Urban Architecture Graduation Studio: Spolia

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> Technische Universiteit Delft July 2020

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Urban architecture

An urban architecture aims to redefine an environment through cross-scale design in which the public, collective and private realms are (re)shaped. It critically assesses and responds to urban sites by enhancing its qualities and addressing its shortcomings. New buildings should therefore aim to establish themselves as articulators of a broader intervention scheme. By doing so, both existing and new structures are bound together in mutual benefit. This relationship elevates the quality of what is found in our cities and is fostered by new buildings that have character and are not arbitrary.

spolia

Spolia is made of what is found in our cities, both material and immaterial pieces of former sites and building cultures. These fragments can be recomposed and incorporated into new structures, providing meaning, adding value and stabilizing them into the existing.

bricolage

Bricolage can be described as a creative practice that uses a limited and heterogeneous repertoire of available resources. It promotes reuse and re-appropriation of both material and immaterial values. Such re-imagining of found objects often results in new and uncommon meanings, while also embracing a sense of practicality and ingenuity. Adopting bricolage means looking at design practice differently. It becomes important to start by investigating the existing, the heterogeneous repertoire of our buildings and cities, looking for signs and ideas. These will form the starting point of future interventions.

New designs are to be developed in tandem with the creative reuse of existing structures, thus a position on reuse is also important.

reuse

Through a creative reuse that imagines new possibilities, the existing is used as a starting point for a new design. The idea is to highlight what can be a complimentary relationship between renewed structures and the newly added, rather than to stage a clash between old and new

pieced together

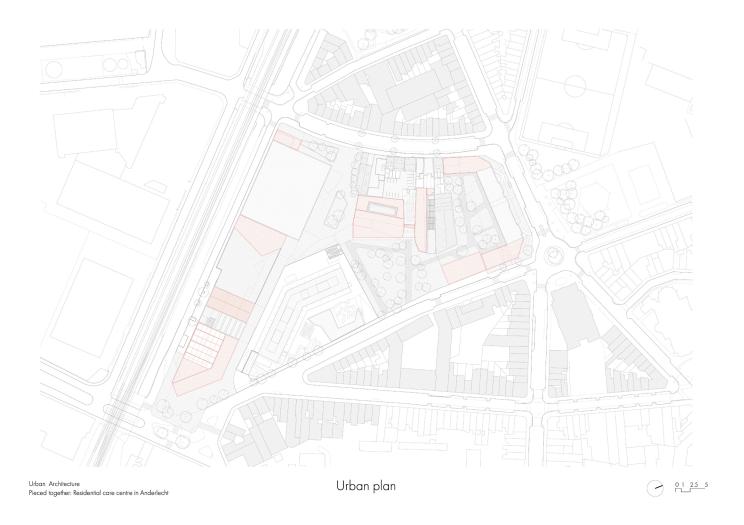
To piece together three modest buildings into one new building, in turn making them a valued asset on the site. I believe this project illustrates how, by working with what is already in place in our cities, we can add upon and improve urban sites. I advocate that this should happen by a creative reuse that pieces together old and new, generating new and meaningful structures. Through this practice, both ordinary and relevant buildings may have their lives extended, their qualities highlighted or their faults ammended.

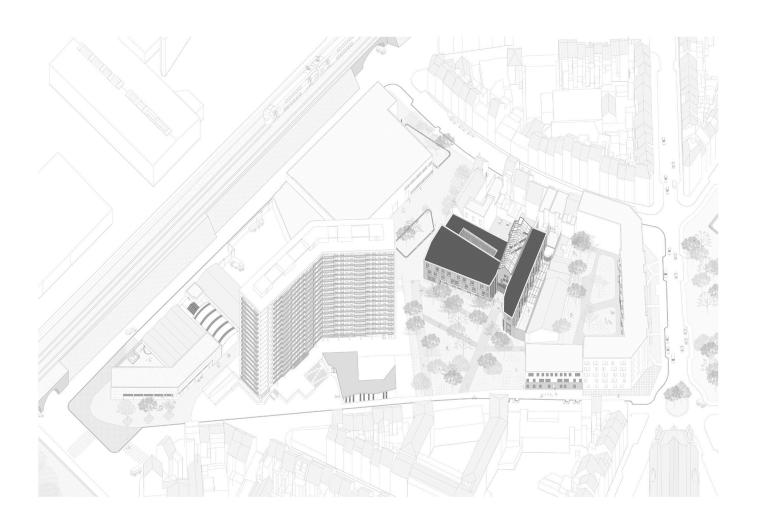
Piecing together means slowly building towards something new, taking fragments of what one finds along the way and making the best use of them. Indeed, the pleasure is the act itself, and the satisfaction is in creating an harmonious whole out of such fragmentrs.

