DESIGN BASED RESEARCH FOR VALUABLE PROGRAMS IN THE PROCESS OF ADAPTIVE REUSE

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ABSTRACT

Historical buildings define the view and character of villages and cities, but some lose their function because of social, economic, politic or religious changes. Without a suitable use, it is difficult for owners to conserve their property. Adaptive reuse has proven to be a useful solution. However, the research and practise to fitting new programs in existing (historical) buildings is rather complex. Not every heritage site can be transformed into a museum, hotel or concert hall as lever for economic or touristic regeneration.

To find suitable programs we need to understand current contextual demographic, ecological, economical and technological transformations. Different interpretations of one situation are possible. But a lot of this knowledge is not pre-structured and asks careful moves towards a problem definition. Architects and designers can play a role in analysing transformations of the building and its context and in establishing suitable programmes. Their scenarios and visualizations can open up a debate with all stakeholders. This paper considers the role of education in this process by focussing on the design studio of the Master students in Interior Architecture as a laboratory for developing programs. We organised a design assignment of 12-week on the reuse of a monastery, for which students had to develop a master plan. External experts and various stakeholders were involved throughout the process.

Keywords: Adaptive reuse, concept development, participation, religious heritage, action and design based research, master plan

1   INTRODUCTION

Historical buildings were once common beacons in the social and spatial fabric of villages and cities, but some lose their function because of social, economical, political or religious changes. Without a proper use private and public owners are challenged to conserve their property. Adaptive reuse has proven to be a valuable solution (Plevoets & Van Cleempoel, 2013). But defining a new program for (protected) historic buildings is rather complex.

To find suitable programs we need to understand current contextual transformations like simultaneous demographic, ecological and economic challenges, technological evolutions, governmental changes, etc. A complex and widespread set of symptoms and effects, mark these processes in the spatial and social environment of people. Additionally, heritage sites often face a lack of budgetary resources, while one has to be careful to define the real problem. The creation of a public debate out of participation can make the deciding frictions visible (De Bie & De Visscher, 2008).

Architects and designers can play a role in analysing transformations of the building and its context and in searching for possible programmes (Lawson, 1980 & van de Weijer, et al 2014). Architects usually make an analysis and present possible solutions in a visual way by means hand drawings, plans and

Karen Lens, Koenraad Van Cleempoel

section, models, 3D computer images, etc. (Loeckx, (ed.) 2009). Their images can open up a debate with the different stakeholders involved in projects of adaptive reuse like regional or local administrations, heritage societies, (future) owners, (future) users, people living or working in the neighbourhood and others depending on the particular situation or building type (ed. Sanoff, 2007). How can we confront design students with this complexity during their education? Can we use a design studio as a laboratory to develop alternative approaches in the search for programs in the process of adaptive reuse?

Our methodology is design-, practice- and participation based. In this paper we analyse the run up to, process and results of one studio assignment. During design class we work on adaptive reuse of two monastic sites with 16 master students. The studio angle consists of a focus on concept development and the creation of reuse programs starting from the character and nature of both the site and its surroundings, with attention to tangible and intangible influences. Brooker (2009) described adaptive reuse as a course of action that involves the study of structural and physical elements but also the analysis of concealed matter such as memories, values, narratives and traditions. Likewise, Ellen Klingenberg (2012) highlights the importance of intangible aspects in the process of adaptive reuse with what she calls the cultural experience value. Complementary, De Bleeckere and De Ridder (2014) draw the attention to a balance between religious heritage and reuse as they speak about the 'retuning' of churches instead of reprogramming.

The students had to translate narratives in open and layered scenarios, which we reformulated into alternative strategies to develop better adaptive reuse programs (van de Weijer & Devisch, 2013). However, the studio participants translated their scenarios in a master plan for the monastic sites. This plan is an expression of the site development as a whole, whether phased or not. Bryan Lawson (1980) talks with emphasis about the importance of finding problems and solving them. He describes designers as the creators of the future and the responsibility that they have. "The designer has a prescriptive rather than descriptive job. Unlike scientists who describe how the world is, designers suggest how it might be." Still, architects should look to the future without the need to plan it completely as they are part of an extensive group of actors instead of being some kind of puppet master.

Therefore, is it always imperative to tackle a whole site in order to create a strong adaptive reuse project? In many instances, heritage sites have had blooming histories and did the job they were built to. But because of internal or external factors they were taken out of the equation. Is it possible just to adapt minor pieces of a site to revitalize it? What is the trigger moment 'of no return' in time and place without loss of character or genius loci? What are necessary minimum interventions to speak about adaptive reuse or revitalization, how can we integrate spontaneous processes and what are not only the role but also the responsibility of architects in these processes?

