

RESEARCH PLAN

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INTRODUCTION



A film called 'The Intern' starring Robert de Niro, is about a retired man with too much free time on his hands. He decides to take up an internship for a young successful company. Later on the viewer discovers the reason the man decides to take up the internship is because the company occupies the same building he used to work in for 40 years. The personal attachment the man had with the building was the reason he wanted to return to it. Even though the layout of the building had changed quite a bit, but the man still recognized the building spaces according to his memory. Of course, in this case it was probably a fictional story, but the film addresses a possible real life situation. People undoubtedly have personal attachment to buildings to which they have lots of positive memories. What the film also states and confirms is that the personal attachment does not have to be lost, when certain elements of a building change. And in case of this film, the office typology changed, but the attachment of the man towards the building, has not.

Value has always been the reason for heritage conservation. No society conserves what it does not value (De la Torre & Mason, 2002). Value is defined by the Cambridge Dictionary (2023) as "the importance or worth of something for someone". In recent decades, 'what' is heritage has evolved and expanded (De la Torre & Mason, 2002). Since values strongly shape the decisions made in heritage conservation, the assessment of values which are attributed to heritage is a crucial task (Mason, 2002). An attribute is "a quality that someone or something has" (Cambridge Dictionary, 2023).

This has, in more recent years, even led towards a change in theory towards the preservation of cultural heritage (Veldpaus, 2015). Whereas in the old approach, the protection of the tangible assets of cultural heritage led to an intolerance to change, protection of cultural heritage is now seen as an approach in which changes are managed rather than prevented. This emphasizes sustainability and community involvement. Cultural heritage management has led to a more inclusive approach, especially towards heritage in urban areas (Veldpaus, 2015).

Due to this change in approach of what is and how to deal with heritage, new groups of stakeholders have joined the process of identifying and assessing value. Stakeholders of social values, which in the past had not been included in the process, are usually members of the public (De la Torre & Mason, 2002). According to De la Torre and Mason (2002), this democratization had a positive influence in the development of the process of dealing with heritage and shows the importance of heritage in today's society. However, this made the heritage valuation process much more complex.

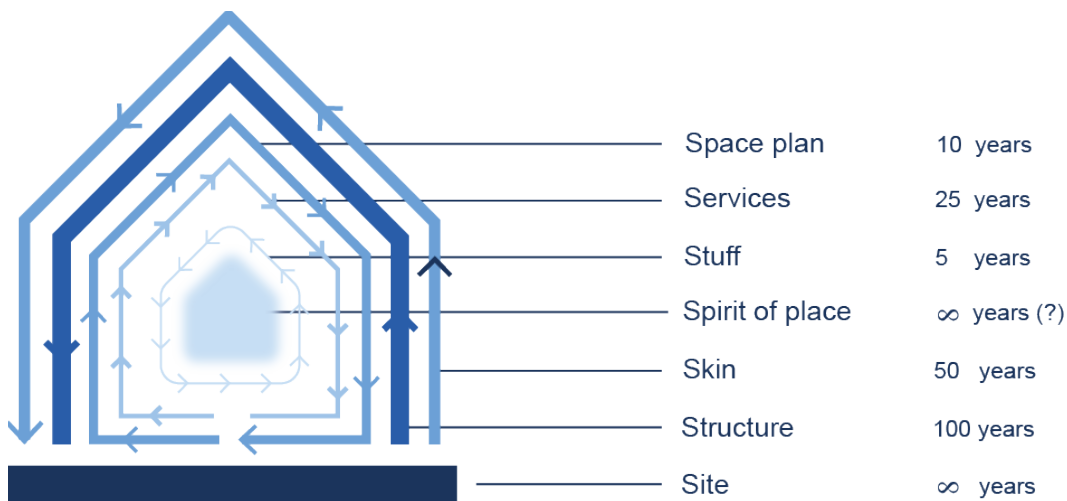


Figure 1. Shearing layers of Steward Brand including the additional intangible 'Spirit of Place' layer of Marieke Kuipers (2017). Edited by author.

