



The (Dis)Advantages of the Dutch Alcove House

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Supervised by Marcel Teunissen

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HARMA VAN DER MEER





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COVER IMAGE. Alkoofwoning Jacob Catshuis. From "*Architectuurgids*," by R. Kämena, 2001 (https://www.architectuurgids.nl/project/item/prj_id/1866/alfa/A).

ABSTRACT

The housing shortage in the Netherlands has been increasing over the years. Around 1900, when the Netherlands had similar housing problems, the cheap and easy construction method of the 'alkoofwoningen' were the solution. This critical analysis will describe the (dis)advantages of the alcove and alkoofwoningen in 1850-1980 by the means of historic research and a literature review. The biggest conclusion include that in the nineteenth century the working class lived in poor living conditions and the alcoves were seen as dark and stuffy closets that caused negative effects on people health, mostly caused by bad ventilation and presence of pests. However, the air in cities was not very clean so by opening windows only dust came in and the material of beds was often perishable. Maybe the alkoofwoning with its bad reputation did not receive a fair judgement. With current trends of city-residents wanting to live in smaller houses and the housing shortage the alkoofwoning can be used as an inspiration for future dwelling floor plans.

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CHAPTER 00

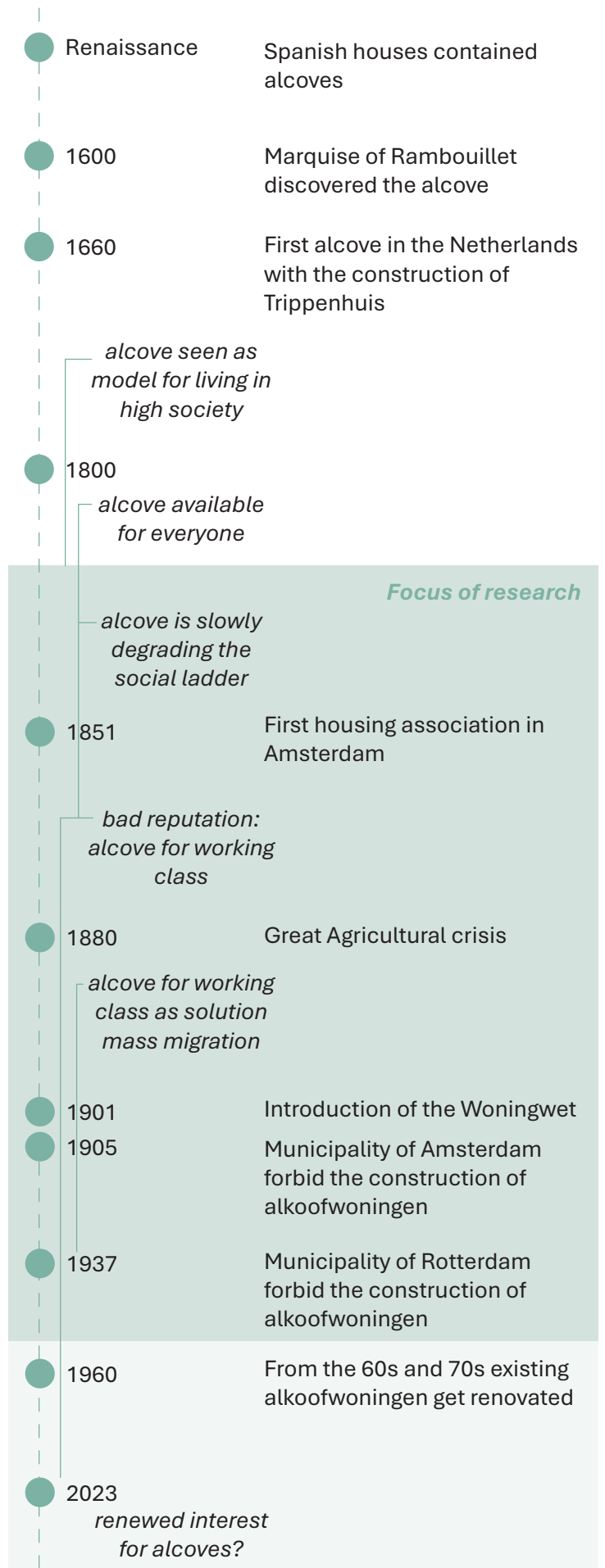
Introduction

The housing shortage in the Netherlands has been increasing over the years, especially in the cities. Sometimes citizens have to wait ten years for social (affordable) housing, because there is not enough supply. In the meantime, housing prices increase rapidly (Mouissie & Kraniotis, 2023). To tackle the housing shortage more affordable dwellings in dense cities need to be built without losing architectural value. Around 1900, when the Netherlands knew similar housing problems, the cheap solution was to build 'alkoofwoningen' (Prins, 2021). For decades the alcove has been a beloved feature in housing, because they offered privacy and shelter-like protection. However, during the nineteenth-century the alcove and alkoofwoning were seen as unhealthy. With the introduction of the Woningwet the alkoofwoning was forbidden by law. Rotterdam has constructed many alkoofwoningen over the years with a peak in 1890-1920. Other municipalities constructed alkoofwoningen as well but they mostly appeared in Rotterdam, because of a long alcove battle and mixed opinions (Van Grinsven, 2017). Because the alkoofwoning has been one of the most common types in Rotterdam for a long time, it will be a more prominent topic in this research. This critical analysis will research the rise and fall of the alkoofwoning. The (dis)advantages of the alcove and Dutch alkoofwoning in 1850-1980 will be researched by the means of historic research, literature review and the description of case studies. Many of the existing alkoofwoningen have been demolished or transformed. However, some alkoofwoningen stayed the same since it was built when occupants did not change anything in their dwelling. For example in the Rakstraat, in Rotterdam, a original alkoofwoning has been documented. This research will

describe this case study and two others in Rotterdam as part of their context and as substantiation of the literature.

The first chapter will define a few phrases. It will explain what an alkoofwoning is and how the definitions will be used further in this research. In between the chapters case studies will be described in consideration with how the literature influenced the study spatially, socially and contextually. The second chapter will describe the rise of the alcove and some context of the nineteenth century. The third chapter will mention many disadvantages of the alkoofwoning according to the society of the nineteenth century and the introduction of the Woningwet as result of bad living conditions. Shortly renovation techniques for the alkoofwoningen in building stock will be mentioned. At the end a short consideration will be given about the current trends and a recommendation for the return of the alcove will be discussed.

