

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information		
Name	Tara Meuleman	
Student number	5085721	
Studio		
Name / Theme	Complex projects	
Main mentor	Olindo Caso	Building knowledge – research and design Architecture
Second mentor	Florian Eckardt	Building technology
Tirth mentor	Yağiz Söylev	Building knowledge – research and design Architecture
Argumentation of choice of the studio	I chose this studio because I thought it would be interesting to design a building with many challenges, where a lot of external data needs to be considered. Additionally, I was excited about the opportunity to design a cultural building, now in the form of a library. It is necessary to explore how this centuries-old typology is still relevant today and how it needs to evolve in order to add value to the civic community.	
Graduation project		
Title of the graduation project	Pockets of exchange A library of active participation	
Goal		
Location:	Milan, Italy This involves a redesign of the existing library at the Porta Volta location, Feltrinelli Foundation. It is assumed that this building was never constructed, and with current knowledge, a new design is being created that takes into account the qualities and areas for improvement of the existing building, making it relevant for 2025 and the future.	

The posed problem,

Currently participation could be further enhanced in Milan. Studies show that the happiness of citizens in Milan is not particularly high, as shown in figure 1. While Milan's residents take great pride in their city, data reveals that this does not directly correlate with their well-being (A. Balducci, D. Checchi, 2009). This "well-being" is closely related to the availability of places for personal relationships, local meeting spots where residents from diverse backgrounds can come together and interact. To improve well-being, community participation is crucial (A. Balducci, D. Checchi, 2009).

A key aspect of this participation is social exchange. A library is not only a space for exchanging books and knowledge but also plays a significant role in social exchange due to its civic character. The library serves as a public place where a diverse community converges in terms of age, ethnicity, values, social class, and interests. This research aims to improve participation among the various local target groups within the library.

Recent studies have analysed how small civic events such as community festivals, public meetings, recreational activities, and workshops play a crucial role in the growth of civil society and social participation in local communities (Connell, J., and S. J. Page, 2012). A library with a civic character can make a valuable contribution by offering space for these social interactions and civic events, which are essential for fostering participation. Additionally, a variety of spaces based on different interests and groups can further stimulate engagement. These spaces can range from dedicated meeting areas to low-intended meeting spaces that create valuable interactions among people who might not actively seek out one another

	<p>at first. Moreover, in response to the ongoing digitalization, hybrid participation is also an important aspect. These forms of participation operate at various levels, creating “pockets of exchange.”</p>
<p>research questions and</p>	<p><i>How can a library foster civic participation?</i></p> <p>What types of spaces are important in the library according to the Four Space Model? How can small civic events such as workshops and activities be integrated into a library? What types of elements of spaces stimulate exchange? How can low-intensity meeting spaces be created? How can hybrid participation be integrated into a library?</p>
<p>design assignment in which these result.</p>	<p>A re-design of the current fondazione Feltrinelli library located at porta volta, considering this building was never build but learning from the existing building. Hereby the design focusses on active participation inside and out to boost cultural uplift for the community of today. Therefore the library should be a stage for creation and technology. Also there should be a active collaboration between the current and future clients (Microsoft, library and museum → start ups in technology, library, museum)</p>
<p>Process</p>	
<p>Method description</p>	
<p>By using different methods this research will be constructed by literature review, case studies and on site mapping exchange. By doing so knowledge required to start the research by design fase will be obtained.</p>	

First, this research is based on a literature review on libraries as public buildings and participation within libraries. The starting point for this research is explored through the 4 Space Model Social exchange theory, Social capital theory and the theory about social interaction in green environments which together with the literature of the books (New Librarianship, Libraries, Archives, and Museums as Democratic Spaces in the Digital Age and 'The New Public Library- Design Innovation for the Twenty-First Century) defines the framework for the study. Following this, the concept of participation in a library is further defined. This literature research is relevant as a base for requiring the knowledge needed to design a library of participation.

