DESIGN FOR LIFE
from built environment to living environment
DESIGN FOR LIFE
from built environment to living environment
TRANSFORMING THE BUILT ENVIRONMENT INTO A LIVING ENVIRONMENT

HOW CAN ARCHITECTURE CONTRIBUTE TO LIFE?

PRE-WAR APARTMENT BUILDING IN AMSTERDAM-WEST
DESIGN FOR LIFE
from built environment to living environment
HOW CAN ARCHITECTURE CONTRIBUTE TO LIFE?

the potential of architecture
1. Re-invite life into the built environment
2. Symbiotically connect to life systems
3. Make people experience the value of life
HOW CAN ARCHITECTURE CONTRIBUTE TO LIFE?
re-invite life into the built environment: building structure

1. Re-invite life into the built environment
2. Symbiotically connect to life systems
3. Make people experience the value of life

connect the building to the local ecological structure

matrix = non habitat

habitat patch

building
**How can architecture contribute to life?**

*Re-invite life into the built environment: re-connect in building structure*

1. **Re-invite life into the built environment**

2. **Symbiotically connect to life systems**

3. **Make people experience the value of life**

**Design for Life**

*from built environment to living environment*
HOW CAN ARCHITECTURE CONTRIBUTE TO LIFE?
symbiotically connect to life systems: re-connect in building functioning

1. Re-invite life into the built environment
2. Symbiotically connect to life systems
3. Make people experience the value of life

DESIGN FOR LIFE
from built environment to living environment

Creating closed technical cycles
Connect to renewable a-biotic factors
Creating closed biotic cycles
HOW CAN ARCHITECTURE CONTRIBUTE TO LIFE?
make people experience the value of life: re-connect in architecture

1. Re-invite life into the built environment
2. Symbiotically connect to life systems
3. Make people experience the value of life
HOW CAN ARCHITECTURE CONTRIBUTE TO LIFE?

designing according principles of life- re-connecting to life on every level - buildings like trees
- CONTEXT -
Neighbourhood: De Baarsjes

Physical & Social Characteristics

>6,000 dwellings/m²

Pre-war apartment blocks

1.24 m² public green/dwelling

dissatisfied with quality green

Design for Life

From built environment to living environment

Research

Context

Strategy

Design Explanation

Result

Conclusion
NEIGHBOURHOOD: DE BAARSJES
 ecological structure

- Green of low ecological value
- High mortality rate in matrix
- Low patch connectivity
- Mainly urban species
THE BUILDING
focus and properties

72 dwellings
originated from 1935
150,000-200,000/dwelling
THE BUILDING
architecture street facade: strong architectural composition

rythm dwelling
accent in facade composition
THE BUILDING
architecture garden facade: hardly any architectural value

waste of value

very small balconies
THE BUILDING

typical floorplan: fragmentated space
THE BUILDING
managed on different levels

the level of one dwelling

the level of an Association of Owners
ARCHITECTURAL SUCCESSION
0. Bare Rock

ARCHITECTURAL SUCCESSION
contributing to functioning of life

ECOLOGICAL SUCCESSION
contributing to functioning of life

SOCIAL SUCCESSION
contributing to quality of life
ARCHITECTURAL SUCCESSION

1. Pioneer Stage

ARCHITECTURAL SUCCESSION

SOCIAL SUCCESSION

contributing to functioning of life

ECOLOGICAL SUCCESSION

contributing to functioning of life

DESIGN FOR LIFE
from built environment to living environment

RESEARCH → CONTEXT → STRATEGY → DESIGN EXPLANATION → RESULT → CONCLUSION
ARCHITECTURAL SUCCESSION

2. Intermediate Stage

ARCHITECTURAL SUCCESSION contributing to functioning of life

SOCIAL SUCCESSION contributing to quality of life

ECOLOGICAL SUCCESSION contributing to functioning of life

DESIGN FOR LIFE
from built environment to living environment

RESEARCH ——— CONTEXT ——— STRATEGY ——— DESIGN EXPLANATION ——— RESULT ——— CONCLUSION
ARCHITECTURAL SUCCESSION

3. Climax Stage - Building

ARCHITECTURAL SUCCESSION

SOCIAL SUCCESSION

contributing to quality of life

ECOLOGICAL SUCCESSION

contributing to functioning of life

DESIGN FOR LIFE

from built environment to living environment
ARCHITECTURAL SUCCESSION
4. Climax Stage - Street