Rue des Bassins - Anderlecht Belgium

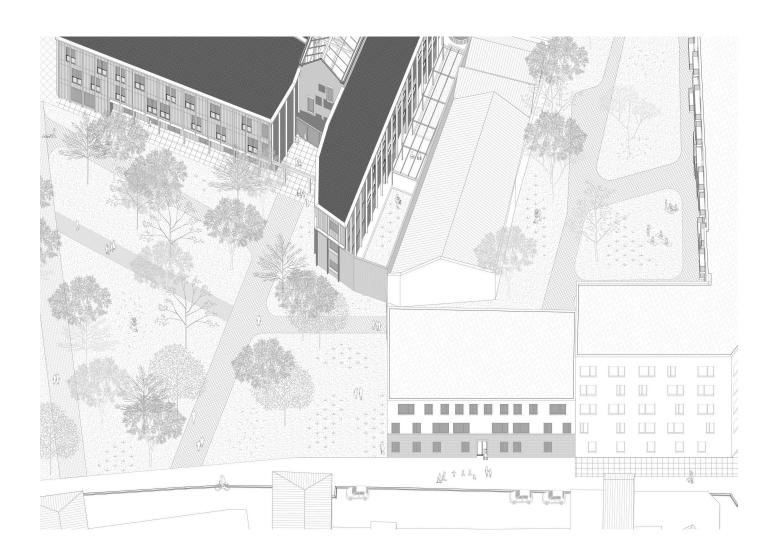


URBAN PLAN

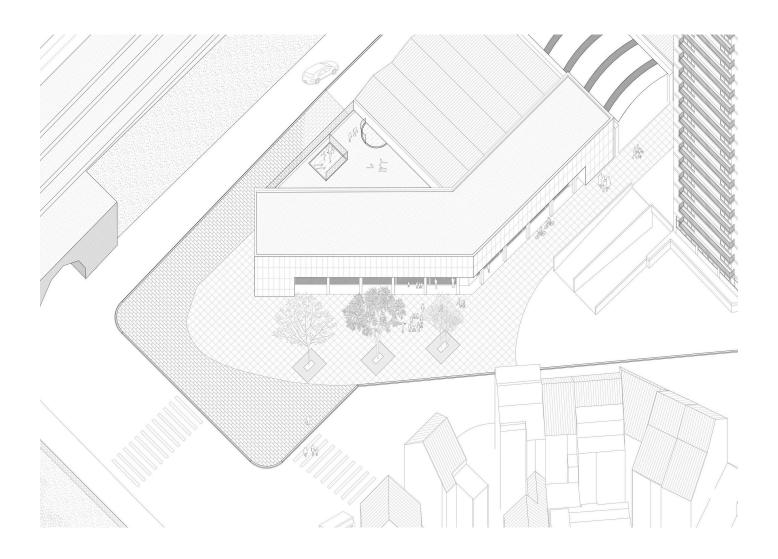


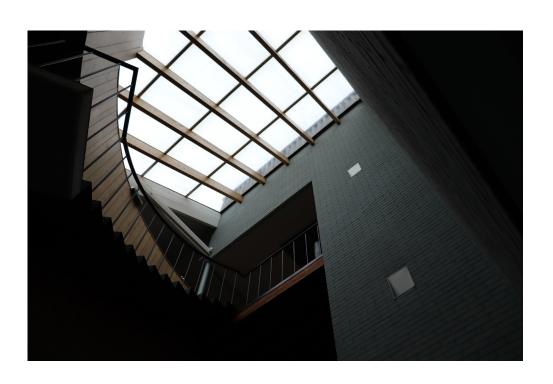






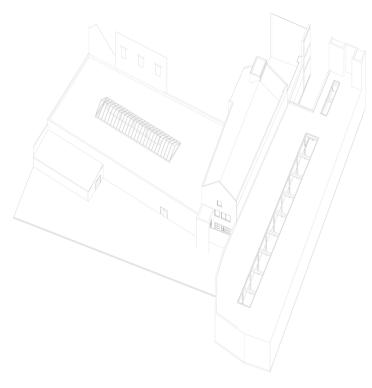






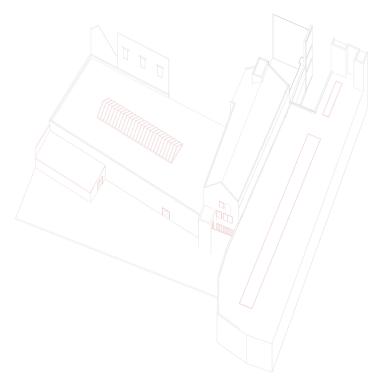
"When we see people from abroad they tell us this is like a magic box. Because every door you open its another building."

Executive of Belgian Sanitary Company during a tour of the building. Filmed by Sam Stalker.



Urban Architecture Pieced together: Residential care centre in Anderlecht

existing



Urban Architecture Pieced together: Residential care centre in Anderlecht

DEMOLISHED





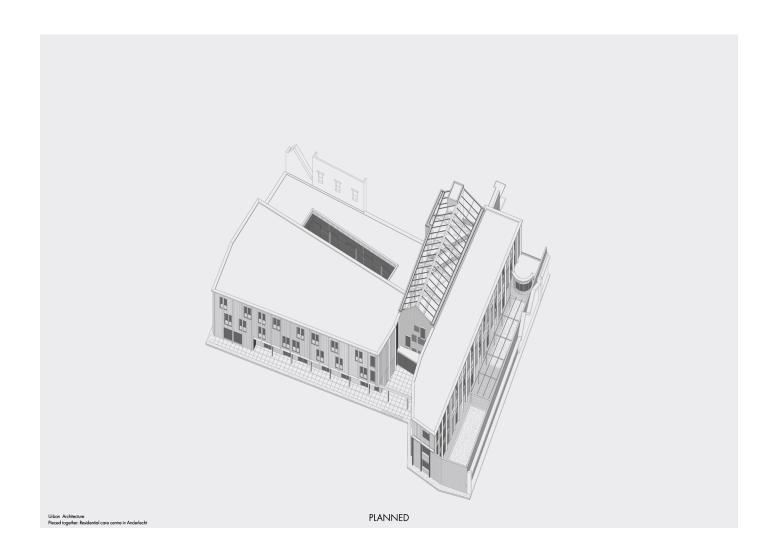
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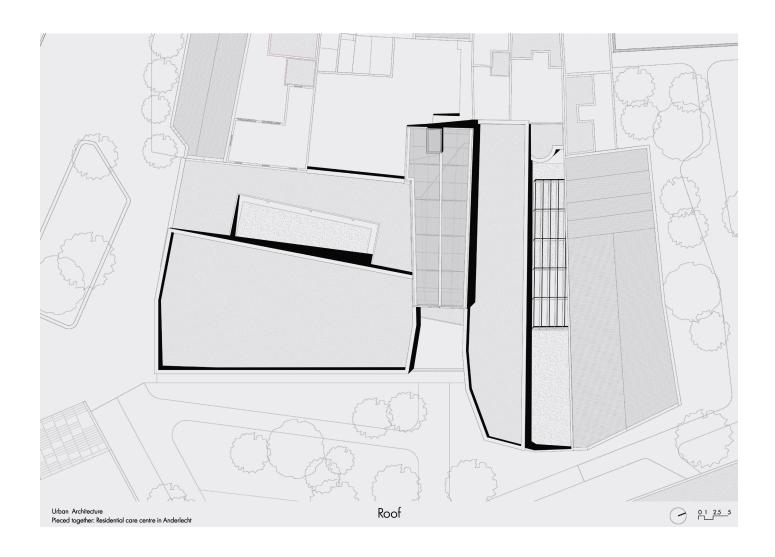
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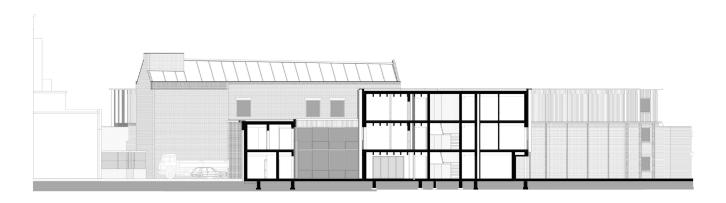




Latitudinal section

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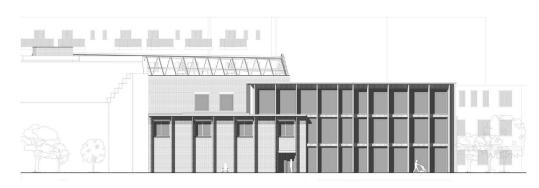




