‘FORGOTTEN HERITAGE’
Creating a place for people with dementia
Figure
Hanseatic cities next to the IJssel

Image
Satellite view of the Netherlands (kaartenontwikkelaar.nl, own editing)
ZUTPHEN

Figure 1
Population piramid of Zutphen and the Netherlands (C.B.S. & Zutphen municipality)

Image
Aerial photo of Zutphen (Patrick van Gemert, Zutphens Pers, own editing)
FOCUS AREA

Noorderhaven

Historical Centre

IJssel

Nieuwstad

Overview of Zutphen (screenshot Google Maps, own editing)
Figure
North-eastern part of the Nieuwstad
NIEUWSTAD

Image
Nieuwstadstraat (Own photo)
KLEIN VATICAAN

Nieuwstadskerk
St. Anna school
St. Jozef school
St. Mariaschool
St. Elisabethkapel
Pastorie
‘Garden’
St. Elisabethgesticht
OBSERVATIONS

Image 1 - Aerial Photograph of the Ensemble (own photo, december 20th, 2017)
OBSERVATIONS

Image
1. View on the kongragalshoek (own photo, October 20th, 2017)
2. Dieserstraat (screenshot google maps, own editing)
OBSERVATIONS

Image 1 - Schoolyard St. Jozef with on the right the Pastorie (own photo, October 20th, 2017)
Image 2 - View on the St. Jozef seen from the Isendoornstraat (own photo, October 20th, 2017)
OBSERVATIONS

Image
1. Garden of the Pastorie (own photo, October 20th, 2017)
2. Front facade of the pastorie (screenshot Google Maps, own editing)
OBSERVATIONS

Image
1. Garden of the Pastorie (own photo, October 20th, 2017)
2. Front facade of the pastorie (screenshot Google Maps, own editing)
2. CULTURAL VALUES
CULTURAL VALUE MATRIX

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TRANSFORMATION FRAMEWORK

URAL / SITE
- Grid Structure
- Building Block
- Introvert
- Park
- Floating buildings

ENSEMBLE
- Solar Buildings
- Disappeared Building block
- Ornamentation
- Timber Roof construction
- Floor finishes

SPIRIT OF PLACE
- Belief
- Education
- Care
- Community
TRANSFORMATION FRAMEWORK

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SPATIAL DEVELOPMENT

Figures
Spatial development of the north-eastern border
HISTORICAL DEVELOPMENT

STARTING POINT - 1823
HISTORICAL DEVELOPMENT
STARTING POINT - 1950s
HISTORICAL DEVELOPMENT

UPGRADE OF ST. JOZEF - 1950s

Image 1. Aerial view of the Klein-Vaticaan Schools around the 1960s (regionaalarchiefzutphen)

Image 2. Isendoornstraat around the 1960s (regionaalarchiefzutphen)
HISTORICAL DEVELOPMENT
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Image
1. Dieserstraat around 1915 (helling.nl)
2. Dieserstraat screenshot from google maps (own editing)
URBAN CHARACTERISTICS
GRID STRUCTURE WITH BUILDING BLOCKS

Closed/Introvert character
Building Block
URBAN CHARACTERISTICS
GRID STRUCTURE WITH BUILDING BLOCKS

Floating buildings
Park
TRANSFORMATION FRAMEWORK

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SPIRIT OF PLACE
- Belief
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- Care
- Community

ENSEMBLE
- Spatial Connection
- Belief
- Education
- Care
- Community

SPIRIT OF PLACE
SITE CHARACTERISTIC
ARCHITECTURAL ENSEMBLE

Architectural Ensemble

St. Anna
St. Jozef
Pastorie
St. Anna
BUILDING CHARACTERISTIC
CHARACTERISTICS - ENSEMBLE

Architectural Ensemble
Ornamentation

Image
1. The south facade of the St. Jozef after 1934. (regionaalarchiefzutphen)
2. The south facade of the St. Anna with the new extension by LKS-VDD on the west. (own photo, 2017)
3. The west facade of the Pastorie (own photo, 2017)
BUILDING CHARACTERISTIC

CHARACTERISTICS - CLASSROOMS

Images
Classrooms of the St. Jozef (own photo, 2017)

Architectural Ensemble
BUILDING CHARACTERISTIC

CHARACTERISTICS - CONSTRUCTION

Timber Construction

Image
1 - Timber roof construction of St. Jozef (own photo, 2017)
2 - Timber roof construction of St. Anna (own photo, 2017)
BUILDING CHARACTERISTIC
CHARACTERISTICS - FLOOR FINISHING

Image 1 - Ceramic flooring St. Jozef (own photo, 2017)
2 - Terazzo flooring St. Anna (own photo, 2017)
3 - Linoleum flooring extension St. Anna (own photo, 2017)
BUILDING CHARACTERISTIC

CHARACTERISTICS - STAIRCASES

Image
1 - Art Nouveau Staircase of St. Anna (own photo, 2017)
2 - Staircase St. Jozef (own photo, 2017)
SPIRIT OF THE PLACE
CATHOLIC HERITAGE

