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1. Introduction



Fig. 1.0: My student studio in London, 2019 (by author)

1.1 Personal Statement

I decided to pursue a Master of Science in Architecture, as architecture has the power to change people's lives. During my Bachelor's thesis at Kingston School of Art where I explored the idea of 'Luxury of Space' in the post-war neighbourhood of Thamesmead and my previous studios and Electives in my Master's degree at TU Delft; I have concluded that architects should always carry a sense of responsibility in producing architecture that makes a difference in people's lives for the better. Additionally, we should design spaces that resonate with architects and regular people alike; rather than producing empty spaces that serve no purpose or function or are being sold for profit only.

I gained a fascination in finding the interrelation between psychology and architecture on its users; through my personal experience of loneliness for the first time despite living in a densely populated city such as London. This led me in choosing the Advanced Housing graduation studio that tackles the housing shortage in The Netherlands and the reinvigoration of a post-war neighbourhood in Innercity Randstad through densification strategies. The studio considers a new approach in dwelling typologies, social inclusion due to the increased diversification of target groups, biodiversity, affordability and the reduction of our ecological footprint.

Loneliness is increasing at an alarming rate throughout the world, posing a risk of early mortality equal to or larger than obesity and air pollution (Soós, 2019). Additionally, housing is a basic human necessity. Through the urgency in densifying our cities, there is an importance in investigating strategies that care to contribute "a little bit more" positively to the mental health of its users that do not repeat the mistakes of the modernist movement's disregarded of the human experience.

1.2 Background

The housing shortage has become a major topic of discussion in The Netherlands and primarily the proposed building of one million homes in the next ten years to help eradicate the crisis (Caroline, 2021). Statistics indicate that currently 390,000 units considering adults under 25, are needed to meet the demand of the housing market (Boztas, 2023). Nonetheless, the issue can be traced back to 100 years ago after World War I when many homes were damaged during the war. However, World War II saw a sharp demand for housing as major parts of cities predominantly in Rotterdam was destroyed and temporary housing was needed (Van Gameren, 2023). Densification strategies employed by the Dutch government were that of a standardised system of construction which resulted in the creation of post-war neighbourhoods (1945-1965), Bloemkoolwijken 'Cauliflower

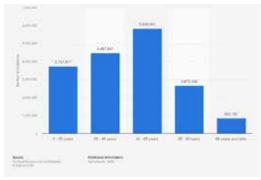


Fig. 1.1: Population by age in The Netherlands 2022 (Centraal Bureau voor de Statistiek, 2022)

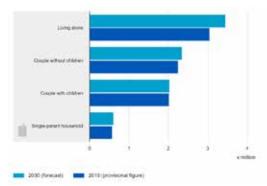


Fig. 1.2: Household by type forecast showcasing the increase in people living alone in The Netherlands (Statistics Netherlands, 2019)

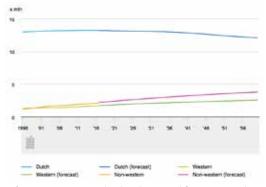


Fig. 1.3: Migration by background forecast in The Netherlands (Statistics Netherlands, 2017)

districts' (1970 - 1995) and Vinex Housing (1995-2005) in the outskirts of cities (Boeijenga & Mensink, 2008). Despite the change in the political context, the housing shortage continued to remain on the rise due to multiple factors such as the rising ageing population, population growth due to migration and an increase in single households in all target groups.

The Netherlands is currently facing an ageing population where more than half of the population is above the age of 40 and 3.5 million Dutch citizens are at the age of retirement (Centraal Bureau voor de Statistiek, 2022). Furthermore, the number of Dutch households is expected to grow from 7.9 million to 8.5 million by 2030. In particular, forecasts show an increase in the number of single-person households with the majority being elderly living alone (Statistics Netherlands, 2019). This affects the greater housing market due to the limited availability of space and many of the elderly are living alone in houses that are too large and do not meet their needs and wants; with loneliness levels growing rapidly within this target group.

Despite the growing ageing population affecting the housing market, another factor is the increasing trend of living alone in single households in all target groups. Statistics show that from 2019 to 2030, the number of single-person households is expected to increase by 406,000 with a total of 3.5 million homes, in addition to a rise in the number of childless couples increasing by 102,000 (Statistics Netherlands, 2019).

