Högström, 1996(a), p. 3; Högström, 2001, pp. 60, 61.
- 240 Ekelund, *Arkkitehti* 6-7, 1952(a); Högström, 1996(a), pp. 5, 11, 12.
- 241 Högström, 1996(a), p. 8.
- 242 Ekelund, *Arkkitehti* 6-7, 1952(a); Högström, 2001, pp. 65, 66.
- 243 The interior of the Velodrome was renovated in the 1960s. The space partitioning of the first floor was altered, all interior spaces became heated with improved insulation and the utilities were modernised. Hilikka Högström interview; Högström, 1996(a), p. 13.
- 244 Committee statements from 1938 as quoted by Hilikka Högström. Högström, 1996(b), pp. 5, 7.
- 245 Ekelund, *Arkkitehti* 6-7, 1952(b); Högström, 1996(b), pp. 4, 5, 14.
- 246 Högström, 1996(b), pp. 6, 14, 16.
- 247 Högström, 2001, p. 60.
- 248 Ekelund, *Arkkitehti* 6-7, 1952(b).
- 249 Hilikka Högström interview.
- 250 Laherma, 1993, pp. 27, 32.
- 251 Högström, 2001, p. 67.
- 252 Laherma, 1993, pp. 33–34.
- 253 *ibid.*, p. 35; Högström, 2001, p. 67.
- 254 Laherma, 1993, pp. 35–36.
- 255 Högström, 1993(b), p. 3.
- 256 Järvi, *Arkkitehti* 6-7, 1952.
- 257 *ibid.*
- 258 *Uimastadionin maisemahistoriallinen selvitys*, 2010, p. 18.
- 259 Högström, 2001, p. 55; Järvi, *Arkkitehti* 6-7, 1952.
- 260 Högström, 1993(b), p. 3; Järvi, *Arkkitehti* 6-7, 1952.
- 261 Högström, 2001, p. 55.
- 262 Järvi, *Arkkitehti* 6-7, 1952; *Uimastadionin maisemahistoriallinen selvitys*, 2010, pp. 16, 22.
- 263 Hilikka Högström interview.
- 264 Härö, 1992(e), pp. 68, 69.
- 265 Koskimies, 2004, p. 4; Moberg, 1997, p. 13.
- 266 "Meriasema", *Arkkitehti* 6, 1953.
- 267 Härö, 1992(e), pp. 68, 69.
- 268 "Meriasema", *Arkkitehti* 6, 1953; *Suomi rakentaa. Nykyarkkitehtuurimme näytellyt Ateneumissa*, 1953, p. 62.
- 269 "Meriasema", *Arkkitehti* 6, 1953.
- 270 It is difficult to determine the roles of individual architects in the work of the Board of Public Building agency (prior to 1937) and its successor, the National Board of Public Building (post 1937). In addition to Dag Englund, the design of the Malmi airport was carried out also by Onni Ermala (main building and hangar) and Vera Rosendahl (main building). Moberg, 1997, p. 15.
- 271 Koskimies, 2004, pp. 7, 8, 11, 20.
- 272 *ibid.*, p. 16; Lönnroth *et al.*, 1938, pp. 8, 9, 11.
- 273 Koskimies, 2004, pp. 17, 21.
- 274 Lönnroth *et al.*, 1938, p. 5.
- 275 Koskimies, 2004, p. 4; Lönnroth *et al.*, 1938, pp. 51, 52.
- 276 Moberg, 1997, pp. 19, 20.
- 277 Airports similar to Malmi include the Milan airport building presented at the Triennial of 1933 and designed by Enrico Prampolini, the Gatwick airport of 1936 and the old Budapest airport (Bierbauer and Králik, 1937). Moberg, 1997, pp. 18, 19; The circular kiosk designed by Gunnar Taucher and finished in 1926 was one of Helsinki's first functionalist buildings. A similar round model was used a few years later in Tampere and Pori among other places. Mäkinen, 2003, pp. 35–39.
- 278 "Helsingin lentoaseman hallintorakennus", *Arkkitehti* 1938.
- 279 The original steel-reinforced concrete structure of the main building was insulated with porous concrete. Already after 20 years from the date of completion of the building, defects began to appear on the facade due to inadequate ventilation. The exterior plaster cracked and fell off along with the insulating porous concrete. Insulating porous concrete (Siporex) was a new material in the 1930s in Finland and there was little experience with its use. Moberg, 1997, pp. 36–38.
- 280 *ibid.*, pp. 36–38.
- 281 By 1953, all regular air traffic had moved to the new airport in Vantaa. Malmi has since then been a location for flying schools, charter services, business spaces and recreational aviation. *ibid.*, p. 12; Koskimies, 2004, p. 4.
- 282 Studies on the moving of airport operations have been conducted since the 1980s. In the fall of 2009, the World Monuments Fund (WMF) of New York added the Malmi airport to its list of the 100 most threatened cultural sites. Karumo, *Helsingin Sanomat* 25.9.2003.

