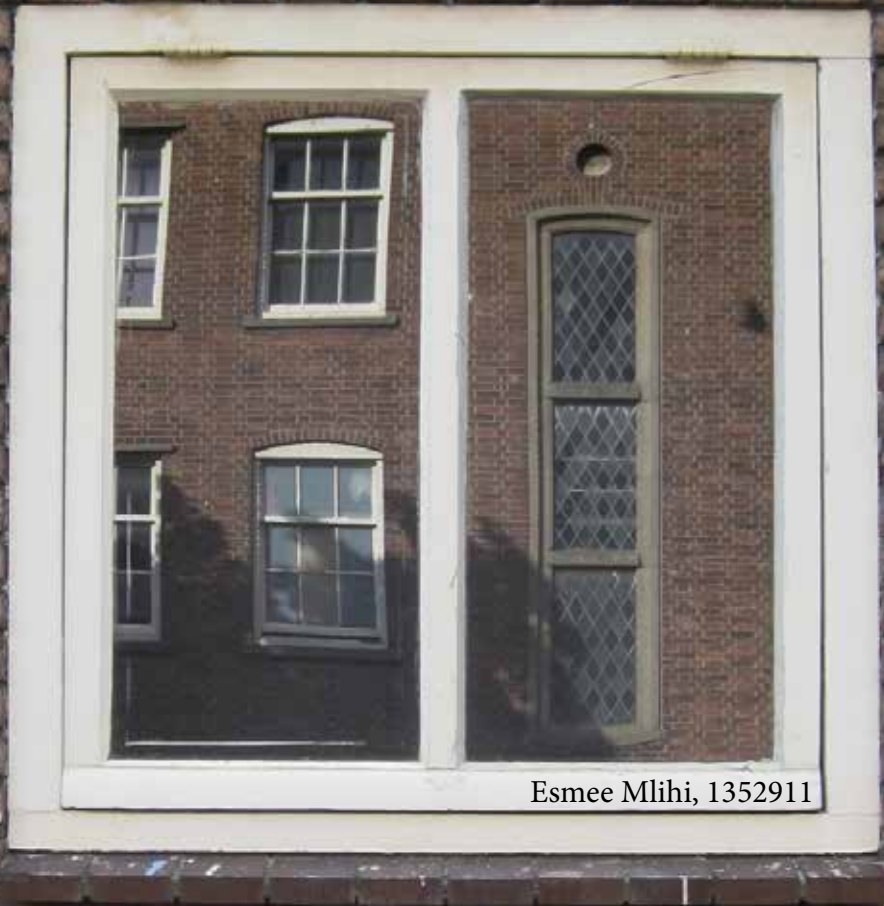


# Reflection P4



Esmee Mlihi, 1352911

Forms and functions of the  
postwar dwelling facades

# Reflection P4

*Title:*

**“Forms and functions of the postwar dwelling facades”**

*: Insulation improvement with aesthetic awareness*

*Personal information*

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Delft, 14-05-2014

# Aspect 1 & 2

## **Research and redesign frame of the graduation studio**

The 'Vogelbuurt', a dwelling area in Rotterdam south, is an example of the post-war dwelling stock. It represents the heritage of the modernists, whose position was dominant. Their ideological top-down designs were a suitable solution for the housing shortage of that time (Rocco 2013). Currently, this post-war dwelling stock is dealing with multiple problems and therefore needs to be redeveloped (Priemus 1996, p.36 ; Macdonald 2001, p. XX).

## **The relationship between the research and redesign of the graduation studio**

The research frame of the graduation studio, housing heritage, are the post-war 'portiek etage flats' in the 'Vogelbuurt' representing 10% of the total Dutch dwelling stock. The outcome of the research is a problem statement.

This problem statement is the basis of the redesign. It defines the starting points, program and goals of the redesign. During and at the end of the redesign process it is a tool to value the redesign. Did it answer the programme? Are the targets achieved?

Are the problems solved of the post-war 'portiek etage flat' in the 'Vogelbuurt'? And can it be a representative solution for the rest of the 10% of Dutch dwelling stock?

