# HERTZBERGERS WEESPERFLAT AS AN EMBODIMENT OF HIS DESIGN PHILOSOPHY

# A HISTORICAL CASE STUDY



[01]

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#### ABSTRACT:

This architectural history thesis examines the "Studentenhuis Weesperstraat" (1966) in Amsterdam, designed by Herman Hertzberger (\*1932) as a representation of his philosophy towards creating architecture. This being one if the earliest examples of Hertzbergers work, it serves as an accurate display of his meticulous approach to architecture during the development of structuralism in the Netherlands. The research consists of the retrospective analysis of his philosophy including its development, based on interviews as well as his own published recollections and a historical case study on the building in its original state. By way of immediately projecting his theoretical framework on this practical manifestation the study adds to the current body of knowledge concerning Hertzbergers work and design philosophy.

Keywords: Hertzberger, Student House, Weesperstraat, Amsterdam, Structuralism

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# INTRODUCTION

The current student housing crisis in the Netherlands forces us to take action and seek reference in architectural history. The sheer amount of students unable to find an affordable home in the environment they want to be in during the duration of their academic career teaches us architects that urban living the way we know and cherish it will only remain possible if we rethink the way we assign spaces inside the city.

The political and social landscape of post-war Amsterdam gave way to immense architectural development and solving the prevalent (student) housing crisis was one of its main goals. The public outcry for affordable living space was especially common amongst students resulting in the formation of student unions and the student revolts of the late 60s.

Herman Hertzberger's "Studentenhuis Weesperstraat" (aka. Weesperflat) completed in 1966 in Amsterdam served as an attempt in fighting the crisis at the time and still stands today as a staple in dutch student housing design.

The way people live together in the city shaped by the interrelation of the private and the public realm in different building typologies and architectural assignments was one of the main topics Hertzberger tackled in his decade spanning career.

His views on community and the way people interact within the built environment shaped his architectural style and thus the status quo of Dutch architecture during the era we call structuralism.

He planned the student house in an early, highly formative stage of his career and in this thesis I will examine the question of how the design of the Weesperflat embodies Herman Hertzbergers philosophy towards creating architecture.

Hertzbergers own recollections of his views and accomplishments in the form of lectures held at TU Delft ("Lessons for students in architecture") give insights into his thought process and his approach towards architecture. Besides his own descriptions of his work I consulted publications about his work from different sources and points in time (Herman Hertzberger Bauten und Projekte 1959-86" by Arnulf Lüchinger 1987; "Herman Hertzberger 1959-1990" by Toshio Nakamura 1991; "archithese Herman Hertzberger" 2023) as well as newspaper articles and interviews during different stages of his career.

These sources focus on the multitude of Hertzbergers project and relate them to their inherent function and context. In my research I will focus on the representation of Hertzbergers personal design framework in the Weesperflat and how he got to the point of designing it at such a young age. Publications describing the urban development of post-war Amsterdam will place the project in its immediate historical context, while primary, archival sources on the Weesperflat and the process of its creation will help in understanding how the project came to be. This historical piece focuses on a retrospective analysis of Herman Hertzbergers philosophy to creating architecture and projects the findings on to the design of the Weesperflat, investigating the way his theoretical framework is manifested in it.

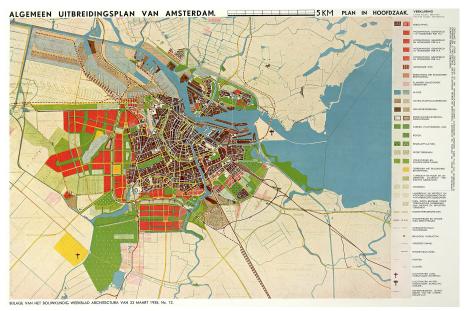
I will start my thesis by highlighting the historical context of the Netherlands, the city of Amsterdam and the Weesperstraat in the years following World War II.

The following chapter focuses on Hertzberger's early career and how he got to the point of designing the Weesperflat at such a young age, during his involvement in the structuralist movement shaping Dutch post-war architecture.

A section on Hertzbergers architectural principles based on his own recollection of his philosophy will outline his approach to creating architecture and the motives leading him to said approach. The main case study on the Studentenhuis Weesperstraat itself, as a representative example of Hertzbergers work, will elaborate on how his principles shaped the design of the complex and how his approach to residential architecture in the early days of his career is represented in the building.

I will conclude on my findings and highlight the close connection between the Weesperflat as one of Hertzbergers first realized projects and his emerging structuralist philosophy towards creating architecture for the people, developed in the early stages of his career.

Research on the vision, design and process of the Weesperflat focusing on the guiding principles Herman Hertzberger applies to his work will serve as a thorough example of the time and can serve as an inspiration for us future architects in tackling the immense shortage in urban housing space we face once again today.



[02] the "algemeen uitbreidingsplan"

# **CHAPTER 1 - HISTORICAL CONTEXT**

### **1.1 THE EXPANSION OF AMSTERDAM**

During the period following World War II the Netherlands including its capital Amsterdam found itself at a crossroad. The long standing German occupation and the resulting decay of the city and its inhabitants demanded massive developments after the liberation.

The years before the war were shaped by an economic crisis resulting in a shortage in suitable accommodations combined with a high volume of uninhabited space in need of redevelopment, plaguing the quickly growing population. <sup>1</sup>

This situation lead to new grand urban plans for Amsterdam.

The "General Expansion Plan" (Algemeen Uitbreidingsplan aka. AUP) served as a basis for the urban expansion of the city and was developed in the 1930s by urban planner Cornelis van Eesteren with help from the architect Theo van Lohuizen.

