Renovation models
Bijlmerplein & Goedewerf

02-11-2021

Graduation studio
Revitalising Heritage

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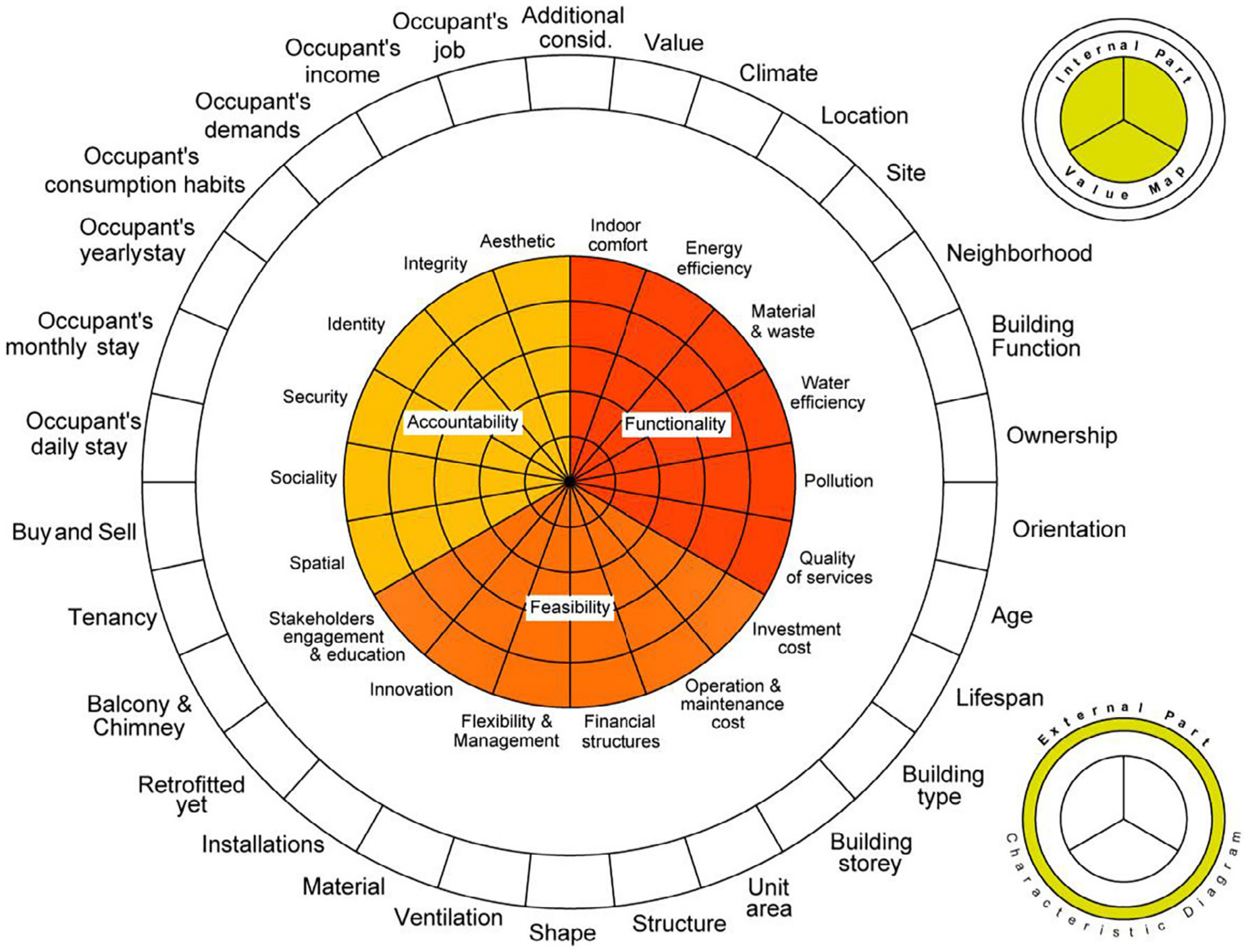
The Kamari Circle
Model

For the renovation of 70s and 80s case studies Goedewerf (Almere) and Bijlmerplein (Amsterdam), values of the built environment were determined based on several sources. First of all, preceding analysis done by studios already determined certain values based on the analysis done by students and interviews with the residents of the project location. For this analysis, an overview was made of the values that were the result of an exploration of the areas in combination with questionnaires. In addition, an analysis of the architecture, building techniques and culture were conducted. These results were compiled into the framework of Kamari (2017). The Kamari framework is a sustainable decision-making tool that can be used to support the development of renovation projects. Although the Kamari framework does not theoretically support heritage projects, the tool was used in this valuation as an experiment to assess if it can be used for heritage projects. The internal part of the value map consists of three categories defined by Kamari: accountability, functionality, and feasibility. Later on, our project group translated these categories to the well known people, planet, prosperity. The external part consists of the specific attributes of the location connected to a value.



Source

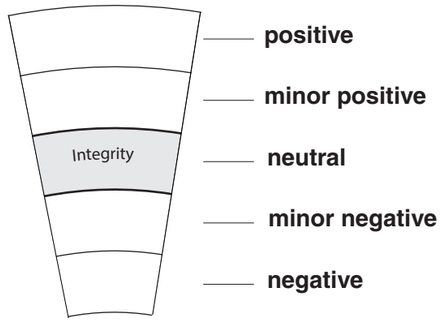
Kamari, A., Corrao, R., & Kirkegaard, P. H. (2017). Sustainability focused decision-making in building renovation. *International Journal of Sustainable Built Environment, 6*(2), 330–350. https://doi.org/10.1016/j.ijsbe.2017.05.001

The Kamari Donut
Concept

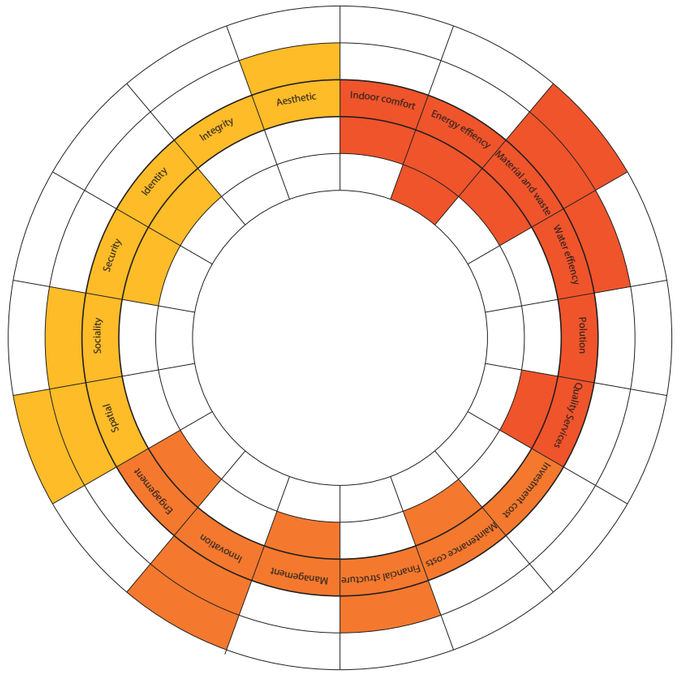
First of all, the Kamari wheels are turned into donuts and filled in by the mentioned valuation for each case study. The donut forms a range, placing the neutral line at the circle of terms. For each subject attributes have been distilled from the analysis and their values are filled in:

- **positive**: the attributes are valued high and/or are up to future standards. These attributes are preferably preserved;
- **minor positive**: the attributes are more often valued positive and there's future potential, meaning (almost) up to date for future developments;
- **neutral**: the attributes are not valued specifically high or low but can improve or deteriorate;
- **minor negative**: the attributes are more often valued negative and there's a lack of future potential;
- **negative**: the attributes are often valued negative and/or are not up to future standards. These attributes are preferably upgraded.

The case studies are filled in on the Kamari wheel like the example on the right. After this valuation, the renovation models are filled in, being models of possible intervention based on the case study Kamari wheel valuation. The renovation interventions are placed on top of the Kamari wheel to gain the final valuation based on this intervention at the concerning case study. The arrows indicate the direction of change (+ or -) and the grey areas are indicating the before situation. The birght colours, in combination with the overlay of grey form the new Kamari wheel for that particular intervention. Within the renovation model, a 3P (planet, people, prosperity) triagle is placed to indicate the influence of the intervention on the level of each element. The task in the following redesign of one of the case studies is to create a combination of intervention with the most benefits for each element.
As an indication, each page includes elements from a SWOT analysis that form the underlying reason for valuing the case study.

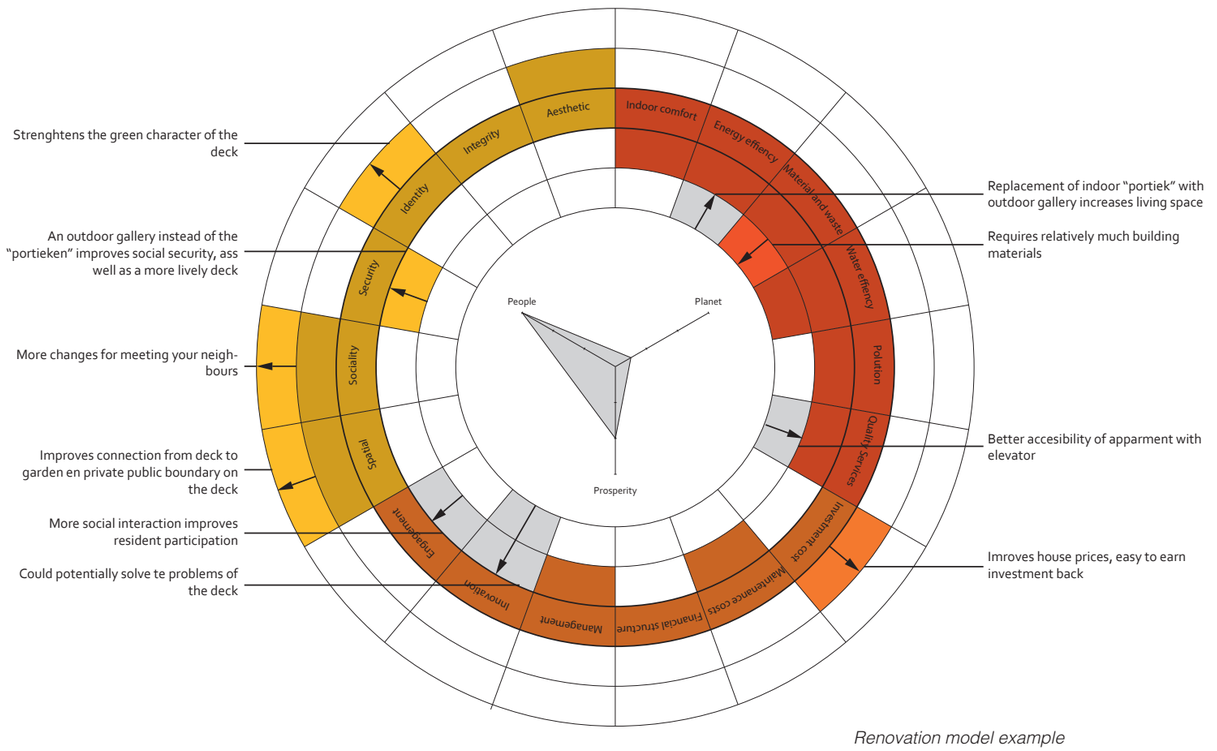


Valuation scale



Case study valuation example

SWOT layout



Renovation model example

Value Assesment - Bijlmerplein Amsterdam

02-11-2021

Presentation P1

Indoor comfort
identity x sociality

Bijlmerplein

- Daylight

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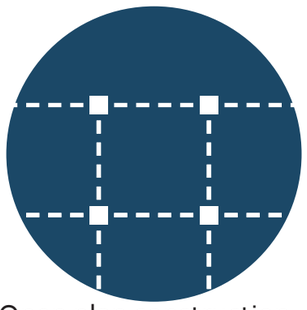
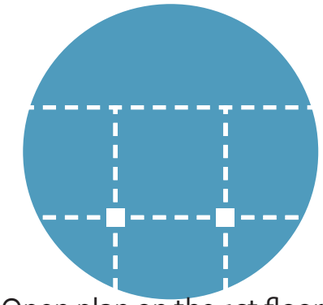
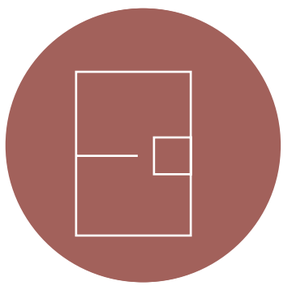


Open plan construction



Open plan on the 1st floor
creates design possibilities



Position of the badrooms makes the floorplan
inflexible

Energy effiency
Attributes

Bijlmerplein

- Energy label C

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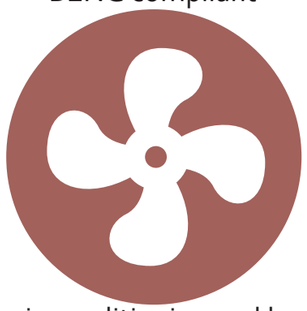
Wall fill-in strategy is almost BENG compliant

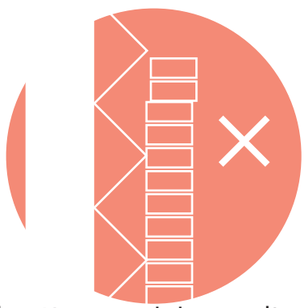
Building on exisiting collective heating



Only air-conditioning and heating

Low insulation values

Non-insulated, but structurally functional facade

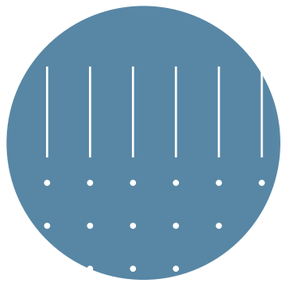


Even filling the remaining cavity results in non BENG-compliant facades

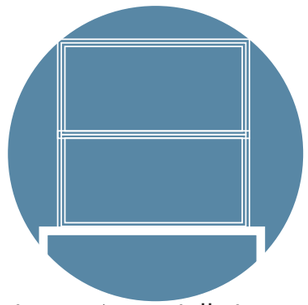
Material and waste
Attributes

Bijlmerplein

- Much embodied energy
- Much concrete
- Plastic window frames



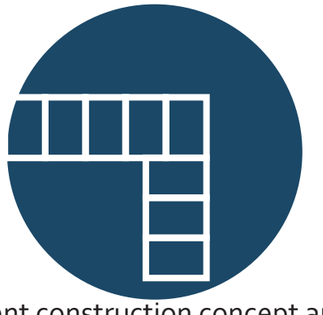
Simple and flexible loadbearing structure



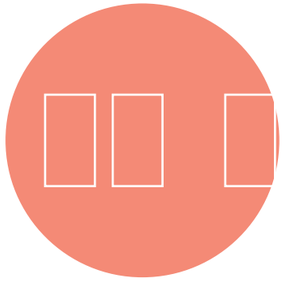
Topping up (especially in wood)

Strong foundation with a lot of constructional overhead

High quality masonry and facade composition



Consistent construction concept applied throughout the building



Quality and appreciation of plastic and alumi-nium window frames

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Water efficiency
Attributes

Bijlmerplein

- Stony environment

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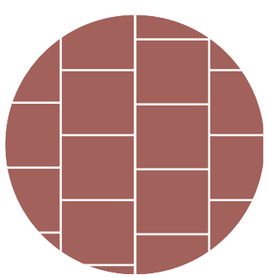

Stony environment:
non-climate adaptive

A lot of unusable space in the interior square
of the building

Pollution
Attributes

Bijlmerplein

- Light
- Sound
- Smell

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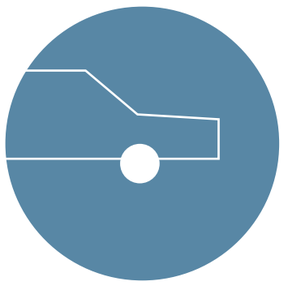
Slow traffic area:
car free



Cars have a relatively small place in the whole neighbourhood

Quality of services
Attributes

Bijlmerplein

- Outdated
- Individual control

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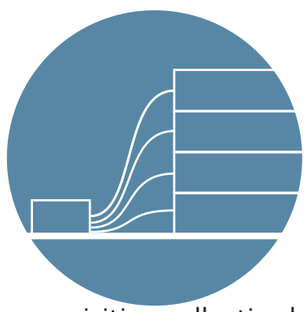
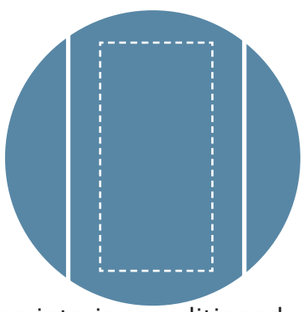
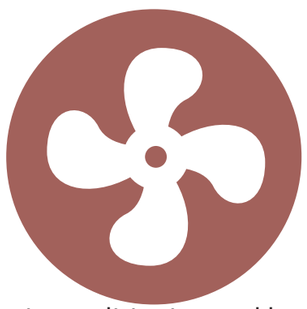


Building on exisiting collective heating



Creating interior conditioned space can improve poor performance



Only air-conditioning and heating

Vaulted ceiling hampers full use of the free height

Investment cost
Attributes

Bijlmerplein

- Expensive, high quality, brick
- Decks

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Costly facade renovation

Maintenance costs
Attributes

Bijlmerplein

- Decks require a lot of maintenance
- Low maintenance materials

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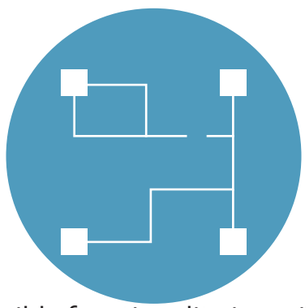
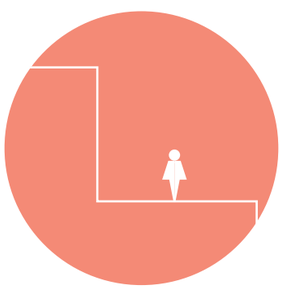
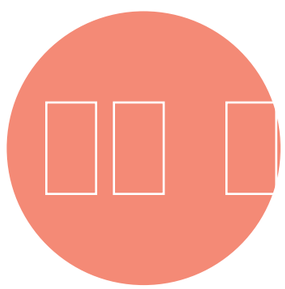


New or flexible functionality is easily added

Deteriorated decks



Decreasing quality of the decks, due to little use



Quality and appreciation of plastic and aluminium window frames

Financial structure
Attributes

Bijlmerplein

- 100% social rent

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Owner-occupied housing can increase resident engagement

Vacancy of shops can decay public space due to consumer focused functions

Flexibility and management
Attributes

Bijlmerplein

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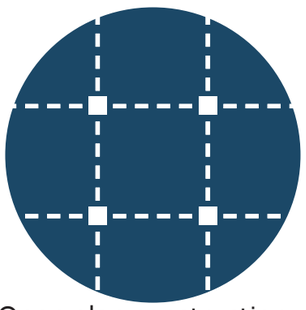
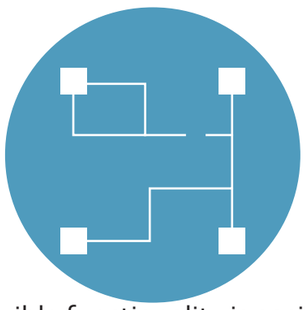


Open plan construction



New or flexible functionality is easily added

A lot of unusable space in the interior square of the building

Vacancy of shops can decay public space due to consumer focused functions

Innovation
Attributes

Bijlmerplein

- Historic innovations
- Mixed funtions

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- ✓ human scale
- ✓ recognizability
- ✓ closed building blocks
- ✓ plasticity
- ✓ brick
- ✓ articulated corners & entrances

Recognizable post-modern architecture: Amsterdam school style

Engagement
Attributes

Bijlmerplein

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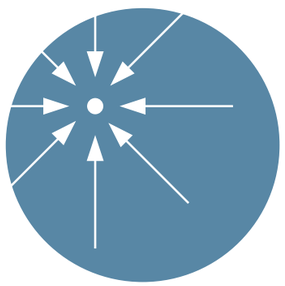

Function Bijlmerplein as a meetingpoint in the area

Potential of social interaction at decks

Unwanted strangers on deck due to accessibility day & night

Rising amount of crime delicts repels users

Spatial
Attributes

Bijlmerplein

- Open floor plan
- Acces to outdoor spaces
- Decks vs shopping street
- Different appartment types

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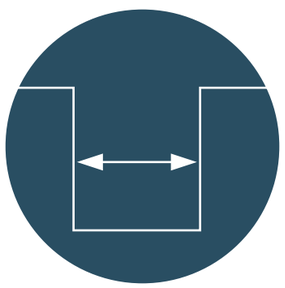
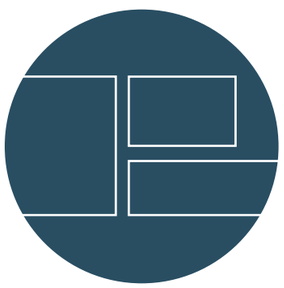
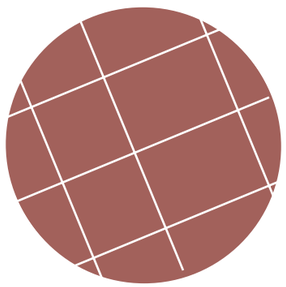


Dimensions of the public streets and squares



Differsity in appartment types

Coherence of buildings



No strong physical connection to the rest of the Bijlmer

Sociallity
Attributes

Bijlmerplein

- Appartments are directed to the street
- Attractive views
- Mixed funtions
- Not child friendly
- No opportunity for acco-modation on decks
- Ownership decks in unclear

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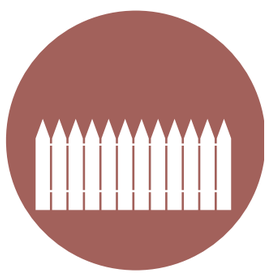
Potential of social interaction at decks

Social functions to increase social interaction

Loneliness by social exclusion: no feeling of belonging



Fences and separators on decks: anti-social environment

Security
Attributes

Bijlmerplein

- Car free
- No eyes on the decks
- Dark and hidden stairs to decks
- Little social control

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Slow traffic area:
car free

Unwanted strangers on deck due to accessibility day & night

Entrances and decks dark, publicly accessible and unsafe at night

Identity
Attributes

Bijlmerplein

- Cultural diversity
- Anti-Bijlmer
- Urban
- Food
- Mixed funtions
- Unsafe

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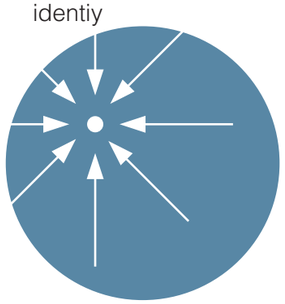
Anti-Bijlmer - political gesture becomes identiy



Function Bijlmerplein as a meetingpoint in the area

Lively identity of public space: functions & people

Integrity
Attributes

Bijlmerplein

- Not accessible for wheel-chairs
- Good accessibility by public transport
- No ecological ambitions

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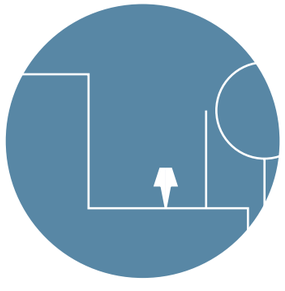
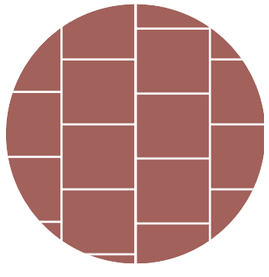
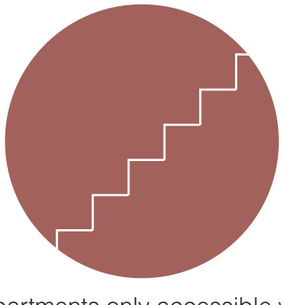