Nonetheless, the population is expected to continue to increase in the Netherlands due to an increase in foreign migration. It has been reported that migration trends from EU countries, Asia and traditional countries of origin such as Surinam, Morocco and Turkey have shown a decline with an increase in asylum seekers (Statistics Netherlands, 2017). In addition, it is predicted that by the year 2060, an estimated 34% of Dutch citizens will have one parent from a foreign background, which is an 11% increase from the year 2017 (Statistics Netherlands, 2017). This influences the housing shortage figures due to the lack of accommodation that can house the new inhabitants. Furthermore, many of the housing made available for asylum seekers are considered unsuitable due to the lack of opportunities that allow for integration with the existing community, with studies "that being a migrant is predictive" of loneliness" (Kearns et al., 2015).

1.3 Problem Statement

The growing mental health crisis has become a pressing issue in our societies worldwide. Statistic gathered by the World Health Organisation (WHO) indicates that an estimated one billion people suffer from one or more

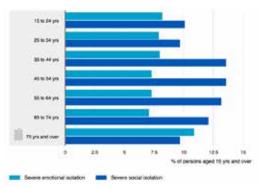


Fig. 1.4: 2019 statistic of loneliness levels by age group (Statistics Netherlands, 2020)

forms of mental illness such as depression, anxiety, social isolation, eating disorders or substance abuse (Naím. 2023). In particular, social isolation or loneliness has become an increasing issue due to people preferring to live alone and this is dubbed the "loneliness epidemic" (Rodriguez et al., 2020). While loneliness is known to primarily affect older adults, it also impacts people from all age groups. A 2019 study in the Netherlands shows that 1 in 10 Dutch citizens frequently feel lonely with single parents and people being mostly affected (Statistics Netherlands, 2020). Furthermore, the COVID-19 pandemic in 2020 which forced people to self-isolate and change to a 'work from home' lifestyle further exacerbated loneliness levels globally; this could potentially lead to a public health crisis by 2030 if proper action is not taken (Mechelli, 2022).

The word 'loneliness' not to be mistaken for the term 'solitude', is defined as a non-voluntary mental state where a person experiences long terms of isolation due to a perceived notion of unsatisfying social interactions (Mind Help, n.d.). While 'solitude' is a voluntary state in which a person chooses to remain in short periods of isolation that is mentally beneficial (Rodriguez et al., 2020). Loneliness can be then divided into four subcategories: Emotional, Situational, Chronic and Social.

Part of situational loneliness is a phenomenon called urban loneliness in densely populated cities. In the book 'The Lonely City: The Art of Being Alone' by Laing (2017) states that "cities can be lonely places, and in admitting this we see that loneliness doesn't necessarily require physical solitude, but rather an absence or paucity of connection, closeness, kinship: an inability, for one reason or another, to find as much intimacy as is desired." (Laing, 2017). This is evident in statistics gathered by TimeOut City Index that in major cities such as London and New York that 55% of Londoners and 52% of New Yorkers indicated their cities are rather lonely places to live in. (Molzner, n.d.).

Many visual artists throughout the twentieth and twentyfirst centuries attempted to capture urban loneliness through multiple mediums. For instance, the oil painting 'NightHawks' by American painter Edward Hopper is a prominent example of this (fig. 1.5). (Mirkovic, 2020). The painting was completed on January 21st 1942 a few weeks after the attack on Pearl Harbour during World War II. and for this reason, it is often associated with "wartime alienation" (Mirkovic, 2020). The painting exhibits an interior of a diner that is illuminated by a single light source in the deserted street of Manhattan. Four characters are highlighted in the scene, who appear to be disconnected from each another despite their physical proximity, this symbolises that each of us "are completely alone in the world" (Mirkovic, 2020). This is similarly seen in the 2011 painting by Randall (n.d.) in his Japan portraits



Fig. 1.5: NightHawk (1942) by Edward Hopper (Mirkovic 2020)



Fig. 1.6: Japan Portrait- Shinjuku, Tokyo (2011) by Carl Randall (Randall, n.d.)