To conclude, we reflect on the strengths and limitations of the assignment, the design studio and its link to concept or program development in actual cases.

2   THE ORGANIZATION OF DESIGN STUDIO EXERCISES

2.1 PREVIOUS COOPERATION IN DESIGN STUDIOS AND DESIGN RESEARCH – A FUTURE FOR OUR CHURCHES

Our faculty tries to encourage a close cooperation between the set-up of design assignments and the design research group and involve the student's learning process in this process (McClure, 2007). In the case of this project, one PhD student who is working on adaptive reuse of monasteries, set up the design exercise. Her design experience s well as her scientific work in mapping the typology of all monasteries in the Limburg (B), is at the core of the project. After completing the design work, she also reflects upon the student's work and structures the material as part of her design-based PhD. The selection of the site is thus based upan an existing monastery, which will help considerably to achieve the student's competences. (Flyvbjerg (2006). The design tutors guide the students to deliver create narratives, put the pieces together in an overarching scenario and communicate this clearly both the design process and the final design itself (van de Weijer, 2014).

The same students participated already in their 3th bachelor year to a 12-week adaptive reuse workshop. In that case we also worked with religious heritage, but with three underused rural churches, rather than monasteries. They were located in the region of Haspengouw, province of Limburg in Belgium. Finding a suitable program based on spatial possibilities was again the basic motivation.

The following questions were asked to the students. First, how will they treat the churches as the public sites they are with all the public and personal memories and emotions they generate? Second, how will they protect and reintegrate the intentional religious function as part of a new program? Sketches, models and notebooks documented the aspired roadmap and design process. Including a student's decision to which level of adaptation the respective site needs to be reactivated as a public building and to be the subject of adaptive reuse. In the 4th and final phase, the most layered, flexible, sustainable, generous and hybrid scenario proposals for new programs were presented at a stakeholders' debate with representatives from different levels of government both secular and ecclesiastic. But also parishioners, members of the surrounding community, heritage societies and sympathizers attended the 'project' market day. Students introduced the projects themselves to the broad public. Room for discussion was provided during and after their explanation.

'Doing more with less' became the credo at this meeting. A steering group of experts from various fields, such as heritage, social sciences and ecclesiastic matters was composed and reflected on a regular basis on the process. Eventually the results of the students were bundled with the observations of this steering group and presented in an E-book (fig. 1). This booklet also contains filing cards of every project with information about location, designer, design, impulse towards program design, detailed program and interactions to interior and exterior. The sort of physical interaction is represented by symbols in order to objectivise the results. This overview is a useful inspiration for the adaptive reuse of churches in general. Additionally it reflects the advantages of the involvement of an architect in a public rehabilitation project in an early stage.

Design based research for valuable programs in the process of adaptive reuse

Karen Lens, Koenraad Van Cleempoel

Figure 1 – Front-page of brochure 'A future for our churches': Combination of collages made by students to visualize and communicate their narratives

2.2 EXERCISE: ADAPTIVE REUSE OF MONASTERIES – DEVELOPMENT OF PROGRAMS BY DESIGN

Sixteen students worked for a period of twelve weeks on adaptive reuse scenarios for two existing, underused, monasteries, situated in the province of Limburg (B). The monasteries are protected as a monument and still preserve their original monastic plan embracing a central garden that forms the physical heart (Krüger, K., Toman, R., et al. 2008 and Lawrence, C.H. 1984). The religious communities are the Trappists of Achel and the Franciscans of Sint-Truiden (fig. 2). The sites are still occupied by a shrinking group of monks. Both can be considered as heritage sites, which preserved very well their genius loci. The students had to find a way to sustain this situation with a proposal for (partial) new uses, starting from the condition that the (few) residing monks could continue to live there. ,

During the first step students immersed themselves by measuring the complete site, its interiors and gardens. In 2 teams of 4 for each monastery, they are also challenged to spend a long period of time in the monastery to feel the particular rhythm and to search for the right approach to compose a heritage file based on tangible and intangible elements. In a heritage file they collect and represent both architectural and community history in a timeline. The students thus study the physical condition of the buildings, the actual composition of the community and the uses at the site in time and space. Finally they map historical, actual and possible future links of the monastery with its surroundings or the spatial and social networks details in with drawings and interviews.

Despite the closed appearance of monasteries, the terms hybridity, flexibility, stratification, sustainability and generosity describes these sites well (Lens, 2014). Every generation of inhabitants tried to build the perfect monastery, but every site is a delicate combination of a master plan and spontaneous interventions. The medieval drawing for an ideal monastery at Saint-Gallen (800 AD) already shows a lay-out in which for a complete monastic program, including spaces for prayer, dwelling, hospitality, services, logistics and gardening (Pevsner, 1977 and Norberg-Schulz, 1980). In time and space, their presence evolves because of religious, political, social, cultural and practical reasons.

