Preserving Tangible and Intangible Values and Attributes in Heritage Housing in Amsterdam New-West.

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Abstract

The main topic of this research is the preservation of both tangible and intangible values and attributes embedded in the post-war heritage in Amsterdam New-West, in specific the building blocks at the Jan Evertsenstraat known as the ‘Knijtijzerpanden’. By implementing participation methods such as interviews this research aims to contribute to the field of adaptive reuse and cultural heritage preservation by offering a practical strategy which can guide future sustainable and culturally sensitive urban development practices in future (professional) projects. The way the research is structured is, first, identifying theoretical frameworks in literature to help identify, categorise and document tangible and intangible values and attributes embedded in the heritage site. For this research the taxonomy of values of Veldpaus (2015) and the value framework of Tarrafa Silva and Pereira Roders (2012) are used. The taxonomy of values helps understand what people value about the heritage site, whether the value framework helps understand why people value that about the heritage site. Furthermore, the research explores the topics of place attachment and heritage awareness. Personal attachment to a site can give a persons life more value, and being in a place of meaning can trigger bodily emotions. To further research if the results are site-specific, a division of multiple participant groups will conduct the interviews. The first group consisting of current residents of the heritage site, the second group consisting of people living in a similar urban context and the last group consisting of people living outside of an urban context.

In terms of the question of what is valued, the first group of participants, values most the area, community/people, and relation context-association. This group least values the building elements, context/setting, and management processes. For the second participant group the most valued attributes were the area, building elements, and community/people and the least valued attributes being building elements, the building itself, and community/people. The third group differed more than the other groups in terms of results as they are resident in a non-urban context. This group valued the area, community/people, and landscape the most and character and area the least.

Answering the question as to why these attributes are valued, the first group prioritized social values, economic values and ecological values. Least valued were scientific, social and economic value types. The group two participants most value economic, social and ecological value types and least value social, scientific and economic value types. Lastly, the third group prioritised ecological, social and economic and least valued social, economic an aesthetic value types.

Furthermore, people develop a personal attachment to a building by connecting memories and life experiences to it. Lack of attachment is often attributed to living briefly in a place, dissatisfaction with the current living situation, or disinterest in the building’s story and value. Additionally, buildings being monuments gain more appreciation due to uniqueness, historical or societal significance, and the monumentalisation of personal experiences or others’value. However, reasons for not appreciating monumental status are due to inability of changing the current situation if desired and a general lack of interest.

The engagement with stakeholders through participation methods like interviews allows for the identification of both tanigble and intangible assets in adaptive reuse. Values are site-specific and it is therefore crucial to understand the local context to the heritage site as well as the necessity for a nuanced approach in questioning participants. Implementing established frameworks is crucial for the identification and documentation of values and attributes. This research forms the foundation for the successive design process, realising the primary research goal.

01 Introduction

1.1 Fascination

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.

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'.

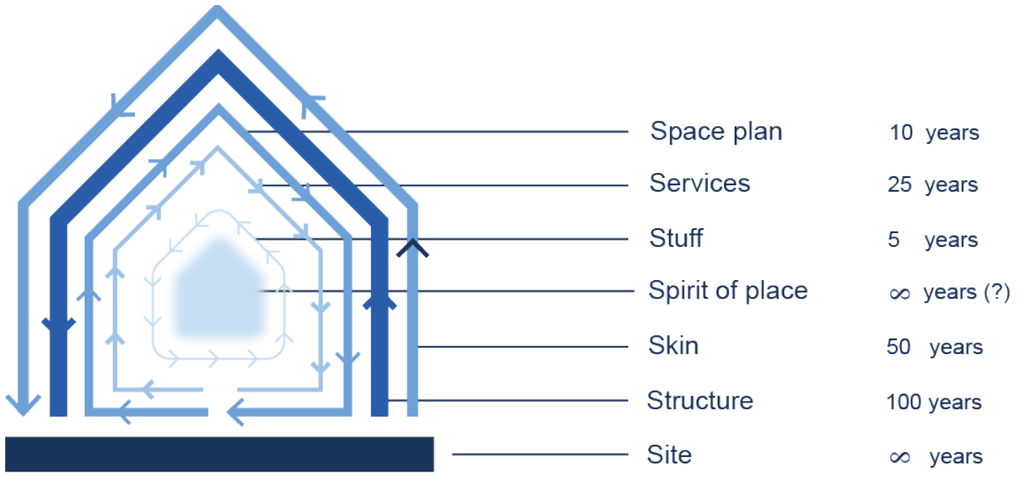


Figure 1. Shearing layers of Steward Brand including the additional intangible 'Spirit of Place' layer of Marieke Kuipers (2017). Edited by author.

1.2 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).

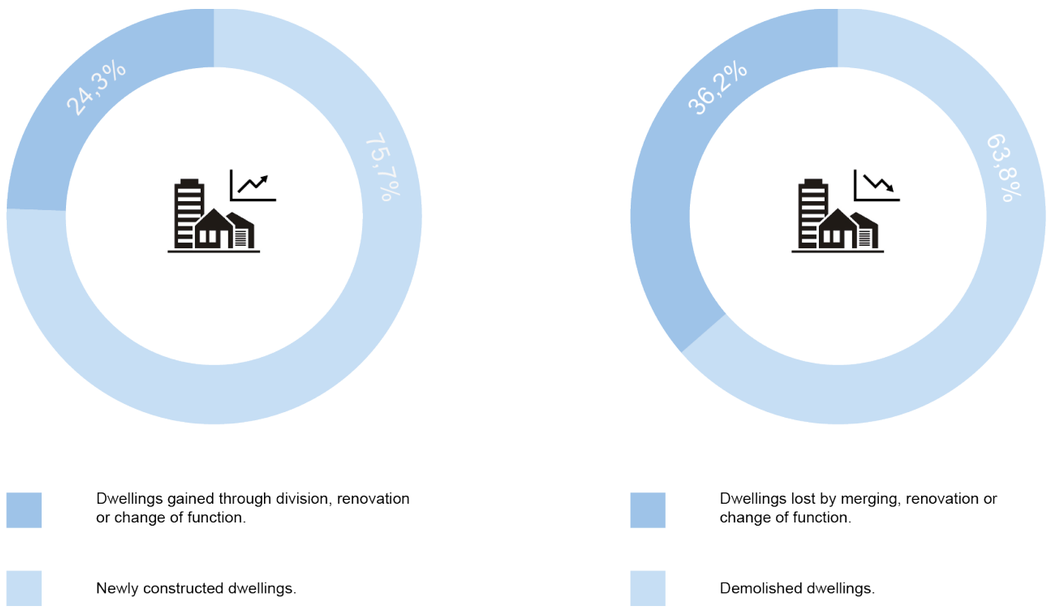


Figure 2. Change stock of housing in Amsterdam in 2022 (CBS, 2023). Illustrated by author.

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 plan 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?"

1.3 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.

1.4 Research Questions

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 tangible and intangible cultural heritage assets be effectively identified, documented and preserved when adaptively reusing a building, considering contemporary urban development?*"

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 residential architecture, 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?

"*Does place attachment play a role in the way people value heritage and housing?*"

Secondly, it is important to consider whether people feel attached to a place and whether this influences the way people value buildings, and in this case heritage housing.

"*Does awareness about the monumental status of residential heritage create place attachment and therefore change the way people value the building and its attributes?*"

Place attachment and heritage awareness are known to trigger emotional responses of the user when in places considered by the user to be 'of significance' (Jelic et al., 2018; National Trust, 2017). Can the awareness of the monumental status of a building (in this case the Knijtijzerpanden) change the way people value a building and its corresponding attributes? Do people assign value to the title of 'monument' or do people value what's important to them personally?

1.5 Aims and 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 with a specific focus on the buildings known as the 'Knijtijzerpanden'. Furthermore this research aims to determine the intangible values and attributes embedded in a post-war neighbourhood 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.

1.6 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.

02 Case study

2.1 Site Analysis

Until the end of the 19th century, Amsterdam is in crisis. Housing construction is a matter of private investors. An active group of reformers pressures the municipality, which recognises the need for housing for all layers of the population. A housing law is introduced in 1901, along with building supervision. Farmers and gardeners in the vicinity of Amsterdam also experience the consequences of the crisis. They are forced to sell their livestock and land. As a result, the municipality of Amsterdam can expand the city's surface through the annexation in 1921.

Construction in this expansion area required a solid urban design. Especially during this time, global thinking about this matter was evolving. In the 1920s and 1930s, the influence of the garden city concept from England and the United States, as well as the 'New Building' movement from Germany, is noticeable. Van Eesteren, designer of the General Expansion plan, then working as an urban designer at the City Development Department, was well aware of these ideas due to his education in Paris and his many international contacts.

The Western Garden Cities is a well-known part of the General Expansion Plan (AUP), created between 1934 and 1958 but was delayed by World War II. Construction started in 1951 in Slotermeer, followed by Geuzenveld, Slotervaart, Overtoomse Veld, and Osdorp, with completion in 1965.

Each neighbourhood had its own shops, schools, churches, green spaces, and playgrounds, encouraging socialising and relaxation. This design aimed to provide residents with independence from the old city, following the garden city concept where each neighbourhood operates as a self-sufficient unit. The buildings vary, including medium-height structures, single-family homes, and special housing like elderly homes and villas. High-rise buildings act as prominent points among lower structures.

The layout maximized sunlight with the principle of 'light, air, and space.' Traffic was separated from housing, and shops were placed along the main roads to minimize residential disruption. Additionally, the expansion plan incorporated workspaces, ranging from offices to light industry and heavy work in the Western Docklands.

Overtoomse Veld
The construction of the Overtoomse Veld took place from 1959. Bordering the district on the east is the Rembrandt Park, serving as a green buffer to separating the pre- and post-war city areas. The area is centered around the August Allebésquare. Streets and neighbourhoods in this district are named after Dutch painters and draughtsmen. Like nearby districts such as Slotervaart, the Overtoomse Veld consists of a mix between low-, medium- and high-rise buildings (Van Eesteren museum, 2017).

1957 was the year Overtoomse Veld began construction as one of the latest garden city area. Originally the Westlandgracht was also part of the Overtoomse Veld, on the, in 1921, annexed territory of the municipality of Sloten. Urban renewal is at full tilt in this area. The

main focus of this residential area is on having an urban environment with access to a lot of mixed functions, high density and closed building blocks. The municipality of Amsterdam is increasing the density of the area as the Netherlands is facing a housing shortage. Originally the area has a lot of different functions and facilities with a scope for the whole city, such as the GVB bus depot, the hospital and the World Fashion Centre. More recent functions include hotels and entertainment venues such as cafés and night clubs (Van Eesteren museum, 2017).

The Knijtijzerpanden are located in the utmost northern part of the Overtoomse Veld district (see image 1). The tall northern building blocks accompany the gentle curve in Jan Evertsenstraat, part of the road connecting New West to the city centre. Knijtzijzer designed the floor plans of the porch houses in a typical post-war housing in Amsterdam way (Van Eesteren museum, 2017).

Image 1. General Expansion Plan (AUP). (Van Eesteren museum, 2017)

Image 2. Knijtijzerpanden and urban map of Amsterdam New-West 1:10000. Authors own image.

2.2 Knijtijzerpanden

Knijtijzerpanden, Jan Evertsenstraat 201-471

The so called ‘Knijtijzerpanden’ got their name from their architect Herman Knijtzijer (1914-1994). Knijtijzer designed four identical flats combining dwellings with residential spaces. The housing complex was designed in 1955 for housing corporation Rochdale. The complex originally consisted of 364 dwellings and 4 shops, spread over four 4-storey blocks and four 7-storey blocks. The building blocks on the northern side have seven floors whilst the other building blocks have four. The lower floors are accessed by porch and have their own entrances. The building consists of family dwellings on the lower floors and partly singles apartments at the top floors. These last ones can be accessed by gallery and are partly dedicated to singles, which was a remarkable feature since the buildings floor plans were designed in a typical post-war manner. Furthermore the top floors have their own by elevator which does not stop at the lower four floors. Perpendicularly attached to the apartment block is the retail space on the ground floor. The division between the two floor plan typologies was highlighted through the colouring of the balconies and the gallery. Green was used to highlight the family balconies and yellow for the gallery balustrade for the top floors.