TIMELINE



CHAPTER 01

Definitions

ALCOVE

The *alcove* was originally used in the French Court or in Spain (Montijn, 2006). An alcove is an indoor living space without windows and contiguous to other living spaces. Often the small room is dedicated for sleeping functions (Terlouw, 1999).

BACK-TO-BACK DWELLING

The so-called *back-to-back dwellings* ('rug-aan-rug woningen' in Dutch) were small houses for the working class. These houses often shared a hallway and a private (toilet space).

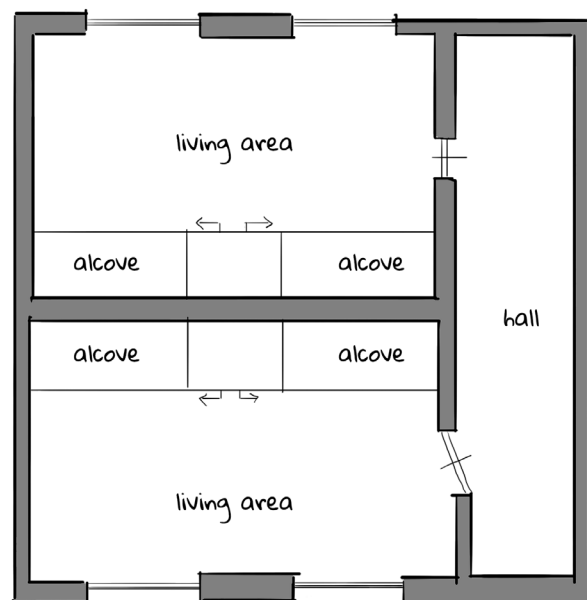


FIGURE 1. Plan of alkoofwoning in Jordaan. From "Wikipedia," by Veerle&Jet, 2015 (<https://nl.wikipedia.org/wiki/Bestand:Alkoofwoning.jpg>). Licensed under CC BY 4.0

ALKOOFWONING

An *alkoofwoning* (Dutch alcove house) in this paper will be used by the definition of a house with a front and back room and one or two alcoves in the middle of the house. Often an alkoofwoning was part of a '*beneden-bovenwoning*' (ground-top floor dwelling) where the upper dwellings shared a stairwell and an attic. If a standard type was to be determined, the dwelling would have a width of 4,50 metres and a depth of 12 metres, with two front doors at the street side (Van Grinsven, 2017).

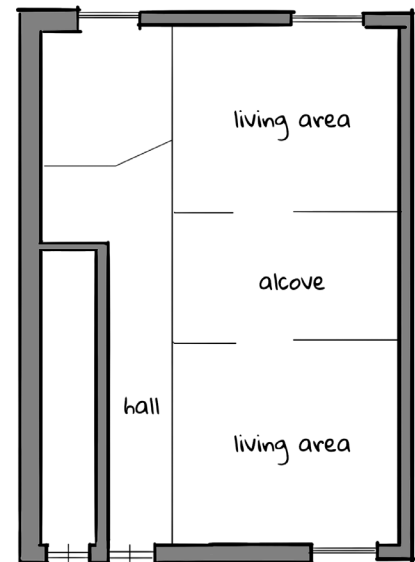


FIGURE 2. Systematic floor plan of alkoofwoning. Own image (with inspiration from Rotterdam woont, n.d.-a)

ORIGIN OF THE ALCOVE

The marquise of Rambouillet, Cathérine de Vivonne, can be seen as the inventor of the alcove. She welcomed her friends of the high society in Paris in her home, often in a room that was used for sleeping as well. In the 17th century the aristocracy often received their visitors in a special room where their bed, as a different piece of furniture as the contemporary sleeping beds, was located as well. In the meeting room Cathérine probably had her bed in an alcove, characterised by the curtains as can be seen in image 3. Although she is seen as the inventor, people in Spain already used alcoves long before (Montijn, 2006).



FIGURE 3. Marquise de Rambouillet's Chambre Bleue by Abraham Bosse. From "Wikimedia," by A. Bosse, 17th century (https://commons.wikimedia.org/wiki/File:Marquise_de_Rambouillet%E2%80%99s_Chambre_Bleue_by_Abraham_Bosse.jpg). Licensed under public domain

CHAPTER 02

Rise of the Alkoofwoning

ALCOVE FOR THE HIGH SOCIETY

From 1700 the houses with an alcove were seen as the model for living (Terlouw, 1999). Before, the important persons in the high society received their visitors while laying in bed. The amount of decoration surrounding their bed was a way of displaying their wealth. However, from the 18th century the bed slowly disappeared to the background. This can be indicated as a symptom for the growing desire for privacy and personal life (Montijn, 2006, p. 94) which results in the need for private rooms that impact floor plan spatially (Koerse, 1993). The alcove offered a solution in the form of a semi-private room. Therefore the alcove has been a beloved element for the high society in the dwelling architecture where it harmonised with the interieur (Montijn, 2006, p. 140). In the Netherlands, in all likelihood, the first use of an alcove was the Trippenhuis built in Amsterdam, 1662 (Terlouw, 1999). In the 18th century almost all canal houses, country houses and castles used alcoves in the bedrooms. People desired the alcove because it offers covered protection and privacy for the user while at the same time the bed was not a prominent visible object in the room for nearby people (Montijn, 2006, p. 95).

The need for privacy and protection, facilitated with the alcove, started in the high society, slowly degraded to the lower society over time and ended up in the working class. When around 1800 the individual became more important the private bedroom started to appear in the European dwelling architecture. However, the poor working class could not afford an extra bedroom, thus that was no option (Montijn, 2006,

p. 119). In the second half of the 19th century many poor families in Rotterdam, consisting of five to six people, lived in a back-to-back dwelling of 25-30 square metres. These one-room dwellings with a small heating source, private (toilet), sink and one or two box beds or a small alcove were often in degeneration. The private was not connected to a sewer system, there was no running water and warm water needed to be fetched from the local water boiler while a lot of elements were broken, dirty or pointless (Van Grinsven, 2017). That is why in Rotterdam the *alkoofwoning* was seen as an improvement of the stuffy back-to-back houses with box beds. Households received more space with two living rooms and an alcove in the middle. These new houses offered daylight and fresh air from two sides (Prins, 2021). Also the *alkoofwoning* often had a separate kitchen and toilet, rather than the private and shared kitchen from the back-to-back dwellings (Van Grinsven, 2017). In contrast with the freestanding beds that occupied much space, the alcove in the middle of the floor plan served as an easily avertable sleeping area. Furthermore, it provided better dimensions for adjacent rooms (Montijn, 2006, p. 95 & 111). Over thousands of *alkoofwoningen* have been constructed in Rotterdam around the city centre and the southern areas (Van Grinsven, 2017). Also in Amsterdam these deep and narrow *alkoofwoningen* were built, for example in the Pijp (Montijn, 2006).