Fig. 1.7: Joseph,88, Les Espaces d'Abraxas, Noisy-le-Grand (2014) by Laurent Kronental (Kronental, 2015)

exhibition in London that depicts the monotonous urban life in Tokyo. In the painting (fig. 1.6), multiple people are seen commuting to their occupations where none of the individuals illustrated can be seen interacting with one another. Through the use of shades of grey, the painting captures the feeling of urban alienation among Japanese city dwellers.

Another example of this would be the film photo captured by Kronental (2015) of the Parisian post-war Neighbourhood Espaces d'Abraxas in Noisy-le-Grand; which was designed by Ricardo Bofill in 1983 (fig 1.7). The image highlights the urban loneliness experienced by the elderly in post-war housing despite their utopian visions. In the photograph, a single 88-year-old man named Joseph who had resided in the neighbourhood for many years overlooks an isolating large-scale concrete building that dominates the majority of the frame. The picture is described as post-apocalyptical by Kronental (2015) where he imagined the man as a sole survivor who lives in a "titanic" like structure that has eradicated human life.

The beginning of the loneliness epidemic can be traced back to the 19th century when industrialisation caused a rapid influx of urban migration within major cities (Winston, 2019). Consequently, this led to the 'instrumental' function of the city not contributing positively to the needs of the collective society; as densification strategies developed on the concepts of individualism, self-sufficiency and economical gain which allowed for urban loneliness to manifest (Winston, 2019). In Illich (1990)'s book 'Tools of Conviviality' he defined advanced technologies that no longer serve a community but instead politically affiliated individuals as "convivial". A city can thus be viewed as a 'convivial' tool as people are forced into organised neighbourhoods and standardised housing instead of allowing for communities to naturally come together to shape their urban environment (Illich, 1990).

This was evident in urban planning strategies such as garden cities by Ebenezer Howard and those developed during the post-war modernist movement that saw metropolises move to more industrial car-based cities that disregarded the human scale. Moreover, this was affirmed in Corbusier (1987)'s manifesto "A city! It is the grip of man upon nature. It is a human operation directed against nature, a human organism both for protection and for work. It is a creation". Nonetheless, many town planners criticised this mode of thinking. Most notably, activist Jacobs (2002) argued that cities should be designed with more walkable streets, diverse mixed-use developments and functions that work in synergy that allowed for more positive community engagement. This is further supported by Danish architect Gehl (2013) who states that man was made to walk. Besides, a return for more 'human scale' cities gives rise to valuable opportunities for social and

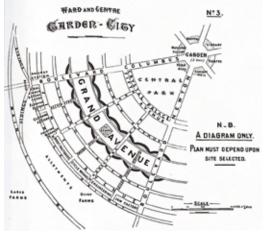


Fig. 1.8: Diagram of a plan of a garden city by Ebenezar Howard (1902) (Mastenbroek et al., 2021)

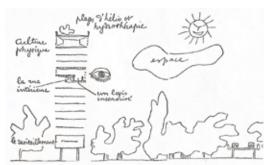


Fig. 1.9: Sketch by Le Corbusier (1935) displaying the concept of air, light and freedom in modernist architecture (Mastenbroek et al., 2021)

recreational activities to come to natural fruition within neighbourhoods. An example of this is Strøget (walking street) in which social interaction was reinvigorated by prioritizing more pedestrian-friendly roads instead of cars in the city centre of Copenhagen, Denmark (Gehl, 2013).

1.4 Specific Problem Statement

Groot IJsselmonde is a post-war neighbourhood in innercity Randstad in the southeast of Rotterdam; it was initially designed to be temporary housing for families that lost their homes after the bombing of the city during World War II. It was envisioned by Dutch Architect Peter Van Drimmelen in the 1950s who drew inspiration from the garden city of Ebenezer Howard where families can overlook the development of children (Europan 15 Rotterdam, 2019). The borough takes the form of a flower petal with an overabundance of green space that separated the seven different neighbourhoods Groenenhagen-Tuinenhoven, Zomerland, Sportdorp, Kreekhuizen, Hordijkerveld, Reyeroord and De Veranda from each other, which was intended for locals that can unwind following a long day at work. Furthermore, many of the principles of the modernist post-war movement applied within the district's design, such as the concept of air, light and freedom and the importance of having streets that are accessible by car (Europan 15 Rotterdam, 2019). This was made for port workers who were the main demographic of the borough at the time, so they could commute to their occupations.