**The chosen research and redesign frame**

The outcome of the my research are the following problem statements:

The absence of insulation in the façade.

Causing an uncomfortable interior climate, inefficient space heating and therefore unnecessary high CO2 emissions and energy bills.

Damage and wear of the façade

Causing an impression of neglection and a negative reputation of the area.

**Research and redesign question**

“How can a redesign (1) improve the aesthetic and insulation properties of the façades in the ‘Vogelbuurt’, and at the same time represent a solution for the rest of the post-war ‘portiek etage flats’ in the Netherlands?” (2)

Both the aesthetic and the insulation properties are located in the façade. Exactly here, a physical redesign can influence both material factors and their related problems.

**The relationship between the chosen research and redesign**

The redesign consists of 3 façade interventions in the ‘Vogelbuurt’. The interventions are all located on the outside of the facade ( ‘schil aanpak’ ) and similar in material but different in scale and architecture.

(1)  
R-MIT redesign approach,  
to make the build environment  
suitable for our modern daily life  
with the added value of preserved  
qualities. Meurs, P. (2013). Lecture  
series Heritage Development,  
AR3Ar071. Lecture. Delft, TU  
Delft

(2)  
The practical part of the question  
is design based. It focus on the  
insulation and aesthetic properties  
of the facades in the “Vogelbuurt”.  
The theoretical part of the question  
reverses to larger scale, the total  
post-war ‘portiek etageflat’ stock  
in the Netherlands.

The 3 facade interventions are a laboratory of the possible design solutions for the specific insulation and aesthetical problems in the ‘Vogelbuurt’.

A ‘consideration matrix’ values the 3 façade interventions towards the general energetic and aesthetic problems. It translates the outcomes of the laboratory towards the bigger scale of the total post war ‘portiek etage flats’ in the Netherlands.

Together these 3 façade interventions and the ‘consideration matrix’ will help future designers to improve the insulation of the façade on the outside ( to apply the ‘schilaanpak’ ) with aesthetic awareness.

Looking back this method of 3 different case studies and the ‘consideration matrix’ as a reflection and correction tool, became more complex than expected. The concept of combining practical outcomes and theoretical backgrounds with the comparison of measurable insulation outcomes and the unquantifiable aesthetical outcomes became unclear by the great amount and different types of parameters.

The enrichment of combined parameters is only fruitful if the outcomes are readable. Therefore a clear and ingenuous structure and lay-out is required.

The ‘consideration matrix’ requires currently still too much explanation towards the reader. And therefore I will use the P5 period to improve the underlaying structure and lay-out to make it better and faster readable for colleagues in the future.

# Aspect 3

## **The relationship between the methodical line of approach of the studio and the chosen method**

Similar to the R-MIT graduation studio I have done research by design and designed by research. (Zijlstra 2013)

I have developed my redesign and research by a practical and theoretical research question. ( see page 4 ). I have focused on the specific and physical problems on the scale of the ‘Vogelbuurt’, and at the same time on the generic and theoretical problems on the scale of the total post-war dwelling stock.

I have investigated scientific theories and researches. Such as the PhD outcomes of Thaleia Konstantinou concerning the physical possibilities of insulation improvements related towards the location and scale of the intervention.

Simultaneously I have read the theories of Alain de Botton and Umberto Eco to investigate the concept of beauty in relation with architecture and the developed theories in history. These theoretical insulation improvement and aesthetical outcomes are the underlayer of the ‘consideration matrix’.

The work of Thaleia Konstantinou, was very fruitful for me because of the clear structure in comparison of all different measurable quantified interventions. It was a good basis to link the aesthetic effects (described in concept by Botton and Eco ) directly to these physical interventions.

# Aspect 4

## **The relationship between the project and the wider social context**

Approximately 10% of the Dutch dwelling stock is post-war 'portiek etage flats'. The part built before 1969 is not or minimally insulated. (Priemus 1996, p.36)

This indicates that the insulation problems of the project are no exceptions but represent a wider scope. A significant percentage of the dwelling stock has an uncomfortable interior climate ( people ), unnecessary high CO2 emission and energy bills ( planet and profit ).