An example is the work of Marieke Kuipers (2017). Kuipers (2017) adopts the framework of Steward Brand which structures our analysis of the tangible layers of a building, but also proposes an additional (intangible) layer which represents the 'spirit of place'. The spirit of place concerns the immaterial aspects of a place which are often closely associated with memories, beliefs, local traditions, rituals, narratives and such (Kuipers, 2017). Kuipers also states that no specific method appropriate to both architectural conservation and design to capture the observations of the 'spirit of place' in a systematic way has been developed, yet.

And even though this may seem (almost) impossible (due to the fact of no building being the same and every person cherishing different memories towards a building), according to Veldpaus (2015), the management of intangible attributes involves actions that are coherent to the management of tangible attributes. Preservation of the intangible not only gives identity to a heritage building, but also fosters a sense of belonging and social cohesion within communities (UNESCO, 2012; National Trust, 2017). It ensures that heritage buildings remain culturally, socially and historically relevant, like in the film 'The Intern'.

PROBLEM STATEMENT

The Netherlands is facing a housing shortage with a negative balance of 390.000 houses (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2023). Adaptive reuse could be a powerful tool to help reduce this housing shortage problem, offering new housing opportunities while preserving the nation's rich architectural heritage.

However, according to the CBS (2023), the municipality of Amsterdam gained 9129 new dwellings in 2022, of which 6914 dwellings were newly constructed. The CBS defines the other 2215 dwellings as follows: dwellings added to the stock by division, renovation or change of function. during the same year, 1394 dwellings were demolished and 792 dwellings were lost due to merging or a change of function (CBS, 2023). As shown in figure 2, only about 24% of new dwellings in Amsterdam are gained or created through renovation or adaptive reuse. Circa 76% of new dwellings are newly constructed.

Post-war neighbourhoods from the reconstruction period (lasting from around 1945-1975) represent a big part of the Dutch housing stock (Mens, 2019). These post-war areas, known as the Western Garden Cities, contain specific urban and architectural qualities which reflect the architectural trends of their time period (Technische Universiteit Eindhoven, 2023). However, individual buildings within the post-war neighbourhoods have not been protected. This has led to a decline of spatial and technical quality (Technische Universiteit Eindhoven, 2023).

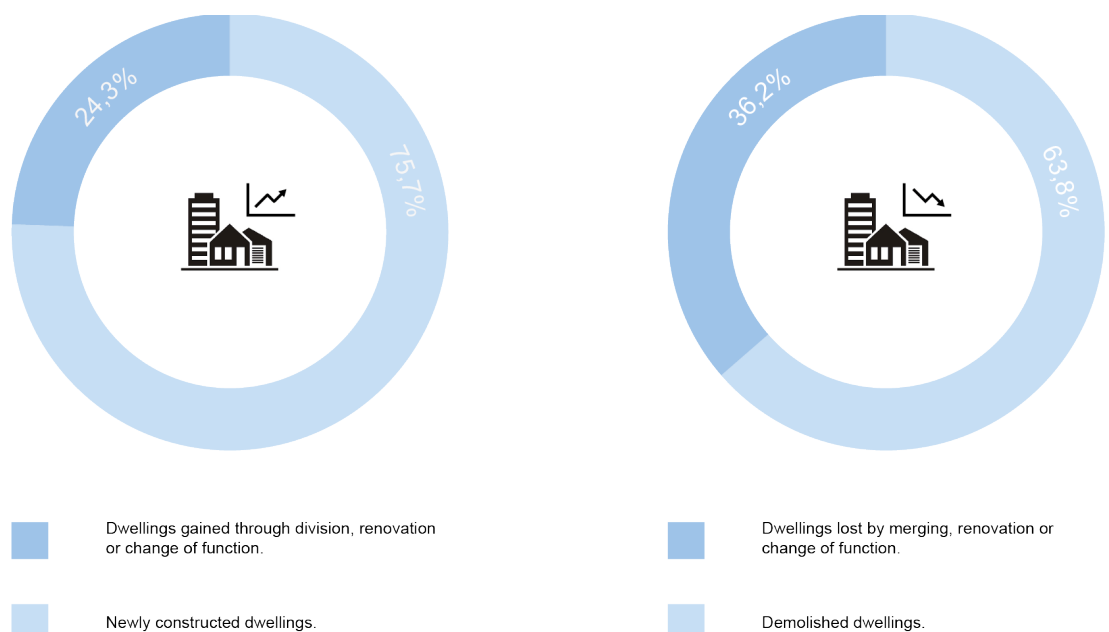


Figure 2. Change stock of housing in Amsterdam in 2022 (CBS, 2023). Illustrated by author.

