CONSTRUCTING ARCHITECTURE

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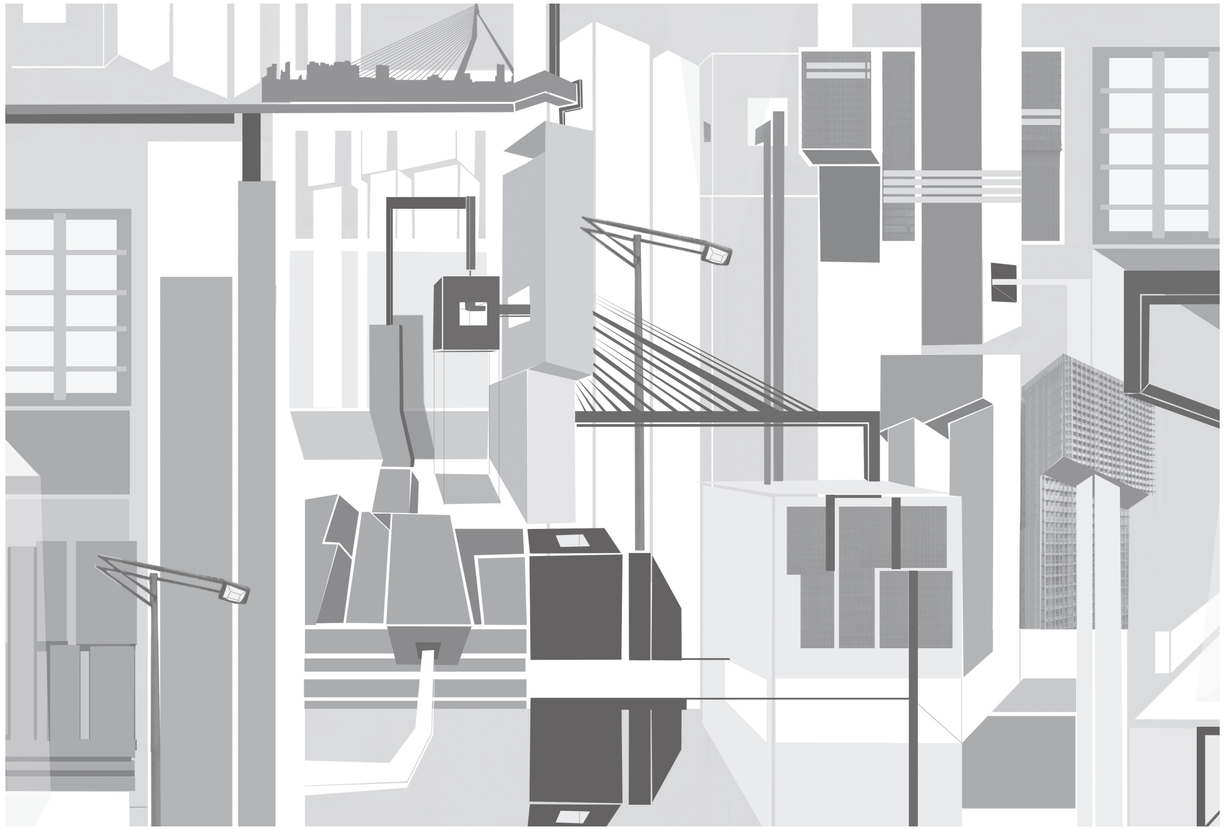
SEMESTER B
QUARTILE 3
2020



INTRODUCTION

In this booklet, I have tried to illustrate the process of making architecture, by applying various levels of analyzing on projects presented during lectures in the format of a timeline.

