SAME EMOTION, DIFFERENT CHURCH

A research plan facilitating the transformation

of a Zero-waste vacant church

Revitalizing Heritage: Zero Waste Church - AR3AH115

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November 2022

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Introduction

Same emotion, different church

With a peaking tower or a central square, churches mark the cityscape of many Dutch towns and cities as landmarks (Het Bisdom van Haarlem et al., 2008). Not only with their distinct design or as houses for worship and gathering, but as city symbols and significant components of the urban landscape ((Post, 2014) according to (Vdovychenko, 2019)). Yet, despite their prominent appearance, location, and history, many churches are vacant or facing vacancy due to the steeply decreasing amount of active churchgoers (Het Bisdom van Haarlem et al., 2008);(Centraal Bureau voor de Statistiek, 2020). To maintain their value for the local community and prevent long-term vacancy, or worse, demolition, it is of utmost importance that a fitting new purpose is found for the houses of worship.

The search for a new purpose for the endangered vacant churches is the main theme of the Heritage graduation studio: Revitalizing Heritage: Zero Waste Church. Apart from repurposing the churches to prevent the loss of heritage and maintain its cultural values, the studio presents a second theme, as it asks us to take a position "is it heritage or is it waste?" (Dos Santos Goncalves & Quist, 2022). Challenging us to value the churches on both heritage and sustainability.

This research plan covers the entire graduation studio, focusing on investigating how the sense of place of the locals can be maintained in the process of transforming the church, regarding the chosen site of the Grote- of Mariakerk in Meppel. This is a vacant church that is integrated into Meppel's urban fabric as a landmark, a symbol of Meppel's history and is appreciated by the local community, as was shown by a week-long festival to commemorate the church closing and 600th birthday (Kolle, 2022). Whilst this document mainly covers the first theoretical research phase concerning the sense of place, it also touches upon the relationship between research and design throughout the entire process, the integration of the Zero Waste design, and other forms of analysis, such as the ABC-analysis and design research. The research plan helps to reach the aim of a well-informed sustainable transformation of the Grote- of Mariakerk that maintains the sense of place for the locals and encompasses the needs of Meppel.

Figure 1 - *The Grote- of Mariakerk in Meppel* - own work

Problem statement

Problem statement & Research questions

Historically, the church was at the center of society (De Kruijf & De Roest, 2010), as until 1980 74% of the Dutch population was ecclesiastical (100% until 1879)(Centraal Bureau Statistiek, 2019). So, although the church is a private institution (separation of church and state in 1796 - 1848 (Koolen, 2012)), it still had significant public relevance due to its large number of attendees (Kennedy, 2010). As a result, the church had a great social relevance and influence on the day-to-day (politics, morals, values, social support, and health care) (De Kruijf & De Roest, 2010). Examples are the regular weekly Sunday service visit most families used to make or the significant number of Catholic and Protestant schools still present throughout the Netherlands (Wildt, 2014).

However, today, as less than half of the Dutch population is ecclesiastical (Centraal Bureau voor de Statistiek, 2020), and the church's ancillary functions have been taken over by care and welfare institutions, the church's relevance as an institute has shifted towards the margin of society. As a result, the institution of the church is becoming obsolete (De Kruijf & De Roest, 2010). The church's main sources of income are voluntary contributions and collections (Beunderman, 2009). The decrease in active churchgoers also affects the church buildings, as it leads to a lack of funds to maintain many of the buildings. So, when taking into consideration the church's inadequate organization structures (Het Bisdom van Haarlem et al., 2008) and average heating costs of €70.000,- (Roetman, 2021) (costs could double due to the current energy crisis). Maintaining the buildings becomes impossible, making vacancy or closure a matter of time.

While closure is nothing less than a postponement of execution for the churches as houses of worship, public support for preserving the churches shows to be strong within local communities (Rijksdienst voor het cultureel erfgoed, 2011), even among the non-churchgoers (Het Bisdom van Haarlem et al., 2008). The relevance of the church reaches outside of its religious function. Churches are landmarks that contribute to defying the cityscape, the atmosphere of villages ((Post, 2014) according to (Vdovychenko, 2019)), their identity, and function as a place of memory (Rijksdienst voor het cultureel erfgoed, 2011), gathering, commemorations, or ceremonies such as weddings ((NL Times, 2018) according to (Vdovychenko, 2019)).

