



**THE ROLE OF SPATIAL EXPERIENCE IN THE ARCHITECTURAL  
DESIGN PROCESS**

Palicz Katalin  
Theses BME\_DLA, 2023



Author	• <b>Palicz Katalin</b>
Title of Dissertaion	<ul style="list-style-type: none"> <li>• <b>THE ROLE OF SPATIAL EXPERIENCE IN THE ARCHITECTURAL DESIGN PROCESS</b> Exploring the Meaning of Spatial Experience and Atmosphere in Nordic Modern and Contemporary Architecture and Design-Build Architecture Courses</li> </ul>
Masterwork	<ul style="list-style-type: none"> <li>• <b>The Viking Age Museum, Oslo</b> open International Architectural Competition III. prize</li> </ul>
Supervisor	<ul style="list-style-type: none"> <li>• <b>Fejérdy Péter DLA</b> Budapest University of Technology and Economics Doctoral School of Architecture</li> </ul>

## Abstract

The built environment plays a crucial role in shaping our mental, physical, cultural, and social development. How spatial experiences influence the mental state of humans is currently the subject of investigation not only by environmental psychologists but also by neuroscientists, sociologists, and researchers in other disciplines. Thanks to the latest advancements in medical imaging techniques, many questions that were previously explored solely within the realm of philosophy are now being quantitatively addressed using scientifically rigorous methods.

However, as architectural theorist Harry Mallgrave, among others, points out, architects seem surprisingly indifferent to this subject. Therefore, in this thesis, I approach the issue of spatial experience from a different perspective, one that may be more engaging for the architectural community and encourage further exploration of the topic. In my research, I explore the concept of spatial experience from the viewpoint of the architect as a designer. Instead of focusing solely on how spatial experiences affect one's mental state, I examine their role in the creative process and architectural education.

After scrutinizing various concepts in architectural discourse related to this theme, I present case studies of design approaches in which spatial experience is an integral part of the architectural concept. These examples provide insight into the diverse roles that spatial experience can play in the creative process, including its empathic, contextual, relational, metaphorical, intuitive, and experimental dimensions. This attempt at systematization aims to enhance our

understanding of the function of spatial experience in architectural design and lay the groundwork for further research. However, it's important to note that these roles are not sharply delineated. As demonstrated in the research, spatial experience is a complex concept that cannot be adequately addressed by manipulating individual elements in isolation. In this context, the architect's primary task is to create a new system of relationships in which various components are employed in the right proportion and quality.

The case studies in this thesis primarily serve to illustrate that architects have a wide array of creative means to influence spatial experience. Simultaneously, it is crucial to be aware of how these tools are employed and to recognize the weighty responsibility that accompanies their use. Fostering a deeper understanding of this responsibility and conscious application can be achieved through a reevaluation of the teaching methods employed in architectural education.

The 1:1 scale design-build courses examined in this research also demonstrated that bringing designed spaces to life is an immersive learning opportunity. It can make students more conscious of their design approach by allowing them to experience real spatial dimensions. Instead of relying solely on readily available images obtained through artificial search algorithms, design ideas become inspired by embodied spatial experiences. In such cases, students make design decisions with greater ease and develop their design intentions based on their knowledge and firsthand experiences. They recognize the social responsibility of architects and aspire to positively impact the lives of users through their work.



## Theses

**The role of experience in the architectural design process can be empathic, contextual, relational, metaphoric, intuitive and experimental.**

### First thesis

**Empathic** - focus on the space user

**The designer's real or envisioned spatial experience assumes an empathic role when the creation of the spatial environment is based on the user's perspective and leads to characteristics that favor the well-being of the users. In this case, the foundation of the architectural concept is a compassionate attitude and empathy with the feelings of the space users.**

A design practice based on the empathic experience of the space is an open, attentive, reflective approach, where the emphasis is placed on the needs of the space users. It involves other experts in the design process, and even the space users themselves can be included. The resulting architectural space has a positive impact on the mental and physical well-being of individuals and can positively influence their lives.



