

# RENOVATION OF AIREY BLOCKS

## Reflection Report

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# Introduction

This reflection report is the reflection on my research and design of the graduation project for the Re-housing studio in the chair of Heritage & Architecture at the faculty of architecture of TU Delft. In my graduation phase, I mainly deal with the project Airey blocks which are located on the North side of Burgemeester de Vlugtlaan in the Slotermeer, Amsterdam West. The Airey blocks applied the Airey system which is an early post-war construction system, which was introduced and reinvented in a period the Netherlands, hastened to rebuild their housing stock and tried to catch up with the shortage of public housing. The site is part of the General Extension Plan (AUP) of Amsterdam, which is designed by Cornelis van Eesteren (1897-1988) in 1939 and is an important example of the 'Nieuwe Bouwen' movement.

## 1. The Relationship Between Research and Design

In preliminary research, the Airey blocks have been researched and studied under three aspects: design, culture value and building technology in depth both separately and simultaneously. The analysis and research cover six 's' (site, structure, skin, space plan, service and stuff) from Stewart Brand. From the research, it can be concluded that the Airey blocks have great cultural historical values. There are two noteworthy values: the 'light, air and space' which embodies the ideal of the 'Nieuwe Bouwen' movement and Cornelis van Eesteren's concept of the 'functional city'; and the envelope represents the built environment in the 50's after the WWII. And from the research on the demographical data of the Geuzenveld-Slotermeer district and the interviews with the residents, we noticed that compared to the 50s, now mostly a lot of Turkish and Moroccan families are living with 4 to 8 members in Airey blocks (Fig. 1). The changes of demographics are also reflected in the environment of the neighborhood; many Turkish and Moroccan entrepreneurs have their own restaurant or supermarket in the neighborhood.

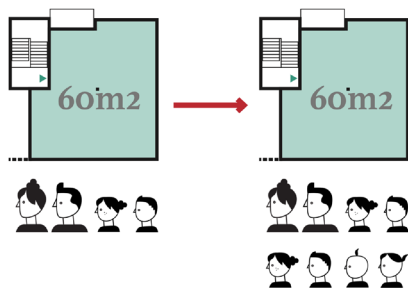


Fig. 1 The change of the size of the family in Airey blocks

On top of this, my start point is to interpret the 'light, air and space' and apply it to current Airey blocks. That is to provide current low-income big families a better living environment which can be studied from 'light, air and space'.

To conclude, through the research and analysis on history, I found the main concept 'light, air and space' of the Airey blocks, and through the interview and study of the demographics, I understood the current social background of the site. In the following design process, I combine these two findings, interpret the valuable historical ideal and applied it in the demographically changed environment.

## 2. The Relationship Between the Theme of the Studio and the Subject Chosen by Student with This Framework

The overall theme of the graduation studio Re-Housing is to find new interpretations of housing in existing buildings. In this studio, we will study new notions of quality for the user (Luxury), environmental improvements (Energy) and social aspects and feasibility (Economy) ( Fig. 2). The theme coincides with the PLUS thoughts of Anne Lacaton, who is specialised in re-housing projects and has developed a smart and integral approach to the revitalisation of existing buildings. And she will be co-leading this studio as a visiting professor.

### RE HOUSING Luxury, Energy and Economy



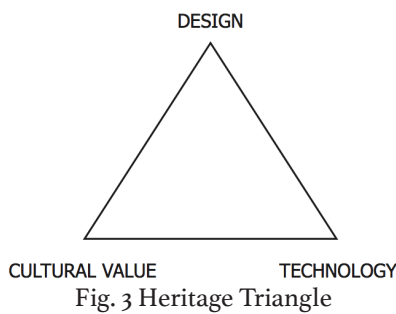
Fig. 1 The Theme of Re-housing Studio

My theme is to interpret 'light, air and space' in low-income big families. Anne Lacaton's PLUS thoughts would be a good reference. PLUS means 'offering a plus when one tackles a concrete situation, never demolishing, subtracting or replacing things, but of always adding, transforming and utilising' '. Therefore, building the extension of Airey blocks is chosen for implement my design concept. And the design process starts from the floor plan scale then to the portiek scale, the block scale, the site scale and the detail scale.