It was presented to the public in 1935 and met with high praise due to the political climate during the reign of "the Social Democratic Workers' Party and the Dutch Federation of Trade Unions [who put forward] *Het plan van de arbeid* ('Labour plan') for a 'controlled economy' to combat the economic crisis and the acute menace of fascism [...] in Germany in 1933."<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Kras et al. 1983, p.22

<sup>&</sup>lt;sup>2</sup> Engel, 2019, p.71

# **1.2 THE AUP AS A MODEL**

Van Eesterens expansion plans were based on demographic research concerning the numerical demands the city has and will have in the future and it was one of the first urban expansion plans conducted solely on the basis of calculations. <sup>3</sup> The immense shortage in housing was the main issue the government had to tackle and their approach was most rational when it came to residential development. The plan for housing in the AUP was based on government funded, large scale, low-rent, standardized developments. <sup>4</sup> This strategy led to a lowered quality in residential architecture due to the missing financial motivations only the private housing sector brings with it. <sup>5</sup>

The AUP fits the description of what we retrospectively call functionalist architecture while taking a stance on all aspects of the city, future projects and existing building stock alike. A key feature setting van Eesterens vision for Amsterdam apart from other functionalist large scale urban plans was the lack of high-rise projects proposed. <sup>6</sup>

The AUP aimed to establish a strict separation between housing and working, generally planning for residential areas in the newly planned parts located towards the West and South of Amsterdam, while the old city centre was to turn into a business hub. The infrastructural steps necessary to connect them, such as new widened main roads called "parkways" and large scale recreational parks were also considered in the AUP.

The overarching architectural model developed for the new residential areas can be described as a "compact garden city" which situates itself more closely towards the existing urban structure than the classic satellite "garden city" models proposed in early 20th century expansion plans.<sup>7</sup>

<sup>&</sup>lt;sup>3</sup> de Rooy, 2008

<sup>&</sup>lt;sup>4</sup> Kras et al. 1983, p.22

<sup>&</sup>lt;sup>5</sup> Kras et al. 1983, p.94

<sup>&</sup>lt;sup>6</sup> Engel, 2019, p.77

<sup>&</sup>lt;sup>7</sup> Engel, 2019, p.69

# **1.3 POST-WAR RECONSTRUCTION**

The partial realization of the ideas proposed in the General Expansion Plan only started after the Second World War had ended and the initial vision was altered along the way. <sup>8</sup> Public outcry for more affordable housing as well as criticism towards the existing post-war housing projects from experts such as Hertzberger himself grew. <sup>9</sup> The housing shortage the city faced during the pre-war creation of the AUP increased during the war, as many buildings were destroyed while the rate of occupancy in existing building stock fell. <sup>10</sup>

For the sake of efficiency, changes to the expansion plans were made, easing many of the restrictions imposed upon the architectural scope of the cities future, breaking free from the strictly functionalist urban approach van Eesteren foresaw roughly 20 years prior. This included the introduction of mixed use areas, a more open attitude towards high-rise constructions and relying on the private building sector when it comes to housing. <sup>11</sup> Post-war reconstruction plans increased the focus on the development of inner city business and the traffic measures that this required. The main roads into the the city centre were subject to change accommodating the prevalent concept of the "car-friendly city" along with plans for the IJ tunnel connecting the northern part of Amsterdam with the city centre. A newly constructed metro was also part of the vast infrastructural developments. <sup>12</sup>

These partially took place in the heart of the former Jewish quarter in the south-east of the city centre around the area of the Weesperbuurt. The area was known for its vibrant urban life, shops, cafes and restaurants on ground level with residential spaces above it shaped its atmosphere. During the Holocaust, the majority of the jews living in Amsterdam was deported and murdered. Many of the buildings in the Jewish quarter were vacant as a result and got torn down and used for fuel by the starving survivors before the reconstruction of Amsterdam began. In the years immediately after the war the area slowly came back to life, buildings damaged beyond repair were taken down while others were fixed and new buildings added. <sup>13</sup>

<sup>&</sup>lt;sup>8</sup> de Rooy, 2008

<sup>&</sup>lt;sup>9</sup> van den Heuvel et al. 2019, p.93

<sup>&</sup>lt;sup>10</sup> Engel, 2019, p.77

<sup>&</sup>lt;sup>11</sup> Kras et al. 1983, p.92f

<sup>&</sup>lt;sup>12</sup> Engel, 2019, p.79

<sup>13</sup> Vuijsje, 2012



[03] the Weesperstraat before the war

# **1.4 THE WEESPERSTRAAT**

The Weesperstraat was chosen as one of the main traffic ways into the city. The old narrow layout was considered an obstacle between the already constructed Wibaut-Straat and the future location of the IJ tunnel. <sup>14</sup> The resulting modifications published in a 1953 altercation of the urban renewal of Amsterdam included the demolition of most remaining buildings to make room for a new motorway replacing the old Weesperstraat and construction of the new metro, thus heavily altering the look and feel of an essential part of the old Jewish quarter. <sup>15</sup> The building programme was also subject to change, due to the increase in dimension of the Weesperstraat demanding different, bigger typologies than before. "The character of the [former jewish quarter] was in danger of being radically altered, due to increasing traffic and the separation of activities along the street." <sup>16</sup>

The initial planning code for the area in the early versions of the AUP asked for mono-functional office buildings adjacent to the newly constructed 4 lane parkway the Weesperstraat turned into.<sup>17</sup> Large scale developments with a remaining focus on commercial spaces shaped the atmosphere of the early new Weesperstraat, an exception in programme being the student housing complex by Herman Hertzberger opened in 1966.

<sup>14</sup> Behm, et al. 2007, p.122

<sup>&</sup>lt;sup>15</sup> Engel, 2019, p.79

<sup>&</sup>lt;sup>16</sup> Behm et al. 2007, p.122

<sup>&</sup>lt;sup>17</sup> Behm et al. 2007, p.122



[04] the Weesperstraat during urban renewal in Amsterdam

### **1.5 HERTZBERGER BIOGRAPHY**

Herman Hertzberger was born 1932 in Amsterdam and grew up in the Plan Zuid area designed by H.P. Berlage, while it was still partially being constructed. His youth was shaped by the war and the German occupation of the time. He attended a Montessori school, heavily influencing his views on education which came to fruition in his later school designs. He claims that his fascination for architecture was "unconsciously aroused" by [...] Duikers Open-air school, that was located behind his school." and finally surfaced through a book on LeCorbusiers collected works a friend brought to school when we was fourteen years old. <sup>18</sup>

He further educated himself on the topic of architecture and insisted to go to university after finishing school. His wish was to attend the Academy of Architecture and remain in Amsterdam but his father sent him to Delft, feeling like he should receive the best education possible. His recollections of his studies in Delft show his forward thinking disposition and his resulting aversion towards the traditional syllabus in Delft, characterized by glorifying classic architectural history and refusing modernist 20th century architecture.

