## Maintwinning

Two neighbouring houses in a residential street just a stone's throw away from the MFO-site (Maschinenfabrik Oerlikon) look like blasts from the past in an area where Ersatzneubauten are already firmly taking over. They look like twins: echoing each other's careful, almost introverted adaptations over the last decades: an extra skylight, a new porch, an extended front yard. Both private homeowners confirm that they actively align the outlook of their houses. Both also make space in their homes for other tenants, installing a culture of collective care and shared maintenance. How to maintain the quality of this collective care and agency through maintenance when developing new housing on the massive industrial scale of the MFO-site? This master thesis proposes a housing development that highlights and acts upon the existing structure of a former industrial hall at MFO. The design uses the scale of the terraced house with a «Vorraum» as an alternative collective garden. Flexible floorplans and double heighted spaces can be adapted, allowing for different kinds of households to move in.

130 years ago, the worker union of Oerlikon decided to build two twin houses providing homes closer to the working place of Maschinen Fabrik Oerlikon. Today, despite the change of the environment, the people and the cost of living the exterior of the houses have remained although the houses were not subject to any protection.

What can we learn from these privately owned houses?

With their own will, successive owners, with most probably no expert architectural knowledge, have kept the houses alive by modernizing the interiors step by step, as we can see in the evolution of the floor plans of those houses.

Beside the gardens, the main quality of the twin houses is their ability to adapt the floor plans. This flexibility has made it worth to keep the houses throughout all those years. A dynamism was created between the neighbors to exchange with each other every time they renovated or wanted to make changes. As an example, one owner built a skylight to inhabit the attic, the other decided to do the same. He came in the neighbor house to investigate the best solution. Both wanted to maintain, adapt to their needs, and create value with in their residences.

Considering this example how can we as architects englobe the vision that housing can adapt to the evolution of its inhabitants, environment and living standards whilst seeing the needs of the community? A proposed solution in this case is having an interior layout which remains flexible allowing for future resident to adapt their homes to their needs and wishes.

Architecture should also create an environment facilitating social interactions as basis for the dynamism between the residents. More importantly the gardens in front of the entries lay the foundation for sustainable social development within the community. As studied earlier in the semester, the twin houses thanks to having a garden creates interactions between the neighbors through the action of taking care of the garden. Here the project aims to induce residents to care for similar object (the gardens), artefact that creates a shared experience, exchanges and the identity strengthens with common interests leading to the evolution of housing. Changes made within a house will give the possibility to compare and exchange with neighbors. (Taking care for your garden will influence the care for your home). As we see today in Neu-Oerlikon, a fenced garden don't create this interaction. People are closing and hiding behind fences, to avoid this, the creation of a space, the equivalent of a « Vorraum » before arriving to the garden. This space can filter traffic and creates a more intimate feeling.

Residents should take ownership allowing to identify themselves to the project. Although the city of Zurich shall remain owner of the land the resident can become leaseholders (long terms tenants) giving them an ultimate motivation to maintain the long-term value of the property. A convention between the landowner and the leaseholder should manage all interior and exterior building aspects whilst trusting that the leaseholders will be the new designers of their surroundings giving them large room to manoeuver. The city can then trust their leaseholders to create an environment where habitants are able to invest in, not only live within the walls, but becoming architects of their homes. What will be similar housing at the start will evolve to individual housing meaning the housing should not remain frozen in time as good ideas can

benefit many. The property will have leasehold value which will be the buying/selling price. It should be carefully managed to avoid speculation or any other form of abuse.

The proposed design uses the existing rythm to create new townhouses with a small front garden. The grid of the new architecture is shifted from the original so that each house can experience the existing spirit of this old industrial hall in a form of a truss structure within the house. The existing facade will stay as it is, and a new street will be created at the center of the hall which will bring more light. Both ends of the hall will host a more public program such as a bike repair workshop, a café or a kindergarten.

With the above listed qualities of living, change and exchange the foundation of modern resilient architecture is laid. Each resident and each function have a set of requirements that support the community. Just by having a flexible room with beams that are pre-fabricated to accommodate new construction will make it possible to enable three different options of homes. It gives possibilities to numerable more combinations thanks to the imagination of the residents.