
Aging (in) Architecture: A Reflection

Jennifer Lips

The project

The housing and sustainability challenge in the Netherlands are really relevant topics in nowadays society. Both include a harder and a softer side. Housing concerns people/residents, and is therefore quite soft, just like the valuation of the existing housing stock having to undergo the energy transition. The challenge lies in designing a future-proof match between the ultimately necessary, physical energy transition, the hard side, and this softer side, without either having to detract from the other. Within the studio New Heritage about post-65 architecture this aspect in particular is very important. Trying to pin down the values for the area and keeping these as a guide in the design process is therefore key. Precisely these values are of great importance for the studio as post-65 residential architecture is often not yet considered to be heritage in the Netherlands.

The design assignment of the studio is to renovate and possibly densify a 70s or 80s housing complex, focusing specifically on the current energy transition and the valuation. The personal task in this design project is to create an inclusive, high quality living environment in an existing housing complex at Bijlmerplein, an area from the 1980s in Amsterdam. This urban area scores low on the Dutch national average quality of living environment called leefbaarometer (Ministry of the Interior and Kingdom Relations, 2020). The research conducted therefore resulted in a programme of requirements aiming to improve this quality and the inclusiveness of residential areas. The results are based on and applied to the current housing situation at Bijlmerplein, concluding to a future design approach.

The topic of the graduation project, inclusive and high quality living environments, is related to the studio topic by means of creating such living environments in existing housing complexes and surroundings. The design question of the studio is therefore as follows:

'How could renovation and densification strengthen qualities and help solve current problems, without compromising heritage values and identities?'. The relation with the studio lies in:

1. densification and housing shortage as a focal point;
2. using and strengthening current qualities of the complex and area, but also upgrading weaknesses;
3. keeping socio-cultural values and qualities of livability as a basis for the design.

In addition, there's a serious sustainability task from within the studio, offering the opportunity to not only insulate energy-inefficient buildings, but upgrading the entire area and (possible) functioning as well. A renovation of the living environment. The relation to the master track Architecture lies exactly in this element: why just wrap the building in insulation? Why add straight and plain outdoor hallways? The architecture is within creating a place to stay and live, rather than a place of shelter. Creation of a living environment that is sustainable in a sense of energy efficiency, but above all the life extension of a building with potential heritage value. It turns the practical question of 'what is strictly necessary' into how can this 'strictly necessary' be of greater meaning than just keeping heat inside a dwelling or being able to reach the front door in an easier way, keeping the socio-cultural values of the complex and qualities in mind.

The research

The definition of inclusiveness in this study is taken from the Cambridge Dictionary: "the quality of including many different types of people and treating them all fairly and equally". For the research and design, that means, among other things, persons with mobility problems are taken into account, life-proofing the living environment. The older generation is often included in this terminology. Not only might mobility be a problem at older age, this group of people is also partly held accountable for the housing stagnation in the Netherlands (Obbink, 2020; Van der Parre, 2021). That is why the preferences of older people, in general called people from the retirement age and above (Ministry of Social Affairs and Employment, 2020), were studied to conclude how to possibly design inclusive living environments. Taking into account a

high quality living environment by results of previously performed field research, being the preferences of elderly and stakeholders at Bijlmerplein, and academic findings. The results function as a base for the case specific situation, being the woondek typology housing at Bijlmerplein. As the quality of living is rated low in this area, the case is compared to a well-functioning woondek being De Nieuwe Weerdjes in Arnhem. The latter is related to the Dutch hofje or courtyard in previous analyses, which is an interesting addition to the case study analysis due to the often central location of this typology in the city, just like Bijlmerplein and De Nieuwe Weerdjes. Therefore, all three mentioned situations were analysed based on design elements influencing the quality of the living environment. The outcomes were compared to the results found in the theoretical research, followed by testing this final programme of requirements to the situation at Bijlmerplein. The qualities and missing elements followed as a result, being the starting point of the design. This way, input was collected for the renovation of the living area at Bijlmerplein, a task consisting of:

- Inclusiveness / life-proofing;
- High quality living environment;
- Energy transition / climate adaptation;
- Supporting / preserving socio-cultural values

This graduation research clarifies that for a large part, the preferences of elderly are almost similar to any found quality of a living environment, which places this work as an intermediary between the qualities of a living environment and the wishes of older people. In the larger social framework, the outcomes of this research & design could work as a programme of requirements to create inclusive, high quality living environments in existing (malfunctioning) living environments, as well as in new housing projects. Therefore this graduation work is not answering the question of how to build for older people, but how to create a living environment does not discriminate on age.