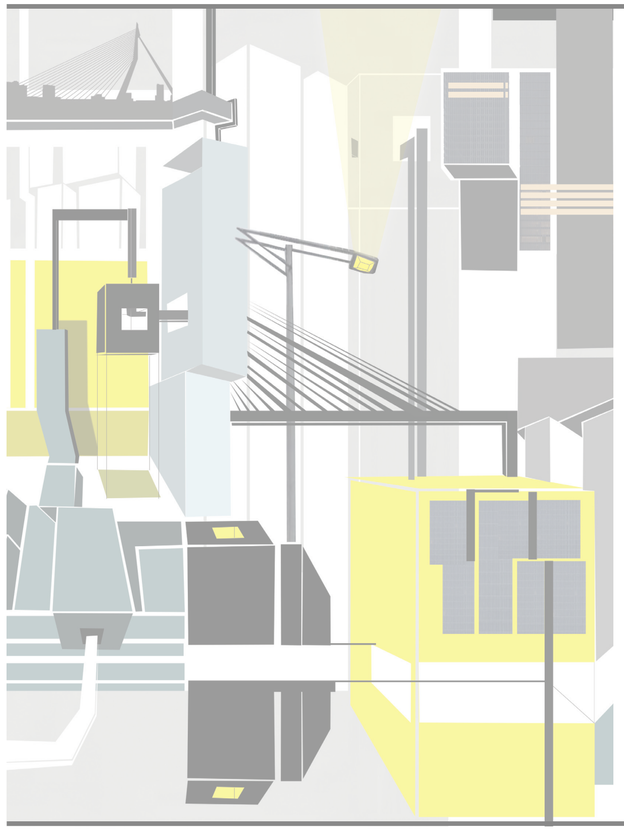
The projects are chosen mainly based on their different approaches. For example, the “Kataoma” resort in Bali by OMA, demonstrated a very different approach to this international office which I found interesting. The next project, the “Sixteen Oak Barn” by Hilberinkbosch Architecten, presented a very unique way of communicating with materials and their expression. Moreover, I realized it would be an interesting contrast to use projects in different scales and sizes; from a 23,453 m² project of “Karaoma” to a ~150 m² project of “Sixteen Oak Barn”.

Regarding the graphics, each project’s timeline differs from the rest. The timelines may represent different symbols which their meaning is either cleared out during the timeline itself, or there are small guidelines in each project.

Each timeline has the same general structure:
- The name of the project, its location, and the start and finished dates
- A small introduction regarding the project
- Mention of the architect and the client
- The goals and aims of the project
- The main timeline

Part I and Part II are integrated with each other, therefore after each Project, follow its Reference. The sequence of the booklet can be seen in the table of content.

PART I AND PART II



CONTENT

PART I - PART II

PART III

PROJECT NO. 1

Project Name: KATAOMA
By OMA, 2010-2020
Location: Seminyak, Bali

PROGRAM RULES!

Introduction: This project was the re-invention of a beach club/restaurant to a hotel. The design proposal was established based on a series of programs linked to Indonesian culture and also the topic of public accessibility. The role of locality also plays an important role in the creation of this project.

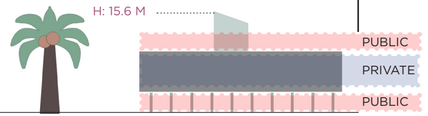
2010 **Assignment Briefing**
Re-invention of the resort

GOALS

1. Respecting the local rules
2. Considering open spaces for public use
3. Using local material and local craftsmen

AMO

RULE 2. 15 M Step back from the beach.



RULE 1. No building higher than the highest coconut tree.

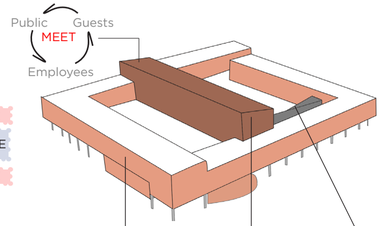


Fig. 04. Local materials

Special Features of restaurant:

1. Natural light for fermentation
2. Blue Color for better growth

"You eat there, what is grown there." [1]

AMO

A+B+C

REASEARCH OF MAKING

1. INDONESIAN ARCHITECTURE

Fig. 01. Indonesian architecture

Fig. 02
4 Types of zoning:
Cosmology, Hierarchy, Privacy, Openness

Indonesian Architectural Features:

Every island has different characteristics.
But the common feature is:

A. FLOATING

Why?