Post-war neighbourhoods, over time, fell victim to social problems, which were often linked with demographic changes. These social problems were used as underlying reason for large scale demolition plans and renewal plans. These plans often lead towards brutal interventions, with little respect for the original architectural qualities of the Western Garden Cities. However, the economic crisis of 2008 interrupted these plans and opened up possibilities to revise policies. In the meantime the recognition for heritage had increased (Mens, 2019).

Due to this increased heritage recognition, demolition plans shifted towards refurbishment plans. A shift, such as this one, towards heritage refurbishment requires for a systematic identification of heritage significance to inform refurbishment design decisions (Technische Universiteit Eindhoven, 2023).

The preservation of intangible attributes in heritage housing of Amsterdam's post-war neighbourhoods, which have been listed as 'national importance', is an important challenge in terms of contemporary urban development and sustainability (Havinga et al., 2019). In addition, there is a need to honour the social and cultural values embedded in the original designs of the garden cities, which were once praised showcases of architectural ideas. A thorough evaluation of the original qualities of the post-war neighbourhoods is necessary to make well-founded decisions on possible interventions (Technische Universiteit Eindhoven, 2023).

This introduces the question: "How can post-war housing heritage in Amsterdam New-West be improved while preserving the intangible aspects of the existing urban structures while meeting contemporary challenges such as sustainability, urban development and changing social dynamics?"



STATE-OF-THE-ART

Preserving intangible cultural heritage values within heritage housing has become an important field of research and practice over the years. The preservation of both the intangible and tangible heritage becomes crucial as urban environments face fast transformation and communities struggle with evolving social dynamics. This state-of-the-art review explores key themes and challenges in the field of preservation of intangible cultural heritage values within heritage housing.

In terms of values assessments, multiple literature sources are relevant for the research (Havinga et al., 2019a; Havinga et al., 2019b; De la Torre & Mason, 2002; Mens, 2019; Roders & Silva, 2012; Veldpaus, 2015). Mason and De la Torre (2002) offer a review of issues associated with identifying and assessing values of cultural heritage. Mens (2019) incorporates this research into her own to create her own value assessment based on the architectural-historical background of the urban residential area of Amsterdam Nieuw-West. She splits her research into three parts. The first one is about creating a new value assessment, which according to her is not yet developed enough. Then in part 2 she focuses more on the history of the garden cities and researches the case study of Amsterdam Nieuw-West. The last part is about applying her value assessment on the case study and a concluding analysis of the case study. Whereas Mens (2019) focusses her research more on creating a new architectural-historical value assessment, Havinga et al., (2019a) aims to understand and evaluate the heritage significance of post-war housing and to gain an understanding of specific attributes that are considered to be of significance. In her other research, Havinga et al., (2019b) create a “attribute significance assessment” which has the aim to establish a thorough assessment of the relative significance of individual attributes. Based on interviews the research concludes that balconies, parcellation and semi-green spaces are the highest rated attributes. External wall-cladding or exterior insulation, lost fenestration and ground floor storage were the lowest rated attributes. De Jonge et al., (2023) research the relation between intervention and associated value of the attributes. Their research looks into which values evoke the most change and which values are ranked highest in the value hierarchy.

Furthermore, Jelic and Stanicic (2018) research the role of architecture in meaning- and place making. This research argues that architecture can affect one's sense of self, as well as individual and collective memories through triggering bodily and emotional responses of the user. Two researches of the National Trust (2017; 2019) indicate that there is a strong emotional response when people are in places they consider to be ‘of significance’. A presence of meaningful places allows people to “reap the benefits throughout their lives” (National Trust, 2017). According to the research of the National Trust (2019) however, the relation between wellbeing and special places varies depending on the type place.

RESEARCH QUESTION

Accordingly to the problem statement, the following research question is defined to guide my research, to identify the main problem and inquire what my research will address:

“How can intangible cultural heritage attributes be effectively identified, documented and preserved when adaptively reusing a building, while considering contemporary challenges such as changing social dynamics, urban development and sustainability?”