Each flat consists of a composition between maisonettes, three- and four room apartments. Furthermore there are a total of 36 singles apartments, consisting either of one or two rooms. These singles one-room apartments were 36 square meters and used to cost 67.50 guilders a month. Renters had to be at least 35 years old. All floor plans have an entrance hall, a toilet and bathroom. Furthermore each flat has its own kitchen and where the lower four floors have an outdoor space in the appearance of a balcony, the top three floors have indoor loggia.

Besides installing central heating and mechanical ventilation in 2014, the limited renovation included renewing the wooden exterior window frames and balcony railings. The building used to be heated by gas. Various structural measures were also taken, giving the complex energy label B.

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 building blocks are listed as order 1 monuments, which means the building is either a national monument or a municipal monument (Gemeente Amsterdam, z.d.).

Image 3. Knijtijzerpanden, Jan Evertsenstraat 201-471, current situation. Kruunenberg Architecten (z.d.)

Image 4. Knijtijzerpanden, Jan Evertsenstraat 201-471, under construction.

Urban value

At city level, the complex borders the Jan Evertsenstraat, in line with the ideas from the General Extension Plan (AUP). Therefore, the building is part of a main route through Amsterdam along multiple pieces of buildings with high-quality architecture. At neighbourhood level, the four tall residential building blocks along the Jan Evertsenstraat protect/screen/border the urban garden city typology of the Overtoomse Veld district. The building complex has a dual spatial function: it functions as a northern neighbourhood edge and therefore provides an intimate green living environment on the south side (Meurs et al., 2008).

Ensemble value

Characteristic and recognisable for a western garden city building is the parcellation: houses either medium- stories or low-rise around a 'court', with few private gardens and big communal and public spaces in-between the building blocks. The Knijtijzerpanden are considered to be a succesful example western garden city example due to corner solutions, the combination of porches and galleries and the 'staggering' of the high-rise blocks on the northern side (Meurs et al., 2008).

Typological value

The Knijtijzerpanden complex is significant for the innovation of the architectural and typological which was realised (Meurs et al., 2008). The facade is a direct translation of the residential floor plan programme on the inside. The architecture and building style is traditional, contrasting innovative building typology. There has been no implementation of a building system, as was common in Slotervaart. Building systems would produce a more one-sided image and is not directly suitable for multiple housing types (Meurs et al., 2008). Despite the building having a storage function in the plinth, the many porches still create liveliness (Meurs et al., 2008).

Image 5. Knijtijzerpanden, Jan Evertsenstraat 201-471, current situation. Kruunenberg Architecten (z.d.)

03 Methodology

3.1 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 question *What?* is valuable. 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.

The ‘taxonomy of attributes’ is not only a way of categorising the attributes, but also has different levels of specifications. First off is the generic level of whether an attribute is tangible or intangible. The second level is already more specific as the tangible and intangible are subdivided into six categories. Accordingly the third level subdivides the previous six into eighteen in which the attributes can be categorised very specifically.

As Veldpaus (2015) herself states, this framework is to be further explored. To establish whether the categories are applicable and comprehensive as well as comparing the frame-

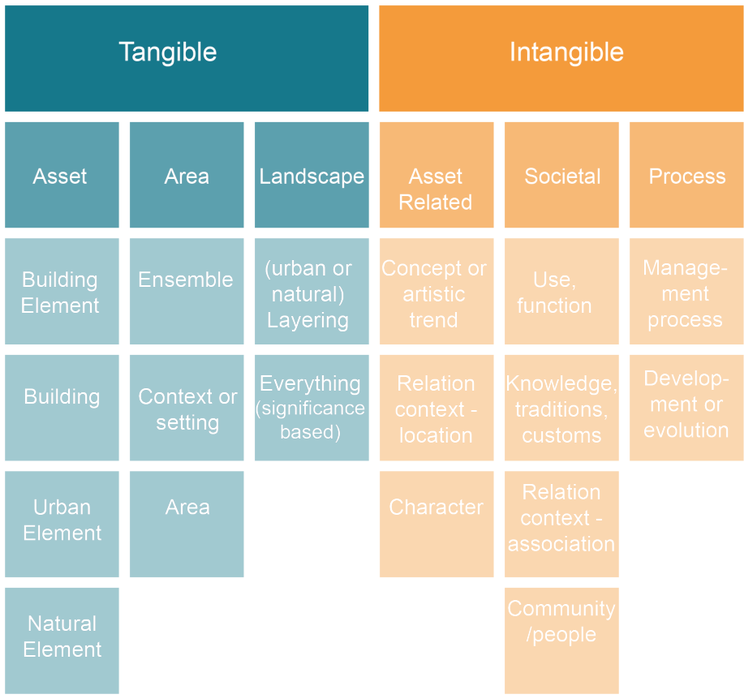


Figure 3. The taxonomy of attributes. Adopted from Veldpaus (2015).

work to different categorization models, to further build on the taxonomy for heritage management.

To further investigate the question *Why?* values and attributes are valuable, 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 categorising arguments used to substantiate significance of cultural heritage assets or protection and conservation.

Figure 4. The 'values framwork'. Adopted from Tarrafa Silva and Pereira Roders (2012).

3.2 Interview Approach

Investigating the importance and the opinion of non specialists will be done through interviews as this research aims to weigh in the importance of the current- and end user. The interviews will be done through real life conversations and through online surveys. Real life approaching is qualitative way of interviewing as the interviewer will get to know the interviewed and can have a more conversation like interview, whereas the online survey will be impersonal as the interviewed person only answers the question asked. A mix of both will allow for the research to have more depth through the qualitative way of interviewing as well as a quantitative to get as many responses as possible, to make the research more credible in the way that becomes a more realistic representation of the real situation.

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 questioning therefore becomes essential to for the desired answers.

To do this research the interview has therefore been split up into three main themes, which are important regarding the public's opinion on the heritage case. These three themes are: Place attachment, Values and Attributes and Heritage awareness (see figure 5). First of all, the public is asked whether the person being interviewed is happy with his/hers/...'s living situation and whether the person is personally attached to the heritage site or building. This way, the results will show if the persons quality of living is influencing the meaning towards the heritage case. Then, the interviewed will be asked if he/she/... is personally attached

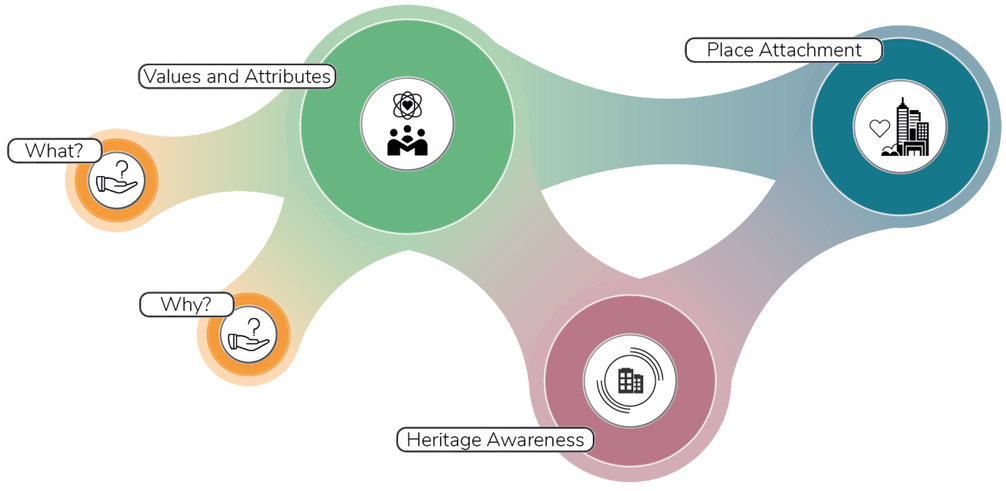


Figure 5. The structuring of the interview visualised. Authors own image.

towards the building. In the qualitative interviews this question could be elaborated on to further understand why that is. For the quantitative interview the questioned person will just be answering a yes/no question.

Following up on this first topic, is the topic of attributes and values. The participants will be asked what specific qualities of their current living situation they value the most. After doing draft interviews on family and friends, it was discovered that by doing suggestions in the question, the interviewed person was encouraged to think of more/other qualities and this stimulated the results. Then following up on this question, the participant will be asked to describe why these qualities are valuable to them. This way the reasoning behind the qualities are discovered to better understand the participants experience with the heritage site. The same will be done for the least valuable/worst qualities of the participants living situation so that the results will also show what the participants would allow to change to the heritage site.

Lastly, participants of the research will be asked whether they are aware of the possibility of their dwelling being listed as a monument, and whether this would make a difference in their appreciation towards the building. By asking this, the results will show if participants have awareness towards monuments. And above all, if people's appreciation, values and attributes towards heritage are dependent on the title 'monument' or whether the value people assign to a building derives from the personal attachment.

As seen in figure 6, the three topics discussed in the interview are intertwined and the correlations between the three topics will show in the results. Furthermore to validate the research specific to the heritage site, not only residents from the design case will be participating in the interview. The results of the correlation between place attachment and heritage awareness will be displayed according to the diagram in figure 6. Other stakeholder/interviewees groups are defined for the research.