Despite the local support for preserving the churches and strongly resisting demolition plans (Rijksdienst voor het cultureel erfgoed, 2011), the repurposing of churches is a problem (Het Bisdom van Haarlem et al., 2008);(Zomer, 2014). The ecclesiastical, the main users, hope to preserve the religious function, rituals, and memories that the churches safeguard (Het Bisdom van Haarlem et al., 2008), making repurposing an extremely emotional process for the clergy (Rijksdienst voor het cultureel erfgoed, 2011). Especially the Catholics prove to be a roadblock, as they rather demolish the church buildings than repurpose them towards a function that is too far apart from the original (Fijter, 2019). While the Protestants prefer to maintain the religious program, they are more flexible, as repurposing towards a social program is negotiable, but a commercial program is a no-go (Anker, 2019). The local non-churchgoers, who like to keep the building as is and allow a social program, convey emotional meaning to the church building and its religious use (Fijter, 2019), or value the building as a

Figure 2 - *Historical photo of the Grote- of Mariakerk in Meppel* - (Poortman, 1976)

landmark, symbol, or city icon (Zomer, 2014). With their emotional claim, the locals place restrictions on business dealings (Het Bisdom van Haarlem et al., 2008), through protest or arguing for a listing on the monument list (Zomer, 2014).

The wish to maintain the church and the emotion it carries for the local community can be interpreted as the desire to maintain the church's sense of place. Sense of place refers to the emotional bond or attachment one develops after experiencing a particular place, ranging between positive and negative emotions (Foote & Azaryahu, 2009), and the importance the place has for a person (Hashemnezhad et al., 2013). The place, in this case, the church, is defined by its function or activity, its form (physical shape, materials, etc.), and the meaning conveyed to the place or feelings they might have about it (Hashemnezhad et al., 2013). Regarding repurposing the church, its goal is to change the form and function of the place, not the meaning or emotion it carries, which means

that repurposing does not exclude the preservation of the sense of place.

The Grote- of Mariakerk in Meppel, a city symbol, is one of these vacant churches. It closed after 600 years of active use and requires repurposing. Repurposing the church sparks debate, as some of the churchgoers are willing to search for a new social function, but the non-churchgoers and most of the clergy want the identity and sense of place of the church to remain. However, to both parties, housing is not an option, as the building's program should remain social, which is hindering the process of selling and repurposing the church. The question that the problem poses is: ***"What is the limit of acceptable change to the sense of place for the local community, when transforming the form and function of the Grote- of Mariakerk in Meppel?"***

Research questions

Problem statement & Research questions

Hence based on the problem statement, research aim, and overarching goal of composing a well-informed redesign of the Grote- of Mariakerk, I pose the following research question:

"What is the limit of acceptable change to the sense of place for the local community, when transforming the form and function of the Grote- of Mariakerk in Meppel?"

To answer this research question, I pose the following sub-research questions:

"What is the sense of place in the realm of architecture?"

"What tools exist for measuring the sense of place?"

"What elements define the sense of place of the Grote- of Mariakerk for the local community?"

"How do transformation scenarios affect the sense of place of the Grote- of Mariakerk for the local community?"

