



KB nationale  
bibliotheek

# Reflection

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## AR3AH115 Heritage Graduation Studio - Revitalising Heritage

Reflection Report  
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09-01-2026

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# Reflection

## 1. Introduction | Relation between the graduation project topic and the master program

The modern library of the 21st century has evolved from a static repository into a multifunctional 'third space' that fulfils a diverse range of social needs. While public libraries increasingly prioritise social functions such as makerspaces, event areas, and cafés, national libraries like the Koninklijke Bibliotheek (KB) in The Hague require quiet, concentrated environments for research. As a result, the KB faces a unique challenge: balancing its core mission as a research institution and preserver of cultural heritage with growing societal demands for openness, accessibility, and public programming.

This theme is addressed within the Heritage & Architecture graduation studio, *Sustainable Libraries – Revitalising Heritage*, which investigates how architectural interventions can sustain cultural value while adapting to contemporary needs. Situated within the Architecture track of the MSc Architecture, Urbanism, and Building Sciences programme, the project reflects the interdisciplinary character of the master's programme. It combines research and design methods to explore how spatial strategies can balance heritage preservation, sustainability, and social activation during the transformation of a large-scale national heritage building.

## 2. Research | Summary of the research and used methods

The research originated from my analysis of the transformation of libraries in the 21st century. Observing how traditional libraries evolved from quiet, collection-based institutions into dynamic, multifunctional spaces raised the question of how these changes affect their spatial design.

While analysing the current developments in library architecture, I noticed that most studies and projects focus on public libraries, which are often celebrated as open, social, and flexible spaces. A significant knowledge gap remains concerning the impact of the multifunctionality section on the spatial design of national libraries. There is a noticeable scarcity of literature specifically addressing the spatial design of national libraries, which have a strong research orientation and a responsibility for preserving cultural heritage. This makes the current research particularly relevant.

The studio's case study, The Koninklijke Bibliotheek (KB) in The Hague, provides an ideal case study for exploring this topic. The KB is currently redefining its identity, transitioning from a closed research institution into a more open and accessible public space. This transformation presents both opportunities and challenges, particularly in accommodating different user needs without compromising the core research function.

The primary objective of the research was therefore to investigate how spatial strategies can facilitate the KB's balance between its research and public functions. The main research question was formulated as follows: 'How can spatial strategies in the building of the Koninklijke Bibliotheek contribute to

creating an effective balance between research and public needs?’

To answer this question, the research employs a mixed-methods approach, combining case study analysis, user surveys, and semi-structured interviews. I investigated how existing multifunctional libraries deal with similar challenges and how these insights could inform the KB’s transformation. The case studies of Oodi Helsinki, OBA Amsterdam, and the Seattle Public Library offered examples of how multifunctionality can be achieved through zoning, circulation, flexibility, and acoustic strategies. The surveys and interviews conducted at the KB with KB users provided valuable insights into the needs of researchers and public users.

The outcome of the research resulted in a set of spatial strategies that can guide the transformation of the KB. These strategies offer a guiding framework for designing a future-proof National Library that effectively balances its academic and public roles. The findings from this research will give direction to the spatial (re)design of the KB and contribute to theoretical insights on reconciling multifunctional requirements within national libraries.

The results confirm that balancing both functions does not necessarily lead to a compromise; instead, the two can mutually reinforce each other. A more public-oriented library attracts new audiences and strengthens the institution’s social relevance. At the same time, researchers benefit from better-equipped, quiet workplaces in a building that is adaptable and resilient for the future. In this context, spatial strategies are not merely design choices but become powerful tools for mediating between institutional identity, user experience, and social value, particularly within the process of redesigning and revitalising the KB.

Several limitations should be acknowledged. The selected case studies are all newly built 21st-century libraries rather than transformed existing ones. This choice was made because little information is available on renovated or transformed national libraries. These examples were selected for their strong emphasis on user experience and multifunctionality, which still offered valuable insights for the KB context. However, the results might differ if future studies include existing or transformed national libraries, where spatial constraints and heritage values play a more prominent role.

A second limitation concerns the user research. The survey and interviews mainly involved current KB visitors, resulting in a certain sampling bias. People who do not use the library were not represented. As a result, the findings primarily reflect the views of existing users. Including non-users in future research could provide a more complete understanding of how spatial strategies might attract new audiences and strengthen the KB’s public role.

### 3. How did your research influence your design/recommendations and how did the design/recommendations influence your research?

#### 3.1 From Research to Design

As illustrated in the research–design diagram in Figure 1, the connection between research and design is made explicit, showing how theoretical insights evolve into spatial strategies. The strategies developed during the research phase provided a clear framework for the design process. However, this framework did not yet demonstrate how these strategies would interact with the existing building, what their spatial impact might be, or to what extent they would be feasible in the specific context of the KB.