The master plan is a mix and matches between a repetition of stamp design for the many housing units. The buildings were designed where nothing stood out from the rest which gave a sense of anonymity within the different vicinities. This design choice according to sociologists and psychologist hindered the formation of creating a sense of community and social interaction within IJsselmonde; as "our very own home serves as the boundary for social distinctiveness just as the body does for personal identity" (Jansen & Ruitenbeek, 2004).

The majority of the current residents in IJsselmonde are 21% seniors, 19% adults (27-39) and 45% of the entire neighbourhood live alone which is higher than that in the rest of Rotterdam (Wonen in Rotterdam, 2023). Loneliness in turn has become a major issue in all target groups within the neighbourhood with no effective intervention for those in younger age groups from reports gathered by GGD Rotterdam-Rijnmond, (2010).



Fig. 1.10: Living apart together in Groot Usselmonde (by author)



Fig. 1.11: Facade of a church towards the street showcasing the anonimity in architectural design in the neighbourhood (by author)



Fig. 1.12: The abudance of green space between building blocks in IJsselmonde (by author)



Fig. 1.13: Lack of the 'human scale' in Groot-IJsselmonde (by author)

2. Research Framework

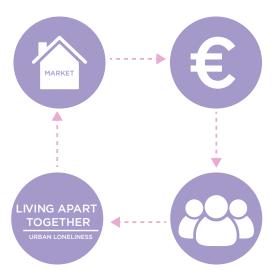


Fig. 2.0: Hypothesis of the current Housing market that allows for urban loneliness to manifest (by author)

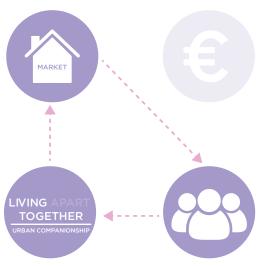


Fig. 2.1: Hypothesis to allevate urban loneliness (by author)

2.1 Research Framework

There is a growing concern about a mental health crisis and a looming threat of the loneliness epidemic worldwide. This was further escalated by the covid-19 pandemic that forced people into isolation and a new form of 'work from home lifestyle'. Nonetheless, the loneliness epidemic can be traced back to the 19th-century design principles that designed our current cities with reference to industrial tools such as the car instead of the 'human scale. Many of these modernist ideals had negative implications on the mental health of the residents in post-war districts. Moreover, the need to build more homes, the current Dutch housing market values densification strategies that are primarily for profit and not for the needs of the people; which continues the pattern of 'living apart together'.

Consequently, with there is an urgency to tackle urban loneliness among the inhabitants of the post-war neighbourhood Groot-IJsselmonde. Interventions thus needed to encourage degrees of social encounter within three scales, urban, building and dwelling that allow for more positive densification for both current and future residents. Therefore, the following main question will be answered in this research:

Which design strategies can be utilized to alleviate the effects of urban loneliness on different target groups in existing post-war neighbourhoods?

2.2 Sub - Questions

It is important to first look at urban loneliness through a typological historic lens as it would provide insight into where the issue of certain design strategies became a problem and what should be avoided to reinvigorate urban life in IJsselmonde. Therefore, the following two subquestions will be answered: What were the conditions that allowed for urban loneliness to begin? And Which modernist design strategies provokes urban loneliness?

As we get older our needs and wants become different. Additionally, different types of households, lifestyles and incomes impact the way we prefer to live. Therefore, it is important to understand what design practices play a role in reducing or increasing urban loneliness within the different types of target groups found in post-war neighbourhoods. Hence, it is vital to answer the subquestion: How does urban loneliness impact different target groups in post-war neighbourhoods?

Green spaces provide many general and mental health benefits and give the potential for social interaction to take place. Studies indicate that people with 30% or more green space within 1600m of their home feel less

lonely than those with less than 10% (van den Berg et al., 2017). However, lisselmonde has a surplus of non-fully utilized green areas despite many attempts of creating communal led garden spaces between the housing blocks loneliness is still an issue. Urban loneliness can be then tackled on an urban scale in the post-war neighbourhood if these green belts' connection between the different blocks is strengthened through more community-building initiatives. Therefore, the fourth sub-question is:

How can the existing green space in IJsselmonde be revitalized within a housing scheme to create a sense of community?