In his reminiscence of his time at university he complains about most of his professors "aversion for "left-wing" architecture, such as that produced by the group of Dutch functionalists known as the Nieuwe Bouwers." He was also taught in urbanism by Cornelis van Eesteren, describing him as "terribly disappointing". <sup>19</sup>

<sup>&</sup>lt;sup>18</sup> Behm et al. 2007, p.27

<sup>&</sup>lt;sup>19</sup> Behm et al. 2007, p.32

In his later years in Delft he was educated by Jaap Bakema and eventually Aldo van Eyck, with whom he presumably agreed more since he kept a close relationship and still names them as some of his biggest influences to this day. <sup>20</sup> This enabled him to develop his own personal philosophy on architecture fueled by his past experiences, without the constraints of the other, more traditionalist professors in Delft. During his academic career Hertzberger took part in multiple independent competitions.

In 1958 he graduated under the functionalist professor M. Duintjer who had worked for LeCorbusier in the past. His thesis project was a high school highly inspired by the works of Marcel Breuer and Arne Jacobsen. <sup>21</sup>

### **1.6 THE PATH TOWARDS THE WEESPERFLAT**

Hertzberger and two of his classmates entered an architectural competition for a new student home, proclaimed by the Senate of the General Student Association Amsterdam (ASVA) and the University and Academy of Architecture in 1957, while still studying themselves. <sup>22</sup> <sup>23</sup> The plot assigned to the project became available as part of the urban renewal along the newly constructed Weesperstraat. It is situated between the two university campuses Roeterseiland and Oudemanshuispoort in close proximity to the "Universiteitskwartier" of Amsterdam. <sup>24</sup> His companions Ed Kramer and Tjakko Hazewinkel had to withdraw from the project early on due to military service and Hertzberger continued to develop it on his own. He later described them as not being of much help anyways and claims that the design for the initial competition was mostly done by himself. In his own words the initial idea which won the competition was "rather boring", while most of the elements establishing the Weesperflats unique identity were only added to the design after the competition ended and the building got realized. <sup>25</sup>

<sup>&</sup>lt;sup>20</sup> Behm et al. 2007, p.52

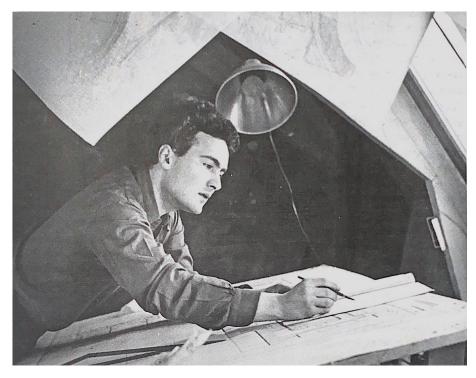
<sup>&</sup>lt;sup>21</sup> Behm et al. 2007, p.38

<sup>&</sup>lt;sup>22</sup> Mooij, 2018, p.61

<sup>&</sup>lt;sup>23</sup> Lüchinger, 1987, p. 15

<sup>&</sup>lt;sup>24</sup> Reinink, 1990, p.30

<sup>&</sup>lt;sup>25</sup> Behm et al. 2007, p.39



[05] Hertzberger at work in his Amsterdam attic (1959)

# **CHAPTER 2 - HERTZBERGERS PHILOSOPHY**

# **2.1 INTRODUCTION**

In a newspaper article published in "de Tijd" in October 1967 commemorating him winning the Amsterdam Architecture Prize for the design of the Weesperflat, his approach to designing is described by way of the simile of a telephone booth.

"When architect Herman Hertzberger (35) is faced with the question of how to design a telephone booth, his fertile imagination puts a situation in front of him: a boy who schedules a date, a man who has a serious family incident, a student who is discussing a problem with a friend. Each situation actually requires a different cell. It is the architects task to create space in which all this can go well."<sup>26</sup>

Herman Hertzbergers philosophy to architecture can be described as structuralist, as he is one of the founding fathers of the movement. The typically structuralist focus on the human scale and every users individual experience in a given space is a common theme in Hertzbergers work, developed during a time of efficiency driven functionalism, resulting in standardized architecture for the masses. Branding his approach with just one word would do a disservice to the depth of consideration he brings towards every task. A quote from his Book "Lessons for students in Architecture" helps to explain this level of consideration:

[...] Each architectural assignment contains an incentive to develop a new order, i.e. an order emanating from the specific nature of that assignment. Just as each order represents a specific mechanism, it also tends to be exclusive to that mechanism. Different aims are emphasized in different instances, but the central issue with structure is the paradox of an ordering creating freedom - a horizon throughout the plan. <sup>27</sup>

### 2.2 ORDER

Developing an "horizon" as a baseline to each assignment is the essence to his approach in creating architecture. The reciprocal relationship of the individual aspects ("parts") and the building itself ("whole") is what drives his explorations in creating new solutions.

The overarching structure of a building is thus determined by the parts which are simultaneously being determined by the whole.

Hertzberger compares this dichotomy to language, "each sentence derives its meaning from the words of which it is composed, while at the same time each word derives is meaning from the sentence as a whole." <sup>28</sup>

The challenge in finding the set of requirements of a specific project demands constant scrutiny towards ones own hypothesis (the proclaimed "order") by way of checking "whether all the extremities can be brought together under the denominator of a common theme" <sup>29</sup>

Hertzbergers mission is to create structures based on a proclaimed largest common denominator tying together all aspects of the design, providing space for later interpretation by the user inside a predefined horizon.

<sup>&</sup>lt;sup>27</sup> Hertzberger, 1991, p.145

<sup>&</sup>lt;sup>28</sup> Hertzberger, 1991, p.126

<sup>&</sup>lt;sup>29</sup> Hertzberger, 1991, p.126

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# 2.3 POLYVALENCE

The focus on the users ability to interpret spaces is a crucial part in understanding Hertzbergers approach to architecture. Inside the framework of his chosen "order" he creates incentives for the people to appropriate the space to their demands at any given time.

