

# Architectural Evolution in Psychiatry: A Century of Transformation at Endegeest

Reflecting on the interplay between psychiatric care changes and architectural innovation

AR2A011 Architectural History Thesis

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## Abstract

This thesis explores the dynamic relationship between psychiatry's evolution and architectural responses over a span of more than 100 years, with a focus on Endegeest Estate. Initially following a trend of pavilion-style architecture, psychiatric care at Endegeest remained stable, with a primary focus on patient tranquility and limited therapeutic advancements. Post-war advancements in treatment, stimulated by societal shifts and criticism from the anti-psychiatry movement, led to architectural changes with a focus on a sociotherapeutic living environment. These buildings did not last as long, as care was still changing rapidly, resulting in new architecture with a focus on individual living spaces. The 21st century witnessed increased architectural variation in psychiatric hospitals, moving away from rigid guidelines. Notably, experimentation with architecture played a pivotal role in addressing evolving care needs, such as the reduction of seclusion cells, highlighting the interconnectedness of architectural design and healthcare advancements.

## Key concepts/words

Evolution in Psychiatry, psychiatry architecture, Endegeest

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## Introduction

The perception of mental healthcare has significantly evolved over the years, driven by scientific discoveries, societal changes, and evolving treatment approaches. Historically, mental health was often stigmatized, leading to inadequate care and misunderstanding of individuals with mental disorders. In the past, those with mental health issues were labeled as insane and confined to secluded facilities. Today, however, there is much more societal openness. With a changing view of mental health care, logically the buildings that housed that care also changed. How the change in care can be seen in architecture is examined through a case study Landgoed Endegeest.

For over 100 years, Endegeest Estate has provided a space for mental healthcare. In 1895, the Leiden municipality acquired Endegeest as an initiative to make mental illness care a government responsibility and to give space to a mental institution that could cooperate closely with Leiden University. From 1897, it was used as an 'establishment for the mentally ill', with patients residing in neo-Renaissance pavilions around Endegeest Castle. In the 1980s, there was a reorganization and rebuilding, replacing pavilions with low-rise buildings containing sleeping-rooms instead of-halls. Today, the estate houses a Clinical Residence with 48 apartments and a high care building, still providing residential care for individuals with complex mental health problems.

This paper aims to provide a clear understanding of how the change in healthcare reflects on architecture, specifically focusing on Landgoed Endegeest. Resulting in the research question:

What is the relationship between the change in care over time and the reflection this has on the design of the institutions on Endegeest estate?

Research into this history is highly relevant given the fact the origins of psychiatric education lies in Leiden. It is notable that around the same time a mental hospital was founded in line with the innovative ideas of the period. Furthermore, the fact that mental care continues to be provided at this location today adds to its significance. Blok and Vijselaar (1998) has pulled together the history of Endegeest very well in their book which describes the care from the late nineteenth century to the late twentieth century, but although it does mention the architecture, namely: "To begin with, the architecture and topography were prototypical of the trend at the time: Endegeest had the form of a pavilion system" (Blok and Vijselaar, 1998). This is not further elaborated on. Mens (2003) does discuss architecture of psychiatric hospitals in her book *de architectuur van het psychiatrisch ziekenhuis*, but Endegeest is not mentioned. This thesis will therefore take the already described history of both Endegeest and also the developments in Psychiatry at the university as described by Rooijmans (1998) as the basis for the way care was provided at Endegeest. Based on this knowledge, the architectural drawings and floor plans of the various buildings will be juxtaposed to illustrate how architecture responded to the changes. Literature, as well as a conversation with the architect, Tycho Saariste (senior architect at Gortemaker Algra Feenstra), of the most recent buildings, will further elaborate on the architecture. The final chapter will compare the buildings with each other and juxtapose them with existing literature on the general architecture of psychiatry.

# 1. Changes in care and Zeitgeist

This chapter describes how care at Endegeest changed over time. It discusses how the therapeutic climate evolved, which treatments were administered, and the criticisms faced by Endegeest. These are set side by side with the scientific developments in psychiatry over time.

## 1.1 From Custodial Institutions to Medical Asylums



Whereas insanity was once seen as an unresolvable danger to society, this changed over the course of the 19th century. Instead of being merely locked up without nursing for the sake of protection of society, there was increasing recognition that insanity was an ailment that could be remedied. The early 19th century therefore marked the emergence of psychiatry as a separate field of professional care and science (Rooymans, 1998). A new law, *de eerste krankzinnigenwet*, in 1841 resulted in the segregation of institutions. The institutions were being split into medical asylums, intended for the rehabilitation of the patient, and the so-called custodial homes, which served to isolate non-rehabilitated patients from society. The law empowered the government to close down institutions that worsened the condition of patients. Eventually, therefore, all custodial institutions would disappear (De Jong, 1997). The new law also ensured that to qualify as a medical asylum, the houses had to meet certain requirements, such as separating men and women. Additionally, patients had to be classifiable according to the class they came from. Later in the 19th century, patients were also classified based on their condition (calm, semi-calm, restless, sick).