To better conduct the research, the research question will be split into a number of sub-questions.

“What are intangible cultural heritage attributes embedded in the Architecture of Amsterdam New-West, and how can these be accurately identified and documented?”

Firstly the intangible attributes will be identified, documented and categorised through literature study. What are, according to literature, intangible attributes, how are they defined and how can they best be categorised?

“What are contemporary challenges to consider whilst dealing with housing heritage?”

Secondly, it is important to consider current challenges when dealing with heritage. Challenges which complicate the process of the preservation of intangible attributes embedded in architecture nowadays, such as insulation value of modern day housing.

“What strategies and practices can be employed to effectively integrate intangible attributes preservation into the conservation and restoration of heritage in Amsterdam New-West?”

Are there already existing strategies applied to dealing with modern day heritage buildings which could be useful to preserve the intangible aspects of heritage housing in Amsterdam New-West? How can the preservation of intangible attributes and contemporary challenges come together without disturbing/neglecting the other.

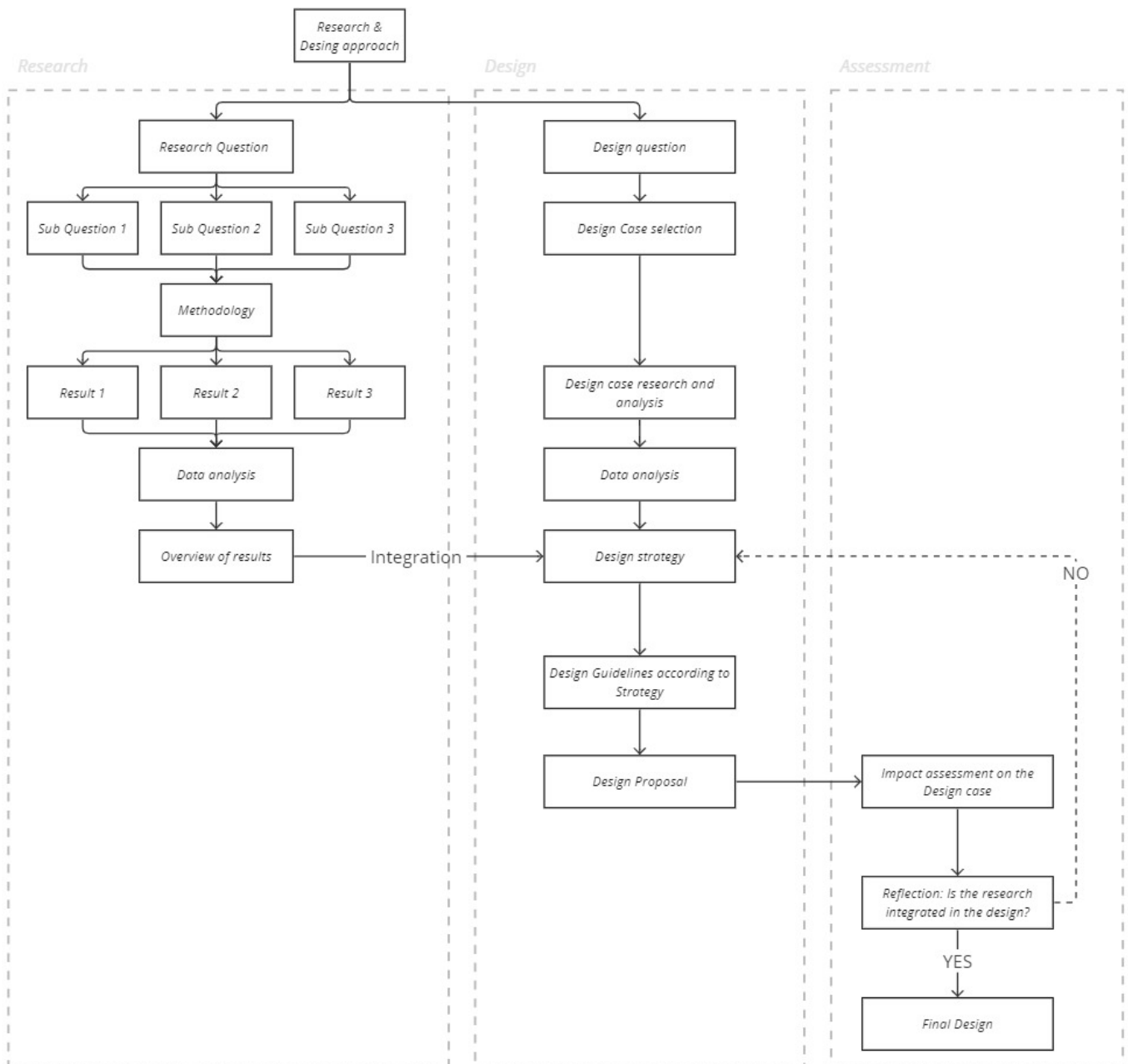


Figure 3. Research and design structure. Illustrated by author.

AIMS & OBJECTIVES

Following the arguments stated earlier in this Research Plan, this research aims to better understand and identify the intangible values of the post-war residential area of Amsterdam New-West. Furthermore this research aims to determine the intangible values and attributes embedded in the post-war neighbourhoods of Amsterdam New-West, and how the identification of these intangible values can help in the refurbishment of post-war buildings, without negatively affecting the emotional attachment people have towards these buildings. Moreover, the research sets out to gather as much insight from members of the public on the preservation of intangible values embedded in the characteristic post-war architecture of Amsterdam New-West. As for the results, detailed attribute-value diagrams will answer the research question and support the design choices in the refurbishment of a modern post-war residential building in later state of research process.

ETHICS

When doing research involving people, researchers must comply with specific rules for field research involving human subjects. Some important papers are necessary to ensure the ethical requirements: an Ethics Review checklist, a Data Management Plan, and Informed Consent form. These documents cover potential risks, detailed plans, and data use from the research. Additionally, the Human Research Ethics Committee (HREC) application is prepared following the guidelines, recommended by Delft University of Technology. This will ensure that thorough ethical strict supervision on the research methods and participant engagement.