Courtyards and decks offer potential for incre-asing biodiversity



Stony environment: non-climate adaptive



Many appartments only accessible with stairs

Lack of accessibility of decks

Aesthetic
Attributes

Bijlmerplein

- Masonry
- Balconies
- Details
- Coherence in form and co-lour
- “Zandkasteel”

High quality masonry and facade composition

- ✓ human scale
- ✓ recognizability
- ✓ closed building blocks
- ✓ plasticity
- ✓ brick
- ✓ articulated corners & entrances

Recognizable post-modern architecture: Amsterdam school

Kamari model
Complete

Bijlmerplein

Valueassesment - Goedewerf Almere

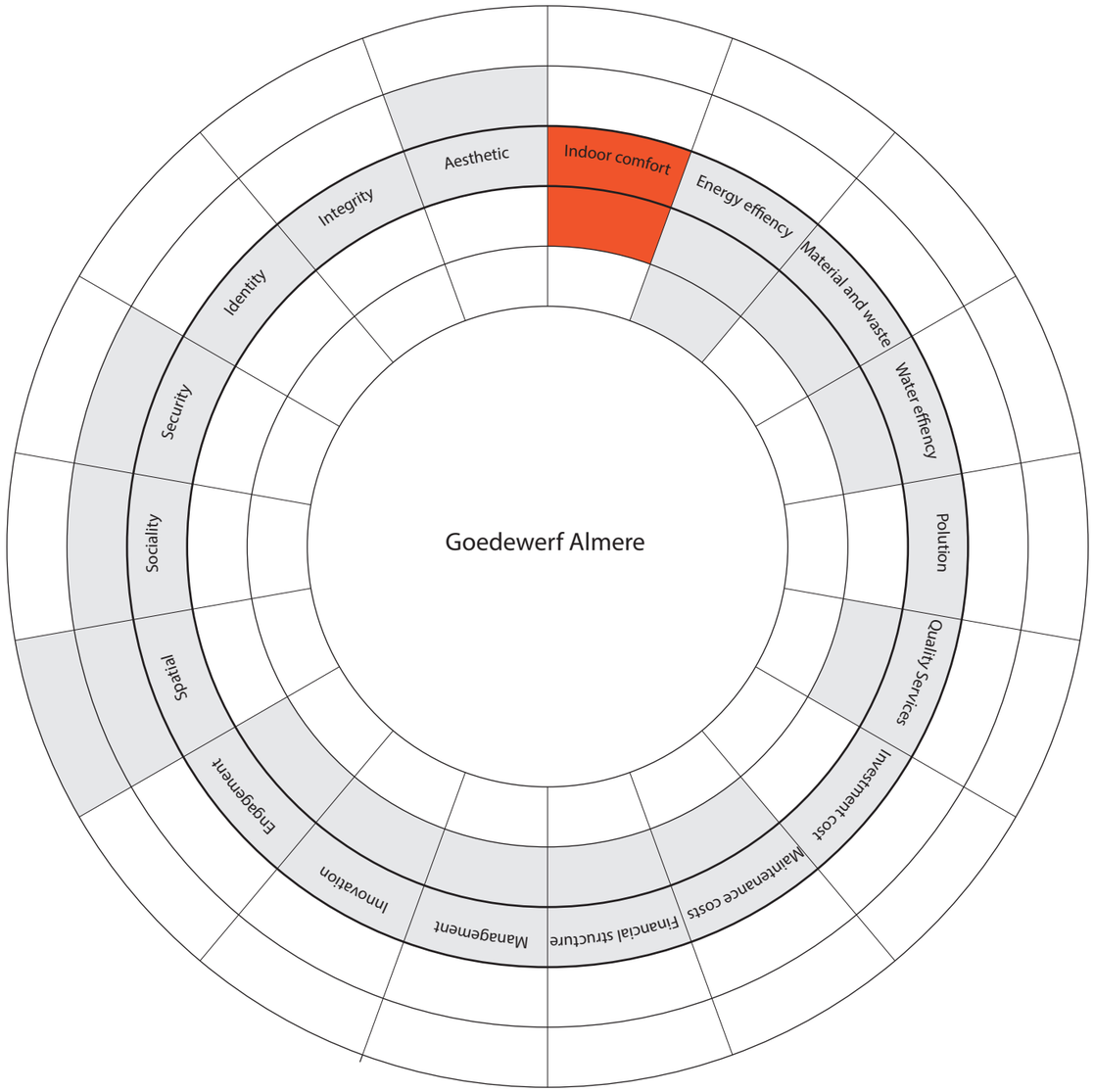
Presentation P1

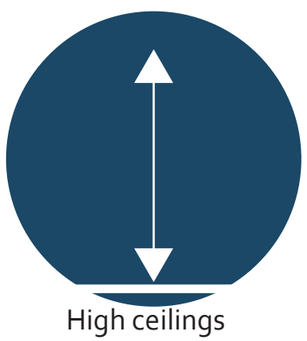
02-11-2021

Indoor comfort
Attributes

Goedewerf

- Daylight





High ceilings

Energy effiency
Attributes

Goedewerf

- Energy label unknown

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Fill-in strategy results in BENG compliant roof construction

Low insulation values

Material and waste
Attributes

Goedewerf

- Embodied energy
- Cheap materials
- Concrete constructions

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Use of cheap material

Condensation in the roof construction

Degradation

Replacing floor displaces inhabitants

Water efficiency
Attributes

Goedewerf

- Stony environment
- Potential for water storage

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Green blue network

Polution
Attributes

Goedewerf

- No sound polution
- CO_2 emmisions

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Access to relative high-quality private outdoor space

Quality of services
Attributes

Goedewerf

- Individual control
- Outdated

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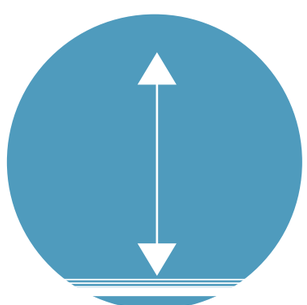
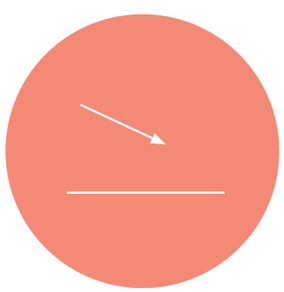


Heated floors can be installed
with height remaining



Outdated
Dissatisfaction due to new standards of living

Investment cost
Attributes

Goedewerf

- Cheap materials
- Green
- Small scale

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Architectural richness

Use of cheap material

Maintenance costs
Attributes

Goedewerf

- Deffered maintenance
- Maintenance public space

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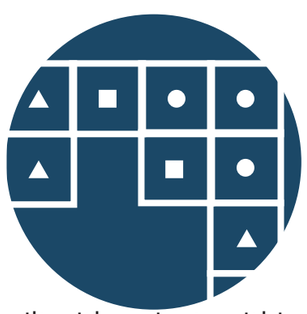
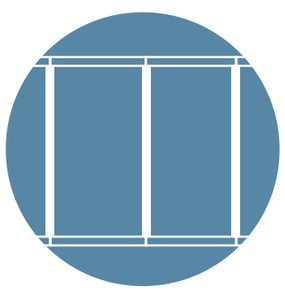


Project is built with variants within the same system



Relatively flexible loadbearing structure

Financial structures
Attributes

Goedewerf

- Complex ownership situati-
on

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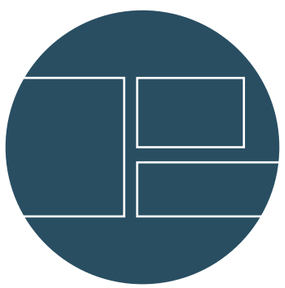

Diversity in dwelling types

Private gardens

Flexibility and management
Attributes

Goedewerf

- Monofunctional

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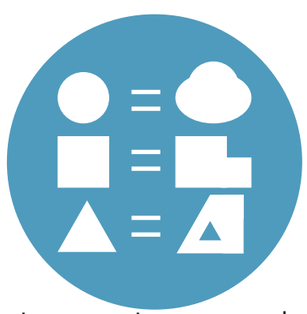
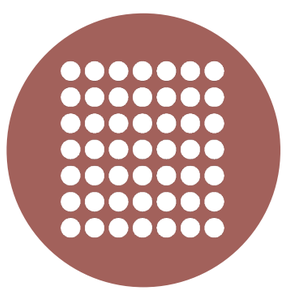


Systematic intervention approach can be fit to every variant in the project



Monofunctionality

Innovation
Attributes

Goedewerf

- Historic innovations
- Small scale

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T

Quality and appreciation of 70's aesthetic fundamentals

Amsterdam as a competitor

Engagement
Attributes

Goedewerf

- Low appreciation of the neighbourhood
- Little use of outdoor space

S

W

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Residents with a divers set of skills

Collective space

Spatial
Attributes

Goedewerf

- Gardens
- Double rings
- Introvert character
- Different heights
- Woonerf
- Corners

S
W
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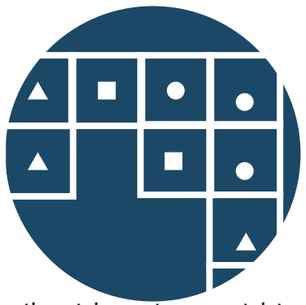
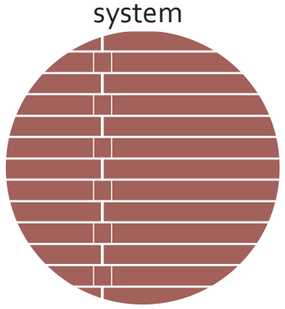
Private gardens



Project is built with variants within the same system

Public space dominated by cars



Transition public space to private space
(e.g. ugly fences)

Sociality
Attributes

Goedewerf

- Diversity housing types
- Large dimensions stair-wells
- Social control
- View on the street
- Collectivity

S

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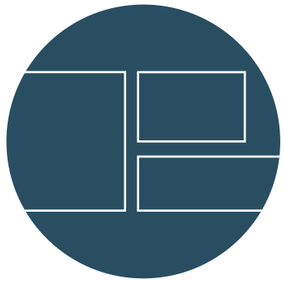

Diversity in dwelling types

Collective space

Dominating middle class

Security
Attributes

Goedewerf

- Little cars
- Child friendly
- Dark stairwells
- Social control
- Little overview

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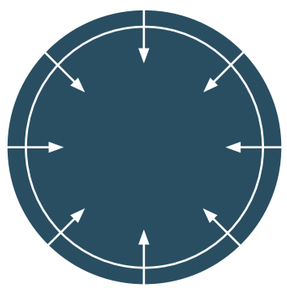

Dimensions and composition of the building masses: sense of security

Public space dominated by cars

Identity
Attributes

Goedewerf

- Harbour city
- Suburban character
- New town
- Individuality
- Diversity

S

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Unclear identity

Amsterdam as a competitor

Integrity
Attributes

Bijlmerplein

- Diversity in households and ownership
- Site ecology

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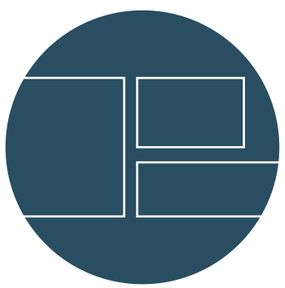
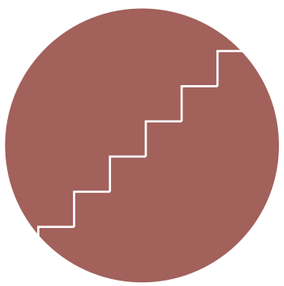


Diversity in dwelling types



Many appartments only accessible with stairs

Aesthetic
Attributes

Goedewerf

- Fences
- Diversity in forms
- 45 degree angles
- Pitched roofs
- Coherency
- Masonry

S
W
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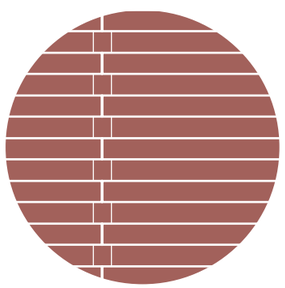
T

Architectural richness

Use of cheap material



Transition public space to private space
(e.g. ugly fences)

Kamari model
Complete

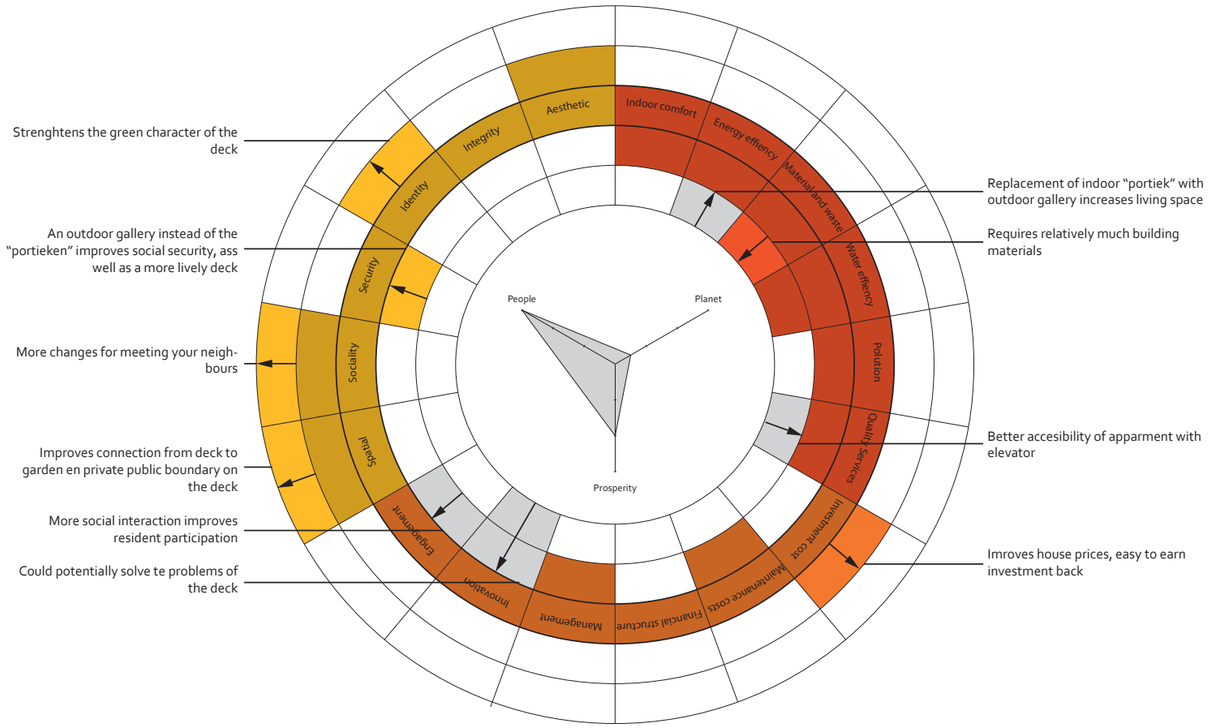
Goedewerf

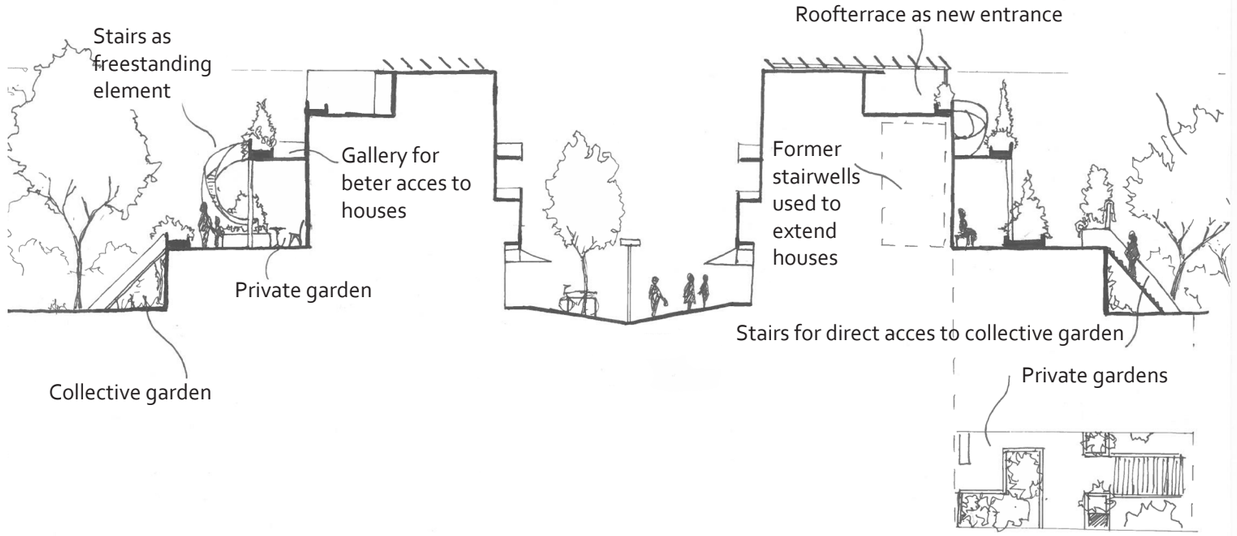
Renovation models

02-11-2021

Rediscover the collective
Social x Spatial

Bijlmerplein





Building

Can the reuse of the ideas of the original architects lead to a better functioning deck? In this scenario social and and spatial characteristics formed the startingpoint to redesign the decks on the bases of these ideas. A large gallery can be build and the connection to the backgarden should be strengthened. This strategy is typically applied on the scale of the building. The solution can pottentially improve one of the weakest points of the buildings design and thereby improve liveability and make the appartments also financially more attractive.

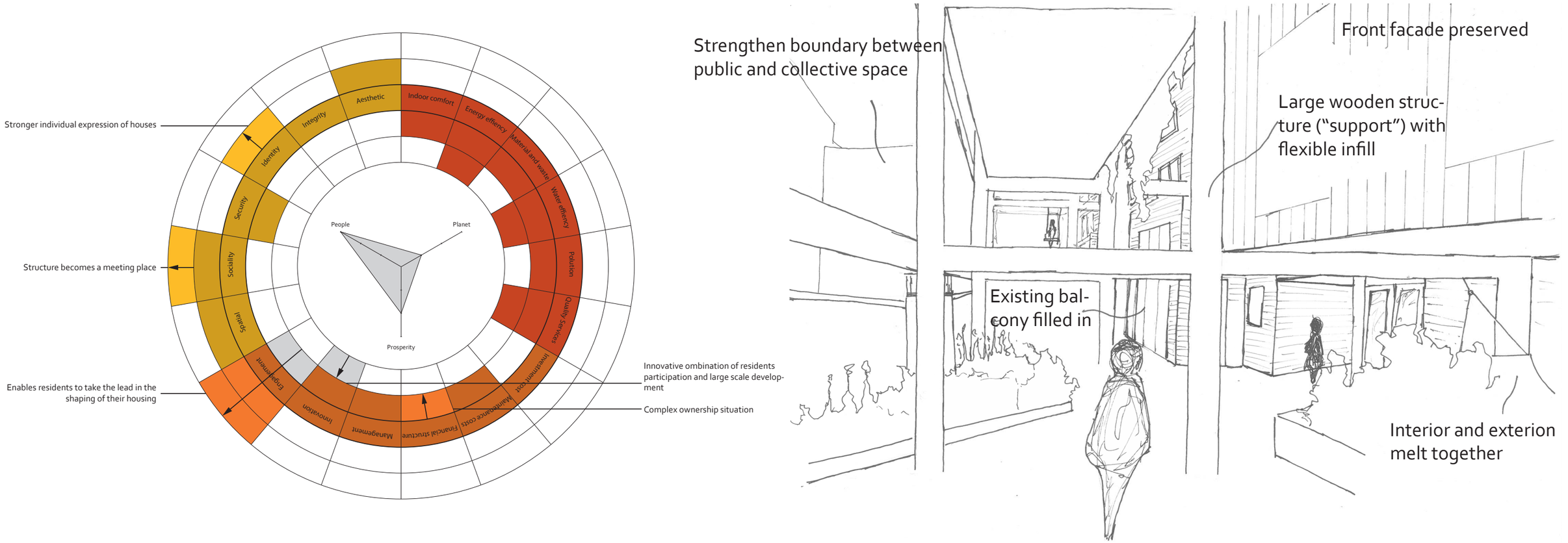
Values

Relation to values of owners, users, students, architects & advisors, government & municipality:
- Quality and liveliness on the decks: improved
- Appreciated peacefullnes and greenery, preserved or improved

Justus van Effenblok, Michiel Brinkman

source image: nieuws.topo10.nl

Different but the same
Identity x Aesthetic x Engagement



Building

In this scenario the idea of strengthening the identity of individual appartments without losing (to much) aesthetics was the main driver. This can be executed on the building scale by building a large structure on the deckside of the complex. Within this structure each resident has the possibility to enlarge their appartment or for example create a balcony. This solution will also lead to a large increase of stakeholder (resident) engagement and participation, and if the right requirements are set for the extensions it could also help to make the appartments more energy efficient.