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Architect Keijo Koskinen interview on 24.2.2012, Leena Makkonen

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AP: Helsingin kaupungin aineistopankki

HKM: Helsingin kaupungin museo

KH: Kari Hakli

KM: Kaupungin mittaosasto

KSV: Kaupunkisuunnitteluvirasto

LG: Luca de Gol, KSV

ML: Mika Lappalainen

MT: Matti Tirri

SA-KUVA: Sota-arkisto/Kansallisarkisto

SK: Simo Karisalo, KSV

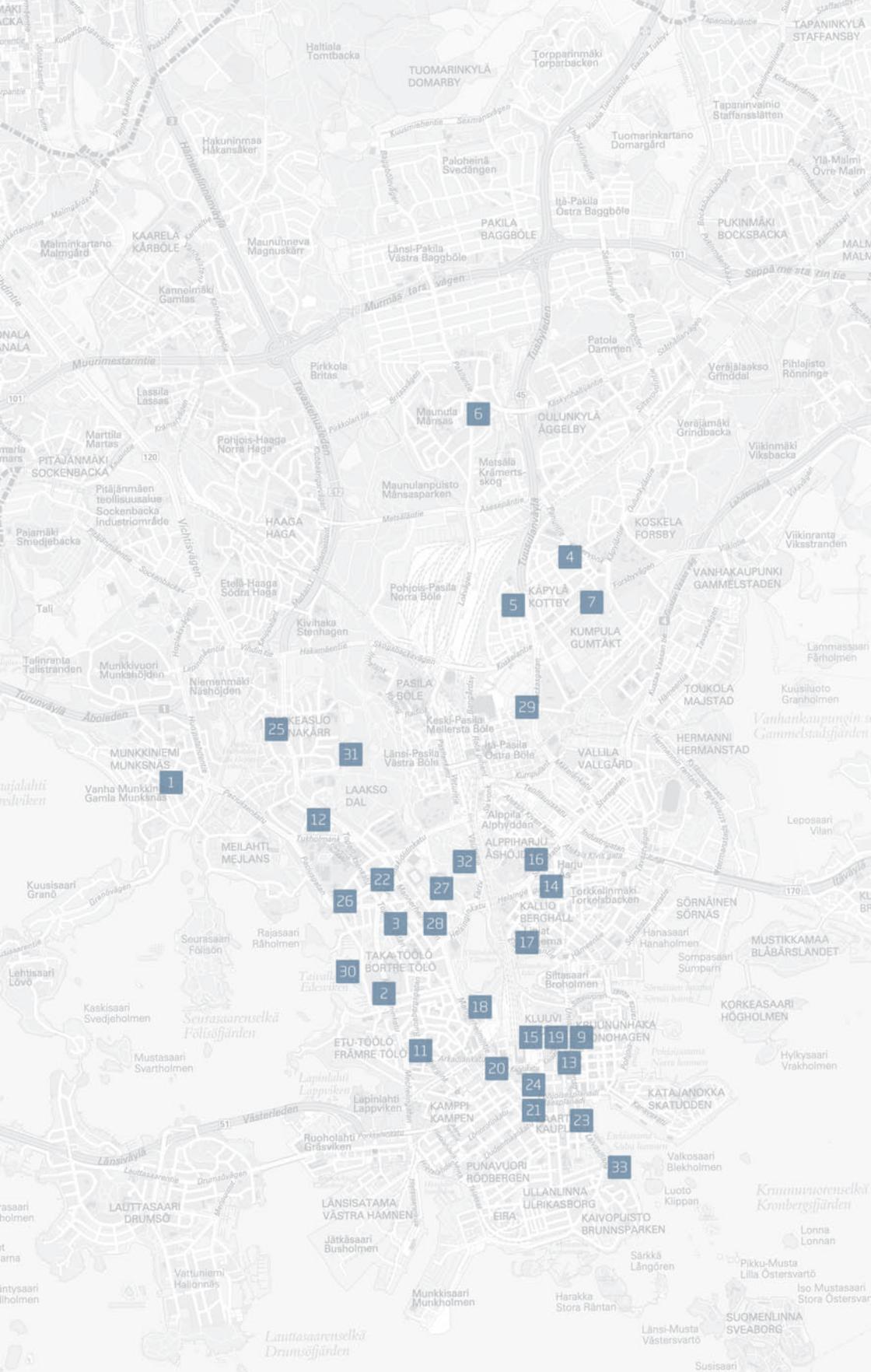
SRM: Suomen Rakennustaitteen museo/Arkkitehtuurimuseo