DESIGN FOR LIFE
from built environment to living environment

SOCIAL SUCCESSION
contributing to quality of life

ECOLOGICAL SUCCESSION
contributing to functioning of life

ARCHITECTURAL SUCCESSION
ARCHITECTURAL SUCCESSION
contributing to quality of life forms the incentive to let the design grow

SOCIAL SUCCESSION
contributing to quality of life forms the incentive to let the design grow

ECOLOGICAL SUCCESSION
contributing to functioning of life

DESIGN FOR LIFE
from built environment to living environment
DESIGN EXPLANATION
from bare rock to climax stage

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street

DESIGN FOR LIFE
from built environment to living environment

RESEARCH CONCEPT STRATEGY RESULT CONCLUSION
DESIGN EXPLANATION

1. Pioneer Stage

0. Bare Rock

1. Pioneer Stage

2. Intermediate Stage

3. Climax Stage - Building

4. Climax Stage - Street

DESIGN FOR LIFE
from built environment to living environment
PIONEER STAGE

Interventions

1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street

daylight dwelling

DESIGN FOR LIFE
from built environment to living environment

DESIGN EXPLANATION

RESULT

CONCLUSION
DESIGN FOR LIFE
from built environment to living environment

PIONEER STAGE
architectural diagrams

1. Pioneer Stage

2. Intermediate Stage

3. Climax Stage - Building

4. Climax Stage - Street
PIONEER STAGE
architectural diagrams

DESIGN FOR LIFE
from built environment to living environment
PIONEER STAGE
architectural diagrams

1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street
PIONEER STAGE
architectural diagrams

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street

DESIGN FOR LIFE
from built environment to living environment

RESEARCH   CONTEXT   STRATEGY   DESIGN EXPLANATION   RESULT   CONCLUSION
DESIGN FOR LIFE
from built environment to living environment

DESIGN EXPLANATION

1. Pioneer Stage

- Bare Rock
- Intermediate Stage
- Climax Stage - Building
- Climax Stage - Street
INTERMEDIATE STAGE

interventions

season chamber

plastic addition

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street

DESIGN FOR LIFE
from built environment to living environment

RESEARCH  CONTEXT  STRATEGY  DESIGN EXPLANATION  RESULT  CONCLUSION
INTERMEDIATE STAGE
architectural diagrams: Plastic Addition

0. Bare Rock
1. Pioneer Stage
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4. Climax Stage - Street

DESIGN FOR LIFE
from built environment to living environment

RESEARCH  CONTEXT  STRATEGY  DESIGN EXPLANATION  RESULT  CONCLUSION
INTERMEDIATE STAGE
architectural diagrams: Plastic Addition

DESIGN FOR LIFE
from built environment to living environment
INTERMEDIATE STAGE
architectural diagrams: Season Chamber

DESIGN FOR LIFE
from built environment to living environment

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street
INTERMEDIATE STAGE
architectural diagrams: Season Chamber

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
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4. Climax Stage - Street

DESIGN FOR LIFE
from built environment to living environment

RESEARCH  CONTEXT  STRATEGY  DESIGN EXPLANATION  RESULT  CONCLUSION
INTERMEDIATE STAGE
architectural diagrams: Season Chamber

DESIGN FOR LIFE
from built environment to living environment

RESEARCH ➔ ➔ ➔ CONTEXT ➔ ➔ ➔ STRATEGY ➔ ➔ ➔ DESIGN EXPLANATION ➔ ➔ ➔ RESULT ➔ ➔ ➔ CONCLUSION
INTERMEDIATE STAGE
architectural diagrams: Season Chamber