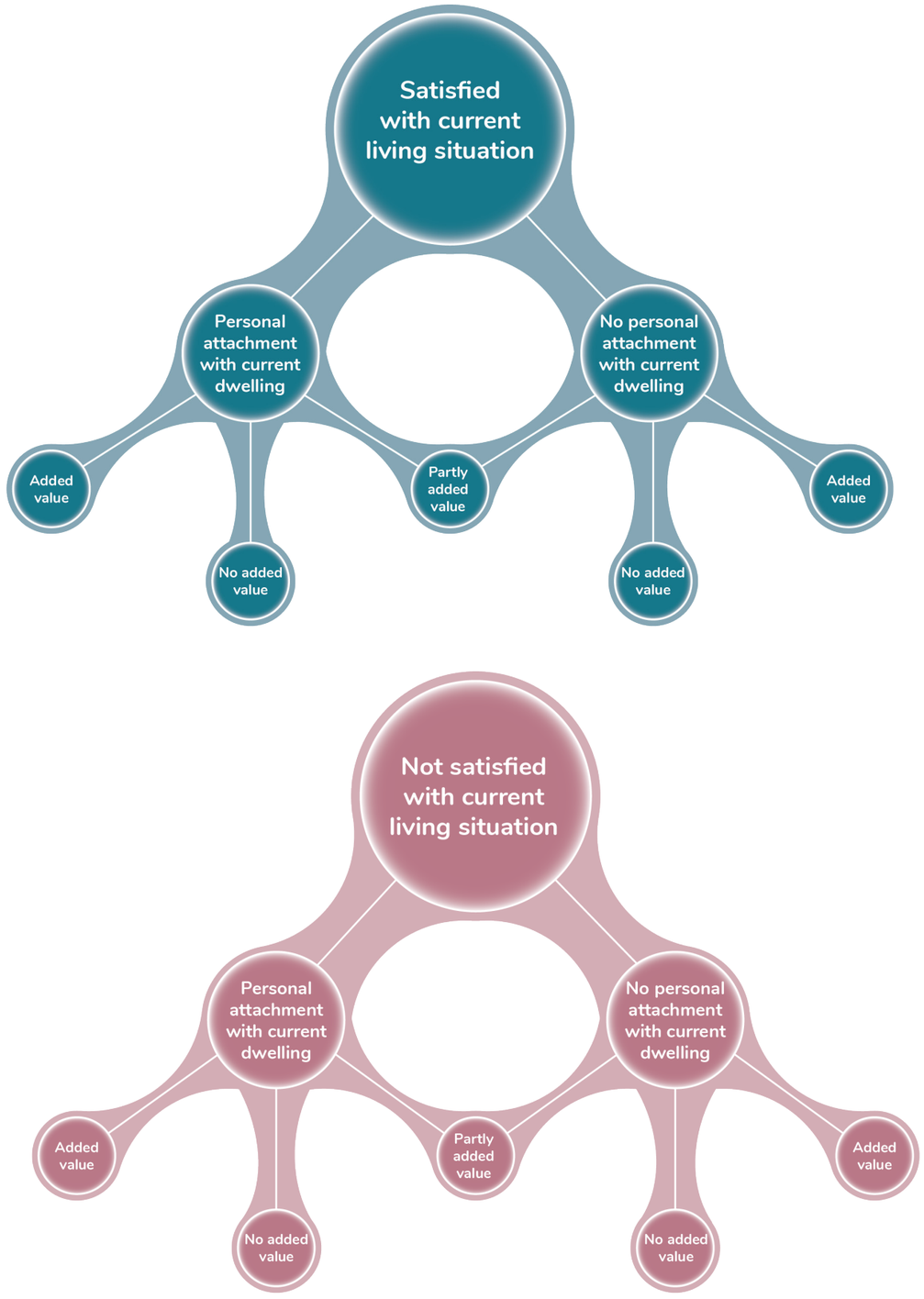


Figure 6. The structuring of the correlation between place attachment and heritage awareness.

04 Research

4.1 Stakeholders and interviewees

As described in chapter 3.2 three different stakeholder/interviewees groups will be defined to do the interview. In total three groups of stakeholders/interviewees are distinguished. To conduct the research every stakeholder group had a different approach.

Residents of the Design Case
The first stakeholder group are residents of the design case. This way the (end-)users opinion will be represented. Residents of the design case (Knijtijzerpanden) have been approached in real life as well as through QR-code survey which was distributed in their mailbox. It speaks for itself that current residents of the heritage housing case will be interviewed as their opinion is important to see which values and attributes have to be preserved according to people directly in touch with the heritage site. The stories and life experiences were shared and noted on paper, as well as the answers to the same questions asked on the survey. When arrived at the site, most people on the north entrances of the building did not seem to have time to take the interview with the argument of being in a hurry. Eventually, after distributing all the 120 flyers in the mailboxes (see figure 7), the first people paused to talk. The structure of the conversation interview was to firstly get to know them a little and then ask the questions as they are asked in the online QR-code survey. As this part of the city is very demographically diverse, the language was a barrier for some. Not understanding the questions stagnated the conversation and some questions were left unanswered.

Residents of Amsterdam
The second stakeholder group will consist of people in a similar urban context, to see whether the opinion of people in a similar urban tissue will differ from the residents of the design case. People in this group are considered a stakeholder as most people of this group live in areas nearby, to which this research is relevant for there are similar heritage cases in the urban context of Amsterdam (New-West), and people of this group would be (in) directly influenced by preservation projects considering heritage housing. This group was approached both by real life interviews as through QR-code. When interviewing and asking people at the heritage site, not all interviewed people were residents of the heritage housing case. Some people were just passing by on their way to work or waiting on the tram. Even some students of the Hotel School, situated nearby were interviewed. Furthermore, people with hurry were handed out a QR-code flyer to fill in the survey later on when they would have more time on their hands.

Residents outside Amsterdam
Lastly, the third interviewees group will be people currently living outside an urban context. Almost no one of the last stakeholder group was approached in real life as not a lot of members of these stakeholders have obligations close to the design case, which lead to them being reached through an online link as well. A big share of the third stakeholder group which participated in this research lives in a non-urban area, which would explain the difference in answers (if any) with the other stakeholder groups.

Furthermore, other people were approached through an online link which forwarded par-

ticipant directly to the online survey. Almost no one of the last stakeholder group was approached in real life as not a lot of members of these stakeholders have obligations close to the design case, which lead to them being reached through an online link as well. With the help of social media, most participants of this interviewees group was reached. A big share of the third stakeholder group which participated in this research lives in a non-urban area, which would explain the difference in answers (if any) with the other stakeholder groups.

By have three different stakeholder/interviewees groups, the research will test the differences arising from three different living situations, and will validate the aim of this research to not only consider people's participation in a design, but also show that values and attributes are site specific and therefore could be an important implementation in future design strategies dealing with heritage housing.

The interviews both in real life and online were structured in such a way that interviewed people were both challenged to really think about their current living situation and the answers could easily be coded with the framework of Tarrafa Silva an Pereira Roders (2012) and Veldpaus (2015). The coding of the attributes follows the structure of Veldpaus (2015), having multiple levels of division of categories. First two (level 1), then six (level 2) and lastly eighteen (level 3). This way the attributes can be coded from generic to more specific. As for the 'values framework' of Tarrafa Silva an Pereira Roders (2012), the values are merely categorised into the primary eight categories defined in the framework. This way attributes are assigned to a reasoning on why an attribute has value for people. All methods not only focused on the positive but also on the negative answers the people gave. This allows for the designer to better evaluate which values and attributes could be preserved and which could be alternated, with an end-user perspective in mind.

Figure 7. The QR-code flyers front (top) and back (bottom), distributed in the mailboxes of the design case and handed out to people in the street to stimulate the quantitative interview responses. Authors own image.

4.2 Values and Attributes

What? is valuable
As stated previously, the *What?* will be categorized according to the 'taxonomy of attributes' by Veldpaus (2015). This attribute framework has three levels in which the attributes can be assigned to. The levels are based on the depth on the analysis. Firstly the attributes were assigned either as a tangible or intangible attribute (see figure 8a). This was done both for the answers on the ***most*** and ***least*** valued attributes of the interviewd people's living situation. The results categorised in the framework will be presented from general to more specific throughout this chapter.

Level 1
For the first level of ***most*** valued attributes, the results show that according to the residents of the Knijtijzerpanden, a large part can be defined as intangible. As we look at the other interviewed groups, we see a trend in which the further from the design case, the more tangible attributes are considered to the ***most*** valuable attributes in their current living situation.

Whereas for larger part of the least valued attributes according to the residents of the Knijtijzerpanden can be defined as tangible (figure 8b). As for the other interviewed groups, in Amsterdam and outside of Amsterdam, the least valued attributes are equally divided between tangible and intangible. So in the first level of attribute analysis, it can be stated that for the design case, the intangible attributes gain the most attention in a positive sense. There seems to be a conflict between stakeholder/interviewed groups as for the other two groups the tangible attributes seem to be valued most. Furthermore the tangible gains most attention in a negative sense according to the residents of the design case. The other two interviewed groups seem to be more equally divided.

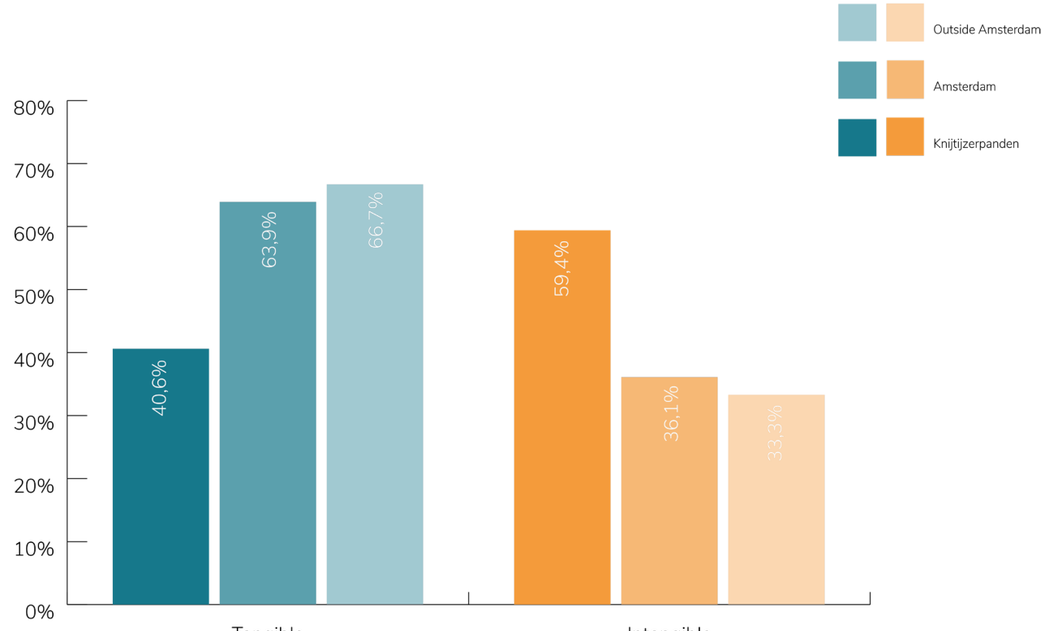


Figure 8a. Level 1: Most valued attributes divided into two categories: tangible and intangible, measured in % of votes per group of stakeholders. Authors own graph.

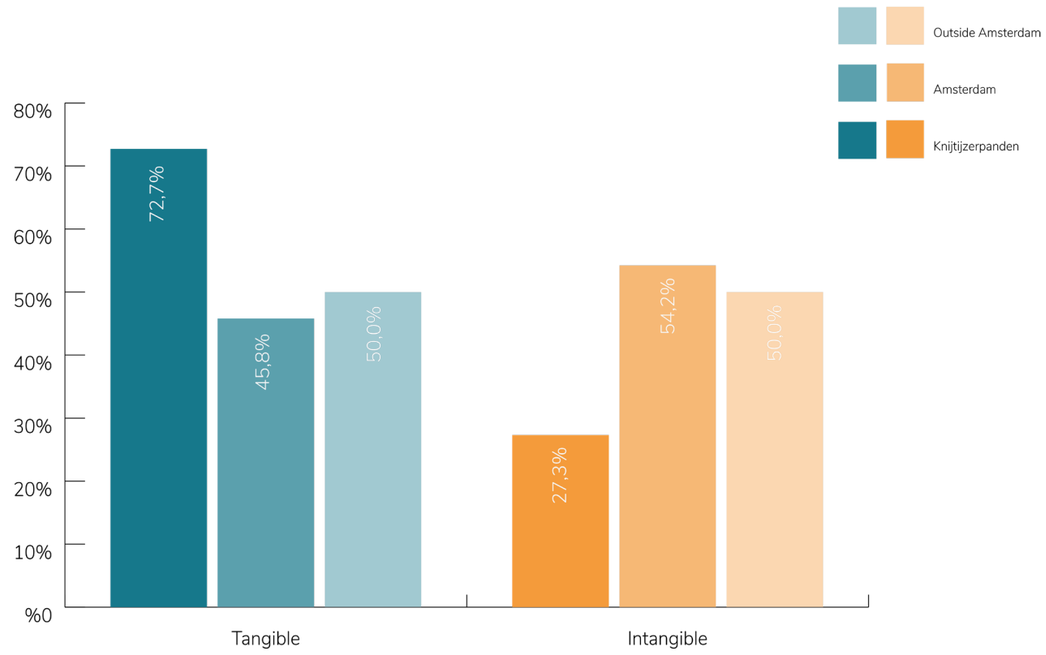


Figure 8b. Level 1: Least valued attributes divided into two categories: tangible and intangible, measured in % of votes per group of stakeholders. Authors own graph.