Furthermore, case studies are used to compare how participation occurs and in which types of spaces and their collectiveness. The case studies selected for comparison are: Library Porta Volta (Milan) by Herzog & de Meuron, 2016; Rozet (Arnhem) by Neutelings Riedijk Architects, 2013; and Lochal (Tilburg) by Mecanoo Architects, 2019. All these case studies show a level of participation by using different architectural elements. By researching these elements, requirements can be made for the design of the library in Milan.

To investigate how participation occurs in a building, maps will be created for various case studies, including libraries as well as other social buildings where people gather and exchange ideas. The map will detail how this exchange takes place. This will take form in a social map. This type of mapping focuses on the social patterns and interactions of people in a given area. It can help to identify areas where there are high levels of social interaction, as well as areas where there are low levels of interaction. The information is typically visualized on a map and can

provide insight into the social dynamics. This kind of mapping will be used on top of the buildings floorplans. These maps are created by physically visiting the buildings and observing them. Different colours are used to represent collective exchanges versus personal exchanges, with the quantity of each indicated. This method allows for comparisons between these buildings and helps identify the types of spaces where this participation occurs. These spaces can then be more precisely defined in terms of area, level of participation, and value. This will likely result in a scale of different spaces with different elements that together stimulate a broad participation.

By interviewing people in the Porta Volta library direct input from the users of the library can be integrated, providing insights into the needs of different community groups.

Finally, research through design is employed to explore how these findings can be applied to the design of a new library in Milan.

Reflection

While these research methods provide a strong foundation for the research-by-design phase, there are some constraints. Due to time limitations, the case studies are limited to just three libraries, which may not be fully representative of all libraries or public spaces worldwide. A broader range of case studies from different cultural or political contexts would enhance the research's global relevance. Additionally, the

social mapping method relies on physical visits, which, while providing valuable real-time data, are limited by the researchers' ability to be present in multiple locations and may not capture the dynamic nature of social interactions over time.

Literature and general practical references

Articles

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Reflection

Architecture

This research is highly relevant for architecture as it explores how spatial design can actively facilitate social participation, engagement, and community-building within public institutions. By investigating how architectural element, such as layout, materiality, transparency, and the integration of hybrid (digital-physical) spaces, can encourage interaction and inclusivity. The study provides insights into

designing libraries as dynamic, participatory environments. It contributes to the broader architectural discourse on how buildings can respond to and shape contemporary social needs, transforming passive spaces into active platforms for cultural exchange and collective learning.

Studio

In this studio, we are focused on the lens of the civic. A library is a public building with a strong civic character. Within the concept of "civic," community interaction and participation play a crucial role. In this way, the building can give something back to society and actively contribute to strengthening the sense of connection among local residents. This research therefore contributes to exploring the theme of the civic and understanding its value.

Historical

From the ancient Library of Alexandria to Renaissance reading rooms and 20th-century public libraries, these institutions have reflected the cultural, political, and social values of their time. They have served as spaces for education, democratic access to information, and intellectual exchange. In today's rapidly changing digital and social landscape, revisiting and reinterpreting the historical role of the library is essential. Redefining the role libraries play today as civic institutions. This research contributes to the relevance of the typology of the library today and how it can boost a cultural uplift for today's community by active participation.

Expected results

It is expected that by creating a wide range of spaces in the building, varying in size and character, visitor participation can be promoted. These spaces can range from informal meeting areas to structured workshop spaces. Additionally, space can be created for citizen initiatives, designed as a multifunctional area that is flexible according to the user's needs. Small civic events can also be integrated into larger multifunctional spaces, which could potentially be divided into smaller areas. It is also expected that spaces that allow for personal interpretation will encourage visitor participation. Corners and niches can visualize the "pockets of exchange" and thereby enhance participation. The bridge to hybrid participation can be established by offering spaces for digital workshops or hybrid workshops focused on digital tools, where the library can showcase these digital techniques to make them more accessible to everyone in the community. Lastly the location of the library has a lot of potential for integrating the green environment of the park with the library to stimulate more interaction. This hypothesis will be tested through the methodology of the literature studies, cases studies, the on site mapping of interactions and by research through design of the library.