This incentive can only be developed when the architect can identify with the future users and "switch his habitual concentration from the building programme, which usually reflects only a collective interpretation, to the […] everyday reality of everything that we build." <sup>30</sup> He claims that the programme of requirements the users might have should dictate the programme of the space as planned by the architect; its inherent function. Hertzberger criticizes specific, purely functionalist solutions which leave little room for self

expression, as well as the notion of flexibility which promotes neutrality to accommodate changing influences. <sup>31</sup>

His approach to multifunctional spaces deals with "a form that can be put to different uses without having to undergo changes itself". <sup>32</sup> Hertzberger calls this concept "polyvalence"; a scientific term usually describing the presence of more than one solution or truth at the same time. In his words polyvalent architecture possesses the ability to retain its identity "when the users decide to put it to different uses than those originally envisaged by the architect". <sup>33</sup> In a 2017 interview Hertzberger explained his polyvalent approach by way of describing the difference between an apparatus and an instrument. Both tools are made to serve a purpose, while the apparatus is made for a specific, obvious tasks serving just that. The instrument on the other hand enables many different applications, which are only limited by what the user is able and willing to do with it.<sup>34</sup>

<sup>&</sup>lt;sup>30</sup> Hertzberger, 1991, p.164

<sup>&</sup>lt;sup>31</sup> Hertzberger, 1991, p.146

<sup>&</sup>lt;sup>32</sup> Hertzberger, 1991, p.147

<sup>&</sup>lt;sup>33</sup> Hertzberger, 1991, p.148

<sup>&</sup>lt;sup>34</sup> Hertzberger, 29.08.2017

The function of Hertzbergers architecture thus derives from individual interpretations by the users, created by the combination of incentives given to them and the associations they make with the space, motivating them to reinterpret its function. The small scope of the adjustments users have to make while interpreting his polyvalent spaces helps in keeping the relationship between features and users temporary and enabling the space to quickly return to its original state ready for its next metamorphosis. <sup>35</sup>

With the ability to reinterpret the spaces he creates, Hertzberger puts a certain responsibility on the user to take action lead by their demands, which influences how a community of inhabitants behaves and how it divides said space amongst itself.

### 2.4 TERRITORIAL CLAIMS

Architectural discourse usually splits the division of spaces between different user profiles into the concepts public and private.

Herman Hertzberger translates these into the spatial terms "collective" and "individual" for a lack of subtlety of the former termini. <sup>36</sup> He goes beyond the question of access when considering what makes a space feel more or less private for any given individual. The users degree of supervision, usability, care taken and responsibility towards a given space defines their perception of it and the resulting affinity to claim said space and appropriate it.

In his work he focuses on creating spaces with varying degrees of perceived privacy while "eliminating the sharp division between areas with different territorial claims" <sup>37</sup> by creating thresholds in-between them.

The shape of these thresholds and the way they are communicated in his design determines Hertzbergers "choice of architectonic motifs, their articulation, form and material" to reflect the varying ambiances found in each assignment.

<sup>&</sup>lt;sup>35</sup> Hertzberger, 1991, p.156

<sup>&</sup>lt;sup>36</sup> Hertzberger, 1991, p.16

<sup>&</sup>lt;sup>37</sup> Hertzberger, 1991, p.40

He considers his projects to be clusters of places, with each place having its own character and atmosphere and thus compares architecture to urbanism which tends to relate interventions on different scales to each other. <sup>38</sup> When the hallway is to the apartment what the street is to the house, collective spaces with quality for all inhabitants get created. <sup>39</sup>

He often experiments in the way he designs these publicly perceived, collective spaces. Thought to be public territory is encouraged to be temporarily claimed by individuals or certain groups whose use puts the public nature of the space in perspective. These claims beyond private territory are subconsciously conducted by the inhabitants and increase the sense of community a space can convey. This expansion of the area of personal influence into the public space increases its quality and can turn public space into communal space. Hertzberger claims that, for this to happen one must design in a way that evokes the personal responsibility of the local community to increase identification for each member through participation, becoming an inhabitant rather than just a user.

To manage the responsibility of communally used spaces he demands the world to be "built up of small-scale, workable entities, no larger than what one person can cope with and look after on his own terms.", seeking a decentralized decision-making process over the shared space and "handing over responsibilities where they belong". <sup>40</sup>

Hertzberger criticizes the prevalent collective welfare concept developed along the ideas of socialism, "that makes people subordinate to the very system that has been set up to liberate them." <sup>41</sup> The result is control enforced from above and non-transparent hierarchies of responsibilities. He claims that "a dominating fear of disorder, mess and the unexpected" shaped the functionalist urban development of the time, which preferred distance between individuals over interaction amongst them. <sup>42</sup>

These principles and their effect on the interrelation between people sharing a space, are most notable in residential architecture. Hertzbergers repeated use of the word "inhabitant", when describing users of spaces beyond just housing, alludes to his philosophy being based on the experience of people in what they call their home.

<sup>&</sup>lt;sup>38</sup> Adam, et al. 2023, p.78

<sup>&</sup>lt;sup>39</sup> Hertzberger, 1991, p.14

<sup>&</sup>lt;sup>40</sup> Hertzberger, 1991, p.47

<sup>&</sup>lt;sup>41</sup> Hertzberger, 1991, p.45

<sup>42</sup> van den Heuvel, et al. 2019, p.182

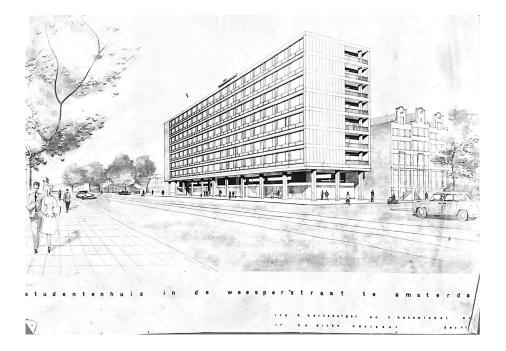
# **CHAPTER 3 - THE STUDENTENHUIS WEESPERSTRAAT**

# **3.1 CONTEXT**

Herman Hertzberger got to design a multitude of residential projects in his career, with the Studentenhuis Weesperflat being the first and most formative one.

