buildings

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Graduation paper

A Participation Approach to Preserve the Social Function of Religious Heritage: The Case of St. Dominicus Church Utrecht

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Abstract: This paper explores different participation methods that could be applied in redeveloping religious heritage. Due to secularisation, religious buildings are threatened with vacancy. Churches in particular are difficult to redevelop due to their ecclesiastical and social values. Active community involvement assists in overcoming the gap in designer and user interests. In this study, the St. Dominicus church is used as a case study in which a simulated participation workshop with actors is conducted. The initial goal of the simulated workshop was to determine a suitable program for a community centre inside the existing church building. Various methods were employed during the simulated workshop, structured by three participation phases identified by analysing case studies. Individual brainstorming, cognitive mapping, and a consensus design assignment were applied for research inquiry and design input. Two months after the initial workshop, the preliminary design was reviewed through individual semi-structured interviews. The individual brainstorming together with the cognitive mapping proved to be effective in determining general program possibilities, gapping the requirement of communication skills and time. After the review of the preliminary design, all participants expressed a sense of ownership of the design, thus these methods could easily be applied in other cases to boost social belonging and community values. Future research recommends a larger sample group and the mixing of age groups in the consensus design assignment, which could result in more conflicting interests regarding the community centre's program.

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1. Introduction

Conflicts might arise when rapid alterations in the existing urban environment occur due to differences in stakeholder interests. This applies to historic urban objects in particular. According to UNESCO's Recommendation on the Historic Urban Landscape (HUL), these conflicts resulting from sudden alterations could incite the deterioration of urban heritage and social coherency [1]. As a counter measurement, HUL suggests the involvement of various stakeholders to identify conflicts early on in redevelopment processes. Consequently, this also empowers residents to represent local interests in the development of their own environment [2] (p.61). The Council of Europe's FARO Convention points out other advantages of including local communities in redevelopment processes, such as the boost in the local economy and social values [3]. Even though the Netherlands has not yet ratified the Faro treaty [4], the Cultural Heritage Agency already is exploring how to interpret and implement the Faro treaty into legislation [5].

The future of religious heritage is a contemporary example of urban alteration which could result in local retaliation. These buildings not only often are historically significant urban objects, but also represent a community who are strongly attached to the place. Despite this, these religious establishments struggle to remain in service due to secularisation that has steadily occurred over the past decades [6]. Besides the decline

in church affiliation, the current church community is ageing caused by the lack of new younger members [7]. As a consequence, communities not only lose their religious space but also their social gathering space which negatively impacts the remaining community [8]. It is for this reason important to assess the role of participation in the redevelopment of religious heritage.

The involvement of locals in the decision-making process seems to be the right thing to do from a democratic point of view. It not only allows people to represent their own interests but also increases the usability of the design [9] (p.16), [10] and enhances the sense of community involvement [11]. However, the democratisation of the decision-making process is not entirely without risk. For instance, pre-existing relationships between participants, the competencies of the facilitator and conflicting objectives might complicate or completely halt the redevelopment process. To prevent this, participatory processes are tailored to suit specific projects and goals. This complicates the comparison between participatory processes, thus it is difficult to predict what method works in what scenario [12] (p.57).

In this paper, an attempt is made to identify several participatory methods that can be applied during the hypothetical redevelopment of the St. Dominicus church in Utrecht. In this hypothetical design challenge, the church building is proposed to be transformed into a multifunctional community centre in which the program will be determined by the locals through participation. Due to the sensitive position the church board finds itself in during the period in which this research was conducted, the simulated participation workshop applied actors representing the local residents. This significantly alters the design data, but since this explorative study focuses on identifying and assessing participatory methods instead of collecting design input, the use of actors is deemed satisfactory enough.

2. Methodology

This research attempts to assess how the participation of locals can assist in the preservation of the social function of religious heritage after its decommissioning. This assessment is done through a simulated participation workshop on the fictional case of St. Dominicus church in Utrecht using actors. The goal of this workshop is to determine a program for a community centre which will be housed in the St. Dominicus church. Before the workshop can be conducted, various participatory methods must be identified. By analysing both religious- and public case studies in which participation was the main focus, multiple participatory methods can be identified. These methods are categorised corresponding to when in the participatory process they were applied.

