

# Effects of Design on Health and Wellbeing

*Proceedings of the 6th International Conference on  
Architecture, Research, Care and Health (ARCH24)  
Espoo, Finland, 17-19 June 2024*



Editors: Ira Verma  
Laura Arpiainen



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Edited by

**Ira Verma**

*Aalto University, Espoo, Finland*

and

**Laura Arpiainen**

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# Designing Collective Housing for Older People: Proposals from the Dutch Welfare State by Pot & Pot-Keegstra

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**Abstract.** This scientific paper examines how the Dutch architects Jacoba Froukje Pot-Keegstra (1908-1997) and her husband Johan Willem Hendrik Cornelis Pot (1909-1972) designed for older people. In the decades following World War II, with the advent of the welfare state, care for older people became a priority of new social policy in the Netherlands. In 1956, the state pensions were launched (*Algemene Ouderdomswet*), and in 1963, the Dutch Ministry of Housing and Spatial Planning (*Volkshuisvesting en Ruimtelijke Ordening*) introduced the Older People's Homes Act (*Wet op de Bejaardenorden*). At the time, there was a growing demand for housing for older people, and this aimed to facilitate their large-scale production while meeting the highest possible standards. Through some of their most significant projects, this paper explores the aspects that Pot & Pot-Keegstra added to the design of collective housing to make life more convenient for old people beyond the "Regulations and Guidelines" (*Voorschriften en Wenken*) introduced in 1965. The methodology of this paper consists mainly of archival research in the National Collection for Dutch Architecture and Urban Planning at the Nieuwe Instituut in Rotterdam, a review of scientific and non-scientific literature, and plan analysis. It is worth noting that Pot-Keegstra was the first female architect by the Academy of Architecture in Amsterdam in 1936, and she was one of the very first women to run an office with her husband. Among the analysed projects designed by Pot & Pot-Keegstra for older people is the first high-rise nursing home, the Osdorperhof in Amsterdam (1962-1968). The General Act on Exceptional Medical Expenses adopted in 1968 (*Algemene Wet Bijzondere Ziektekosten*) made the proliferation of nursing homes possible. The Osdorperhof, with medically oriented care, was a forerunner of the nursing home boom that began in the late 1960s. The design of this project facilitated a new way of taking care of older people, as this collective housing enabled them to live relatively independently and to have the care they needed.

**Keywords.** Collective housing, non-family housing, Pot & Pot-Keegstra, housing for older people, independent living and care.

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## 1. Introduction

Improving the health and well-being of the population is now becoming an urgent task. Among the main problems are undesired loneliness and isolation, which have emerged as a threat. They constitute a challenge faced by researchers, educators, and professionals in various fields, including architecture. In this sense, in the last decade a number of contributions have marked a turning point in the exploration of these concerns from the specific field of architecture, such as the book and exhibition *Imperfect Health: The Medicalization of Architecture* (1). The editors of this book comprehensibly argue for a “de-medicalised architecture” despite the medicalisation of many aspects of society from *cure* to *care*.

In the Netherlands, as in many European countries, these concerns are back on the political agenda, especially with regard to older people, due to the increasing ageing of the population (2,3). Over the last decade, the government of the Netherlands introduced those questions on their National Research Agenda (*Nationale Wetenschapsagenda*, NWA) (4). In addition, it has recently launched new initiatives, such as the programme Housing, Support and Care for the Older People, *WOZO (Wonen, Ondersteuning en Zorg voor Ouderen)*. A programme whose aim is to ensure that support and care are tailored to the preferences of older people to maintain control over their own lives for as long as possible (5).

Against this background, this scientific article aims to introduce new insights into the architectural discourse and discipline on the history of housing design for older people. To this end, this article looks at a milestone in the evolution of modern institutions for this specific group, namely from the decade of their “building boom” in the Netherlands (1960-1970), Figure 1. Recent literature, such as the book *Health care architecture in the Netherlands*, has contributed significantly to this endeavour. The authors present the history of these institutions in the Netherlands, from their beginnings in the 18th century to contemporary times and point out that the “boom” in facilities for older people during the 1960s “is unparalleled in any other country” (6).



**Figure 1.** The Osdorperhof nursing home in Amsterdam, 1962-1968, by architects J.W.H.C. Pot and J.F. Pot-Keegstra. Collection: Nieuwe Instituut, POTK 0364 - 166t7.