During the time of the competition in 1957 he was inspired by the functionalist architects that came before him. He does not shy away from naming his references in relation to the projects they inspired. <sup>43</sup> The initial competition design of the Weesperflat resembles his functionalist influences and lacks in complexity when considering the completed version that was opened nine years later in 1966. In his own descriptions of the process he retrospectively calls the early design "actually quite boring" <sup>44</sup>

This perspective on the shift in quality of his own work is a result of the immense development Hertzbergers approach to architecture underwent during the time of the Weesperflats design and construction.



[06] Perspective drawing for the competition of the Studentenhuis Weesperstraat

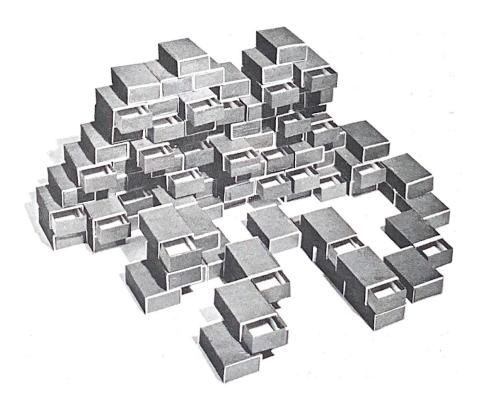
<sup>43</sup> Behm et al. 2007, p.44

<sup>44</sup> Behm et al. 2007, p.42

He started the process of the competition design before graduating from university at just 25 years of age, at a time in which he was still finding his own architectural style and developing the principles which make up his philosophy towards architecture.

After graduating his former professor Aldo van Eyck invited him to join the junior staff of the Dutch architectural magazine "Forum voor architectuur en daarmee verbonden kunsten (Forum for architecture and applied arts) (aka. Forum). Van Eyck and Bakema, both members of Team 10 and the CIAM at the time, used Forum as a broadcast platform for sharing the advances presented at the rather exclusive meetings they had been part of. "On this basis, new architectural research lines are developed [...] by the young architects who helped them and collaborated". <sup>45</sup>

Herman Hertzberger, being one of these young architects, became part of the editorial board as a secretary from 1959 until 1967, the time of Van Eyck and Bakema leading said board. <sup>46</sup> The magazine was a crucial part in the development of Dutch structuralism and Hertzbergers personal development as an architect.



[07] structuralist matchboxes

<sup>45</sup> del Rio, 2019, p.215
<sup>46</sup> del Rio, 2019, p.214

He compares his time as part of the board at Forum to a postgraduate education during the early stages of his career, working alongside some of his biggest influences at the time, researching ways of driving modern architecture forward. <sup>47</sup>

One of his first contributions to Forum was an installation made out of matchboxes, conveying an alternative to the functionalist approach to standardization by way of a playful arrangement of essentially still identical units. The size of his contributions to the 23 issues he was part of gradually increased through the years he spent working on Forum. Essays written for the magazine outlining his emerging structuralist philosophy still serve as a basis for publications and lectures on (and by) Herman Hertzberger today. The last issue he participated in was released in 1967 and contained documentation of the finished Studentenhuis, as well as "theoretical essays that ease the comprehension of the architectural work as the materialization of concepts and ideals." <sup>48</sup>

The time in which he designed the Weesperflat alines with his Forum years, representing the most formative phase of his career. His approach to architecture developed from interpreting his former functional influences towards the newly established structuralist principles developed with Forum. Hertzberger considers the student house to be the starting point to his career as it is the first building he consciously designed himself. <sup>49</sup> "Only with the completion of the student house, and how it was realized, did he find his own path." <sup>50</sup>

<sup>&</sup>lt;sup>47</sup> Behm et al, 2007, p.49

<sup>&</sup>lt;sup>48</sup> del Rio, 2019, p.228

<sup>&</sup>lt;sup>49</sup> Behm et al. 2007, p.46

<sup>&</sup>lt;sup>50</sup> Behm et al. 2007, p.9

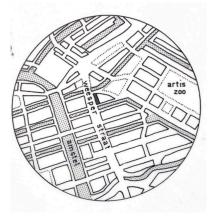
The realized version of the Studentenhuis Weesperstraat is far from what Hertzberger initially presented as the winning design for the competition.

The slab-like complex is 7 story tall and aligns itself along the north-south oriented, newly constructed Weesperstraat. It spans the length of an entire block, with the northern edge of the building, adjacent to Nieuwe Herengracht, being free standing. The southern tip of the Weesperflat is missing the three upper floors to mitigate the height difference towards the existing prewar buildings along the Nieuwe Keizersgracht which it connects to. This allows the construction of a sensible high-rise inside the structure of the old city. <sup>51</sup>

This far reaching change by horizontally splitting the volume in two parts being the most notable modification to the initial version of the building Hertzberger conducted during the process. The design of the facade remained similar to the one proposed in the competition except for the addition of loggias for each dwelling.



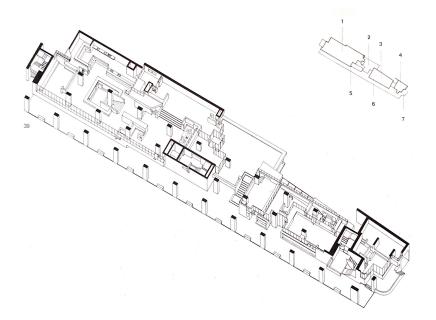
[08] the Weesperflat shortly after its completion



[09] siteplan of the area

# **3.3 LOWER FLOORS**

The programme of the Weesperflat is dictated by its use as a student home and Hertzbergers imagination towards the future demands of said students. Contrary to the other mostly monofunctional, commercial developments along the new Weesperstraat, the use of the buildings ground floor resembles the lively, collective atmosphere of the old jewish quarters. <sup>52</sup> The Weesperflats heightened spaces on ground level are publicly accessible and house different collective functions intended to serve far more people than just the inhabitants of the complex itself, a result of Hertzbergers emerging tendency to blend public and private space. An arcade towards the Weesperstraat creates a connection between the street and the building.