The cases studied in this research concerning religious projects are St. Jozefkerk in Rijkevorsel, Chapel of Vrouw Middelares in Braken and St. Jan-Baptistkerk in Lille [13]. These churches share the involvement of locals through participatory processes and are all three located in Belgium. Belgium already ratified the Faro treaty in 2022 [4], and thus more examples of local participation can be found there. The non-religious cases in this study are Boulder Creek Library [8] (pp. 81-85), Stony Brook Children Centre [8] (pp. 92-93), Houde Park Taipei [2] (pp. 33-38) and Portico Bernburg [14]. These cases are selected for the diverse participation methods applied to broaden the scope of this research, and the public setting of the workshops.

After identifying and categorising the participatory methods, a selection is made for the simulated workshop. The workshop will be conducted through six actors (one female and five males, ranging between 20 and 60 years old) representing the local residents. During the workshop, the participants are divided into three age groups (20-29, 30-49 and 50+) to identify similarities and differences in interests between age groups. By identifying common topics and interests resulting from the workshop, the program for the community centre will be determined. Besides this, local factors such as demograph-

ic, church typology and church vision are based on a neighbourhood poll conducted in 2019 [15] will be taken into account in the final decision.

Because actors were used to represent the local community, the possible participation methods that can be applied during the workshop are limited. For instance, methods that heavily rely on existing knowledge of the church building could not be applied. Actors also can't incite a sense of emotional attachment to the building. For this reason, the results cannot be considered representative of the actual local community. Despite this, using actors makes verification of this research easier.

3. Results

3.1. Results Case Studies

Participatory processes vary in goal, applied methods and execution. In Table 1, different case studies and the applied methods are categorized correlating to when in the participatory process what method was applied.

	Orientation		**Identification**			**Evaluation**
Case Study	Pre-workshop	Workshop 1	Workshop 2	Workshop 3	Workshop 4	Workshop 5
St. Jozef church [13]	On-site interviews	Introductory presentation	Consensus design (symbols)	Focus group budgetary quick-win analysis	Focus group budgetary quick-win plans	Interactive slide presentation
	Individual brainstorming	Thematic focus group				
St. Jan-Baptist church [13]	On-site interviews	Introductory presentation	Focus group options future scenario	Focus group		Interactive slide presentation
	Individual brainstorming	Thematic focus group	Voting session			
Chapel of Vrouw Middelares [13]	On-site interviews	Cognitive mapping	Thematic focus group	Focus group mass extension (model)	Focus group Budgetary quick-win	Interactive slide presentation
	Individual brainstorming			Voting session		
Boulder Creek Library [8] (pp. 81-85)		Introductory presentation	Consensus design (drawing)			Presentation with model
		Group brainstorming				
		Cognitive mapping				
Stony Brook Children's Centre [8] (pp. 92-93)		Consensus design (blocks)				Open discussion design options (models)
						Voting session
Houde Park Taipei [2] (pp. 33-38)		On-site observations	Consensus collective diary	Presentation existing plans		
		On-site interviews		Consensus design (drawing)		
Portico Bernburg [14]						Augmented Reality (AR)

Table 1. Applied participatory methods case studies per workshop.

A pattern becomes evident by comparing the order in which specific methods are applied. Overall, three stages can be identified during the participation process to which the various methods can be assigned into.

1. Orienting stage
2. Identification stage
3. Evaluation stage

The oriental stage occurs before or at the beginning of the participatory process. Qualitative research methods such as on-site interviews, observations and brainstorming in a public setting are applied to gather a broad spectrum of information. On-site interviews attempt to reveal the interviewee's perspective on specific topics and to discover objectives previously not considered [16]. Observations are used to gather information regarding how the observant interacts with their environment or each other in a natural setting [17]. Activity patterns that otherwise are difficult to describe during interviews are revealed. However, observations often fail to capture a complete picture due to time constraints [9]. Important activities could therefore be overlooked. Both interviews and observation require on-site activities or existing knowledge. Because of this, simulating these activities through actors could be complicated.