Values

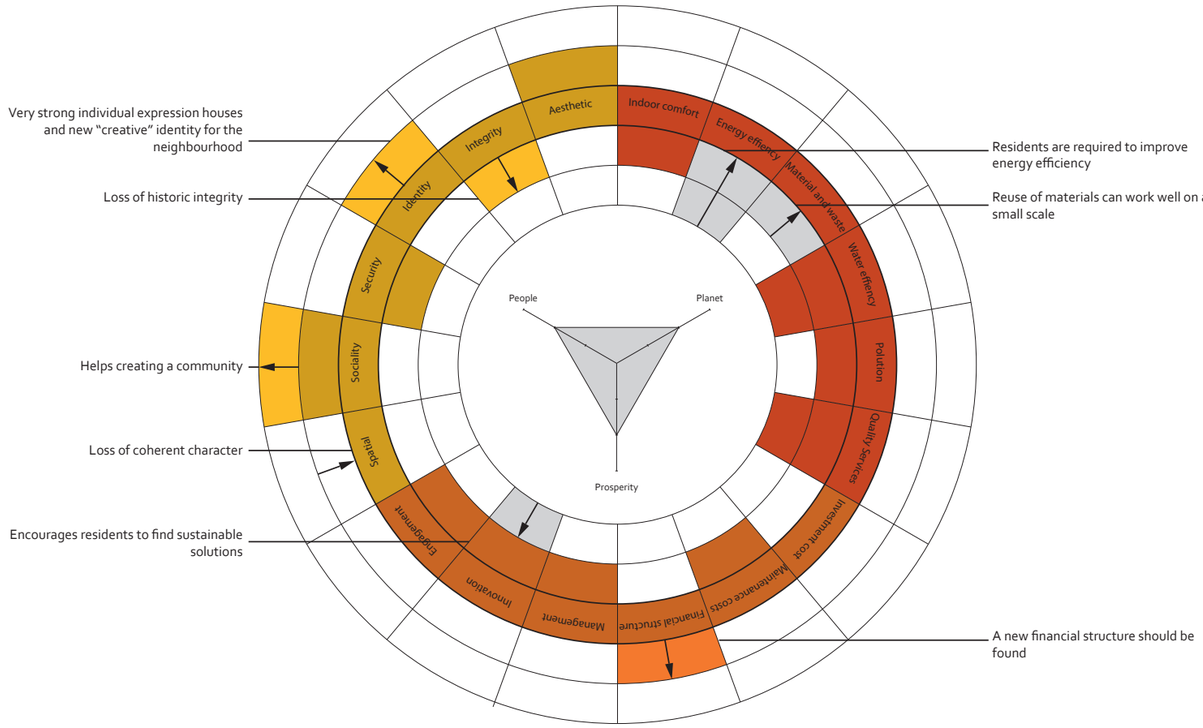
Relation to values of owners, users, students, architects & advisors, government & municipality:
- characteristic front facade with highly valued materialisation: preserved
- social problems and insecurity on deckside: improved

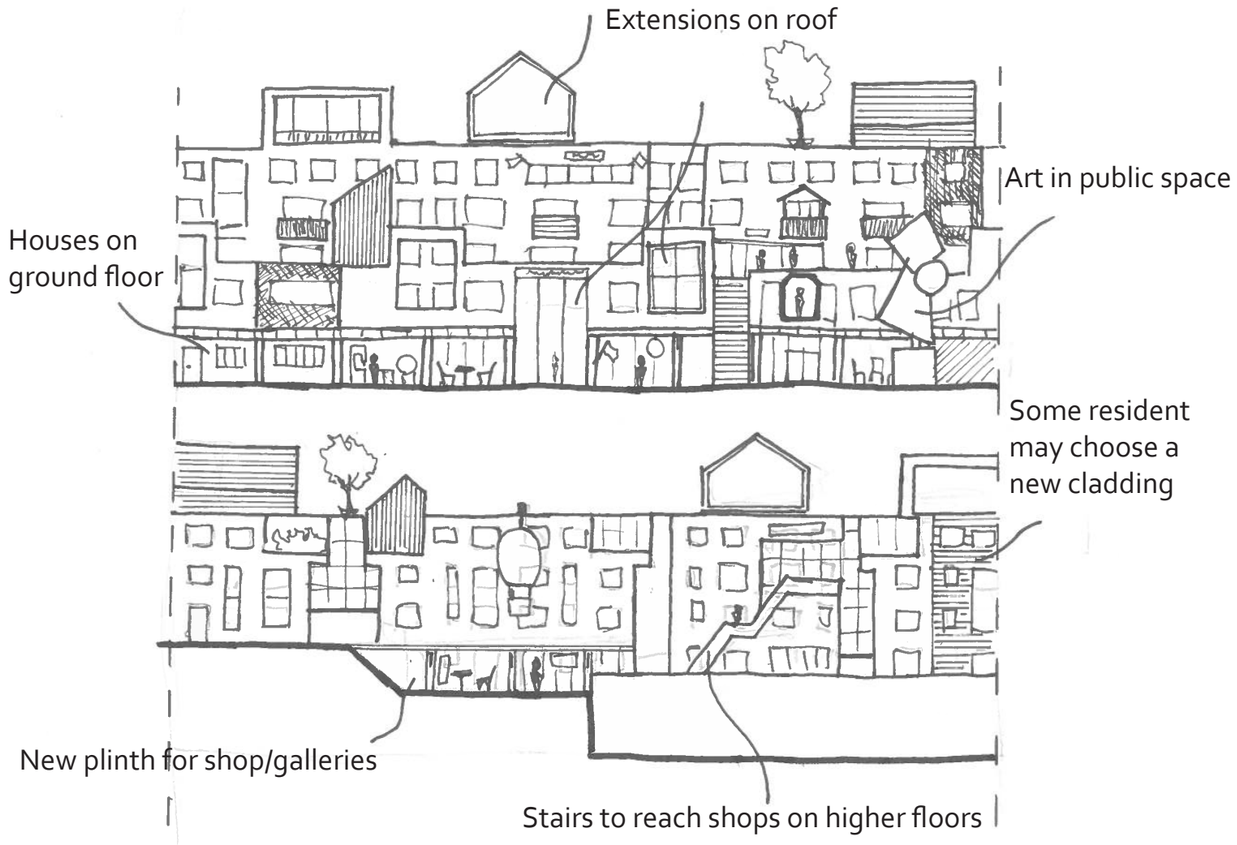
Social housing Bordeaux - Lacaton & Vassal

source image: Lacaton & Vassal

Everybody is different
Financial structures x Energy efficiency x Identity

Bijlmerplein





Home

What will happen if the houses in the neighbourhood are "given" to the residents, and they get the opportunity to make their own home more energy efficient. This means that there is no more control from above, at most a minimum requirement that all houses must comply to. Measurements to improve sustainability are applied on the scale of the individual appartments. This could lead to innovative ideas and solutions that are very specific for the people that live here. This strategy can be combined with more freedom in the use of the building, so that for example shops can be opened on the deck side and houses created on the ground floor. These development could together lead to a strong individual expression for the houses and a new identity for the complex as a whole. On the other hand the original aesthetics might disapear almost completely.

Values

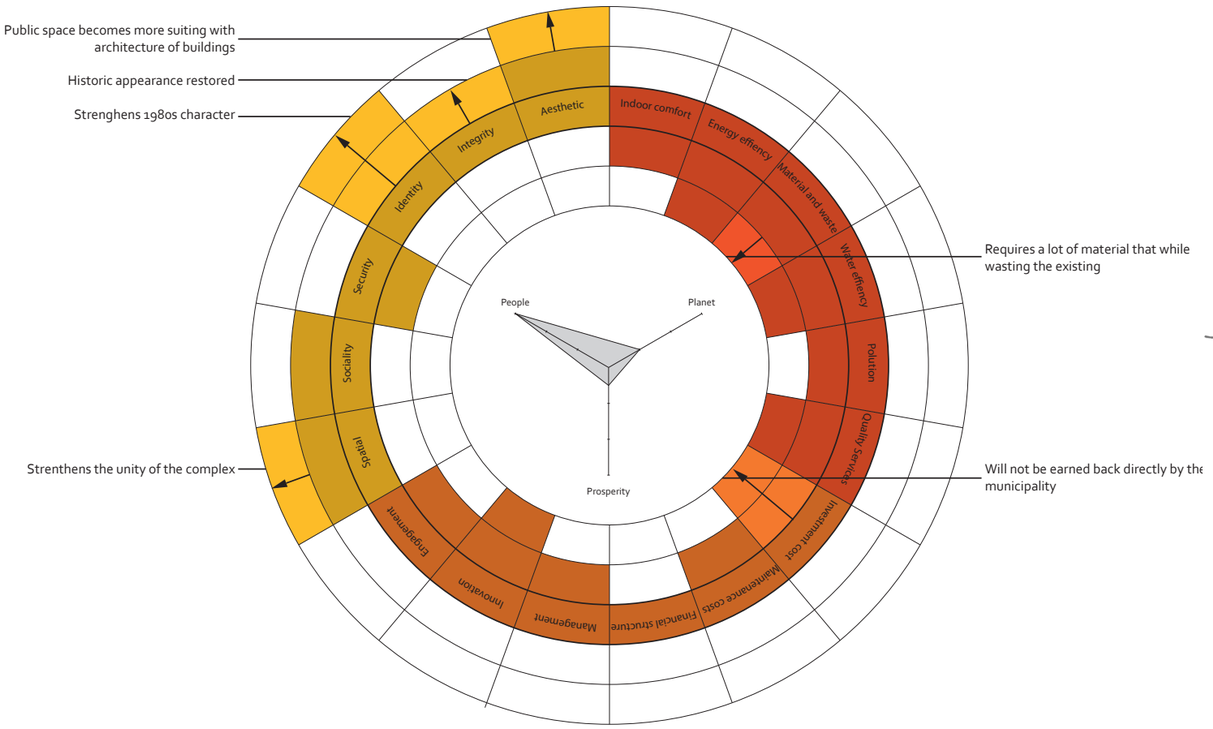
Relation to values of owners, users, students, architects & advisors, government & municipality:
- characteristic front facade with highly valued materialisation: not preserved
- mixed funtions: enhanced

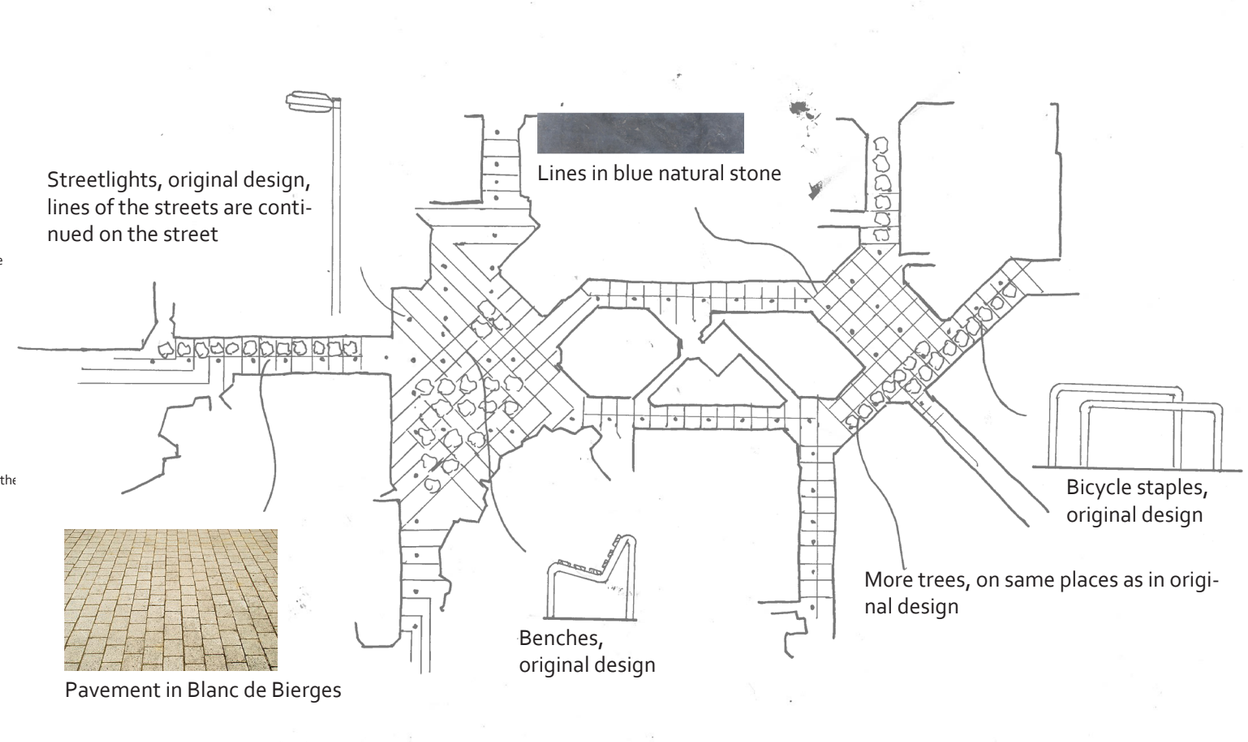
Ruigoord Amsterdam

source image: Hollandluchtfoto.nl / mamisdehortop.nl

Restore the public
Identity x Spatial

Bijlmerplein





Pavement in Blanc de Bierges

Neighbourhood

Bringing pack the original pavement and furniture in the public spaces can strengthen the identity, spatial quality and heritage value of the neighbourhood. Off course this should be executed on neighbourhood scale. This might make the Bijlmerplein as a whole more attractive but does not directly translate to financial or ecological values and should therefore most likely be combined with other, technical renovation, measurements.

Values

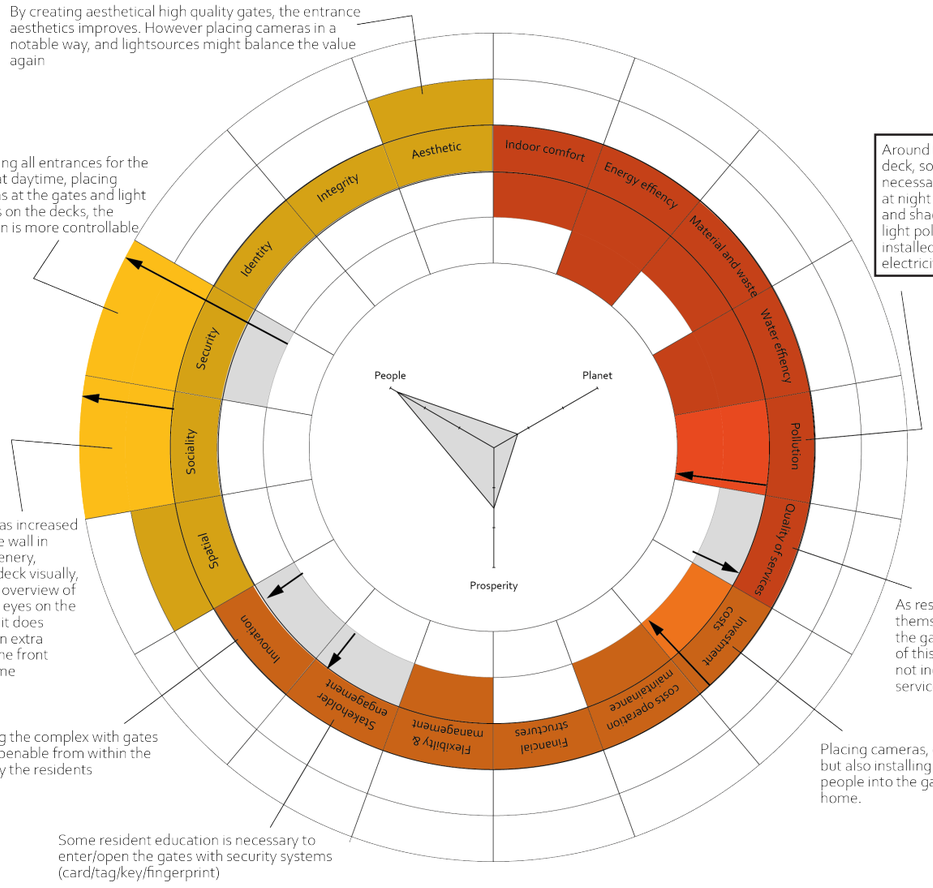
Relation to values of owners, users, students, architects & advisors, government & municipality:
- Lively and car free public space: preserved
- Lack of green: improved

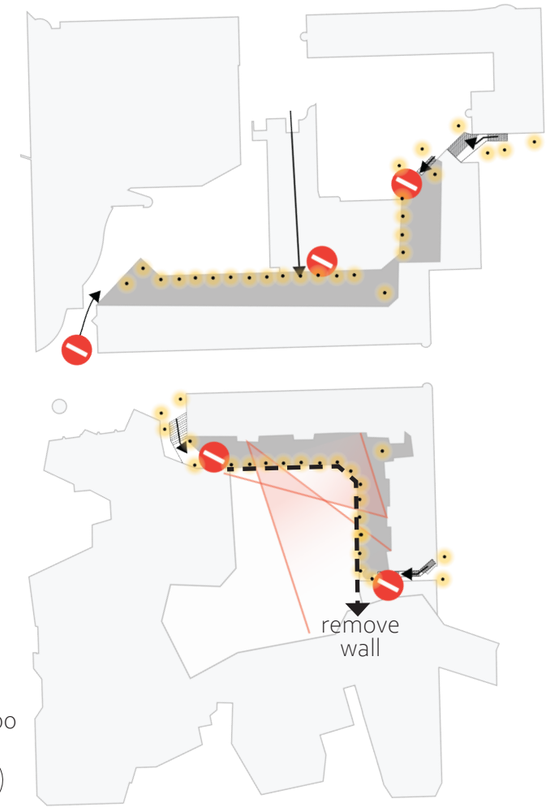
Museum Village Bourtange

source image: monumenten.nl

OPEN EYES
security x sociality

Bijlmerplein





Building/complex

This model is based on total security by closing all current public entrances at night, making these only accessible for residents and visitors. During the day, the decks will serve as a public space. The barriers are formed by gates surrounded by cameras for extra security. The second value being social will be upgraded in perspective of safety. Another aspect kept in mind is the aesthetic side to make the gate still look friendly enough to residents and the ground level public, but keeps people from entering the dekcs at night. In the southern deck the high wall separating greenery from deck should be demolished to guarantee a total overview of the entire deck, from entrance to entrance. The ultimate security would be when residents can see and open te gate when someone rings their doorbell. This intervention mainly effects the building or complex scale.

Values

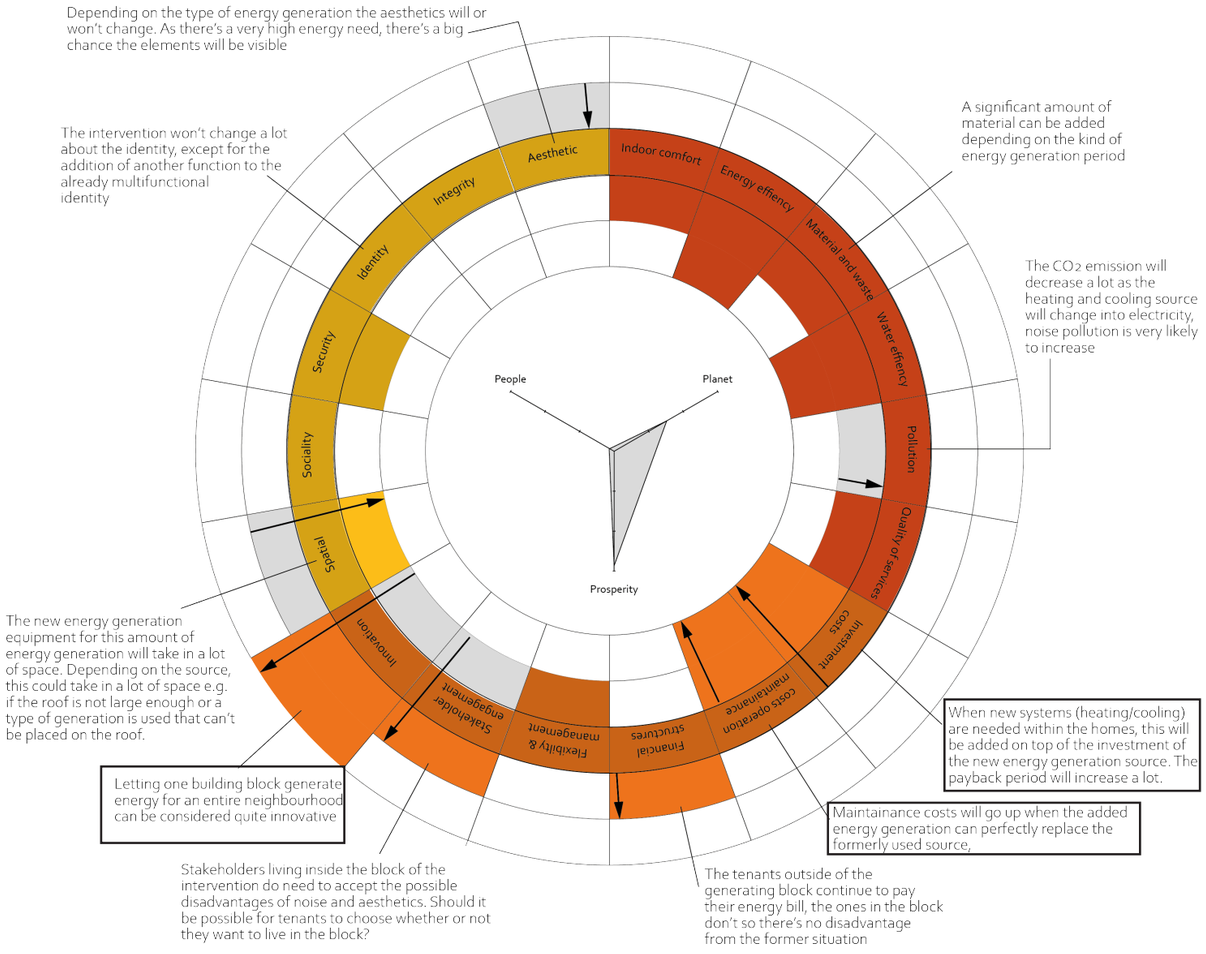
Relation to values of owners, users, students, architects & advisors, government & municipality:
- lack of social control on decks: improved
- unwanted people / people without destination at decks: eliminated
- unrecognizable entrances in streets: improved by recognizable gates

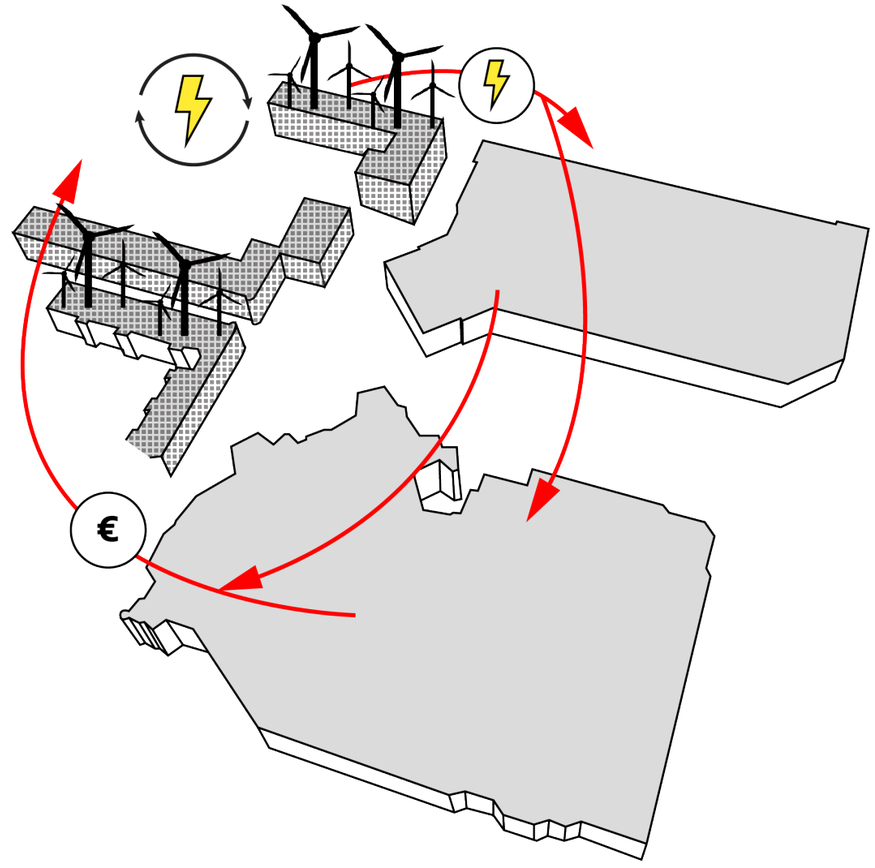
Justus van Effenstraat entrance before renovation (Gerard Dukker, n.d.)

Justus van Effenstraat entrance after renovation (Google Maps, 2015)

POWER
pollution x financial structures

Bijlmerplein





Neighbourhood

This model is based on pollution in terms of CO_2 emission and the way in which a so-called residential power plant will be financed including a payback structure. One of the building blocks at Bijlmerplein will serve as a power producing unit, meaning a lot of solar panels or any other energy generating methods have to be applied in this block. The other blocks which don't have the possible (aesthetic/noise) disadvantage, will receive energy from the producing block. These blocks keep paying the amount of their normal energy bill, but this will now serve as a payback for the investment in the energy generating block. So financially, there's no regression for these receiving blocks. The residents of the generating blocks won't have to pay for their energy, as they can already face some of the disadvantages. The intervention is mainly affects the neighbourhood scale.

