H A N D _ M A D E

Architecture
for
craftsmanship

P5 DRAWING SET

M.Y. DE WIT
PROJECT INFORMATION

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In the creative and communicative cluster of crafts, the following professions could be included:

- Photographer
- Game developer
- Ceramics
- Sound designer
- Software developer
- Website designer
- Graphic designer
- Interior designer
- Illustrator
- Tattoo artist
- and more

The cluster of creative industry and communication is characterized as enterprising, highly educated and growing: with 1 to 2 employees, the cluster has a relatively high share of entrepreneurs and is by far the cluster with the highest proportion of working with at least a completed MBO education (96 percent). The cluster represents 23 percent of employment in the craft economy and has achieved employment growth of 9 percent between 2008 and 2013.
**Target Groups // Description and Research**

**Creative crafts cluster characteristics**

- It has many “new” professions within the crafts sector.
- It's the fastest growing cluster within the crafts economy.
- Professions that are best represented within the city of Amsterdam are the advertisements business, software development business, and creative arts.
- Highly educated.
- When not working from home, they prefer shared commercial spaces (41%).
- Use of social media and network.

**Workspace preferences**

- Climate that is dry, warm, plenty daylight, well ventilated.
- High ceilings.
- Fast internet connection.
- Computer.
- Storage space.

Of all businesses in the creative crafts industry, 86% is a one-man-business.

Of these businesses, 16% has trouble finding a suitable workplace to carry out their professional services.

In the creative cluster, 43% of the businesses are home-based.

The creative crafts industry is characterized by a high degree of collaboration between professionals.

The average workplace for a professional in the creative crafts industry is 55m².

Most businesses are located inside the ring of Amsterdam.

For specific professions there might be added demands, such as good sound isolation (filmmaker, sound designer). Also, an ‘inspiring surrounding’ is usually named as a desirable quality, which has a high degree of subjectivity.
The separate workplaces, so detached from the dwelling but inside the building, will vary between private, collective and public. These are spaces that are added to the functional program of the building, in order to create the right setting for craftsmanship in both working, sharing and educating.

Types of professions that belong to this cluster include:
- Metal workshops
- Wood workshops
- Furniture makers
- Welders
- Clothing maker
- Musical instrument maker
- Leather worker
- Glass blower

Within the cluster of metal, wood and other production craft, the decline in employment is the strongest (-12 percent). This is also due to the loss of knowledge in this cluster of craftsmanship and globalization of large companies that are competitive in this field (cheap production, sales and marketing).
Production crafts cluster characteristics

Shrinking (12%)
Out of all crafts, wood and metal production are shrinking the hardest due to aging professionals.

Aging population ('greying')
Shrinking amount of people per business (3 to 2 within 4 years)
- 5% decline in professionals since 2010
- Growth of amount of businesses 8%
- High percentage of male
- High amount of 55+
- Varied clients

In production crafts, many need a big workspace
Worksplaces spread out over the entire city, more outside of the ring
Worksplaces inside home, a commercial shared building or on industrial terrains.
- Most are lower educated, or learned in practice. 26% is highly educated.

Workspace preferences

- Safety and fire regulations
- Constant climate
- Daylight
- High ceilings
- Big amount of storage space
- Parking and unloading space
- Fast internet connection

On average, a workspace needs to be 100+ m². Some of this space can also be shared with other professionals of the same cluster.

Most businesses are outside of the ring of Amsterdam. Highest concentration is in Westpoort.

Of all businesses in production crafts, 80% is a one-man-business
90% of all craftsman in the production cluster is male.
High amount of 55+ professionals (in age)
Collaboration with own or other crafts sectors.
There are three ways in classifying the target groups for this project:

- **Based on crafts sector cluster**
  There are two main target groups based on crafts cluster: the creative and communicative arts, and the metalworking, woodworking and other production crafts cluster. The requirements for the dwelling unit as well as the collective workspaces are different for each of these target groups. The main idea will be to group these people per building based on professional interest.

- **Based on household composition**
  As main target group is the starting entrepreneur in crafts, most will probably be a single or double household when starting to live there, with a smaller percentage of young families. But as time goes by the double households might evolve into young families. The dwellings, buildings and environment should take this flexibility in household composition in mind. For dwellings this means flexibility in dwelling layout, for the building and environment this means making it also family-friendly.

- **Based on business stage / type**
  A starting business with no clients and employees might grow into something bigger. This can partly be resolved by using the collective workspaces. Inside the live-work units themselves and the accesses to these it should be possible to be representative as a business.
Shape suitable for location and flexibility concept

Fold building into the new shape

Public and collective spaces: Preferred orientation for the outside space is south, preferred orientation for workshops is north.

This folding is creating different settings for the building parts. Back dwellings: Square/park and water, south dwellings: road and workshop.
Analysis drawing from another live-work flexible building design, with flexible dwellings and access type.