Being part of a community
Catholic Heritage
SPIRIT OF THE PLACE
CHARACTERISTICS - ENSEMBLE

Image
1. Cross symbol on the roof pitch of the St. Jozef. With the church tower in the background (own photo, september 29th, 2017)
2. Cross symbol on the roof pitch of the St. Anna. (own photo, september 29th, 2017)
3. BRIEF
Research Question:
How can an ensemble of Heritage buildings be transformed in order to create a coherent and resilient site, which reconnects with the city?
COMMUNAL HERITAGE

SOCIETAL CHARACTERISTICS OF THE KLEIN VATICAN

Being part of a community

Catholic Heritage
54% of the 300,000 Family care givers are under high pressure
4% is under extreme pressure

Time spent on giving care by Family Care givers

1 out of 7 men and 1 out of 3 woman get dementia

Avarage rate of people getting dementia in the Netherlands

2016 2040
CARE CENTRES

DEMENTIACARE

Image
1 - Herbergier (herbergier.nl, accessed on december 30th, 2017)
2 - Sufline, de Lunette (koopmans.nl, accessed on june 18th, 2018)
3 - Zorgcentrum Hogewey (architectenweb.nl, accessed on december 30th, 2017)
PROGRAMME

PROGRAMME BASED ON REFERENCES

PRIVATE ROOMS

LIVING ROOMS

KITCHEN

LEISURE AREA / DAYTIME CARE

GROCERY STORE / PHARMACY

FYSIOTHERAPY

GYM

OUTDOOR AREA

FAMILY CARE
FAMILY CARE

FAMILY CARE CONCEPT

Image
1. Zorgboos mantelzorg, Groningen (kaw.nl, accessed on December 30th, 2017)
DEMENTIA
ARCHITECTURAL CHARACTERISTICS

Diagrams
Design aspects on dementia based on the research by Renske van Duren (own illustrations)

- Spatial routine
- Clear distinction between functions
- Create rooms with controllable stimulus
- Create different scale levels
- Customization of rooms
- Create sufficient daylight
- Make the entry doors recognizable
- Avoid intersections, they can cause confusion. If not avoidable, create a good orientation.
- Contact with nature
- Contact with animals
- Floor to ceiling windows, can create confusion
- Roof windows, can create confusion
- Take people in a wheelchair into account
- People in a wheelchair experience the rooms differently
- Make a clear distinction between wall and floor
- Create a contrast between door and wall when the room is for the patients

Make the entry doors recognizable

Avoid intersections, they can cause confusion. If not avoidable, create a good orientation.
4. STRATEGY
STRATEGY

1. STARTING POINT
STRATEGY
2. DENSIFICATION - STUDIES
2. DENSIFICATION - BUILDING BLOCK

- Family Care
- Care Groups

Closed introvert character
Building block
STRATEGY

3. EMPHASIZING THE BORDER

[Diagram showing park pavilion and main entrance with labels: Organisation Concept, Closed/Introvert character, Building block]
STRATEGY

3. EMPHASIZING THE BORDER

[Diagram showing a map with marked areas and characters: Closed introvert character and Building block]
4. HEALING ENVIRONMENT

PUBLIC PARK

Closed introvert character
Building block
STRATEGY

6. NEW FUNCTIONS AT THE NORTH

Being part of a community
STRATEGY
7. CONNECTION TO THE CARE ENCLAVE

Being part of a community
8. COMMUNAL THOUGHT

Being part of a community
DESIGN CONCEPT
STARTING POINT: SITU AFTER DEMOLISHMENT
DESIGN CONCEPT
RECREATING THE BUILDING BLOCK

FAMILY CARE HOUSING

CARE GROUPS
DESIGN CONCEPT

AXONOMETRIC VIEW

- FAMILY CARE HOUSING
- PROTECTED GARDEN
- CARE GROUPS
- NORTH ENTRANCE
- PARK PAVILION
- ROUTE FROM THE STATION
- SOUTHERN ENTRANCE
6. DESIGN
FACADE STUDY
CORNER DIESESTRAAT - TENGAELSHOEK
OVERHANG CITY WALL

PARK PAVILION

1:5 Canopy Detail

1:5 Scale: 1:5
Paper size: A3
Date: 26-06-18

Triple glazing
Curtain wall
U = 0.7 W/m² K

INSIDE
OUTSIDE
OUTSIDE

Roof Tail: 6.93 (m².K/W)

Sedum plants
Substrate: 100 mm
Drainage layer: 40 mm
Water retention layer
Insulation: 160 mm
Vapour barrier
Plywood: 22 mm
Acoustic paneling: 22 mm

Roof Ventilated roof decking: 2x 18 mm
Water retention layer
Plywood: 12 mm

Three optional distances: 1500mm, 1000mm, 500mm

220 20 160 40 100 540

540
PARK PAVILION
OVERHANG DETAIL

1:20 Section Park Pavilion
Scale: 1:20
Paper size: A0
Date: 29-05-18

1:5 Canopy Detail
Scale: 1:5
Paper size: A3
Date: 26-06-18

- Triple glazing
- Curtain wall
  \( U = 0.7 \, \text{W/m}^2 \, \text{K} \)