The design process

The design process was one of trial and error as has become a workflow over the years. On the one hand this includes thinking in scenarios but on the other hand also trying out impulsive ideas; thus the trial and error. The main interventions applied at Bijlmerplein during the design process according to the resulting programme of requirements were tested according to

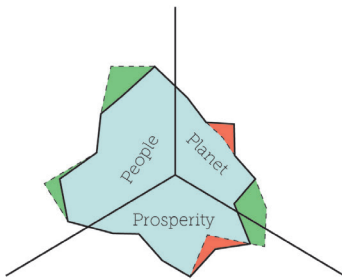
a renovation theory by Kamari, Corrao, and Kirkegaard (2017). This theory focuses on the sustainability of a renovation, however in this situation it is applied in a way of including the building and site values leading to an assessment of sustainable interventions based on predefined values. The heritage perspective of this sustainable renovation theory as you will. In the diagram on the next page, the initial Kamari diagram is visible for Bijlmerplein in the current situation. The interventions are visualised as people-planet-prosperity impact triangles. Each triangle has a more positive and negative effect, however overall positive.

The ethics

One of the ethical dilemmas when researching the living environment preferences by elderly was the broadness of this very diverse group. It is basically impossible to fit everyone into one living environment mould and therefore the conclusion will not cover the entire older generation. It can, for example, also be a choice to live in a rural area rather than the city centre, despite the centre being more inclusive or of higher living quality. Preferences based on place are therefore a matter that cannot be influenced. Another dilemma is that when designing inclusive living environments, the housing shortage itself is not necessarily solved. As these type of living environments focus on a much broader target group other than 'just' the senior, it is not possible to create bulk housing for one target group with this particular approach. This means when in a housing shortage for one specific target group, a different approach could be chosen, or this particular group could be included in the existing situation. Moreover, this discussion meets diversity in the type of housing. It raises questions about the current residents and their dwellings. Will they be able to live in their familiar home or even living environment after the interventions? Will the new residents, attracted by these new or added dwelling types, fit within the current residential society at Bijlmerplein? In addition, what will happen to the residents while construction is happening is one of the biggest ethical issues. Can they stay put? Will they be offered a new dwelling within the same cluster, or a temporary residence? Another dilemma is the reliability of the created design solution scheme, as it is partly supported by the views on the living environment in urban areas and specifically at Bijlmerplein. Finally, choosing the type of housing or living environment to be analysed as a matter to create a clear overview of what is an inclusive, high

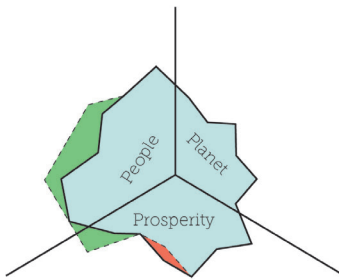


Replace staircases by elevators and outdoor hallways



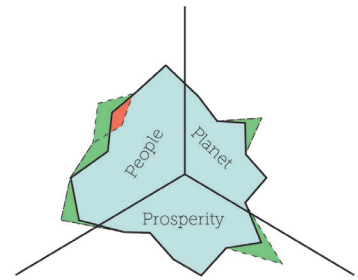
Indoor insulation on street facade

Add places to meet in residential area

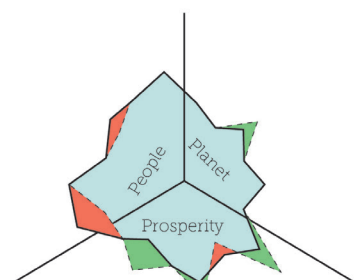
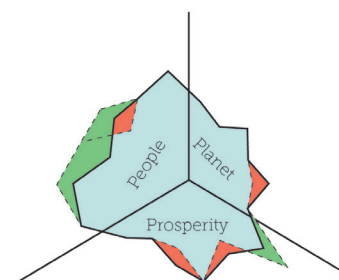
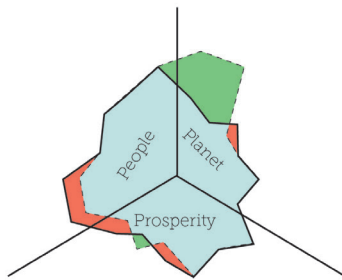


Introduce other functions than housing on deck

Open up residential area towards public street



Add extra levels on top of existing building



Final Kamari wheel Bijlmerplein

quality living environment, was difficult. Every resident could experience their living environment as being more or less comfortable, something that will most likely be happening in each and every type of living environment. Not every resident in the Netherlands will appreciate the Dutch courtyard as being the ideal way of housing, but the choice was nevertheless made in relation to the linked arguments for the Nieuwe Weerdjes woondek and similarities in description of the woondek at Bijlmerplein and the Dutch courtyard. Still, this does not explain or argue if the resulting programme of requirements would fit any type of residential area. Even if this programme in its entirety or as a way of finding applicable elements within the situation would be a suitable way of using the results from the research. However the latter would be suggested: an analysis of the situation followed by a search within the programme of requirements delivered in this research to find possible solutions for a high quality and inclusive living environment.