Theoretical framework

Problem statement & Research questions

The research aims to determine the local's limits of acceptable change to the sense of place of the Grote- of Mariakerk. Therefore, it is important to understand the existing theories to position this research in a broader context, as this research does not exist on its own. Within this theoretical framework, the key concepts presented in the research question(s), essential to this investigation are clarified.
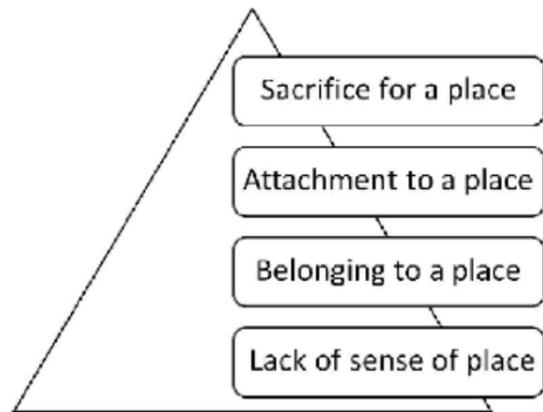
Apart from this brief explanation of the sense of place, further investigation follows during the research into sub-question 1, to grasp a deeper understanding of the theory.
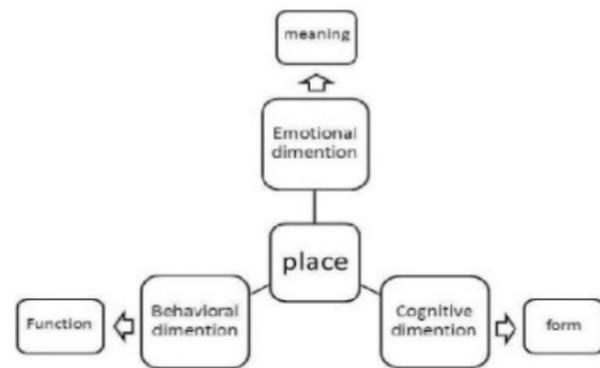

Figure 4 - *Dimensions that make up a space* - (Hashemnezhad et al., 2013)

Place

Within the sense of place, "place" also presents a particular meaning, as it is defined by three different dimensions. People's feelings about the place represent the emotional dimension, the function or activity held within the place is the behavioral dimension, and the shape or form of the place is its cognitive dimension. So, the form, function, and meaning of a place each correspond to a different dimension that helps define a place (Hashemnezhad et al., 2013).
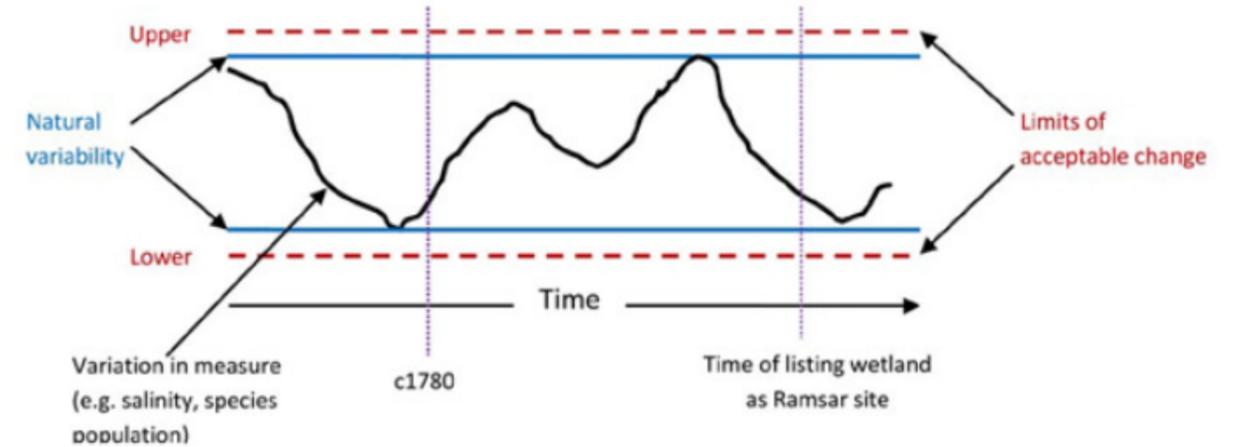

Figure 3 - The *Different scales of the sense of place (level of bond)* - (Hashemnezhad et al., 2013)

Sense of place

The sense of place refers to the emotional bond or attachment individuals or multiple people develop with locations or environments, ranging from positive to negative bonds. It also describes the uniqueness or character of the place (Foote & Azaryahu, 2009). This sense of place is developed based on the physical and psychological experiences with the particular place and the meaning one conveys to the place. The bond differentiates between different scales, as is shown in figure 2, that describes the individual's or group's attachment to the place (Hashemnezhad et al., 2013).

Figure 5 - *An example of a graph showing the limits of acceptable change for maintaining Australian wetlands* - (Access Denied, z.d.)