Longitudinal section

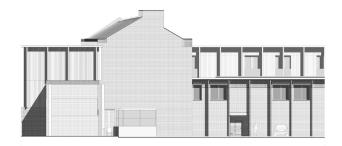






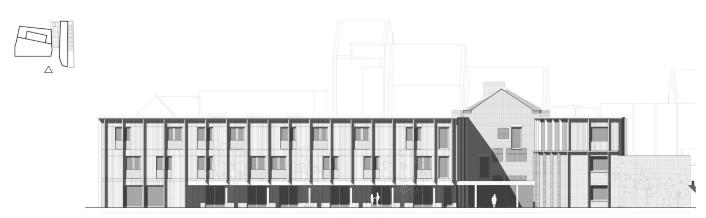
South elevation





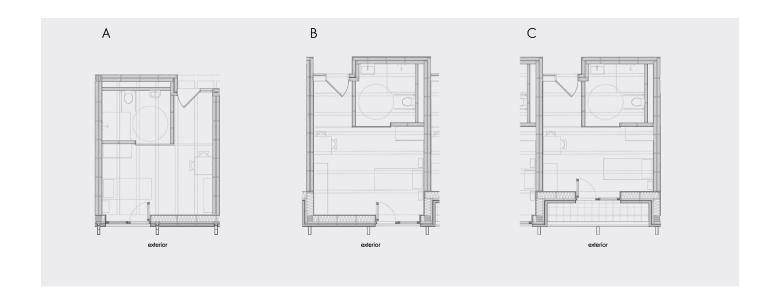
West elevation





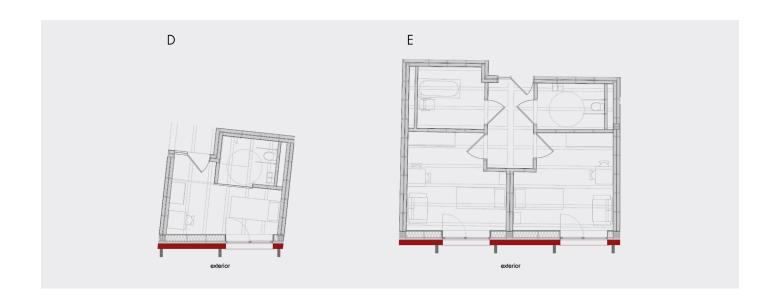
East elevation





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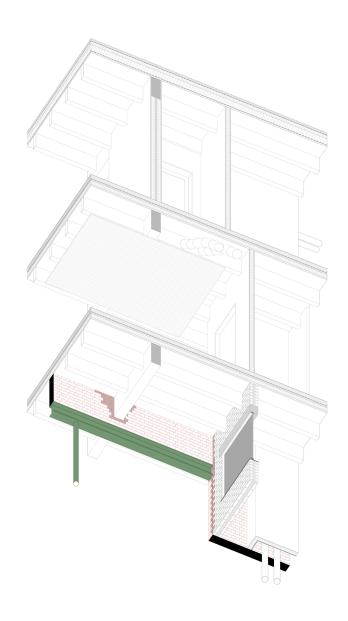
Urban Architecture Pieced together: Residential care centre in Anderlecht Rooms



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Urban Architecture Pieced together: Residential care centre in Anderlecht Rooms