## 1.2 Establishment of Endegeest



Sequel to the first law, a second law, *de tweede krankzinnigenwet*, came to order in 1884 and put an end to restraint treatments. This led to the establishment of 19 new asylums between then and the beginning of the Second World War. The establishment of Endegeest as one of these institutions has everything to do with the fact that there was a great demand in South Holland for beds to accommodate patients. Up until then, there were only four recognized medical asylums in South Holland, each located in a major city and significantly outdated. The ever-increasing lack of space here, which could not be alleviated with necessary expansions due to lack of space in the city, as well as the need for more light and air, such as walking gardens and the possibility of putting the patients to work in agricultural fields led inspectors to order the closure of these four institutions. (Blok & Vijselaar, 1998). The location where Endegeest would be built could meet the demand for fresh air and space and was also nearby the city Leiden. Leiden was a good choice, supported by the argument that it could contribute to the teaching of psychiatry at Leiden University, but also vice versa, so the institution could benefit from the knowledge present in Leiden (Blok & Vijselaar, 1998). Thus, in 1897, the Endegeest asylum was established by the municipality of Leiden, making Leiden the first municipality in the Netherlands to initiate the establishment of such an institution. Two years later, in 1899, a significant step was taken in the field of science with the appointment of Dr. Gerbrandus Jelgersma as a professor of psychiatry at the Faculty of Medicine at Leiden University. Although not officially recognized, he was considered the first professor of psychiatry in the Netherlands (Rooymans, 1998). Jelgersma advocated for public sanatoriums for nervous disorders, leading to the construction of a sanatorium named Rhijngeest at Endegeest shortly after his appointment, which opened in 1903 for the middle class. A few years later, in 1907, at Jelgersma's urging, Voorgeest was also established, which would be an institution for juvenile idiots. Both Rhijngeest and Voorgeest were under the management of Endegeest but were separate institutions (Rooymans, 1998). Although Jelgersma taught his students in Endegeest and regularly saw patients for education, the medical responsibility of the asylum lay with the municipality-appointed physician Dr A.H.Oort (Rooymans, 1998).

## 1.3 Tranquillity in the first 30 years



In the first twenty years, the focus was primarily on creating a tranquil asylum atmosphere, as evidenced by the absence of actual therapy or treatment. Although many scientific articles were published, research mainly focused on observing the patients and searching for the cause of psychiatric symptoms in the brains in the pathological-anatomical laboratory. Actual therapy to improve patients' conditions was lacking during these early years (Blok & Vijselaar, 1998). The focus was on bed and bath treatments, intended to give the asylum the character of a hospital. Endegeest was the first asylum in the Netherlands to create a special department for permanent baths (Rooymans, 1998). Patients were sometimes kept in bed or bath for weeks to calm them down. Once calmed, they were put to work in the garden. Routine and regularity were believed to bring peace to the patients (Blok & Vijselaar, 1998).

#### 1.4 Interbellum



During the time of the First World War, there was increasing interest in psychoanalysis, which brought about a significant change in the asylum's climate. Bed and bath care gave way to more emphasis on occupational therapy for patients. The emerge of the new psychoanalytical perspective brought a significant change in the way patients were treated. The patients were taken more seriously; no longer were their expressions dismissed as incomprehensible symptoms lacking meaning. This direct involvement with patients was also reflected in the new treatments, where doctors not only observed but also performed actual medical procedures. New treatments such as insulin coma therapy and cardiazol shock therapy were introduced at Endegeest. However, this does not mean that the care had completely lost its inhumane nature. The new somatic therapy methods (insulin coma therapy and cardiazol shock treatment) were terrifying for patients. They described a feeling as if they were dying, but also being reborn. Patients who emerged from the coma were often helpless and dependent, which provided good opportunities for psychotherapeutic interactions. Additionally, the treatment was not without its risks, and occasionally a patient would die while in a coma. The use of insulin coma therapy significantly decreased after a few years, and when administered, insulin dosages were greatly reduced (Rooymans, 1998). Administering cardiazol shock treatment was also not without its drawbacks. This was because patients were overcome by intense fear of death, and if the cardiazol was not injected properly, the shock would not occur, leaving the unpleasant sensation lingering. Additionally, the intense shocks sometimes resulted in bone fractures. Consequently, in the 1940s, they were increasingly replaced by the emerging treatment of electroconvulsive therapy (ECT), which avoided the risk of a failed shock and allowed for better dosage control (Blok & Vijselaar, 1998).

Additionally, the introduction of pre- and post-care placed a strong emphasis on supporting patients in their own environments. While partly aimed at reducing admissions and thus lowering healthcare costs, it was primarily seen as a means to better align patients with life outside the artificial environment of institutions. This shift towards reintegrating patients into society was also reflected in the more active therapies applied, where patients were guided and prepared for their reintegration into society (Blok & Vijselaar, 1998).

#### 1.5 War and rebuilding

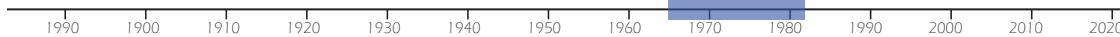


The 1940s were further characterized by times of the Second World War. This resulted in the arrest of Jewish patients and the presence of many people in hiding within the institution. It was a period marked by significant poverty, with hunger prevailing and an increase in diseases and deaths (Blok & Vijselaar, 1998). After the war, the principles of more active therapy continued to apply undiminished. Work, sports, and relaxation, all within an orderly and neat environment, determined daily life at Endegeest. A soccer field and tennis court were constructed, and cultural activities were organized, sometimes even outside the institution. In the mid-1950s, creative therapy also made its entrance, with a strong emphasis on self-expression (Rooymans, 1998). The psychotherapeutic perspective receded somewhat into the background. Although attention was paid to the psychological development of the patient and standard tests were administered, the problems of patients were hardly or not at all worked through therapeutically. An important change in this period is the introduction of



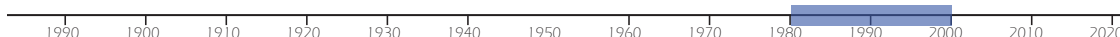
psychopharmaceutical drugs in the early 1950s. The medications were primarily used to better maintain the existing therapeutic climate, instead of changing it. The medication placed even more emphasis on resocialization and pre- and post-care, but it also resulted in more order, peace, and activation within the institution. This was favourable considering the enormous staff shortages and the large number of chronic patients that Endegeest faced, as well as the immense number of readmissions (Blok & Vijselaar, 1998).