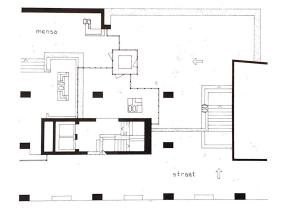
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[10] axonometric
overview of the
ground floor
1 mensa
2 entrance terrace
3 ASVA headquarter
4 café corner
5 arcade
6 academic bookshop
7 terrace

[11] perspective section of the lower levels

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#### [12] floorplan of the central entrance

#### [13] the entrance under the arcade

The path of entering the student house is organized in a way that blends outside and inside. The circulation consists of different thresholds defining a sequence of spaces "each of which represents a successive stage of coming in our going out" without defining a clear border between public and private areas. <sup>53</sup> The central, open entrance under the arcade leads up to a public terrace oriented towards the backyard of the block. From that point access is granted into the multi level student restaurant ("mensa") and the primary staircase for accessing the dwellings in the upper floors. There is a secondary staircase towards the lower, southern part of the building and an emergency stair towards the north. The headquarters of the student union, including the academic bookshop and the corner cafe with its adjacent terrace are equipped with individual entrances.

The design of these publicly accessible spaces in the ground floor is characterized by Hertzbergers structuralist design language. A multitude of small irregularities in form, surface and material give incentives for interpretation to the inhabitants. These polyvalent spaces enable the individual to appropriate them to their best advantage.





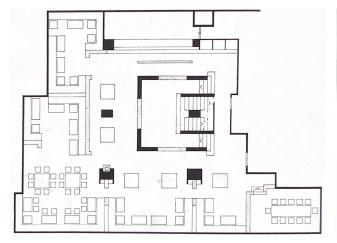
[14] The headquarter of the student union after completion

[15] and after being in use

The two conditions of the headquarter of the ASVA show the result of the polyvalence characterizing Hertzbergers spaces. The way he shapes space and places custom, fixed furniture can create associations in the inhabitants and thus allows for various applications which do not have to be premeditated by the architect. A counter can turn into a work station while a bench or a niche behind structural elements can be used as temporary storage.

The student restaurant offers different seating configurations from individual seats towards the facade to benches along the wall and larger tables allowing groups of students to gather. The space is defined by volumes with seemingly unspecific function which can incentivize a multitude of uses. The railing which lines the central staircase is shaped in a way that allows it to be used as either a counter or a bench, while lampposts act as a division between the tables creating secluded niches.

These spatial measures taken by Hertzberger in the meticulous design of the public space in the ground floor allow the inhabitants participation and result in a multitude of possible functions, highlighting Hertzbergers focus on polyvalent elements, predefined in dimension but open for interpretation of their use profile.





[16] Floorplan of the lower level of the mensa

[17] the upper floor of the mensa

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# **3.4 UPPER FLOORS**

The six regular upper floors, divided into two volumes of three levels each are entirely comprised of residential spaces for the students. The Weesperflat houses 250 people in total, divided into two communal dwellings of 18 people per floor. Additionally there are three dwellings for 6 people in the lower three floors on the southern side of the complex. The fourth floor houses eight experimental apartments for married students living together, blending the line between student room and regular apartment. <sup>54</sup> This level being the one where the jump in building height happens, is an exception to the set of rules Herman Hertzberger followed in the dwelling configuration of the Weesperflat.

It is shaped by the most notable feature of the complex which substantiates its position as one of Hertzbergers projects most accurately representing his philosophy towards architecture; the so called "street in the air".

His theoretical framework often touches on the concept of the street. <sup>55</sup> Usually representing not more than the public realm as opposed to private space, Hertzberger sees great potential in a street as collective space and to make room for communication between people. He also claims that the success in the design of a dwelling unit depends on its ability to blend with the communal atmosphere of the street it is sited on. He calls this approach "living street" with the Weesperflat being his first built prototype of the concept. Michiel Brinkmans Spangen housing complex in Rotterdam from 1919 was his main inspiration for introducing an elevated street into a building, providing not only access to the dwellings but also serving as a space for the inhabitants to come together. <sup>56</sup>

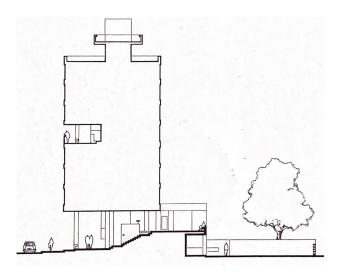


[18] floorplan of the 4th floor including the elevated street

<sup>&</sup>lt;sup>54</sup> Mooij, 2018, p.61

<sup>&</sup>lt;sup>55</sup> Hertzberger, 1991, p.48

<sup>&</sup>lt;sup>56</sup> Hertzberger, 1991, p.54





[19] public space infiltrating the Weesperflat [20] the street in the air

The rather extraordinary typology of dwellings for student couples induced Hertzberger to feature a gallery system as a first attempt in creating a "living street". His inspiration being the couples potential children playing outdoors without being in danger of traffic while enjoying the view over the old city of Amsterdam. <sup>57</sup> It serves as an extension of the Weesperstraat inside the building itself and is as such designed to be entirely publicly accessible. It runs past all dwellings on the fourth floor and connects to the vertical circulation systems.

The street in the air is the focal point of the Weesperflats design and accurately portrays Herman Hertzbergers principles in creating architecture for the people. The immediate connection between the dwellings and the public realm, arising from the latter literally penetrating an upper floor of the building, is most notable on the elevated street. It serves as an informal meeting point for the inhabitants and, contrary to regular gallery systems at the time, promotes collectivity by offering space for interpretation of its use. Its generous width in combination with the chosen space defining elements enable a variety of uses for the public space in front of the dwellings. A series of load bearing columns divides the living street into two lanes, resulting in differing degrees of perceived public character throughout the living street.

<sup>&</sup>lt;sup>57</sup> Hertzberger, 1991, p.55





[21] the lamp element

[22] a collective picnic in the living street

Hertzberger designed concrete lamp elements made for illuminating the floor during the night, which are in alignment with the columns, thus zoning the street while representing another striking example of his self proclaimed "polyvalence".