These aspects are studied and reflected upon in the research seminar. The process of participation, including the various stakeholders is also the subject of this seminar. The students have to take part actively by proposing analyses of (partly) spontaneously adapted monastic sites. Participation methodologies trigger them to discuss data, narratives, scenarios, programs, designs and comments. Google drive is used as an online official logbook, unofficial communication is found on facebook platforms.

Parallel, the students develop, in teams of 4, scenarios into a program, which they translate to a master plan for 'their' monastery. Every member of a team will design individually one part of this plan in detail. The collective puzzle of the separate pieces do not have to fill in all the gaps but have to track down the blind spots in a possible adaptive reuse process.

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Figure 2 – Monastic cases design studio master interior architecture - Left: Vault of Achel – Trappist Abbey, Hamont-Achel, Belgium & Right: Franciscan Monastery, Sint-Truiden, Belgium & Studio schedule

3   RESULTS

Interestingly, the different student teams define their programs in a similar way. The existing core of the monastic sites, the actual cloister or the central squared passage, is a perennial theme in their concept development. The monks are relocated to a smaller existing cloister equipped to respond to the needs of older inhabitants. However, the newly adapted monastery wings are also intended for housing guests. The religious population can both shrink and grow in all projects.

It is clear that the new reinterpretation of the large cloisters depends on the location of the respective monastery. The program of rural Vault of Achel focuses on tourism in the master plan of both teams. While the Franciscan monastery combines commercial and social supportive uses to the neighbourhood. Both cases are based on a healthy lifestyle and education: silence and meditation in the solitude of Achel and Sint-Truiden's new reinterpretation is gathered around the monastic vegetable garden and orchard in the town's centre (fig. 3).

The master plans of Achel contains a hotel to enjoy the peaceful and large monastic domain during work (conferences, meetings or courses) and leisure time (holidays, spa weekends, weddings or yoga courses). The old sheds are destined to become an academy of crafts. The students keep the old farm as the economical sign of the site: museum, cycle point (repair, sale, rental or stalling), food, drinks and boutiques. At the same time, in Sint-Truiden the teams turn an existing vegetable garden into a hub for the whole site. A museum to expand, a new restaurant and boutique with healthy food, etc. are part of a whole set of ideas that, somehow, try to remain close to the memory of the building.

The suggested reinterpretations are complementary for both cases. The students pay strong attention to the layered nature of the monasteries. Accessibility and passages are a more important discussion or even decision point than the uses itself. The realm of boundary and meeting are crucial in the development of the team and individual designs. Behind consecutive walls, small cloisters housing a religious community stay the heart and soul of the monasteries. Although, despite the maintained isolation the cloisters show their original hospitality to people in temporal need of silence or just a save harbour to stay for a little while. The student proposals give the sites tools to support their self-sufficient character or give them the possibility to adapt and grow or shrink constantly. The experts who follow the studio and jury were enthusiastic and expressed interest to integrate ideas in real future adaptive reuse processes.

Thanks to the studio structure, students become aware that to come up with a possible new program might look easy; but to develop a scenario that is supported by the local community and that is realistic regarding management is hard work. The narratives get stronger when they are written by more than one person or group or when they are not based on one idea or proposal. Martens et al. (2014) described that research by design can be a powerful tool, as it does not necessarily start from the artistic autonomy of a single designer. 'Content' to

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Design based research for valuable programs in the process of adaptive reuse

Karen Lens, Koenraad Van Cleempoel

use as a base for adaptions can be found locally, and research by design is able to spark the locals to make this content operational, as the start of capacity building and local ownership.

At the same time, the students learn to deal with complex stratification or openness and closeness. The texts, drawings and designs of Dom Hans van der Laan (1977) increase importance during the studio. This Benedictine monk, theorist, designer and architect described "the cella, garden and domain" of a monastery with borders and passages between them as a symbol for both our house and society or a visualisation of the tension between an individual, community and society. The balance between these borders and passages becomes more important then the selected uses for an adaptive reuse program in order to preserve the nature of these heritage sites.

Figure 3 – Suggestion master student

4   REFLECTION

Both the typological and contextual angle, are a valuable base in the reinterpretation of (monastic) heritage sites to translate to students and to translate in further research. Therefore, the painting Trickland by artist Michael Borremans is a metaphor of the opposite of what we want to achieve with this studio. When you look at this work of art a strange disturbance sneaks up to you. People are building a miniature idyllic world but there is no visual interaction. Nobody portrayed on the image is looking to each other of in the direction of the spectator who feels like an intruder. While at the studio, we try to stimulate discussions, openness to stakeholders, participation and transparency in decision making during our studio, but in the end this view represent what we ask our students to create. A master plan can overarch a whole site, but it asks an immense subtility to treat it on a holistic manner, especially when the subject of the plan is a religious heritage site.