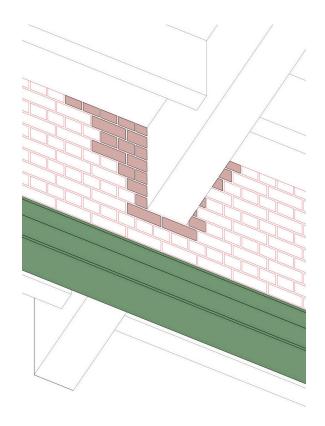


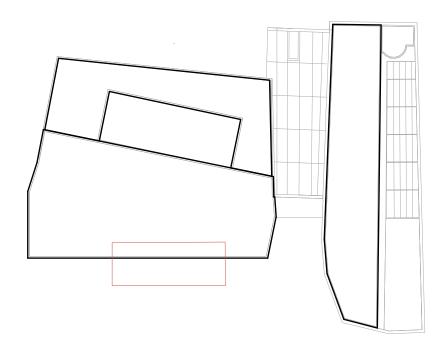


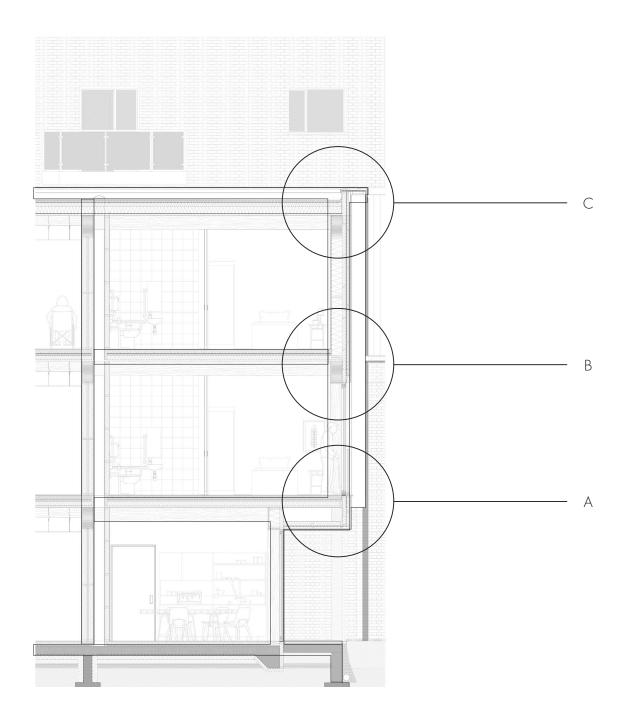


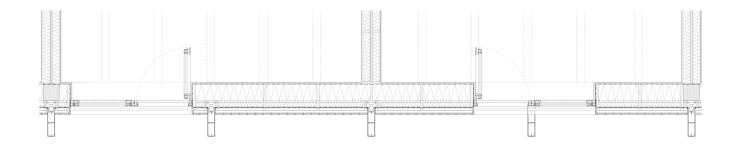


Urban Architecture Pieced together: Residential care centre in Anderlech



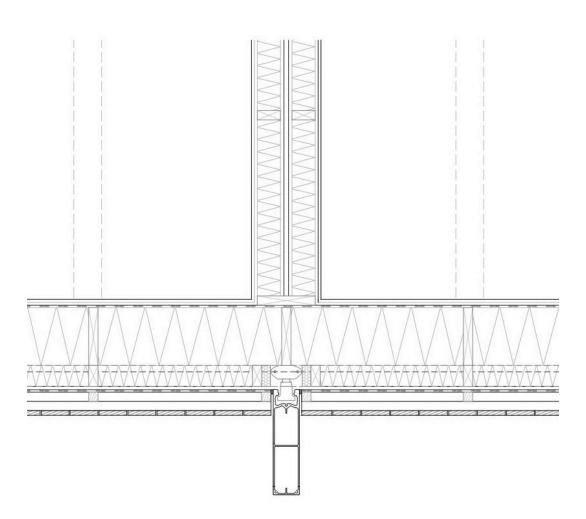


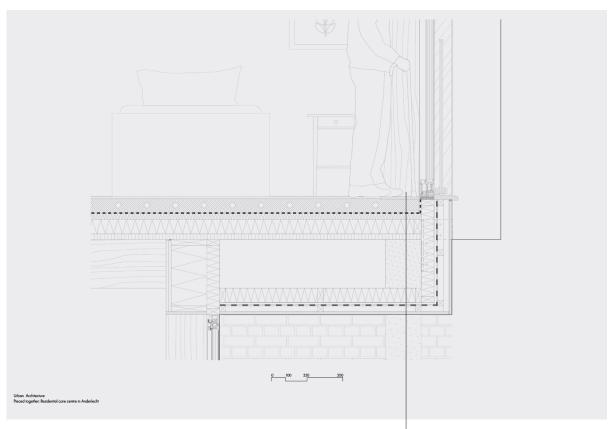




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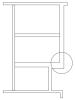


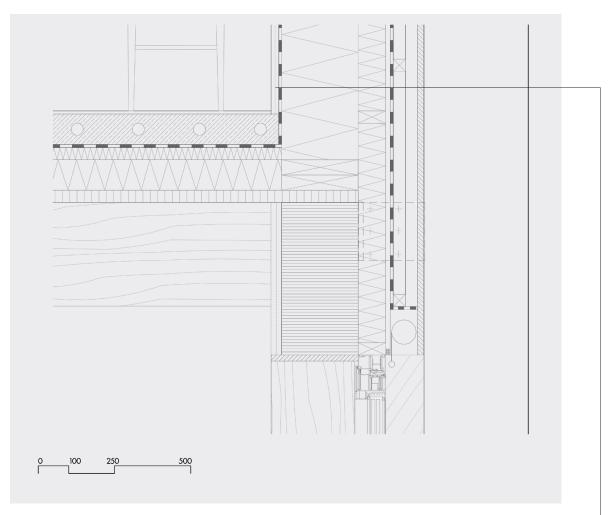




Detail A

Floor:
10mm PU floor
100mm Screed w/ subfloor heating
40mm footfall insulation
90mm thermal insulation
40mm LVL board (BauBuche)

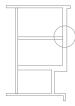


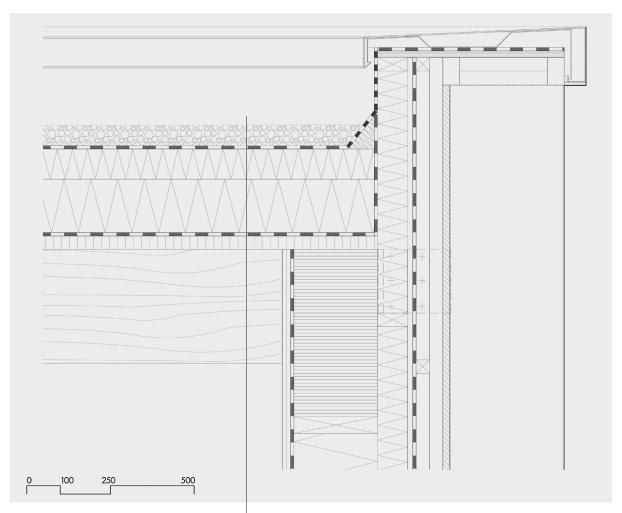


Detail B

Wall:

2x 12.5mm gypsum plasterboard
250mm wood fibre insulation
90mm insulation
15mm fiberboard
waterproof membrane
2x40mm wood battens
20mm back ventilated reclaimed brushed timber planks





Detail C

Roof:

60mm gravel

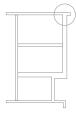
Waterproof membrane

250mm tapered insulation

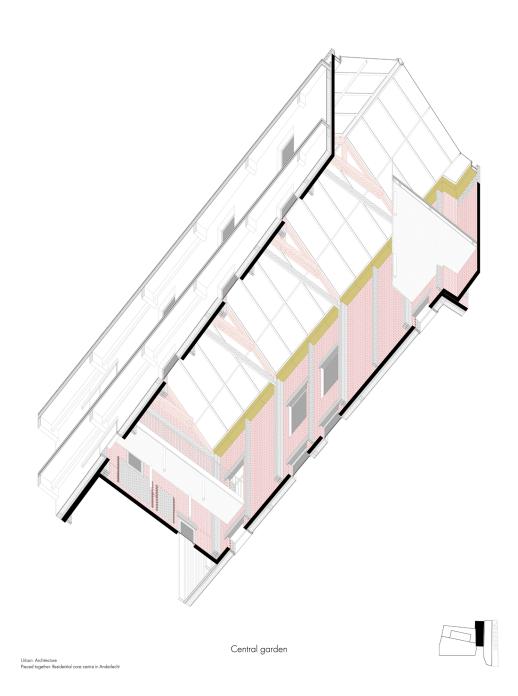
Vapour barrier

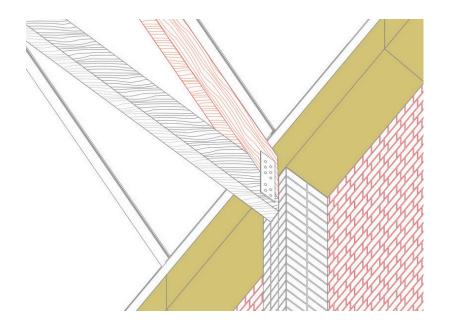
40mm LVL board (BauBuche)

