

Reflection: position on heritage and architecture

Cover, recover and reveal

The future of Structuralism

The reason for intervention in an existing context is to cover, recover and reveal the given qualities of the existing Leiden University, Humanities and Faculty of the Arts buildings. The building is seen as the last work by architect Joop van Stigt which is still classified as a structuralism design. Joop van Stigt came from a generation who lived through WWII and his generation represents a time period of radical thinkers with strong social motives for buildings a close knit society. Having said this not all 70s buildings are considered to be apart of the Dutch structuralism movement. The structuralism architects are world famous but these small number of structuralism buildings are currently requiring maintenance. Although it appears to be a typical 70s at first sight building but actually these buildings are the built forms of radical ideas of the time.

To be able to embrace the many contradictions and constraints in the building is a challenge and requires research to fully understand and prioritise the initial intentions of the architects.

The architect Joop van stigt was less concerned with the choice of materials and more concerned with providing the university a campus with a well-constructed, cheap and functional building which was finished on time. He wanted to create a community between the different university faculties by housing each department around a collective courtyard. Then with alleyways and squares, he wanted to continue the tissue of the historic city centre and surrounding context in to the site. He wanted to build a rigid framework which could be flexible within the framework to accommodate the users needs.

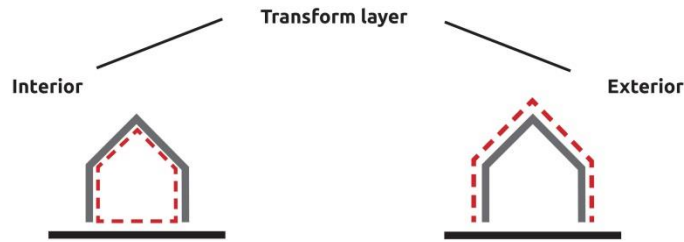
The position I take is therefore not merely to conserve the building but to test to what extend can changes be made before the original idea for structure and infill is lost.

To be able to do this test I prioritise the structure layer of the building as most valuable and therefore no damage to the structure may occur.

Research question: what is the range in which structuralism buildings can change while still preserving the original idea of the architect? What were the main themes in the structuralism movement? In theory structuralism buildings claim to be very flexible but in reality it is very difficult to implement change.

Design question: How to test through a design process if the Leiden University Humanities Faculty can be changed within the range of possible adaption while preserving the original ideas.

Understanding Steward Brands theory that a building consists of layers, will help to test how to change the building. These layers are site>skin>structure>surfaces>services>stuff>spirit. The biggest problem lies in the many openings in the layers on either side of the structure of the building. What is the spatial effect created by making a change to the skin or to the surface of a building?



The project has a three pronged strategy towards dealing with the current situation and heritage value of the site. Firstly, the solution deals with the shortage of available space for students to study on campus. Secondly, it solves the dramatically bad thermal insulation capacity of the existing skin of the building. Lastly, the solution proposed will recover the cultural heritage of this structuralism building.

Summary of the original ideas of the architects:

- a) configurative design of units,
- b) polar opposites of part to whole and of whole to part (building as a city, city as a building).
- c) the open nature or flexibility of the existing structure (encompassing a strong ideological goal for changeable buildings for changing societies),
- d) allowing for an interweaving, visually and socially connected future society.

The program for the building will continue as current. The position taken in the design is not a conversion project of an old function to a new function but rather a test to see the spatial effect between the range of preservation and transformation positions. At the same time the goal is to modernise the existing program as Joop van Stigt would want the users to have the freedom to update their surroundings for improved functionality. The best kind of learning experience a student can have is to be in a context where they are surrounded with peers with similar interest and visions, personal interaction with staff members and lots of books which are easily accessible. This is of extra importance considering a trend in online learning with limited social interaction. The fundamental principles remain true for all learning scenarios. An embodied learning experience with rapid feedback from your peers and tutors is far more memorable.

On a more general note for the benefit of renovation for society, many buildings in our city are standing empty waiting for a new life. My interest is to rather revitalise current empty space within existing structures in the city. I do not aim to add to an expanding city sprawl but I aim to contribute to densifying existing spaces for future use.

Architecture is a visual art and the structures of the buildings speak for themselves. I hope to recover the stories from the past and reveal the art of the building so that the cultural heritage may speak for itself.

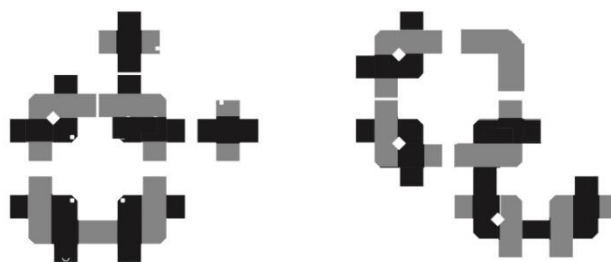


Fig: Roof pattern of existing situation

“Dialectics is not a method for generating predetermined outcomes but
it is a method of study of social process: interrelations, development, transformation”
(Herman Hertzberger).

The relevance of the dual opposite approach allowed me to test two strategies on either ends of a range of possible intervention on how to transform the university campus.

On the south cluster of the building, the thermal line is placed on the inside of the structure. This causes a change to the interior surface. The insulation will slightly decrease the amount of available space, reduce the side of the opening for daylight and hide the original interior material textures. The benefit is that it allows for the preservation of the external image, while providing a totally modernised and comfortable internal condition.