METHODOLOGY

THEORETICAL FRAMEWORK

My research aims to address the multifaceted challenge of intangible attribute preservation in cultural heritage through multiple design methods. Firstly the intangible attributes will be identified, documented and categorised according to the ‘taxonomy of attributes’ of Veldpaus (2015) (figure 3) and the ‘values framework’ of Tarrafa Silva and Pereira Roders (2012) (figure 4).

The ‘taxonomy of attributes’ of Veldpaus (2015) categorises both the tangible and intangible attributes, putting emphasis on the ‘what’. According to Veldpaus (2015), in terms of heritage management, the distinction between what and why is very important. In most cases, the management of an intangible attribute involves actions that are coherent to the management of a tangible attribute.

Tangible			Intangible		
Asset	Area	Landscape	Asset Related	Societal	Process
Building Element	Ensemble	(urban or natural) Layering	Concept or artistic trend	Use, function	Management process
Building	Context or setting	Everything (significance based)	Relation context - location	Knowledge, traditions, customs	Development or evolution
Urban Element	Area		Character	Relation context - association	
Natural Element				Community /people	

Figure 4. The taxonomy of attributes. Adopted from Veldpaus (2015).

As Veldpaus (2015) himself states, this framework is to be further explored. To establish whether the categories are applicable and comprehensive as well as comparing the framework to different categorization models, to further build on the taxonomy for heritage management.

To further investigate the ‘why’, the research will implement the ‘values framework’ of Tarrafa Silva and Pereira Roders (2012). This framework is chosen due to its large scope related to the built environment. The list of cultural values (figure 4) will help to identify the primary values of cultural heritage, and shall be used as a tool of assessment for highlighting and categorizing arguments used to substantiate significance of cultural heritage assets or protection and conservation.

METHODOLOGY

Furthermore, investigating the impact of the, through literature defined, intangible aspects, will be done through interviews and online questionnaires. A qualitative interview of the residents of the research cases in Amsterdam New-West. The interviews will be a mix of qualitative interviews and quantitative interviews. The qualitative interviews will be done to create more depth in the research results. An interview such as this will look more like a conversation with the residents rather than an online survey. It is however important to a quantitative interview through online questionnaires to get as much responses as possible. Therefore the a combination of both of these will cover both



Figure 5. The ‘values framework’. Adopted from Tarrafa Silva and Pereira Roders (2012).

the qualitative and quantitative aspects of the interviews.