## 1.6 Changing society and criticisms



In the sixties, more and more people became passionate about renewal. There was a call for a new type of society where every individual should be able to develop freely. Due to the psychologization of society, the boundary between 'mad' and 'normal' blurred (Blok & Vijselaar, 1998). There was increasing criticism of the institutions from the anti-psychiatry movement (Micale & Porter, 1994). They emphasized the oppressive and sickening nature of psychiatric institutions and compared them to prisons. Although Endegeest had already positioned itself as a modern psychiatric centre instead of a hospital in 1966, real change within Endegeest lagged behind a bit. The nursing care at Endegeest remained very traditional until the 1970s. Nurses had to wake up, wash, and accompany patients to therapy or the dining room at fixed times. Uniforms were also worn, indicating how long a patient had been in the institution and whether he/she behaved well (Blok & Vijselaar, 1998). There were increasing protests against the culture prevailing in Endegeest up to that time. Only in the course of the 1970s, changes in society were also reflected in Endegeest. The introduction of the General Law on Special Medical Expenses brought increasing prosperity and the number of staff members at Endegeest increased significantly. Due to the many criticisms, the therapists were hesitant about heavy diagnoses. The mandatory and rigid structure of hospital life was abolished. Work, exercise, and creative therapy were offered but not considered mandatory. Patients were allowed to decide for themselves when to get in and out of bed, and meals could be eaten throughout the day instead of at fixed times. Patients also took on a much more active role in their own healing process. The emphasis shifted to group therapies, where people did everything together as a group and could seek support from each other. In addition, treatment teams were set up consisting of a psychiatrist, psychologist, social worker, and nurses. Nurses increasingly no longer lived internally, and their uniforms were abolished, as were the institution's clothing for patients. However, there was still a lot of criticism of Endegeest, mainly due to the poor condition of the buildings (Blok & Vijselaar, 1998).

## 1.7 Professionalisation of care



In the 1980s, the government faced the challenge of budget cuts, which also had a major impact on psychiatry. A greater focus on care outside hospitals emerged. A major reason for this was the increasing number of people who were registering themselves at institutions such as Endegeest and returning again and again. International resistance to traditional institutions was also growing. In 1997, for instance, the World Health Organisation deplored the construction of large new institutions and advocated small-scale facilities in the community (Rooymans, 1998). Within Endegeest, care continued to evolve. In the new buildings, men and women were no longer segregated, and sociotherapy became more widespread. Patients had busy therapeutic schedules with lots of group sessions and individual counselling. The approach to care became more professional, and the informal atmosphere of the past gradually faded. Whereas patients used to bake pancakes at night, organize outings, and discharged patients regularly visited, the rules became stricter (Blok & Vijselaar, 1998). Additionally, new government regulations, such as the Special Admissions in Psychiatric Hospitals Act in 1994, brought about changes. Forced admission was only possible if the patient posed a danger to themselves or others. The introduction of the DSM, a handbook used by mental health professionals to diagnose and classify mental disorders, contributed to the professionalization of care at Endegeest, with a focus on providing families with good information and establishing family support (Blok & Vijselaar, 1998).

## 1.8 Recent developments



In the past 20 years, we have seen an even greater shift towards ambulatory care. There is a new paradigm where patients are preferably assisted at home and are only admitted when 24-hour treatment is truly necessary. The new law that came into effect in 2020, *de wet verplichte ggz* (Wvvggz), also allows for coercive treatment in the home or outpatient clinic, not just in an institution (Ministerie van Volksgezondheid, Welzijn en Sport, 2022). Additionally, a national High-Intensity Care (HIC) model has been formed with principles aimed at enabling high-quality clinical treatment. The goal is to reduce the number of seclusions by focusing more on collaboration with the ambulatory team, one-on-one guidance, hospitable care and treatment, the involvement of peer specialists and family, as well as so-called healing environments (GGZ Friesland, 2018). Where seclusion was still common practice in the 1980s, we have been striving to reduce these 'medieval' practices in the past decades. These cells do more harm than good. Although seclusion has certainly decreased significantly, in 2022, around 1000 people were still secluded throughout the Netherlands. However, there are already institutions that do not need seclusion cells at all (W.Gotink, n.d.). Mental health nurse Klaas Krist explains in the mental health lecture that to completely prevent seclusion, there needs to be a focus on more staff, the use of healthcare security personnel, and architectural changes. He also describes what a standard day in High Care looks like, emphasizing that although meals are served at fixed times, individualized care always takes precedence. Someone who misses breakfast because they haven't slept all night is therefore not punished (GGZ Friesland, 2018). This seems to go hand in hand with the innovative approach in research, where there is increasingly more room for transdiagnostic treatment. Since the introduction of the DSM, people have been increasingly classified, but in recent decades, there has been more focus on underlying symptoms as the starting point rather than the diagnosis (Van Amelsvoort et al., 2018).

## 1.8 From tranquility to treatment

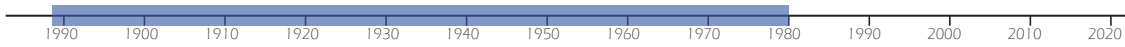


The psychiatric revolution of the 19th century brought an end to custodial institutions. There was a demand for medical asylums, where the patient could actually be treated. This also led to the establishment of the medical asylum Endegeest. Although care in the early years mainly focused on keeping the patient calm and not on real therapeutic treatment, enormous progress had already been made in the field of psychiatry. Over the years, the therapeutic climate changed, and treatments were introduced, initially in quite inhumane forms such as somatic therapies. However, later on, more attention was paid to listening to the patients, they were given more say in their treatments, and greater freedom was granted. The strict regime became somewhat looser, and activities such as day trips were organized. Despite this growing freedom of the patients, in the 1960s, an anti-psychiatric movement emerged, which criticized the care system. Endegeest also faced a lot of criticism during this time. The criticism only really decreased with the arrival of the new buildings. In the years that followed, care was professionalised, and the rules became somewhat stricter again. With the advent of the DSM, the focus shifted to making diagnoses and whole-day programmes with corresponding therapies, focusing on sociotherapy and living groups. There was growing demand for splitting up the buildings back across the city and the focus was increasingly on ambulatory care, resulting in care at Endegeest being almost halved. Nowadays there is still plenty of room for group therapies but patients are increasingly allowed to be more independent. In addition, there is a growing desire to completely move away from seclusion cells, and there is also increasing space for a transdiagnostic perspective.