Level 2

Level 2 of the attribute analysis the most and least valued attributes are categorised in six categories instead of two. Three for the tangible and three for the intangible. The results show that according to the residents of the design case, the most valued attributes are the area (tangible) and the societal (intangible) attributes (figure 9a).

As for the other stakeholders, the results show a greater appreciation towards the asset (tangible) and the area (tangible). For these stakeholders the intangible attributes are valued most through societal attributes (see figure 9b). Instead for the least valued attributes, the first stakeholder group appreciates the asset (tangible) the least. This category refers directly to the building and it's direct surroundings. Accordingly the area seems to also have a lot of negative attributes as it is both one of the most and least valued attribute categories. As for the second stakeholder group (people living in Amsterdam), the least valued attributes are the asset (tangible) and the societal (intangible) attributes. The third stakeholder group (people living outside Amsterdam) consider the asset (tangible) and the asset related (intangible) attributes to be the least valued in their current living situation, as well as the area (tangible) being a close follow up.

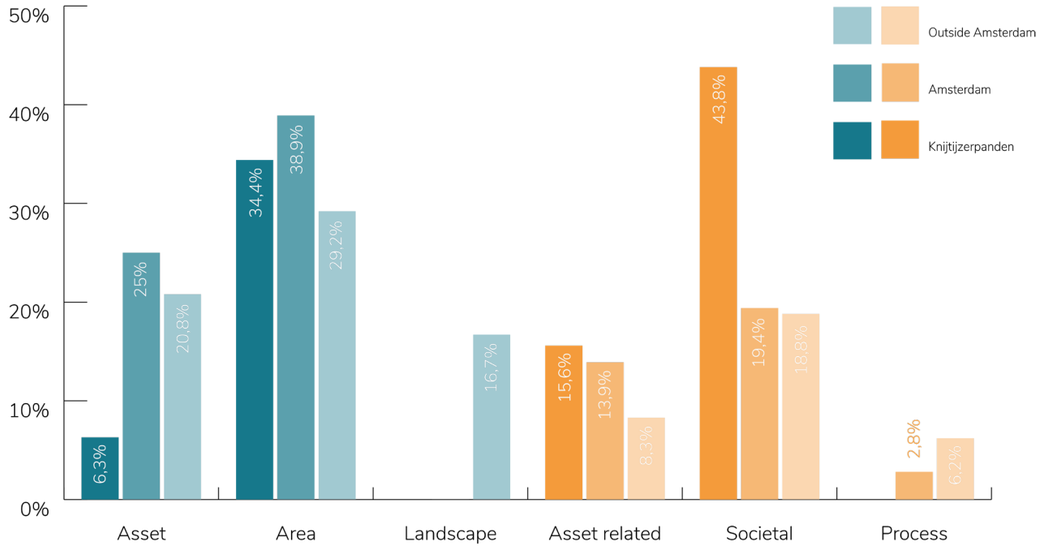


Figure 9a. Level 2: Most valued attributes divided into six categories, measured in % of votes per group of stakeholders. Authors own graph.

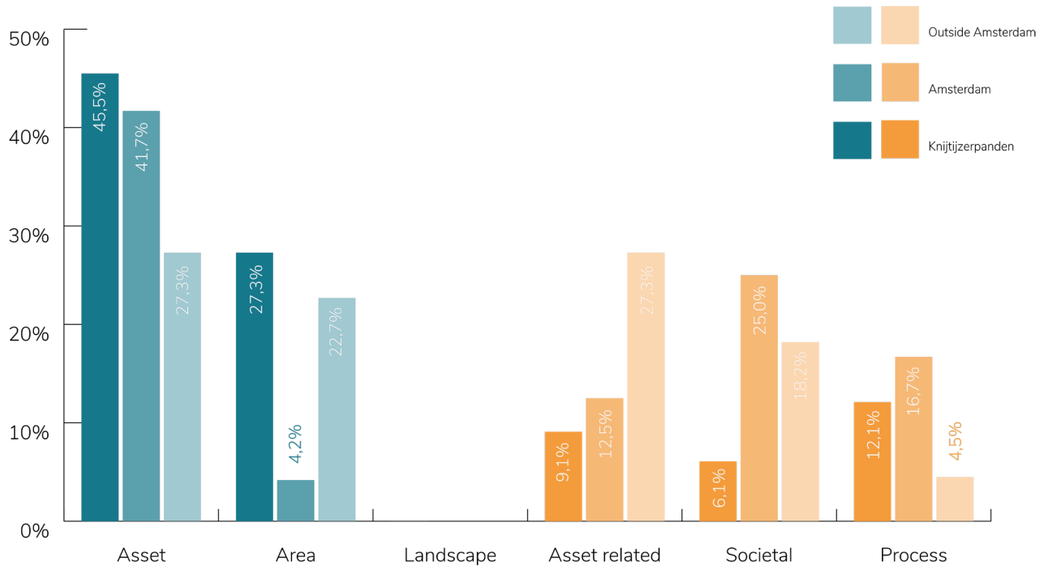


Figure 9b. Level 2: Least valued attributes divided into six categories, measured in % of votes per group of stakeholders. Authors own graph.

Level 3

In the third level of attribute analysis (figure 11a), the attribute categories are further sub-divided into eighteen categories. The most valued attributes according to the third level analysis are again the area (tangible), the community/people (intangible) and relation context-association (intangible) for the first stakeholder group. This is a result of the residents of the Knijtijzerpanden valuing the accessibility of the location with public transport and/or car and the availability of nearby services such as stores, shops and the hospital. As for the intangible, the most valued attribute according to the residents is the community and the neighbours within the building complexes. Most residents described the neighbourhood as pleasant due to the highly valued contact with neighbours. The intangible attribute 'relation context-association' is also ranked high among the most valuable attributes as they believe the neighbourhood to be "pleasant and safe", either to live themselves or for their children to grow up in. Furthermore, residents are appealed by the appearance of the buildings which applies to the character (intangible). The least valued attributes are the building elements (tangible) and the context or setting (tangible). Mould, draft and leakages are a result of poor detailing and poor insulation, it is for this reason people from the first group least value the building elements. Furthermore, residents from this group complain about street waste, which have been categorised in the (tangible) context or setting attribute category as street waste is part of the surrounding and consists in fact of tangible objects.

For the second group again the area (tangible) was the most valued attribute, for both the accessibility and availability of services as this group also lives in an urban context. Also building elements (tangible) seem to have a high value for this stakeholder group. This is due to the fact most people in this group live in an old building in Amsterdam and value the ornaments and details of their buildings as well as their spaces inside of their apartment. For the intangible, the community/people (intangible) category is the most valued. After follows the character attribute, which would be due to atmosphere and materialisation the residential buildings of the 2nd group has. The least valued attributes for the 2nd group are the building elements (tangible), as they too deal with indoor mould, draft and leakage as well as small living spaces inside. This group also has little value for the building (tangible) attribute category, for most say the buildings are old and decaying. Furthermore, least valued attributes are community/people, management processes (intangible) and character (intangible). Community/people attributes are least valued due to wanderers and other non resident people entering the building causing an unsafe feeling for this group of interviewees. This group also has little value for the management processes as they do not have the feeling they are being heard by the housing corporation.

Lastly, the third group has the highest value for the area (tangible) and landscape (tangible). The area was chosen for even when not living in an urban area, the accessibility and availability of shops and other similar services is still very good. As participants of this group live outside an urban area, nature is easily accessible. Similar to the previous groups, the third group also has the highest intangible attribute value for the community/people. Most participants of the third group live nearby family and friends. The third group least values the character (intangible) and the area (tangible). Urban elements (tangible), natural elements (tangible), context or setting (tangible), context-association (intangible), knowledge, traditions, customs (intangible), community/people (intangible) all follow equally divided.

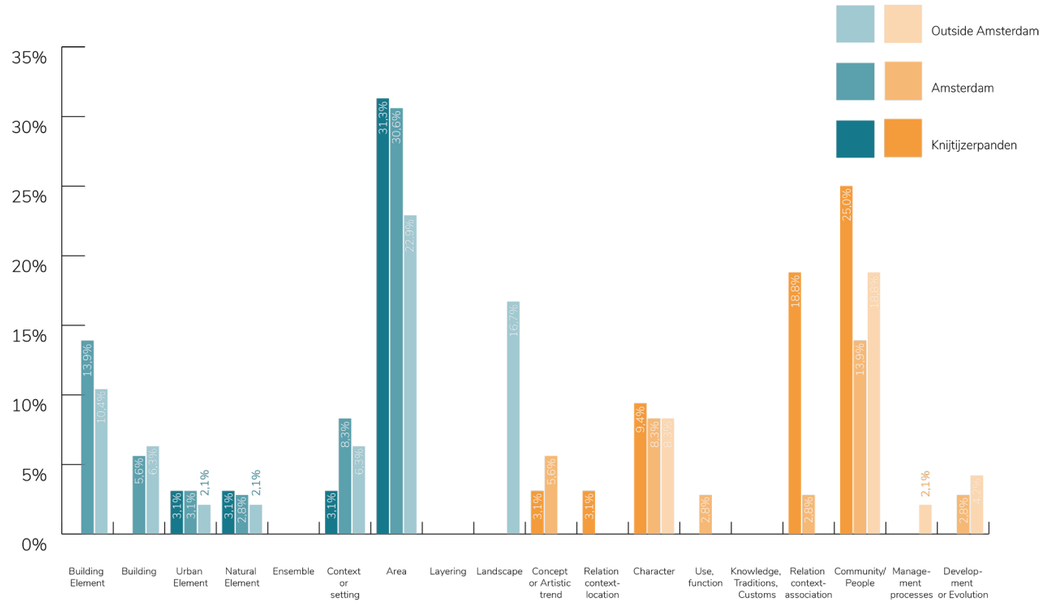


Figure 10a. Level 3: Most valued attributes divided into eighteen categories, measured in % of votes per group of stakeholders. Authors own graph.

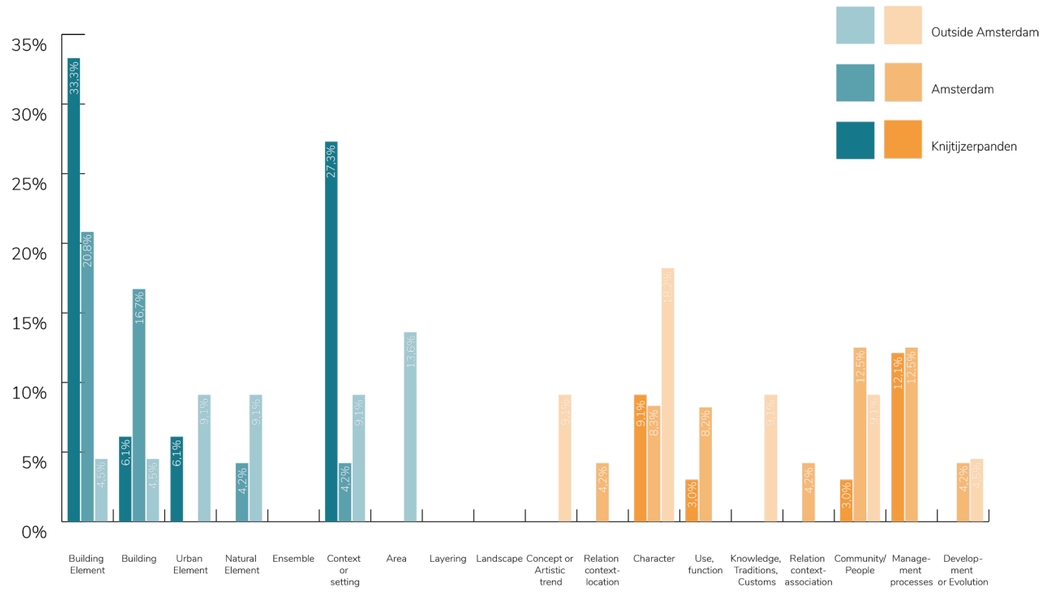


Figure 10b. Level 3: Least valued attributes divided into eighteen categories, measured in % of votes per group of stakeholders. Authors own graph.