The P3 phase was the stage in which these aspects were tested and implemented. Several design studies were conducted to explore how the proposed strategies could be applied, considering the heritage values, insights from group research, and the architectural qualities of the building and its surroundings.

By experimentation with the spatial strategies developed in the research phase, it became possible to create a well-founded and context-specific redesign of the KB. This process helped me realise that designing is not only about shaping

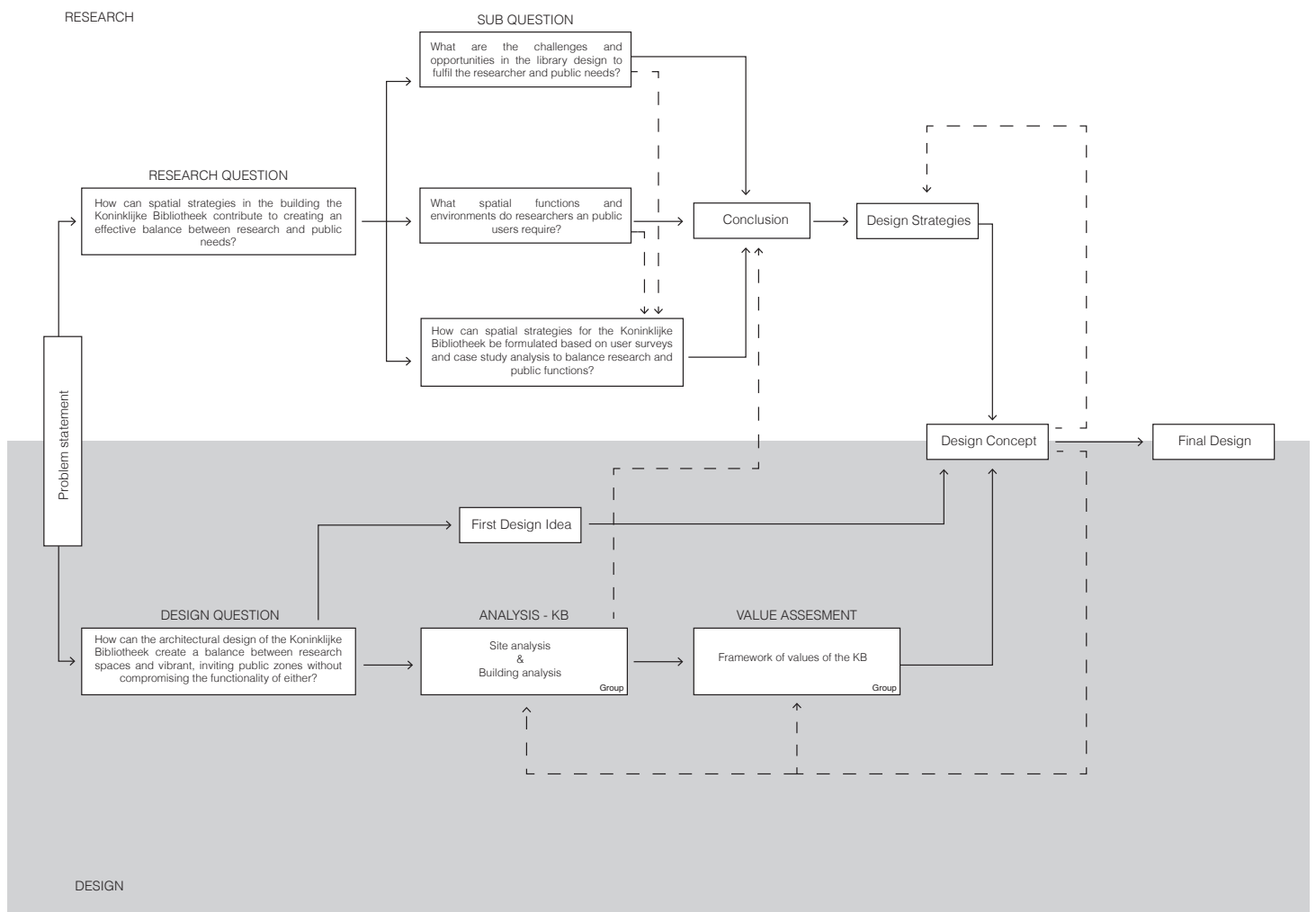


Figure 1 | Research-Design Diagram

space, but also about thinking critically through design, using design as a reflective tool to test, interpret, and develop ideas.