Many of the housing schemes designed during the postwar period lacked the sense of the 'Human scale' due to the prioritization of more car-based roads. Furthermore, the excessive ordering and designing of these districts, particularly in IJsselmonde, created a sense of urban anonymity in the neighbourhood that provokes a sense of loneliness within its residents. Thus, densification strategies could alleviate urban loneliness on a building scale by answering the fifth sub-question: How can the 'human scale' be used to help reduce the feeling of anonymity through spatial design practices?

As emotional connectivity between city dwellers began to grow apart due to mass migration, loneliness levels continued to increase within cities. This in turn resulted in co-housing being introduced as a possible solution to help combat this problem (Winston, 2019). Co-Housing is a housing typology where private living quarters are combined with shared spaces such as communal leisure rooms or kitchens. It essentially functions as a tool that can promote social connectivity and break social barriers between residents of the same housing estate, as it provides the opportunity to get to know your neighbours through shared living experiences. This will then provide insight into how urban loneliness levels can be reduced through the dwelling scale by assessing the sub-question:

How can the diversification of target groups through Co-Housing be used as a tool to break social barriers?

Which design Aesthetic Co-Housing **Public Functions Green Spaces** strategies can be utilised to allevate the effects of **Future Proof** urban loneliness on different **Elderly Starters** Singles target groups in **Students Migrants** Densification existing post war neighbourhoods?

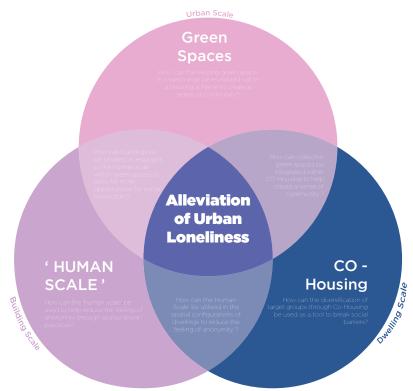


Fig. 2.3: Venn diagram showing the relationship between the three scales and alleviation of urban loneliness (by author)

3. Theoretical Framework

3.1 Theoretical Framework

In this theatrical framework, a collection of both books and journal articles are collected to help support the conduction of the research and to help answer the six sub-questions to tackling urban loneliness in post-war neighbourhoods. The literature is divided into four lenses of Historical, Urban scale, Building Scale and Dwelling scale.

3.2 History of Urban Loneliness and Target Groups

For the sub-questions that deal with the history of urban loneliness, research on modernist design strategies and target groups many books and essays access this subject. For example, Onslow (1990) wrote a book discussing the history of Garden cities and Ebenezer Howard's design strategies for garden cities that will enrich the research with understanding Peter Van Drimmelen's vision for Groot-IJsselmonde. Moreover, the book offers case studies on two garden cities in the UK Hertfordshire and Letchworth that could be used as a comparison with IJsselmonde. The book by Al-Sabouni (2021) will also be used to compare garden cities (named 'tanzemat' in Arabic) in the non-western context of Damascus. Syria, where she offers both criticism and suggestions on the design strategies for battling urban loneliness for future rebuilding of the capital. In addition, the book by Mastenbroek et al. (2021) Provides a discussion and precedents between modernism and the diversion from nature-based solutions that are found in indigenous architecture that caused us to "retreat from each other". Finally, 'The Lonely City' by Laing (2017) will aid the research by giving insight into the different types of people from various backgrounds and lifestyles affected by urban loneliness through extensive interviews and stories contained in this literature.

3.3 Urban Scale: Green Spaces

Within the Urban scale 'The Death and Life of Great American Cities' by Jacobs (1961/2002) will be the main point of reference as she was the most prominent figure in criticizing the modernist movement despite her lack of architectural education. This will provide the human perspective on design practices of the time and possibilities to promote functional public spaces that work with the local community. In addition, 'A Pattern Language' by Alexander, (1977) will be used as a supporting book due to its extensive public space strategies that help promote community livability. The strategies are divided into chapters with a list of 'patterns' which tackle the different public tactics to help boost community engagement. Furthermore, for the psychological analysis of green space, Astell-Burt et al (2022) published a journal article on its effect on loneliness in different target groups.