Limit of acceptable change

The limits of acceptable change describe the acceptable change to the social and environmental conditions in a particular area and the prescribing measures for maintaining these conditions (Schetter & Schetter, 2016). A theory mostly applied to nature conservation or tourism management, but as Schetter & Schetter (2016) argues, is also applicable to the dilemma between the protection and transformation of heritage (Schetter & Schetter, 2016). So, within this research, it describes the acceptable limits to which the conditions that create the local's sense of place of the Grote- of Mariakerk can be changed, whilst maintaining it.

Research and Design

Methodology

Despite the research questions' focus on determining the local's limits of acceptable change to the sense of place of the Grote- of Mariakerk, this research plan addresses the entire graduation studio, encapturing both research and design. Both are closely related, as research lays the foundation for design, the process of experimentation is research by design, and the reflection of design choices encaptures both.

The collection of the ABC-analysis, this research plan, Zero-waste research, research by design, concept development, and execution of the design, are all part of the collaborative relationship between research and design. So, the methodology described in figure 7 is also part of the entire process presented in figure 6. Figure 6 presents the phases of research and design, how they work together, and inform each other during the graduation studio.
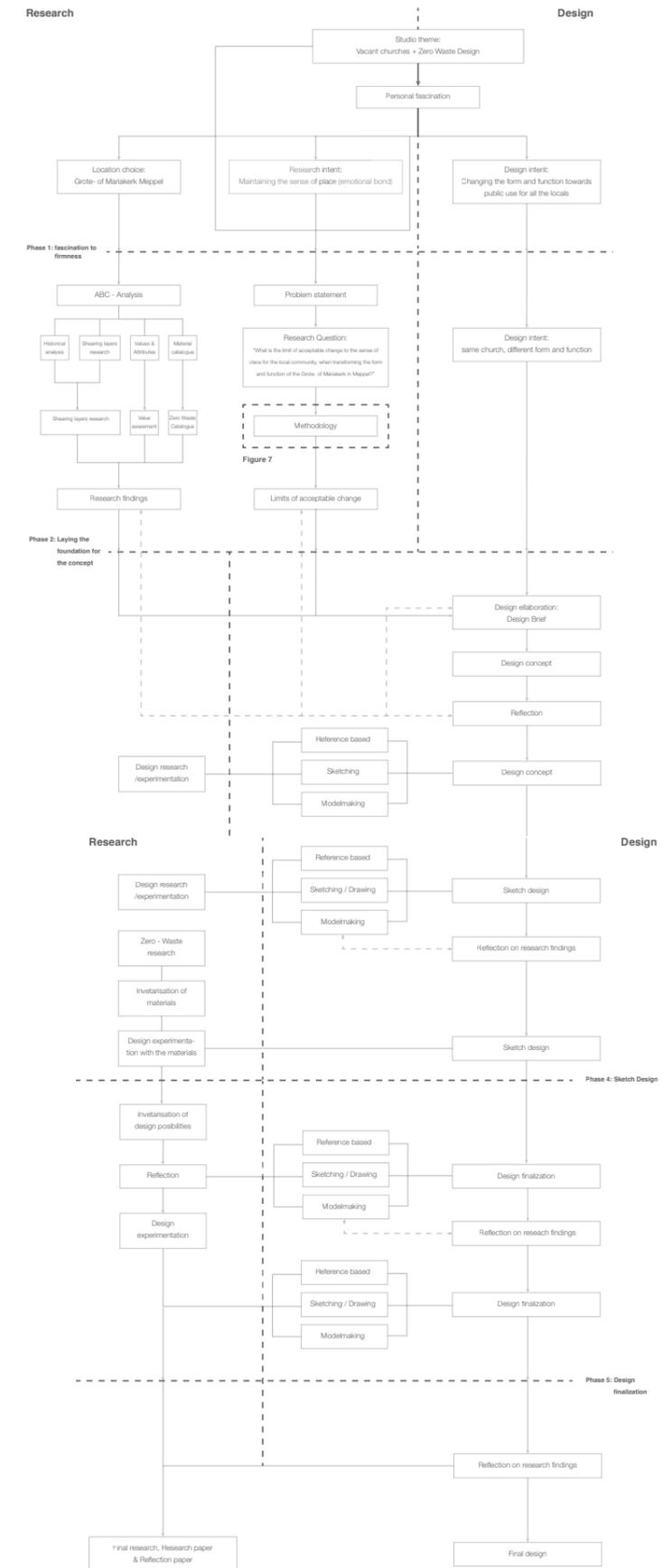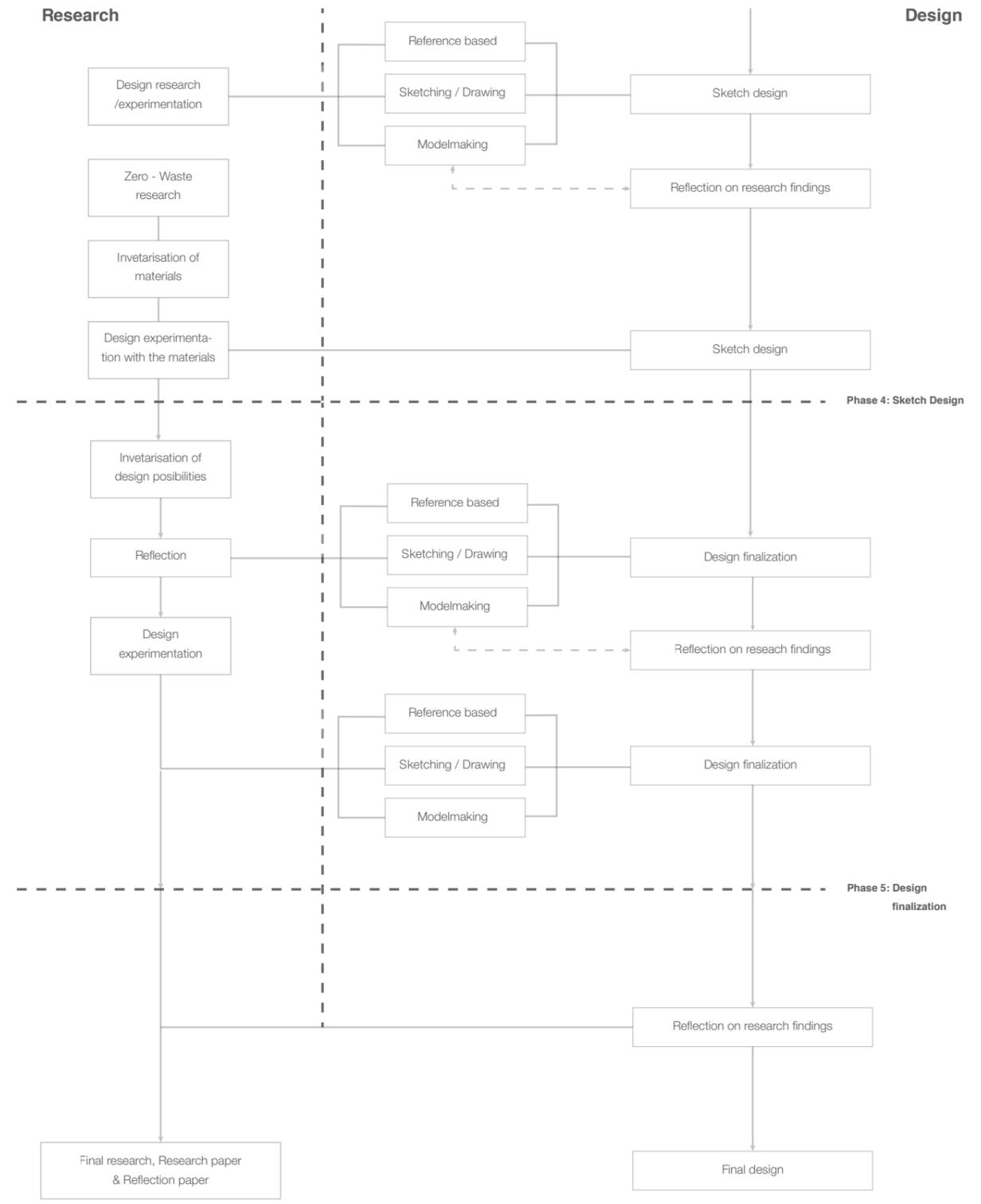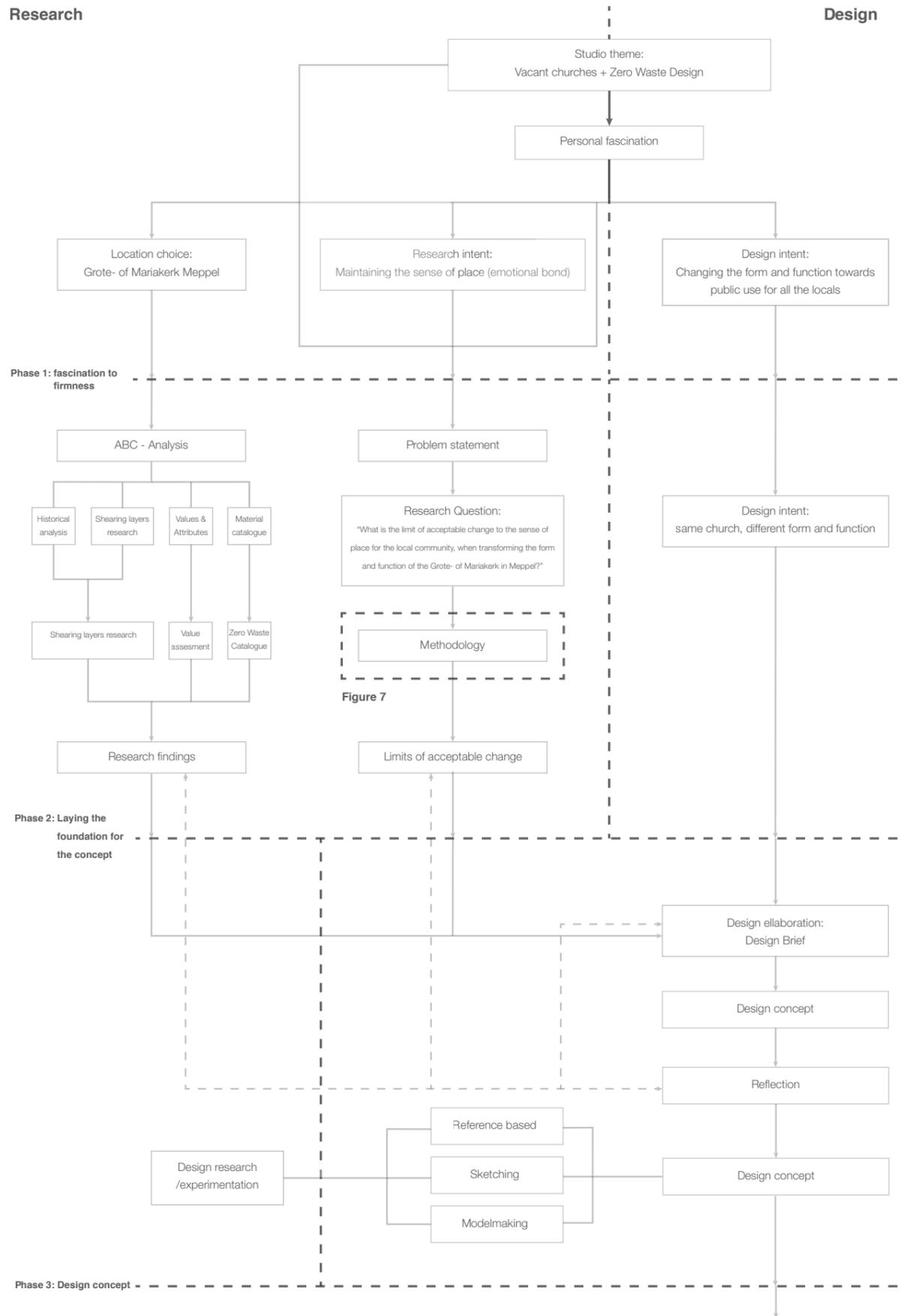