### 3.2. The Design process

During the P2 presentation, it became clear that the strategies developed in my research were not yet fully reflected in the design proposal. At certain points, I lacked strong arguments to support specific design decisions, for example, the removal or adaptation of existing building parts. Before P2, my primary focus was on translating the research outcomes into design ideas, but less attention was given to the heritage and sustainable values of the building and site. This was partly due to the limited time to explore and test different design options before the P2 review.

After P2, I revisited the KB building and its surroundings to analyse the project again at different scales and better understand the impact of my design strategies. I began to test how these interventions could strengthen both the architectural and urban qualities of the KB. This process helped me to examine the relationship between the building, its users, and its context more critically.

At the urban scale, I became more aware of the lack of green spaces and the high density of buildings in the area. I began to wonder how such an environment could provide a pleasant and healthy living space for both people and animals, given the area's limited public and ecological space. My research had mainly focused on creating balance within the building itself. Still, given the size and importance of the KB, its transformation could also serve as an opportunity to improve the broader urban environment.

This led me to explore how the redesign of the KB could contribute not only to a more socially connected and sustainable building but also to a healthier and more inclusive neighbourhood. The building's large amount of unused roof surface offers great potential for ecological and social activation. By introducing a series of green roofs, ranging from accessible terraces to biodiverse nature roofs, the KB could become part of a new ecological network within the city. Due to its stepped structure, these roofs can form a continuous "second landscape" that benefits both people and nature. Figure 2 illustrates how this currently hard and dense urban area could transform into a more vibrant and connected environment (Figure 3).

At the building level, I used my design strategies as a basis. By testing different façade configurations, floor plan layouts, and circulation concepts, etc., I examined how these strategies influenced the heritage and sustainability values of the building. I soon realised that this was not a simple process. Some strategies conflicted with the existing values of the building, which meant I constantly had to find the right balance.

The final design can therefore be seen as a balance between all these aspects. An example of this can be seen in Figure 4, which shows the cross-section of the KB redesign. Here, it becomes clear how important social connections have



Figure 3 | 3D view of redesigned Koninklijke Bibliotheek (KB) and its surroundings

become in my design. The central circulation connects functions and users, and the cross-section also shows how I have made a clear distinction between quiet and active functions. These were strategies that emerged strongly from my research and which I was able to incorporate into my design. At the same time, I tried to respect the original values of the building as much as possible and only make interventions that fit in with the character of the KB.

### 3.3. How did you navigate different Values During the Redesign of the KB Building?

Throughout the design process, I realized that working with an existing monumental building meant that I constantly had to navigate between different values. Because the KB is an existing building, every design choice has consequences on multiple levels and for various values. Sometimes this led to conflicts: an option that works perfectly for new construction suddenly no longer works here because, for example, it affects an important monumental value. As a result, I often had to reconsider what was more important or look for an alternative that served both interests as well as possible.

This meant that during the design process, I had to re-evaluate which values carried the most weight at that moment. Sometimes this meant that I had to adjust or even abandon a design strategy because it would affect the original character of the building too much. At other times, it turned out that a subtle intervention was sufficient to add new qualities while respecting existing values. This constant weighing up of strategies, values, and design choices made the task quite complex, but also very insightful. I learned a lot about designing within an existing context, remaining flexible in my thinking during the design process, and constantly reassessing which value carries the most weight at that moment.