Why? is it valuable
The *Why?* will be categorised according to the 'values framework' by Tarrafa Silva and Pereira Roders (2012). The line of questioning not only challenges the stakeholders to think why something is valuable to them, but it also allows to code the answers with more ease. During this process the values were assigned according to the secondary value types of the 'values framework', but are only showcased in the form of primary value types. The positive as well as the negative results are shown, which could later on be useful in the design process to make choices

Positive values
Figure 11a shows the most significant values and the reasoning behind the previous discussed most valuable attributes. For all three of the interviewed groups, the most significant values are: social, economic and ecological. The 2nd stakeholder group, living elsewhere in Amsterdam, most values economic value types.

As though the order of which is most significant changes, these three values are clear from the other value types. The first group significantly values the social value type, as they are very content with the social cohesion, pleasantness and safety of the neighbourhood. They claim to have good contact with the neighbours. For the 2nd group this is a similar. The 3rd group has significant value for the social as they do not live in an urban context, therefore the habitat is smaller and people tend know each other.

Interestingly is the low value for the age value from all the groups. None of the three groups expresses value towards the age value type. No representation for the scientific value type from the 1st group and little from the 2nd and 3rd.

Furthermore, the political value is only represented by the 3rd interviewed group and the historic value type is only represented by the 1st and 2nd interviewees group, which have a living situation inside an urban context.

Residents of the Knijtijzerpanden seem to have less value for the aesthetic value type than the 2nd and 3rd interviewed groups.

For the ecological, the first and second group have great value for the nearby greenery and green structures in the urban context. The 3rd interviewees group, of which their living situation is not in an urban context, values the ecological the most for the nearby accessible nature and surrounding landscape.

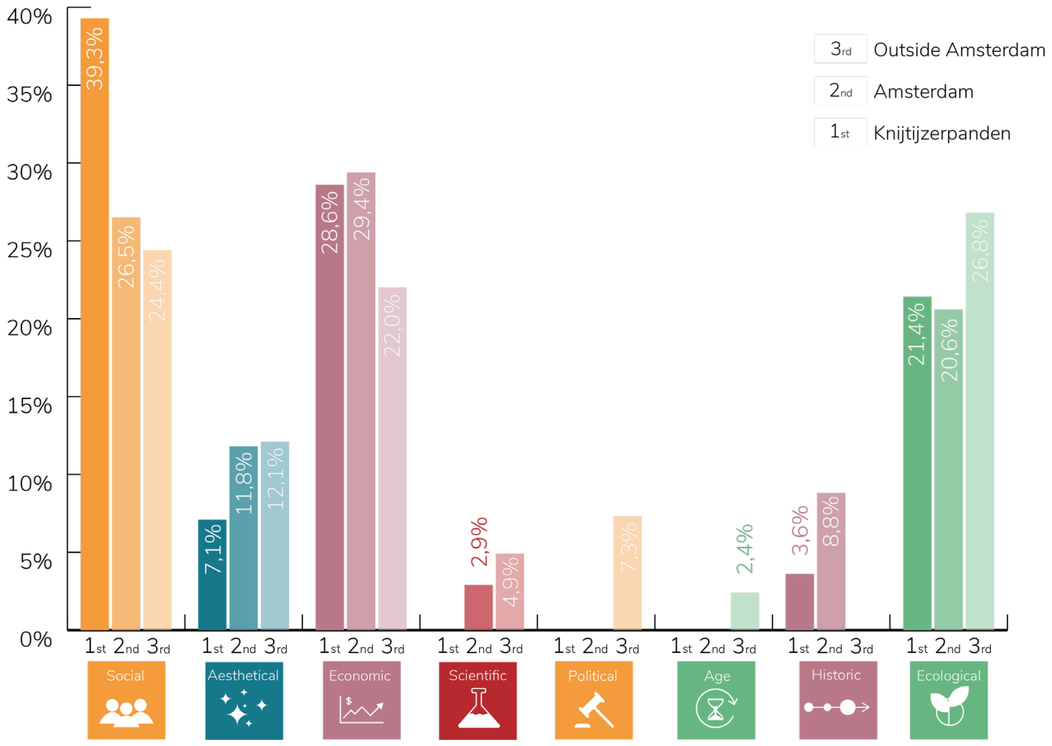


Figure 11.a Level 3: Most valued values divided in eight categories, measured in % of votes per group of stakeholders. Authors own graph.

Negative values
Residents of the Knijtijzerpanden (1st group) least values: scientific, social and economic. The scientific value type is in clear conflict with the other groups, especially with the 3rd group. This is due to the most residents having complaints about mould. Most people claim that after the renovation of 2014, which according to them has not been executed properly, the mould symptoms have been really disturbing. This problem also appears for the 2nd group. The suffering from mould introduces the low significant value for the political value type, as they also claim the housing corporation does not take their complaints seriously and does not manage the problem like they want to.

Furthermore the social value type scores high for every group. For the 1st group this has to do with a lot of street waste, which they believe directly influences the status of the neighbourhood. For the second group, it is due to the interviewees not wanting to know all their neighbours, having nuisance from people in their building either neighbours or wanderers. The social value type is of low significance for the 3rd group due to people living next to apartment blocks in which the neighbours quickly change, or either the fact that in smaller non urban areas, everybody knows everything about everyone, and there is a lack of anonymity.

The conflict between the 1st and 2nd and 3rd group on the economic value type has to do with accessibility. People living in a non urban context do not have the luxury to access places as easily with public transport as people living in an urban context. For the 1st and 2nd group the lack of value for the economic value type has to do with the small spaces in the city. As for the aesthetic value type, people from the 3rd group seem to value the appearance of surrounding buildings less than people from the 1st and 2nd group.

The first two groups have significant low value towards the age value type as they associate old buildings as decayed and not preferable for living.

Generally all three groups have value for the ecological value type, however the lack of value from the 3rd group for this value type derives from having too small a garden.

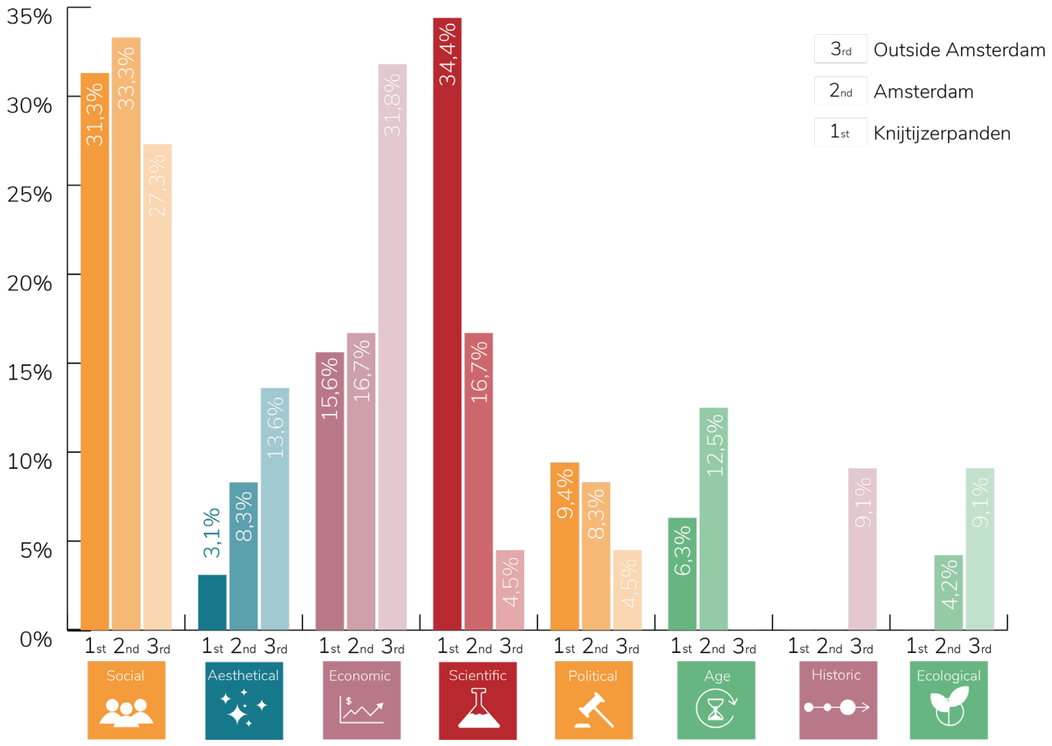


Figure 11b. Level 3: Least valued values divided in eight categories, measured in % of votes per group of stakeholders. Authors own graph.

4.3 Place Attachment and Heritage Awareness

Place attachment through individual or collective memories can trigger bodily and emotional responses (Jelic et al., 2018). Furthermore, strong emotional responses are triggered when people find themselves in places they consider to be 'of significance' (National Trust, 2017). It is therefore important to know and consider whether people have a personal attachment towards a building and whether these people believe living in a monument would change their judgement.

First group

This particular research part was only applied to all groups, but is especially essential for the 1st group, as they are the group actually living in a monument. It was also possible to discover (during the interviews) whether they knew if they are living inside a municipal monument. 81,2% of the residents of the Knijtijzerpanden said to be satisfied with his/hers/...'s current living situation. 43,7% states to feel emotionally attached to the heritage building. This feeling towards the building can be explained due to those people growing up there or having children growing up there now. Most people have their children playing in the green spaces between the building blocks or used to play there themselves when they were younger. 25% of the people feeling personally attached to the building, thinks living in a building with the title 'monument' will increase their value for the building.

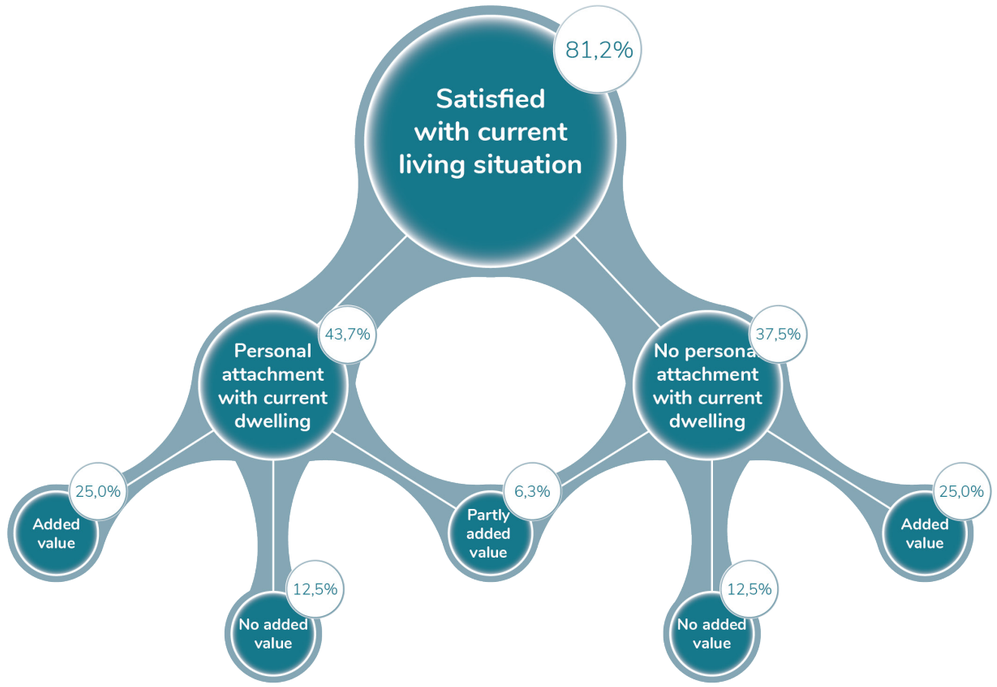


Figure 12a. The relation between place attachment and heritage awareness; Knijtijzerpanden. Authors own image.