## 2. The buildings

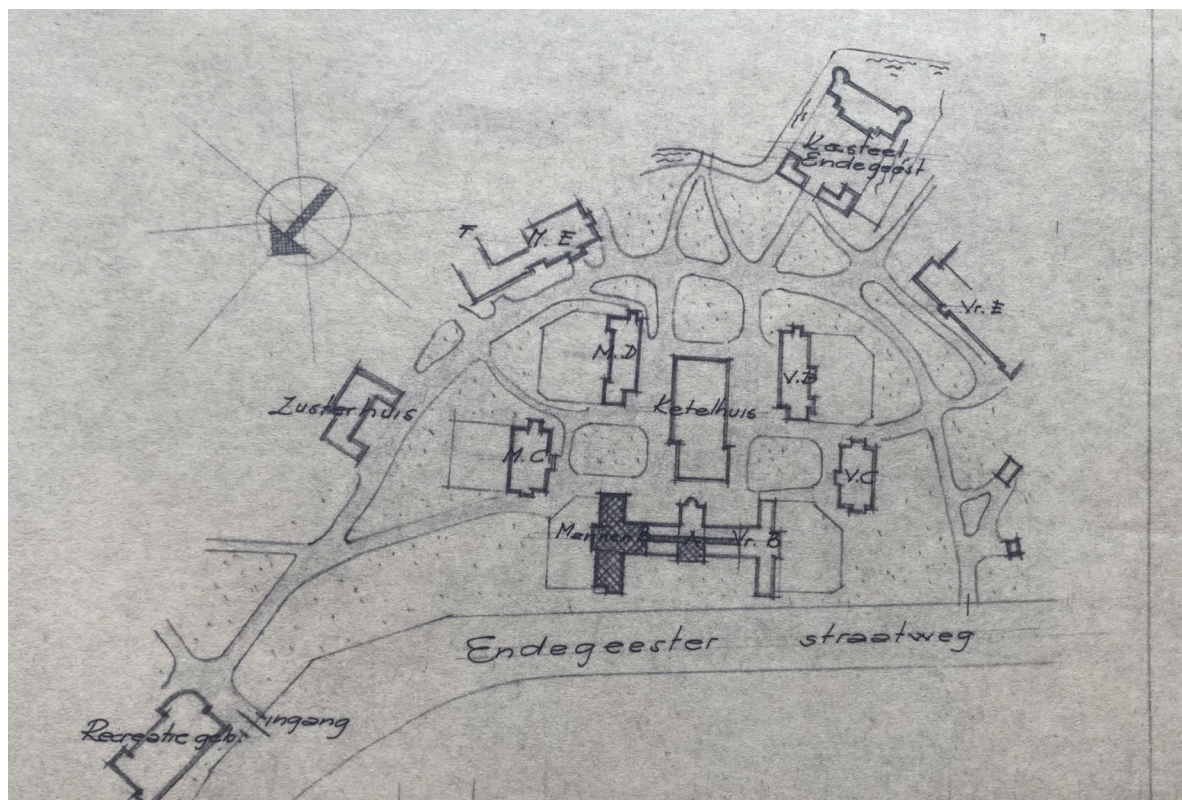
This chapter describes the architecture of the various buildings, how the buildings were appreciated, how long they lasted, and what the surrounding situation was like.

### 2.1 The pavilions



The original institution in Endegeest was built in a pavilion style, an architectural design originating from Germany and frequently adopted by Dutch institutions from the early 20th century onwards (Nickl-Weller & Nickl, 2013). These pavilions were scattered across an expansive green terrain surrounding Endegeest Castle, where considerable effort had been devoted to creating a romantic landscape garden in preceding years. This landscape offered excellent opportunities for patients to take leisurely walks in the fresh air and engage in work within the orchards, vegetable gardens, and fields.

The architectural layout of the complex was symmetrically arranged, featuring separate sections for male and female patients distributed across various pavilions based on the severity of their behaviour. The A-building housed the administration and featured two wings designated for the most tranquil patients, referred to as Men B and Women B. Moving further across the grounds, the C-pavilions and D-pavilions accommodated patients with varying degrees of restlessness and incontinence, respectively. Nestled discreetly at the rear of the property among the trees were the E-pavilions, intended for the most agitated patients. Patients slept in dormitories of up to 11 patients. Furthermore, all pavilions had a spacious day room. Isolation cells were only present in pavilions D and E. These isolation cells were, however, not as strictly outfitted as in the previous years when they still had fixed furniture and peek holes (Blok & Vijselaar, 1998).



2.1 situation plan (Gemeente Leiden, 1951)

The A-building boasted facilities for the medical department and a grand chapel, which also served as a venue for university lectures (Rooymans, 1998). The main corridor in the middle of the building led to dining halls in both wings, with adjoining conversation rooms and sleeping quarters. Upstairs, the central section housed medical staff accommodations, while the wings contained additional sleeping quarters.







2.4 furniture after the war (Blok & Vijselaar, 1998)

This adaptation to evolving times was also evident in the replacement of the two-meter-high fences topped with barbed wire with low walls in 1965. Newspapers hailed this change as liberating patients from their perceived isolation (“Endegeest Anno 1966- Inrichting Om Trots Op Te Zijn,” 1966). A few years later, the tide had completely turned when the newspapers instead wrote about the bare and boring building and the remarkable fact that the gardens were not used at all, but that on a scorching hot summer day, people all sat inside. However, this criticism can be tempered because the patients themselves wrote in response that there were still positive aspects of the institution that remained unexposed (“Endegeest Te Oegstgeest,” 1975). Nevertheless, by the late 1970s it did appear that the buildings were too outdated and there was a demand for new buildings, with improved sanitary facilities and although still in the form of pavilions, were much smaller in scale.

