

Reflection Paper

MSc4, Graduation Studio, Urban Architecture
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1. Introduction: the relationship between graduation topic and the studio topic.

When taking the decision on which would be my graduation studio, my goal was to choose a theme that is of particular importance to the scenery of architecture in these times and for future ones. The intention was to find a topic that would involve strong contemporary demands, that I would encounter or have to deal with in my future career. That's why I felt the need to choose the Urban Architecture studio: the explanation in the pamphlet of the theme of spolia, clearly showed even in a concise description the opportunity to face something that we deal with constantly, the existing. While change is a perpetual feature that shapes the urban environment, directing the living of the cities towards new ways, the elements that allow the identity of the places to not be lost is the concept of spoils, of remains, of traces of what has been before. In a way, the transformation includes a conversion between past, present and future, a blend between the three, in which each of them represents a crucial element. This three-way relation is always different, based on how strong each element's presence is in any given context. The spolia represents the transition between these three elements and it is the architectural incarnation of their relation. It is evident then how much this concept is pivotal, contemporary and inevitable in today's context. This is the reason why, when choosing this studio as my graduation studio, the idea was to not just find a topic of my interest for research that would lead to a design, but to deal with an argument through the design itself, that I would always bring me in my future work. Thus, I found a research and design path that would provide me with a greater perspective, that would become for me almost a black swan event. This term is used in finance to refer to an unpredictable event that has such a strong impact on us, to completely change our perspective after it, shaping our view in a new situation in which the facts are irreversible. This theory comes from the metaphor of an old European assumption that only white swans existed before black swans were discovered in Australia in 1697.

I believe this metaphor can be applied to my situation in the sense that, without the element of surprise, this graduation project would change my perspective in an irreversible way, that would have a high impact in my approach to designing and to perceiving the built environment. Throughout this reflection, it's going to become apparent how this studio has shaped my attitude towards urban architecture.

2. The relationship between research and design.

Within the studied topics of the studio of Spolia and Bricolage, I chose to further develop my research on a specific facet of the themes, which is material reuse, in particular second-hand construction. This topic is strikingly valuable to contemporary demand, given the fact that there is a considerable amount of buildings and building elements that do not carry a value that is strong enough to be considered historical or cultural heritage. Moreover, these elements are largely incorporated in the transformation processes of the urban environment, but their life span is usually linear, as they are discarded eventually for the most part, instead of being reincorporated in the process of change and included in future designs.

Furthermore, there are two considerations for which material reuse should be included circularly in the process of architectural transformations.

The first one relies upon the very meaning of Spolia and Bricolage: through the reuse of second-hand materials, that involve the whole stratigraphy of urban architecture, there isn't only a mere exchange and adoption of matter, but there is an engagement of traces of various places, architectures, cultures and histories. The single element, for how small and unimportant it can be, respect to the whole puzzle, carries a much greater value when reused, that will bring to a final bigger picture.

The second consideration consists of the fact that there is a limited amount of resources available in the material environment, and even if the moment in which they are going to be finished seems in a distant moment, that point

is going to be reached sooner than we think. Thus, it is of extreme relevance to start learning now the possibilities of second-hand construction materials, the processes and limits to overcome, as well as the potentials. It is then clear that the value that the spolia assume within this process, in particular, is related to monetary value, durability, and sustainability.

Given these motifs, this research on material reuse can become a sort of a guide for a new design approach, in which every traditional step to analysis and design is questioned, and every single element's affordance is reconsidered, allowing for a new perspective to the urban environment. This concept was more easily graspable through the introduction of what Rotor does, the company of material reuse in the project site. Through the visits to the company and the help of some of the people working there, it was possible to observe and understand of how they perceive and approach the matter, the way they rethink how materials and pieces that they collect and find, envisioning what they can afford in a new unconventional way. It is thanks and through them that it becomes more and more evident the blurred line between research on the materials and design.

For this to be understandable, it is necessary to specify the relationship between research and design. This can be observed that the design process is reversed respect to the familiar one that we normally follow: while the latter would start with the design and arrive at the choice of the materials through the process until the end, this unconventional process in question begins with selecting and choosing which materials are available, realizing if they can be reused and readapted, and then, based on the conclusive research of which materials can be utilized, the design follows it and goes hand-in-hand with it. This is in fact what I tried to simulate in the most realistic possible way considered the situation, through my project and research.

3. Research method and approach chosen by the student, touching upon the transferability of the project results.

The approach that I chose to try to use, as previously explained, consists of the tentative of simulating in the most realistic way possible in these circumstances what would mean to try to reuse second-hand construction for my design.

Through the different lectures, interviews, explanations and research, I realized from the very beginning that I was facing a very complex topic from different points of view. I soon became aware that this unconventional process comes with different issues that need to be taken into consideration. Firstly, it was soon evident that it is very difficult and almost impossible to reuse every element of a building, and vice versa that it is very difficult to completely adopt reused elements for a full project. Thus, I considered from the very beginning that I would have to try to reuse as much material as possible, but at the same time being aware that some parts would need to be adopted as new elements or adapted in some way.

