

The New Interpretation of 'Light, Air and Space' in Airey Blocks in Slotermeer

Cultural Value Report

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INTRODUCTION

This report is part of output of the re-housing graduation studio (2016 - 2017) at the faculty of architecture of TU Delft. The purpose is to detect and understand the cultural value and apply these in spatial and architectural terms. Then in the following design process, prioritize and incorporate the key values into the design strategy, justify and explain the dilemmas and choices in relation to cultural values.

In this cultural value report and the whole design process, I mainly deal with the project Airey blocks which is located on the North side of Burgemeester de Vlughtlaan in the Sloterveer, 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.

In this report, it includes the re-assessment of the CultMatrix, which is based on the the preliminary group CultMatrix and a profound analysis of the Airey blocks and the site. The assessment is elaborated in the Individual CultMatrix. On top of that, a position statement on the role of identified values and the evaluated significance of the complex of design choice as an inherited site in general is proposed and further explained of the individually attributed values and consequences for the design strategy and opportunities and obligations parts.

ASSESSMENT OF THE CULTURAL VALUE

Assessment of the Cultural Value

The neighbourhood Slotermeer was the first completed district of the AUP (the General Extension Plan of Amsterdam) (1951-1954), as of 1953 the Airey blocks were built. In the valuation in 2010 by the Bureau Monumenten and Archeologie (BMA). (Figure 1.), the Airey blocks were labeled as monument worthy (monumentwaardig).¹

Except for the official valuation, my analysis of the cultural value of the Airey blocks can be concluded in Cultural Value Matrix (Figure 2.) scaled on the y-axis according to the six 's' system of Steward Brand (Site, Structure, Skin, Services, Space plan and Stuff) and 'Story'; and different heritage values designated on the x-axis: Age, Historical, Artistic, Commemorative, Use, Newness, Conflict and Dilemma.

Among all the values in Cultural Value Matrix, I value the Site - Historical, Site - Artistic, Space plan - Use value Space plan - Historical value the most. These values represent the concept of 'light, air and space' and 'Goed Wonen'.

In site scale, the urban planning of the Airey blocks embodies the ideals 'light, air and space' of the 'Nieuwe Bouwen' movement² and Cornelis van Eesteren's concept of the 'functional city'³. Due to this values, the site is officially designated as part of protected townscape of Amsterdam and the outdoor Van Eesteren Museum⁴.

The 'light, air and space' also reflected in space plan, which also coincides with the concept of the 'Goed Wonen (Good Living)' (Figure 3.) which means that better living