Figure 6 - *The relationship between research and design throughout the entire graduation studio* - own work

Studio theme: Vacant churches + Zero Waste Design

Personal fascination

Location choice: Grote- of Mariakerk Meppel

Research intent: Maintaining the sense of place (emotional bond)

Design intent: Changing the form and function towards public use for all the locals

Phase 1: fascination to firmness

ABC - Analysis

Problem statement

Design intent: same church, different form and function

Research Question: "What is the limit of acceptable change to the sense of place for the local community, when transforming the form and function of the Grote- of Mariakerk in Meppel?"

Historical analysis | Shearing layers research | Values & Attributes | Material catalogue

Shearing layers research | Value assesment | Zero Waste Catalogue

Methodology

Figure 7

Research findings

Limits of acceptable change

Phase 2: Laying the foundation for the concept

Design ellaboration: Design Brief

Design concept

Reflection

Design research /experimentation

Reference based | Sketching | Modelmaking

Design concept

Phase 3: Design concept

Design research /experimentation

Reference based | Sketching / Drawing | Modelmaking

Sketch design

Zero - Waste research

Reflection on research findings

Invetarisation of materials

Design experimentation with the materials

Sketch design

Phase 4: Sketch Design

Invetarisation of design posibilities

Reflection

Reference based | Sketching / Drawing | Modelmaking

Design finalization

Design experimentation

Reflection on reseach findings

Reference based | Sketching / Drawing | Modelmaking

Design finalization

Phase 5: Design finalization

Reflection on research findings

Final research, Research paper & Reflection paper

Final design

Research methodology

Methodology

Literature review I Sub-question 1 + 2

The focus of the literature review concerning sub-questions 1 and 2 is to clarify the theory of the sense of place and determine methods of measuring it. The research into both sub-questions is conducted through an examination of the scientific articles indicated in figure 7. As a result, the key concepts of the sense of place are defined, a theoretical framework on the theory is created, and methods for measuring (and quantifying the measurement) the sense of place is determined. The results of the literature review into both sub-questions are essential for the following research, as it lays the foundation for the field research to answer sub-questions 3 and 4.

Field research I Sub-question 3

The aim of the field research to answer sub-question 3 is to establish the elements that define the local community's sense of place of the Grote- of Mariakerk. The field research, based upon the earlier literature review, is conducted in the form of interviews and surveys (methods defined through preliminary investigation) with the local community of Meppel, and through analysis of local publications concerning the Grote- of Mariakerk. The overall research concerns churchgoers and non-churchgoers, which is why both groups are approached during the field research in Meppel, as specified in figure 7. The people approached for the interviews, the execution and spreading of the surveys, and the investigation of local publications and papers all follow figure 7. The research findings are used to establish the sense of place of the Grote- of Mariakerk for the local community and formulate a conclusion to the main research question.

Experimental research + Field research I Sub-question 4

The Experimental and field research focuses on determining how possible intervention scenarios would affect the sense of place of the Grote- of Mariakerk for the local community. The scenarios are defined based on the theory of 10+1 Actions for an Adaptive Architecture and then projected upon the Grote- of Mariakerk.