Architects want to solve problems, even if theoretically they seem to have left the path of this unachievable modernistic ideal. Where researchers want to know why things are the way they are, architects design the structures for the future (Buchanan, 1992; Cross, 1982; Schön, 1983 & Simon, 1969). However, to define and to solve problems does not always need complete gestures. We propose to work towards a plan, which visualises deciding spatial and social cross points instead of a master plan.

In this respect, again, Van der Laan offers interesting insights. Parallel to his architecture theory and designs, he provides different descriptions of designing religious clothing as a metaphor for creating layers, openings or barriers and links between users, their surroundings and an overarching power. If we connect these ideas to our reservations to a master plan, we formulate the role of an architect in finding a balanced combination of typology or patterns and context or draping. Based on both angles the architect defines the moulage or fitting of an adaptive reuse project in some carefully selected points. The design is smooth and lively because it is non-fixed with a unique nature. The process provides new possibilities to unforeseen uses. This allows architects to arm an adaptive reuse project flexible to the future without loss of the genius loci.

To achieve this goal it is inevitable to question decisions made towards a new use constantly. Chantal Mouffe (2007) refers to monasteries when she stipulates

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her non-believe in the sustainability of compromises. She mentions that it is deep inside monasteries that the democratic complex voting procedures have been prepared and constitutions have been written. Our democracy stays alive because of a regulated understanding of oppositions. Mouffe refers to this balance as agonistic pluralism. Moulage as substitute of a master plan is a translation of agnosism in space and time. So it is not necessary to work on a project in team or studio in terms of personal or collective identity because any form of objectivity only exists by the affirmation of difference.

We should not see conflicts and contradictions as threats but as opportunities inherent to a democratic society. Like Mouffe (2007) talks about agnosism, Rancière (2006) proposes the more radical concept of 'dissensus', which is always underway. He formulates this term in relation to an aesthetical regime, a 'sensible order' that identifies and defines who should distribute it. 'The staging of a design process involves not only the framing of the problem and the social organization for addressing it, but a realm of materiality and sensibility within the design process that may also endure long after'… 'A break in regimes of sense also produces the potential for thinking and acting in new ways – it is a matter of proposition rather than (re-)production'.

Therefore, we will reflect on these insights by a live enactment and a parallel focus group. The 'passage pavilion' of architecture office 'tcct' in cooperation with students is an example to our approach. The ritual aspect of a sacred space is visual in the ritual actions on-site in order to create contemplation. (Van Synghel, 2014). Creating a view in real of what could be, will give the participants of this and a following design studio, accompanying researcher included, the opportunity to test if the key points of the moulage created by the architect(s) are well defined or should be adapted, minimalized or increased, under the all-seeing eye of stakeholders (fig. 4). We want to deploy on this designerly, practice based and participatory action research by looking at or collaborate with other design fields, design research, architecture schools (Van Den Berghe, 2014) and the architecture practice.

Figure 4 – Moulage research schedule

5   CONCLUSION

Students, design tutors and researchers should not be afraid to personally question the actual heritage and adaptive reuse processes. It is their obligation as a civil citizen to take a stand or to participate because these issues concern them both as an architect and as a citizen. There is no need for an agora or a new political dome, what is needed is a diversity of platforms, to 'produce voices and connect people' (Latour, 2005 and De Waal, 2014). Architects are capable to translate concerns into a visual language and to bring underlying problems into daylight. Therefore, these translations are no irrelevant or inappropriate creations while one tries to render the echo of the translated original. Mahmoud Keshavarz and Ramia Maze (2013) describe a conceptual approach based on Walter Benjamin's discussion: the 'translating' designer 'intensifies' a dissensual situation in order to open a space for political subjectivization'. Also Fred Scott considers translation as a valuable creation in an adaptive reuse process. He developed a concept of sympathy in which he compares restoration with the translation of poetry, an act that also requires 'sympathy' (Scott, 2008).

The discussed design studio confronts students with this complexity during their interior architecture master education. Subsequently, we use the studio as a tool to develop alternative approaches to create programs. During the described exercise, we formulate an alternative to a classic master plan in order to translate both the context or social concerns and the typological nature of a monastic heritage site in an adaptive reuse process. The architect is not just a process counsellor but steers the process, in space and time, by defining decisive turning points. The critical mass of the design studio is a steppingstone in our search to the minimal intervention to define adaptive reuse, which will be the subject of further research.

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Design based research for valuable programs in the process of adaptive reuse

Karen Lens, Koenraad Van Cleempoel

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