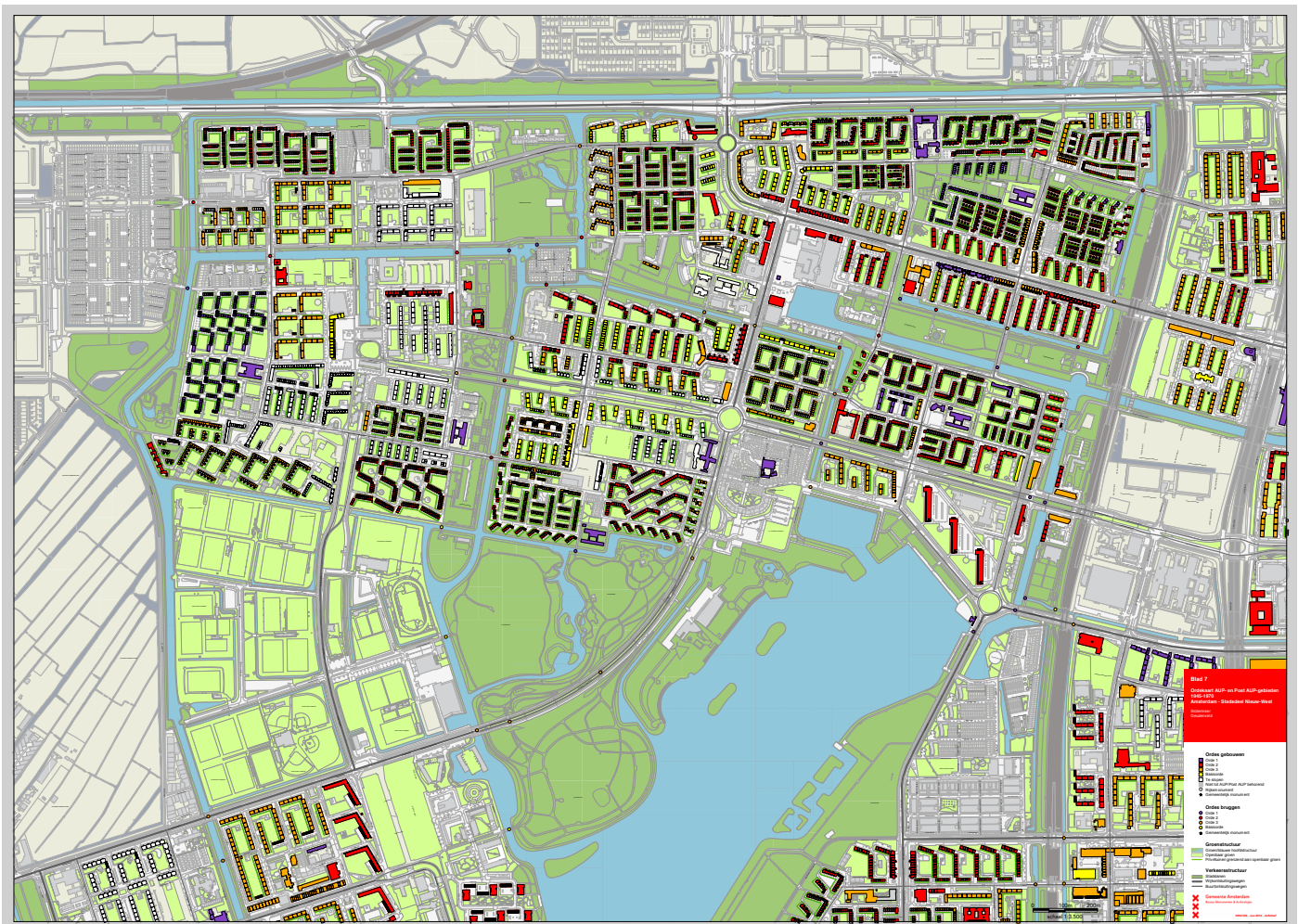


Figure 1. Order Map AUP Nieuw-West Geuzenveld-Slotermeer (source: Gemeente Amsterdam)

1. Gemeente Amsterdam. www.amsterdam.nl/kunst-cultuur/monumenten/monumenten/projecten-onderzoek/waarderingskaarten/
2. Het Nieuwe Bouwen. www.vaneesterenmuseum.nl/cornelis-van-eesteren/visie/het-nieuwe-bouwen
3. Kees Somer, The Functional City: The CIAM and Cornelis Van Eesteren, 1928-1960 (NAI010 Publishers, 2007)
4. Buitenmuseum. vaneesterenmuseum.nl/het-museum/buitenmuseum/

contributes to a better society: light furniture and bright interior without non-functional decoration. The 'Goed Wonen' set model homes in the 1950s.

Secondly, the Structure - Artistic, Skin - Historical, Skin - Artistic values need to be taken into account in design strategy because the envelope represents the industrial aesthetics and is part of the protected townscape. It is an example of the ideal of 'Nieuwe Bouwen' movement and Cornelis van Eesteren.