Instead, individual brainstorming sessions could be applied. This method is used to collect a vast number of ideas, opinions and solutions for general or specific problems. In the analysed case studies, two forms of brainstorming were applied, individual- and group brainstorming. Group brainstorming suggests a collective approach, forcing participants to consider more opinions rather than getting stuck on one idea [18]. A considerable risk of group sessions is peer pressure influencing the morale of other participants. Individual brainstorming eliminates this risk, allowing for creative freedom. Studies suggest that individual brainstorming results in better ideas than group brainstorming [19]. For this reason, individual brainstorming will be applied in the simulated workshop.

The identification stage occurs during the participation process and has as its goal to identify common and conflicting interests between the participants. Qualitative methods that could be applied are focus groups, cognitive mapping and consensus decision-making. Focus groups are a method to collect information through question-oriented discussions [19]. Through the exchange of experience and knowledge, ideas and opinions arise more easily than in individual interviews [9] (p. 20-22). On the other hand, cognitive mapping is a more individual approach in which the participants can express their ideas through a creative medium such as writing and drawing. It is, for example, used to identify spatial requirements for the Boulder Creek Library [8] (pp. 81-85) which would otherwise be difficult to express through conversation.

Consensus decision-making forces participants to make decisions by agreement rather than by majority vote. This has as advantage that minority groups are not excluded and encourages group unity which often results in a higher product quality [20].

In the simulated workshop, cognitive mapping is applied to develop a clearer picture of the program requirements resulting from the brainstorming session. After the cognitive mapping, the participants are divided into duos to develop a spatial plan through consensus design in which priorities become clear.

The evaluation stage occurs at the end of the participation process. This stage serves as an evaluation of the design and recognition of the participant's input. Not only does this solidify the final design, but also recognizes the participant's agency, increasing the appreciation for the design. This is usually done through presentation slides and models, but other methods could serve as substitutes, such as augmented- and virtual reality making the spatial design more tangible for the participants [14].

3.2. Results Simulated Workshop

The simulated workshop was conducted through 6 actors. The workshop's goal was to determine a program for a community centre inside the St. Dominicus church. The workshop was divided into the previously identified stages, orientation, identification and evaluation. The methods applied during the workshop are an individual brainstorming session after a brief introductory presentation, individual cognitive mapping, consensus design and a pitch at the end where the participants could exchange their final ideas regarding their plans.

3.2.1 Results of Brainstorming

Before the individual brainstorming session in which the participants were inquired to write down potential programs and ideas for the community centre, a brief introductory presentation of the research and church was given. After the presentation, the participants were given a mind map template (Figure 1) for making analysing the results easier. In Table 2 the results are summarized.

