

Reflection

Jelle Grunstra, 4163834 – May 2017

The graduation project surrounds the revitalisation of the Nemavo-Airey social housing blocks in Amsterdam New West. These dwellings were constructed after the Second World War using an adapted version of the Airey building system. Today the dwellings lack insulation and don't meet user requirements.

Problems are overcome by transforming the dwellings and giving the option to add modules to the dwellings. This ensures many different target groups can live in the community. People don't seek a suitable dwelling, but instead find a community in which they can live and the dwellings is adapted to them. Moreover, users can implement a personalised part of the dwelling to ensure their demands are fully met.

Aspect 1: The relationship between research and design

Finding a good relationship was a difficult process. With the P2 a preliminary design was given, but due to a shortage of time and the theoretical nature of the research paper the design was deemed too vague. Even after a retake it stayed that way. The connection with the research and the theoretical framework was clear, but the practical design was not. The input from users would dictate a lot of the design, or so I thought. This made designing difficult as the user could want 'anything' he desired. Setting up a wider modular system was also quite difficult because an existing building should be renovated. Even with the modular building system of the Airey blocks it didn't give a large enough playing field.

Eventually I restarted the design by working from the other direction: slowly adding aspects of the research into the design. Looking at what users would desire an approach to customisation of the dwellings was made. Eventually the design and research are more closely related with the addition of mass personalisation in little 'bonusses' that can be added to the modules. At this point the idea of mass production, mass customisation and mass personalisation were implemented into the design. Also, the theoretical framework was used as a guide for the mass personalisation of the building and how should users be involved. Together with the reflection on the architectural history of user involvement, this makes for a strong case of the adaptable Airey dwellings.

Aspect 2: The relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)

The project relates to the Make and Stock themes of the graduation lab. The Make theme tries to invent new products and push innovation, while the Stock approach is more aimed at giving the existing stock a new life instead of demolishing dwellings.

From my research it was clear digital manufacturing was needed to make personalisation possible on a tight budget. Together with the knowledge of Pieter Stoutjesdijk, choosing CNC milling as a production technique was sensible. The modules are designed extensively with making a full 3D model of the construction taking CNC milling as a production technique in mind. Also, it was considered to attach and de-attach modules over the future use of the dwellings. Therefore a solution for connecting modules and making them waterproof was necessary.

Revitalising the existing stock was done by bringing the technical state of the dwellings up to date, but also enlarging the dwellings as the common floor area has increased over half a century. Moreover the existing stock has been given an additional advantage due to the involvement of the

user, a growing theme in new build dwellings. Users not only choose the suitable floorplan, but also have the possibility to add a personalised part to the building. This, for example, enables them to pursue hobbies with specific needs.

Aspect 3: The relationship between the methodical line of approach of the graduation lab and the method chosen by the student in this framework

The studio has a clear line between graduation plan, research and design phase. They overlap, off course, but the moment to put focus on each of the parts is clear. With the given deadlines, following this approach is logical. Still, it could work against you at times. Because the research was way more theoretical, it was difficult to start designing as well as bringing the found result towards a design.

Because of the low work pressure after the initial P2 presentation the design of the project was moving very slow. This resulted in a lack of motivation spiralling back towards weaker design results. Breaking this cycle was difficult as deadline pressure was low. In the end approaching deadlines helped in producing presentable products. In the future it could be a good idea to let the project rest for a while instead of trying to push it further over many hours each day and week.

Aspect 4: The relationship between the project and the wider social context

While the dwellings are old, they are given a new life while addressing contemporary themes in new build dwellings. Many companies try to include the future user in the design process, or so they make it seem. In most cases users can choose options, or rather customise their dwelling. This is fine for general wishes and demands, but more could be better.

Enabling personalisation of the dwellings brings the mass production of dwellings more towards a better sense of home for the end users. They are better involved in their dwelling which strengthens the attachment to the dwelling and context. This highlights also the larger social context of mass housing without a sense of home for the users. Lack of a sense of home can have negative impacts on users and communities. These effects are countered by involving the user and enabling the creation of a community in the building block.

In short: the user is involved better in his or her future dwelling while at the same time improving the sense of home.