DWELLING IN THE 19TH CENTURY

In the nineteenth century people were addicted to dwelling and social changes were directly related to the significance of dwelling. The industrialization of Europe changed major implications of the daily lives of the middle class. Before, home was often a place for the family and a place where occupants plied their trade, which resulted in little privacy. Upon arrival of new workplaces outside the dwelling, a division between home and workplace was made for the first time on a mass scale. Stereotypically men were out during the day while women stayed at home taking care for the children. This division influenced the rising interest for the private individual and the interior architecture (Leupen & Mooij, 2011).

In the nineteenth century, industrialization hugely influenced the city and dwelling design. The rising amount of work in the cities led to a mass migration from people from the countryside. The Great Agricultural crisis in Europe around 1880 accelerated this movement (Leupen & Mooij, 2011). Rotterdam, as seen as working city before, had to change its focus to a residential city (Reijndorp, 2017). Because the spatial and social city structure had been hugely transformed with its rising population. In the 1850s Rotterdam was still a small city, but by suffering from a growth crisis the population three doubled between 1870-1914. The Nieuwe Waterweg, a direct water passage towards the Ruhr Area, became a new growing vein for economical development

(De Klerk, 2017). Immigrants from surrounded villages, especially from Goeree and Overflakke, found new work in the harbour of Rotterdam (Reijndorp, 2017), they needed to get used to the city as new citizens (Steenhuis, 2017). There was not enough supply of new houses in contrast with the enormously demand of new residents originating from the agricultural lands. In the two-storey beneden-bovenwoningen the alkoofwoningen foresaw in this big demand (De Klerk, 2017). Therefore alkoofwoningen were often used because of its cheap foundation costs and short building time. Additional, the rural residents rather stayed living close to the ground then higher up (Hooijmeijer, 2017). More expensive housing often faced wide lanes and singles while beneden-bovenwoningen with alcoves were situated in small side streets. The construction of these kind of dwellings was in the hands of private investors (Reijndorp, 2017). This explains why the most economical option was often chosen. The housing assignment was not seen as a task of the government. The alkoofwoningen were built in perimeter blocks from three to four layers. The narrow floor plans and dense built houses accommodates around 120 dwellings per hectare (Van Grinsven, 2017). However, many families from the working class ended up in these dense areas, with often bad living conditions and a lack of hygiene in the basement- and alkoofwoningen. (Blijdendijk, 2009). Alcoves got a new reputation and were seen as dark small rooms with a lack of fresh air. From the second half of the 19th century the alcove started to get a bad reputation, similar to the Dutch box bed (Montijn, 2006).

CASE STUDY: RAKSTRAAT

An example of an alkoofwoning is situated at the Rakstraat in Rotterdam. The Rakstraat is located in Crooswijk, around 1900 a New Crooswijk started to develop. It grew as a big development area with around 2000 dwellings, mostly social housing in a high density. Alkoofwoningen were not supposed to be built, but at the Schutterskwartier private investors chose to build beneden-bovenwoningen with alcoves anyway (Rotterdam woont, n.d.-b). The Schutterskwartier follows the medieval landscape lines. The area is built up with perimeter blocks consisting of beneden-bovenwoningen and portiekwoningen. Before, Crooswijk mostly consisted of back-to-back dwellings that were seen as unliveable hovels. These houses systematically transformed into alkoofwoningen in a new urban plan (Van Es & Voerman, 2019).

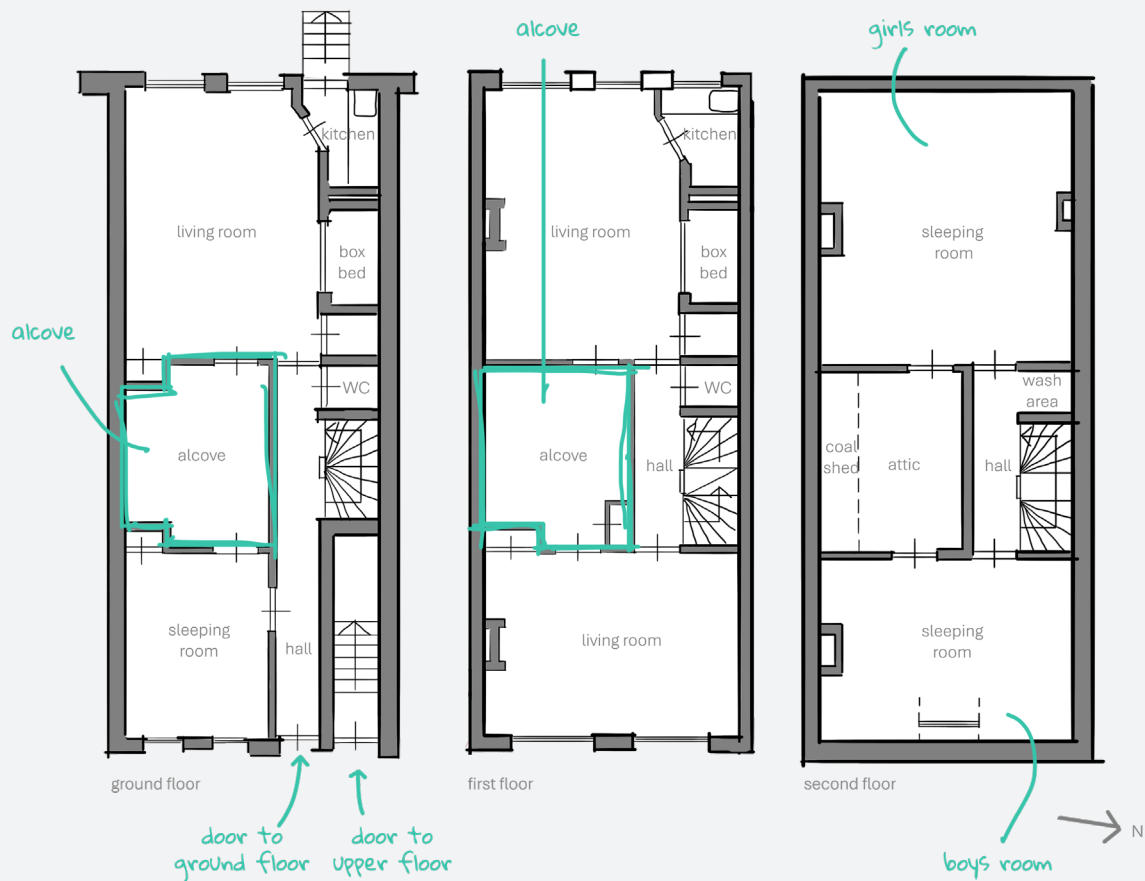


FIGURE 4. Floor plan of the Rakstraat . Own image (with information from Rotterdam woont, n.d.-b)