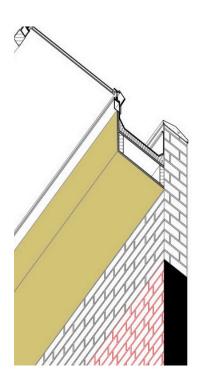
320mm laminated timber ceiling beam

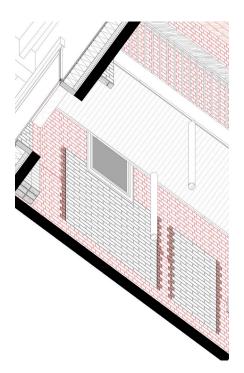


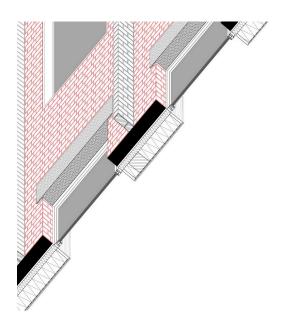


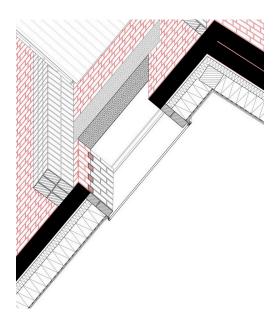


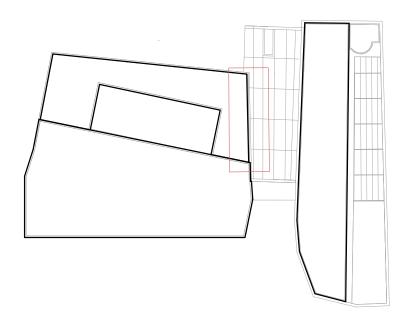


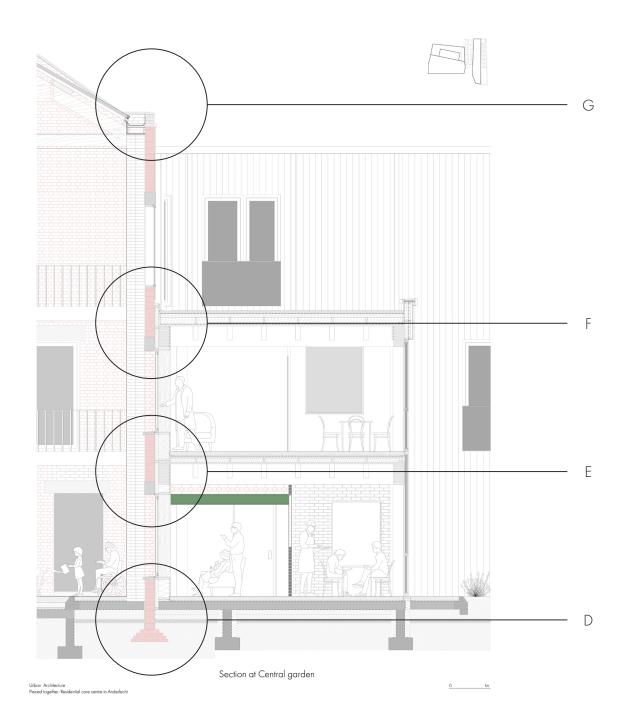


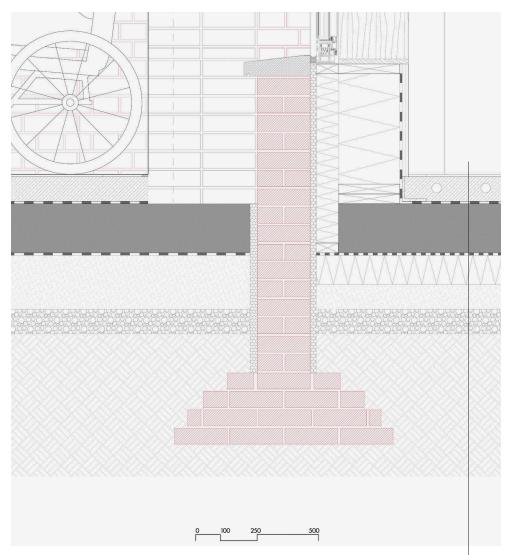






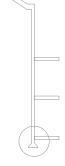








Floor:
10mm PU Floor
100mm screed (underfloor heating)
40mm footfall insulation
100mm thermal insulation
200mm reinforced concrete
waterproof membrance
120mm insulation
compacted sand and gravel layer

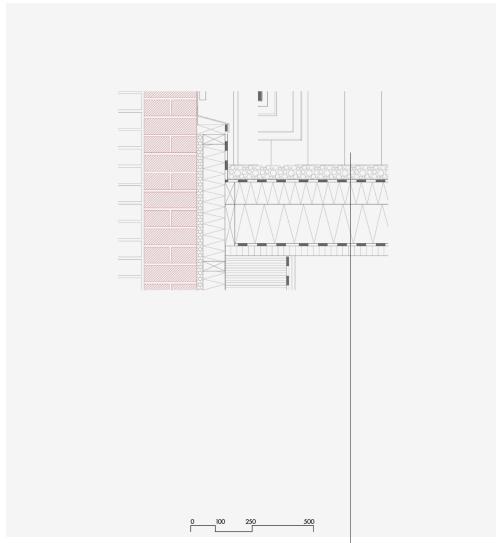






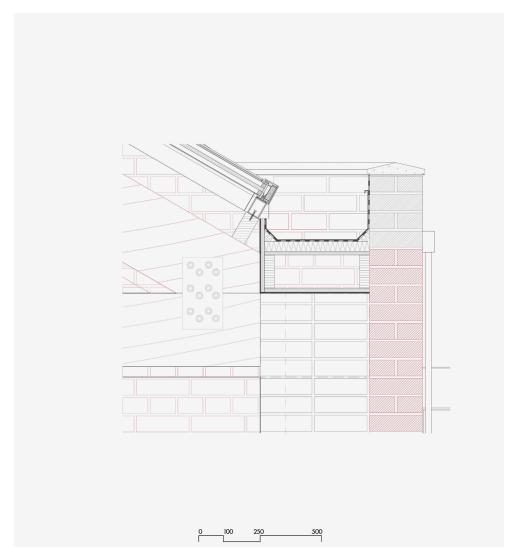
Wall:
Existing brick wall 225mm
25mm cavity spacer (Surecav)
250mm wood fibre insulation
90mm insulation
2x12.5 gypsum plasterboard



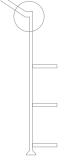


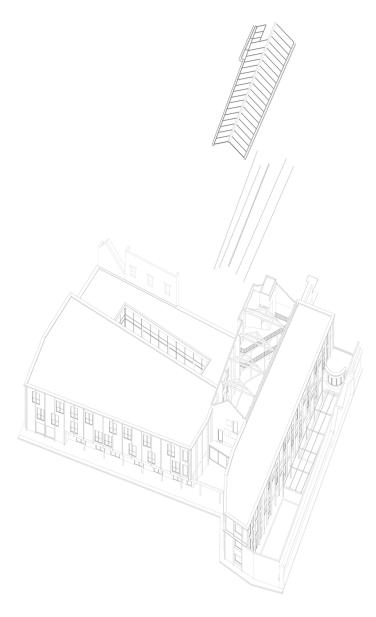
Detail F

Roof: 60mm gravel layer waterproof membrane 250mm tapered insulation 10mm vapour barrier 40mm LVL board (BauBuche) 320mm laminated timber beam