While essentially serving the purpose of illumination, their form and positioning allows for a multitude of applications. The users imagination on how to use it to their own advantage is the only limiting factor to its use function. Hertzberger names them as an example of an element "that does not refer too outspokenly to an unequivocal goal" and lists "benches, work surfaces and - in warm weather - picnic tables" as some examples of their possible use. <sup>58</sup>

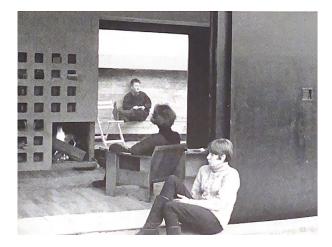
The living street also features an in- and outdoor communal space which is placed on the topmost level of the southern, lower end of the complex. This so called "open house" is designed as a collective space for all inhabitants to come together. Hertzberger calls this an "attempt to break away from low-budget student housing programs in the Netherlands", by offering communal space beyond the realm of the dwellings. <sup>59</sup> It connects to an open terrace at the end of the living street and features a balcony towards the back of the building. Besides the main communal space there is a kitchen and bathroom for collective use.

<sup>&</sup>lt;sup>58</sup> Hertzberger, 1991, p.152

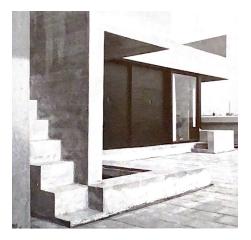
<sup>&</sup>lt;sup>59</sup> Behm et al. 2007, p.44



[23] floorplan of the open house



[25] the open house



[24] view from the street



[26] inside the open house

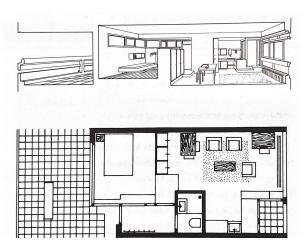
The design of the area in and around the open house offers an abundance of polyvalent elements that create incentives for divergent, communal uses of the space.

An informal stair element adjacent to the vertical circulation leads up to the otherwise unused flat roof while being part of the exterior spatial design of the threshold between the circulation and the terrace. It connects to a sandbox meant for the children living in the couples apartments. The railing towards the edge of the terrace is lined with block-like elements that enable a diverse use profile similar to the lamps on the elevated street. These incentivizing architectural motifs also shape the inside of the open house. It features a fireplace as the central space defining element. The internal walls are lined with small nooks and niches to place personal objects and create a sense of individuality in the communal space. The facade is made up of sliding glass doors, blending the border between inside and out and connecting the open house to the public street in the air. The facade is made up of sliding glass doors, blending the border between inside and out and connecting the open house to the public street in the air.

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[27] entrances on the street in the air

[28] apartments for married students

### **3.5 DWELLINGS**

The experimental couples apartments on the fourth floor differ in size and are separate from the load bearing structure, enabling a variety of dwelling designs. The issue of privacy usually tied to a gallery circulation is dealt with by raising up the floor in the bedrooms facing the street. The use of high placed windows, only allowing a visual connection from inside out, enables a close connection between the dwellings and the public outdoors without interfering with the inhabitants personal private realm. Access is given through a set back entrance creating a threshold between the public street in the air and the entrances. This threshold is shaped by two protruding elements creating a perceived boundary between the public street and the apartments doorsill. These also offer an opportunity for appropriation to the inhabitants, who can place personal objects along their front door and thus create individuality in the otherwise repetitive design of the entrances.

The layout of the dwellings in the regular upper floors follows an entirely different approach to circulation and collectivity, when comparing them to the fourth story.

The central internal staircase gives access to two dwellings of 18 inhabitants per floor, while the secondary staircase leads towards three additional six person apartments in the southern part of the lower three levels of the Weesperflat.



[29] floorplan of the regular upper floor

floor 5-7

+ floor 1-3



[30] communal kitchen

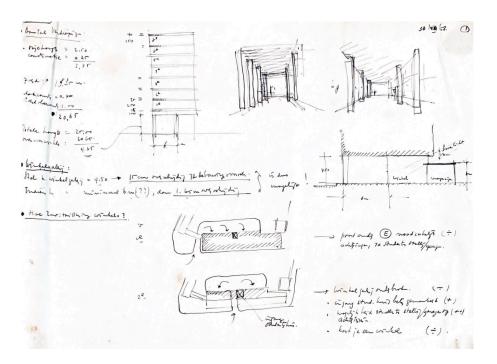
[31] the collective outside space

The reoccurring communal dwelling is organized along a central, internal corridor with the individual rooms of every student placed along the two facades. Shared bath-, wash- and storage rooms are centrally placed in the wide corridor splitting it in half, which creates two lanes of internal circulation along the students rooms.

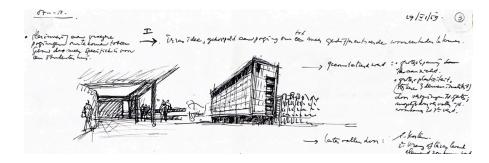
At the outer end of each dwelling is a collective space used as a kitchen, dining- and living room. It features an outdoor space towards the Weesperstraat. The communal space is zoned by a central kitchen island element which offers the opportunity for different uses. It can be an extension of the regular kitchen when cooking together or used as a secondary dining table. There is a multitude of possible seating configurations when combining the elements fixed in place with added furniture. The outside space is accessed via a big sliding door merging inside and out and features a niche for possible seating. These measures of spatial design inside the collectively used spaces in the dwellings enable a variety of appropriations beyond the architects imagination of the programme. These incentives Hertzbergers design offers to the users - through polyvalent design - can lead to internal associations by the inhabitants allowing them to interpret their home in any way they imagine again and again. The result being a highly varied configuration of the private living spaces inside the Weesperflat.