The limitations of the qualitative way of interviewing is the time limitation for doing the interviews. As the research time period only has ten weeks, there is only so much time to do a personal interview and it will take too much time doing this to get a number of responses which will be significant for the research results. The quantitative way of interviewing has the opposite problem, more people can get interviewed in order to get more responses, however the interview and responses will be less personal and therefore lacks depth. The way of asking questions during the interview is of key importance to get the responses valuable for the research. Accordingly to the responses of the interviews, an overview will be made between the categorized intangible aspects and the importance of these aspects in the eyes of the residents. To which then a scenario can be created which reflects the highest valued intangible aspects according to the interviewed residents.

Then, the research will take a closer look at which contemporary challenges have to be dealt with. This will be done through literature, existing case studies, and a comparative study. A comparative study in which other heritage cases will be analysed and compared to give insight in how these cases have dealt with the modern challenges heritage buildings face when being adaptively reused.

Lastly, the research shall look into already existing strategies implied to dealing with modern day heritage. The different strategies of preservation in heritage will be studied through literature, and will then be compared with each other to see which strategies lead to which results. It is important to take a close look at these different approaches to fully comprehend which approach would fit best to the design case after the research. Eventually, this method will lead to an overview of different approaches with each a different result. According to these results, through interviews with residents of research cases, the results will be tested to see which ones are most successful in terms of preserving the intangible attributes of heritage housing in Amsterdam New-West. This way, during the design phase, the most fitting approach can be chosen for the design case to best preserve the intangible attributes.

Further limitations of the research could be very diverse answers. If the interviewed people of Amsterdam New-West respond in very diverse ways, the research could lead to an answer which would not identify a clear strategy for the preservation of the intangible assets of the heritage site. This could difficult the transition from research to design.

The research and design approach is visualized in figure 3. Figure 6 zooms in on the methodological framework and the accompanying research methods.

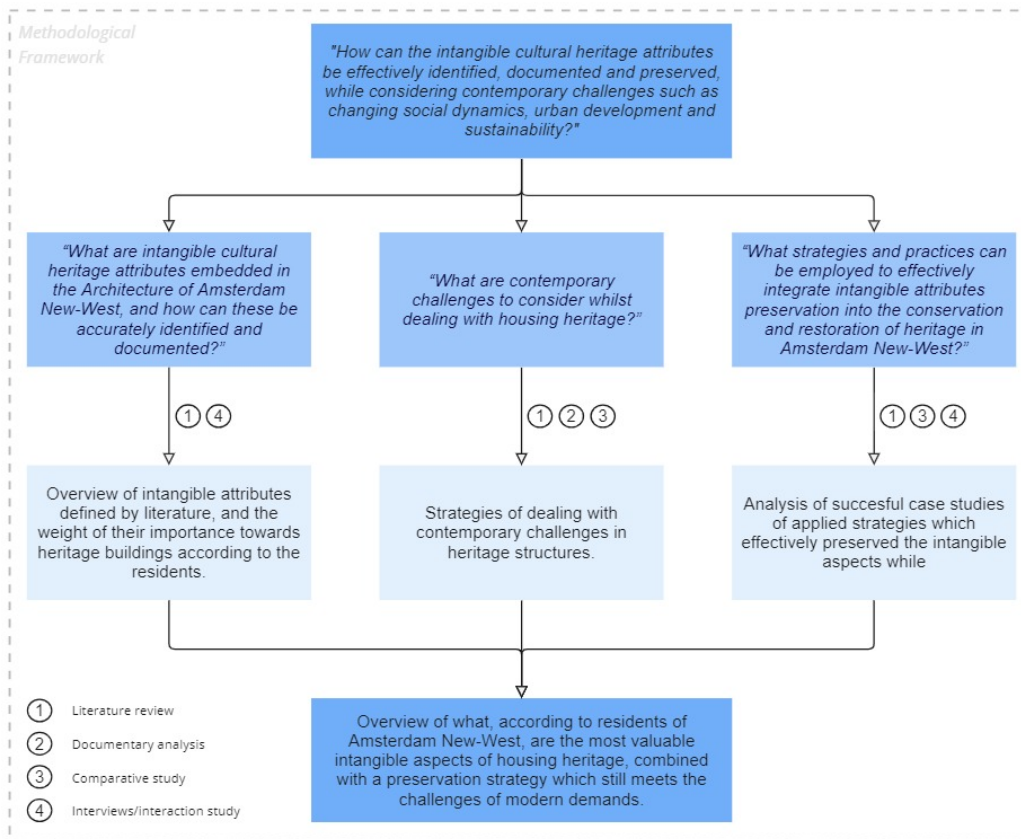


Figure 6. Methodological framework. Illustrated by author.

