IN SEARCH FOR A **HYBRID BUILDING**

ORGANIZING SPACE **AROUND** OUR MODERN WAY OF LIVING

CHANGE IN **SOCIAL DYNAMIC**

PART OF A **NETWORK**

**NO PLACE LIKE HOME**
AMSTERDAM NORTH:

LOCATION: HAMERSTRAAT AREA
HAMERSTRAAT AREA:

- Former: Water Orientated Industry
- Today: Leaving Production Industry
HAMERSTRAAT AREA

FORGOTTEN RELATIONSHIP WITH THE WATER
HAMERSTRAAT AREA

HISTORY: IMPOLDERED LAND

URBAN ANALYSIS
AMSTERDAM NORTH:

- 20S HOUSING: COMMUNITY
URBAN ANALYSIS

AMSTERDAM NORTH:

- 20S HOUSING: COMMUNITY
- COURTYARDS: COLLECTIVE SPACE AWAY FROM THE BUSY ROADS
AMSTERDAM NORTH:

- 20s HOUSING: COMMUNITY
- COURTYARDS
- QUICKEST ACCES: CAR
- SPACE DOMINATED BY PARKED CARS
AMSTERDAM NORTH:

- 20S HOUSING: COMMUNITY
- COURTYARDS
- QUICKEST ACCES: CAR
- SPACE DOMINATED BY PARKED CARS
- LOCAL TRAFFIC DEPENDING ON FERRY
Amsterdam North:

- 20s housing: community courts
- Quickest access: car space dominated by parked cars
- Local traffic depending on ferry
- Activation: open space and green areas
TOWARDS TRANSFORMATION

- STREET PROFILES: SIZE OF CANALS

GEDEMPT HAMERKANAAL
URBAN ANALYSIS

MASTERPLAN SET UP

SLOW TRAFFIC AXIS AS A SHORTCUT

PUBLIC TRANSPORT NODE
RECREATIONAL NODE
NEW CONNECTION
EXISTING NETWORK
MASTERPLAN SET UP

- SLOW TRAFFIC AXIS AS A SHORTCUT
- FERRY CONNECTION TO THE CENTER
URBAN ANALYSIS

MASTERPLAN SET UP

- SLOW TRAFFIC AXIS AS A SHORTCUT
- FERRY CONNECTION TO THE CENTER
- SLOW TRAFFIC AXIS TO CONNECT GREEN

HAMERSTRAAT AREA | GRADUATION STUDIO HYBRID BUILDING | DENNIS CLOPPENBURG | 26TH OF JUNE 2012
MASTERPLAN SET UP

- SLOW TRAFFIC AXIS AS A SHORTCUT
- FERRY CONNECTION TO THE CENTER
- SLOW TRAFFIC AXIS TO CONNECT GREEN
URBAN ANALYSIS

MASTERPLAN SET UP

- SLOW TRAFFIC AXIS AS A SHORTCUT
- SLOW TRAFFIC AXIS TO CONNECT GREEN
- FROM CENTER TO CENTER
- CONNECTION OF NEIGHBORHOOD NODES
MASTERPLAN IMPLEMENTATION

- KEEP STREETS, CHANGE STREET PROFILE
MASTERPLAN IMPLEMENTATION

- Keep streets, change street profile
- Recognition of a (collective) squares

Projected programme around intervention 1st fase:
1. Dwellings; social housing
2. Dwellings; mid income housing
3. (creative) services; office + workshop spaces
4. Catering
5. Event; (large) rental spaces
6. Commercial plinth; dwellings on top
7. Recreational pavilion
8. Public stage
9. General office spaces
10. Future dwelling projects
KEEP STREETS, CHANGE STREET PROFILE
RECOGNITION OF A COLLECTIVE SQUARE
DETAILED PLAN EXISTING SITUATION
HAMERSTRAAT AREA | GRADUATION STUDIO HYBRID BUILDING | DENNIS CLOPPENBURG | 26TH OF JUNE 2012

MASTERPLAN IMPLEMENTATION

- KEEP STREETS, CHANGE STREET PROFILE
- RECOGNITION OF A COLLECTIVE SQUARE
- DETAILED PLAN EXISTING SITUATION
- ALTERNATION OF THE AREA

EXISTING SITUATION
MASTERPLAN IMPLEMENTATION

- KEEP STREETS, CHANGE STREET PROFILE
- RECOGNITION OF A COLLECTIVE SQUARE
- PROGRAMME AROUND SQUARE
- COURTYARDS SEMI-PUBLIC
- BIKE AS A GUEST THOUGH DIFFERENT AREAS

NEW SITUATION
Hamerstraat Area | Graduation Studio Hybrid Building | Dennis Cloppenburg | 26th of June 2012

**MASTERPLAN IMPLEMENTATION**

- Keep streets, change street profile
- Recognition of a collective square
- Programme around square
- Courtyards semi-public
- Bike as a guest though different areas
- Overview impression