The morphology of Airey strips is different from both traditional closed building block and the open building block that was popular within the 'Nieuwe Bouwen'



Figure 3. Goed Wonen (source: VanEesterenMuseum.nl)

VALUE MATRIX AIREY STRIP SLOTERMEER AMSTERDAM	AGE	HISTORICAL	ARTISTIC	COMMEMORATIVE	USE	NEWNESS	CONFLICT	DILEMMA
		<p>Closed Building Block</p> <p>Strips</p> <p>Regular Building Strips</p> <p>Striated Building Strips</p> <p>Modernism While the movement 2 points had focus on form and the building, the Airey strip focused on the social and functional aspects of housing. In each house, the same layout can be found as in the other blocks, to allow for the housing of people with different needs.</p>	<p>Striated Building Strips</p> <p>The three design options for the Airey strip by C. van Eesteren were an effort at organizing the urban fabric. This can be perceived as an identity of the Airey.</p>	<p>Naming of the street The streets are named after the name of the artist. The street name commemorates Van der Grinten.</p>	<p>Good Location Situated in a location close to city center, offering a lot of convenience for its inhabitants, which is important and also gives accessibility to public transport.</p>			<p>Airey Area & aerial transparency The Airey area is a residential quarter, a development that is considered as a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>
		<p>New Technological Development The housing system consists of a grid and a system of elements, which are defined by 2 axes. The system is designed to be able to respond to the needs of the inhabitants of the Airey strip, to allow for the housing of people with different needs.</p>	<p>The middle of the system The middle system follows the Airey strip. One axis that the Airey strip has is a relationship of grid, although it is not strictly a grid. The system is designed to be able to respond to the needs of the inhabitants of the Airey strip.</p>		<p>The middle of the system The middle system follows the Airey strip. One axis that the Airey strip has is a relationship of grid, although it is not strictly a grid. The system is designed to be able to respond to the needs of the inhabitants of the Airey strip.</p>			<p>Level of Aesthetics The Airey strip has a very high level of aesthetics. The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>
		<p>The original skin Concrete is the main building material of the Airey strip. The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>	<p>Aesthetics & Purification Although the Airey strip is not strictly a grid, it is designed to be able to respond to the needs of the inhabitants of the Airey strip. The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>		<p>Concrete Skin</p> <p>Cavity wall</p>			<p>Original skin Concrete is the main building material of the Airey strip. The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>
								<p>The Airey strip The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>
		<p>Goed Wonen model houses in the Airey strip, light furniture and light interior without non-functional decoration.</p>			<p>Space, Light and Air The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>			
			<p>Middle of the system The middle system follows the Airey strip. One axis that the Airey strip has is a relationship of grid, although it is not strictly a grid. The system is designed to be able to respond to the needs of the inhabitants of the Airey strip.</p>		<p>Middle of the system The middle system follows the Airey strip. One axis that the Airey strip has is a relationship of grid, although it is not strictly a grid. The system is designed to be able to respond to the needs of the inhabitants of the Airey strip.</p>			
		<p>The Dutch Nieuwe-Airey system is based on the British Airey System by Sir Edwin Airey.</p> <p>Dutch Society for public housing published the developments of the Nieuwe-Airey system as a result of the relative housing shortage after WWII.</p>	<p>The Dutch Nieuwe-Airey system The dimensions of the columns and beams are 125 x 125 x 625. The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>		<p>The Dutch Nieuwe-Airey system The dimensions of the columns and beams are 125 x 125 x 625. The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>			<p>Level of Aesthetics The Airey strip has a very high level of aesthetics. The Airey strip is a model of the 'Nieuwe Bouwen' movement. This area is the first historical area in the Netherlands that was built in the 20th century.</p>

Figure 2. Cultural Value Matrix

movement. The morphology of Airey strips takes into account an optimal sun exposure as well as the view from the Burgemeester de Vlugtlaan (car perspective) towards the buildings. The balconies and backyards are exposed to the public which expresses the idea of transparency. It means some degree of erosion of privacy after WWII.