The case study at the Rakstraat is a typical example of an alkoofwoning where there is an alcove in the middle of the floor plan between two rooms. The toilet and hallway are shared with the upper neighbours. The Rakstraat was part of an area where private investors realised beneden-bovenwoningen. The upper dwellings have a shared stairwell with one front door while the other front door is for the ground floor apartment. The dwellings at the Rakstraat are narrow and deep, a typical example for alkoofwoningen, with an alcove in the middle of the dwelling between a living room that contains a box bed and another room, used as big bed room. In an interview a resident who has lived there from 1913 till 2010 stated that she had lived in the house with ten persons in total. They slept with 8 children in the attic, 4 boys in the front and 4 girls in the back (Rotterdam woont, n.d.-b). In the late 19th century almost no one was sleeping alone in a box bed (Montijn, 2006, p. 59). The facilities at the Rakstraat also can be seen in other beneden-bovenwoningen in Rotterdam around the same time. Children often slept at the shared attic (Van Grinsven, 2017). The dwellings often had the same amount of dwellings as storeys (Van Es & Voerman, 2019). The lower buildings with a pointed roof and alcoves for sleeping were cheaper and isolation was often better with a pointed roof. Sometimes kitchens were deliberately kept small which is in contrast with the agricultural housing culture where the main room contained mixed-use for dining, cooking and living (Oorschot, 2021).



FIGURE 5. Front façade. From “Rotterdam woont,” 2011 (<https://rotterdamwoont.nl/projecten/alkoofwoning-rakstraat>).

CHAPTER 03

Fall of the Alkoofwoning

POOR LIVING CONDITIONS

In the emerging industrial cities the municipality did not take care of the poor housing conditions. Initially, only city planners and engineers involved in sewer management and the supply of drinking water were engaged to improve or add a sewing system (Montijn, 2006). It was common opinion around 1850 that the task of dwelling arrangement was not one for the government or the passive municipality, hence it was left to private initiative (De Klerk, 2017). The society was the first one to care for bad living condition, around 1850 mostly medical experts started to worry about the poor living conditions of the poor working class (Montijn, 2006, p. 119). Physicians started to express the need for public standards in context of building and housing supervision. At conferences and in publications they formulated technical and functional principles for the housing construction with health as most important factor. The foundation for the social housing was laid. Overcrowded small dwellings with insufficient facilities and separate rooms had to be prevented (De Vreeze, 1993).

The alcove knew a lot of disadvantages. The biggest disadvantage of the alcove was the lack of fresh air and therefore hygiene. Fresh air and hygiene slowly became an obsession for medical and household experts, the box bed was dangerous because sleeping people inhaled 'old air' (Montijn, 2006, p. 134). The people back then believed contagious diseases were transmitted by 'old air', just as they believed pathogen grew naturally on garbage and dust (Montijn, 2006, p. 134). In the newspaper an article stated that the alcove was bad to sleep in

because it was harmful for the health of the residents because lack of air and light (Rotterdamsch nieuwsblad, 1921). In the 19th century architects tried to change the working class housing, by precisely measured ventilation shafts alcoves and box beds were provided with a fresh air supply from the stairwell. However, residents often closed these ventilation holes because they caused noise nuisance, cold draught and pests (Montijn, 2006, p. 135). The technology for mechanical ventilation did not suit the residents' wishes. Often residents were not able to ventilate their dwelling because at the street side was full with dust and smog while at the back between brewing walls, where houses were often build closely together, was no fresh air (Van Grinsven, 2017). The spread of pests was unhygienic as well. However, if you take into account the materials people often used for their bedrooms, it is not very astonishing that vermin started to spread. Mattress filling were often from bedstraw or other perishable material that could easy pulverise or rot. Each year these materials were renewed. Sometimes to keep pests away strongly scented herbs or other plants were added (Montijn, 2006, p. 42). Around 1900 the 'dons' was often used, this was seen uneconomically and unhygienic as well because of the warm and heavy loaded blankets people sweat more at night (Montijn, 2006, p. 74-75). It was not only the room, the alcove, that lacked hygiene, whereas the material used caused dirtiness and pests as well. In the past, the high society believed that the lower working class was dirty. This prejudice caused the idea that the working class did not need sinks in their bedroom. Was this true because people did, in that time, wash themselves less often compared to now, so beds, houses, and alcoves dirtied quicker? The prejudice was also fed by the fact that the working class closed their ventilation shafts towards the hallway (Montijn, 2006, p81, 131 &135). Was it mostly a prejudice that caused a bad and unhygienic reputation for the lower working class?

INTRODUCTION OF THE WONINGWET

Because of poor and dirty living conditions often diseases spread quickly. In the nineteenth century, Rotterdam had to deal with three cholera epidemics. These largescale impacts forced the municipality to solve unhygienic conditions (Van Grinsven, 2017). At the same time the housing construction done by private investors reached a low point because of rising material and ground costs. The municipality had to take care of housing construction. At the same time, there was a shift in focus away from profit to the inhabitants of the dwelling (Reijndorp, 2017). Furthermore, the introduction of the Woningwet in 1901 forced government-related parties to care about the poor working class. The law gave authority to the municipality to make demands regarding the living conditions (Van Grinsven, 2017). It was the first law for dwellings to establish minimal living conditions for new buildings. Regulations were formed regarding pests, separation of sleeping places, availability