Based on the findings of the literature review and the developed intervention scenarios field research is conducted. Through both interviews and surveys, the local community of Meppel is questioned about how the proposed interventions affect the sense of place of the Grote- of Mariakerk. During the field research, the same groups are targeted as during the research into sub-question 3, as is mentioned in figure 7. The research results are used to determine the local's limits of acceptable change to the sense of place of the Grote- of Mariakerk and to formulate an answer to the main research question.
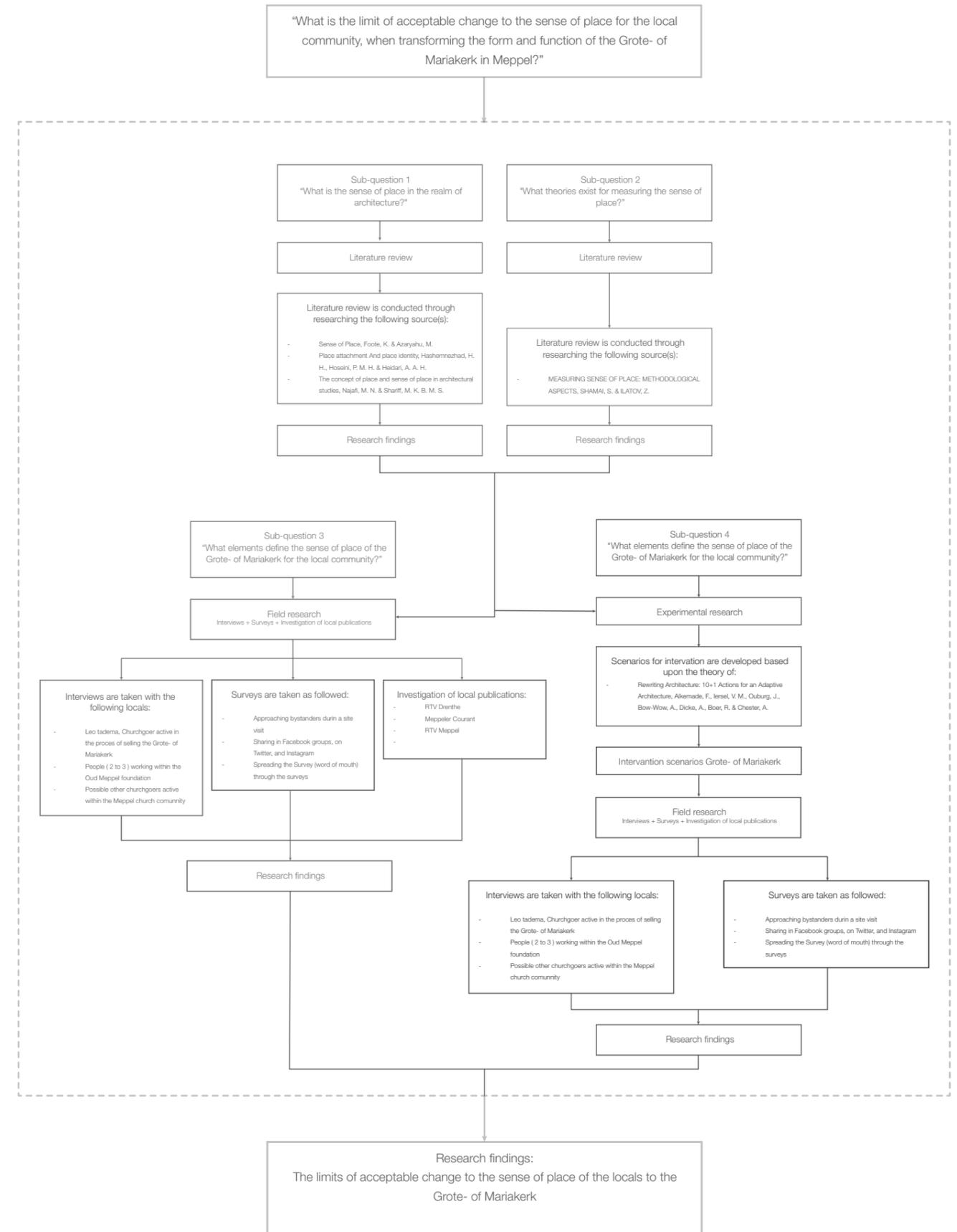

Figure 7 - *The methods and methodology used during the research of the local's limit of acceptable change to Grote- of Mariakerk, and how I plan*

to use the results won during each step of the research - own work

Relevance

The decreasing number of ecclesiastical in the Netherlands (Centraal Bureau voor de Statistiek, 2020) presents the harbinger of an upward trend regarding the number of vacant churches in need of repurposing the Netherlands. Especially considering that in 2021, more than 21% of the Dutch church stock had been repurposed, 4% was already in transition, and hundreds of churches have been demolished over the last decennia (NPO radio 1, 2021). Church buildings as houses of worship are becoming obsolete. As a result, endangering the conservation of the church's cultural values, and unique sense of place, adding to the already substantial problem of high vacancy rates plaguing cities (Dos Santos Goncalves & Quist, 2022), and the local problems concerning the repurposing of churches (Het Bisdom van Haarlem et al., 2008);(Fijter, 2019);(Zomer, 2014).

By determining the locals' limits of acceptable change to the Grote- of Mariakerk's sense of place, this research helps find an answer to the earlier posed problems regarding the vacancy and repurposing of churches, as it should help with the transformation of the church. While the research and design are specific to the Grote- of Mariakerk in Meppel, it provides an example and theoretical framework for repurposing other vacant churches. Furthermore, presenting the opportunities that arise when incorporating the aim of producing Zero Waste during the design.

Figurelist

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