The envelope is the key feature of the Airey system, the way of construction and especially the module of the system represents the built environment and aesthetics in the 1950s. The envelope (Figure 4.) combined the aesthetics of the craftsmanship and the industrialization; the modularized and prefabricated facade tiles represents the aesthetic of the industrialization and modernism while the delicate roofline and the well-designed chimney. The concrete tiles differentiated the Airey strip from British Airey system. The roofline and the chimney indicate the traditional architectural educational background of the architect.

Conclusion Statement

Therefore, two noteworthy cultural historical values are concluded: the concept of 'light, air and space' and the envelope, which reflect the ideal of 'Nieuwe Bouwen' movement, 'Goed Wonen', Cornelis van Eesteren, the built environment, the domestic lifestyle and the industrial aesthetics in the 50's after the WWII.

The ideal of 'light, air and space', the concept of 'good living' were created in the 1950s but they are still attractive and worthwhile to be inherited and interpreted nowadays. This is also why I choose the Airey system and the site.

POSITION STATEMENT

The role of the value 'light, air and space' is the start point in the design process.

The 'light, air and space' has been eroded over time. First, due to the demographics have been changed in this neighborhood. Many Dutch families have been changed to low-income larger Turkish and Moroccan families.⁵ And most families are much larger and most apartments which were designed for the families with 2-4 members are overpopulating (Figure 5.). The most conflict aspect is the shortage of the living space. Compare to the model homes of 'Goed Wonen', the residents now are living in dark, limited apartments (Figure 6.).

5. Gemeente Amsterdam. Stadsdelen in cijfers. (2015). Gemeente Amsterdam. Gebiedsanalyse 2015 Geuzenveld/Slotermeer Stadsdeel Nieuw-West. (2015)



Figure 4. Airey Structure (source: Gemeente Amsterdam)

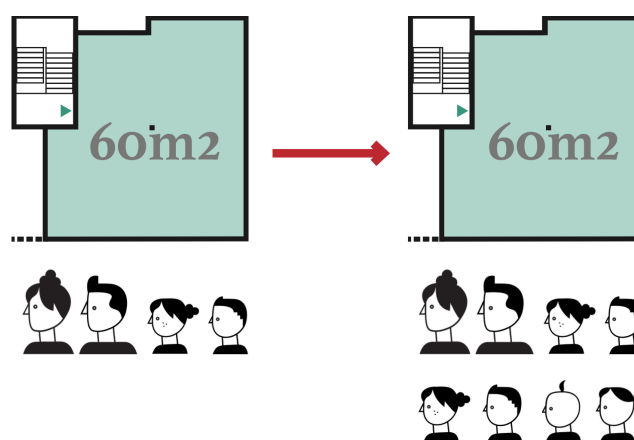


Figure 5. Overpopulating



Figure 6. Dark, Limited Apartment

Second, the morphology of Airey blocks and the view from the B. de Vlugtlaan represents the 'transparency' which reflect the 'light, air and space' in site scale, but it has been eroded. Compared to after WWII, people now more and more emphasize the privacy. Like we observed in Airey strips, most residents choose to close the curtain in the living room (Figure 7.) or build the high fence along private garden on the ground floor (Figure 8.). The communal garden is invisible from the ground floor.

Therefore, the start point of the design is to bring 'affordable' 'light, air and space' back to the current low-income families in Airey blocks in both space plan and site scale and in an affordable way.

The value of the envelope of Airey system set the bottom line for design strategy. That is to minimize or eliminate the possible new facade damage of the city interface (Figure 9.)