DESIGN FOR LIFE
from built environment to living environment

RESEARCH  DESIGN EXPLANATION  RESULT

CONTEXT  STRATEGY  CONCLUSION

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street
INTERMEDIATE STAGE
architectural diagrams: Season Chamber

DESIGN FOR LIFE
from built environment to living environment

RESEARCH  ➔  CONTEXT  ➔  STRATEGY  ➔  DESIGN EXPLANATION  ➔  RESULT  ➔  CONCLUSION
INTERMEDIATE STAGE

typical detail: Season Chamber

Flexible membrane: balcony glazing

smart element providing energy and hot water

integrated plant border with gutter

DESIGN FOR LIFE
from built environment to living environment

RESEARCH | CONTEXT | STRATEGY | DESIGN EXPLANATION | RESULT | CONCLUSION
INTERMEDIATE STAGE
construction: Season Chamber

DESIGN FOR LIFE
from built environment to living environment

RESEARCH  CONTEXT  STRATEGY  DESIGN EXPLANATION  RESULT  CONCLUSION
INTERMEDIATE STAGE
construction: Season Chamber
INTERMEDIATE STAGE

construction: Season Chamber
INTERMEDIATE STAGE
construction: Season Chamber

DESIGN FOR LIFE
from built environment to living environment
INTERMEDIATE STAGE
construction: Season Chamber

DESIGN FOR LIFE
from built environment to living environment

RESEARCH ----> CONTEXT ----> STRATEGY ----> DESIGN EXPLANATION ----> RESULT ----> CONCLUSION
DESIGN EXPLANATION

2. Intermediate Stage

1. Pioneer Stage

3. Climax Stage - Building

4. Climax Stage - Street
DESIGN FOR LIFE
from built environment to living environment

DESIGN EXPLANATION

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street
CLIMAX STAGE - BUILDING
interventions

urban bungalow

plinth dwelling

exceptional passage
CLIMAX STAGE - BUILDING
architectural diagrams: Exceptional Passage
CLIMAX STAGE - BUILDING
architectural diagrams: Exceptional Passage

DESIGN FOR LIFE
from built environment to living environment

DESIGN EXPLANATION
CLIMAX STAGE - BUILDING
architectural diagrams: Plinth Dwelling

DESIGN FOR LIFE
from built environment to living environment

RESEARCH  →  CONTEXT  →  STRATEGY  →  DESIGN EXPLANATION  →  RESULT  →  CONCLUSION
CLIMAX STAGE – BUILDING
architectural diagrams: Plinth Dwelling

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage – Building
4. Climax Stage – Street

DESIGN FOR LIFE
from built environment to living environment

RESEARCH ──► CONTEXT ──► STRATEGY ──► DESIGN EXPLANATION ──► RESULT ──► CONCLUSION
CLIMAX STAGE - BUILDING
architectural diagrams: Plinth Dwelling
CLIMAX STAGE - BUILDING
architectural diagrams: Plinth Dwelling

DESIGN FOR LIFE
from built environment to living environment

RESEARCH  CONTEXT  STRATEGY  DESIGN EXPLANATION  RESULT  CONCLUSION
CLIMAX STAGE - BUILDING
architectural diagrams: Plinth Dwelling
CLIMAX STAGE - BUILDING

typical detail: Plinth Dwelling

flexible membrane: folding door

service element: continuous materialisation

DESIGN FOR LIFE
from built environment to living environment

RESEARCH ——— CONTEXT ——— STRATEGY ——— DESIGN EXPLANATION ——— RESULT ——— CONCLUSION

75
CLIMAX STAGE - BUILDING
architectural diagrams: Urban Bungalow

DESIGN FOR LIFE
from built environment to living environment

RESEARCH      CONTEXT      STRATEGY      DESIGN EXPLANATION      RESULT      CONCLUSION
CLIMAX STAGE - BUILDING
architectural diagrams: Urban Bungalow
CLIMAX STAGE - BUILDING
architectural diagrams: Urban Bungalow
CLIMAX STAGE - BUILDING
architectural diagrams: Urban Bungalow
CLIMAX STAGE - BUILDING

typical detail: Urban Bungalow

DESIGN FOR LIFE
from built environment to living environment

composed gutter
bee hotel
prefab roof cornice

Prefab cornice incl. Gutter 75x120mm Base height 200x350mm

Prefab floor element 272mm slab drop
Prefloring 15mm
Finishing 15mm
Cement slab 22mm
Lath cavity 16mm
Water proof layer
Floor beam wood lintel, insulation 200x50mm inscription 500mm
Water proof layer
Vicore slab 22mm
Prefab cornice 75mm