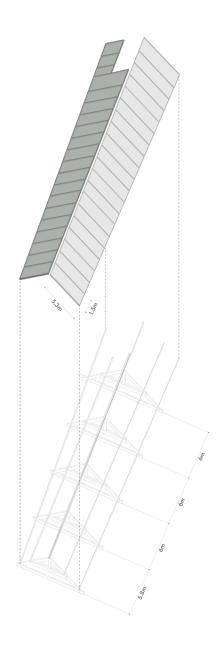


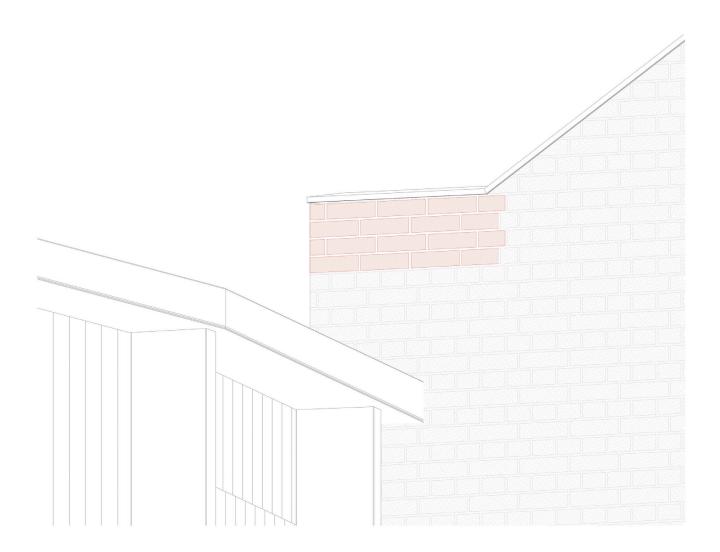
Detail G



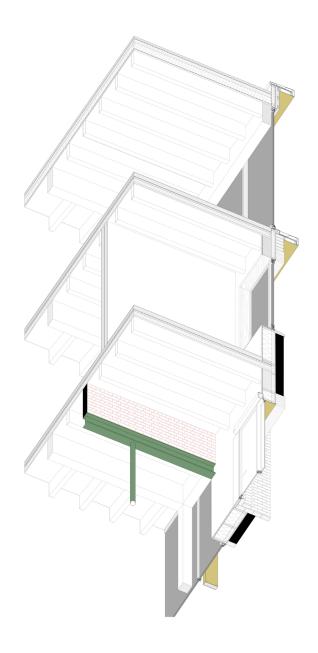


Urban Architecture Pieced together: Residential care centre in Anderlecht GLAZED ROOF





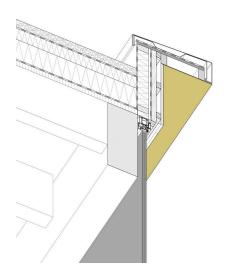


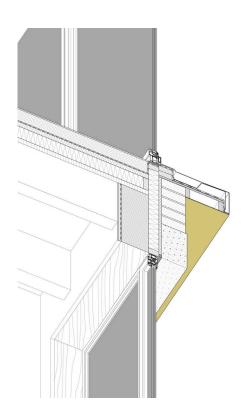


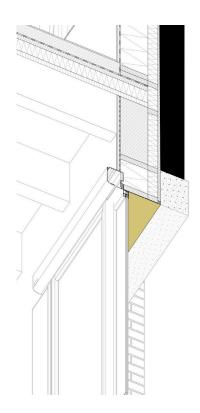


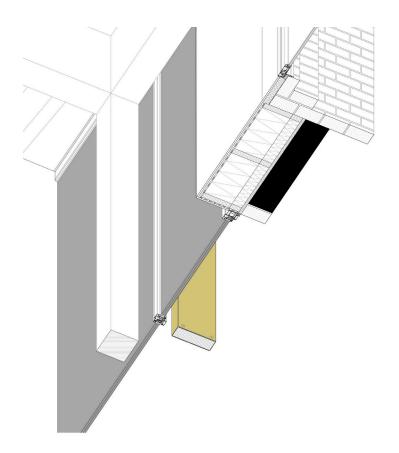


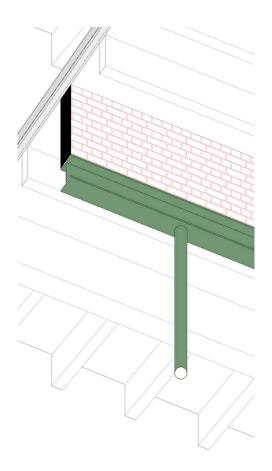
Urban Architecture Pieced tagether: Residential care centre in Anderlech



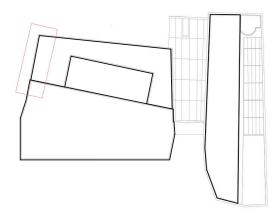




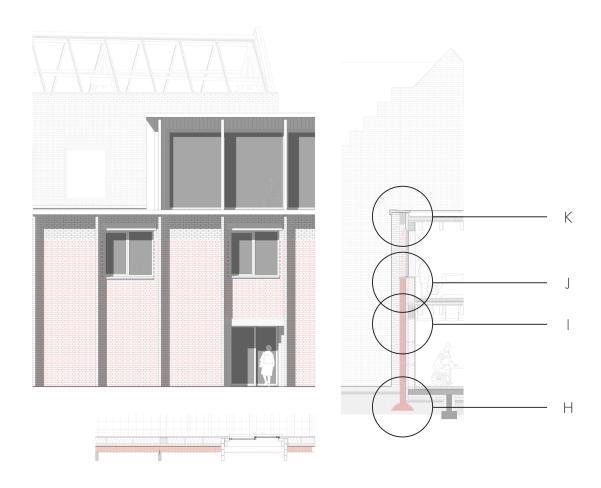








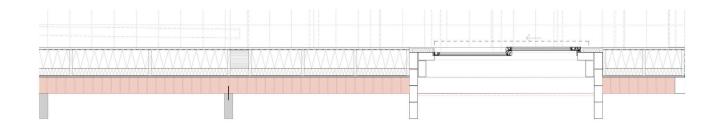




South façade (Square)