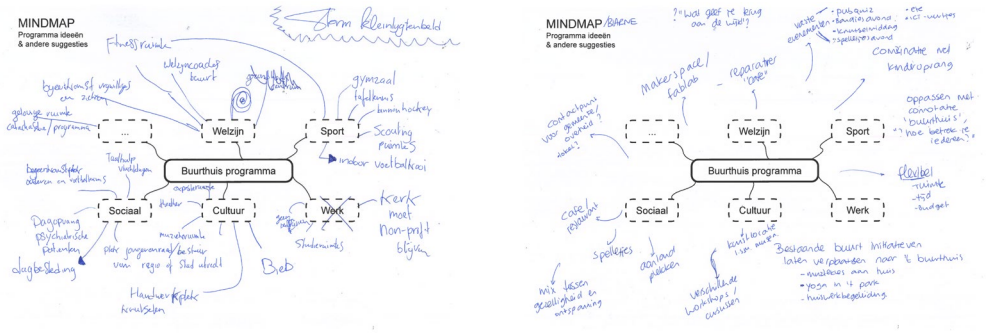


Figure 1. Two examples of mind maps resulted from individual brainstorming

	Health				Culture					Sport				Work / study				Social										Climate		
	Consultant	Pharmacy	First Aid		Art classes	Exposition room	Theatre	Library		Sport hall	Climbing hall	Yoga room		Homework assistance	Study spaces	Work spaces	Meeting rooms	Makerspace	Repair cafe	ICT Helpdesk	Foodbank	Workshop rooms	Daycare	Cafe	Foodbank	Parcel point	Communal Kitchen	Community room	Religious space	Thrift store	Community gardens
Age groups																														
20-29		●			●	●	●	●				●		●	●		●	●			●	●	●	●			●	●		●	●
20-29					●	●	●				●	●				●				●	●	●	●	●		●	●	●			
30-49					●	●	●	●		●	●				●				●		●	●		●							
30-49					●		●			●	●	●				●	●							●		●					
50-60			●		●											●	●	●			●	●		●			●	●			
50-60		●	●					●		●				●			●	●									●	●			
Σ*points*	4	2	1	1	14	4	4	4	2	8	4	2	2	9	2	2	3	2	30	4	2	1	1	4	4	5	1	1	3	4	3	4	2	2
Max.	18	6	6	6	24	6	6	6	6	18	6	6	6	24	6	6	6	6	72	6	6	6	6	6	6	6	6	6	6	6	6	12	6	6
	22%				58%					44%				38%					42%													33%		

Table 2. Overview of results of the individual brainstorming session.

The results of the individual brainstorming session are diverse. It rarely occurs that ideas are solely suggested by one participant. Common ideas, such as a theatre and café, are easily recognized. Due to the small size of attending participants, the tendency exists to assume that an idea suggested by two participants is supported by the remaining attendees. To eliminate this tendency, the average support per program category, such as social programs and cultural programs, is calculated by dividing the maximum possible approval by the sum of actually supported ideas. By doing so, it becomes evident that cultural programs are the most in favour with average support of 58%. Despite the clarity of overall support, the exact requirements of those programs remain unclear and could easily be misinterpreted. To refine the spatial requirements for these programs, the cognitive mapping method will be applied.

3.2.2 Results of cognitive mapping

In this stage of the workshop, the participants were inquired to select approximately four programs from their brainstorming session which they preferred the most. After this selection, the participants were tasked to illustrate or write down spatial requirements they expected to be essential for the program. To assist the participants in this assignment, standard spatial themes were given, amongst others daylight, spatial dimension, accessibility and privacy. As expected, this assignment proved to be challenging for the participants due to the level of abstract thinking that is required. All participants resorted to making wish lists with general spatial requirements. Only after further encouragement, some participants attempted to convert their lists into program drafts, some of which are shown in Figure 2. The participants could express themselves more easily through writing rather than visualising spaces for the selected programs.

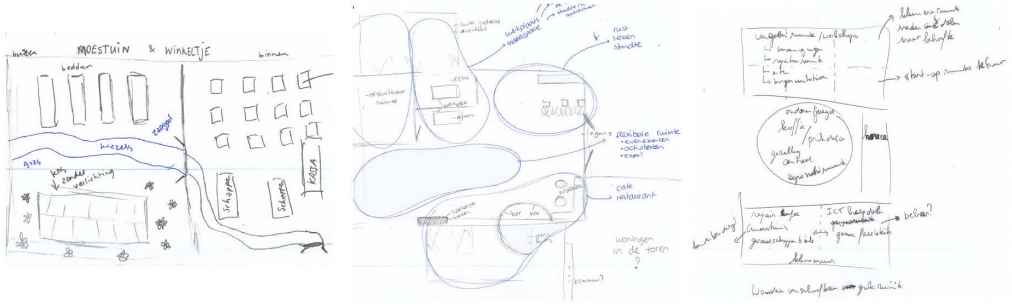
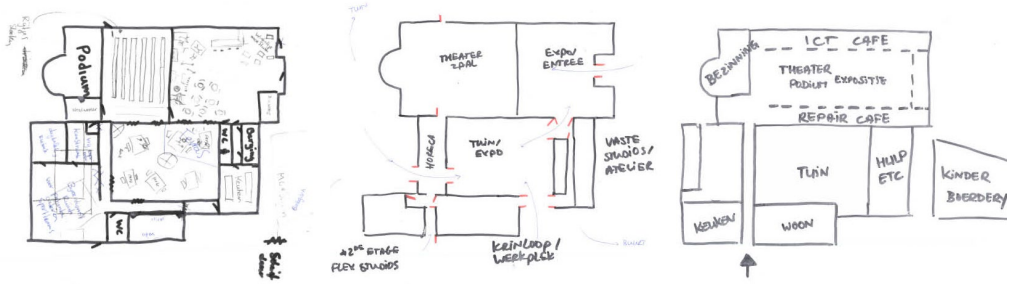