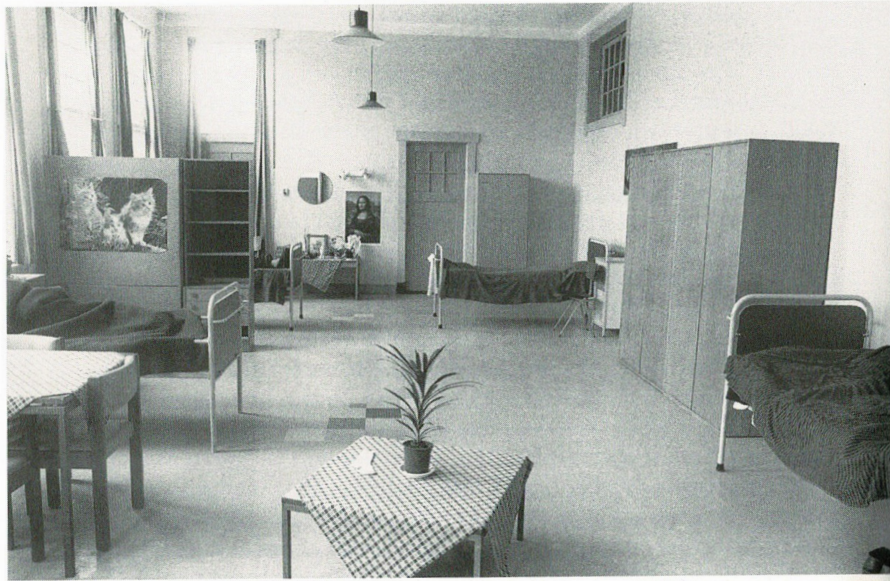
## 2.2 Lowrise sociotherapeutic buildings



As described in chapter 1, the advent of psychopharmaceuticals in the 1950s made raging asylum residents calmer. This led, among other things, to the fact that in the new buildings, patients were no longer categorised by manageability, but by the nature of therapy and by age groups (Mens, 2003). Also, there were no longer separate wards for men and women. The newly constructed pavilions would vary in size from the old pavilion. As residents were now separated on treatment, many more, but smaller, buildings were needed. The construction paid great attention to the prevailing sociotherapeutic climate at the time. The architecture focused on living groups. In each building, three groups of 12 people could live together. Each of which had its own wing of the building. The large dormitories were replaced by single, double, or triple rooms. Additionally, there was a publicly accessible kitchen where patients could make their own coffee and tea. It is notable that the different buildings on the site are very similar to each other, despite the fact that they all house different types of patients. One difference is that not all buildings contain seclusion cells.







2.6 sleeping quarters in earlier building (Blok & Visselaar, 1998)



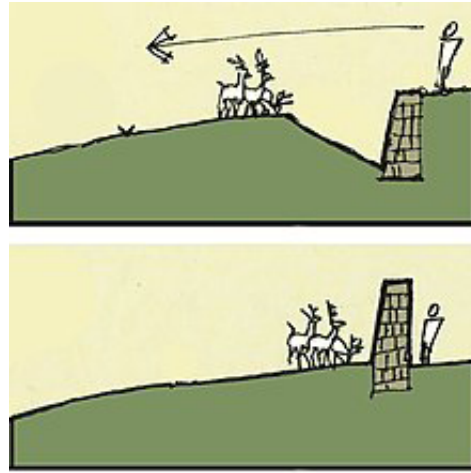
2.7 single private room with own furniture (Blok & Visselaar, 1998)

### 2.3 High Care and Long-term clinical stay from 2013 until now



From the 2000s, a plan came from the municipality to clear the land around the castle so that the castle would be visible from the street. This meant that the care currently situated there had to be demolished and moved to the outer edges of the property. The area needed a building for high-care patient care and long-term clinical stays. Together with the urban planner and the client, the architect was allowed to choose the site for these buildings. The high care was placed in a spot a little further from the street. A spot where there was both a row of trees and a free meadow. This allowed the fences enclosing the building to be somewhat less visible and thus the feeling of being locked in was reduced. This effect is also enhanced by the fact that the fences are placed in a trench. This makes the fences appear less high than the actual 4 metres they are. This is done according to the so called ha-ha principle.





2.8 Ha-Ha principle (Wikipedia)

The building consists of three wings, each with 12 rooms. One of these wings is extra secure for patients who need it, while the other two wings are accessible to one another. The rooms in the leftmost wing also contain an outside door, so it is arranged more freely for patients which allow that freedom. Whereas in the earlier building the focus was very much on the residential groups, in this building a more freedom has been given to patients. There is a shared area for eating together, but each room also has a table that allows patients to eat in their own rooms. That freedom is considered important is also visible in the rest of the building. There are, in fact, only two real seclusion cells and a so-called special care unit. This is a lot fewer than initially demanded. Because of the inhumanity of seclusion cells, the architect looked for a way to reduce the 5 requested cells to only 2 (T. Saariste, personal communication, March 11 2024). This was made possible by placing a special care unit of 40m<sup>2</sup>. This unit also functions as a seclusion cell, but by making it more than three times as spacious, it attempts to reduce the feeling of being locked in. It is clear from the fact that the need for seclusion has been reduced by 80% in this building that change in care is also the result of architectural choices (T. Saariste, personal communication, March 11 2024).



2.9 Floor plan High Care (Gortemaker Algra Feenstra, 2012) Edited

- living room
- sleeping room
- seclusion cells

The focus is also on the quality of the circulation areas. Placing the walls not perpendicular to each other creates spots where patients can have a chat with each other. Because these spaces also contain skylights, there is daylight everywhere. The importance of daylight and sufficient view is also visible in the communal areas, which each have a ceiling that is angled towards a large window. A window that overlooks the green meadow and the row of trees.