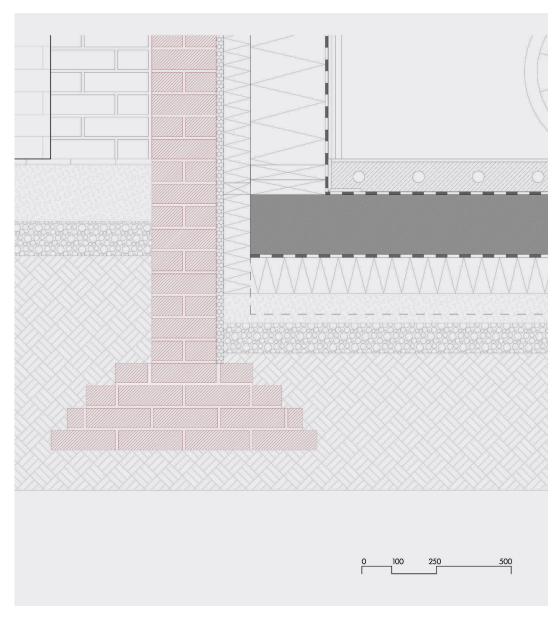
Urban Architecture Pieced together: Residential care centre in Anderlecht

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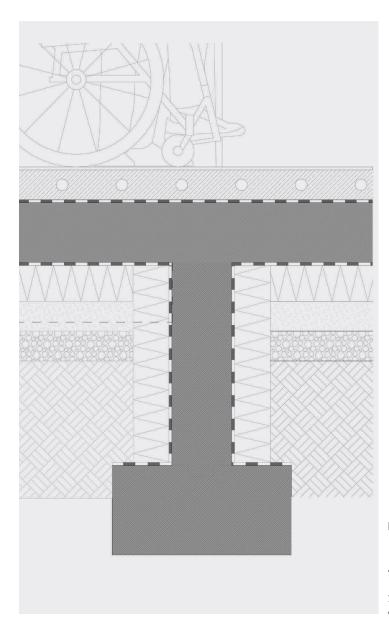




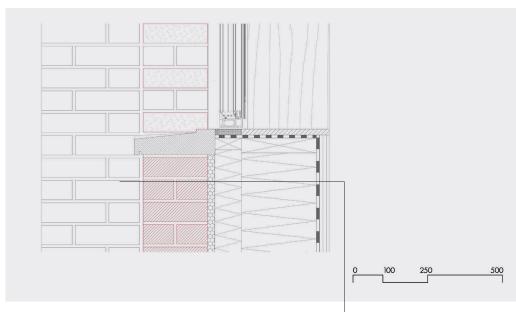








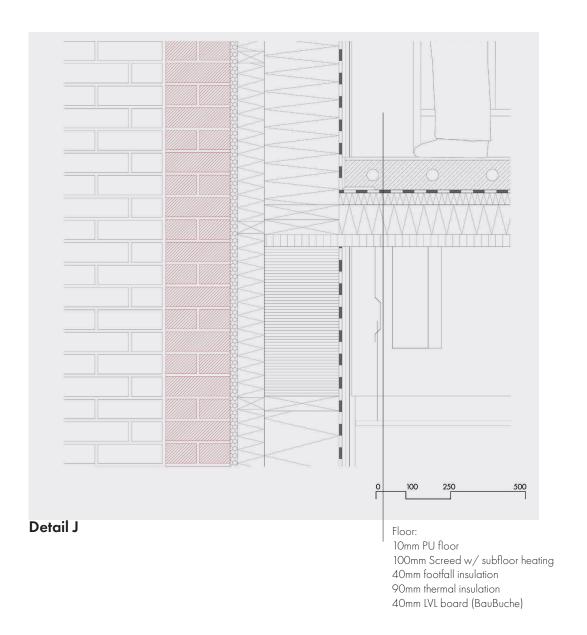
Floor:
10mm tile floor
100mm screed (underfloor heating)
40mm footfall insulation
100mm thermal insulation
200mm reinforced concrete
waterproof membrance
120mm insulation
compacted sand and gravel layer



Detail I

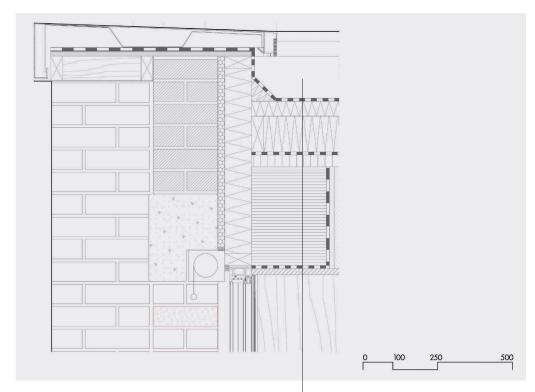
Wall:
Existing brick wall 225mm
25mm cavity spacer (Surecav)
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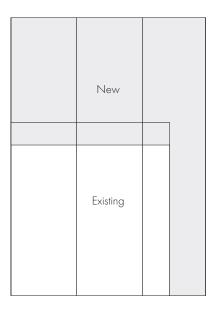
Souuth Façade (square)



Detail K

Roof: waterproof membrane 250mm tapered insulation 10mm vapour barrier 40mm LVL board (BauBuche) 320mm laminated timber beam



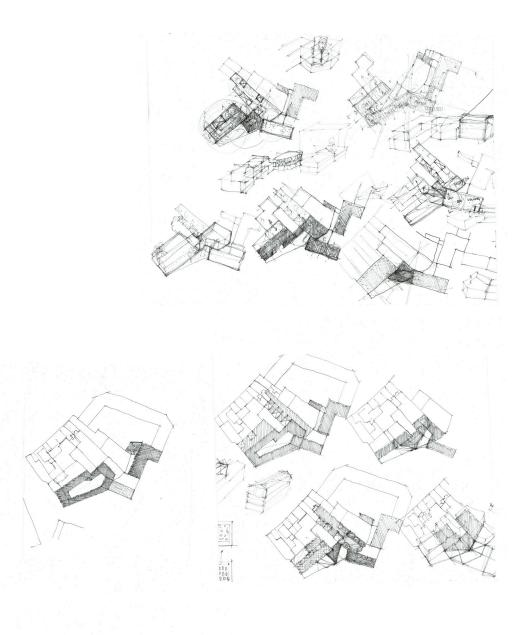


Souuth Façade (square)