This research paper proposes to study how Dutch architects Jacoba Froukje Pot-Keegstra (1908-1997) and her husband Johan Willem Hindrik Cornelis Pot (1909-1972) designed for older people. Among the analysed projects designed by Pot & Pot-Keegstra for older people is the first high-rise nursing home, the Osdorperhof (1962-1968), in Amsterdam. At that time, under the scheme of the Ministry of Housing and Spatial Planning (*Volkshuisvesting en Ruimtelijke Ordening*), financial support for the construction of housing for older people was granted if strict criteria were met. However, in this scheme, with the well-known “Regulations and Guidelines” (*Voorschriften en Wenken*) (7), the nursing home was excluded, Figure 2.



**Figure 2.** Regulations and guidelines for the design of care homes for older people. Ministry of Housing and Spatial Planning, *Voorschriften en wenken voor het ontwerpen van verzorgingstehuizen voor bejaarden* (1965), Den Haag, 1966. Collection: Nieuwe Instituut.

The General Act on Exceptional Medical Expenses adopted in 1968 (*Algemene Wet Bijzondere Ziektekosten*), made possible the proliferation of nursing homes. As Noor Mens and Cor Wegennar states in his book, “If the *AWBZ* was the financial and administrative keystone of the welfare state, the nursing home was the crown on the architecture of the welfare state.”(8) The Osdorperhof nursing home, with medically oriented care, was a forerunner of the nursing home boom that began in the late 1960s. The aim of this scientific paper is to analyse the Osdorperhof nursing home, and the research question is: what aspects the architects added to the design of collective housing to make life more convenient for older people?

In essence, the further aim of this scientific article and the future research questions that might be posed, will be with the objective of contributing to contemporary production on how to meet the challenges of today’s society in this regard: What are the architectural design qualities of this project? Which qualities are still relevant today and why?

## 2. Methods and Materials

The methodology of my research consists mainly of three phases of work:

Firstly, a review of the scientific and non-scientific literature on the theory and history of collective housing for older people, with a particular focus on the developments that took place in the Netherlands in the 1960s under the impact of new policies; secondly, archival research in the National Collection for Dutch Architecture and Urban Planning at the Nieuwe Instituut in Rotterdam, where numerous documents of the couple of architects Pot & Pot-Keegstra are preserved, who played a relevant role in the production of collective housing for the older people at the time (9); and finally, a more detailed analysis of the architectural design of the selected case study based on the studied literature and the various collected materials.

Accordingly, the results of this research are presented in three sections. The first two contextualise the period analysed and the architects, namely the “building boom” in housing for older people (1960-1970) and the work of the architects Pot & Pot-Keegstra. The third analyses a specific collective housing for older people, the case study of this scientific paper, the Osdorperhof nursing home (1962-1968), Figure 3.



**Figure 3.** Osdorperhof nursing home in Amsterdam by architects J.W.H.C. Pot and J.F. Pot-Keegstra, 1962-1968. Stadsarchief Amsterdam, 5293.FO.

### 3. Collective housing for older people in the Netherlands

In the Netherlands, collective housing for older people experienced an unprecedented development during the 20th century. These took various architectural forms and were given a variety of names, such as *pensiontehuis*, *bejaardenhuis*, *rusthuis*, *bejaardenoord*, and *verzorgingshuis* —translated as boarding houses, retirement homes, rest homes, care homes, and nursing homes. What they all had in common was that they were intended for older people, as well as their combination of accommodation and care (10). However, it should be noted that the history of collective housing for older people in the Netherlands goes back much further, and before the 20th century, there were many predecessors of great interest from today’s perspective.

The archival research project “Long May We Live” has recently shown a glimpse of the potential of the materials preserved in the National Collection for Dutch Architecture and Urban Planning in this respect. It included, for example, the Karthuizerhofje almshouse (1650), now a national monument located in Amsterdam,

where there was a Carthusian Monastery (1394). The almshouses for older people and other vulnerable members of society, such as widows and unmarried people, were built in many cities from the 13th century onwards. Most were founded by the church, the city council, and wealthy citizens. Their residents had their own rooms and shared communal facilities such as the kitchen, dining room and washrooms (11,12).

The subsequent development of housing for older people has been structured in the following periods of history, from the 18th century to the end of the 20th century (6):

- 1750-1914: The origin of healthcare buildings.
- 1914-1940: The active therapy.
- 1940-1960: The postwar reconstruction.
- 1960-1970: The “building boom”.
- 1970-1980: The critical 1970s, the end of growth.
- 1980-1990: The dismantling of health care.
- 1992-2002: The end of the welfare state.