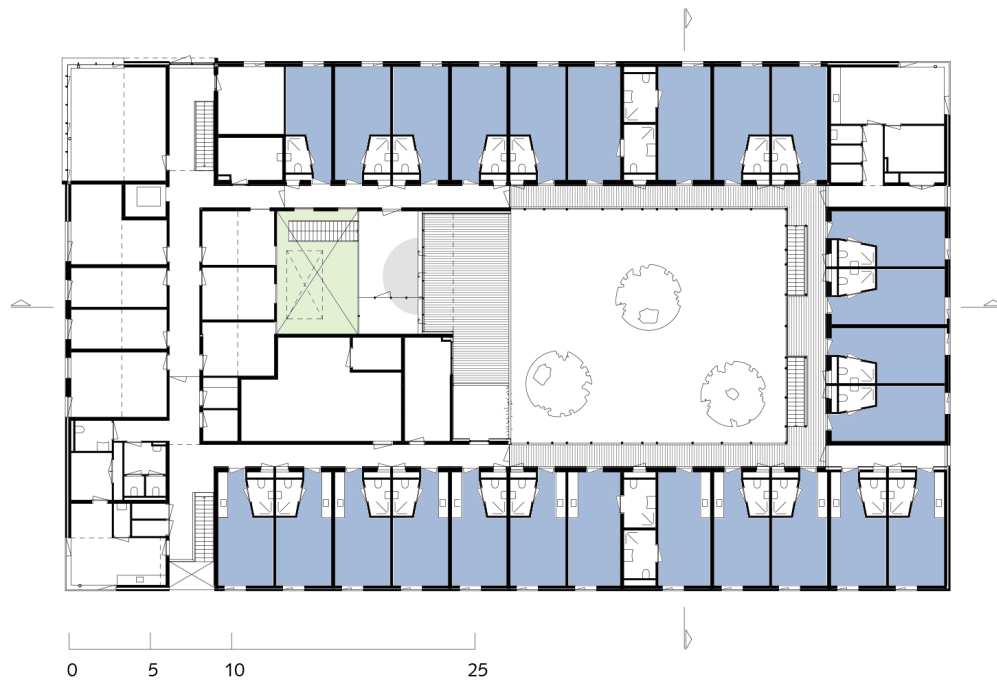


2.10 Living room (Gortemaker Algra Feenstra, 2012)

In addition, the architecture has taken care to prevent drug use as much as possible. Screwed wood-wool cement ceiling tiles make it impossible to hide drugs in the ceiling, but provide good acoustics. Small grilles next to each window allow fresh air to pass through and the sound of birds singing, without allowing drug passing. Inspection hatches next to each room are also made to prevent drug use. These inspection hatches allow drugs to be checked upon flushing the toilet.

Besides a building for high care, there was also a demand for a building for long-term clinical stay. This building provides care for people who do not need to be locked up, but nevertheless require long-term care. Patients who usually go to work during the day but who will never recover from a mental disorder. These patients each have their own flat in the form of a studio, but are protected within a building. The architect situated these units according to the principle of a Roman villa. The original plan contained a ring of flats, each with its own front door facing a courtyard garden (T. Saariste, personal communication, March 11 2024). However, boom times caused prices to rise and the plan had to be adjusted. This resulted in the courtyard garden being cut in half and the other area being given over to other functions.

The inner garden has a very natural look as the interior of the building is entirely made of wood and the inner garden has plenty of space for greenery. This building too pays attention to patient autonomy. For instance, each resident has their own kitchen, but there are also communal kitchens that allow patients to meet and eat together. Furthermore, a large common room with a mezzanine provides space for several spots to get together. The use of drop-down sunshades instead of screens have been applied to enhance the feeling of freedom.



2.11 Floor plans longterm clinical stay (Gortemaker Algra Feenstra, 2012) Edited

■ living room  
■ sleeping room





2.12 Inner Garden (Gortemaker Algra Feenstra, 2012)

### 3. Changing typologies

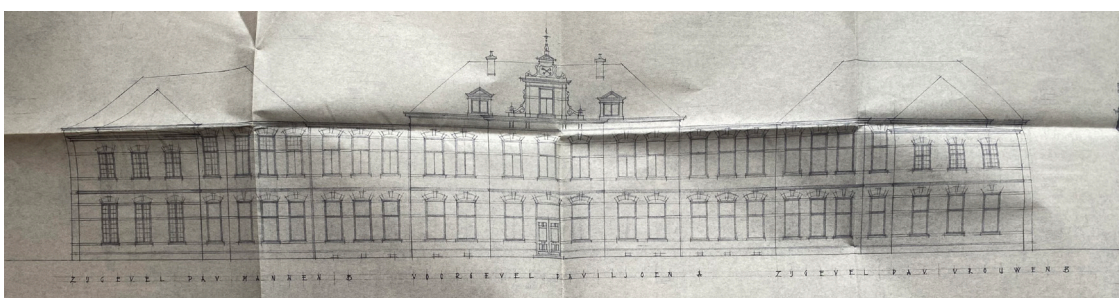
This chapter describes the general changes in the architecture of the psychiatric hospital over time, resulting in various model buildings and typologies.

#### 3.1 The pavilion

The pavilion system, the typology of the initial buildings at Endegeest, first appeared in 1756 in a hospital design in Plymouth, England (Mens, 2003). By the early 19th century, this became the standard typology for hospitals in Europe and the United States (Nickl-Weller & Nickl, 2013). Due to the revolutionary changes in psychiatric healthcare in the 19th century, as discussed in Chapter 1, there was a need for an innovative typology for psychiatric hospitals as well. Although guidelines were established in 1824 by Reinhart Scherenburg, a civil servant of the Ministry of Internal Affairs, for a model institution based on the pavilion system, it was not yet adopted (Mens, 2003). There were objections to the pavilion system in psychiatric hospitals because it hindered efficient supervision. It was only at the end of the 19th century that these objections were replaced by the significant advantages pavilions could offer, such as the ability to integrate them into natural surroundings, the physical separation of different categories and classes of patients, and the ease of expansion (Tuncbilek, 2020). The introduction of the pavilion system to the Netherlands was owing to the Association for Christian Care of Mental and Nervous Patients. A progressive association that had a first institution built according to the pavilion system within two years of its foundation in 1884. This was the Veldwijk psychiatric hospital in Ermelo. The associations had sent their architect to Germany to observe an institution built according to the pavilion system for him to adopt this typology at Veldwijk (Mens, 2003). Veldwijk served as a model for many other institutions that followed the same typology, including Endegeest. The pavilions that were built not only had similar layouts but also had a comparable architectural appearance.