- Better Ventilation
- Less Flood Damage Risk
- Protection from insects
- Protection from wild animals

2. NEIGHBORING RESORT TYPOLOGY

- Enclosed sites (not accessible for public)

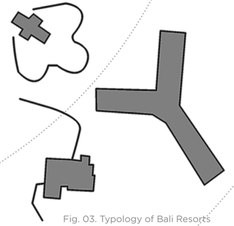


Fig. 03. Typology of Bali Resorts

B. OPENING UP TO PUBLIC

3. PROGRAM

Rich **festivals** of Bali and cultural activities.

+

Accessibility: **Public and Private**

RE-INVENTION OF THE RESORT

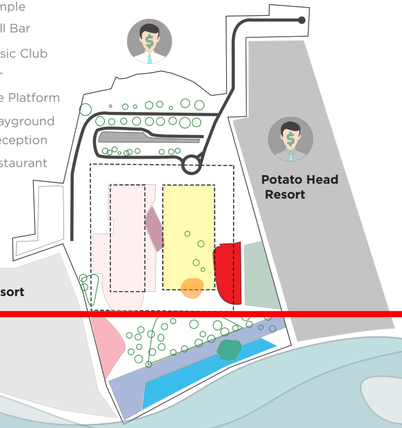
C. THE PLATFORM

DESIGN

CONCEPT

1. Landscape
2. Floated Ring-ward
3. Family House
4. PUBLIC SPACE CONNECTOR

- Pool
- Sunbathing Area
- Temple
- Grill Bar
- Music Club
- Bar
- The Platform
- Playground
- Reception
- Restaurant



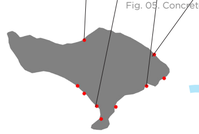
BUILDING

LOCALITY

Craftsman

Material

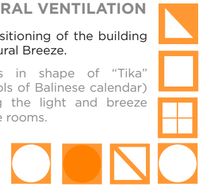
Fig. 05. Concrete tests

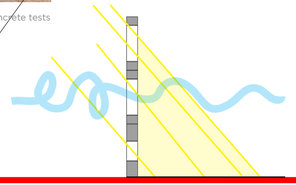


NATURAL VENTILATION

The positioning of the building for natural Breeze.

Screens in shape of "Tika" (Symbols of Balinese calendar) filtering the light and breeze into the rooms.





INTERIOR

1.RESTAURANT

Materials

Local Red Wood

Exposed Concrete

2. ROOMS

220 Guest Rooms

600 Hotel capacity (Public and Private)

Fig. 06. Guest room corridors

Complete | 2020

15 M

REFERENCE PROJECT

OMA

Vs.

LE

Project Name: VILLA SAVOYE
By: Le Corbusier
Location: Poissy, France

RULE 6: CONNECTING RAMPS!

Introduction: Villa Savoye, designed by Le Corbusier is based on 5 main principles; Pilotis, free facade, free plan, horizontal windows and roof garden. The Kataoma hotel designed by OMA shares these 5 key topics. Moreover, the circulation pattern in both buildings are comparable since they connects different spaces from different levels to each other, using ramps and stairs.

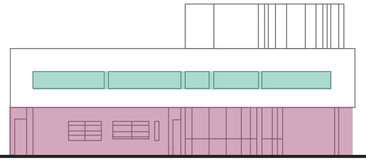
NOTE
It is important to remind that the scale of these to building are totally different. Villa savoye is a small residential building in comparison to Kataoma which is a hotel built to home 220 guests. Therefore the size comparison between the drawings are not based on reality but just to present a clear comparison.

Guide: Circle's size - relevancy of the topic

Photo by Renato Saboya Fig. 01

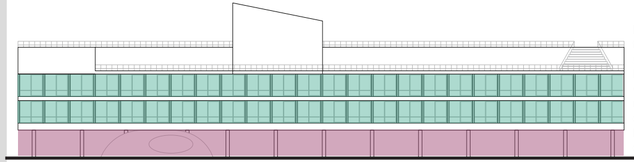
PILOTIS

Both buildings are built on pilotis. For Kataoma this was done for two reasons: 1. The Balinese buildings are usually elevated from the ground. 2. The floating building would open up the ground floor which would offer an opportunity for public accessibility. In Villa savoye, however, the pilotis would offer a free facade and free plan. This reason could also be applicable for Kataoma.