3.4 Building Scale: 'Human Scale'

The research on building scale will use Gehl's (2011) book as the main reference. This is due to his criticism of modernist practices that caused urban loneliness to take form, and case studies showing real-world solutions that relate to the use of the 'human scale' and their positive impact on social inclusion for the collective society. Furthermore, Gehl (2011) provides guidelines on how to design with proximities to the human scale that will be beneficial in the design phase of the research. Additionally, supporting material from Küller's (1973) collection of research papers from the 2nd international architectural psychology conference in Lund, Sweden on June 26-29, 1973 will be utilized to help enrich the exploration. The collection of papers contains psychological studies on the behavioural effect of environmental light, the environmental perception of its users, and a study on how to create therapeutic environments for more emotionally content architectural spaces.

3.5 Dwelling Scale: Co-Housing

Within the scale of dwelling scale on Co-Housing Studio Weave (2018) conducted research in collaboration with the Royal Institute of British Architects that analyzed the past, present and future of this design strategy and its ability in bringing people closer to urban neighbourhoods. Furthermore, the research will be supported by the design handbook written by Plowright (2020) in which he suggests interior design possibilities to allow for social connectivity to take place through the consideration of the 'Human scale' in the chapter Socio-Spatial ideas. This will be supported by the design guidelines provided by Marcus & Sarkissian (1986) which contain an emphasis on the social interaction of residents within dwellings.

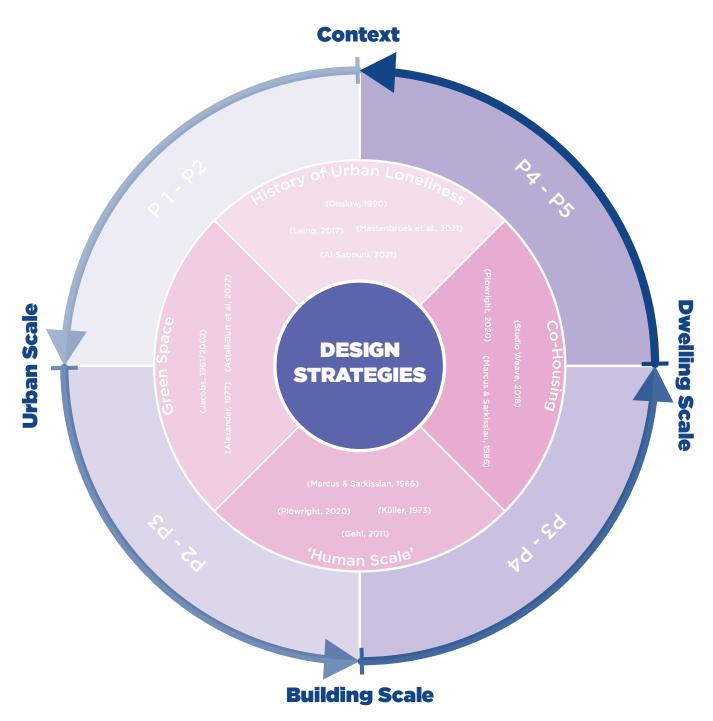


Fig. 3.0: Theoretical framework diagram in relation to the studio time-frame (by author)

4. Methods & Methodology

4.1 Methodology

Within the studio, group analysis will be conducted to further develop the previous years' work on IJsselmonde that focused on the larger urban scale. Therefore, a more detailed study will be conducted on the human preceptive of building and dwelling typologies, differentiation of the different types of green spaces found in the neighbourhood, and historical analysis of the year 1950 and the future. To tackle the issue of urban loneliness through an effective methodology in investigating degrees of encounter, the research has been divided into three sections 'quantitative', empirical observation and case study analysis.