Implemented scheme in the design, with flexible dwellings and access type.
SHOPHOUSE
FLEXIBLE LOFT

DWELLING TYPOLOGIES  //  GROUND FLOOR
COLLECTIVE / PRIVATE / PUBLIC SPACE

LOFT APARTMENTS
55-80 M2

STUDIO'S
30 M2

STUDIO'S
30 M2

STUDIO'S
30 M2

Scale : 1 : 100

0 cm 100 cm 200 cm 300 cm 400 cm
GALLERY DIAGRAMS // SOLAR / SHADOW STUDY

21 March

10:00

27.3

13:00

37.9

16:00

24.4

21 June

10:00

47.8

13:00

60.9

16:00

42.8

21 Sept

10:00

29.2

13:00

37.9

16:00

22.7
LOADBEARING STRUCTURE // CLT WALLS, SCHEME SHOWING PLACEMENT OF OPENINGS IN FLOOR PLAN FOR FLEXIBILITY OF THE DWELLINGS

N

Scale: 1:100

0 100 200 300 400 cm cm cm cm cm
LOADBEARING CONSTRUCTION // ISOMETRIC VIEW
GALLERY CONSTRUCTION FRAME // ISOMETRIC VIEW

DRAWING TITLE

DRAWING SUBTITLE
Heat pump for heat exchange summer/winter

Thick insulation for heat loss prevention and acoustics

Mechanical ventilation core

Low temperature floor heating system

Workspace heavy mechanical suction

Acoustic materials

Heat exchange ventilation system

Low sun provides additional heat and light

CLIMATE SCHEME // WINTER
Heat pump for heat exchange summer/winter

Heat load reduction summer via shadows of gallery and balconies with high sun
ANALYSIS DRAWING OF THE TYPOLOGICAL RESEARCH INTO LIVE-WORK DESIGN BY FRANCES HOLISS

OWN DESIGN STRATEGY FOR THE LOFT APARTMENTS
TYPE: LIVE-WORK LOFT APARTMENT

DWELLING SIZE: 53 M²

DESIGN STRATEGY: FUNCTIONAL CORE

FLEXIBLE IN USE

FLEXIBLE IN EXPANDING DUE TO STRUCTURAL DESIGN

FLEXIBLE FACADE

GALLERY ACCESS

User flexibility - Polyvalent use of space

Determination of dwelling depth

Standard orientation of dwellings

A = 3.6 m
LIVE-WORK LOFT APARTMENTS // ISOMETRIC VIEW
FLOOR PLAN LIVE-WORK LOFT APARTMENT

VARIANT: FAMILY
LIVE-WORK LOFT APARTMENT // PERSPECTIVE SECTION
TYPE: LIVE-WORK LOFT APARTMENT, LARGE

REPLACEMENT DWELLINGS WHEN BIGGER DWELLINGS ARE WANTED IN THE BUILDING

DWELLING SIZE: 80 M²

DESIGN STRATEGY: FUNCTIONAL CORE

FLEXIBLE IN USE

FLEXIBLE IN EXPANDING DUE TO STRUCTURAL DESIGN

FLEXIBLE FACADE

GALLERY ACCESS

DIAGRAM SHOWING THE FLEXIBILITY PRINCIPLE
FLOOR PLAN
LIVE/WORK LOFT
APARTMENTS, LARGE

VARIANT: FAMILY HOME

FLOOR PLAN
LIVE/WORK LOFT
APARTMENTS, LARGE

Scale: 1:50
FLOOR PLAN
LIVE-WORK LOFT APARTMENTS, LARGE.

VARIANT: PUBLIC AND PRIVATE ZONE WORKSPACE

Scale: 1:50
FLOOR PLAN
LIVE/WORK LOFT
APARTMENTS, LARGE.

VARIANT: GALLERY WORK LOFT

LIVE-WORK LOFT
APARTMENTS, LARGE.
TYPE: SHOPHOUSE

DWELLING SIZE: 53 M2
SHOP SIZE: 40M2
FLEXIBLE FLOORSPACE: 20
TOTAL FLOORSPACE: 113 M2

DESIGN STRATEGY: FUNCTIONAL CORE
FLEXIBLE IN USE
FLEXIBLE IN EXPANDING DUE TO STRUCTURAL DESIGN
FLEXIBLE FACADE
STREET ACCESS TO SHOP, GALLERY ACCESS TO DWELLING
TYPE: STUDIO LOFTS
DWELLING SIZE: 30M2
DESIGN STRATEGY: FUNCTIONAL SPACES IN THE BACK
FLEXIBLE IN USE
FLEXIBLE IN EXPANDING DUE TO STRUCTURAL DESIGN
FLEXIBLE FACADE
STREET ACCESS TO SHOP, GALLERY ACCESS TO DWELLING
STUDIO LOFT // PERSPECTIVE SECTION

DRAWING TITLE

DRAWING SUBTITLE

STUDIO LOFT

PERSPECTIVE SECTION
NORTH FACADE // VERTICAL SECTION

Scale: 1 : 50

0 50 100 150 200 cm cm cm cm cm