Roof
  - \( R_c: 6.93 \, (\text{m}^2 \cdot \text{K}/\text{W}) \)
  - Sedum plants
  - Substrate: 100 mm
  - Drainage layer: 40 mm
  - Water retention layer
  - Insulation: 160 mm
  - Vapour barrier
  - Plywood: 22 mm
  - Acoustic paneling: 22 mm

INSIDE

OUTSIDE

OUTSIDE

95

150

245

Three optional distances: 1500mm, 1000mm, 500mm

220

20

160

40

100

540
CARE GROUPS
AXONOMETRIC VIEW
CARE GROUPS

UTILITIES AS A DIVIDER OF SPACE

- Protected Garden
- Arcade
- Hallway
- Bedroom
- Isendoornstraat

PERSONAL ROOM

PERSONAL ROOM

WM WM WM WM
CARE GROUPS
SECTION DETAIL

TIMBER RIBS
'BLOEMKOZIJN'
BRICKWORK, HORIZONTAL SETBACK

STRUCTURE
WALL
RELATION WITH THE EXISTING
ST. JOZEF - CARE GROUP
LIVING ROOMS
MINOR INTERVENTIONS

Image
FAMILY CARE HOUSE

CONCEPT

APARTMENT A
CARE RECIEVER

FRONT DOOR

APARTMENT B
CARE GIVER / FAMILY HOUSE

FRONT DOOR

GENERAL CONCEPT

APARTMENT B
CARE GIVER / FAMILY HOUSE

FRONT DOOR

FRONT DOOR

APARTMENT A
CARE RECIEVER

FRONT DOOR

KLEIN VATICAAN CONCEPT
FAMILY CARE HOUSE
ACCESS TO THE FAMILY HOUSE

CARE GIVER / FAMILY HOUSE
CARE RECEIVER

PROTECTED GARDEN
ARCADE
BEDROOM
ENTRANCE
FAMILY CARE HOUSE

RELATION BETWEEN THE TWO HOUSES

- CARE GIVER / FAMILY HOUSE
- CARE RECEIVER

- ENTRANCE
- PROTECTED GARDEN
- ARCADE
- BEDROOM
FAMILY CARE HOUSE

FACADE VIEW

PATINATED ZINC ROOF

CONCRETE GUTTER

TIMBER WINDOW FRAME

CONCRETE FRAME
WANDERING AROUND
ARCADE & GARDEN
GARDEN
WANDERING AROUND
IMPRESSIE TUIN
7. REFLECTION
REFLECTION

DESIGN

BUILDING BLOCKS WITH COURTYARD

ISEndoornstraat 1950's

Dieserstraat 1920's

Zutphen 2016-2040

Organisation Concept

Demographics

Familycare Housing
Research Question:
How can an ensemble of Heritage buildings be transformed in order to create a coherent and resilient site, which reconnects with the city?
GROUND FLOOR
FIRST FLOOR
Natural inlet
Mechanical ventilation In
Mechanical ventilation Out
Operable facade, during summer
Rules of thumb: h= 4100*(1/20)= 200mm Used: 220*70mm

Rules of thumb: h= 3800*(1/20)= 190mm Used: 190x70 mm

Rules of thumb: h= 2130*(1/20)= 110mm Used: 220x70mm

Rules of thumb: h= 1510*(1/20)= 75mm Used: 220x70mm

Rules of thumb: h= 6750*(1/20)= 340mm Used: 340x100mm

Rules of thumb: h= 3440*(1/20)= 175mm Used: 220x70mm 220x70mm

Rules of thumb: h= 2710*(1/20)= 135mm Used: 220x70mm

Rules of thumb: h= 7500*(1/20)= 375mm Used: 375*100mm

Load bearing walls, 250mm limestone CS39, Rw = 49 dB

To be made openings supported by IPE beams, 90 min FR

Elevators function as stabilizers
VALUE MAPPING
ENSEMBLE

The analysis formed the basis for the value mapping of the ensemble. The front and back facades of all the buildings are highly valued and the side facades are positively valued. This has to do with the ornamentation and the function of the facades. The side facades had a less prominent function. Other aspects like the roof construction of the St. Jozef or the double door entrance of the St. Anna are also highly valued. The values of the buildings have to be taken into account when designing.
The main goal of a dementia care centre is to create a protected environment for its patients. It should be a centre where the patients can wander around without getting desoriented. Often desorientation leads to stress, which can cause aggression or panic attacks. The program is based on regular dementia centres.

- Care Groups
- Activity Space
- Therapy
- Cafe
- Store
- Restaurant
- Facilitating Services
- Office

The Klein Vatican area offers the opportunity to connect with the neighbourhood, functions like the Cafe, the Restaurant and the Store could function as the connecting elements.

I want to add Family Care housing as extra function to the ensemble. This to solve the demographic of the increasing amount of Family Care givers with are under high pressure. To connect these houses with the ensemble the care receiver could use the facilities of the ensemble aswell.