SW: Sinikka Wasastjerna, KSV

TH: Tuulikki Holopainen

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VP: Vladimir Pohtokari



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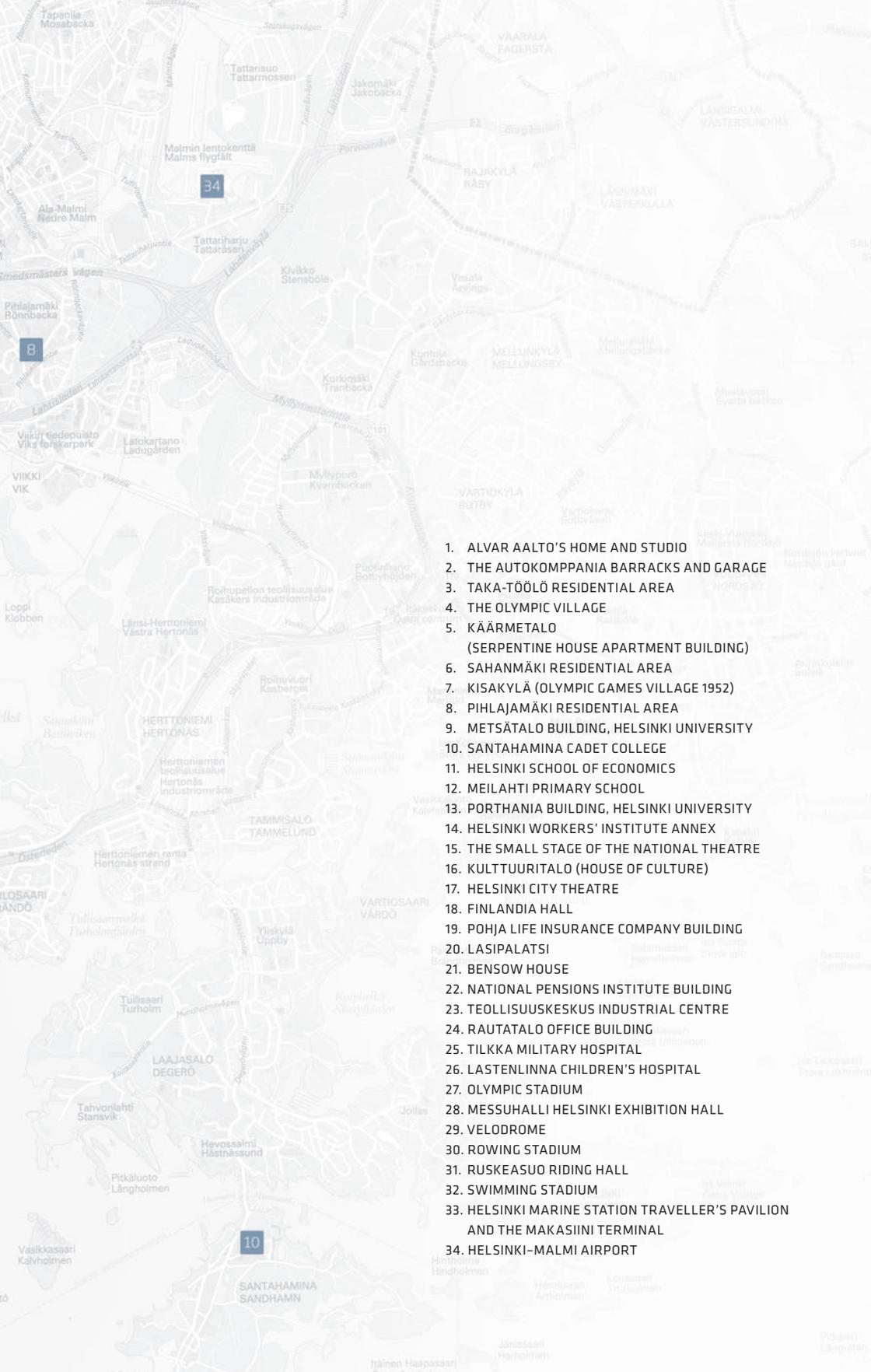
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THIS PUBLICATION tells about the sites in Helsinki, whose construction happened in the period between the 1930s and 1970s. In the beginning functionalism emerged as a new trend. Functionalistic principles were implemented in an unprejudiced way in Lasipalatsi and Auto-komppania buildings. In urban planning the ideals of health - light, air and sun to the housing - were emphasised. Taka-Töölö is a good example of how these aims gradually were concretized. Modernism includes also social goals. It aims to achieve good housing conditions for all social classes. Olympiakylä, Kisakylä and Käärmetalo tell about these objectives. Modernism also has passion for technological development, the innovativeness of Porthania-building is worthy of special mention. At the end of the period the mass-production was manifested. Pihlajamäki was the first residential area in Helsinki realized as a large scale area-construction site using prefabrication techniques.

It is intended that this publication would be an inspiring guide book that leads readers to go and explore the sites of Modernism in Helsinki and make their own observations on the ground. The author of the publication is architect, Dr.Tech. Leena Makkonen, who works as an expert of building conservation at Helsinki City Planning Department.

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