At the beginning of the 20th century, significant changes in housing occurred after the introduction of the first housing legislation, the Housing Act (*Woningwet*) in 1901, in which housing for people with lower incomes was regulated and the first social housing initiative was introduced (13,14). Although this was an important change in housing and housing quality, the housing for older people changed even more profoundly from 1945. There was a huge housing shortage after World War II, and the government of the Netherlands took the lead in its production (15). From the mid-20th century, with the advent of the Welfare State, care for older people became a priority of new social policy in the Netherlands (16).

In 1956, the state pensions were launched (*Algemene Ouderdomswet*), and in 1963, the Dutch Ministry of Housing and Spatial Planning (*Volkshuisvesting en Ruimtelijke Ordening*) introduced the Older People’s Homes Act (*Wet op de Bejaardenoorden*). At the time, there was a growing demand for housing for older people, and this new policy aimed to facilitate their large-scale production while meeting the highest possible standards (7,17). No other country had such a high ambition, and nowhere else was so much built for older people as in the Netherlands. For example, after the Exceptional Medical Expenses Act was launched in 1968 (*Algemene Wet Bijzondere Ziektekosten*), the period between 1969 and 1976 saw the addition of 25,000 beds in nursing homes (8).

#### 4. The architects Pot & Pot Keegstra

Jacoba Froukje Pot-Keegstra (1908-1997) and her husband Johan Willem Hindrik Cornelis Pot (1909-1972) worked together on various architectural projects in the Netherlands. Their architectural production was based on ideas of efficiency and New Pragmatism (*Nieuwe Zakelijkheid*), with functional considerations and open layouts that allowed spaces to be used with flexibility (18). It is worth noting that Pot-Keegstra was the first female architect by the Academy of Architecture in Amsterdam in 1936, and she was one of the very first women to run an office with her husband (19). Pot & Pot-Keegstra were a well-distributed working duo, with Jacoba often focusing on the big picture, such as programme and organisation, while Joop focused on the details (20), Figure 4.



**Figure 4.** Photography of the architect Jacoba Froukje (Koo) Pot-Keegstra (1908-1997). Collection: Nieuwe Instituut, POTK\_f26-1.

Their architectural practice focused on designing collective housing projects for target groups, specific users, such as single women, young and old people, and even prisoners. In other words, all these projects have in common that they were intended for non-family groups, people who live alone and within a community. Therefore, they gained much experience designing small housing units in large apartment buildings with shared domestic services (21). This focus of their office on non-family collective housing was able to anticipate and trace the trend that would emerge strongly in the following decades in the Netherlands. Due to economic, social and political developments, from the early 1960s, the number of people living alone started to increase rapidly (22).

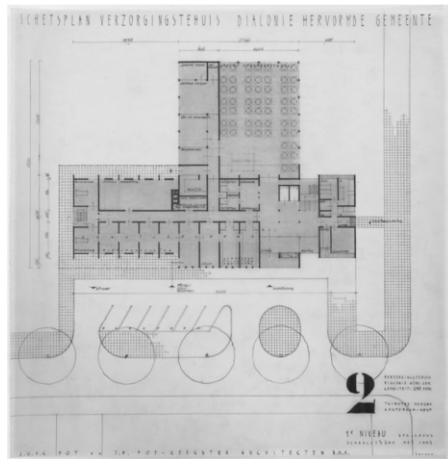
Amongst that singular architectural production by Pot & Pot-Keegstra on designing collective housing for non-family groups, a focus on older people stands out. More than ten projects for older people designed by them were built between the mid-1950s and the mid-1970s. Gran part of these projects were nursing homes (*verzorgingshuis*), a distinct category within the housing for older people, intended for those who can no longer live independently (23). Most of these projects were in Amsterdam, the most remarkable being Osdorperhof (1962-1968), further analysed in this paper. Among the other distinct collective housing for older people, the retirement homes (*bejaardenhuis*), is the Twiske Huis in Amsterdam (1966-1976), including independent living.

## 5. The Nursing Home Osdorperhof

The nursing home Osdorperhof was designed and built between 1962 and 1968 by Pot & Pot-Keegstra, and it is located at Pieter Calandlaan 86, in the garden city of Osdorp, in Amsterdam West. It was commissioned by the Reformed Foundation for Care and Nursing of Older People in Osdorp (*Hervormde Stichting te Osdorp*) and intended for the Diaconate of the Dutch Reformed Congregation (*Diaconie van de Nederlands Hervormde*). This project was the first of many high-rises for older people built at that time, and it was intended for a total of 255 people, many of whom were chronically ill (24). This high-rise building presented a programme content and organisation that provided a new way of caring for older people.