Integrated rainwater Insulation slope 10mm/inch
Shun
Bee house 150x150x150mm
Pref. glass and floor vents
Steel column HE150 160x150mm

DESIGN EXPLANATION

RESEARCH  -->  CONTEXT  -->  STRATEGY  -->  DESIGN EXPLANATION  -->  RESULT  -->  CONCLUSION
CLIMAX STAGE - BUILDING
construction: Plinth Dwelling and Urban Bungalow
CLIMAX STAGE - BUILDING
construction: Plinth Dwelling and Urban Bungalow

DESIGN FOR LIFE
from built environment to living environment

1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street
CLIMAX STAGE - BUILDING
construction: Plinth Dwelling and Urban Bungalow
CLIMAX STAGE - BUILDING
construction: Plinth Dwelling and Urban Bungalow
CLIMAX STAGE - BUILDING
construction: Plinth Dwelling and Urban Bungalow
CLIMAX STAGE – BUILDING

construction: Plinth Dwelling and Urban Bungalow
CLIMAX STAGE - BUILDING
construction: Plinth Dwelling and Urban Bungalow

DESIGN FOR LIFE
from built environment to living environment
CLIMAX STAGE - BUILDING
construction: Plinth Dwelling and Urban Bungalow

DESIGN FOR LIFE
from built environment to living environment
DESIGN FOR LIFE
from built environment to living environment

RESEARCH    CONTEXT    STRATEGY    DESIGN EXPLANATION    RESULT    CONCLUSION

Continuous landscape
Rainwater buffering
Inviting daylight
Integrated plant border
Existing chimney
Bee hotel
DESIGN EXPLANATION

0. Bare Rock
1. Pioneer Stage
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DESIGN FOR LIFE
from built environment to living environment
DESIGN EXPLANATION

1. Pioneer Stage
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DESIGN FOR LIFE
from built environment to living environment

RESEARCH  -->  CONTEXT  -->  STRATEGY  -->  DESIGN EXPLANATION  -->  RESULT  -->  CONCLUSION
CLIMAX STAGE - STREET

interventions

0. Bare Rock
1. Pioneer Stage
2. Intermediate Stage
3. Climax Stage - Building
4. Climax Stage - Street
glimpse of dynamic landscape

physical connection

plasticity accentuates composition

original accent composition

infiltration rainwater

plant border
Before
72 dwellings
1550 m² 'green' outdoor space
0 energy production
consuming ca. 20,000 liter drinking water/day
all types of water drained to sewage

After
85 dwellings: increased density
3200 m² green outdoor space: increased quality
c. 76500 kWh energy production
consuming ca. 20,000 liter drinking water/day
rainwater is buffered, stored and infiltrated
grey water is filtered and reused
RESULT
concluding to life: re-inviting life into the built environment

DESIGN FOR LIFE
from built environment to living environment

Rock
Meadow
Swamp
Grassland
Garden
Ecological connection
RESULT
contributing to life: symbiotically connect to life systems

Sun for hot water and energy
Rainwater storage
Grey water filtering
Rainwater buffering
Household water
Grey water
Rainwater
contributing to life: make people experience the value of life
contributing to life: make people experience the value of life
RESULT
contributing to life: make people experience the value of life
RESULT
contributing to life: make people experience the value of life

DESIGN FOR LIFE
from built environment to living environment
CONCLUSION

architectural succession doesn’t stop at the level of the street
CONCLUSION

Architects play a key role in gradually transforming the built environment...
we need nature
we love nature
we are nature
DESIGN FOR LIFE
from built environment to living environment

QUESTIONS?