Heritage

In terms of heritage, there are a number of factors in the design that have been specifically claimed. Firstly, the coherence of the entire layout of the square: the brick façade material, but also the urban plan with references to postmodernism. It is precisely this reinterpretation in the 1980s of the then century-old way of thinking about the coherence of urban design and facade architecture that can be seen as valuable for the area. In the redesign, this focus on squares and the interaction with façades is again emphasised and even strengthened by adding a dimension of height. In addition, the highly valued human scale in the area is a remnant of the thinking of the 1980s that is respected in the design by keeping a distance from the street façade with regard to the experience of spatiality in the streetscape. The human scale also returns in the form of the Amsterdam School style, a third element within the heritage category. By making use of plastic design in balconies, entrances and corners, the original commitment to recognisable forms and elements is retained in the design. Finally, the original design approach with many social facilities could have been potential heritage in connection with the conception around the time of design. Since this has not been realised or has disappeared with time, this design idea is being revived by adding social facilities for the entire neighbourhood. This can form a new kind of heritage within the area in the form of an intangible attribute to revitalise the neighbourhood. Another

important element within the heritage category is the reinterpretation of the anti-Bijlmer movement against the high-rise and monofunctional approach of CIAM. Whereas high-rise buildings were shunned in the area during the time of the original design, in view of the current densification task and the revitalisation of the residential area, this actually offers opportunities for a revival of the decks. The key here is to ensure that the human scale in the area is preserved and stimulated, in contrast to the rather cosmic and alienating building masses in the Bijlmer of the 1960s. In the residential tower in cluster 2, an attempt is made to achieve this by having the façades ascend in stages and avoiding long façade elements, but rather by using small-scale balconies and plastic shapes as is done in the Amsterdam School. It must be clear that the building can and is lived in. Keeping the materials recognisable and on a small scale also contributes to this. All in all, the area can therefore be seen as a clear architectural heritage of the 1980s by outlining the zeitgeist of the period in the form of cohesion, human scale, postmodernism and the contemporary interpretation of the Amsterdam School.

The design issues

Issues during the design process start with the complexity of the situation at Bijlmerplein and all its facets. One of the examples is the commercial area at ground level and ensemble of similarly materialised and scaled buildings, as well as the diversity of residents and management of possible future interventions. Taking into account values of the location and its buildings by stakeholders too strictly was a second issue. Of course it is of great importance to take note of any valuation of the area by its users, but too little deviation sometimes limited the freedom of designing. As the building is not (yet) considered heritage, it can, officially speaking, tolerate any modification. However, within the search to heritage values, finding the balance between dedication towards values and actually upgrading the building and its surrounding environment was a great challenge throughout the design process. Exactly this freedom of designing got lost sometimes while keeping onto one design concept for too long, not allowing other interventions to change anything about it. Tutoring sessions helped to zoom out and get the big picture back into focus when digging in too much. This zooming in and out was however recognizable in my design approach in a way of again holding on too much. That means ranging from a huge, overshadowing concept to

an acupuncture approach that needed extra focus to not lose myself in the tiniest detail without losing the scope of the bigger picture. For me, this ended up in a lot of side paths like flexible floorplans for the sake of sustainability in the sense of durability of the building function. However intriguing these subjects are, they did not exactly fit the scope of the design and thereby made the situation more complex. The tutor sessions played a role in this interest in different topics as they sparked my interest in different subjects. This was a very inspiring experience, however sometimes counterproductive as it put me on a different path of discovery every time. On the one hand this could be seen as a slow enrichment of the design by exploring different areas of interest and integrating them into the design, but it certainly made it harder to determine what in the end was the overarching concept of the design. A final lesson learned during this research and design is to even look more accurately into the location and building analysis, and understanding the design location itself, beforehand determining to start off with the design task. By a slight underestimation this led me to find out only after the midterm that another cluster at Bijlmerplein was way more interesting and had more potential within the scope of my research into quality. This also explains why it sometimes took me a little longer to come up with new, more innovative and creative design solutions for the renovation of the residential area at Bijlmerplein.

Sources

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