### 5.1. The Ground Floor: Collective Services

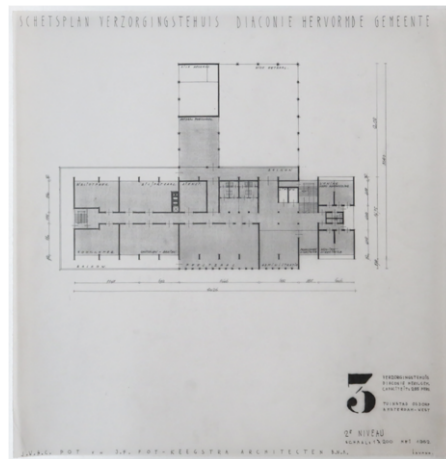
The high-rise building consists of 13 floors, and it is organised in a way that the main collective programme is located on the ground floor and on the first and second floors, while the more private one is from the third to the thirteen floors. Two different entrances give access to the building's ground floor. While the main entrance, for inhabitants and visitors, is located on the long façade of the building, the secondary, for staff, is on the short one. The surface of the building's ground floor almost duplicates the surface of the typical floor, with this extra space placed towards the rear of the building block. On this floor, there is the most generous collective service in the whole programme, a large collective kitchen with a large dining room, Figure 5.



**Figure 5.** Ground floor: collective services. Osdorperhof nursing home, Amsterdam, 1962-1968. J.W.H.C. Pot and J.F. Pot-Keegstra. Collection: Nieuwe Instituut, POTK 0012 - 166t4.

### 5.2. The First Floor: Further Collective Services

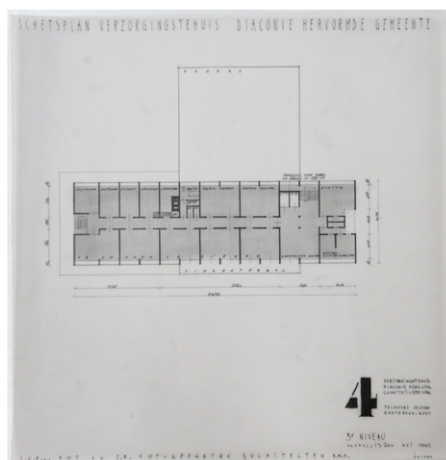
On the first floor, the presence of the collective programme continues to stand out. This program comprises a library and other rooms for more general activities, such as exercise, and others for multiple uses, such as the art of weaving. Some of these rooms containing the collective programme are surrounded by balconies that enhance their relationship with the outdoor space of the open city. In addition, as was the case on the ground floor, this first floor also contains the building's conventional management and administration programme, the collective services for the staff (e.g. canteen, toilets), and the director's housing unit. Also, note that the empty spaces represent the double heights of the collective spaces on the ground floor, Figure 6.



**Figure 6.** First floor: additional collective services. Osdorperhof nursing home, Amsterdam, 1962-1968. J.W.H.C. Pot and J.F. Pot-Keegstra. Collection: Nieuwe Instituut, POTK 0012 - 166t4.

### 5.3. The Second Floor: The Nursing Services

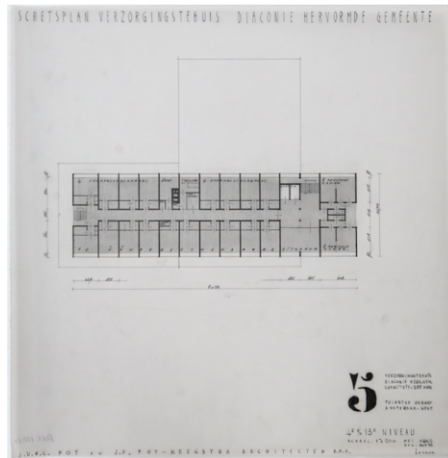
The second floor of the building is specially dedicated to nursing. Among the primary services are the doctor's office and its corresponding waiting room, as well as five larger collective rooms for a total of 30 older people. These rooms were for frail older adults needing more medical attention, at that time referred to as "weak" or "sick" patients, as can be seen in the plans, with long- and short-term care. The latter have a shared terrace on the building's northwest side, allowing them to be in better contact with the outside environment. In addition, this second floor also comprises a vast outdoor space, a terrace of more than 400 square meters (20.28 per 21.64 meters) on the southeast side of the building. There are also other rooms for separate daily activities and other rooms for other purposes, such as for the isolation of specific patients and the head nurse's housing unit, Figure 7.