RESEARCH CASES

Klussen op de Klarenstraat

The flat is situated in the Staalmanpleinbuurt, a neighbourhood created entirely during the reconstruction period, to the plan of architect and urban planner Cornelis van Eesteren. The building was designed in 1956 by Ernest Groosman, one of the most prolific architects of the reconstruction period. The flat originally consisted of four floors of 40 identical 75 m² flats on a plinth of storerooms and garages. It has a concrete skeleton with a brick façade. The neighbourhood was characterized by strip construction, numerous green spaces and the separation of functions. Instead of demolition, this project opted for a striking transformation. Not only the building is preserved, but also the surrounding greenery of the neighbourhood. A collaboration between different contracting companies and architects has shown that traditional porch flats offer opportunities for different housing needs. The houses range between 40 m² and 190 m². Storeys have been merged, roof terraces, gardens and balconies added and the façade modified. Despite the changes, the building has maintained its characteristic appearance.

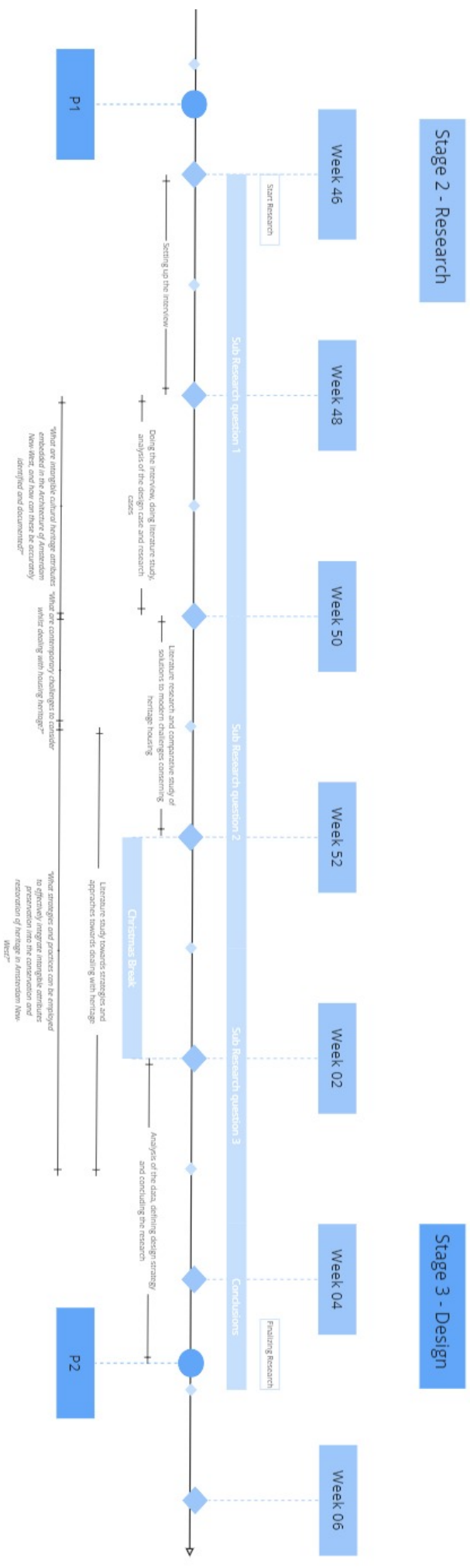


Figure 8. Research timeline. Illustrated by author



Image from: <https://arcam.nl/architectuur-gids/klussen-op-klarenstraat/>

Bosleeuw Midden

The housing in Bos and Lommer was developed in the beginning of the 20th century for the new housing act. The houses have no monumental status, but are of great cultural-historical significance for the public housing sector. Typologically, they form an interesting intermediate form in the development from building block to strip parcelling. The plans for the neighbourhood date from 1935, a time when Cornelis van Eesteren was exploring experimental housing construction and developing the General Expansion Plan.