On the north cluster of the building, the thermal line is placed outside of the structure of the building. This creates an opportunity to maximise the floor area. Hiding an additional level of construction on top behind the newly designed insulation layer is convenient as it also avoids a difficult old and new junction. Extra space between the structure and the façade can be created to allow for more study and reading spaces. The daylight is increased and the interior finishes are retained to a certain degree. In the case of the Leiden Humanities Faculty, this solution avoids difficult detailing finishes of insulation material around the mushroom like columns, but totally changes the external appearance of the building.

Table of result illustrating the effect of an approach to treat thermal bridges

	Accept	Inside insulation layer	Outside insulation layer
Cultural preservation	***	**	*
Energy preservation	*	**	***
Usable floor area	*	*	***
Daylight	**	*	***
Usability of courtyard spaces throughout the year	*	**	***
Wayfinding	*	**	***
Services	*	**	***
Existing material finish	***	*	**

Why was the south cluster chosen for a preservation position?

The purity of the existing house units was more legible on the southern cluster in comparison to the northern cluster where many units were already merged into each other by Joop van Stigt's design due to site constraints. The purity of the units was an important indication for the less obtrusive additive intervention option on the southern cluster and has led to the more extreme replacement transformation intervention on the northern cluster. Now the view of the past cultural heritage is preserved on the southern cluster, while the capacity to provide more space to accommodate students is solved by the transformation of the northern cluster.

What will be the future of Structuralism buildings in the Netherlands?

That is a tricky question considering the monument status requirements that do not allow for ultimate change as envisioned by the architects of the time. In my opinion, to continue to work with the strict grid of the structures there needs to be some looseness in the new intervention for new growth and new life. Transforming the skin of the building has greater visual change than changing the interior surface of the building. The risk of losing the cultural value is greater. However, transforming the exterior skin solve many technical difficulties in simple elegant solutions.

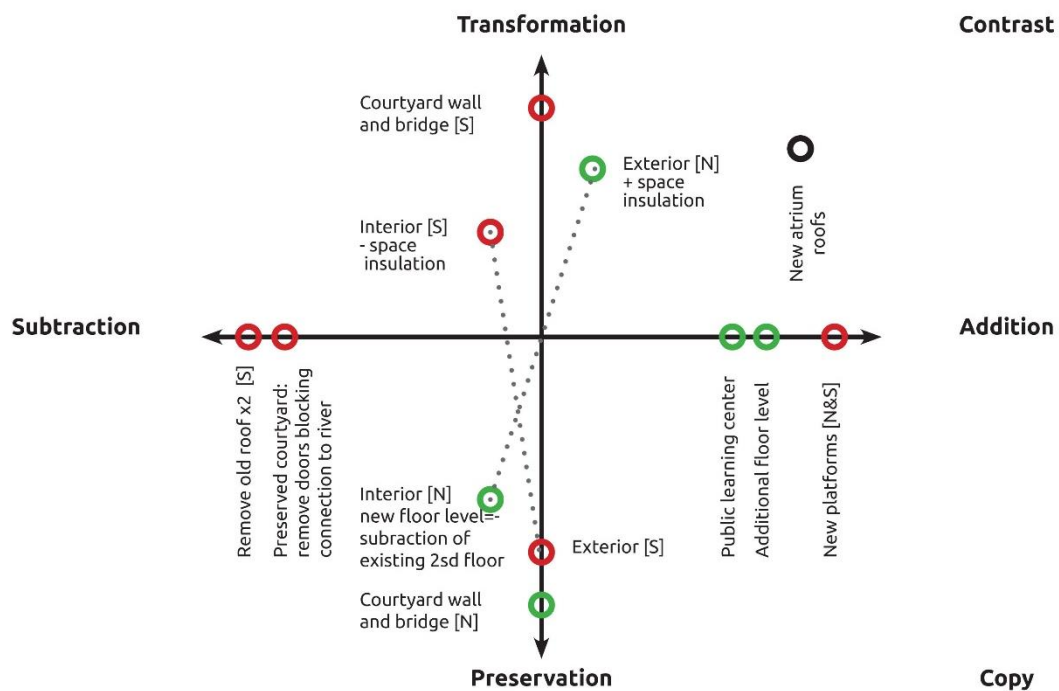


Fig: Diagram explaining my position towards cultural heritage by analysing the design intervention components

Conclusion:

The outcome of the test is that if the building changes too much then the original ideas are lost. If the interior is changed then the exterior experience is preserved. If the exterior is changed then the interior experience is better maintained. The task is to make sure that the design of the outer layer will also improve the interior experience by providing greater user comfort.

Research into the rarity of the cultural heritage together with future aspirations should be debated in order to formulate an appropriate position towards the intervention. Choosing multiple positions is exhausting and it is better to choose one position and base all further decisions and calculated risks to reach a coherent design.

The cultural heritage of the building is something which the architect projects back into the building environment and I hope that through covering the buildings in a new transformed skin, a vision for collective and collaborative university environment, can be recovered and structuralism can be revealed.

Some helpful tips from tutors:

- Important to make a hierarchy in the list of problems you are trying to solve at any one time.
- Be careful not to just zoom into details and forget to resolve the composition of the bigger picture first. I have learnt the benefit of carefully move from the bigger picture to the detail level thanks to the wonderful guidance from the supervisors
- It is important to have a strong concept and spatial goal at the start of the project.
- Express the fundamental idea from large scale through to small scale of the design to make a coherent and simple relationship between old and new.
- Explain what is significant of the old and how will it give greater meaning to the new place (1+1>2)
- Ventilation concept. ...A far more complex thing than I originally imagined.
- Think in options and alternatives!

List of how the final part of the graduation period will be filled in:

- A. Refine interiors finishes
- B. Build a model with urban context
- C. Improve perspective representational drawings

I look forward to the further developments in the next five weeks.

Many thanks to the supervisors for their endless inspiration and sharing their great passion for design with the students.