Villa Savoye Elevation

HORIZONTAL WINDOWS

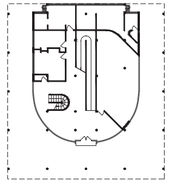


Kataoma Resort Elevation

Horizontal windows are one of the important features in the villa savoye which is applied in all 4 sides. In Kataoma, there are horizontal windows from 3 sides except for the north. In this case the windows are offered from the inner north facade. Horizontal windows offer a wide view of the surrounding.

FREE PLAN

Free plan for Le Corbusier was the result of having pilotis as the supporting structural elements for the house which meant the plan was open to be shaped into any form without the limitation of having structural walls. In the case of Kataoma, the plan of the each room is open and can be configured in any way required.



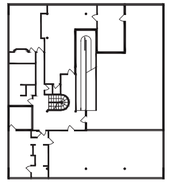


Fig. 02. Villa Savoye Plans

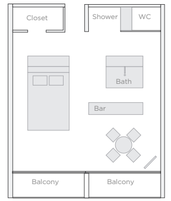


Fig. 03. Kataoma Resort, Guest Room Plan

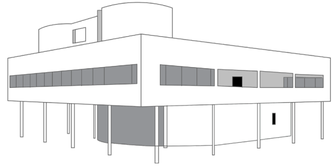


Fig. 04. Villa Savoye

Fig. 05. Kataoma Resort

The free facade is the result of using pilotis as structural support, therefore the walls are left free to be dealt with as the architect see fit. In both buildings, the facade is used to place large horizontal windows, providing a view from outside.

FREE FACADE

ROOF GARDEN

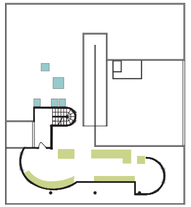


Fig. 04. Villa Savoye Roof: Roof Garden Plan

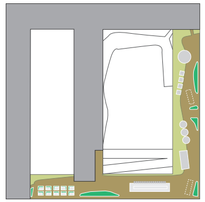


Fig. 05. Kataoma Roof Plan Roof Garden Plan

CIRCULATION

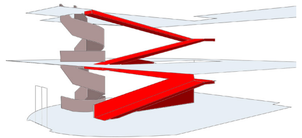


Fig. 06. Villa Savoye Circulation

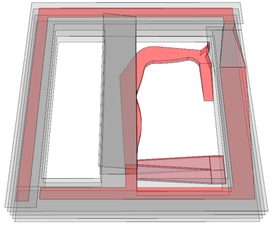


Fig. 07. Kataoma Resort Circulation

In both buildings, circulation is a very important feature. Villa Savoye, uses ramps and stairs to offer a connected space within different floors and one can have different perspectives of the space while moving along these connectors. In the same manner but on a very larger scale, Kataoma uses ramps and stairs to connect different parts of the hotel together. From the ground floor to the first and through the family building to the rooftop. This path connects public spaces together.

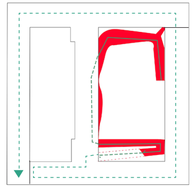


Fig. 08. Kataoma Resort Circulation in Plan

PROJECT NO. 2

Project Name: SIXTEEN OAK BARN
By: Hilberinkbosch Architecten
Location: Berlicum, Netherlands

Imperfectly PERFECT!

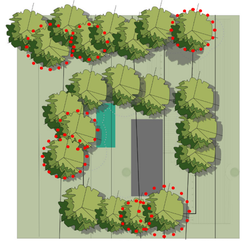
Introduction: This project started as the result of oak trees being cut which lead to re-building a shed used by the previous resident of the farm. The shed functioned as space for tools and small kettles. Now it is being used as parking, storage, and workshop.