- Square for local + regional events
KEEP STREETS, CHANGE STREET PROFILE
RECOGNITION OF A COLLECTIVE SQUARE
PROGRAMME AROUND SQUARE
COURTYARDS SEMI-PUBLIC
BIKE AS A GUEST THOUGH DIFFERENT AREAS
OVERVIEW IMPRESSION
SQUARE FOR LOCAL + REGIONAL EVENTS
SPORTS FIELD
BASIC SET UP OF THE DESIGN

- DOuble U-SHAPE - COURT YARDS
- CORNER STONES
- BRIDGE - ‘GATE’ TO SQUARE
PROGRAMME

PART A:
- PRIMARY SCHOOL
- DAYCARE CENTER
- MEDICAL CHILD SUPPORT CENTER

PART B:
- STUDIOS / COMMERCIAL SPACES
- DWELLINGS
- SHARED: PARKING FACILITIES
- SHARED: MULTIFUNCTIONAL GYM
PROGRAMME

- PART A:
  - PRIMARY SCHOOL
  - DAYCARE CENTER
  - MEDICAL CHILD SUPPORT CENTER

- PART B:
  - STUDIOS / COMMERCIAL SPACES
  - DWELLINGS

- SHARED: PARKING FACILITIES
PROGRAMME

PART A:
- PRIMARY SCHOOL
- DAYCARE CENTER
- MEDICAL CHILD SUPPORT CENTER

PART B:
- STUDIOS / COMMERCIAL SPACES
- DWELLINGS

SHARED: PARKING FACILITIES

BIKE STORAGE
PROGRAMME

PART A:
- PRIMARY SCHOOL
- DAYCARE CENTER
- MEDICAL CHILD SUPPORT CENTER

PART B:
- STUDIOS / COMMERCIAL SPACES
- DWELLINGS

SHARED: PARKING FACILITIES

PARKING SPACE
SPATIAL CONFIGURATION

6 CORES; CENTERS OF VERTICAL TRANSPORT
SPATIAL CONFIGURATION

- WIDE CORRIDOR;
  - CANTEEN
  - EXHIBITION
  - LARGE INDOOR GATHERINGS
SPATIAL CONFIGURATION

- Canteen; gathering space; small stage
- Wardrobe during events
SPATIAL CONFIGURATION

- EXPOSITION SPACES
  - MUSIC CLASSROOM
  - REPRESENTATIVE FUNCTION TOWARDS PASSERS-BY
SPATIAL CONFIGURATION

DAYCARE CENTER
- TRANSPARANCE TOWARDS SQUARE
Programme

Part A:
- Primary School
- Daycare Center
- Medical Child Support Center

Part B:
- Studios / Commercial Spaces
- Dwellings

Shared: Parking Facilities
Shared: Multifunctional Gym
PROGRAMME

- PART A: PRIMARY SCHOOL
- DAYCARE CENTER
- MEDICAL CHILD SUPPORT CENTER

- PART B: STUDIOS / COMMERCIAL SPACES
- DWELLINGS

- SHARED: PARKING FACILITIES
- SHARED: MULTIFUNCTIONAL GYM
PROGRAMME

PART A:
- PRIMARY SCHOOL
- DAYCARE CENTER
- MEDICAL CHILD SUPPORT CENTER

PART B:
- STUDIOS / COMMERCIAL SPACES
- DWELLINGS

- SHARED: PARKING FACILITIES
- SHARED: MULTIFUNCTIONAL GYM
SHARED MULTIFUNCTIONAL GYM

SHOWCASE
- “ENTRANCE” TOWARDS NEW SEMI-PUBLIC SPACE
CONCEPT

BUILDING AS A TREE

OUTSIDE:
UNITY

INSIDE:
COMPLEX BODY
ARCHITECTURE

SPATIAL CONFIGURATION

BUILDING AS A TREE
INTIMATE SPACES CLOSE TO THE CORES

ARChiteCture
CturPe
ce PatiaL Configuration
BuiLding as a tree
intimate sPaCeS close to the cores
Spatial Configuration

Building as a tree

Intimate spaces close to the cores

Open spaces at the end of a “branch”
SPATIAL CONFIGURATION

- Building as a tree
- Intimate spaces close to the cores
- Open spaces at the end of a “branch”
- Massive floors (“branches”)
- Floating semi-transparent spaces (“seasonal leaves”)
Spatial Configuration

Part of functional space joined with semi-public spaces
- Workshop spaces, wardrobe, etc.
SET-UP OF THE BUILDING LIKE A TREE:

- VERTICAL CORES
- DECREASING INTIMACY ONCE MOVING TOWARDS THE END OF A “BRANCH”

CONCEPT

BUILDING AS A TREE
ABSTRACT TREE

ARCHITECTURAL RELEVANCE

REPRESENTATION OF THE BUILDING SET-UP AS AN ABSTRACTION PROJECTED ON THE FACADE
CONCEPT

- BUILDING AS A TREE
- ABSTRACT TREE
- PIXELATION
- REFERENCES

PONTI - BIJENKORF EINDHOVEN
CONCEPT

- BUILDING AS A TREE
- ABSTRACT TREE
- PIXELATION
- REFERENCES

ARCHITECTURAL RELEVANCE

WEEBER- DE STRUYK DEN HAAG
INTROVERT
LARGE PIXELS, BILLBOARD

CONCEPT
- BUILDING AS A TREE
- ABSTRACT TREE
- PIXELATION
- REFERENCES
- PIXEL SIZE IN RELATION TO INDIVIDUAL
- PIXEL COLOR