of drinking water, removal of smoke, water and dirt and the supply of air and light (De Vreeze, 1993, p. 127). In Amsterdam they delightfully forbid the construction of *alkoofwoningen* in 1905 (Oorschot, 2021). Here the *alkoofwoning* changed in the Dutch porch house (Van Es & Voerman, 2019). Although, in other municipalities it took longer before an effect of the accepted *Woningwet* was visible at large scale. This was because of procedural problems, differences of interpretation, and the consequences of the First World War. After 1914 there was a shortage of fuel for the fabrication of construction materials while the import of raw materials stagnated. Around this time the construction costs increased with 300% and the particular investors stagnated the construction of dwellings (De Vreeze, 1993, p. 129-134). Also, many municipalities did not enforce the regulations very strict (Hooijmeijer, 2017). Often the *alkoofwoning* kept being seen as a cheap, easy and quick building method so it was a cheaper solution with also separate sleeping rooms while having a small floor plan (Prins, 2021). In Utrecht a proposal to build *alkoofwoningen* to help against the housing shortage after the introduction of the *Woningwet* was accepted (*Utrechtsch provinciaal en stedelijk dagblad*, 1920). In Rotterdam, because of housing shortage it was not possible to declare *alkoofwoningen* uninhabitable. The municipality did try to improve housing conditions by changing availability of water and a toilet per dwelling. Around the twenties there was still some support for building *alkoofwoningen*. One such an argument was that women could pay attention to the household sitting in bed while being ill. (Van Grinsven, 2017). Critics also became more vocal, following research of the “*Rotterdamse Bouw- en Handelsmaatschappij*” that showed that shallow, alcove-less dwellings were cheaper to build than the *alkoofwoningen* (*Rotterdamsch nieuwsblad*, 1921). An influential liberal party and the relatively late establishment of the social housing corporations were responsible for the large amount of *alkoofwoningen* in Rotterdam. It took till 1937 for Rotterdam to prohibit the construction of the *alkoofwoning* (Van Grinsven, 2017). After years of different opinions about *alkoofwoningen* and dwelling architecture the government and architects started to care about dwellings. In the 1930s the housing construction of the working class moved to the top of the political agenda. In various European countries, progressive architects joined forces to produce optimal designs, housing design became a science (Leupen & Mooij, 2011).

EXISTING ALKOOFWONINGEN IN ROTTERDAM

In the sixties, the *alkoofwoning* was still the most common dwelling type in the dwelling stock of Rotterdam (Telegraaf, 1962). In the sixties and seventies, discussions about renewing the 19th-century neighbourhoods began because action groups and residents raised the issue (Reijndorp, 2017). The city renewal of Rotterdam in 1972-1987 had

huge impact on the city structure and associated dwellings. A renewed interest in the inner city came to light in the seventies. Old buildings in bad shape or houses with little facilities needed to be renovated. Often, *alkoofwoningen* were small houses with little square metres and did not contain a bathroom (Van Wijngaarden & van de Wetering, 2017b). The *alkoofwoningen* also often did not have (sound) insulation between upstairs, downstairs and next door neighbours (Van Wijngaarden & van de Wetering, 2017a). So they started to renovate the nineteenth-century *alkoofwoningen*. Often the *casco* and front façade were kept, but the spatial floor plan changed completely (Van Wijngaarden, 2010). A new renovation method called ‘*driepands-ontsluiting*’ was very popular where three small old *alkoofwoningen* became two new spacious apartments (Van Wijngaarden & van de Wetering, 2017b). Many *alkoofwoningen* were built at a traditional construction method with wooden foundation piles and heavy timber beams. The façades and construction walls consisted of bricks while the interior walls were often from wood or light stones. Interior wooden beams and construction walls composed with small elements have a high degree of adaptability, therefore it was easy to renovate these dwellings in the seventies and the eighties (Van Wijngaarden, van de Wetering, 2017a). Although the introduction of the *Woningwet* tried eliminate the *alkoofwoning*, it did not disappear for another sixty years in Rotterdam.

CASE STUDY: JACOB CATSSTRAAT

The case study situated at the Jacob Catsstraat in Rotterdam is a typical example of an *alkoofwoning* with double alcoves in the middle of the room. In the second half of the 19th century this type of dwelling was popular for do-it-yourself builders and private investors with rental houses. The collection of nine dwellings situated in the 'Oude Noorden' in Rotterdam was one of the first perimeter blocks. The corner houses were probably designed for the middle class because of the street width, building height and amount of ornaments. All dwellings have a front door at street level. The plan of Jacob Catsstraat 23 consist of a front room, that often could be seen as a special 'beautiful' room, the back contains a big kitchen in living space. In the middle a double alcove is situated.

There are no sanitary facilities in the dwelling, for warm water residents needed to visit the bathhouse in the neighbourhood. The hall does contain a toilet, storage rooms and a coal shed. Every room had a small heating unit. The basement was shared between the ground floor and upper floor dwelling. To have a sort of ventilation in the alcoves two small hatches were placed facing the hall (Rotterdam woont, n.d.-a). This was a common feature in *alkoofwoningen*. However, often the ventilation shafts lead to the hall opposite the toilet. It often caused odour nuisance (Van Grinsven, 2017).



FIGURE 6. Corner at Kromme Wiekstraat. From "*Rotterdam woont*," 2011 (<https://rotterdamwoont.nl/projecten/alkoofwoning-jacob-catsstraat/>).