## Second thesis

**Contextual** - focus on the environment

**The contextual experience of space involves understanding the environment in which a building is situated and establishing a meaningful and emotional connection with it. The architectural concept is based on capturing the mood (atmosphere) of the context, reflecting on the environment, and creating a connection with the place.**

To create a sense of connection and harmony with the natural, cultural, geographical, or even social environment, the designer can draw inspiration from their own individual spatial experiences or from the experiences of others. In this sense, the architectural concept is not solely based on fleeting impressions but on a deep understanding of the essence of a situation, encompassing both the physical and cultural contexts. The site may also play such a decisive role that the design cannot take shape without it. In such cases, the intervention cannot be spatially separated from the context, and the environment becomes an integral part of the built space, forming a symbiotic relationship between the existing space and the new design.

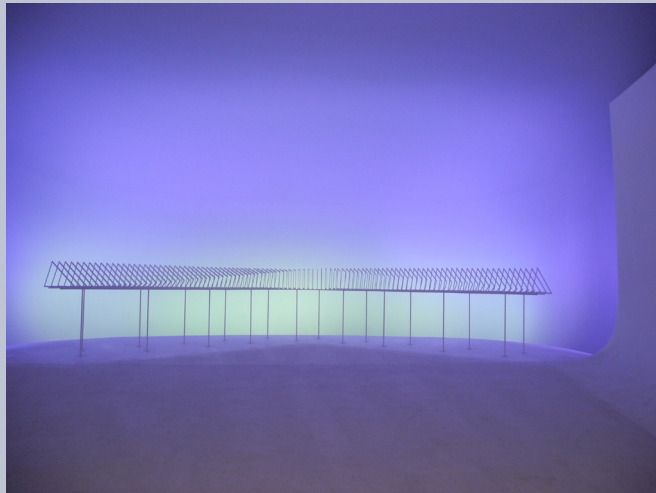


### Third thesis

**Relational** - focus on the interaction between the space user and the environment

**The relational spatial experience results from the interaction between the environment and the space user. The architectural concept based on this principle thus employs and enhances this interaction effect. This can mean intentionally creating an effect of separation from the environment or, conversely, an effect of integration into the atmosphere of the environment.**

If the designer aims to influence the user's mood through architectural design elements, the user's multisensory experience of the space is leveraged. Space created through the use of light, color, sound, texture, scent, scale, proportion, and rhythm is emotional.



#### Fourth thesis

**Metaphoric** - focus on meaning

**A metaphorical spatial experience is created when the designer represents a complex set of meanings through architectural design elements. This can be, for example, an abstract idea, an existing social problem, a cultural phenomenon, or a connection to the past.**

Knowledge of the cultural context is the basis for creating a metaphorical experience of space. From this knowledge, the designer develops the architectural concept, and the resulting space is narrative, evocative, or even reminiscent.





### Fifth thesis

**Intuitive** - focus of the designer

**The intuitive spatial experience is based on experience in the phenomenological sense. It excludes explicit learned knowledge, leaving room for spontaneously arising feelings. The intuitive, inner decisions that arise in intuitive design are not supported by rational, logical arguments, but are felt to be appropriate on the basis of our image of the world. The intuitive experience of space encourages innovation and the ability to break away from architectural conventions.**

In the case of architecture students, the intuitive experience of space can be genuinely heuristic, as they do not yet possess sufficient knowledge and experience. The practice of intuitive spatial experience is of paramount importance in architectural education and supports the development of the design ideas it generates.

In the creative work of practicing architects, it is more challenging to exclude explicit learned knowledge of space. In such cases, the intuitive spatial experience aims to reach a state in which the designers sense the space freely through their own being and are guided in the design by this experience rather than the need to adhere to specifications, client requirements, and other external influences.





## Sixth thesis

**Experimental** - variable focus or undefined

**The experimental role of the spatial experience is revealed in the design-build process where structures designed in the real physical space are simultaneously built at 1:1 scale. This experimental role fosters the shaping of architectural thinking and the development of independent decision-making ability in design. It is an important tool for creative thinking, making the relationship with architectural space more conscious. It develops a creative attitude in which the concepts of building and architecture are not separated, where design and craftsmanship go hand in hand.**

In design-build processes, in addition and beyond the first-hand experience on materials and technologies, physical laws, and the acquisition of craft skills, experimenting with the spatial experience has a critical purpose too. In 1:1 scale construction, architecture students are surrounded by the space they observe and create. Experiencing imaginary space through the experience of real spatial dimensions is an intensive learning opportunity.