2017 START

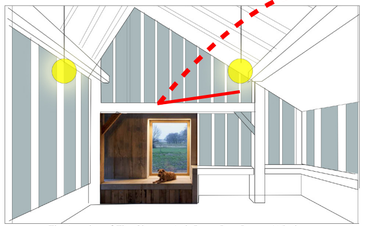
GOALS AND THEMES

1. Aesthetic which comes by coincidence.
2. Architect's involvement from preliminary design to building the last details.
3. Simple solutions for complex questions.
4. Thorough analysis of the building's context. (Blending in the context)
5. Importance of the materials: Circularity, Environment, Expression, Feeling, Aesthetic.
6. Working with old AND new. (Blending new to the old)
7. Familiar architecture. (Familiar look with a new approach in design)

Guide: Different level of the timeline - Obstacles and difficulties
Lower = More obstacle



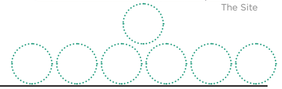
The Site



The Interior of The Sixteen Aok Barn: Day Dream Window

Fig. 03. Interior of The Sixteen Oak Barn: Natural Ventilation

THE IDEA



The story of the oak trees:

The trees were planted at 1819. Each tree had a function for the farmer. Now 7 of the trees were damaged and needed to be cut.

Originally, these types of woods end up in paper factories or biomass factories.

BUT

In this case, the architects decided to use the trees as building materials.

THE FIRST PLAN

The first plan of the building was made.

LIMITATION: There was a maximum area in square meter that could have been occupied.

THE MATERIAL COUNT

The finished plan needed 16 oak trees in total. The extra 9 oak was provided from the neighboring trees.

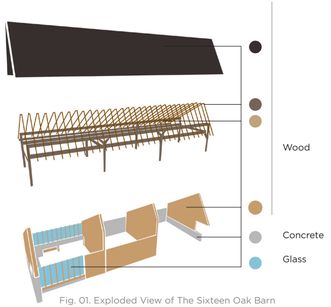
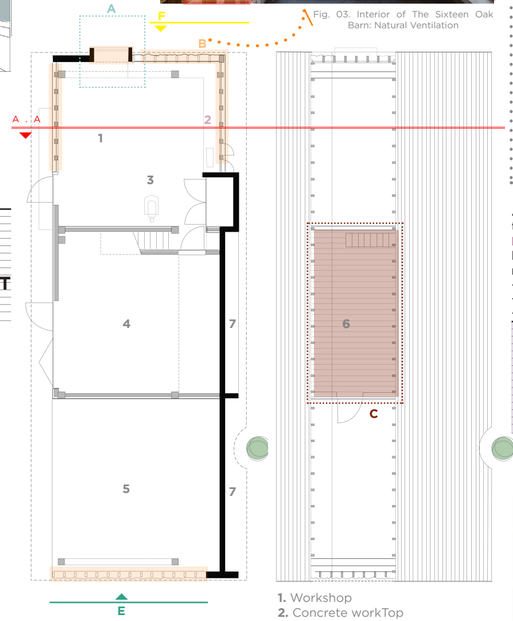


Fig. 01. Exploded View of The Sixteen Oak Barn



1. Workshop
2. Concrete workTop
3. Firewood
4. Storage
5. Parking
6. Loft floor
7. Firewood storage

Fig. 02, Plan of Sixteen Oak Barn

PLAN FOR MAX USE

A mobile saw was used to cut the tree trunks.
LIMITATIONS: The tree trunk had a lot of metal and barb wires which resulted in:
- More time for cutting (2days)
- More cost (Extra 250€)
- Imperfect wood (Crooked, Discolored...)

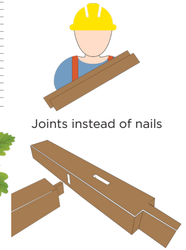
SAWING

Wood with a story to tell!

Fig. 04. Wood used in different parts of the project

Concrete foundation	Wooden cast for concrete wall	Pouring concrete	Removing the cast	Constructing wooden columns and beams	Roof Structure (beams, Plates, supports)	Roof Shakes	Window Frames and Glasses
15.04.2017	09.05.2017	24.05.2017	30.05.2017	31.05.2017	16.06.2017	15.09.2017	31.10.2017

CONSTRUCTION



Joints instead of nails

F. Tree Bark imprint on concrete
E. Soft wood imprint on concrete

Fig. 05. Wood for concrete casts

All parts of the tree trunk were used in different part of this project. The imperfectness of the materials did not stand in the way of them being used by the architect.