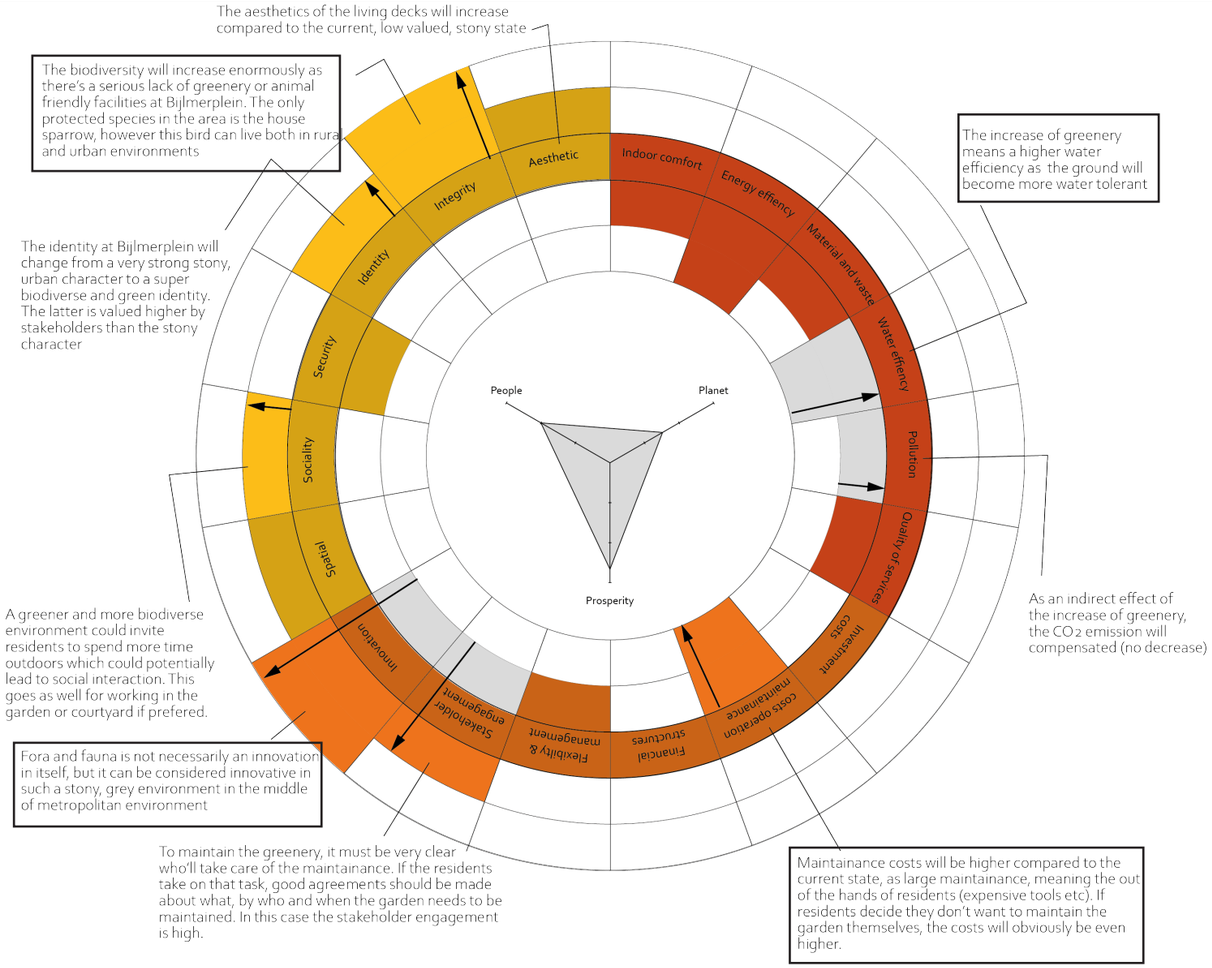
Values

Relation to values of owners, users, students, architects & advisors, government & municipality:
-non-sustainable housing: improved
- cohesion of facades: not preserved

Energy producing farmer (Energie van Boeren, n.d.)

BIO BIJLMER
integrity x identity

Bijlmerplein

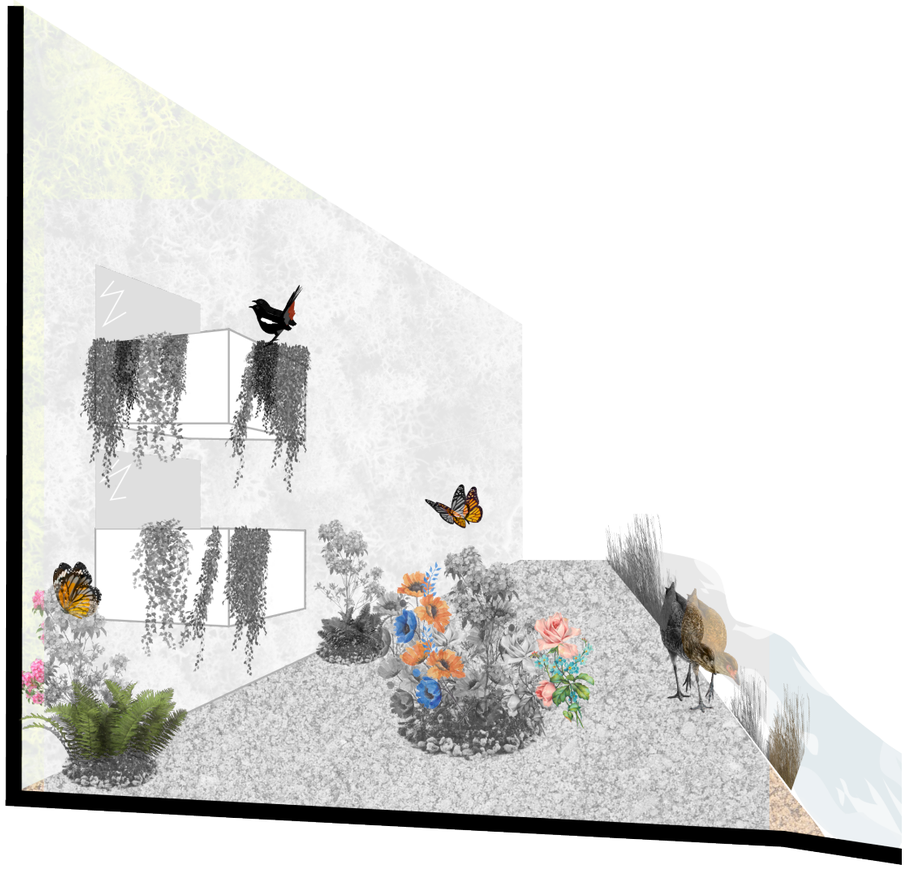


Building/complex

This model is based on biodiversity in terms of creating spaces for both animals and plants to thrive. The second value is identity which refers to the very stony, urban environment at Bijlmerplein. Combining these two values could lead to a very green environment, rich in flora and fauna. The identity would change, but in a positive way by creating an even stronger identity. The aesthetic value is inclined to improve as the stony environment was valued very negative by lots of stakeholders. In addition, the water efficiency will indirectly increase by creating this green, water permeable environment. On the other hand, stakeholder engagement or clarity in who's going to take care of the green space is very crucial, in view of the past and current lacking green maintenance on the residential decks. This intervention is most noticable on the scale of the building/complex

Values

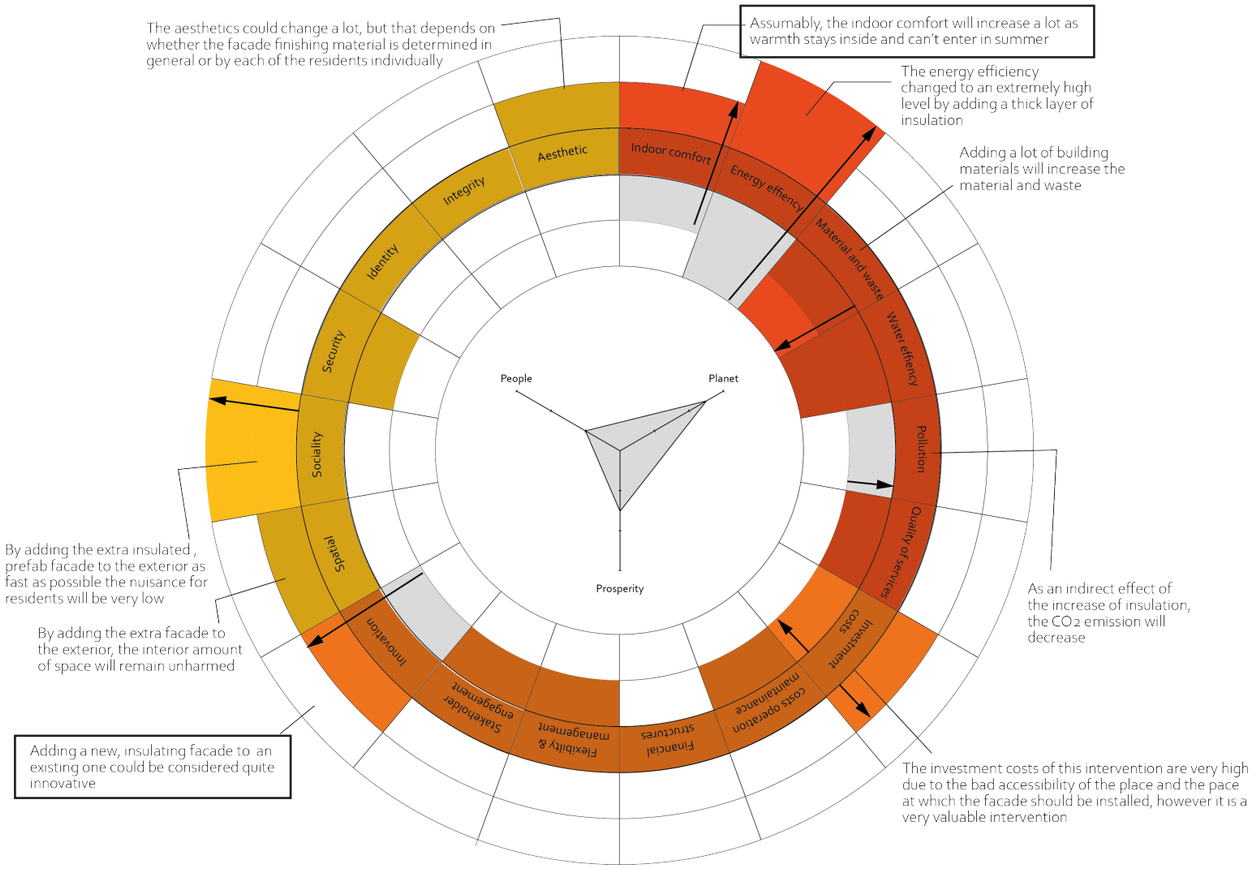
Relation to values of owners, users, students, architects & advisors, government & municipality:
- lack of green on decks: improved
- potential of meeting place on decks: improved
- stony environment: eliminated

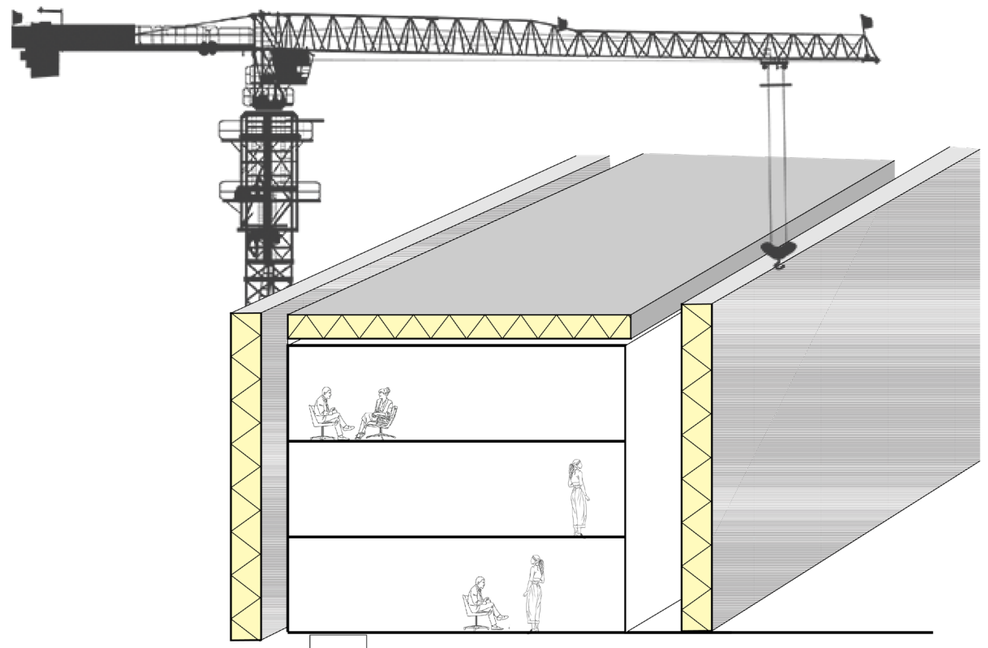


Spaarndammerhart, Amsterdam (dsla)

PREFAB COMFORT
sociality x energy efficiency

Bijlmerplein





Placing prefab insulating elements (Knaapen, 2018)

Housing at Sprang-Capelle (duurzamehuizenroute.nl, 2018)

Home

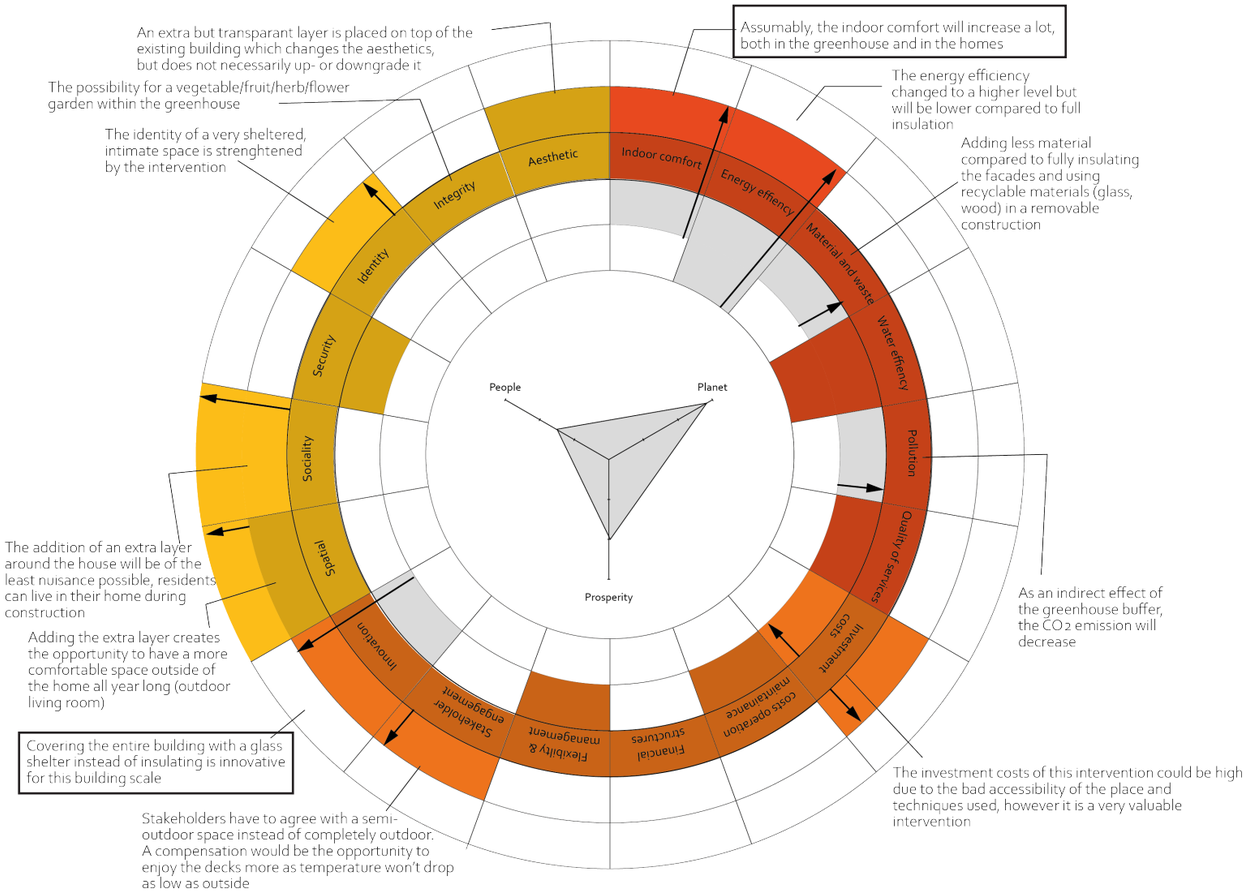
In this model, energy efficiency has to be reached in a super social way. The facade should be insulated from the exterior, either by insulation or by adding a buffer. Either of these should be attached to the house as fast as possible to reduce the degree of nuisance for the residents. That's why within this strategy, prefab elements are used to quickly insulate the homes. Because the location of Bijlmerplein is not as easy to access with large vehicles carrying the prefab elements, this intervention will be very expensive. The intervention has its most influence on the 'home' scale.

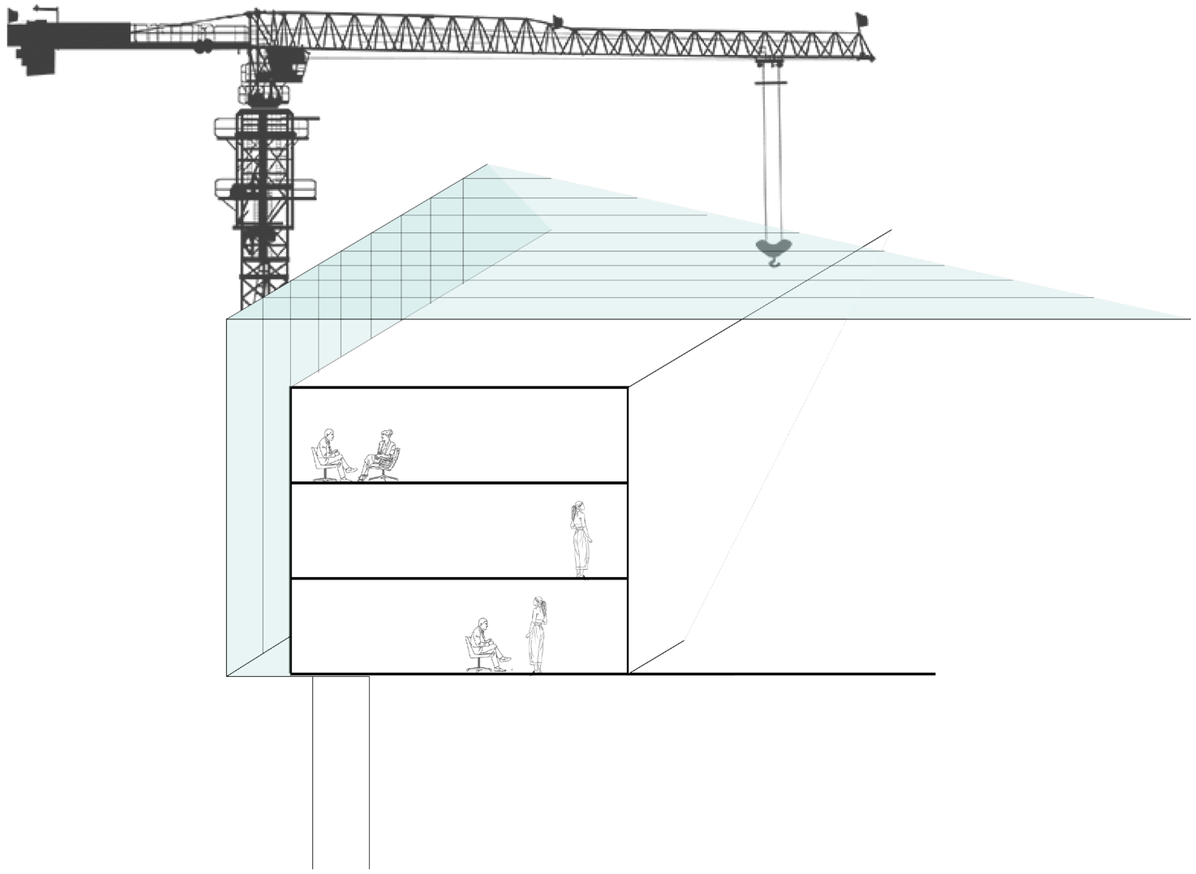
Values

Relation to values of owners, users, students, architects & advisors, government & municipality:
- high valued bricks by everyone except owners: not preserved
- non-sustainable housing: improved

FIND SHELTER
spatial x energy efficiency

Bijlmerplein



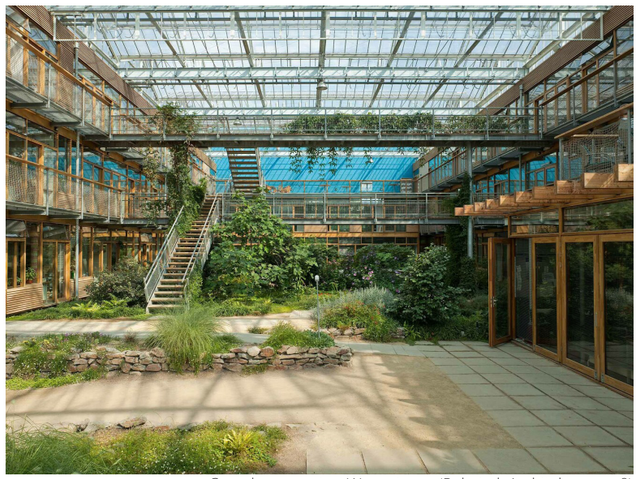


Building/complex

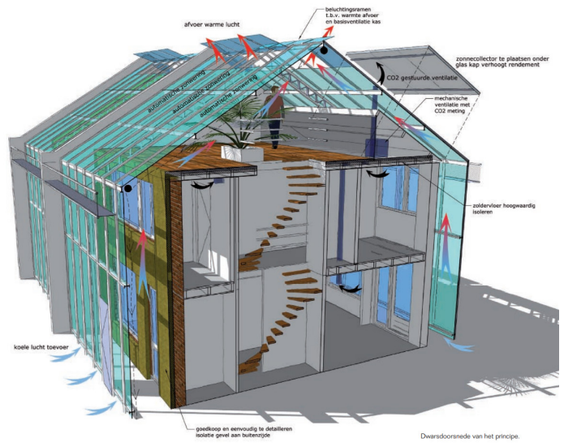
This model combines spatial with energy efficiency building a greenhouse over the facade, creating a buffer between the heated homes and the air outside. The brick facade is valued highly at Bijlmerplein, and so this will still be visible by placing a glass construction on top. As the glass coverage is placed on top of the building or attached to it, the residents will have as little nuisance as possible from any construction work directly around their home. They will be able to live in their homes while construction is going on. What can make this project costly is the way of construction in terms of location and size of building components. A benefit of the greenhouse type of addition, is the possibility to be outside more during the entire year as temperatures won't drop as low in winter. It could be considered a sheltered, extra living space for residents. In addition, the new construction offers a place for solar panels and creates an indoor environment for farming. This intervention takes place mainly at the level of the building complex.