### 3.6 PROCESS

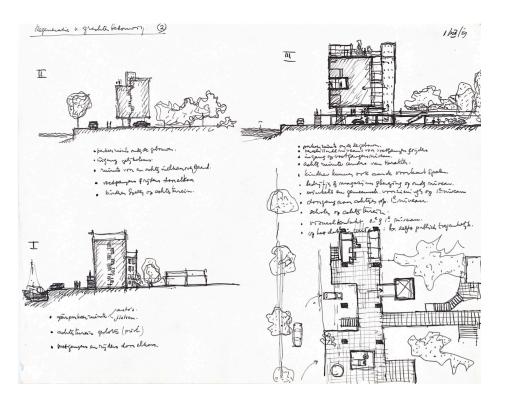
The process towards the creation of the Weesperflat took nine years in total. The endeavor began in 1957 when Hertzberger was a student entering the competition and ended in 1966 when he was already an established architect with multiple finished projects to his name. The design of the student house changed drastically during the process of its creation, highlighting the development of Hertzbergers approach to architecture in that period. An abundance of dated and archived sketches by Hertzberger, taken during the creation of the student house highlight the process of creating the Weesperflat from the initial functionalisminspired competition version towards the realized building we still know today.



[32] 08/1958 early experiments in ground floor access and arcade design

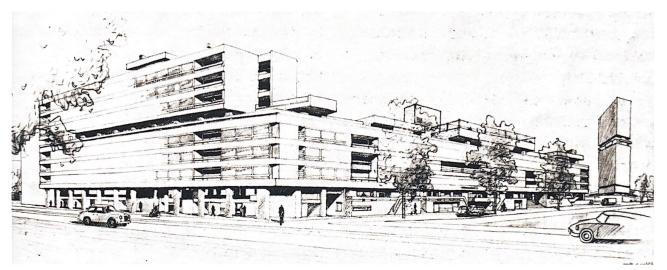


[33] 06/1959 an early living street, incorporated in the initial volume



[34] 12/1959 variants in volume and circulation (V3 = living street)

Before he worked out the concept of the street in the air as a feasible solution for the Weesperflats access system, Hertzberger experimented with different means of circulation, resulting in a multitude of variants considered. The ground floor was imagined as an open space for car transit and parking. A result of the typically post-war concept of the "car friendly city". Above it he envisioned an elevated floor housing the communal functions without a clear separation between inside and outside. The open character of the ground floor remained an important motif in the design while the attempts to accommodate car parking where abandoned.



[35] a theoretical, expanded version of the Weesperflat

There are experimental drawings touching on the idea of continuing the structure around the southern corner connected by a joint living street [35]. Hertzberger explains that he "thought that this would make it possible to build more high-rises in the old city. Perhaps that was a ridiculous notion, but it was a modern one." <sup>60</sup>

He also remembers the process and notes that "it was such a difficult project and every corner of the building needed attention." <sup>61</sup> This attention to detail and the wide variety of versions considered, highlights the growth Hertzberger as an architect experienced in the timespan of creating the Weesperflat.

<sup>60</sup> Behm et al. 2007, p.42

<sup>&</sup>lt;sup>61</sup> Behm et al. 2007, p.46

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#### [36] 1966

### **3.7 CHANGES**

[37] 2014

The Weesperflat had to undergo modifications since its inception almost 60 years ago. They were conducted in multiple waves and focused on the programme of the lower levels, accessibility, safety and the dwelling configuration. Hertzberger claims that he still has faith in the elements shaping the Weesperflats unique character and that it "distresses [him] that most of these elements have since been removed". <sup>62</sup> He states that he still refers to these elements in his other projects.

His vision of a residential building blending the border between private and public spaces did not stand the test of time. Access to the building including the formerly collective spaces is limited to only renting inhabitants [36/37] and the ground floor has since been turned into offices, which do not have any connection to the current inhabitants.

Polyvalent spatial elements shaping the Weesperflats character and use profile have also been modified to account for modern housing standards. The informal stair on the living street has been made unusable for safety reasons, as has the balcony adjacent to the entrance of the secondary vertical circulation. His design, intended to accompany adjustments by the inhabitants at a later stage in the buildings life-cycle still stands as a staple in Dutch student housing after said modifications.

In a 2016 interview while visiting the complex Herman Hertzberger comments on the changes conducted, reacting highly critical, as one would expect. He questions the decisions taken in closing of the building and removing the public character the Weesperflat used to convey.

<sup>62</sup> Behm et al. 2007, p.46

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He describes the Weesperflat as a product of "the sixties and its enormous naivety" alluding to the freedom given to the inhabitants in combination with little regulation towards the standards of student housing prevalent in the 1960s. He seems to accept its inevitable fate but still adds: "Better naive, than nowadays realism". <sup>63</sup>

# CONCLUSION

The design of the Studentenhuis Weesperstraat highlights Herman Hertzbergers philosophy towards creating architecture in many ways. His structuralist approach to cater the buildings functionality towards the inhabitants individual demands by enabling a multitude of them to be fulfilled simultaneously, represents his intention to designing polyvalent spaces. The open, public character of the building allows the inhabitants to appropriate the communal spaces beyond their dwellings and enables outsiders to benefit from the Weesperflats facilities following his concept of differing territorial claims.

Hertzbergers focus on the building order portrayed in recollections of his approach is not yet implemented in the Weesperflat, alluding to a later development of that part of his philosophy. This order is shown in subsequent larger projects by him, focusing on the careful ordinance of small spatial entities following a strict corset of rules, while the Weesperstraat was still designed as one complete entity itself.

The tedious process of designing during the formative early part of Hertzbergers career shows his personal growth as an emerging architect at the time.

The initial design presented during the competition resembles his functionalist references, resulting in a linear repetitive structure featuring a central corridor circulation clearly still being influenced by Le Corbusiers unite d'habitation. During the creation of the Weesperstraat, correlating with his time spent working at Forum, he evolved his philosophy by way of theoretical examinations in writing and practical experiments with varying typologies, developing structuralism in architecture together with his mentors and peers. His personal approach as a designer is thus manifested in the final version of the student house

and had an influence on his projects from that point on.

This leads to the conclusion that it is not only the student house embodying his philosophy to architecture but also his philosophy resembling the Weesperflat itself.

<sup>63</sup> Hertzberger, 2016, in "Een Model"

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