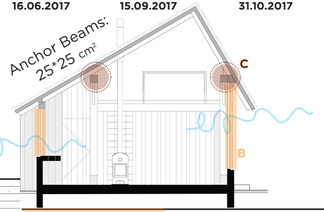


Fig. 07. SECTION A.A

NATURAL VENTILATION

The building uses natural ventilation, i.e. windows. The building also does not have a heating system, instead it uses a concrete fire-wood heater.

Fig. 06. Firewood

ARCHITECTURAL EXPRESSION

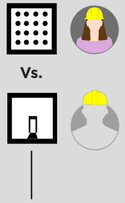
1. The quality of aesthetic atmosphere. This aesthetic was not planned for, but happed as the result of accepting the imperfectness of materials.

2. An empty space to e filled with dreams ad inspiration of visitors and users.

AWARD

COMPLETE 14.01.2018

REFERENCE PROJECT



Project Name: The Long Drop
By: Invisible Studio - 2017
Location: Bath, England

From Nature to Nature

Introduction:

The Longdrop project is a toilet shack that was built for the Visible Studio, by Invisible Studio. The project is simple and very functional and the materials used for building it were gathered from surrounding scavenged materials, therefore it was built for free. This project is also impact-free since the waste gathered in the toilet is collected for fertilization use.

Fig. 01

A. CIRCULARITY

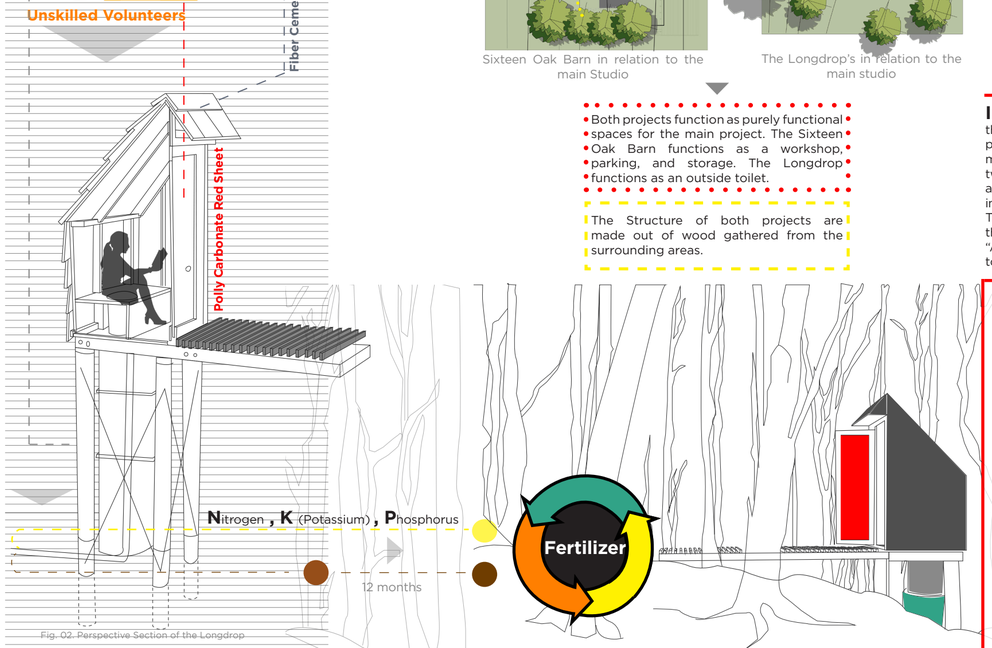
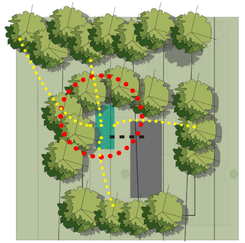
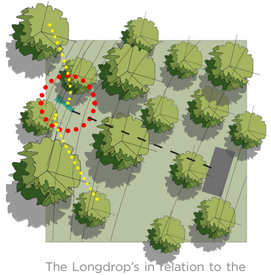


