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material culture of stone
/ stone & Maastricht /

understanding of Maastricht
stone culture
Stone & Traditional Maastricht Building

Different from most Dutch cities, the Stone material is widely applied in Maastricht traditional buildings, for the abundant resources of stone, and the advanced stone craft technique.
The processing of stone would leave specific details on its surface. Moreover, its physical character is very suitable for engraving and sculpturing. These all make stone a tangible and expressive material, which, on a larger scale, could also influence the character of the city of Maastricht.
Stone & Traditional Maastricht Building

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Application of Stone in Traditional Maastricht Buildings

a typical street façade in Maastricht
stone combined with brick forms a common façade of Maastricht buildings
Application of Stone in Traditional Maastricht Buildings

Stones are mainly applied in the ‘openings’ of a building, which are windows and entrance. The unique texture of stone thus emphasizes the position of these openings, the connections between exterior and interior space.
Workshop of Gypsum Models

photo of the final gypsum model
Research of Stone Entrances

cases of stone entrances in Maastricht
Resarch of Stone Entrances
stone gates and space experience in Maastricht
Resarch of Stone Entrances
stone gates and space experience in Maastricht
These stone frames serve as a symbol of space transition in Maastricht. One would experience a space adventure by simply going through these frames. This specific way of stone application can be seen as a representation of the material culture in Maastricht.
through stone frames

design concept, plan arrangement
/ through stone frames /
Design Strategy

different communities surrounding the site

low density residential

multi-layer residential

former monastery
Design Strategy

program of the ceramic center
The exhibition and archive space functions as a place of memory and learning of the ceramic history in Maastricht. The archive is not isolated but connected with the library, for their similar function as information researching.
The workshops provide an opportunity to embed the traditional ceramic craft culture to the surrounding urban life. This part, instead of being an integral layer, should be more integrated with the communities around.

Design Strategy
Design Strategy

The workshops provide an opportunity to embed the traditional ceramic craft culture to the surrounding urban life. This part, instead of being an integral layer, should be more integrated with the communities around.
Break this ground floor into several parts, thus to create flexible small spaces – including workshops, cafes and stores - as well as a potential exterior space in-between.
Design Strategy

The workshops and stores open to this in-between gap to emphasize its space potential.
From outside our site, the in-between space would be highly accessible. It becomes a place of craft, together with the surrounding workshops and stores.
A frame of stone is applied to indicate a space transition – from a common urban environment to a place of craft. The detail and texture character of stone also help to make this place more intimate and tangible.
Design Strategy

The rest part of the building appears as a volume above the path and stone frames.
Plan Arrangement
plan 1:200 / ground floor
Plan Arrangement
main entrance perspective
Plan Arrangement
plan 1:200 / ground floor
Plan Arrangement
plan 1:200 / ground floor
Plan Arrangement
inside the path, exhibition foyer (left) and flexible workshop (right)
Plan Arrangement
plan 1:200 / ground floor
Plan Arrangement
plaza perspective
Plan Arrangement

courtyard perspective
Plan Arrangement
plan 1:200 / ground floor
Plan Arrangement
plan 1:200 / first floor
Plan Arrangement

the stair and the shelf of ceramics
Plan Arrangement
plan 1:200 / first floor
Plan Arrangement
plan 1:200 / first floor
Plan Arrangement
from exhibition to library
Plan Arrangement
plan 1:200 / second floor
Plan Arrangement

library and archive upstairs
Section Arrangement
plan 1:200 / ground floor
Section Arrangement
section C-C

flexible workshop
Section Arrangement
section C-C
Section Arrangement

section C-C / ground floor / flexible workshop and colonnade path
Section Arrangement

section C-C / ground floor / flexible workshop and colonnade path
Section Arrangement
section C-C / first floor / exhibition
Section Arrangement
section C-C / first floor / exhibition
Section Arrangement
section C-C / second floor / exhibition
Section Arrangement
section C-C / second floor / exhibition
Section Arrangement
/ from colonnade to building /

detailed design, colonnade
and facade
/ from colonnade to building /
/ from colonnade to building /
During former research of Maas’s entrances, the entrances are dissembled into basic components: beams, columns, cap and foundations, keystones and other decorations.

Form and Structure
Form and Structure

start with primitive form
Form and Structure
Form and Structure
Form and Structure
colonnade as part of the structure
Form and Structure

colonnade as part of the structure / structure plan / 1:200 / black part: colonnade columns
Form and Structure

colonnade as part of the structure / structure plan / 1:200 / black part: colonnade columns
Form and Structure
concrete skeleton structure / 1:200 / first floor
Form and Structure
concrete skeleton structure / 1:200 / second floor
Form and Structure
concrete skeleton structure / 1:200 / roof
Form and Structure
climate scheme / 1:200 / ground floor
Form and Structure
climate scheme / 1:200 / first floor

/ from colonnade to building /
Form and Structure
climate scheme / 1:200 / second floor
from colonnade to building

scales / height and width
/ from colonnade to building /

Van der Laan's five column-spacings

- Derived column-spacing: 21:100 or 2:9 5/6
- Authentic column-spacing: 24.5:100 or 1:4
- Derived column-spacing: 25:100 or 2:7
- Authentic column-spacing: 32.5:100 or 1:3
- Derived column-spacing: 37:100 or 2:8 5/6

Van der Laan's five window arrangements

- Authentic window arrangement: 57:100 or 4:7
- Derived window arrangement: 49:100 or 2:4
- Authentic window arrangement: 43:100 or 3:7
- Derived window arrangement: 37:100 or 2:5 5/6
- Authentic window arrangement: 32.5:100 or 1:3

scales / height and width

Reference: Church of St. Benedictusberg Abbey by Hans van der Laan
scales / height and width

study of entrances' proportions in Maastricht
/ from colonnade to building /

study of entrances' proportions in Maastricht
from colonnade to building

study of entrances’ proportions in Maastricht
study of entrances' proportions in Maastricht
study of entrances' proportions in Maastricht
scales / height and width

the arch house aside the site provides a height reference
four groups of colonnades

scales / height and width

/ from colonnade to building /
scales / height and width

four groups of colonnades / group 1
scales / height and width

four groups of colonnades / group 4
scales / height and width

four groups of colonnades / group 2
scales / height and width

four groups of colonnades / group 3
/ from colonnade to building /

scales / height and width

colonnades in sections / height difference by topography
/ from colonnade to building /

scales / height and width

colonnade width difference / structure plan / 1:200 / black part: colonnade columns
scales / height and width
other openings
scales / height and width

other openings
/ from colonnade to building /
sizes / columns and beams

hierarchy of openings in the facade
textures
textures

textures as ornamentation
textures

textures on the facade
textures

textures on the facade
Textures on other surfaces
textures

casting experiment
textures
brick cladding patterns
textures
brick samples
thank you