

SUSTAINABLE PARLIAMENT FOR GERMANY
REFLECTION PAPER

INTRODUCTION

This project belongs to the chair of Complex Projects. The 2022-2023 graduation studio of Complex Projects focuses on the relation between bodies and buildings and their individual specificity of each type. The studio provided a framework of nine building types (of public and complex nature) and asked the students to choose one particular building to explore during the graduation. The building type that I choose is the Parliament Building. My interest in this particular building is in the opportunity to learn about the complexity of flows, users, space requirements, and key spaces of a building that deal with rituals and symbolism.

During the research, the proposed problem that I choose to investigate is the relationship between sustainability and the parliament building. Since the dawn of civilization, the architecture of power has been a means to symbolize societies' beliefs. The parliament building is itself a great example. It has been used to project nations' images, associations, messages, and ideals. These buildings often embody a sense of oppression, intimidation, security, and protection. The Reichstag building in Berlin symbolized the German Unification in 1871; the National Congress in Brasilia symbolized the country's economic progress in the 1950s; the European Parliament in Strasbourg symbolized the openness and democracy of the newly created European Union in the 1990s. If we believe that our buildings shape us, as Winston Churchill once said, what parliament are we seeking? What comes next?

The Sustainable Parliament for Germany is a building with a gross area of about 15.000m². Located in Berlin, on the Platz der Republik, facing the Reichstag building. The client is the Bundesrat, the Upper House of Germany's legislative system. Bundesrat represents the sixteen Federal States of Germany, with a number of 69 members. The new building aims to enhance the representativeness of the institution by addressing Germany's

positioning towards sustainability. Bundesrat can be seen as a symbol to represent the goal of achieving greenhouse gas neutrality by 2045 - made by the Federal Climate Act of 2021. The building must be a physical materialization of environmental awareness and social inclusiveness.

1.1 THE RELATIONSHIP BETWEEN RESEARCH AND DESIGN

The basilar research in the case of a project such as a Parliament building is the one of the basic requirements of the building type itself. Differently from other buildings such as offices and houses - which we inhabit and know these places on a daily basis - the research task of designing a parliament building requires you to have on the tip of your fingers the full understanding of a building type that you have hardly ever been before. The building research led to the understanding of the tasks and rituals that take in these buildings. Who are the users? What is relevant in the case of a parliament? Security or acoustics? Climate control or privacy? How large is the parliament according to the number of members? What are the key spaces?

Parliament buildings can have a complex list of different users that can be up to 8 different ones. In the case of Bundesrat, there are two main groups besides the visitors. The first group was categorized during the research as "members and staff", compounded of 4 different users inside this group: Members of the parliament; Members' Staff; Presidium; Secretariat. These four users have one single entrance. The second group is known as "Guests", compounded of three different users, each with an individual entrance: VIP; Press; Members of Bundestag/Federal Government Members.

These users are directly related to the main tasks, rituals, and therefore spaces of the Parliament activity. Although committees are the main task of an Upper Houser parliament, the plenary session is more complicated to tackle architecturally because of the number of users that participate in one single event. The understanding of these activities and tasks was at the core of the program organization in the design phase, influencing the building typology together with the inputs

from the research about sustainability.

Regarding site research, this was extremely relevant for logistics, security, and entrance definition. During protocols and important plenary sessions in the chamber, the parliament will need full control of one of the access/streets, resulting in interrupting the city traffic. This requirement was fundamental to choosing the site primarily. Following that, analysing the local traffic, movement of people, and street characters influenced the decisions of the multiple entrances that the building has - a total of 6.

Another fundamental way the research shaped the design was the client, Bundesrat. During the research, the conclusions of the client such as the need for visibility within the German population, and the lack of symbolic representatives in the city created a strong argument to feed the design ambition of an inclusive and forward-thinking design.

1.2 THE RELATION ABOUT THE GRADUATION TOPIC AND STUDIO TOPIC

The studio topic focuses on how bodies and rituals give shape to spaces, and how through history these spaces have changed due to changes in social, economic, and technological aspects. In the case of the parliament building, the studio categorizes it as a building that is determined by the plan - the horizontal 2d representation of the building. This can be seen as a building that has a very specific demand for rooms and the relationship of these rooms within the plan. Besides these aspects, the studio also investigates how these buildings have changed through time in terms of their expression and symbolism.

The way that this graduation project deals with the studio topic, is by bringing a topic of global relevance - such as sustainability- and incorporating it into the building type. The parliament as a building that creates strong

national associations and symbolic messages has a responsible task within the topic.

The way that this intersects with the building type, is by changing completely the expression and urban relation that a conventional parliament building has. Transforming the parliament building almost as an urban regenerative tool. Aspects such as natural daylight, materials and technology, rationality, user well being, and transparency of the program to the public are incorporated into the design which resulted in specific design solutions.

1.3 RESEARCH METHOD AND THE APPROACH CHOSEN BY THE STUDENT IN RELATION TO THE GRADUATION

The research method used by the studio compounds two groups that are connected by the research question: building-type research and design brief research. Research on the building type aims to investigate the evolution of the specific building throughout history, thus developing an investigation theme, research question, and project ambition.