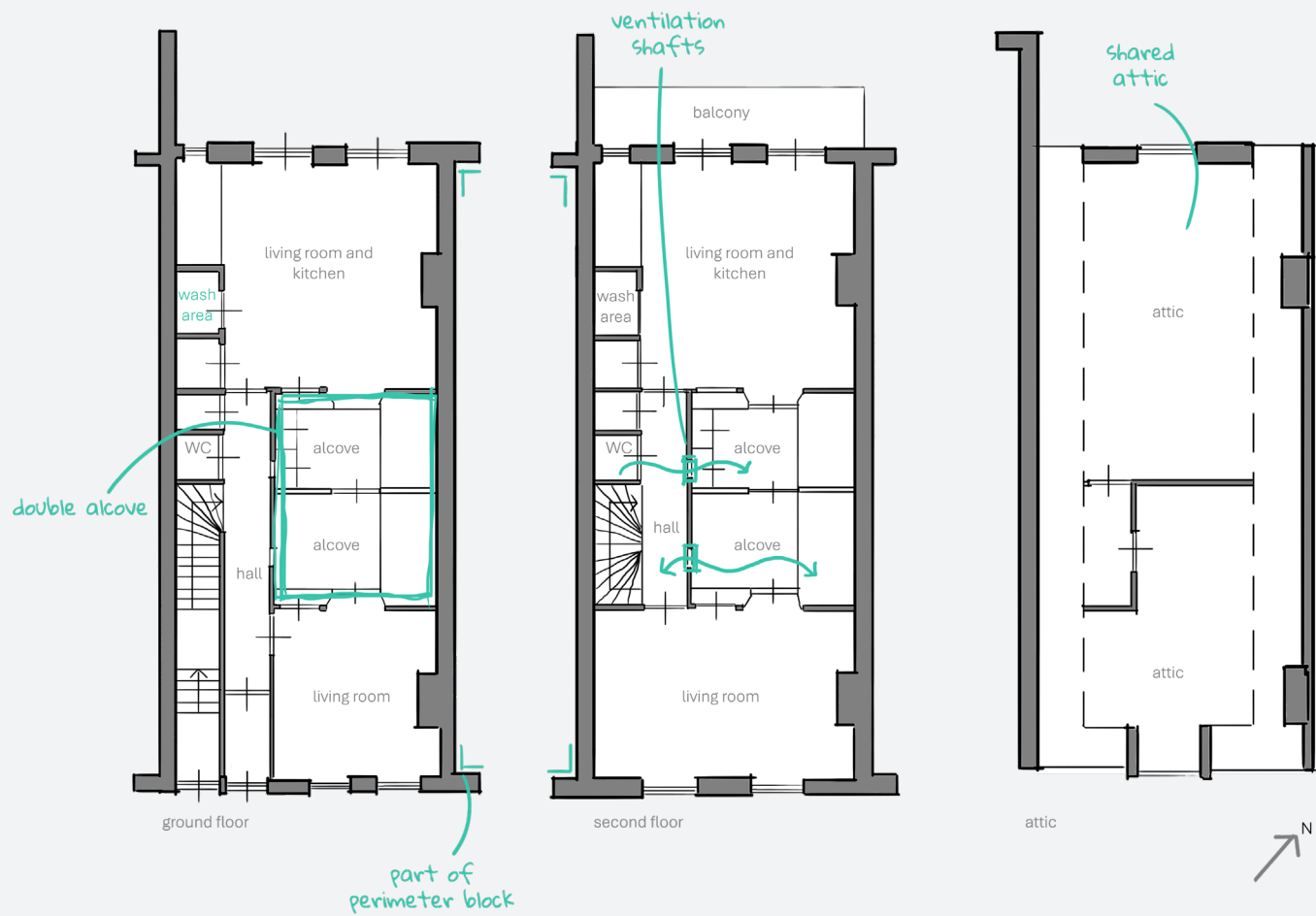


FIGURE 7. Floor plan of the Jacob Catsstraat . Own image (with information from Rotterdam woont, n.d.-a)

CASE STUDY: DRIEHOEK

Renovation of the alkoofwoning happened often in Rotterdam by only keeping the casco and walls, the floor plan completely changed. For example in the Driehoek in Rotterdam. Originally these alkoofwoningen were built with a front room and two alcoves in the middle. A similar floor plan with the Jacob Catsstraat can be seen (Rotterdam woont, n.d.-c).

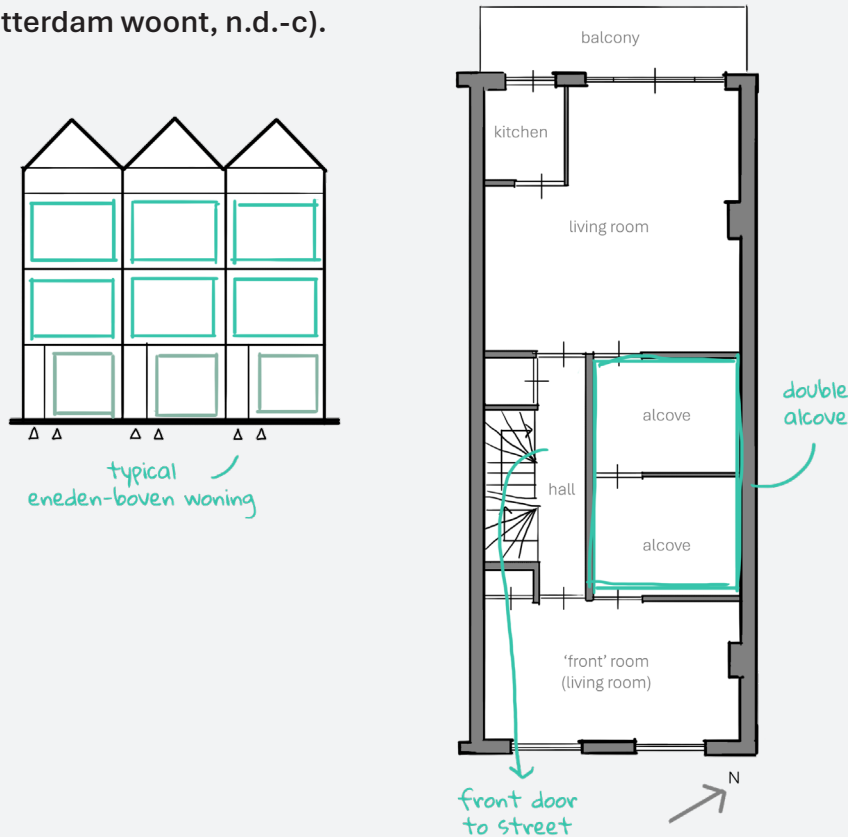


FIGURE 8. Floor plan of the Driehoek. Own image (with information from Rotterdam woont, n.d.-c)

After the renovation, the so-called 'driepandsoplossingen' was reconstructed. Apartments were added together by making duplex dwellings. The original gable roof was removed and a porch was attached. The front doors attached to the trottoir disappeared and got replaced for one porch door (Rotterdam woont, n.d.-c). For this 'driepands-ontsluiting' a radically renovation happened where only the casco of the construction walls and the front façade were kept. The roof, back façades and all floors were all replaced. Residents could choose whether they wanted a renovation, but they often did because it gave them more square metres (Van Wijngaarden, 2010).



FIGURE 9. Rechthuislaan after cascorenovation en 'klussen'. From "Rotterdam woont," 2011 (<https://rotterdamwoont.nl/projecten/de-driehoek/>).