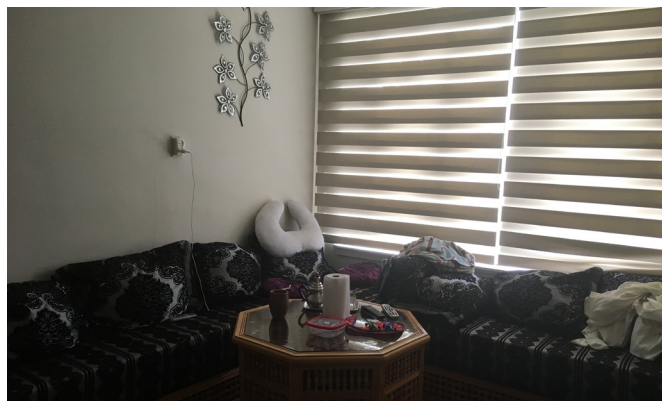


Figure 7. Closed Curtain in Living Room



Figure 8. The High Fence along Private Garden



Figure 9. View from B. de Vlugtlaan

OPPORTUNITIES AND OBLIGATIONS

The cultural values provide the obligations and the opportunities for the design process, which is illustrated in chart 10.

	Obligations	Opportunities
Site	<ul style="list-style-type: none"> - Preserve the morphology and typology of the buildings which represent the 'light, air and space' - Preserve the morphology of the roads which embodies the Site - Commemorative value 	<ul style="list-style-type: none"> - Open communal garden, reuse the green space which interprets the 'light, air and space'
Structure	<ul style="list-style-type: none"> - Preserve the structure and no extra load-bearing, which represents the built environment in the 50's after the WWII 	<ul style="list-style-type: none"> - The possibility of the use of the cavity, which can enhance the use value of structure while do not damage other values
Skin	<ul style="list-style-type: none"> - Do not damage the aesthetics of the skin (the module, the grid, the original material texture) which represents the industrial aesthetics 	<ul style="list-style-type: none"> - The old facade set the reference for the new facade; the architectural aesthetics can be interpreted and developed in the renovation process which could enhance the artistic value
Space plan	<ul style="list-style-type: none"> - Preserve the concept of 'Goed Wonen', which represents the Space plan - Historical value 	<ul style="list-style-type: none"> - The flexible space plan offers many options which could interpreted 'Goed Wonen' to meet current environment

Chart 10. The Obligations and Opportunities

DESIGN STRATEGY

Goal, Interpretation and Strategy

As it mentioned before, the goal is to bring 'affordable' 'light, air and space' back to the current low-income families in Airey blocks in an affordable way. Therefore I interpreted the notion 'affordable' 'light, air and space' to meet current situation. The different interpretations in historical, architectural and building technology aspect are explained in Chart II.

The specific design strategy is to build the independent extensions to existing Airey strips. The extension will enlarge the living space and provide multiple functions (Figure 12.).

Moreover, the extensions have bigger openings, which represents 'transparency'. But it also provide the transition space between the living room and the communal garden, therefore in some degree moderate the embarrassment of overlooking, which can be illustrated in the view from the living room(Figure 13.)

In site scale, the 'light, air and space' is reflected in the abundant green space and the open building block typology, therefore, the green structure and the building typology cannot be changed. But most green space lack of

	Historical Interpretation	Architectural Interpretation	Building Technology Interpretation
Affordable	Cheaper and faster construction method (Airey system)	Do not greatly increase the rent after renovation	Cheap material; cheap construction method
Light	Bright interior ('Goed Wonen'), open building block	Big opening, more daylight, good view	
Air	Green space provide fresh air	Green space, natural ventilation	
Space	Efficient floorplan,	More living space, free to use	

Chart II. Interpretation of 'Affordable' and 'Light, Air and Space'