Furthermore, I tried to follow the process as Rotor did, as they represented a sort of a guide for me on how to approach this research and design. This meant discovering materials and the usability of these materials in a sort of an unconventional way, not followed by the book, but discovering it step by step. This meant searching and looking around the site of the project understanding the material flows, the most typical and traditional elements that I could find, looking for demolition sites, and available materials.

This meant working in a way comparable to the work of the Bricoleur, collecting and gathering the resources at hand, and then making do by applying combinations of them, assembling them in unconventional ways.

Thus, I looked around the site, around Anderlecht and Brussels to create for myself a category of three sources of reuse. The first one comes from the site itself. When designing the master plan in the first phases of the project,

there were some buildings that I planned to demolish: these would be the first ones to be taken into consideration. The second source comes from what I call contemporary demolition: through a series of sources which include future projects and websites that regard permits of demolition I could find a great repertoire of buildings that are due to demolition. These would allow for a more variegated and less limited sort of stock of possibilities. Finally, when the other sources fail the design plans or necessities, there comes Opalis, an online database of the major resellers of reclaimed materials, that comes from not only Belgium but also from other countries (Netherlands, France, even United Kingdom). This represents an unlimited repertoire of any kind of material from the structure until any type of fitting, that can allow overcoming all the several restrictions there can be created from the limited material availability of the first two types of sources.

4. Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework.

While developing this set of sources, the design process consisted of choosing and selecting which structures and materials to reuse out of the available repertoire, and where to adopt them in the site in my project.

This type of research was conducted in parallel with the development of what my project would consist of terms of the necessity of program, use and social needs in the selected site. The project is developed through the realization of a bricolage of buildings: a sequence of buildings that would create a new pedestrian front, from a former, almost ravaged rear, that would alternate between existing and new additions- meant as reclaimed. Within this new architectural environment created, my project consisted of trying to reuse also the program of some of the buildings that are due to demolition in Anderlecht. The reason for this choice is given by the fact that some of the programs that are going to be removed by the dismantling of those buildings, is extremely valuable to the community of Anderlecht. I am in particular referring to the Citygate Studios building, in which there is a series of varied functions that are hosted in that building and that I decided to re-adopt in the site project. When I visited that building I saw that it represented a pivotal core of a community of people coming from the neighbourhood, from Anderlecht, and even from Brussels. In this building they were hosting a series of different programs the following programs: the only bouldering club in Anderlecht, a skate park, and a large series of productions temporary hosted there, that ranged from workshop spaces, production, cultural and events spaces, music and recording studios, pictorial areas, small artisans and so on.

Thus, it becomes evident how the approach of reuse can be also adopted more openly, following not only the physical sphere but also the community needs. Of course, these choices had to be combined with the tentative of the addressing of the current issues and demands of the site, which include for instance lack of safety, the need of more housing, the combination between the rising living and working co-existence, a typical feature found in Brussels, and the need of the reconstitution of the community feeling that has slowly faded in the neighbourhood in the past few decades.

5. The ethical issues and dilemmas you may have encountered in doing the research, elaborating the design and potential applications of the results in practice.

Several issues have been encountered through the process both of the research and the design in this topic. Firstly, given the fact that this approach is considered relatively new in today's context, in the sense that a few companies and entities have adopted this approach until now, the very first issues consistent and the procedure of research and design. This process is a messier one, and it is a resource-based process, it is not something that

can be easily structured. Once understood the sort of mentality of the bricoleur, this obstacle was easier to overcome. Although small fractions were always encountered while researching and elaborating a design with reclaimed materials: the proceeding of the design consisted of a combination of guesswork, assumptions, and intuition, which very often resulted to be not applicable. Moreover, many processes had to be skipped for the sake of the design, but that in real life would have to be considered and would represent strong limitations to their reclaimed material adoption. On the other side, these issues found the represented limitations on one aspect, where are useful for me to understand which other aspects and elements would allow more potential of use. A simple example can be is close to a very common material in Belgium: the brick. Bricks that belong to buildings that were built before the 1950s, for the most part, can be reused, but the ones that belong to buildings that have been after the fifties/sixties are assembled with a mortar that is more cement-based and does too hard to allow the dismantle and separation of them. This can represent a huge limitation for the buildings that have been built after the 1950s on one side, on the other side it can represent an opportunity for the adoption of spolia in whichever project is going to be adopted in. These brick walls, in which the single elements cannot be separated, can now be adopted as full façade portions that can become part of the design. There are currently studies and how facades of this kind can be assembled or used as elements in the urban architecture environment.

In conclusion, it could be said that there are many limitations that the research and the design following this concept of claiming second-hand construction and salvaged materials, but on the other side, there are many more aspects that I gained from this path. I learned flexibility of reuse and adaption of spaces, I learned the appreciation of the structures of the existing and of the reused in a way in which they can be fully embraced, collaborate, and highlight the identity of the place; I gained knowledge regarding which construction elements can be reused and which might be too difficult to salvage, and that the economy of means has to be taken into account: sometimes there might be needed to much work to reuse a certain element, and at that point, it is easier and more convenient to use new elements. But mostly, I gained a new perspective that I can take with me for my future works. This graduation research project represented the previously mentioned black swan event that I believe is extremely needed in these consumption-based times.