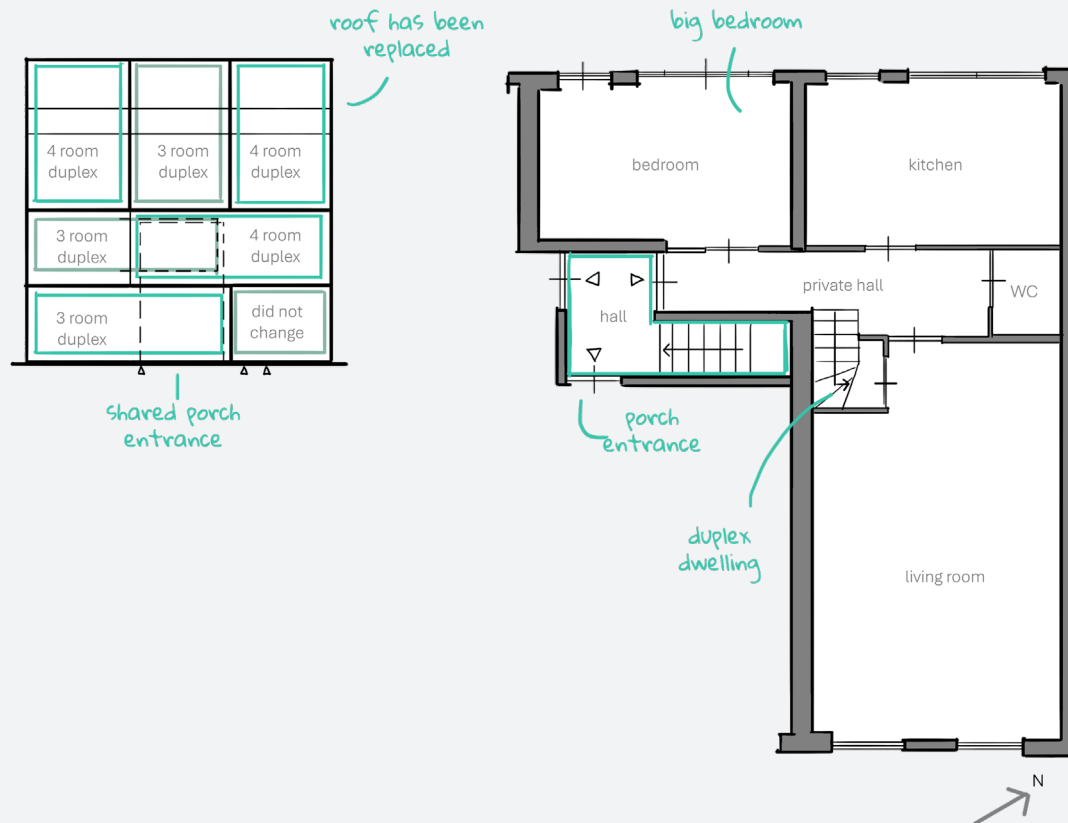


FIGURE 10. Floor plan of the Driehoek. Own image (with information from Rotterdam woont, n.d.-c)

In 2007 the building block has been completely renovated again after a design of Ruoff Architecten, the so-called 'klusprojecten'. This approach resulted in diverse blocks where residents could express their specific wishes. However, there were instances where the available budget was insufficient to meet the residents' ambitious plans. Consequently, the housing sizes within the block became quite varied. A notable change in the design was the relocation of the front doors back to face the street.

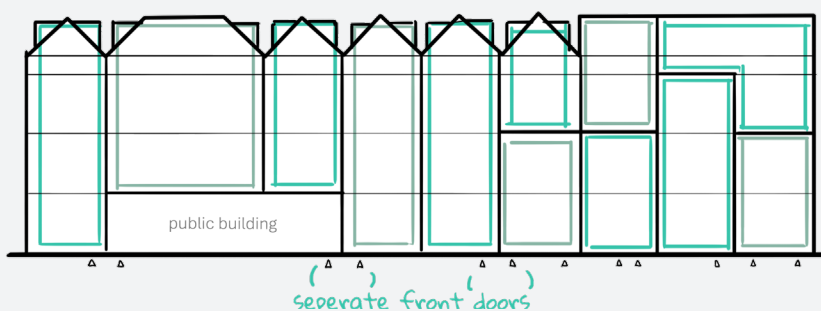
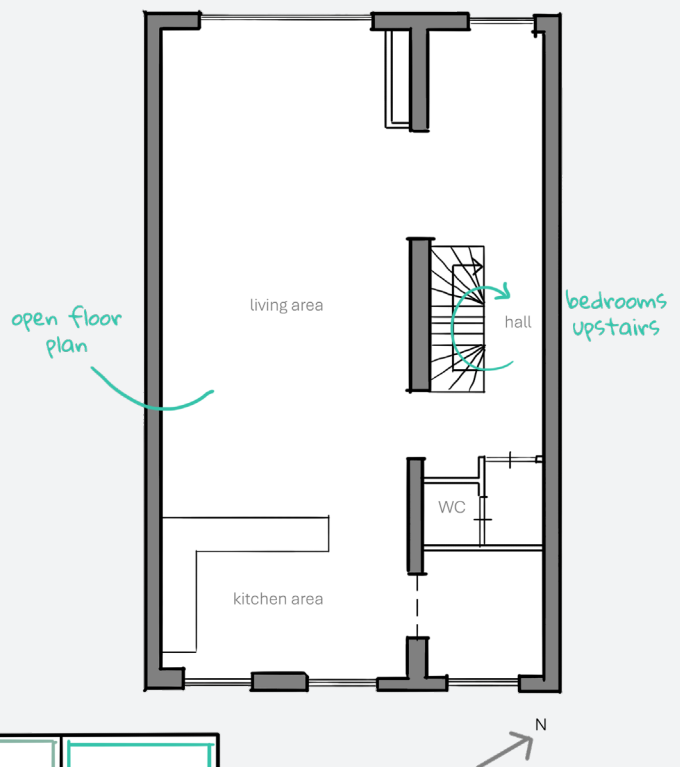


FIGURE 11. Floor plan of the Driehoek. Own image (with information from Rotterdam woont, n.d.-c)

RETURN OF THE ALCOVE?

The past few years the dwelling architecture has changed a lot. Because of technology the modern dwelling is not tied to a systematic floor plan. Every square metre can have heating, ventilation, cooling and Wi-Fi. The pipes are easy to translocate and electricity opened a lot of new innovations, especially for in the kitchen (Van Grinsven, 2017). Also the social context has changed with families getting less big, so there is more square metres per person then in the past (Leupen & Mooij, 2011). Furthermore, the sleeping culture has been changed, almost all occupants have a washing machine and cleaning bed sheets is no longer a luxury (Montijn, 2006). A recent trend in the twentieth-first century is the concept of working at home. The line between a place to dwell or to work has become smaller and the dwelling can become a general concept for living again (Van Grinsven, 2017). In the past many houses also contained working places, the history repeats itself. What if the alkoofwoning makes a return as well?