37,5% of people happy with their living situation feel no personal attachment towards the building, either because they just live there or because they claim to have no feeling towards the heritage building regardless of their childhood memories.

Of the 37,5% of this group having no personal attachment to the building, also 25% believes to value the building more when knowing it is a monument. 50% of people believe they would have extra value towards the building after knowing it is a monument. All 50% of those people are happy with their current living situation.

For the stakeholder group 18,8% is not satisfied with their current living situation. 6,3% of people claim to have personal attachment to the building. An example of this combination is one interviewee explaining how he is not happy with the living situation there, but feels personally attached to the building due to it being the first building in which his parents lived when they arrived in the Netherlands for work reasons.

12,5% of people claim to have no personal attachment to the building and some would claim to feel relieved if the building would be demolished. This all being due to the indoor climate situation of the building.

In total 50% claims to have a personal attachment to the buildings regardless of whether they are happy with their current living situation. And 50% would argue of the interviewees argues that they would value the building more if it was a monument.

Reasons for the personal attachment to the building were: memories, either childhood

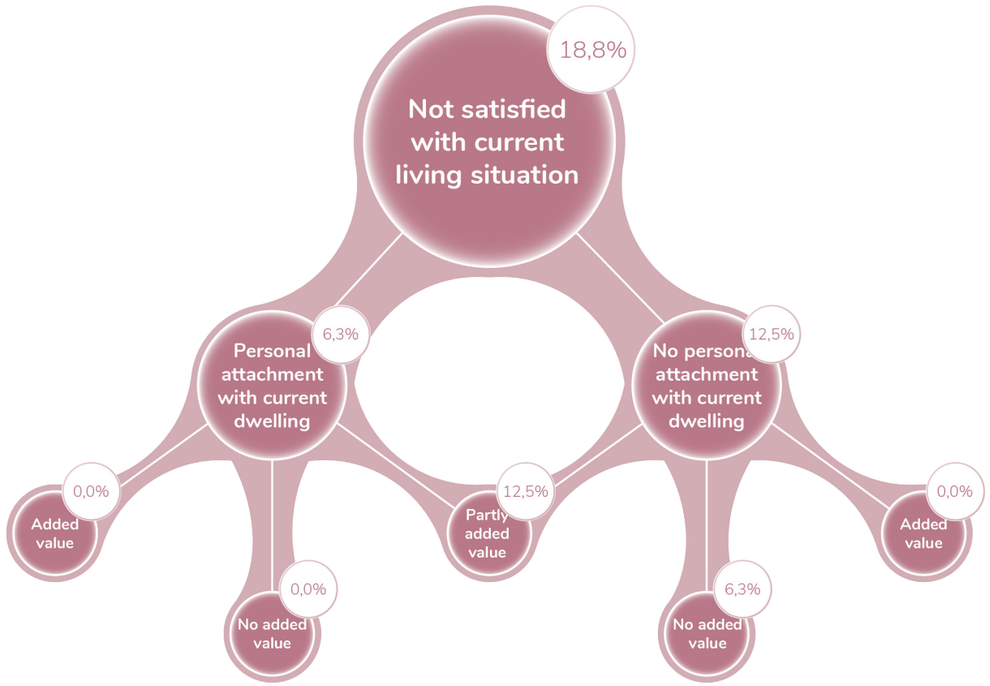


Figure 12b. The relation between place attachment and heritage awareness; Knijtijzerpanden. Authors own image.

memories or experiences surrounding the place; having a pleasant personal life with this residence as core; having children growing up at this place. Reasons for not having a personal attachment to the current living situation: the state of the buildings not being optimal and damaging the quality of life;

Reasons for having added value if it were a monument were: it being unique; a building being a monument would mean there is a historic or societal reason for it to be, this should be valued; it being valued by others; and personal life experiences/stories would be monumentalised. And for not having additional value: not being able to change the current situation if desired; lack of interest; fear of a monument being less manageable in regard of future challenges.

Second group

Looking at the second group of interviewed people (figure 13a&b), 62,5% claims to be satisfied with their current living situation. Of this 62,5%, the group is divided into two equal groups, either claiming they do or do not feel a personal attachment to the building. The people saying they do feel a personal attachment to the building, claims to value the building even more with the knowledge the building is a monument. In total 37,5% of people believe that they would value the building more if it were a monument. 25% of people would not.

For the other 37,5% of the 2nd group, not satisfied with their current living situation, again half claim they do have a personal attachment or bond to the building they currently live in, the other half claim they don't. The question whether the building would have more personal value if it were a monument was equally divided as well. Half the participants of this group claim it would not affect their judgement, while the other half claims it would.

Eventually looking at the statistics of all the answers, 50% of all participants has a personal bond with the building they are currently living in. 56,3% of all participants would value their building more if it would have the title of 'monument' and 43,7% would not.

The reasoning for having a personal attachment with the building are mostly: memories, either childhood memories or experiences surrounding the place; and living there for a certain amount of time. Reasons for not having a personal attachment were: living there for a short amount of time; having a dislike for the current living situation or a lack of interest in the buildings story and value.

Reasons for the added value towards a building based on the building being a monument were: a building being a monument would mean there is a historic or societal reason for it to be, this should be valued. Participants stating it would not increase the value of a building and its attributes would give the following reasons: it would be harder to make changes to the building if desired; a lack of interest; the value is personal and there is no value added to the building because society believes it has to.

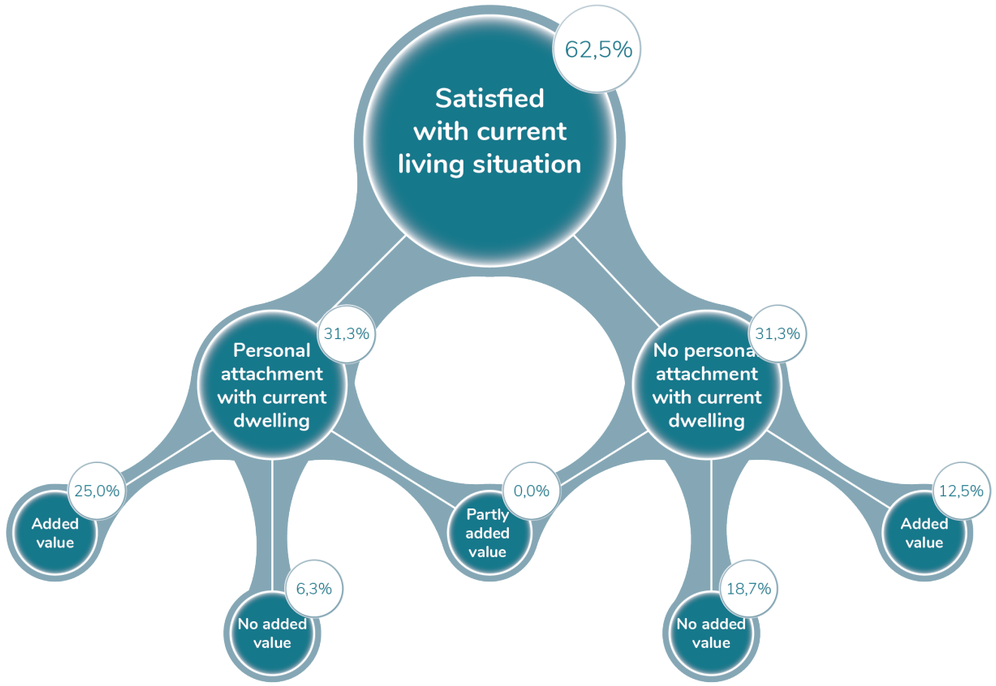


Figure 13a. The relation between place attachment and heritage awareness; Amsterdam. Authors own image.

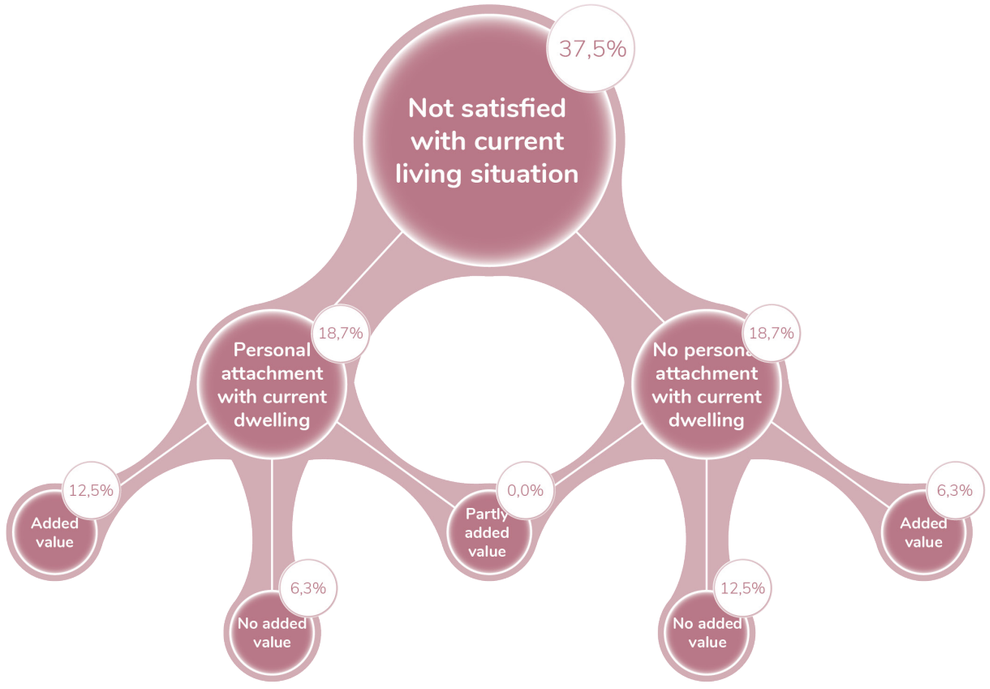


Figure 13b. The relation between place attachment and heritage awareness; Amsterdam. Authors own image.

Third group

As many as 94,1% of the third group is satisfied with their current living situation and only 5,9% is not. 82,4% claim to have a personal attachment to the building they are currently living in. In total 88,3% of this group claim to be personally attached to their current residential building. The results are shown in figure 14a&b.

Yet only 35,3% of all the participants believe a monumental title would not have added value for them personally. In fact 47,1% believes it has no added value, and 17,6% believe it would partly add value.

Explanation for the personal attachment of this group towards their living situation/building is: memories, either childhood memories or experiences surrounding the place; having friends and family close by; feeling at home in the environment surrounding the building; and the building having a story. No personal attachment to the building was due to: lack of character of the building; lack of interest.

Reasoning for the building having additional value due to it being a monument for the habitants is: it being unique; it being valued by others; the story behind and the reason of the monumental title; and history being important. The reasons for it not having additional value for the habitants is: it would be harder to change the current situation if desired; and lack of interest in the buildings story and value; and whether the building is valuable on a personal level depends personal experiences and not on other peoples judgement of value.