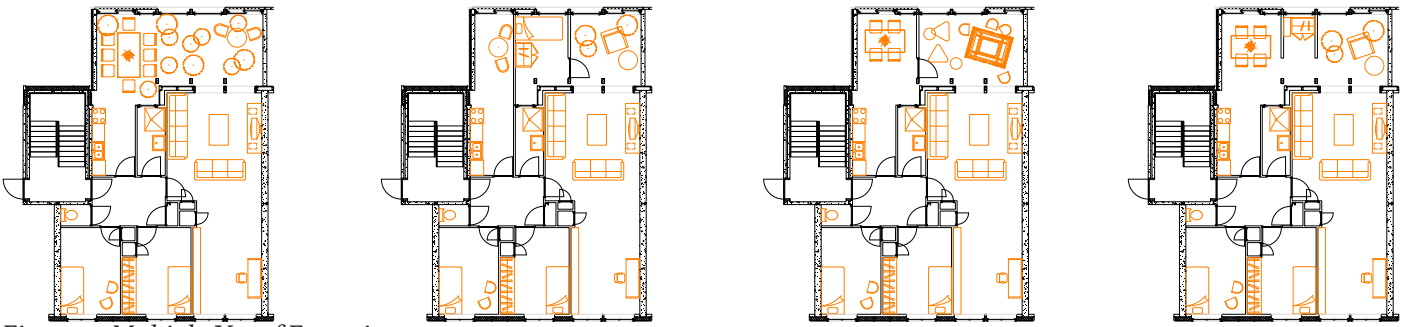


Figure 12. Multiple Use of Extension

maintenance and mean to be kijkgroen (looking green). (Figure 14.) The design strategy is to keep the green space but meanwhile to transform it into a more active space open to residents.

And the extension creates the link between the potiek and the communal garden (Figure 15.). Therefore through this strategy, the 'light, air and space' will be enhanced in both space plan and site scale.

Of course, the extension will cover the old facade of Airey blocks and change the view from B. de Vlughtlaan and it might damage the artistic value of skin and site. However I have to sacrifice these values a little bit to enhance the value of 'light, air and space'. And the design strategy of facade aims at minimizing this damage.



Figure 14. Inaccessible Communal Garden



Figure 13. The View from Living Room

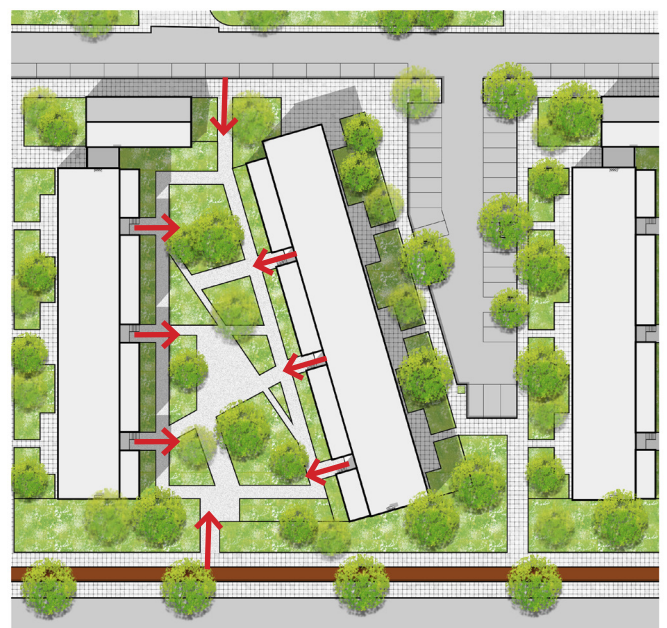


Figure 15. Open Communal Garden

Dilemma and Solution

The renovation process is inevitably accompanied by the dilemma. That is the loss of aesthetics; as it mentioned before, the extension will provide the new appearance to Airey blocks which might damage the aesthetics of the Airey strips, which represents the Skin - Artistic value. Moreover, to provide a better view and connection to the living room, the orientation B, which is illustrated in Figure 16 is the best solution, but the new extension will cover the old facade and influence the car's perspective from the B. de Vlugtlaan, which represents the Site - Artistic value. I have to sacrifice these values a little bit, but two solutions are developed to minimizing this damage

The first solution is to use the similar material of the old Airey blocks. (Figure. 17) The new facade material takes the facade of Airey blocks and the facade of the shop on the north side (Figure 18.) as the reference.