Another trend in the twentieth-first century is the tendency towards living in smaller houses. This started in the private sector where small apartments in the city were improved with a lot of luxury. A yup (young urban professional) only needs a home to sleep in (Van Grinsven, 2017). Innovative technology solves a lot of the problems the original alkoofwoningen dealt with. Meanwhile, the advantages of the alcove, the privacy can still be used in contemporary architecture.



FIGURE 12. Domus Houthaven Residential Complex / Shift Architecture Urbanism.

From "Archdaily," by P. Top, 2024a (https://www.archdaily.com/996324/domus-houthaven-residential-complex-shift-architecture-urbanism/63e691c3805c6125530945bf-domus-houthaven-residential-complex-shift-architecture-urbanism-photo?next_project=no).

In Amsterdam a new dwelling complex, Domus Houthaven, is built where small apartments or studios contain an alcove. This project won a prize for the best interior in 2023. The small apartments in Domus Houthaven offer a high degree of spaciousness and flexibility. The living core of the floor plan is built up with a configuration of colourful modules for (open) kitchen, bathroom, closet space and bed alcove. This is done to maximize the actual living space in size and terms of use. As the architects explain it themselves:

“The alcove bed frees the home from a bedroom without lapsing into the solution of a regular studio apartment where you actually live in your bedroom. When the alcove doors are closed, you have one large living space. Once the perforated doors of the alcove are open, the space transforms into one large bedroom. Such a solution makes use of the fact that the privacy offered by separate bedroom is not an issue in single-person household or cohabiting couples.” (Shift Architecture Urbanism, n.d.).



FIGURE 13. Domus Houthaven Residential Complex / Shift Architecture Urbanism.

From “Archdaily,” by P. Top, 2024b (https://www.archdaily.com/996324/domus-houthaven-residential-complex-shift-architecture-urbanism/63e691c1e8dab063f03fd5ae-domus-houthaven-residential-complex-shift-architecture-urbanism-photo?next_project=no).

CONCLUSION & DISCUSSION

CONCLUSION

The history of the alkoofwoning reveals how architectural forms rise and fall with shifting norms. Initially a marker of the high society, the alcove became a solution for housing the working class during mass migration and industrialisation. The construction of alkoofwoningen was mainly done by private investors, which emphasizes the prioritization of profit over inhabitant well-being, despite lack of hygiene and poor ventilation. These flaws exacerbated by the use of perishable bedding and industrial pollution. Further, the reputation of the alkoofwoning as dark and unhygienic was tarnished by societal prejudice over the hygiene of the working class.

Although, the introduction of the Woningwet in 1901 forced minimal living conditions of dwellings, the legacy of the alkoofwoning is more complex. While Amsterdam cheerfully prohibited the building of alkoofwoningen in 1905, other municipalities would take a while to follow. Rotterdam was lagging behind significantly, waiting 32 years to align with Amsterdam's 1905 ban. This delay is because of various sources, among them: housing shortages, increased construction costs, weakenforcement of regulations, procedural hurdles, differences in interpretation, and the consequences of the First World War.

Nevertheless, the alkoofwoning would not disappear from the building stock for at least another thirty years in Rotterdam. Rising standards of living and sanitation in the sixties and seventies started debate over the renewal of the nineteenth-century old neighbourhoods. During the city

renewal of Rotterdam of 1972-1987 many alkoofwoningen were found below living standards, hence were renovated, closing the chapter on the alkoofwoning.

Yet today challenges, such as shifting priorities to compact living and spatial efficiency, introduce a new strength of the alkoofwoning. Where historical alkoofwoningen suffered from poor ventilation and hygiene, widespread availability of mechanical ventilation and washing machines could mitigate these issues today. Could the alkoofwoning experience a resurgence, or does the historical stigma render it irredeemable? Only time will tell whether the alkoofwoning can overcome its past and adapt to the demands of contemporary living.

DISCUSSION

Literature contains different definitions for the alcove, Dutch box bed and alkoofwoning. Therefore, this research starts with a definitions chapter trying to define such complex terms. Unfortunately, not all literature aligned with these exact definitions.

The limitation of the research is lack of clear literature. Most research about alkoofwoningen have been done in Rotterdam or surrounding areas. Alkoofwoningen were constructed in other areas as well, as mentioned, but any elaborated research of alkoofwoningen in other Dutch cities is missing.

The housing environment is always changing. Construction of houses is not only a technical and architectural challenge but also a cultural, historical and social one (Leupen & Mooij, 2011). New trends will emerge and change the twentieth-first century dwelling architecture.

Recommendations for further research is to analyse recent floor plans of dwellings and monitor trends regarding the alcove. Will the contemporary dwelling architecture start with designing alcoves in their floor plans after the publicity of Domüs Houthaven, the case study used in this research?

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Bernard Leupen has been a professor with the Faculty of Architecture at Delft University of Technology, Architecture Department, until 2008. He has written several architectural books. Harald Mooij is an architect, professor and researcher in the Architecture Department, Chair of Housing Design, at the Faculty of Architecture of the Delft University of Technology. This manual as the result of their collaboration, writes elaborates all aspects of dwelling design. For this research mainly their written ideas about people's habits for dwelling is been used.

Prins, A. (2021). *Wonen: De fascinerende gelaagdheid van een alledaagsebezigheid*. Walburg Pers bv.

This book is about houses and living. Instead of talking about the façade or the building as a whole it discusses the architecture of the interior. Writer Andrea Prins explores several ideas about dwellings and how architecture can contribute positive changes. From the authors point of view several case studies and themes are explored.

Montijn, I. (2006). *Tussen stro en veren : het bed in het Nederlandse interieur*. Inmerc.

Ileen Montijn is a historian and a writer. In her book about the bed in Dutch interieur she describes the whole history of the sleeping in materialistic form. Because the alcove is mentioned often her book was a significant addition for this research. She enforces the fact that sleeping is essential and that people desire a form of shelter or protection.

Van Wijngaarden, A., Hooykaas, F., Groenendijk, P., & Reijndorp, A. (Eds). (2017). *Rotterdam woont; Atlas van Rotterdamse woningbouw 1840-2015*. Uitgeverij Thoth

Many essays written in this atlas, mentioned in the bibliography, are used in this research because of their significant research about the history of housing in Rotterdam. As written in this thesis many constructed alkoofwoningen were located in Rotterdam, therefore this book has insightful readings about them.

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