3.1 Administratiegebouw Veldwijk, Ermelo (Mens, 2003)



3.2 Voorgevel A gebouw Endegeest (Gemeente Leiden, 1951)



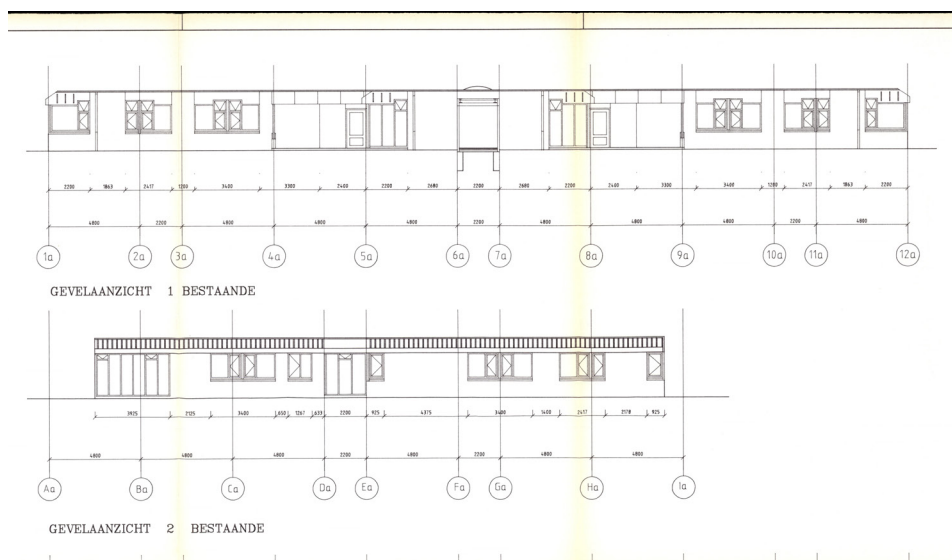
Remarkably, Endegeest was almost entirely built according to the guidelines that Scherenburg, as mentioned before, had already set in 1824 but were not adhered to at the time. Namely, he proposed that insane asylums should be located on a free open site, built in a pavilion system. An area with the immediate possibility of agricultural work. All buildings had to be one storey high, except for the central building. This was allowed to have two to three floors for the administration. The central building was to have a wing on both sides, one for men and one for women. All these elements are visible in the original architecture of Endegeest.

### 3.2 Modern architecture

The typology pavilion system was the response to the revolutionary change in psychiatric care in the 19th century. When this typology had been adopted throughout the country, there was no demand for a new type of model asylum in the years that followed. Only in the post-war years, when the climate of the institutions was changing again, did new designs appear. Initially still following a pavilion system, albeit on a much smaller scale than the classical model. Whereas pavilions first separated patients based on manageability, they were now separated into smaller groups based on form of therapy (Mens, 2003). In the years that followed, there was also an increasing emphasis on outpatient care, where the mentally ill had to receive integrated treatment back amidst society. Everything was about de-hospitalisation (Blok & Vijselaar, 1998). All existing institutions were demolished or radically transformed. Architects experimented with a countermovement committed to socially conscious architecture. Materials were relatively simple, the buildings were not very expensive, but the architecture steered towards social activities. Privacy was not a priority (Mens, 2003). The new design of Endegeest also responded to the national trends, albeit Endegeest being one of the last institutions to change.



3.3 Woongebouw De Viersprong, Halsteren (Mens, 2003)



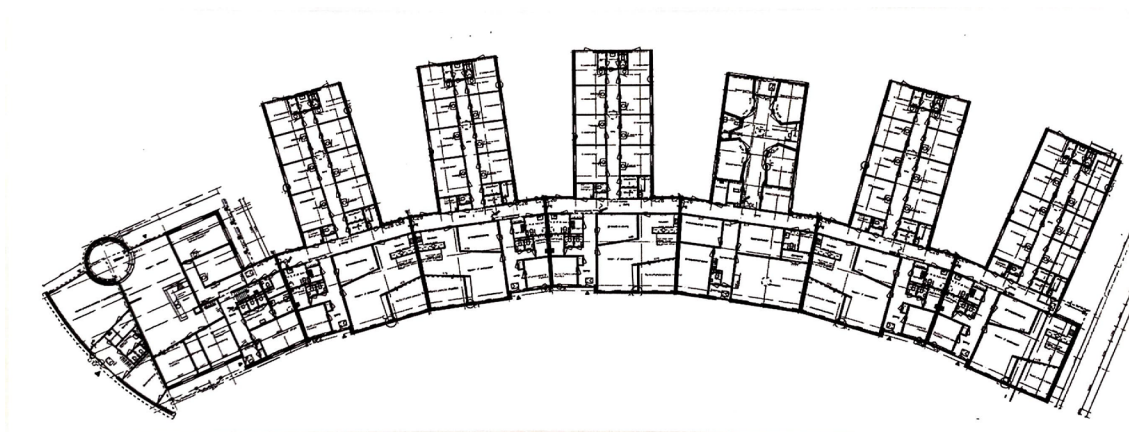
3.4 Gevelaanzicht Endegeest (Gemeente Oegstgeest, 1993)

The new buildings only went into use in the early 1980s, when new construction was mainly justified by expected lower operating costs rather than the need for a different therapeutic climate. This explains the narrow corridors and low ceiling heights. As described in the second chapter, the new buildings were an improvement on the severely outdated existing buildings. However, it mainly involved improvements in facilities, not in architectural character. The old buildings were missed for their light and space (Blok & Vijselaar, 1998). The fact that the changing therapeutic climate preceded the architecture is also evident from the fact that from the 1980s onwards, collectivity was somewhat reduced. It had become apparent that living in a residential group without independence and individuality also had adverse consequences. From this, a new typology emerged, the so-called Boston model. Central to this model was the separation of treatment and living, preferably housed in separate buildings. Thus, patients could receive treatments in one building, but also retreat to private spheres in another building. Additionally, this made it possible for patients from outside to come only for day treatment without being admitted (Mens, 2003).