Figure 2. Three examples of floorplan drafts resulting from cognitive mapping

The application of this assignment in the design process seems to be dubious due to the diverse requirements. The spatial requirements suggested by the participants often are obvious suggestions. This could be explained by the fact that people could only relate to their existing knowledge. For this reason, this method is not as effective to determine specific spatial requirements. Despite this, this assignment does have some useful input in the process. Firstly, it forces the participants to refine their suggested programs further. Secondly, this method uncovered a difference in program preference between age groups. The younger participants between 20 and 29 years old mainly selected cultural programs, whereas the participants between 30 and 49 selected more work-related programs such as flexible work spaces. The participants of 50+ mainly preferred social functions.

3.2.3 Results of consensus design

Consensus design forces the participants to make decisions, exposing priorities in the process. The participants were divided into duos correlating with their age. Group A consisted of the two youngest participants between 20 and 29 years old, group B between 30 and 49, and Group C 50+ years old. Each duo was given drawing utilities and existing floor plan drawings of St. Dominicus church alongside site plans and solar orientations. The final results of the consensus design assignment are shown in Figure 3.



(a) (b) (c)

Figure 3. Results of consensus design assignment

All three designs share similarities. Each design remains relatively loyal to the existing church structure. When interventions happen, they almost always occur because of routing rather than the need for more space. Furthermore, all three designs share the program inside of the nave, a theatre at the apse and a café or exposition room near the entrance. The monastery adjacent to the nave is where the various programs strongly deviate. It is here where the previously identified preference reoccurs.

Group A (a) seems to emphasise the importance of self-sustainability in its plan. Vegetable gardens and perks are placed in prominent places where people gather. Group B (b) on the other hand focused more on opening up the internal courtyard by breaching existing walls. The work-related programs, such as flexible and permanent working spaces surround the internal courtyard. This was done to make the design financially more feasible. Group C (c) integrated the most diverse range of programs in their design. Upon further questioning, it became clear that the goal was to bring different age groups together to create social interactions. Social activation is considered the priority for this group.

3.2.3 Results of the Evaluation

Based on the workshop results, a program for a community centre in the St. Dominicus church is put together. The community centre consists of a theatre with a foyer in the nave, a café and flexible workspaces in the annexe building and a maker space in the presbytery (Figure 4). To ensure that the results from the workshop are interpreted and integrated correctly, the design is evaluated through individual interviews with the participants, two months after the workshop. Each participant is asked what they can recall from the workshop and their consensus plan before the preliminary design is shown.