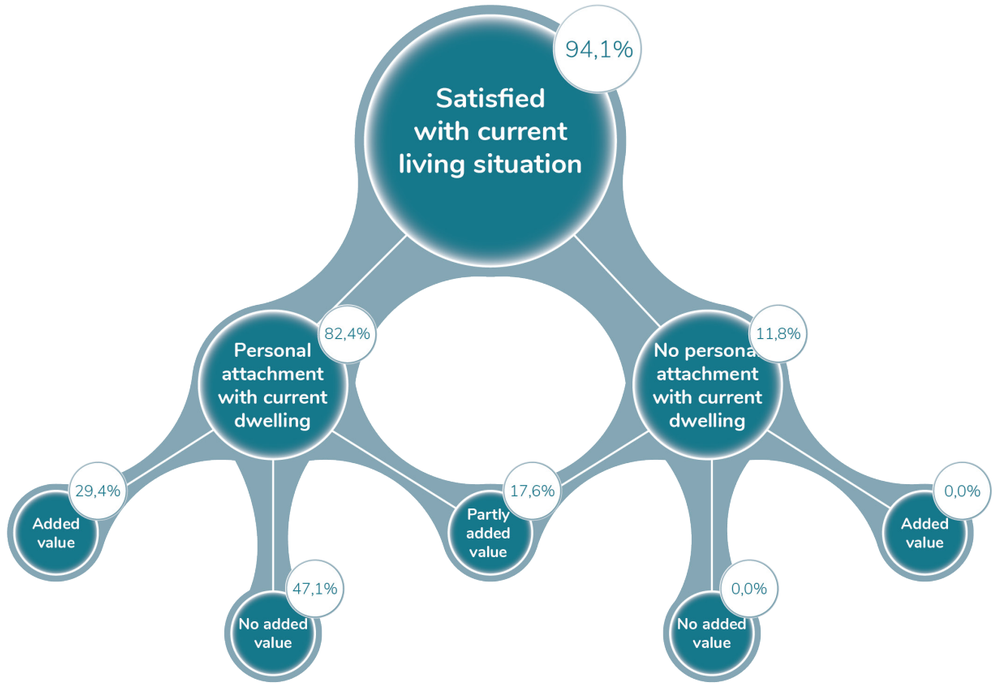


Figure 14a. The relation between place attachment and heritage awareness; Outside Amsterdam. Authors own image.

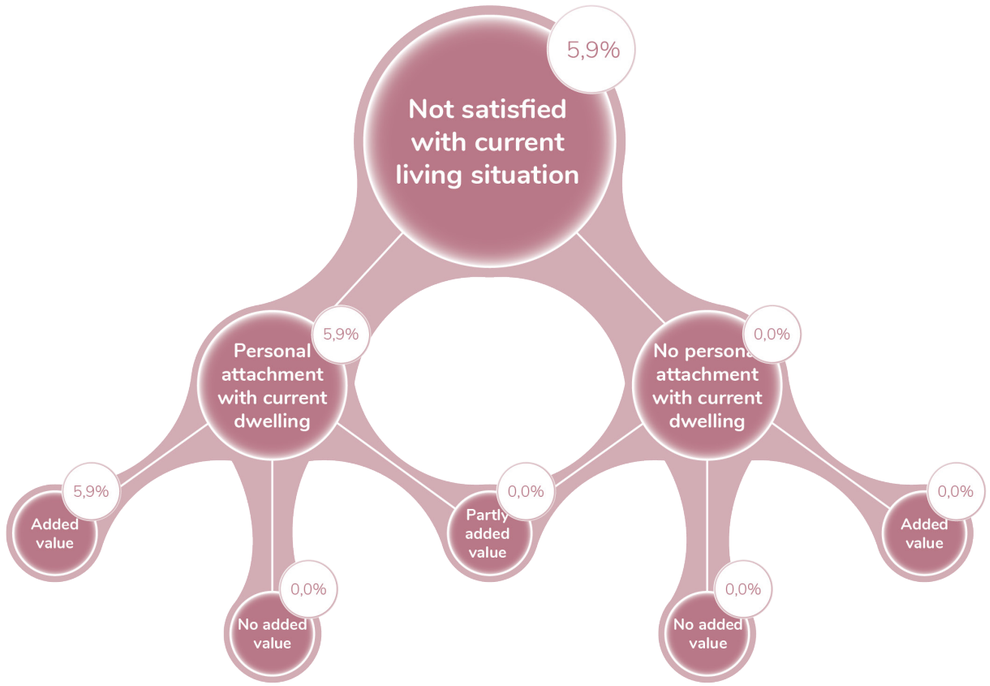


Figure 14b. The relation between place attachment and heritage awareness; Outside Amsterdam. Authors own image.

05 Conclusion

5.1 Conclusion

After analysing the research, is has become evident that the following conclusions can be drawn:

What?
In the first part of the research, it was discovered **what** people value about their current living situation. The results were analysed and coded with the 'taxonomy of attributes' by Veldpaus (2015).

For the first group, key valued attributes were the area (tangible), community/people (intangible), and relation context-association (intangible). This comes forth from a strong emphasis on accessibility to public transport, shops and other services, along with a positive social bond with the community/neighbours and a sense of safety in their living environment. On the contrary, least valued attributes were building elements (tangible), context or setting (tangible), and management processes (intangible), due to complaints of building quality issues without the housing corporation undertaking action to solve the problem.

The second group highest valued attributes were the area (tangible), building elements (tangible), and community/people (intangible). Appreciation for ornamentation and detailing and interior spaces in old building structures, along with the significance of the social con tact with the community were the reasons behind the most valued attributes. Leas valued were the building elements (tangible), the building itself (tangible), and community/people (intangible). These attributes were least valued due to complaints of the building quality (similar to group 1), the decay of the residential building and the dissatisfaction with unwelcome individuals in the residential building.

The third group, most valued the area (tangible), community/people (intangible) and the landscape (tangible). Accessibility to services, strong community ties, and the presence of nature in a non-urban setting were the main reasons for the valuing of these attributes. This highlighted the difference of valuing with the first two groups, showing the significant differences of personal connections, natural surroundings and service accessibility. The least valued attributes are character (intangible), and area (tangible). Participants belief the architecture of both residential building and the surrounding area lack character. Additionally, the issues with accessibility to public transport and the neighbourhood compositions being too spacious were the underlying reasons for the low valuing of these attributes.

The answers from the third group differ more from the first two groups as this group of participants lives outside of an urban context and therefore values attributes differently.

Why?
The second part of the research was about all about why people value what they value. The results were analysed and coded with the help of the 'value framework' or Tarrafa Silva and Pereira Roders (2012).

During the evaluation of three distinct participant groups, important patterns became clear in their prioritization of value types.

Group 1, consisting of residents of the Knijtijzerpanden, placed significant importance on social values, expressing satisfaction within the neighbourhood about the social contact, cohesion and safety. The economic value type followed closely, with residents valuing mostly valuing nearby public transport services and other functions. The ecological value type ranked third for this group. Participants appreciated the harmony of the building and its green spaces and associated memories towards the green spaces. Least valued was the scientific type, as residents face problems with mould, draft and leakage. Then the social type, as the area the building is located has a lot of street waste damaging the social status of the neighbourhood. Lastly, the economic value as participants live in small urban residential spaces.

Group 2, composed out of urban residents of Amsterdam, favoured economic value types the most, putting emphasis on the accessibility of public transport and services. Following up are the social values, due to the significance of social cohesion, similar to group 1. The ecological value type was the third most valued. The least valued type was social type, as participants have complaints about unwelcome individuals inside the residential building. Following up are the scientific and economic types, for the same reasons as for group 1.

Lastly, group 3 consists of residents outside urban contexts. This group valued ecological aspects the highest, as nature is easily accessed. Then came the social values, deriving from the importance of being close to family and friends. Third was the economic value type. Least significant value type was the social type for a lack of anonymity. The economic type followed for poor accessibility to services such as public transport. Third was the aesthetic value type, due to dissatisfaction with the (surrounding) building appearance.

Place Attachment and Heritage Awareness

Of the residents of the Knijtijzerpanden (group 1), exactly 50% of the research participants feel a personal attachment to the building, automatically meaning the other 50% does not. Reasons were: memories, both childhood and experiences surrounding the place; pleasant personal life experiences with the residence as a core; children growing up in the place. Also 50% would assign more value if the building were a monument. Underlying reasons are uniqueness; historical or societal significance; monumentalisation of personal experiences; being valued by others.

Of the second group again, regardless of being satisfied with the current living situation, 50% of all participants have a personal or emotional bond with their current building and 56,3% of all participants would value their building more if it were a monument, while 43.7% would not. Reasons for the place attachment are: memories, including childhood memories or experiences and living in the place for a certain period of time. Reasons for additional value as a monument are: positive reasons include historic or societal significance; difficulty when making changes; lack of interest; personal value without societal endorsement.

The third group knew less differences as 82,4% of the participants claims to have a personal bond to their current residential building. This personal bond is due to: memories, including childhood memories or experiences; proximity to friends and family; feeling at home in the environment around the building; the building having a story.
Yet only 35,3% believes they would value their building more if it were a monument. Reasoning behind this is: uniqueness; being valued by others; the story and reason behind the monumental title; historical importance.

Consequently, people feel a personal attachment to a building when they link certain memories and life experiences to a place or building. Causes for people who are not personally attached to a building are: living in the place for a short duration, disliking the current living situation or a lack of interest in the building's story and value.

Furthermore, people tend to have more appreciation for a building when it is a monument for the following reasons: uniqueness, historical or societal significance, monumentalisation of personal experiences or the value of others. Reasons for no increased appreciation are: the inability to change the current situation if desired and a lack of interest.

Answering the Research questions

"*What are intangible cultural heritage attributes embedded in residential architecture, and how can these be accurately identified and documented?*"

Attributes and values embedded in residential architecture can be identified through participation methods with the involved stakeholders. In this research the stakeholders were approached through qualitative and quantitative methods of interviewing. The values and attributes embedded in residential architecture can be categorised and documented on multiple levels from generic to more specific through the 'taxonomy of attributes' by Veldpaus (2015) and the value framework of Tarrafa Silva and Pereira Roders (2012). By comparing the results from the interviews with other interviewed groups in a different residential context, it was discovered that way people value and what people value is site specific.

"*Does place attachment play a role in the way people value heritage and housing?*"

People feel a personal attachment towards a building either when personal memories and life experience can be linked to a building or it's direct surroundings, or people are satisfied with their living situation. In order for that to happen, people need time and a quality of life, for the biggest reasons people do not feel a personal attachment is a living somewhere for a short duration and a disliking in the contemporary living situation. Some participants would not mind whether the building was demolished, even when they had personal memories and experiences linked to the building. The reason for this was a lack of quality of live, from the poor indoor climate situation. Therefore, both personal memories and experiences and quality of live are necessary for one to feel attached to a place.

"Does awareness about the monumental status of residential heritage create place attachment and therefore change the way people value the building and its attributes?"

The heritage awareness and place attachment seem to not have a correlation. However, there is a trend with people who do not have a personal connection with a building, tend to also not care whether the building has a monumental status. The lack of interest in the buildings story and value, goes both for the place attachment and monumental status. Most participants however, believe a monumental status has added value due to a monument being unique. There also seems to be a believe that when a building has a monumental status, this would require the building to have a rich and valuable history, so people value the believe of the building having value. Last but not least, a lot of participants claim to be attached to a place, regardless of the monumental status, but rather for the personal memories and experiences, thus whether the building has meant something to them and not to society.

"How can tangible and intangible cultural heritage assets be effectively identified, documented and preserved when adaptively reusing a building, considering contemporary urban development?"

By using participation methods, such as interviews, to engage with stakeholders involved in the adaptive reuse process, tangible and intangible assets can be identified from different stakeholder perspectives. Recognising that the way people value and what they value is site-specific, requiring a contextual understanding of the local residential context. Essential to this research was the nuanced approach in asking the questions to participants. Utilising established frameworks such as the 'taxonomy of attributes' by Veldpaus (2015) and the value framework of Tarrafa Silva and Pereira Roders (2012) deriving from literature is way of translating values and attributes embedded in the heritage site. Consequently, this has lead to an overview of results in which values and attributes, both in a positive and negative sense, are laid out according to the current users of the heritage site. This overview then forms a solid base for the next step in the design process, which was the main goal of the research.