Values

Relation to values of owners, users, students, architects & advisors, government & municipality:
- some consider the homes non-spacious: addition of extra outdoor living space increases spatial experience
- potential of meeting place on decks: improved
- aesthetics of facade: preserved



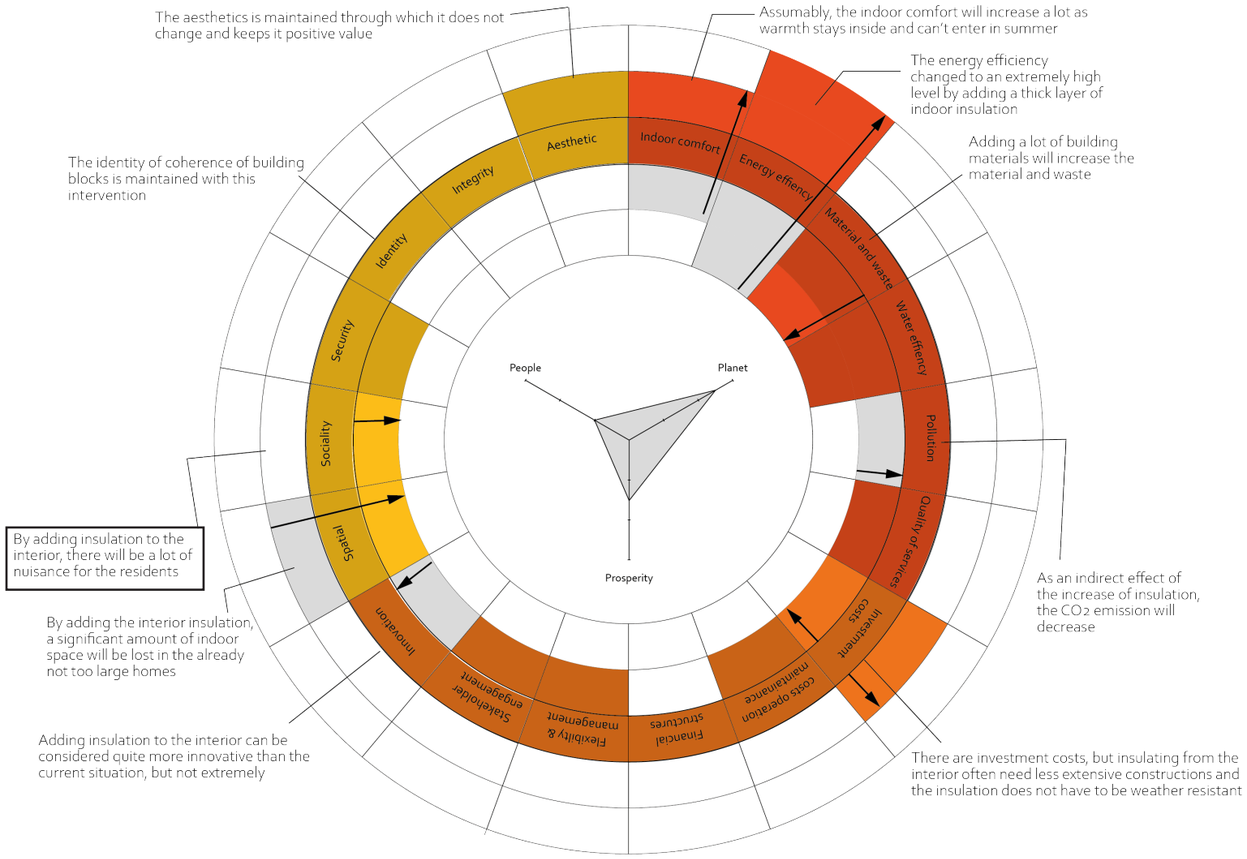
Greenhouse project Wageningen (Behnisch Architekten, 1998)

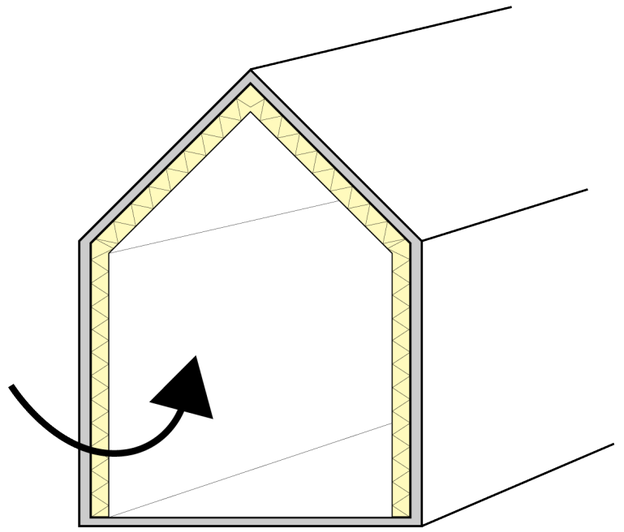


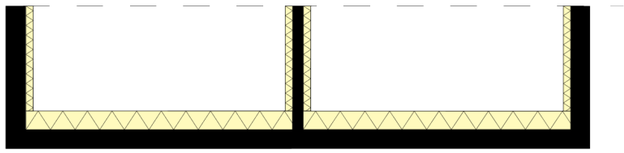
Greenhouse around housing (Renda, 2011)

INSIDER
aesthetics x energy efficiency

Bijlmerplein





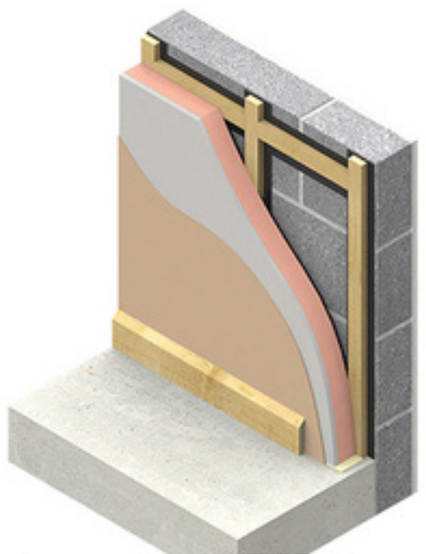


Home

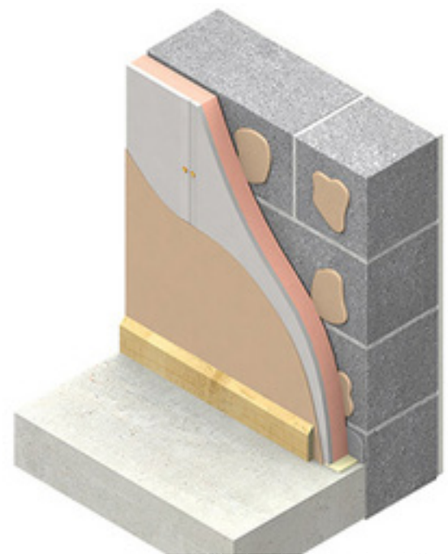
This model combines aesthetics with energy efficiency in terms of insulating the interior walls and preserving the highly valued brick facade. A big disadvantage is the decrease of space inside as the insulation will consume some 15 to 30 cm of space from each exterior wall. A large benefit is the dissapearing noise pollution from outside, but the interior walls have to be insulated as well to prevent noise pollution from inside the building as well. There will be a lot of nuisance when placing this type of insulation for the residents. They won't be able to live in their homes while construction is going on. This intervention takes place mainly at the level of the home itself.

Values

Relation to values of owners, users, students, architects & advisors, government & municipality:
- some consider the homes non-spacious: not preserved (adding an interior layer decreases space inside)
- aesthetics of facade: preserved



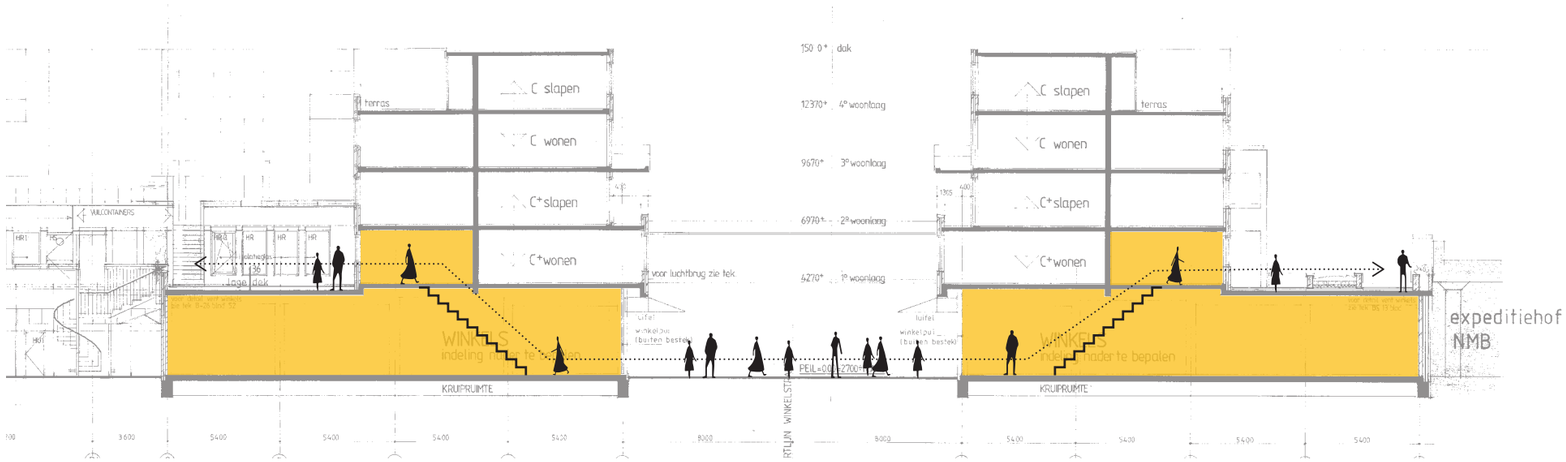
Timber construction insulated plasterboard (Kingspan, n.d.)



Glued insulated plasterboard (Kingspan, n.d.)

BLEND IT UP
sociality x security

Bijlmerplein

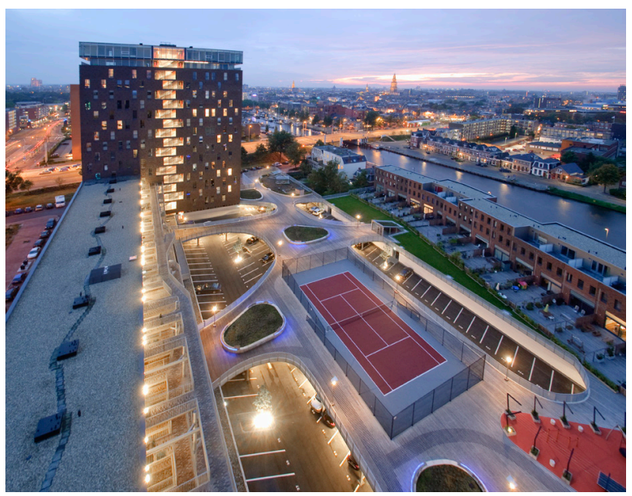


Mixing functions

In this model the shopping street is expanded to the living deck of the residents. By lifting the shops up to the living-deck security is also heightened and an overall liveliness created.

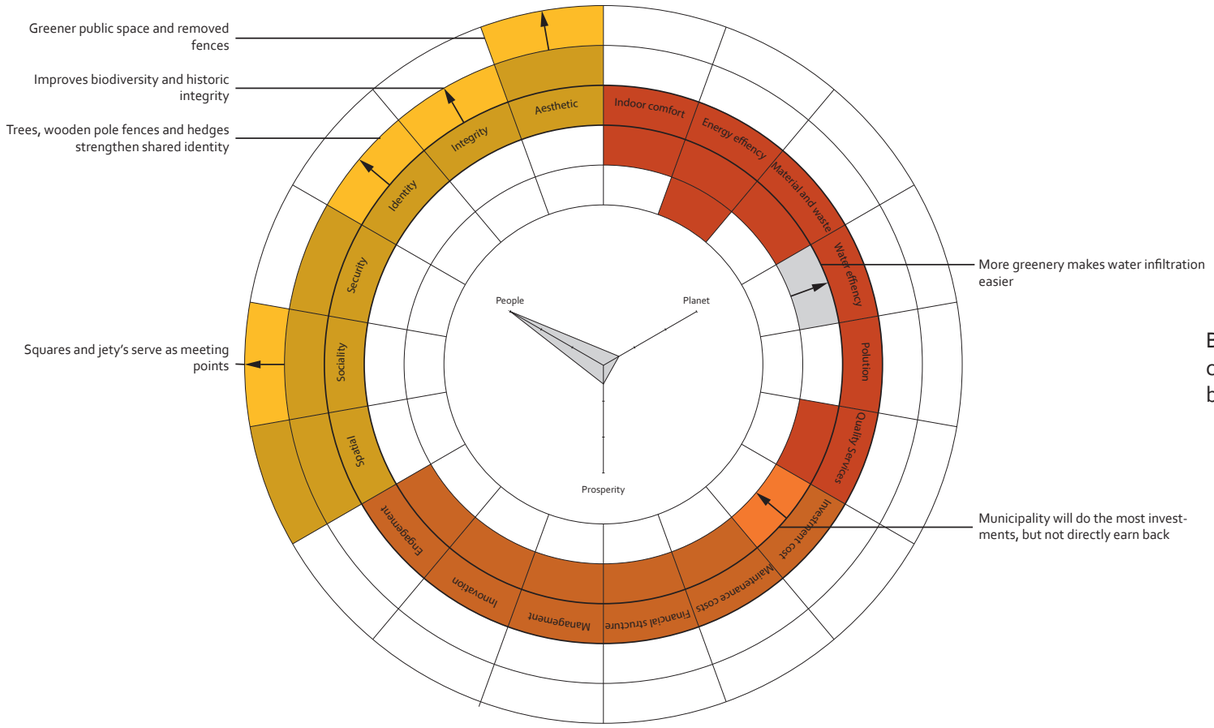
Reference project

Kop van Oost by Mecanoo



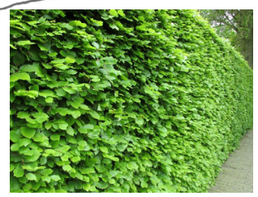
Rediscover the public
Sociality x Spatial x Integrity

Goedewerf



Round wooden pole between gardens, based on earlier designs

Raised wooden terrace to connect inside and outside of the block, based on original idea of raised square



Hedges between gardens and public spaces

Neighbourhood

This model focusses on the scale of the neighbourhood scale and especially the public space. It aims to improve the quality of the public by going back to the first plan and ideas for the neigboorhood. By adding greenery, raised terraces and Jetty's and replacing fences its strenghtens not only the attractivity of the neighbourhood for people but also biodiversity and water efficiency.

Values

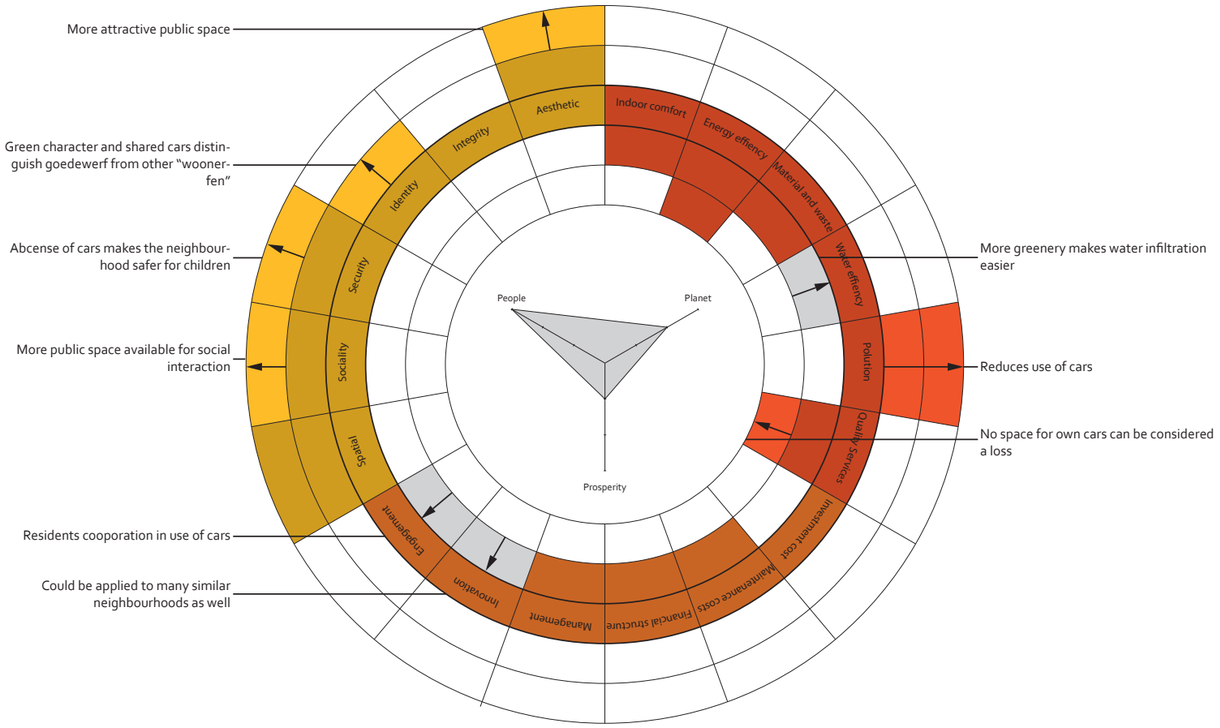
Relation to values of owners, users, students, architects & advisors, government & municipality:
- Orientation towards the water: improved
- Collective character of the neighbourhood: Improved

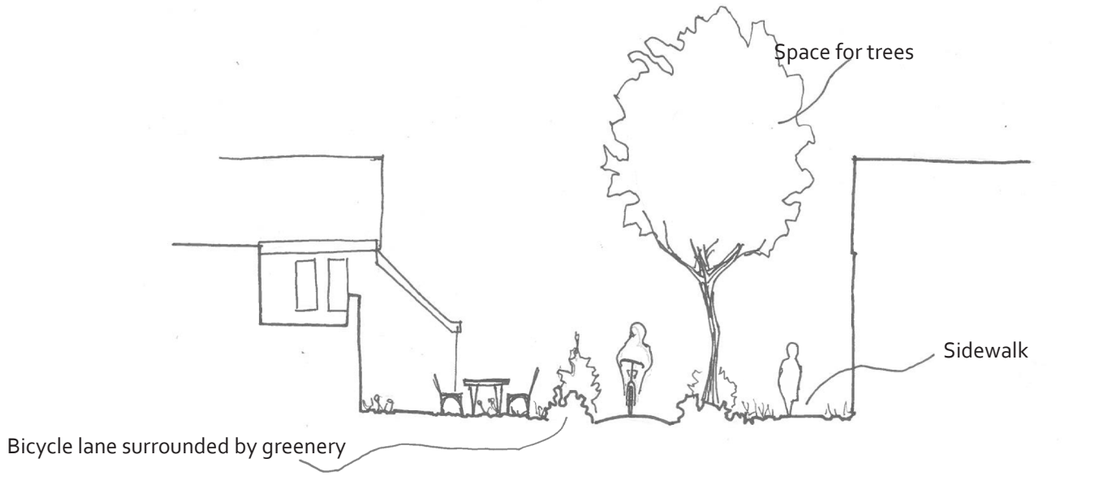
Rijtuigenbuurt Nieuwegein, WE Architecten / René Kuiken urbanism

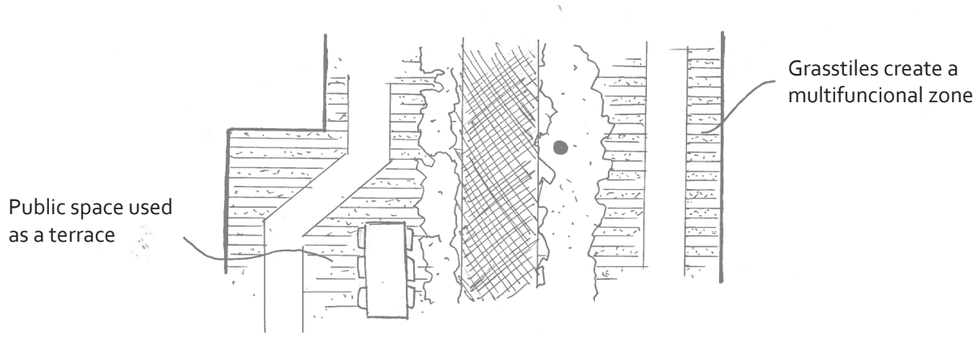
source image: René Kuiken / WE Architecten

Car-free woonerf
Polution x sociallity

Goedewerf







Neighbourhood

From the perspective of pollution and sociallity it would be interesting what happens if we the residents of a woonerf would share their cars intstead of all having their own. In this scenaria I investigated the effects of that on the scale of the neighbourhood. This would mean that a central parking space for the shared cars can be made at the entrance of the neighbourhood and the rest of the neighbourhood would be car-free. As a result of that much more space could be made for bicycles, planting and social activities.

Values

Relation to values of owners, users, students, architects & advisors, government & municipality:
- Presence of cars in public space: decreased
- Small scale of the neighbourhood: preserved

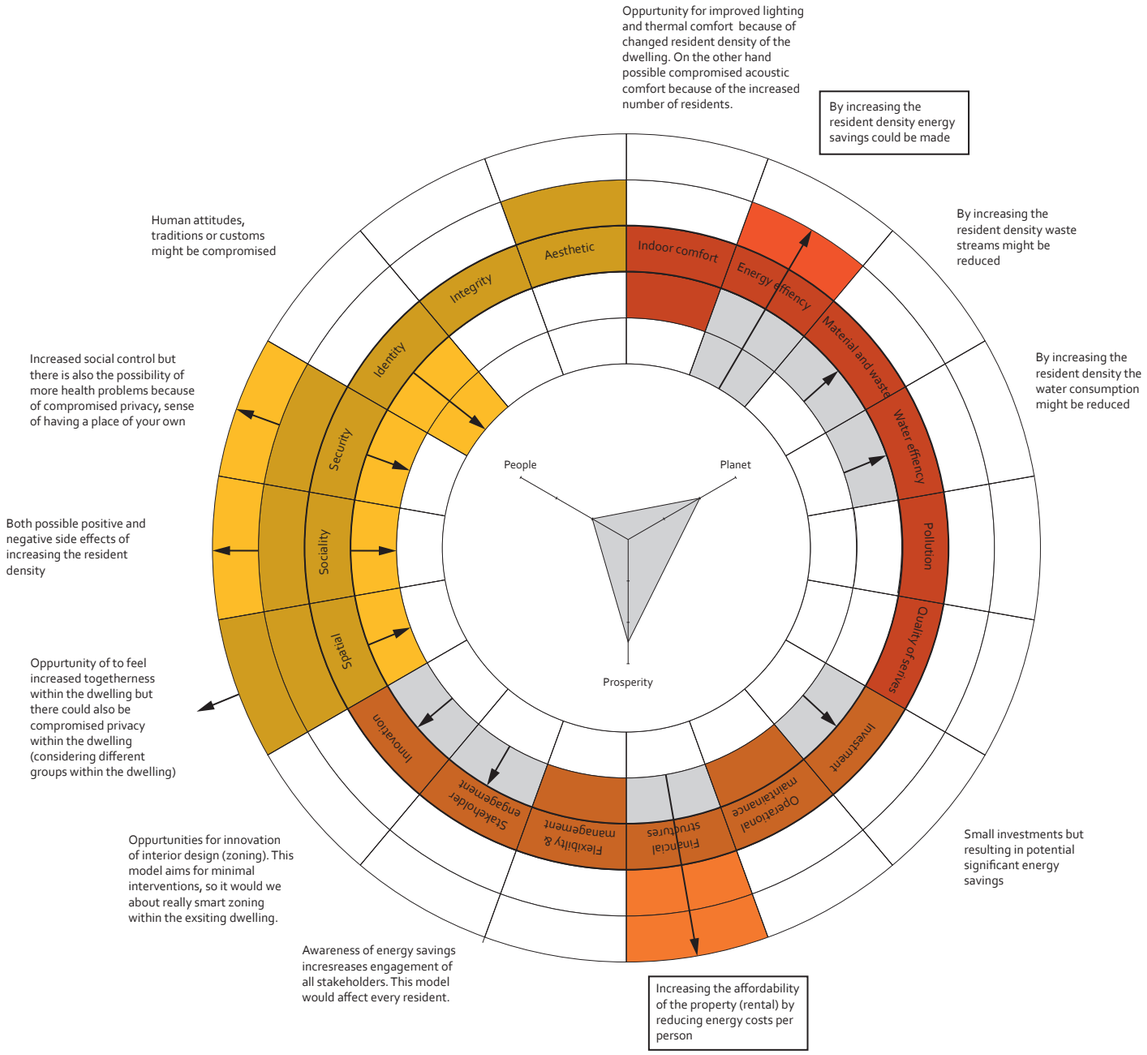
Merwede Utrecht, BURA Urbanism & OKRA Landscape architecture

source image: BURA Urbanism & OKRA Landscape architecture

FIXED RESIDENT DENSITY PER DWELLING

energy efficiency x financial structure

Goedewerf



Scale: Dwelling

This renovation model aims for energy efficiency ro relieve the financial burden for residents. Low-cost interventions for energy savings is the goal. The idea of this model is to have a fixed number of residents per dwelling. If the amount of residents changes the new residents have to move in or the people have to move. The expectation is that the energy consumption is less per resident.

The question is how far would people go in compromising liveability and comfort in order to save energy?

Reference: 'Shared living: Reducing the ecological footprint of Individuals in Britain'

"Cohousing combines the autonomy of private dwellings with the advantages of community living. It consists of small private dwellings (with limited facilities provided) alongside large communal facilities, provided in closed or open clusters, within a residential community. The communal facilities may be incorporated into the private dwelling space or provided separately outside the private dwelling space. Cohousing can be built at high, medium and low densities. It offers a variety of communal facilities (which are managed by residents) and tenure types. Cohousing is constructed through a bottom-up participative development process, which helps to form and solidify the community at an early stage. The development process has been shown to increase the propensity of cohousing communities to act collaboratively, resulting in resource and financial savings"

Source: Williams, J. (2002). Shared Living: Reducing the Ecological Footprint of Individuals in Britain. *Built Environment* (1978-), 28(1), 57–72.