Renovation during urban renewal has made the buildings qualitatively derivative with cheap solutions and mediocre detailing. An initial study showed that a restorative approach was not feasible. Besides economic aspects, interior insulation would greatly affect the use value. Therefore, an approach was developed with a construction consortium for a complete, new facade around the building. The project was carried out in just 12 days per house due to a special approach. The residential improvement took place in occupied condition. This meant that residents did not have to move out of the building for the works to be executed. The improvement tackled the entire facade, roof, porches, entrances, insulation, plinth, installations, bathrooms, kitchens and toilets. Floor plan improvements have also been worked out as options in mutations.

Furthermore, this project did not limit itself just to the building scale. It was applied to the whole neighbourhood by improving the green structures, squares and outdoor spaces.



Image from: <https://www.kaw.nl/projecten/renovatie-bosleeuw-amsterdam/>

DESIGN CASE

Knijtziperpanden, Jan Evertsenstraat 201-471

The so called 'Knijtziperpanden' got their name from their architect Herman Knijtziper (1914-1994). The flats are seen by the district council as "a cool and characteristic interpretation of the garden city structure, as intended by urban planner Van Eesteren". The housing complexes are located in the most northern part of the district called 'Overtoomse veld'. After the complex was on the verge of demolition for several years, it was decided to maintain the complex and even make it a municipal monument in 2012.

However, residents of this district rate their quality of living lower than the city's average (Dashboard Kerncijfers | Website onderzoek en statistiek, 2019). This contradicts the strike against demolition plans of the municipality of 2012.


The housing complex was designed in 1955 for Woningbouwvereniging Rochdale. The complex originally consisted of 364 dwellings and 4 shops, spread over four 4-storey blocks and four 7-storey blocks. The dwellings on the three highest floors are accessed via galleries, the other dwellings via porches. The tall building blocks accompany the gentle curve in Jan Evertsenstraat, part of the road connecting New West to the city centre. Knijtziper designed the floor plans of the porch houses in a typical post-war housing in Amsterdam way. However, a relatively new housing typology was added: dwellings for singles. Besides installing central heating and mechanical ventilation, the limited renovation included renewing the wooden exterior window frames and balcony railings. Various structural measures were also taken, giving the complex energy label B.



Figure 9. 1:10000 plan Amsterdam New-West, district Overtoomse Veld North. Illustrated by author.



HYPOTHESIS



From the research the expected end product is an overview according to the theoretical framework which includes the 'taxonomy of values' and the 'values framework'. These theories will serve as a base to which the interviewing responses will be integrated into. This way an overview will derive from the research in which the importance of intangible assets are shown in relation to the amount of value given by residents of New-West.

This end product will help transition the research into a design strategy which will be applied to the design question. The results of the research could even result in a new strategic preservation approach which will be applicable for future adaptive reuse projects. In figure 3 the methodological framework will show the clear research and design process.

This research is highly dependent on the assumption that the tangible and intangible assets of cultural heritage are related and can not exist without the other. This assumption is supported by Veldpaus (2015), where he states that in most cases, the management of an intangible attribute is coherent to the management of a tangible attribute.

Figure 11 shows an example of the end product deriving from the research. In short, the taxonomy of values forms the base of the end results, in which is then shown the amount of importance the residents of Amsterdam New-West interlink to each form of tangible or intangible asset of the researched site.

Tangible			Intangible		
Asset	Area	Landscape	Asset Related	Societal	Process
Building Element 45%	Environment 58%	(urban or natural) Layering 30%	Concept or artifact 70%	Use function 85%	Management process 30%
Building 85%	Context or setting 30%	Everything (signature based) 45%	Relation context - location 66%	Knowledge, traditions, customs 70%	Development or evolution 58%
Urban Element 70%	Area 66%		Character 58%	Relation context - association 45%	
Natural Element 58%				Community / place 85%	

Figure 11. Example of research product, based on the taxonomy of values (Veldpaus, 2015). Illustrated by author.

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