4.2 'Quantitative' Methodology

Ethnographically inspired 'quantitative' research will be first conducted through the use of both questionnaires and informal interviews of residents in Groot-IJsselmonde by utilizing the research conducted by (Kearns et al., 2015). Kearns et al. (2015) analysed loneliness levels in several deprived neighbourhoods in Glasgow, Scotland due to the rise of feelings of isolation in industrial countries such as the UK and in target groups such as students. The paper breaks down the different variables into five categories; loneliness, housing factors, neighbourhood physical and service environment, neighbourhood social environment and confounders which results in a numerical value given to the level of loneliness experienced in that particular neighbourhood. The questions examined by category are:

- For 'loneliness' respondents were asked how often within two weeks (or never they had feelings of loneliness. Housing factors took into consideration what type of building typology (ground-bound or High-rise) and how long have they resided in the neighbourhood.
- Housing factors took into consideration what type of building typology (ground-bound or High-rise) and how long have they resided in the neighbourhood.
- Neighbourhood Physical and service environment assessed the quality of the area in a 5-point rating system based on the attractiveness of the buildings and environment, the peacefulness, green spaces and public spaces, street lights and walking paths.
- Neighbourhood Social Environment was considered through how frequently the respondent walked or participated in neighbourhood activities. Additionally, residents were asked to list 11 amenities used within the week.
- Confounders within the article measured aspects of the feeling of community through questions such as whether they feel part of the community and if they know their neighbours. Furthermore, feelings of safety were through enquiries including the frequency of antisocial behaviour in the neighbourhood and whether they believe someone in the community would intervene.

The use of the investigation by Kearns et al. (2015) would thus give an insight into both the negative social and physical factors in urban and building scale that contribute to levels of urban loneliness in Groot-IJsselmonde. Nonetheless, more questions will be added that consider the resident's lifestyle and income, based on the literary study of Liang's (2017) book, which will give further discernment into understanding how urban alienation impacts the dwelling scale.

4.3 Empirical Observation

A possible issue is that during the 'quantitative' study some residents would hesitate to respond to the questionnaire, therefore, an empirical observation will be conducted. The research will use the method adopted by Whyte's (1980) book 'The Social Life of Small Urban Spaces', in which people-watching was used to record where individuals gathered, avoided and what sort of social activities took place within the public space. In addition, the exploration will also be supported by sensory/perception mapping methods proposed by Canter (1977) that will help give a psychological understanding of the neighbourhood and its residents. The combination of both approaches and multiple visits to IJsselmonde under different weather conditions and public holidays such as 'Kingsday'; will help assess the successfulness of the public space on an urban and building scale in bringing the neighbourhood together. By utilizing this method opportunities may also arise where semi-structured interviews of the inhabitants can take place.

4.4 Case Study Analysis

Finally, a case study analysis of different precedents that deal with topics of co-housing, social inclusion and solitude to help answer the sub-question in dwelling scale. Possible case studies are:

- Bikuben Student Housing by AART, which is a Co-Housing project for students in Copenhagen, Denmark that promote social interaction through the use of communal kitchens and leisure rooms and courtyards.
- Nexus World Housing by OMA, a housing project in Tokyo, Japan which deals with the theme of solitude.
- **Vrijburcht in Amsterdam**, The Netherlands which incorporates both co-housing and the integration of work and live within its housing scheme.

7) TU DELFT

	History of Urban Urban and Building Scale Loneliness		Dwelling Scale		
	Historical	Empirical	' Quantitative '	Case Studies	
	/	✓	✓	V	Theoretical
	Comparative study Garden Cities and post -war neighbourhoods	-	-	Plan analysis of varius precedent studies: Bikuben (DK) Nexus World (JP) Vrijburcht (NL)	Typological
	-	Whyte (1980) Canter (1977) Studies	-	-	Phenomenogical
Input	-	Ethnographic Inspired Semi-Structured Interveiws	Ethnographic Inspired Questionnair	-	Praxeological
Output	Design manual	Necessary degree of encounter needed to allevate urban loneliness in Groot-IJsselmonde		Design elements	

Fig. 4.0: Methodology overview diagram (by author)