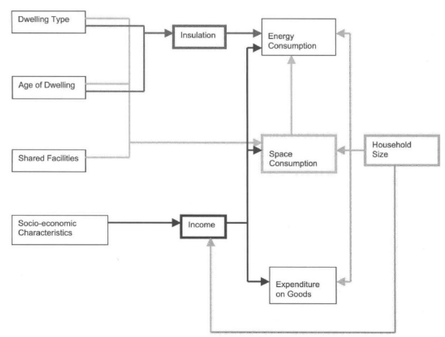


Figure 1. Factors influencing individual consumption of energy, goods and space.

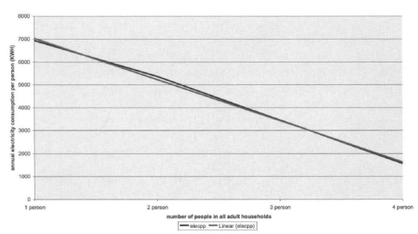
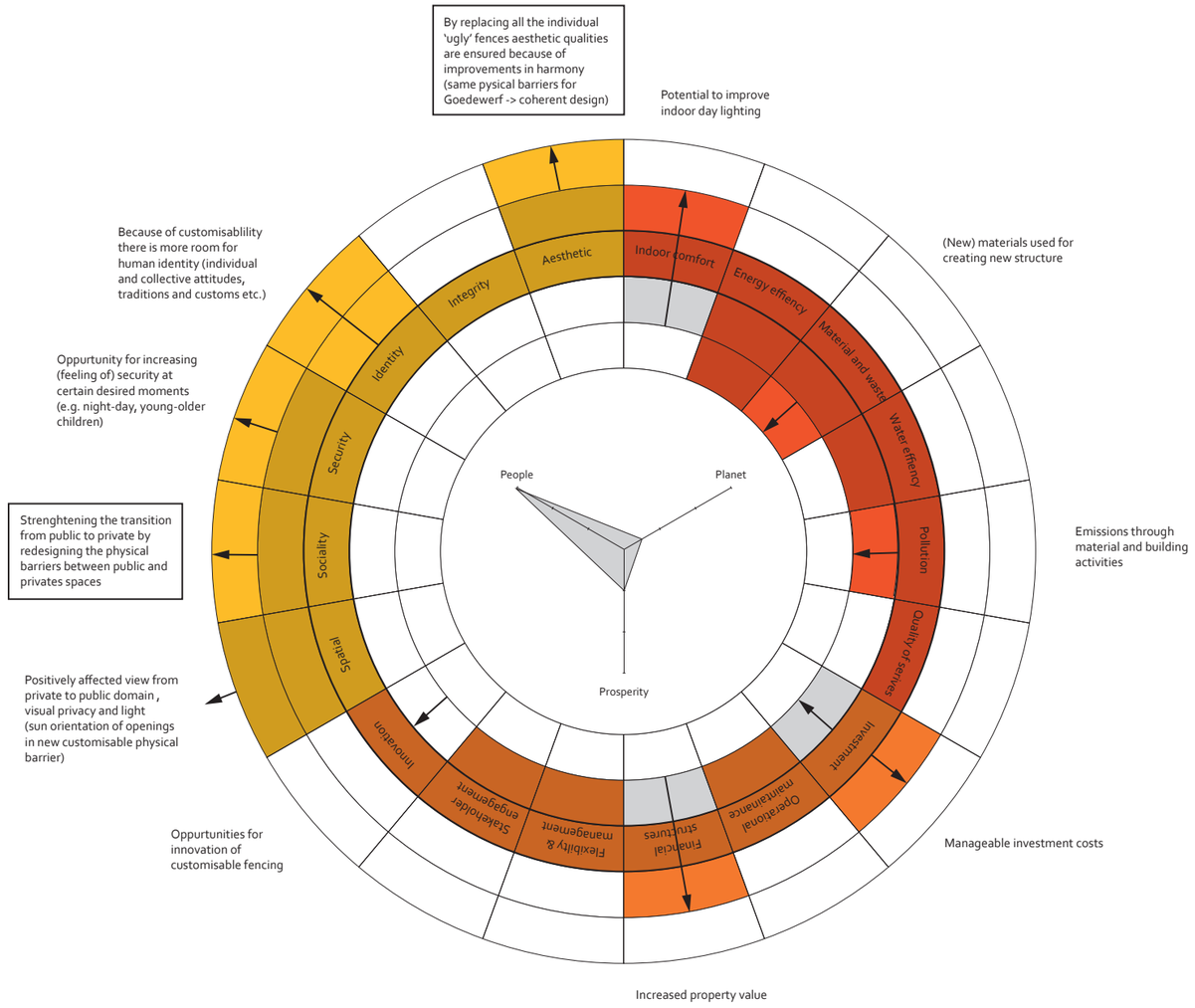


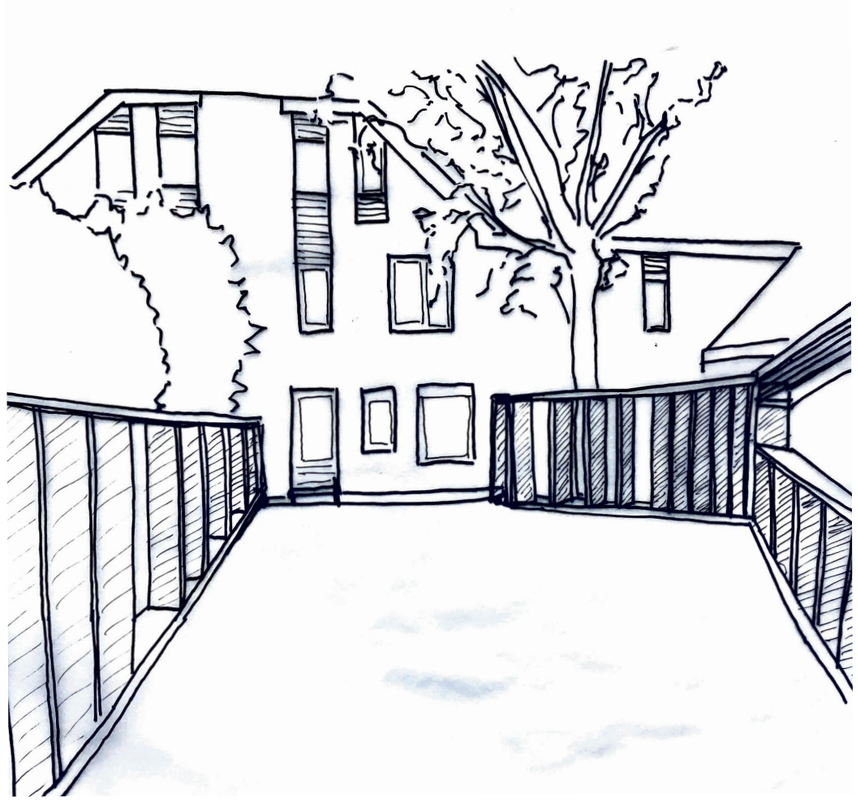
Figure 2. The relationship between average individual electricity consumption and household size. (*Source*: Williams, 2001)

ADJUSTABLE SOCIAL PERMEABILITY

sociality x aesthetic

Goedewerf





Scale: Block, Dwelling

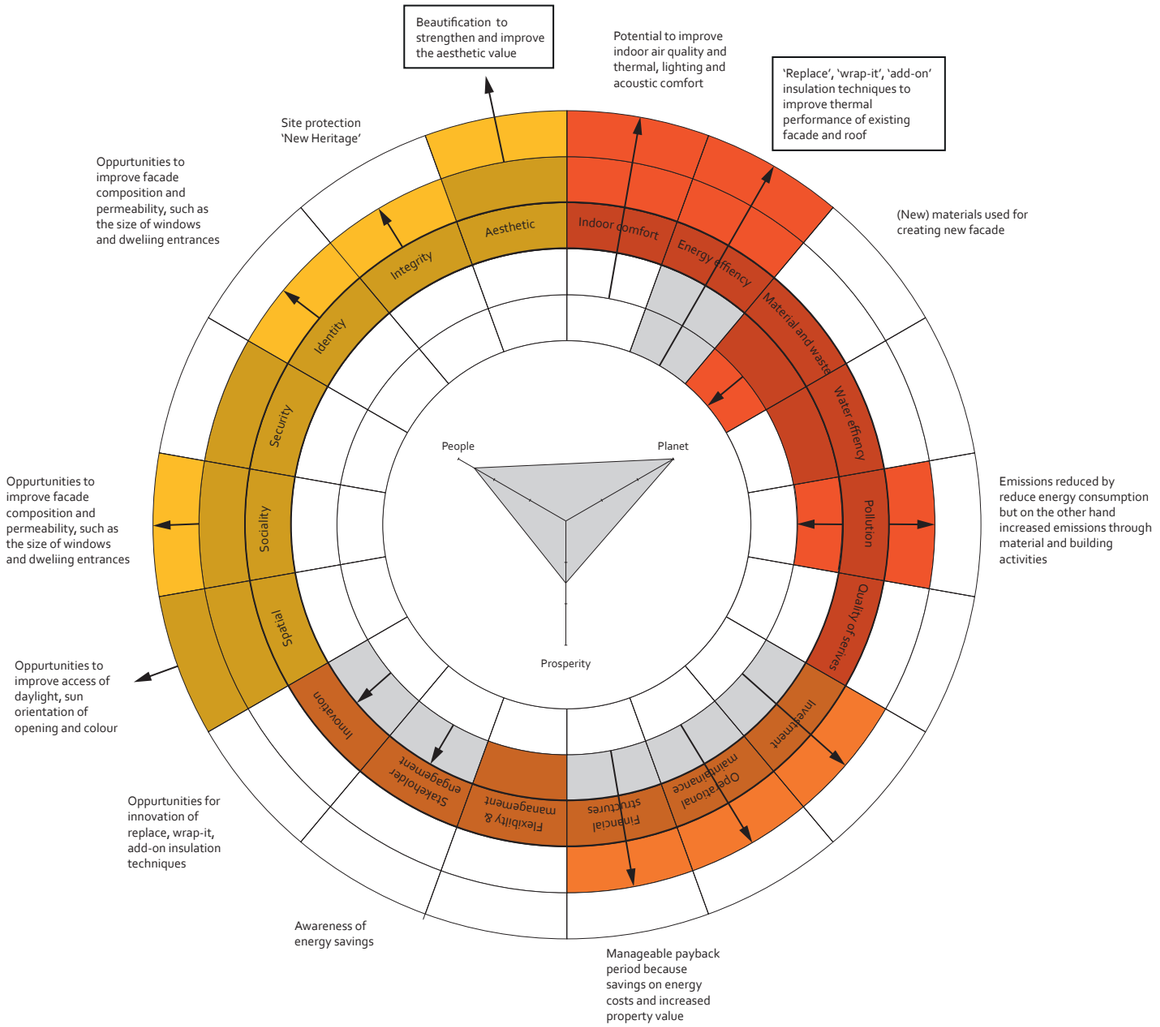
The goal of this model is to strenghten the transition from public to private by redesigning the physical barriers between public and privates spaces. This is done by replacing all the individual 'ugly' fences with new ones which would be customisable in visual and physical permeability and would ensure aesthetic qualities because of improvements in harmony (the same type of fence would be placed everywhere in Goedewerf -> coherent design). Each residents can choose for different moments to what extent their private outdoor space is visually and physical accessible.

Reference: Adjustable fence blinds

Source: Garden fence blinds open. (n.d.-b). Welke. Retrieved 8 October 2021, from https://www.welke.nl/photo/Zuzana/tuin-schutting-lamellen-open.1391355892

BEAUTIFICATION
energy efficiency x aesthetics

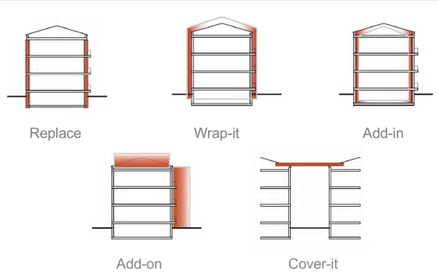
Goedewerf



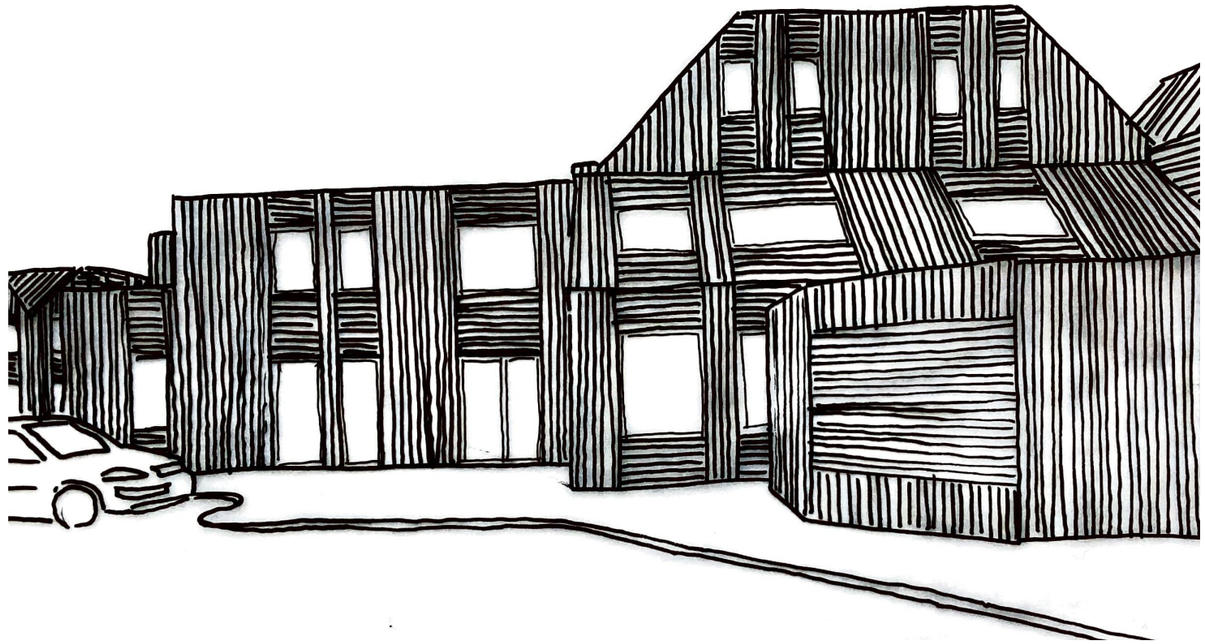
Scale: Block

The aim of this model is to strenghten the aesthetic value and improve the energy efficiency. Different insulation methods can be used to improve thermal performance of the existing facade and roof:
'Replace', 'wrap-it', 'add-on'

Building Envelope Refurbishment strategies



Source: Konstantinou, T. (n.d.). *Building Envelope Refurbishment strategies* [Image], from presentation Re-Imagining the Envelope. The process to update and upgrade.



Reference: Renovation Stedenwijk-Noord (Almere)

Henk Reijnga, architect Stedenwijk Noord:

"Om de isolatie van gevels en daken aan te passen aan de nu geldende normen zijn nieuwe gevelbekledingen aangebracht. Dit is zeker een verbetering geweest ten opzichte van het in verband met de gewenste lage bouwkosten oorspronkelijke sobere materiaalgebruik. Jammer vind ik het, dat de buitentrappen naar de bovenwoningen in de gestapelde bouw werden afgesloten, waardoor het principe van 'alle voordeuren aan de straat' is verdwenen."

Source: Reijenga, H. (n.d.). *Stedenwijk Noord - Almere Stad*. Henk Reijenga. Retrieved 8 October 2021, from http://www.henkreijenga.nl/almere_stedenwijk_noord.php

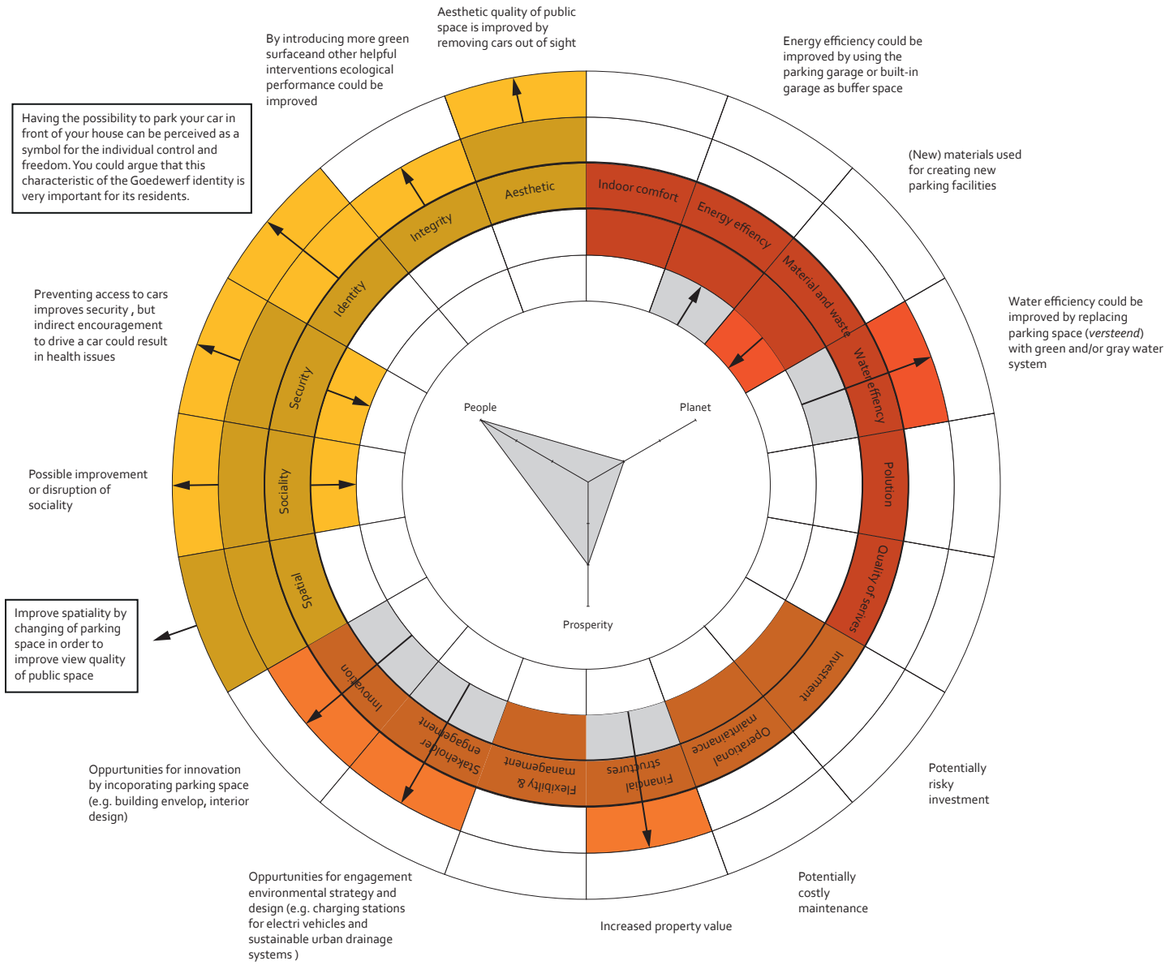
Architect: 19 the Atelier
Client: Woningstichting Goede Stede
Contractor: Mateboer Bouw B.V.
Realisation: 2010

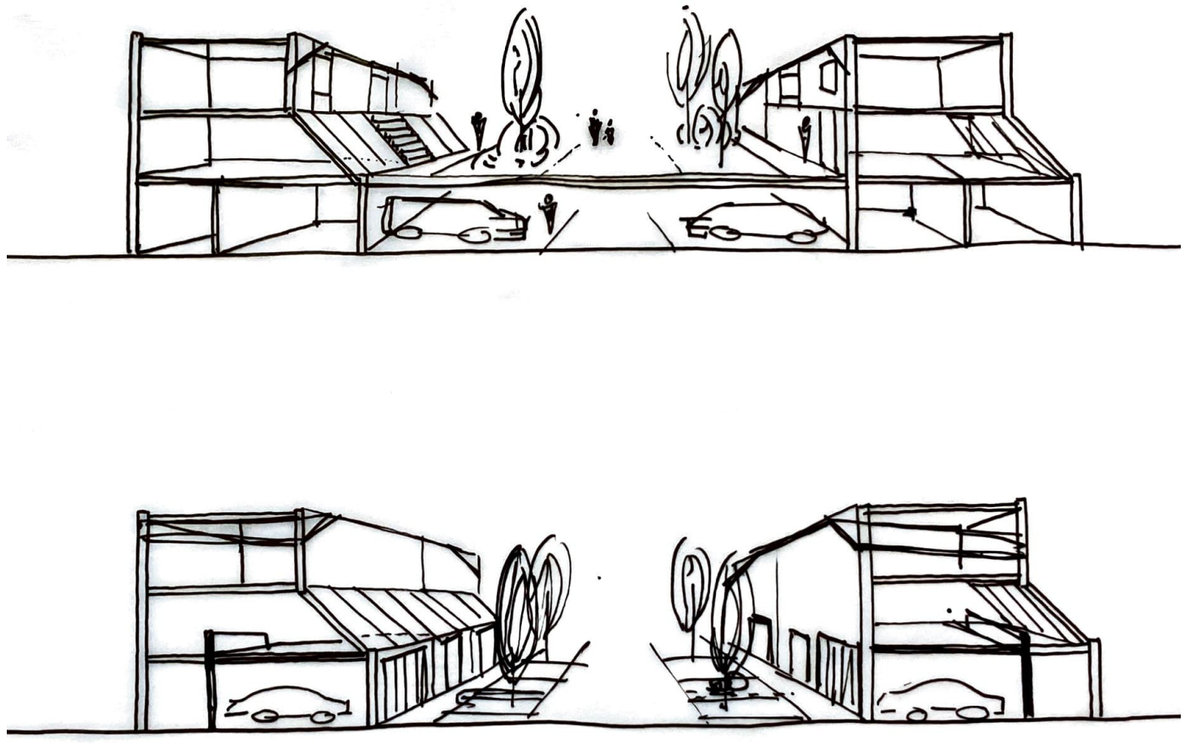
Amsterdamse school revisited
Achter het ogenschijnlijk homogene uiterlijk van de verwaarloosde jaren '70 wijk met 750 woningen schuilde een diversiteit aan composities van bouwblokken. Deze compositorische elementen, de materialisatie die zich in **baksteen** uitdrukt en de relatie die Almere met Amsterdam heeft, doet er toe leiden dat de **Amsterdamse School inspiratiebron** vormt voor de gevelrenovatie. (...) Door verfijning en variatie in metselwerk en verschillende toepassingen van dakpannen krijgt de wijk meer aanzien, meer identiteit en meer herkenningspunten zonder zijn originele karakter te verliezen.