The second solution is to use the old architectural language to build the new facade. The new facade keeps the same composition and division as the old one (Figure 19.). The new facade is illustrated in Figure 20.

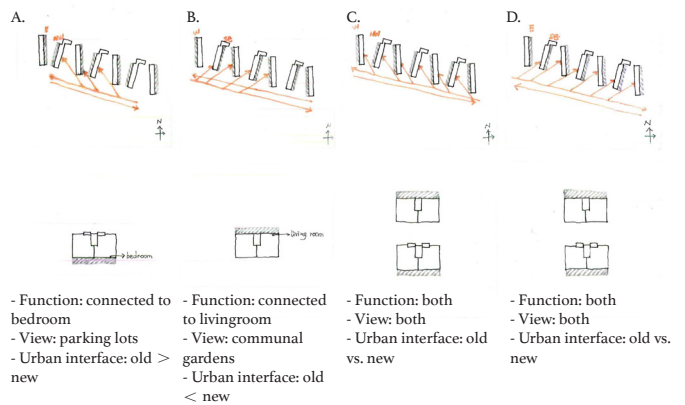


Figure 16. Analysis of the Orientation of the Extension

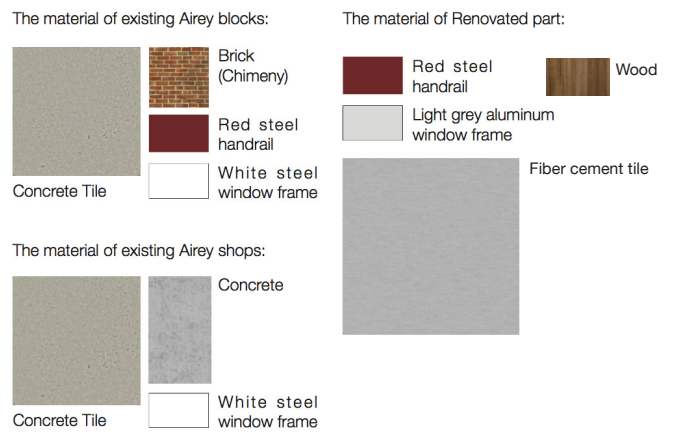


Figure 17. Material List



Figure 18. The Shop on the North Side of the Airey Block

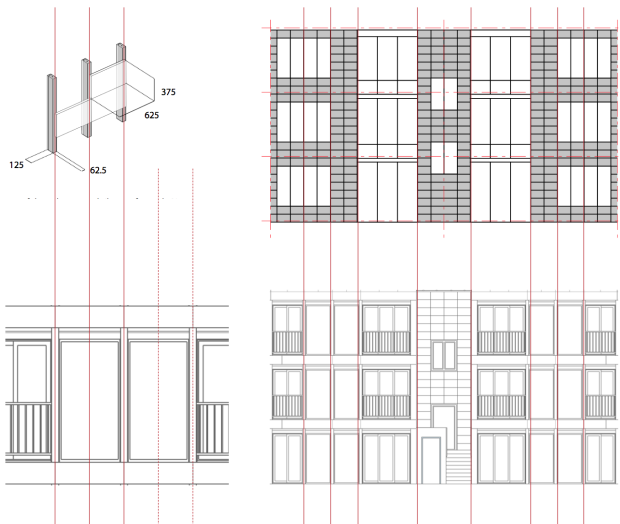


Figure 19. The Composition and Division of the Airey Block



Figure 20. The New Facade

CONCLUSION

From the analysis of history and assessment of the cultural values, it can be concluded that the Airey system and its site has great value. That is the 'light, air and space' and the envelope. The 'light, air and space' is the start point of the design process. Through the extending the Airey blocks, the value of 'light, air and space' is inherited, reused and interpreted in both space plan and site scale. But part of the value of envelope is sacrificed but the materials and dimension and composition of the facade are not damaged.

To conclude, the cultural value - 'light, air and space' are interpreted in the renovation which contributes to a better life.

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