Fig. 02. Perspective Section of the Longdrop

B. LOCATION IN SITE



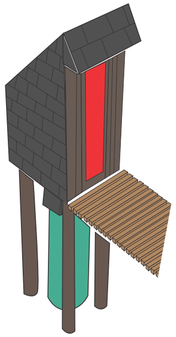
Sixteen Oak Barn in relation to the main Studio



The Longdrop's in relation to the main studio

- Both projects function as purely functional spaces for the main project. The Sixteen Oak Barn functions as a workshop, parking, and storage. The Longdrop functions as an outside toilet.

- The Structure of both projects are made out of wood gathered from the surrounding areas.

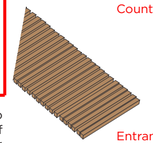


CIRCULARITY

Introduction: When it comes to the theme of circularity, there are a lot of projects that fit into this concept. Among many interesting cases, I have chosen two projects which represent different aspects of "Sixteen Oak Barn". Therefore, in this case, there will be 2 references. The first one, "The Longdrop" will cover the aspect of circularity and the second "AAA" will illustrate their approach towards materiality.

MATERIALITY

1. PLAN DIVISION - PORPORTION



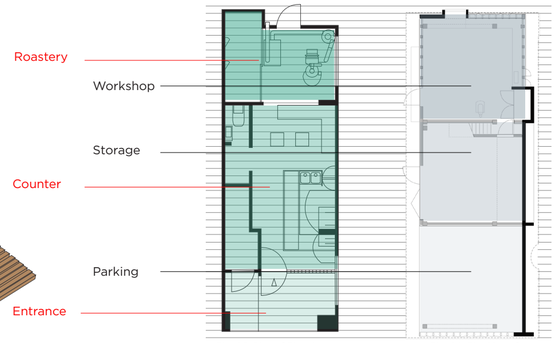


Fig. 05. Plan of The "AAA"

Fig. 06. The Plan of The Sixteen Oak Barn

Both plans have almost the same proportions. The interior of both buildings is divided into 3 main parts.

2. MATERIAL EXPRESSION

Both projects treat imperfect materials as perfect. In the Sixteen Oak Barn, the wooden trunk is used to create innovative patterns on the concrete, and in the AAA coffee shop, The different shades of cement covering small pieces of the wall creates an almost brutalist expression. In both projects, the emptiness of the space is filled with the expression of its materials.

Fig. 03. Wood texture of the wall and on the concrete

Vs.

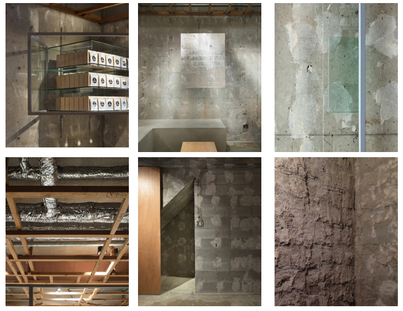


Fig. 04. Interior of "AAA" Photos by Takumi Ota

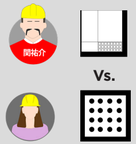
Fig. 07 Photos by Takumi Ota

Introduction:

The AAA coffee shop was built on the location of a former barbershop with the same name. The wooden structure of the ceiling was found during the removal of the plaster and it was kept. The way the materials are demonstrated in this project, as raw and untouched and imperfect, makes a connection to the Sixteen Oak Barn project

Let Materials Sing!

Project Name: AAA
By: Yusuke Seki - 2018
Location: Kobe, Japan



REFERENCE PROJECT

PROJECT NO. 3

Project Name: De Lakenhal Museum
By: HCVA, 2012-2019
Location: Leiden, Netherlands

Bringing Back The Mighty H!

Introduction: This was a renovation project of the existing De Lakenhal Museum. The building was in need of insulation, new orientation, and maintenance. Also, there was a need for new spaces for galleries as new building implementation in the existing site with close contact with the Museum.