Source: *Duurzame renovatie Stedenwijk-Noord Almere*. (n.d.). 19 Het Atelier Architecten. Retrieved 8 October 2021, from https://www.19hetatelier.nl/werkgebieden/transformeren-en-restaureren/duurzame-renovatie-stedenwijk-noord/

VVD-model
identity x spatial

Goedewerf





Scale: Public space

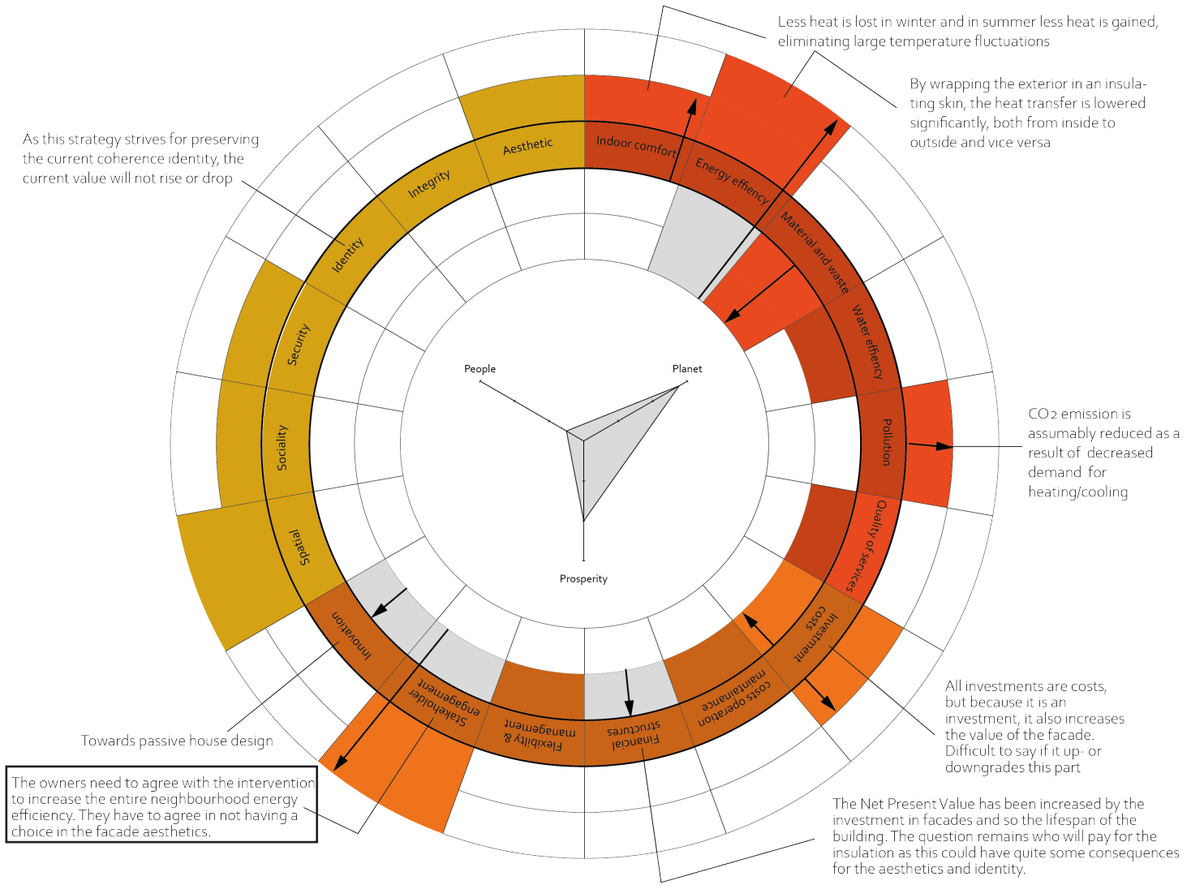
Having the possibility to park your car in front of your house can be perceived as a symbol for the individual control and freedom. You could argue that this characteristic of the Goedewerf identity is very important for its residents. This part of the identity is combined with improve the view quality of public space which is dominated by cars right now.

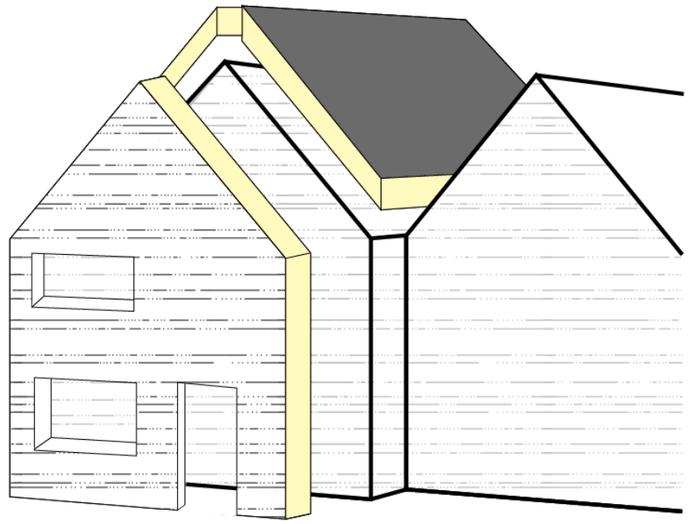
Reference: Parking Hofzoom, Delft

Source: Google. (n.d.). *Hofzoom Delft* [Google streetview]. https://www.google.com/maps/@52.0105612,4.3341206,19z

IDENTICAL EXCHANGE
energy efficiency x identity

Goedewerf





Home

The combination of energy efficiency and identity has led to a strategy of wrapping the existing building with a new, well-insulating facade system. This strategy plays the largest role on the level of the home itself. To maintain the aesthetic and coherent identity, the newly added materials are kept as close to the original as possible, so that there won't be a large difference in renovated and original facades. The coherence in materialization, based on the aesthetics and identity of the home itself will only be slightly different. Stakeholders play a major role in this intervention, as the owners will need to pay for the insulation themselves because of the speckled property conditions at Goedewerf. Simultaneously they won't be able to chose the material as a means to preserve unity and coherence. In addition, the interior walls have to be insulated as well, as noise pollution is now cancelled out from outside, but increases inside. This adds to the nuisance from construction and investment costs.

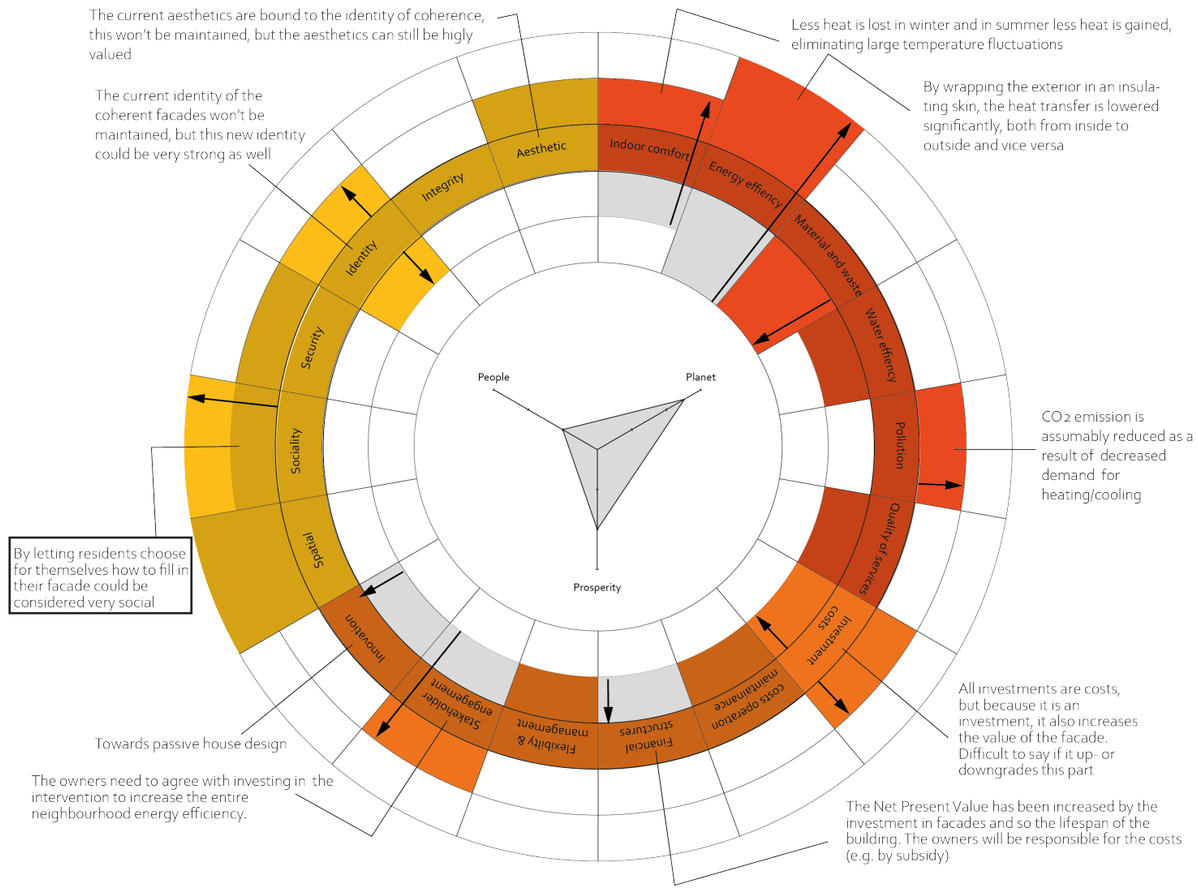
Values

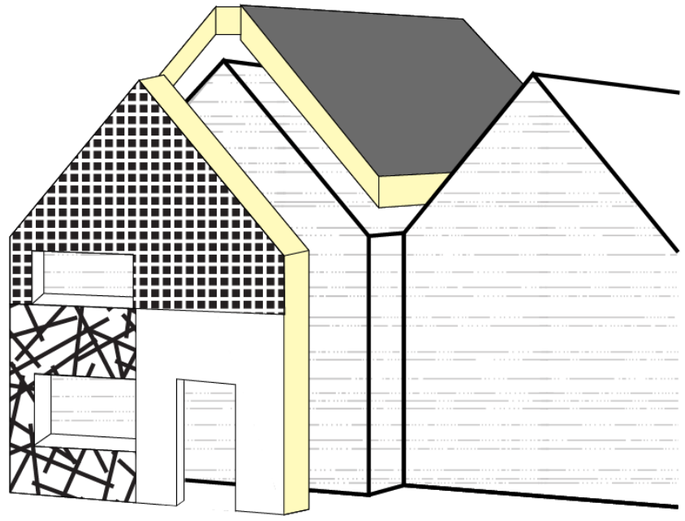
Relation to values of owners, users, students, architects & advisors, government & municipality:
- coherence in terms of materials: preserved
- individual identity of neighbourhood: not preserved (in terms of choosing what materials to place)

H2O renovation project with E-Board facade system by Vandersanden, Woningstichting Valburg (stedenbouwarchitectuur.nl, 2016)

UNDERCOVER
energy efficiency x identity

Goedewerf





Home

This model is based on energy efficiency and the identity of the neighbourhood. The owners can choose for themselves what they do with their facade, as long as they meet the insulation requirements, which could be considered very social. This mostly takes place on the level of the home itself, but on the level of the neighbourhood as well in terms of identity. The aesthetics and identity comes into play as the current coherence in facades is at stake when all residents have to manage and finance the insulation themselves. This could lead to a variety of different facades. On the one hand, the identity of the very coherent neigbourhood will fade, but a new identity with all kinds of different facades could lead to a very strong street identity as well. In addition, the interior walls have to be insulated as well, as noise pollution is now cancelled out from outside, but increases inside. This adds to the nuisance from construction and investment costs.

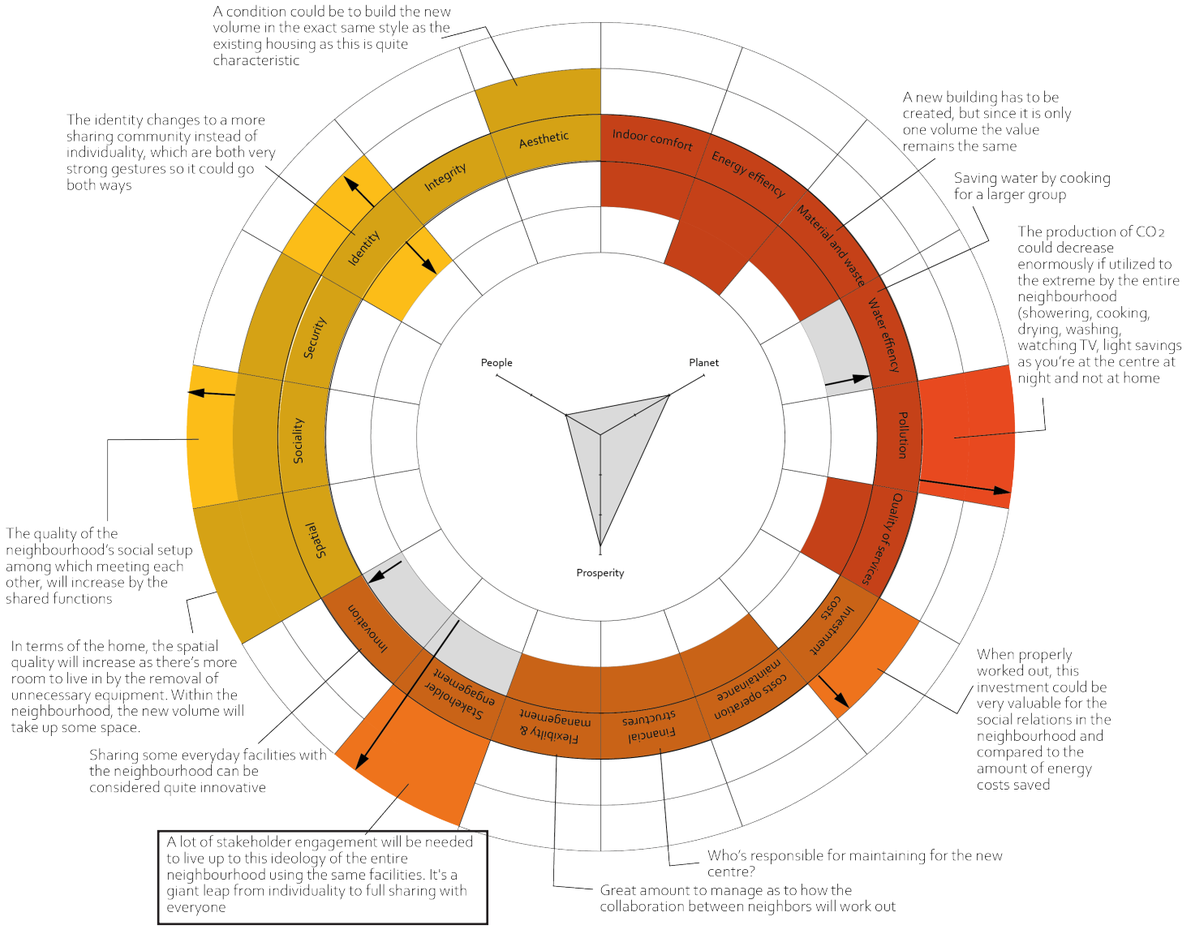
Values

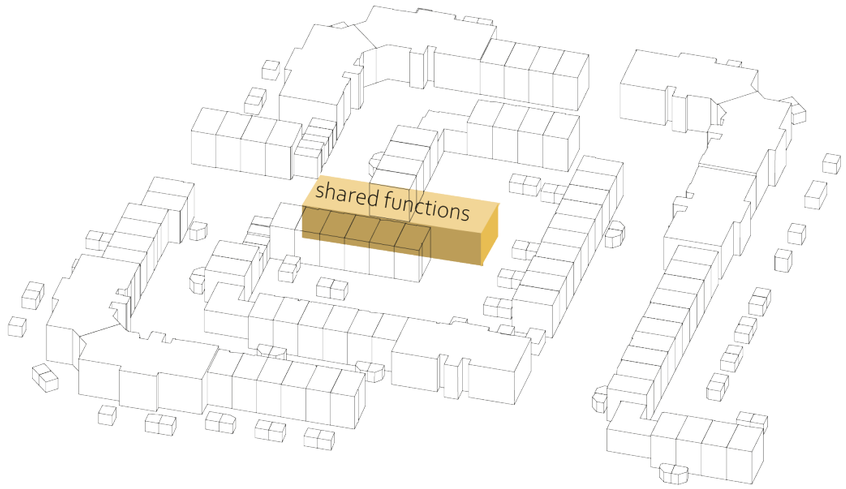
Relation to values of owners, users, students, architects & advisors, government & municipality:
- coherence in terms of materials: not preserved
- individual identity of neighbourhood: preserved (in terms of freedom of choice in materials)

Steigereiland, Amsterdam (FARO Architecten, 2009)

SHARING = CARING
pollution x sociality

Goedewerf



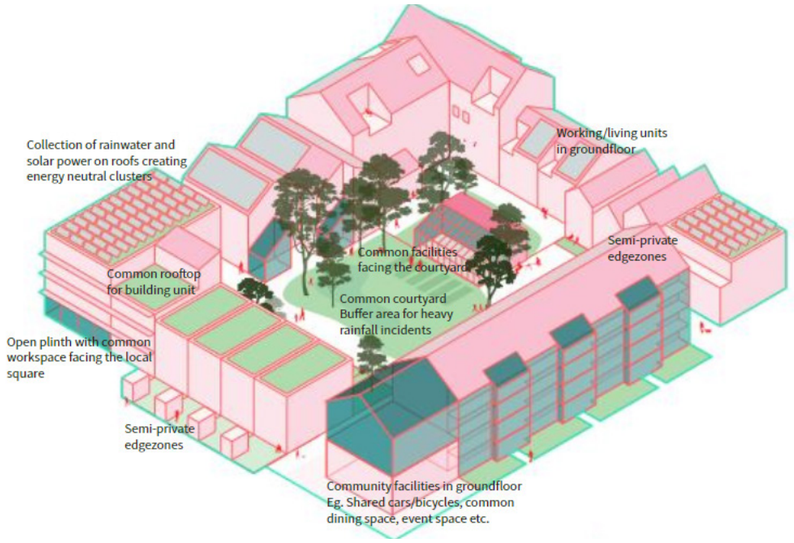


Neighbourhood/home

This model is based on sharing functions like cooking, washing and showering in a shared neighbourhood centre. This new volume will be a central point within the neighbourhood and replaces all washing machines, tumble dryers, showers, and could decrease the use of own kitchens, as well as possibly some TVs. For sociality this means sharing functions, bringing down the polution in the neighbourhood, but it also demands a lot from the residents as the current identity is very individual. It could as well bring down the living experience when having to bring your laundry with you on the street. The the freeing up of a lot of space by the devices that are no longer needed can be seen as a major advantage. This model plays a role mostly at the neighbourhood level, but for a great amount inside the home itself as well.

Values

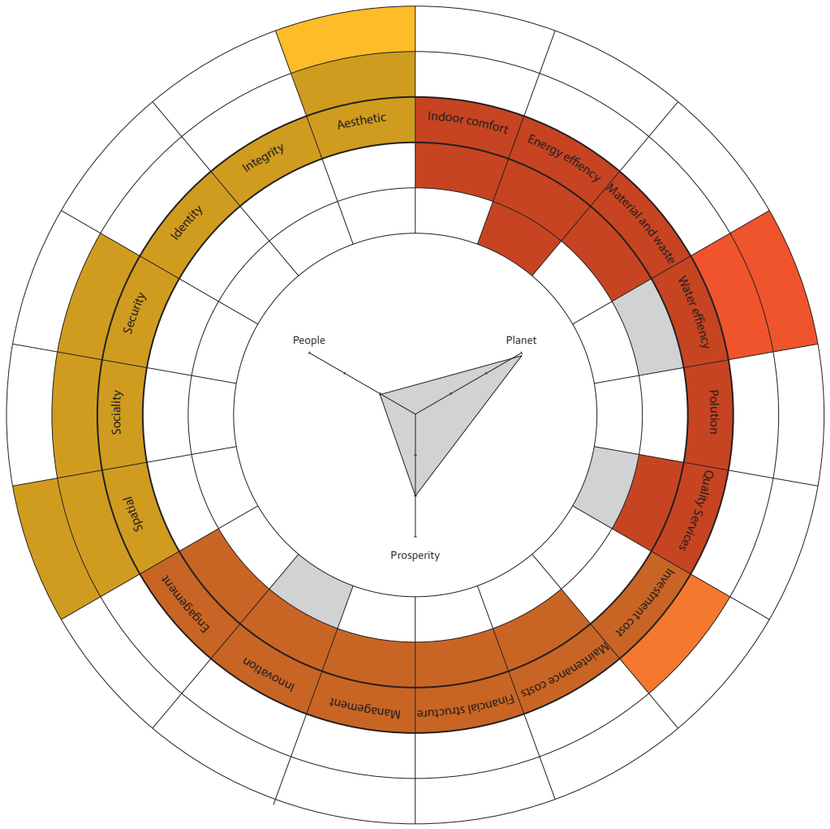
Relation to values of owners, users, students, architects & advisors, government & municipality:
- individual identity of neighbourhood: not preserved (no choice in where to wash, shower, cook)
- individual identity of neighbourhood: preserved (more space in houses)

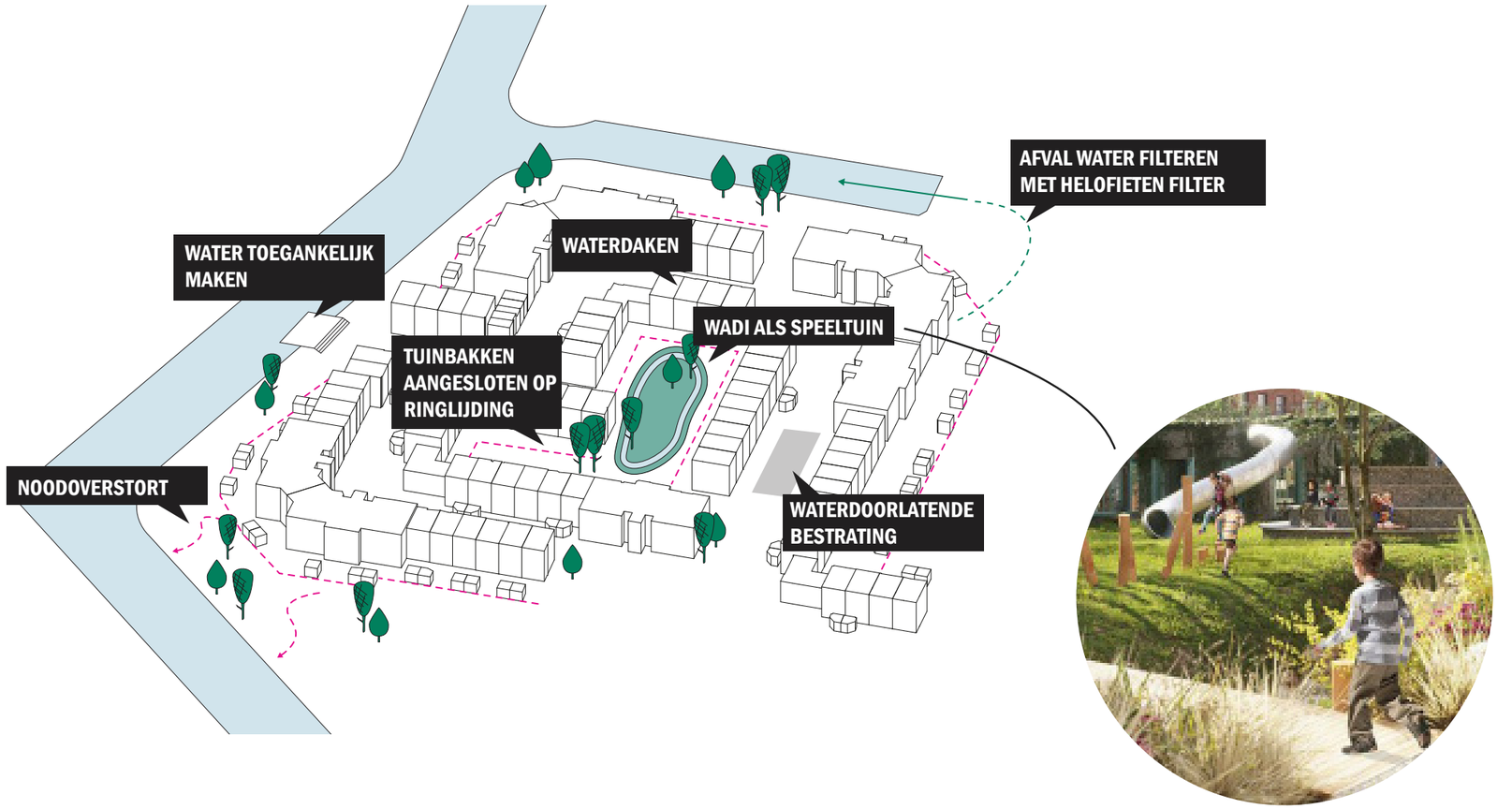


Hartland. The garden city reinvented , Groot IJsselmonde - Rotterdam (

OVERFLOWING
water efficiency x spatial

Goedewerf



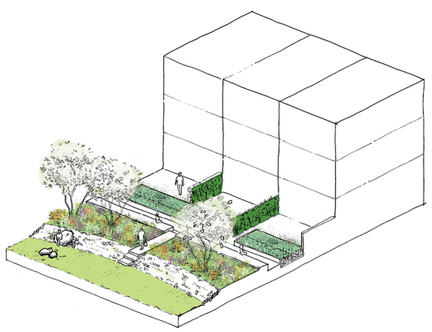


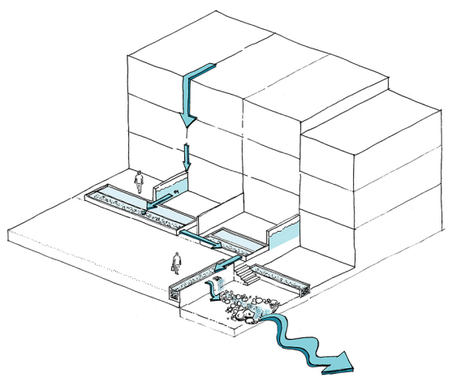
Integrating water

Water efficiency is the main goal in this model. By integrating it into the design of the residential areas, not only is water stored but the spatial quality of the residential areas is improved. This integrated way of designing can be found in the Stroom project in Utrecht. Here wadi's and grassy hills provide a playarea for the children in the neighbourhood. Indirectly, the aethetic value is also higher because residents have a pleasant view from their homes.