1. Frédéric Druot, Anne Lacaton, and Jean-Philippe Vassal, 2007, Plus, Editorial Gustavo Gili, SL, Barcelona

### 3. The Relationship Between the Methodical Line Approach of the Studio and the Method Chosen by Student

The methodical line of approach of the Re-Housing studio can be illustrated in Heritage Triangle (Fig. 3). The three corners of the triangle represent three aspects of the transformation process: design, technology and cultural value. The three aspects together form the transformation approach and method. Besides the triangle, the six 's' which proposed by Stewart Brand's 1994 book *How Buildings Learn* is also used in the graduation process. Under the Heritage Triangle and the six 's', research as well as design can be defined in all aspects and all levels of scale.



In my design process, besides the Heritage triangle and the six 's'. The interviews with the residents also play an important role in both research and design process. It provides the start point of the design and is part of the design concept, therefore, it some degree determine the following design choices.

On top of this, the personal design and study frame work which is illustrated in Fig. 4 is applied in the whole design phase. The focus of the design is the extension which belongs to the floor plan scale. It is the direct answer to the design concept; that is to transform Airey blocks to affordable big apartments for current low-income families. Therefore the efficiency, function, aesthetics, construction and energy of the extension are explored and several variants of the design are developed. Finally, one optimal design proposal will be fully developed in all scale from detail to block and landscape.

### 4. The Relationship Between the Project and the Wider Social Context.

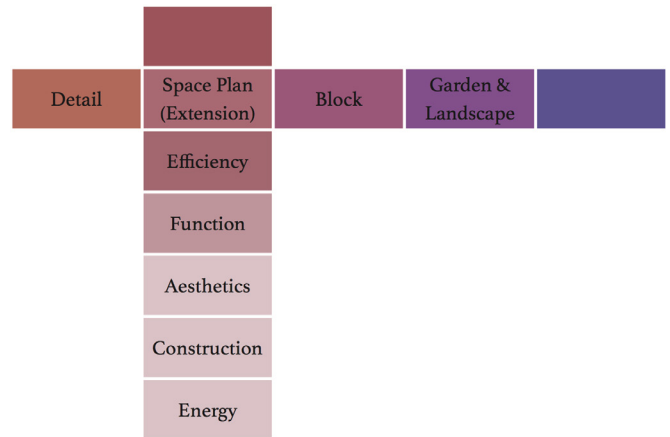


Fig. 4 Personal Design and Study Framework

In the coming years, a lot of houses in the Netherlands have to be renovated to meet the energy requirements in order to be usable in the near future. The Airey system was widely adopted in the post-war situation and there are a lot of Airey houses need to be renovated. This project provides one of the renovation approaches for Airey system especially for the Airey houses which are used as social housing stock.

The Netherlands is the country with the largest share of social housing in the Europe. And most of the social housing is smaller than 60m2. This results in relatively tight dwellings and less satisfaction. The project explores the possibilities that transforming Airey system to affordable larger apartments for low-income big families.

Moreover, this transformation deals with the houses with cultural historical values located in a conservation area. In the valuation in 2010 by the Bureau Monumenten and Archeologie (BMA). (Figure 1.), the Airey blocks were labeled as monument worthy (monumentwaardig)<sup>2</sup>. The site is officially designated as part of protected townscape of Amsterdam and the outdoor Van Eesteren Museum<sup>3</sup>. Therefore, in the design project, the new extension have to be weaved into the existing urban fabric very carefully.

2. Gemeente Amsterdam. [www.amsterdam.nl/kunst-cultuur/monumenten/monumenten/projecten-onderzoek/waarderingskaarten/](http://www.amsterdam.nl/kunst-cultuur/monumenten/monumenten/projecten-onderzoek/waarderingskaarten/)  
 3. Buitensmuseum. <http://vaneesterenmuseum.nl/het-museum/buitensmuseum/>