**Figure 7.** Second floor: nursing services. Osdorperhof nursing home, Amsterdam, 1962-1968. J.W.H.C. Pot and J.F. Pot-Keegstra. Collection: Nieuwe Instituut, POTK 0012 - 166t4.

#### 5.4. Upper floors, 4-13: The Private Rooms

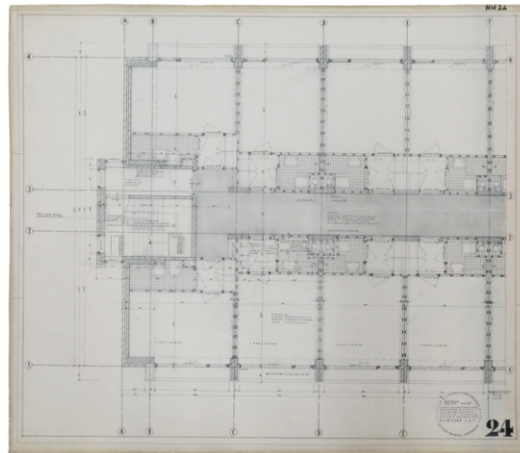
The top ten floors, from 4 to 13, comprise private rooms and some smaller collective services. The typical floor plan clearly shows a characteristic layout used at the time: a long corridor in the centre with rooms on both sides, Figure 8. On each floor, there are 18 rooms for one person and 2 rooms for two persons, the couples. These rooms face southeast or northwest. Each of these floors also has a generous collective living room. This open collective space is adjacent to the main vertical communication core, which has two lifts and stairs. In addition, on each floor, in the central part of the block, there is also a collective kitchen and a larger bathroom. There is also a living unit for the staff.



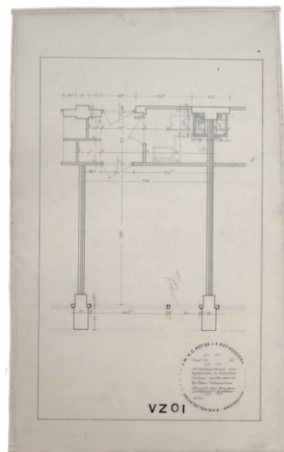
**Figure 8.** Upper floors (4-13): private rooms. Osdorperhof nursing home, Amsterdam, 1962-1968. J.W.H.C. Pot and J.F. Pot-Keegstra. Collection: Nieuwe Instituut, POTK 0012 - 166t4.

#### 5.5. The Individual Unit: Layout of the Private Room

The one-person housing unit was the most common, with 280 units in the whole building. The building structure, with 3.52 metres between the axes of the beams, defines the dimensions of the rooms, except at the ends. For example, on the North end, this is due to the position of the secondary vertical communications core with the staircase, Figure 9. The layout of the typical one-person private room consisted of two parts: an entrance with storage space on one side and access to the toilet on the other; and behind this entrance, beyond another door, which provides more privacy from the access corridor, is the main room space. This room is 12.53 square meters, 3.36 meters wide on the facade side with a large window, and 3.73 meters long, Figure 10.



**Figure 9.** Individual units: layout of private rooms. Osdorperhof nursing home, Amsterdam, 1962-1968. J.W.H.C. Pot and J.F. Pot-Keegstra. Collection: Nieuwe Instituut, POTK 0364 - 166t7.



**Figure 10.** Living unit. Osdorperhof nursing home, Amsterdam, 1962-1968. J.W.H.C. Pot and J.F. Pot-Keegstra. Collection: Nieuwe Instituut, POTK 0364 - 166t7.

## 6. Conclusions

This paper has pointed out that Pot & Pot-Keegstra's production reflects an essential dedication to housing beyond what was then customary, the family, and a particular focus on older people. In particular, this paper has focused on one of their projects of the 1960s, when new housing policies for older people were introduced in the Netherlands as demand increased. By analysing a specific project, the first high-rise nursing home, Osdorperhof in Amsterdam (1962-1968), the main contribution of this paper has been to show the aspects that Pot & Pot-Keegstra added to the design of collective housing for older people to make their lives more convenient.

This paper has shown that the design of the Osdorperhof facilitated a new way of taking care of older people, as this collective housing enabled them to live relatively

independently and to have the care they needed. Further development of this research will address how the building relates to current ideas and standards of housing for older people, exploring what has changed and what has remained the same and how the standards used at the time differ from those of today. This will allow a broader perspective from which to discuss the research results, clarifying to what extent it is outdated and what new insights it can bring to today's designers and policymakers.

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