5. Research Plan

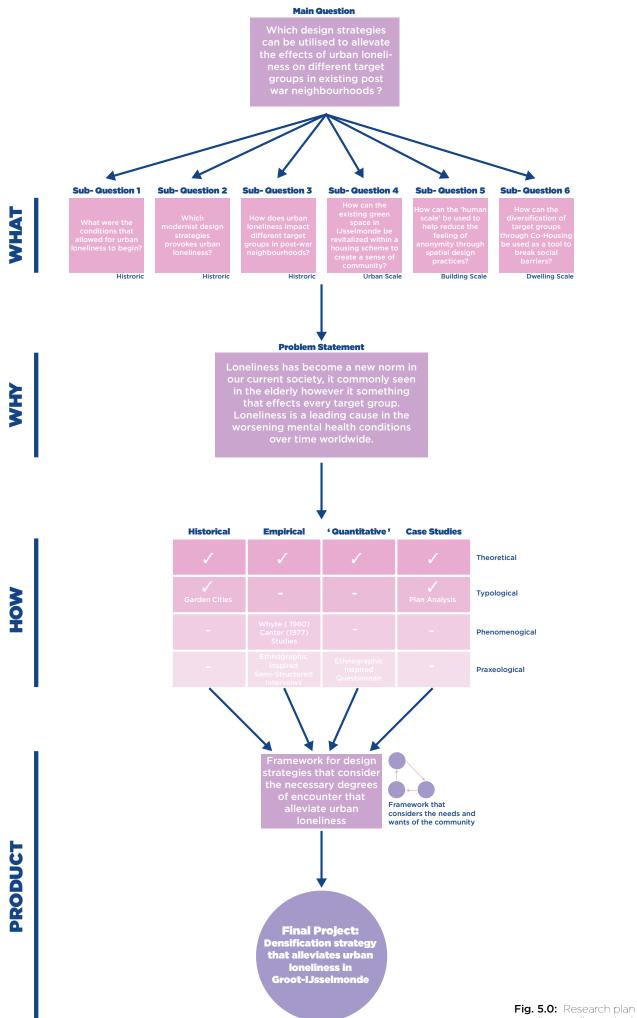


diagram (by author)

6. Preliminary Conclusions and Design Strategies

Fig. 6.0: Map showing site location of intended design proposal (by author)



Fig. 6.1: The 'heart' of IJsselmonde's empty central square (by author)



Fig. 6.2: Urban loneliness captured in the central square (by author)



Fig. 6.3: Keizerswaard shopping mall in the heart of IJsselmonde (by author)

6.0 A New Pulsing Heart for Groot-IJsselmonde

The centre of IJsselmonde consists of an indoor shopping mall, offices, a public square, a children's playground, and a transportation connection to central Rotterdam and it is the least green area of the entire quarter. While the shopping mall seems to draw in residents from all age groups, from my preliminary observation of the central square of IJsselmonde, the area still appears to be underused despite Peter Van Drimmelen's original intention of having a 'pulsing heart' to the neighbourhood. Therefore, by tackling urban loneliness through transformative densification strategies within the 'heart' of the post-war borough. The revitalisation of the space could then 'pulse' towards the other seven 'petals' bringing the community together; alleviating feelings of isolation.

From an initial analysis of the building typology within the neighbourhood, the following design hypothesis could be drawn to answer the main question "Which design strategies can be utilised to alleviate the effects of urban loneliness on different target groups in existing post-war neighbourhoods?". Housing units maintain their sense of anonymity and lack of 'human scale' which provokes a sense of isolation by preventing an extent of public life from coming into their living quarters. Thus, a possible design strategy in the dwelling scale is to create a degree of encounter where co-housing spaces gradually become more private as they progress towards the upper floor, while still giving opportunities for all target groups to choose their preferred quantity of social contact. From the perceptive of the building scale, a more playful differentiation in the external facade that brings back the human scale is needed to break the melancholy in the architectural aesthetic of the neighbourhood. While green spaces are brought closer within the square with more outdoor walkable public amenities that allow for more opportunities for positive social encounters.

Nevertheless, from further studying the area through the previously specified methodology and Literary review, more specific densification strategies will be drawn to alleviate urban loneliness in Groot-IJsselmonde.

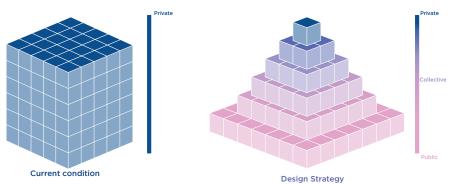


Fig. 6.4: Dwelling scale hypothesis displaying how to promote social engagement within a housing unit (by author)





7. References

7.1 List of Figures

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