Reference project

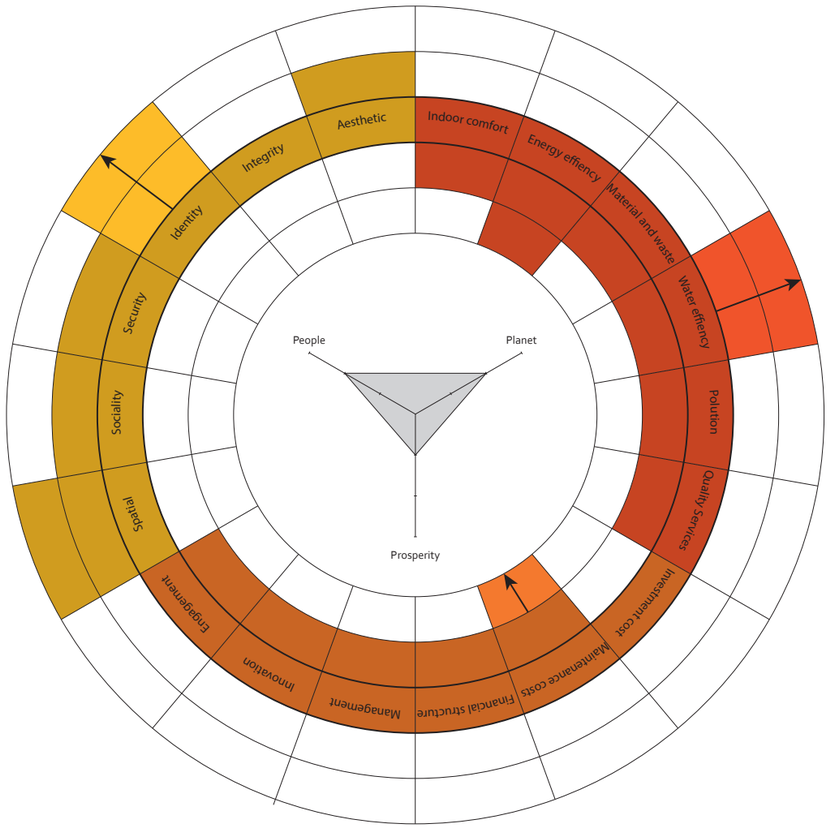
Stroom Utrecht by Baljon Landscapearchitects

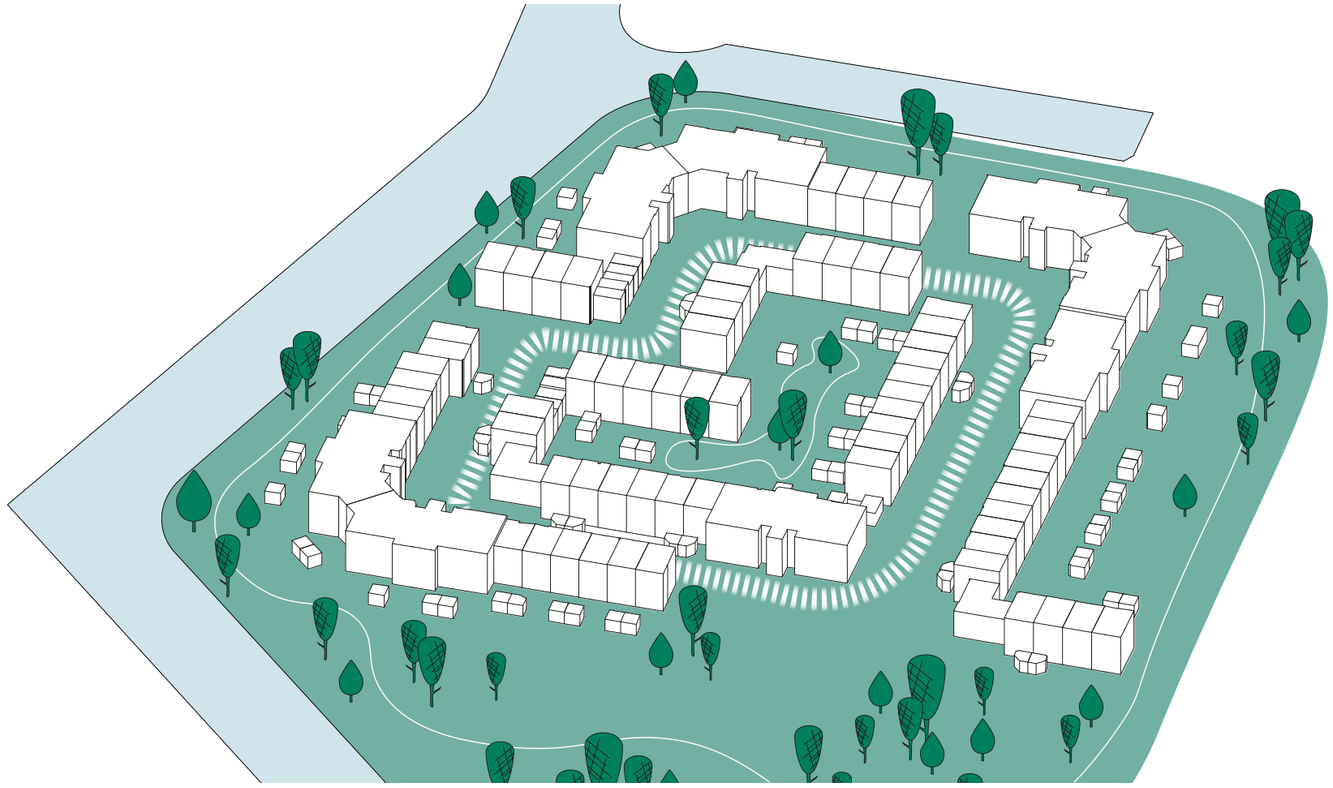




MORE GREEN, PLEASE
biodiversity x spatial

Goedewerf





A green neighbourhood

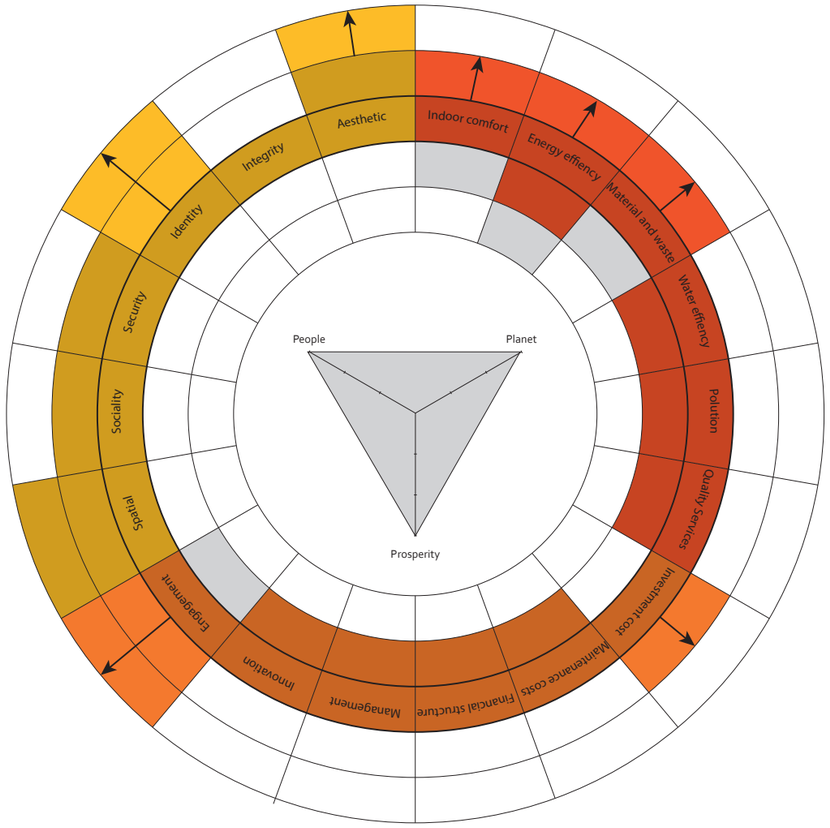
This model aims to strengthen the biodiversity and the spatial values on a neighbourhood scale, by embedding green into the residential areas. By letting nature run its cours, biodiversity in the neighbourhood would be improved. Groene Mient, in the Hague, has a similar strategy. These green areas not only provide space for children to play in, but also invite local insects and animals to live in. By removing hard pavement and replacing it with greenery, water efficiency is also higher.

Reference project

Groene Mient, the Hague by Bos Hofman Architektenkombinatie and Fillié Verhoeven Architecten

MIX AND MATCH
stakeholders x identity

Goedewerf



Design catalogue

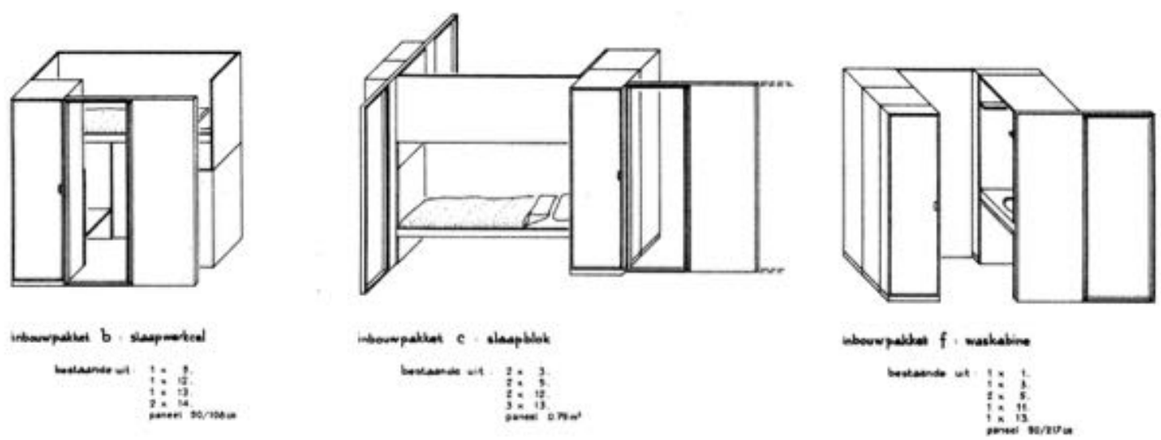
In this design model the user is able to participate in the design of their dwelling with the use of a design catalogue. The design catalogue enables the residents to mix and match objects and colours to create their own facade, interior and garden within the design guidelines set by the designer.
Sense of identity could increase this way, as the residents can modify their homes to their own liking. This also increases stakeholder participation as the residents are directly involved in the design of (their) building. As the neighbourhood consists of owned and rented dwellings, the appearance of the dwellings differ and don't form a harmonious entirety. The use of the catalogue will therefore improve the aesthetic value on the building scale.

DESIGN CATALOGUE

WINDOW TYPE	COLOUR
W1	C1
W2	C2
W3	C3
W4	C4

Reference project

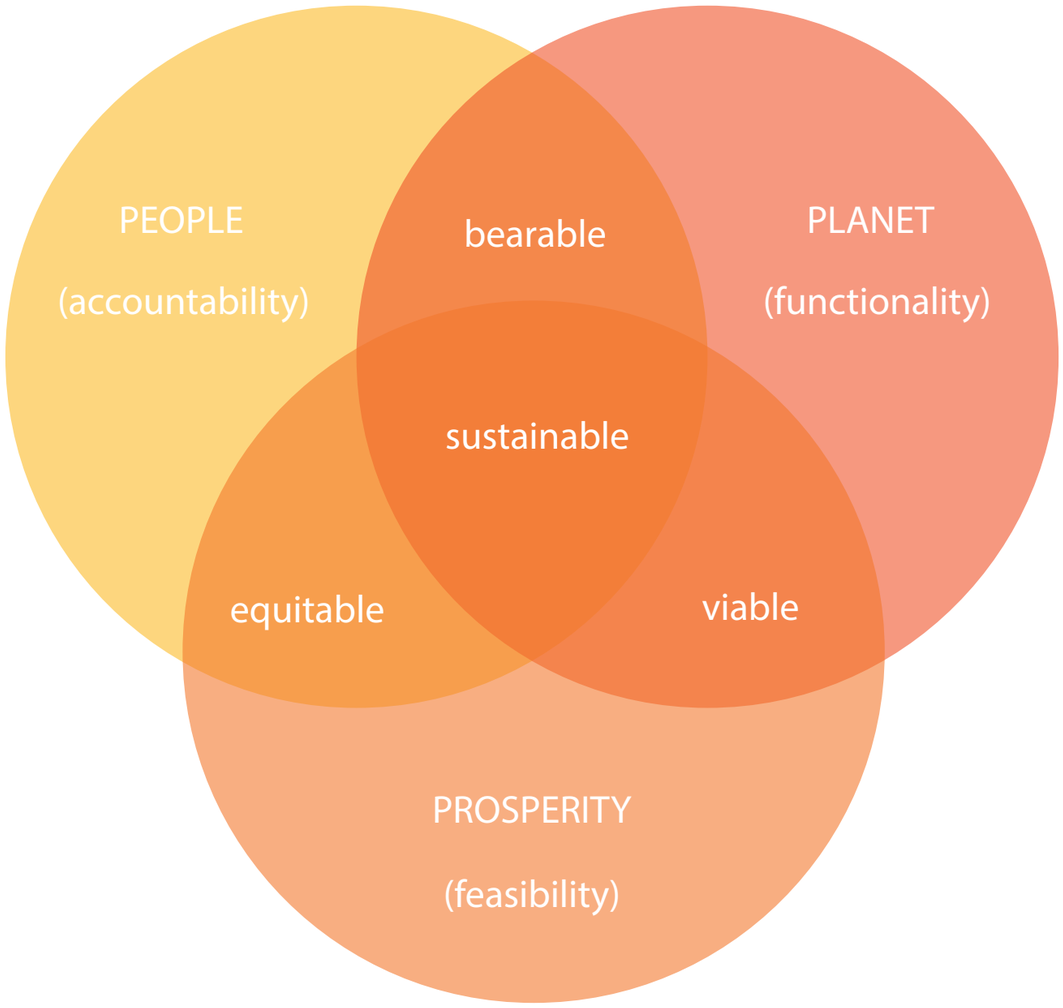
Diagoonwoning by John Habraken



Final assesment
People, Planet & Prosperity model

People, Planet and Prosperity
&
Kamari wheel

‘Accountability’ which embraces municipal, architectural, cultural, human and community indicators (society)



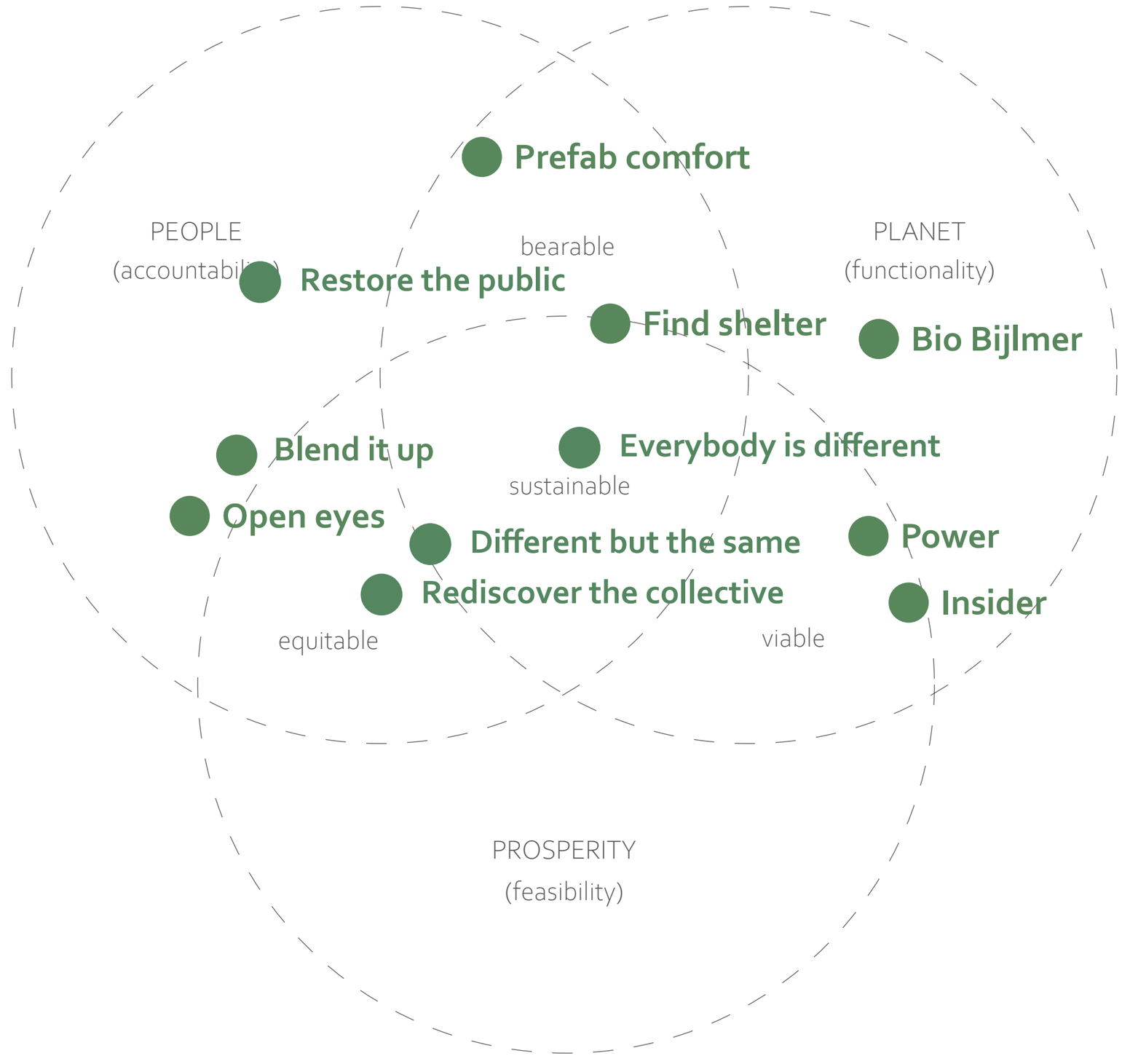
‘Functionality’ which refers to technical, environment and used resources (environ-ment)

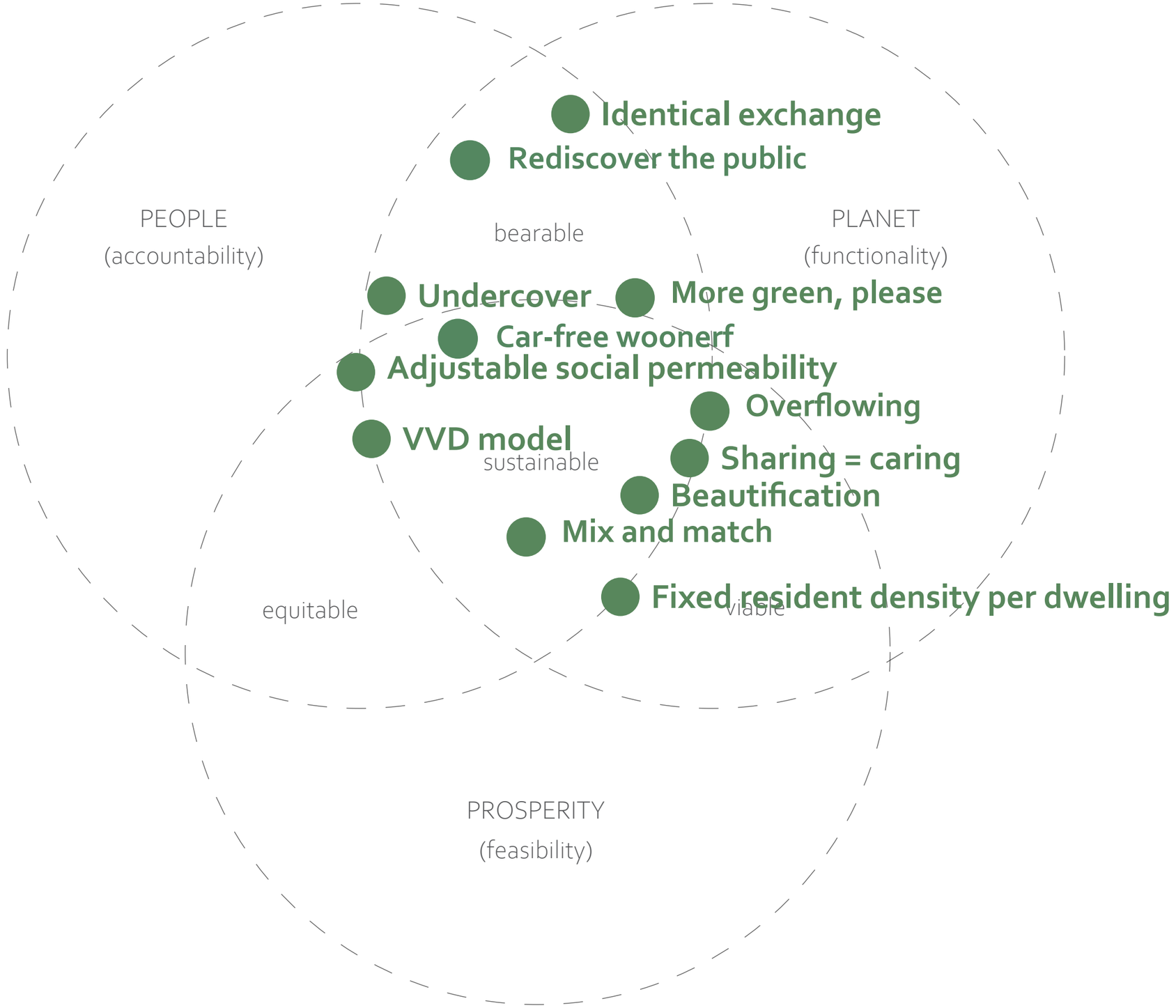
‘Feasibility’ which encompasses financial, process, management, education and institutional indicators (economy)

Final assesment
Renovation models

Bijlmerplein

The final assessment is a conclusion of the influence of the renovation model itself, thus a conclusion of the inner circle 3P diagram for each of the models. It is therefore not an indication of the final value after this intervention for the case study.



Final assesment
Renovation models

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