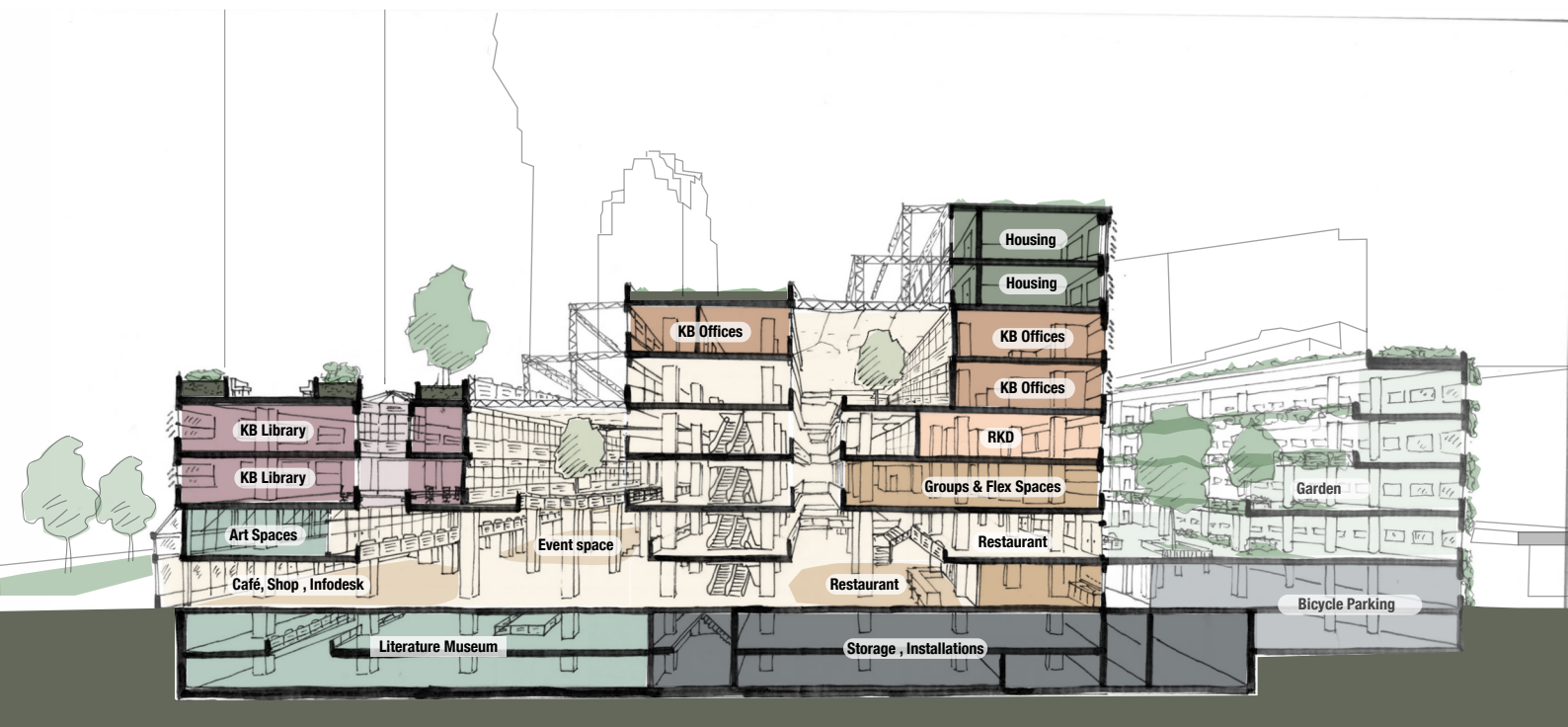


Figure 4 | Section Redesigned KB

#### **4. How do you assess the academic and societal value, scope and implication of your graduation project, including ethical aspects?**

This graduation project has both academic and social value, as it clearly demonstrates how the transformation of the KB affects both the building itself and the surrounding city. The KB currently faces a clear challenge: the building must become more accessible to a wider audience, while at the same time remaining a quiet and safe working environment for researchers and heritage users. As a result, design decisions are directly linked to questions of identity, use, and responsibility.

Academically, the project contributes by continuously linking research and design. By analyzing the KB from a spatial, heritage, social, and ecological perspective, the project ties in with current issues of adaptive reuse and sustainable transformation. It demonstrates concretely how design can be used to expose problems, enhance spatial qualities, and create new possibilities within the existing structure of a building.

Socially, the project demonstrates that redesigning the KB can contribute to very practical improvements: more space for people to meet, greater usability for its users, a stronger ecological network through a new roof landscape, and a building that better meets the needs of different user groups. The ethical responsibility lies in carefully weighing up what should be preserved and where there is room for change.

#### **5. How do you assess the value of the transferability of your project results?**

The results of this study primarily provide guidance for design decisions. The proposed design strategies are not fixed solutions, but rather a flexible framework that can also be applied to other national libraries or similar public buildings. In this project, these strategies had to be translated to the existing KB building, and as indicated earlier, such a transformation always requires a careful analysis of the specific context.

Although the final design is strongly rooted in the situation of the KB, it can serve as inspiration for new developments in other libraries or possibly even other public buildings. It demonstrates how a transformation can contribute not only to a functional new design but also to broader urban themes, such as social connection, ecological restoration, and climate adaptation.

Therefore, the design outcomes will never be directly transferable, as each location and each building has its own core characteristics and properties, but the design strategies, considerations, and choices made can serve as a reference and guideline for future (re)design processes.

#### **6. What did the continuous interaction between research and design teach you about your own way of working as a designer?**

The continuous interaction between research and design has taught me a lot about my way of working as a designer. Just like the previous design assignments

I have worked on, this design showed once again that designing is not just about creating the end result. Designing is actually a way of testing your questions spatially. By constantly testing each design step against research findings, such as user needs or ecological requirements, etc., you arrive step by step at a supported and realistic design.

This approach makes the design process more analytical and goal-oriented. By testing each step spatially, you can see where the bottlenecks and opportunities lie and which choices have the most impact on the quality of the building. This has helped me to make better-informed decisions. This approach aligns with the development I have undergone in recent years and has further refined my design skills.