06 Reflection

6.1 Discussion

Several limitations can be identified following this research. First is the scope of the research. There are 364 apartments in the researched design case, consisting of single dwellings, but also of family apartments. This means a significant amount of people have not been reached as not everyone of the residents has been interviewed. And as much as that is an unreachable goal, this could mean that the realistic result of this research could differ from the result if everyone had been interviewed. It could also lead to the result of some values and attributes not being represented in the results of this research.

Furthermore the interpretation of the interview responses could differ from the original intent of the interviewee due to most interviews being done through an online survey. When the face-to-face conversation is left out of an interview, the answers are vulnerable for wrong interpretations. This could have lead to the answers being translated and coded differently than what the interviewees intended. In defence of the interview result, the responses have been interpreted as best as possible, but this does not exclude the possibility of making mistakes.

As a result of the demographic diversity of the area, not every interviewee has mastered the Dutch language. This lead to some in person interviews being done in (sometimes flawed) English. The use of another language could also lead to different interpretations than the original meaning of the answer.

Due to time limitations, doing exclusive in person in-depth interviews would have taken too much time, and would not have reached as much people as in this research. The responses however, were maybe too few to find a real correlation between the interviews main topics. Beforehand both qualitative and quantitative interview methods have been applied to avoid a shortage in responses. The quantitative research however lacks depth as the interviewer is not able to elaborate on given answers. This has lead to some answers having been left out, as they were not relevant to the goal of the question and therefore the research result.

Limitations of time and lack of preparation have lead to this research not being as profound as hoped at the beginning of the process. Goals for the next research are finding partners with similar research topics, this could stimulate the process as working together can benefit both people's processes.

6.2 Relevance

The relevance and importance of this research lies in its contribution to understanding, preserving, and adapting cultural heritage within the context of contemporary urban development. The research provides insights and guidance into the process of how to effectively identify, document and preserve both tangible and intangible cultural heritage assets during urban development. By accentuate on participation methods and stakeholder engagement, the research encourages inclusiveness in the decision-making process related to adaptive reuse. This specific method ensures the values and preferences of the community are represented. The utilisation of established frameworks for categorising and documenting attributes and values, increase the precision and broadness of preservation efforts, which could be applied in the professional field of architecture.

Furthermore, recognising the site-specific nature of values and preferences emphasises on the importance of context in the process of heritage preservation. By understanding the context, a more sensitive approach van be implemented for the urban development and adaptive reuse projects. Also, the identification of factors influencing personal attachment can contribute in the creation of living spaces that foster a sense of belonging.

Consequently, this research contributes to the field of adaptive reuse and cultural heritage preservation by implementing practical strategies, frameworks and insights which could guide sustainable and culturally sensitive urban development projects in the future.

6.3 Implementation in Redesign

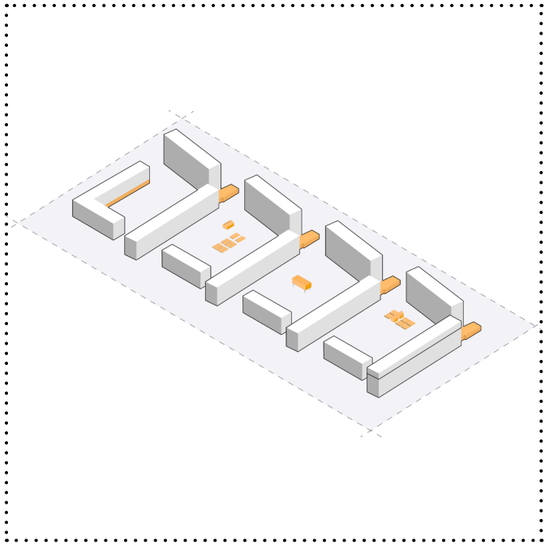
Research results show that most people need a building that is resistant to Dutch weather conditions. Many individuals in the current situation would benefit from reduced drafts and mold in their homes, considering these the worst qualities of the built heritage. Additionally, people's opinions varied, but generally, they did not place much value on the appearance of the buildings. Many people mentioned social contact and good relationships with neighbors as the best qualities of the built heritage.

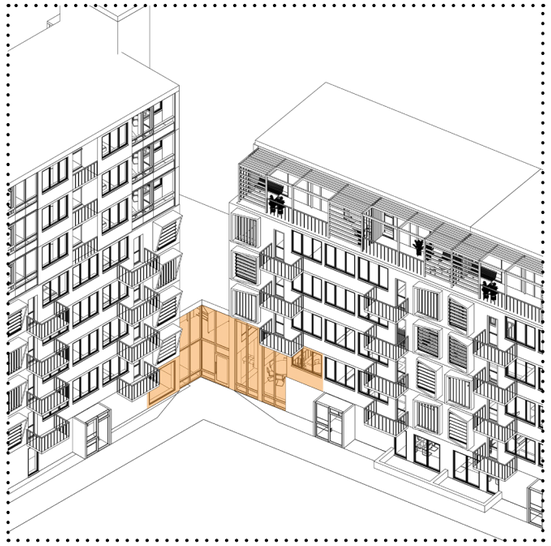
These research results provided the starting points for the design (figure X). Through the research problematic areas were identified and guided the direction of the redesign at the beginning stages of the design phase. Combined with an architectural analysis of the design case, this led to redesign strategies in which a balance had to be found between the monument preservation (Knijtijzerpanden) and meeting the desires of non-expert inhabitants.

This interplay formed the core for articulating choices in the redesign process. The core principles resigning from the research are: strengthening the sense of belonging through community; better the quality of life by restructuring the façade without losing the most prominent architectural and technical qualities of the built heritage; create more interaction between the building and its direct surroundings.
Combining the research results with an architectural analysis, led to the redesign as it is now. Though, if the research had not taken place, the redesign would not have been the same. Building elements (tangible) for example, were not amongst the answers of 'most valued attributes' for the first group of participants (inhabitants of the Knijtzijerpanden), but rather very popular amongst 'least valued attributes'. However, the building is stated as an Orde 1 monument by the municipality (Gemeente Amsterdam, 2010) due to its architectural and technical characteristics. This shows that actual users of the building have different considerations about the building than experts. If only the second consideration would have been part of the redesign process, this would not have led to the same results as it has now.

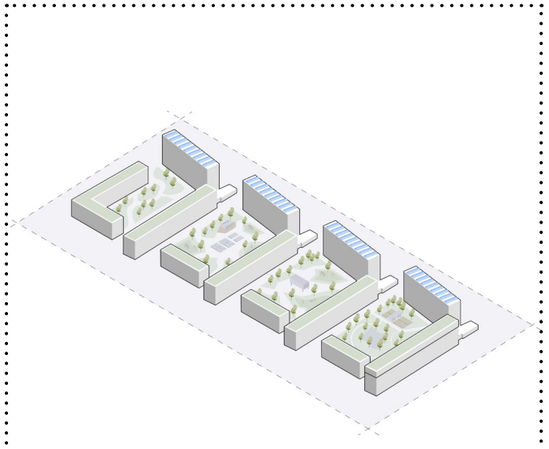
Furthermore, most valued intangible attributes such as community and relation context-association are frequently given answers. Intangible values and attributes are difficult discovered elements of built heritage without the use of participation methods, since intangible qualities consist of personal memories and experiences. Moreover, place attachment is created through personal memories and quality of life. By improving the technical qualities which most participants complained about, the quality of life will improve, to the point place attachment will take place on the long term.

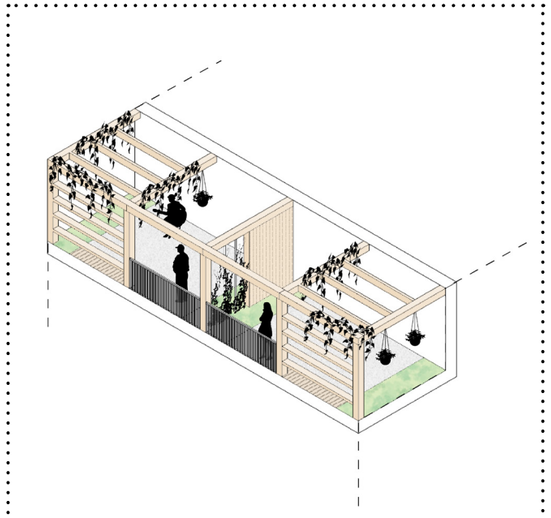
Community/People

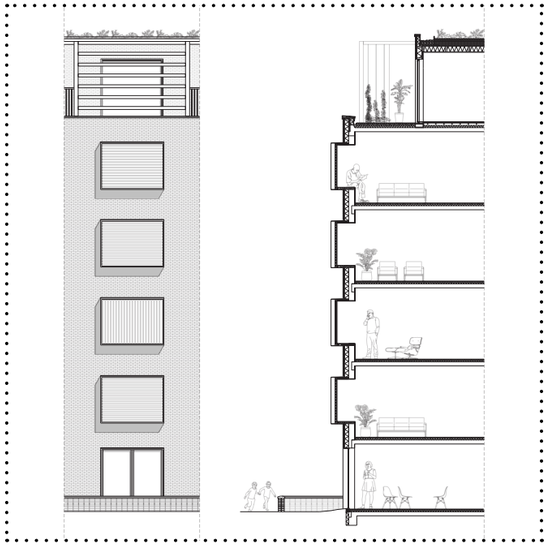




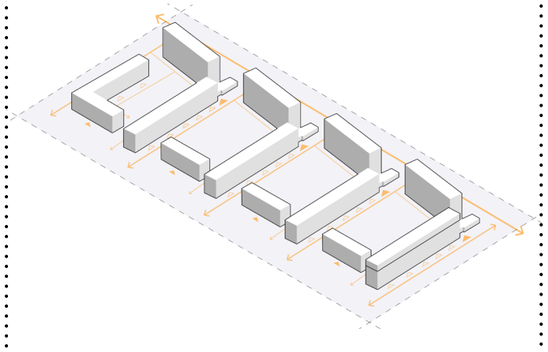
Sustainability

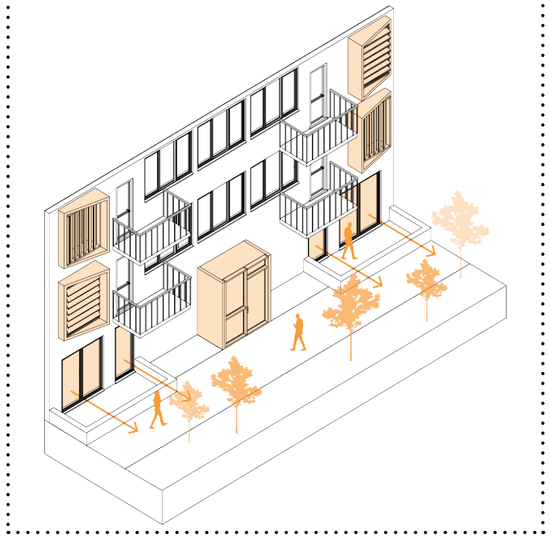


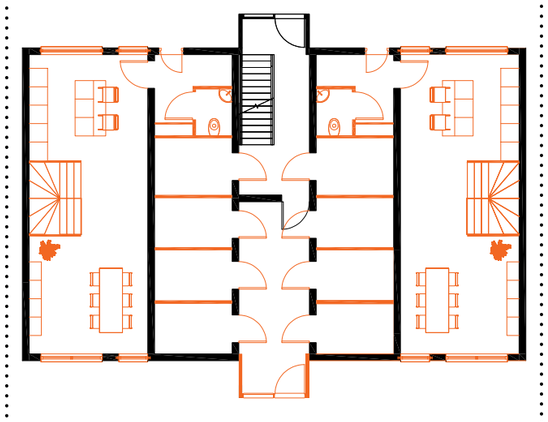




Interaction/connections







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