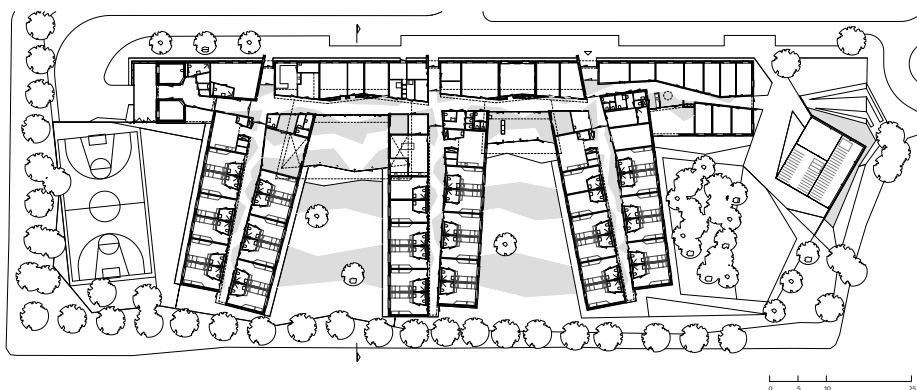
### 3.3 Rapidly moving changes in care

In 1990, less than 10 years after the construction of the new buildings at Endegeest, the first psychiatric centre according to the Boston model typology opened in the Netherlands. Around the same time, in 1889, another trend emerged. Renowned architect Aldo van Eyck designed a psychiatric centre in Boekel. The centre was accommodated in small pavilions that consisted of various rooms situated around a courtyard. Such designs, where a courtyard served as the centre for living spaces, began to emerge from that time onwards (Mens, 2003). Although the new architecture at Endegeest quickly became dated due to the emergence of new trends, the buildings remained in existence for over 30 years. Only when there were further demands in psychiatric healthcare for scaling down, socialisation, normalisation and integration into society, new buildings were inevitable.

When the new buildings were completed at Endegeest in 2013, there was not, as in previous years, a clear model building guiding the architecture. However, there were trends evident in various buildings designed during that time. For example, there was a trend where buildings consisted of different wings. These wings housed the living environments, allowing therapy and living to be separated, as in the Boston model, albeit now housed within one building.



3.5 Plattegrond De Jutter, Den Haag (Mens, 2003)



3.6 Plattegrond High Care Endegeest (Gortemaker Algra Feenstra, 2012)



The trend of the courtyard as a central point also continued to appear. The new buildings at Endegeest each followed one of these trends. Both buildings were designed by the architectural firm De Jong, Gortemaker, Algra (now Gortemaker, Algra, Feenstra), which had already realized several buildings in the sector in the years leading up to these designs. Each building, although in its own way, followed the same trends.

Looking at recent developments in healthcare, these buildings are still up to date. They contribute to maintaining as normal a life as possible and provide sufficient space for patient autonomy. However, it has been shown in psychiatry that there is a demand for 'rooming in'. Making it possible for anxious patients to have family members stay overnight (GGZ Friesland, 2018). There is currently insufficient space for this, but perhaps when seclusion cells are completely abolished, that space could be renovated for this purpose.



3.7 High Care building (Gortemaker Algra Feenstra, 2012)



3.8 Long term clinical stay building (Gortemaker Algra Feenstra, 2012)

## Conclusion

Over the course of over 100 years, psychiatry has undergone a considerable transformation. In times of significant change, there was a great demand for innovative architecture that could accommodate this evolving care. During periods when changes stagnated, existing architecture remained valued for longer periods of time. Endegeest emerged at the beginning of the first revolution within psychiatry. The architecture followed a trend, the typology of the pavilion system, which became visible throughout the country. Care remained stable for years. The focus was on tranquility within the psychiatric hospital. Genuine treatments were not yet in place. There was little external criticism, and an overall relaxed atmosphere prevailed, resulting in a lack of change.

After the war, treatment made strides, allowing more space for therapy forms, accompanied by growing criticism from the emerging anti-psychiatry movement. This not only led to a more psychological view of society but also prompted a critical examination of humanity within psychiatry. The towering fences were replaced by low walls as a symbol of patient freedom. Psychiatry became somewhat more normalized, and more forms of outpatient treatment were sought. The central focus was on reintegrating patients into society. These major changes, as well as the fact that existing buildings were now quite outdated, called for new architecture. Because this architecture was built in a time still subject to significant change, and also because Endegeest was one of the last institutions to be renovated, these buildings were not in use for as long. Cost efficiency was paramount, leading to simple architecture. An architecture focused on creating a certain living environment rather than on the quality of spaces. However, the new buildings were indeed appreciated, if only because the old buildings were so outdated. Care remained subject to changes. It soon became clear that patients benefited from more privacy and that complete collectivity was not conducive to the patient. This made room for new architecture, where all sleeping quarters were individual and each patient was given a private bathroom. The design was essentially still the same. Both buildings were divided into different residential groups. However, in the new building, much more attention was paid to the actual quality of the space. Additionally, therapy was separated from living, as was also seen in the Boston model. In addition, since the 21st century, there has been much more variation in the architecture of psychiatric hospitals. Whereas a century earlier, model institutions were built, providing clear direction for architecture across the country, there are now certain trends but no clear guidelines. Letting go of these rigid guidelines, is perhaps the reason why architecture is not only subject to changes in care, but changes in care can also be the result of innovative architecture, as can be seen in the decrease in seclusion. Experimentation with architecture, as can be seen, may be the only way to deal with care that is subject to significant changes. Reducing the number of seclusion cells responds to the changes toward an even more humane care, but at the same time, it actually results in more humane care. The care system is in the midst of a revolutionary change towards the complete abolition of seclusion cells. Whether that is truly possible, or whether seclusion cells continue to exist in another, more humane form, remains to be seen. It is abundantly clear that over 100 years, care has undergone tremendous change. It has become evident that to build valued, sustainable buildings, architecture must be at the forefront of these changes. In this way, the architect can truly effect change. However, it may be just as important to design buildings that have the flexibility to adapt to future changes in healthcare that are yet to come.

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