ARCHITECTURAL RELEVANCE
CONCEPT

- BUILDING AS A TREE
- ABSTRACT TREE
- PIXELATION
- REFERENCES
- PIXEL SIZE IN RELATION TO INDIVIDUAL
- PIXEL COLOR

ARCHITECTURAL RELEVANCE

INTROVERT
LARGE PIXELS
RAPID MOVEMENT ALONG PLINTH
MAIN ENTRANCE
PRIMARY SCHOOL

CONCEPT

BUILDING AS A TREE
ABSTRACT TREE
PIXELATION
REFERENCES
PIXEL SIZE IN RELATION TO INDIVIDUAL
PIXEL COLOR
PIXEL AS A GUIDE
HIGH GLOSS ALU ACCENTS

TECHNIQUE

MATERIALIZATION

GGLASS
LIGHTWEIGHT GLASSFIBRE CONCRETE
(FOLOURED) ALUMINIUM PANELS

REFLECTIVE GLASS

HOR. & VERT. GROVED CONCRETE STRUCTURE
STRUCTURE

PRIMARY STRUCTURE
**Structure**

**Primary Structure**

**Facade Structure**

**Basic Grid**

- 7200 mm
- 3570 mm
- 400 mm
- 400 mm
STRUCTURE

MAIN STRUCTURE

FAÇADE STRUCTURE

BRACKETS
STRUCTURE

MAIN STRUCTURE

FAÇADE STRUCTURE

WINDOWS

TECHNIQUE
LIGHTWEIGHT CONCRETE FAÇADE SYSTEM
HO1

standaard aansluiting: kozijn/dicht element

- koudebrug onderbreker
- aluminium kokerprofiel 120x20x2
- rubber tochtasfuiting
- aluminium afdeklijst bevestigd met inbus

- koudebrug onderbreking
- kozijn
- HR++ beglazing

- kierdichting
- antraciet aluminium kozijn
- aangelaste alu. strip
- kitvoeg op rugvulling

wandopbouw
- lakaag
- gipsvezelplaat 2x 15mm verlijmd op:
  - aluminium prefab sandwich paneel 150mm
  - dampdoorlatende waterkerende laag
  - beddenhaak ophangssysteem (stelmogelijkheid)
  - lichtgewicht glasvezelversterkte cementplaat
  (gewicht 25mm: 0,47kN/m²)

PRINCIPAL DETAIL

SLIM FAÇADE

- elementen 1200x1200 mm
- 600x600 mm
- elementen 2400x2400 mm
PRINCIPAL DETAIL

SLIM FAÇADE

"FLOATING" PANELS INBETWEEN THE FLOORS

extra vloersussen t.v.v. koudeval
zone gewapend als randbalk

verdiepingsvloer
- 70mm dekvloer
- 220mm druklaag
- 70mm breedplaat met geïntegreerde betonkernactivering
- 90mm akoestische ribben met geïntegreerde LED lichtstroken
Dennis Cloppenburg

Rain-Water Drainage

Rain-Water Drainage Façade

Awning (Zonwering)
SOLUTIONS

- HEATING & COOLING
- FIXED FLOOR HEATING/COOLING LOOPS

LOW TEMP HEATING SYSTEM
SOLUTIONS

- HEATING & COOLING
- FIXED FLOOR HEATING/COOLING LOOPS

SUMMER: LOW TEMP COOLING SYSTEM

OPEN ACCOUSTIC CEILING
SOLUTIONS

- HEATING & COOLING
- FIXED FLOOR HEATING/COOLING LOOPS

INSTALLATIONS

ADDITIONAL HEATING/COOLING

POST PROCESSING UNIT

CO2 & TEMP. SENSOR
SOLUTIONS

- HEATING & COOLING
- FIXED FLOOR HEATING/COOLING LOOPS

INSTALLATIONS

VENTILATION (+ADDITIONAL COOLING/HEATING IF NEEDED)
SOLUTIONS

- HEATING & COOLING
- FIXED FLOOR HEATING/COOLING LOOPS

INSTALLATIONS

SHALLOW PRE-PROCESSING UNIT

EXHAUST VIA CORRIDOR SPACE

SHAFT IN CONCRETE CORE

SILENCING GRILL IN BOTTOM PART OF THE WALL
SOLUTIONS

- HEATING & COOLING
- FIXED FLOOR HEATING/COOLING LOOPS

INSTALLATIONS

- HEAT RECOVERY FROM EXHAUST AIR
- RECOVERY UNIT
- POST PROCESSING UNIT
- HEAT PUMP
- SEASONAL STORAGE: AQUAFER
SOLUTIONS

- HEATING & COOLING
- FIXED FLOOR HEATING/COOLING LOOPS
THANK YOU FOR YOUR ATTENTION!