In practice there is a tendency to solve this insulation problem of the post-war 'portiek etage flat' only from an economical and functional approach. This often results in the cheap and short term solution of glued insulation on the outside covered with a layer of stucco.

In less the 5 years maintenance is required. The cheap solution turns to be expensive, and on the scale of the neighbourhood the quality of diversity in architectural styles is disappearing. The original durable brick façades are covered with an anonymous maintenance requiring layer of plaster.

A reply towards this tendency of capital and quality destruction is the main motiv of my graduation project. By the 3 facade interventions and the 'consideration matrix' I want to show a fruitful alternative approach. "Esthetisch bewust na-isoleren is renderen"

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# 3 façade interventions

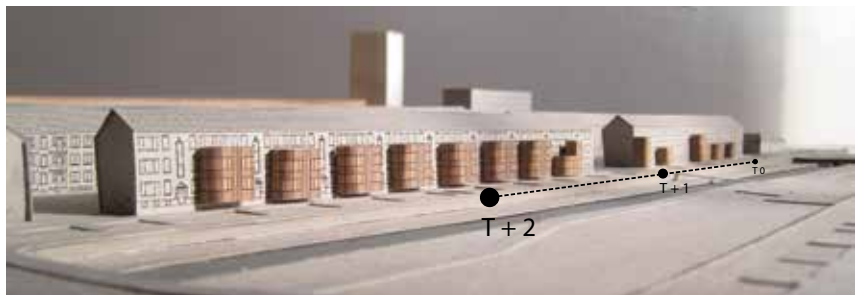
Location within the  
'Vogelbuurt'



Scale :  
Dwelling



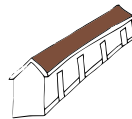
Architecture :  
Vermeer van de Tak



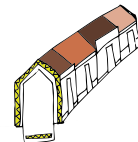
**Location within the  
'Vogelbuurt'**



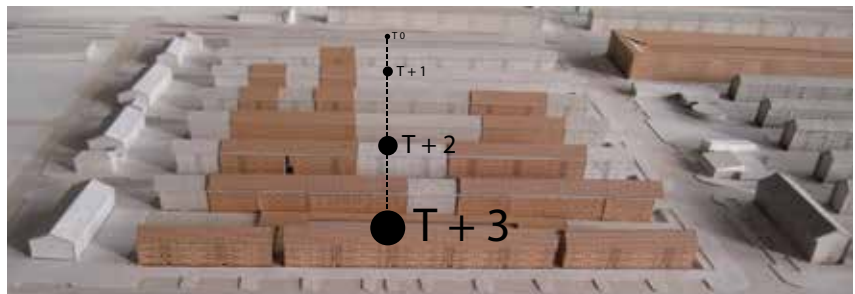
**Scale :  
'Portiek'**



PORTIEK



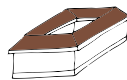
**Architecture :  
Brinkman en van  
Broek**



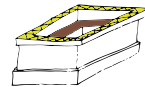
**Location within the  
'Vogelbuurt'**



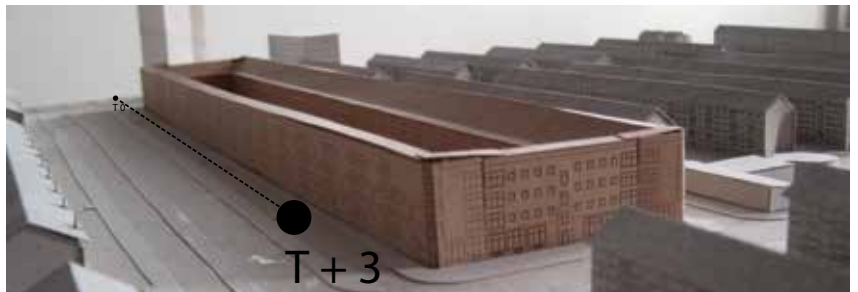
**Scale :  
Block**



BLOK



**Architecture :  
Sutterland**



# Consideration matrix