A framework provided by the studio is the analysis of the transformation of the parliament building through three key historical periods: agrarian, industrial, and information. This research is carried out by analysing drawings, mainly plans, and by comparing and identifying patterns and changes that are associated with the given time of society in relation to technology, economy, and social aspects. The design brief research is based on three categories: client, program, and site. The first part of the design brief research is to find clients and sites that can meet the ambitions and requirements of the research question. In parallel to that, the program research objective is to understand the basic aspects and requirements of subcategories of the building type, thus allowing us to review which one can fit better to our research

question. For instance, in the case of the parliament building, there are subcategories within the type that highly influence the performance and expression of the building, whereas a local city hall is conventionally more open and the public takes part in the activities on a daily basis, a parliament building with more than 600 users will have to deal with different issues such as logistics and security and to name a few. During this research, it was created a benchmark of several different topics such as sizing of parliament per member, sizing of chamber per member, program bar comparisons, flows, and circulations schemes.

The second part of the design brief research was to create the design brief with a chosen client, site, and program. In the case of a client, the research investigated the client's reputation, tasks, and structure. In the case of the site, the research investigated four different scales involving morphology, natural systems, transportation, historical evolution, and ecology. The program research creates a tailored program breakdown according to the client and research question, specific relation scheme of areas, and development of key spaces. Each of these three categories of the design brief defined ambitions that were translated to design scenarios – these ambitions are connected to the main project ambition and research question, which ensured the connection of the two pieces of research.

The conclusion of the research is the formulation of nine design scenarios - three per theme - addressing the ambitions of each. The nine scenarios are integrated into one and thus followed by the development of the integrated scenario.

In the case of this graduation project, the research method and approach were highly instructed by the research method provided by the studio. The truth is that the method to approach complex projects is very effective and made the research and design process very clear and precise, allowing us students to have control and an overview of the amount of data that we were dealing with.

One particular part of the research method that I found very valuable was the development of key spaces. By doing that the architect anticipates the ambitions and requirements, tackling a complex project by priorities and by parts, as a puzzle. This method forces you to work on priorities and makes you constantly question yourself about what parts of the building should be given more attention. Once the design starts, the development of the key spaces facilitates the further steps of the design process and allows architectural intentions to become viable by having control of the space, simplifying the complex nature of the project.

1.4 RELATIONSHIP BETWEEN THE GRADUATION PROJECT AND THE WIDER SOCIAL, PROFESSIONAL, SCIENTIFIC RELEVANCE

Parliament buildings are characterized by a strong controversy: at the same time that they could be described as one of the most public buildings in the city, they are known for their sense of protection and high security. The main users of these buildings, the members, are directly or indirectly elected by the people, thus representing the people. In addition to that, the task of the members is to decide on extremely important matters that include environmental, ethical, social, and economical aspects, to name a few. The sustainable parliament developed during this graduation project introduces a building that expresses this relationship in a horizontal, sensitive, and transparent way.

Starting from the city aspect, the building is a piece of landscape on the Platz der Republik. It does not pose itself as a hostile and powerful representation tool as the building next to it - Reichstag. It rather invites people to it in a spontaneous way, accommodating its functions without jeopardizing the public space. The Bundesrat becomes a building to celebrate public space.

The project takes to account the high symbolical value of architecture, especially

of government buildings that are historically known as being examples of intimidation and demonstration of power.

By using the architecture of power in a positive way, we can use our responsibility as architects to a higher degree, exceeding technical and spatial solutions, to reflect on the bigger picture. To reflect on how building shapes us on the urban level.

Nevertheless, technical solutions are also fundamentally important in this strategy. The use of rammed earth in governmental buildings ensures the client's commitment to achieving the climate-neutral target. The use of rammed earth as a key material across the project reflects the message of environmental awareness that Bundesrat wants to achieve and becomes a key part of the architectural expression, with a warm and earthy feeling. The material is harvested from its very own site, providing a very low cost and carbon footprint.

1.5 ETHICAL ISSUES AND DILEMMAS ENCOUNTERED DURING GRADUATION

During the design scenarios phase (at the conclusion of the design brief) the concept for the integrated scenario aroused from the idea of absence: sustainable architecture not only as a pragmatic approach but also as a strong phenomenological, almost art-like, experience. The only expression of the building is an intimate pavilion formed by the chamber. This concept would, at first, achieve the client, program, and site ambitions, by addressing a building that enhances the public image of the client, with an accessible and sensitive building.

The issue, however, is that designing an underground parliament with an intimate pavilion at the Platz der Republik would mean an aggressive excavation with no reuse of the soil. For a sustainable parliament, an action as such would not be seen as reasonable. This moment of the graduation was critical to find the balance between experience and

rationality in the aspect of sustainability. As a response, the project took this circumstance as a design input to elaborate on the concept, and by creating a partially underground building where all the excavated soil is used to create a continuous landscape on two sides of the building - the west connection to the Tiergarten and the east connection to the Reichstag - making the concept is still valid, but now environmentally sound.

However, once again, a new problem emerged: a partially excavated building along the Platz der Republik would mean a building that would block the connection of the Tiergarten (south) with the Spreebogen Park (north). The project again creates a design solution from the new dilemma, incorporating it in the architectural type: by placing a complete void cutting the project in the south-north axis, used as the entrance hall, activating both physically and visually the two sides. In addition, the implementation of the landscape is marked by stairs and ramps that are blended into the surroundings in a scattered way, making the connection across the building effortless and inviting.

5.1 BIBLIOGRAPHICAL REFERENCES

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