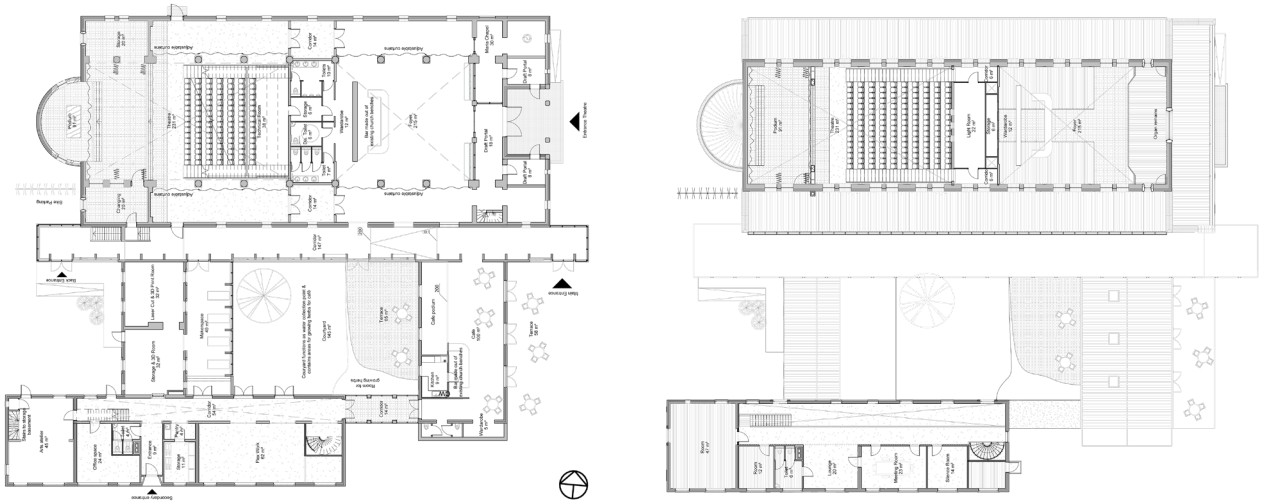


Figure 4. Preliminary design community centre St. Dominicus

All participants could recall the workshop and their consensus design for the community centre. Upon reviewing the preliminary plans, each participant could recognise their input without the need for clarification. When asked what programs they recognised, mainly common programs were mentioned such as a theatre and café.

Furthermore, each participant expressed excitement or interest towards further developing the design and project location. This could indicate a form of project attachment, as has been expressed by one participant as "it is also (a part of) mine".

4. Discussion

Participation processes are dividable into three general phases, the orienting phase, the identification phase, and the evaluating phase. During the orienting phase, general goals are defined through various qualitative methods such as on-site observations and brainstorming sessions. These goals are used as starting point in the identification stage, where conflicting and/or common interests are identified. The methods used during this stage generally happen in collective assignments where different participants have to work together to reach a consensus. The evaluating stage occurs at the end of the participation process. During this process, the participant's agency is recognised, consequently boosting the sense of ownership.

In the hypothetical case of St. Dominicus Church in Utrecht, the three participation stages were used as the main frame for the simulated workshop. During this workshop, six actors representing the local residents could express their ideas regarding possible programs for a community centre through various participation activities. The workshop activities included individual brainstorming, cognitive mapping, consensus design assignment and a short pitch per plan. Two months after the workshop, the preliminary design in which the design input from the workshop was integrated, was reviewed through individual semi-structured interviews.

The individual brainstorming session is an effective tool to generate general ideas without the risk of being judged by others. On the other hand, this method also resulted in irrational program suggestions due to the lack of reflection from other participants. The cognitive mapping activity intended to specify the programs from the brainstorming session through writing or drafts. The results from this activity are general and failed in the further specification of spatial requirements, thus cannot be used to define specific requirements. Despite the ineffectiveness of this method to specify spatial requirements, cognitive mapping forced the participant to relate to their existing knowledge regarding their favoured programs. This proved to be essential for the consensus design assignment. During the consensus design assignment, the participants were grouped correlating with their age, and were asked to develop a layout with their defined programs. By doing so, priorities became evident. Strong differences in priorities between age groups can be observed.

During the individual semi-structured interviews in which the preliminary design was reviewed, each participant expressed satisfaction regarding the integration of their ideas. When asked to name programs they recognised from their plan, mainly shared programs such as 'theatre' and 'café' were mentioned. From this, it can be deduced that participants perceive collective ideas as their own when asked individually. Furthermore, each participant expressed a sense of ownership and interest in the further development of the project, indicating a sense of attachment. This sense of ownership could boost the social functioning of the building if it was to be realised. This solidifies the effectiveness of community involvement in the conservation of social functions during the redevelopment of religious heritage.

Due to the limited sample size, a similar workshop should be conducted with more participants. Furthermore, the fact that participants of similar ages were grouped could

have prevented potential conflicting interests. More interesting results could have been discovered if different age groups were mixed, or if design groups were larger than two participants.

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