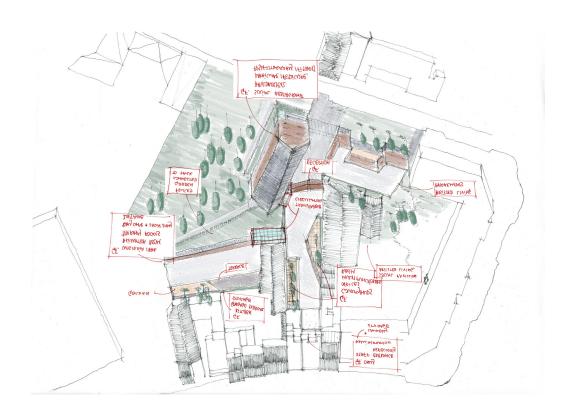


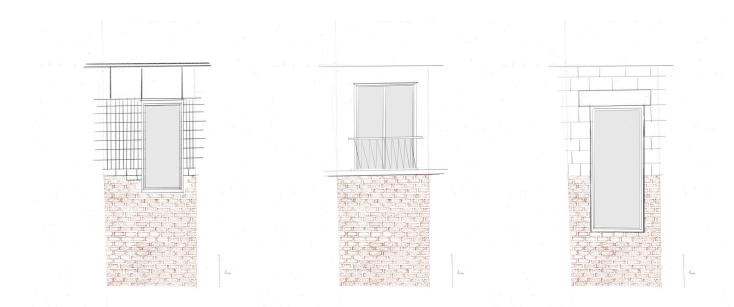


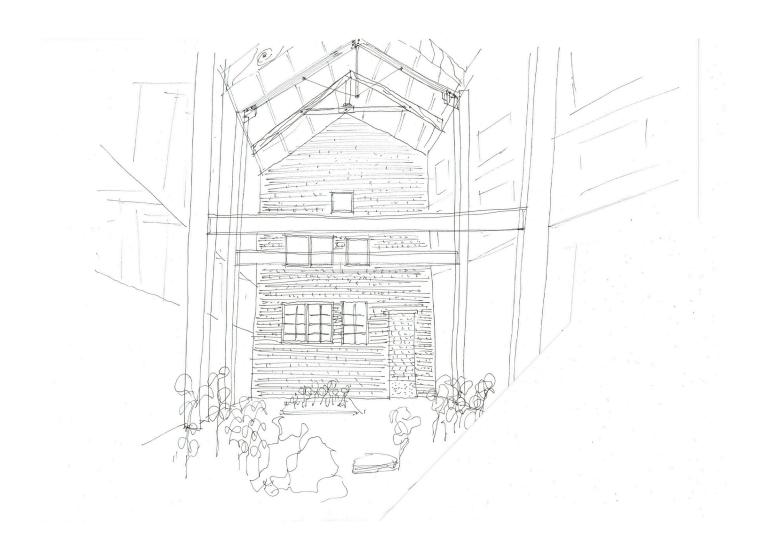












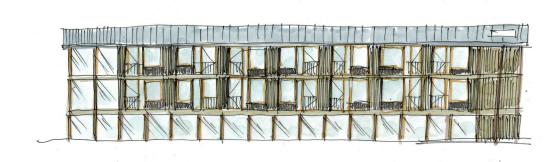












REFLECTION

Reflecting upon the work which I've been immersed in for months is challenging, but I look back in joy at everything I have learned and how I have responded to the challenges of the studio, with the help of all tutors and colleagues. In my journey at the Urban Architecture: Spolia graduation studio, I have come to learn a lot from tutors, from my research and also throughout the development of the project. I believe that reflecting on my position towards the theme of spolia and the chair of Urban Architecture is an important first step. I will then look back at how the research on bricolage helped establish a framework for the design, reflecting also on the theme of reuse. Finally, I look ahead at what I plan to realize in the later stages of the graduation period.

An urban architecture aims to redefine an environment through cross-scale design in which the public, collective and private realms are (re)shaped. It critically assesses and responds to urban sites by enhancing its qualities and addressing its shortcomings. New buildings should, therefore, aim to establish themselves as articulators of a broader intervention scheme. By doing so, both existing and new structures are bound together in mutual benefit. This relationship elevates the quality of what is found in our cities and is fostered by new characterful buildings that are not arbitrary.

The urban design proposal addresses the site in Anderlecht by providing a new and articulated scheme upon which a building design would be further developed. The centre piece of the site is the proposed residential care centre which is sited on an urban infill, surrounded by a park, a square and a row of existing housing buildings. I sought to enhance the qualities of what was already there by

keeping the majority of existing buildings, while public spaces are kept and ameliorated by adjacent new buildings. The proposed new building forms then refer back to the existing. I believe such approach promotes an architecture that greatly benefits from fostering a strong relationship with relevant existing structures. Therefore, the theme of spolia became central to the development of the design. Both material and immaterial pieces of former sites and building cultures can be seen as spolia. These fragments can be recomposed and incorporated into new structures, providing meaning, adding value and stabilizing them into the existing. In the case of my project, three existing buildings can be said to be part of the spolia. In many ways, they provide the starting point for the project, as it set out as an exploration into how to piece different buildings together to make a new whole building.

The project of a residential care centre as the centre piece was a response to the approach outlined above. I believed that bringing a new age group into the site would be interesting and benefit both newcomers and current dwellers. The tenants of the residential care centre live in a protected environment adjacent to an urban park and square, and the building has a component of communal use for the neighborhood in the form of a social restaurant. Although the project is not a deep exploration into this typology, I argue that these buildings have a place in our cities, and can be developed in sites such as the one being studied. In the process I've learned that committing to work with existing structures requires one not only to understand site specific issues and conditions, but to take a position and develop a way to work within these conditions and take advantage of

them. This is where my research on bricolage became helpful. Through research, I've explored the theme of bricolage and its possibilities for architecture. I was previously unaware of it, and how it could relate to the overarching theme of spolia. Bricolage can be described as a creative practice that uses a limited and heterogeneous repertoire of available resources. It promotes reuse and re-appropriation of both material and immaterial values. Such re-imagining of found objects often results in new and uncommon meanings, while also embracing a sense of practicality and ingenuity. Adopting bricolage means looking at design practice differently. It becomes important to start by investigating the existing, the heterogeneous repertoire of our buildings and cities, looking for signs and ideas. These will form the starting point of future interventions. New designs are to be developed in tandem with the creative reuse of existing structures, thus a position on reuse was also important. Through a creative reuse that imagines new possibilities, the existing is used as a starting point for a new design. The idea is to highlight what can be a complimentary relationship between renewed structures and the newly added, rather than to stage a clash between old and new. The research into bricolage started by studying relevant literature on the theme, its relationship with the field of arts, and finally with architecture. The texts of the architecture critic Ireneé Scalbert were very valuable in the process of understanding more about adopting an approach to architecture which is related to bricolage. By adopting the role of bricoleur in developing the design, the methods and tools also had to be adapted. I realized in the process that to fully explore the possibilities of bricolage in architecture, I had to tackle it in a practical way. To

piece together three buildings, I had to struggle with the inventory of spolia I had set aside for myself to work with. I believe the project can serve as an example of how buildings can be pieced together to form new whole buildings, acquire new functions and how this practice can redirect and reshape urban sites

I am grateful to Aurelie, Paul and Jos, for the help and guidance during this process. And I am specially grateful to Maiara, for enduring the process for a whole year and helping me reach the finish line.

> Pedro Henrique Figueiredo Magalhaes July 2020