2012 START

Goals and Themes

HCVA THEMES:

1. Being involved from the concept to the building process. From beginning to end.

2. Communicating with the contractors and making sure they understand the design.

3. "We don't fuck the context, we like the context" (Verhoeven, P. Lecture, 11 March, 2020). The context should be read, investigated and understood. It should be studied and learned from.

DE LAKENHAL RENOVATION GOAL:

1. Bringing back the original expression of the building.

2. Making a clear routing for easy orientation.

Guide: The Background of each section refers to a specific building within the complex. The colors are based on the colors used in Fig. 03.

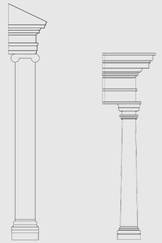
HISTORY LESSON

THE HISTORICAL CONTEXT

This painting was used to understand the context of the building at its original state.

Lakenhal, Leiden By Susanna van Steenwijk, 1642
Fig. 01

- The color of the bricks
- The color of window openings
- The H-Shape of the main building
- The sitting of the building in its surrounding



The Architect of De Lakenhal used theories of Vincenzo Scamozzi for his design.

BUILDING IN TIME

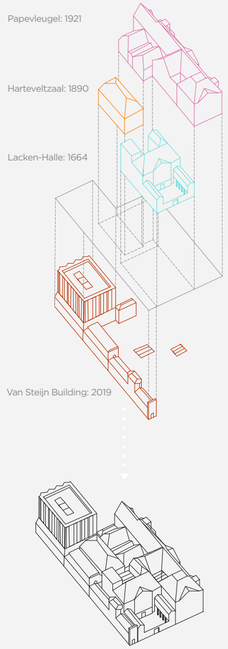


Fig. 02

MONUMENTAL RESEARCH

What are monumental values of a building?

Restoration Strategy Document: The plan for Demolishing, transforming and adding new elements.

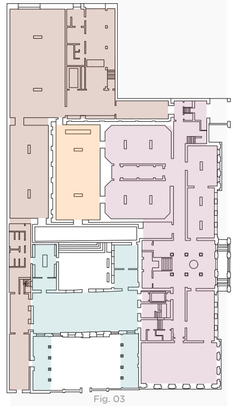


Fig. 03

THE RESTORATION PROCESS

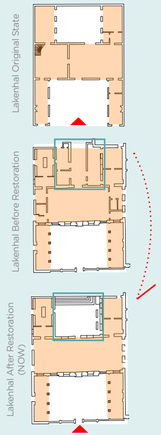
LACKEN-HALLEN BUILDING

FIRST STEP

Defining the main building

DE LAKENHAL

It was the first building constructed in this complex at 1664. Through time and different renovations, the original H-shape was destroyed.

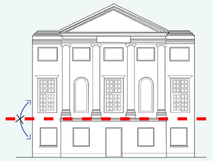


The process of bringing back the original state (H-shape).

People will enter the building the way people entered at 60s.

BRINGING BACK

1. Removing of the temporary roof of the entrance hall to perceiving the main facade as a whole.



2. Changing the window covers to red (Based on the painting).

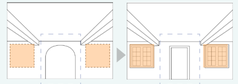
3. Removing the thick paint which covered the building with pressured steam.

PROBLEM:
? Coloring again (reversible but needs re-coloring often)
? Using chemical substance that reacts with the stones (irreversible but doesn't need repetition the process for a long time)

- Natural color, close to the original state
- Appearance of the different colors of breaks
- Appearance of the content of the statues
- A more emphasis on the Entrance

Fig. 04

4. Bringing back the intended windows of the entrance vestibule.



HARTEVELTZAAL BUILDING

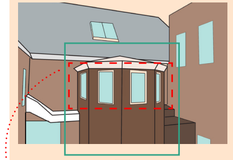
STAIRCASE REMOVAL

To be able to re-create the H-shape of the Lakenhal, a part of the Harteveltzaal and the staircase within it was removed.

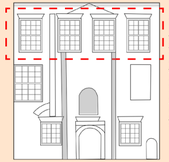
TO REMOVE OR NOT TO REMOVE?

Creation of an opportunity space to work as a re-locater for a better orientation.

This space existed in the memory of the visitors.



REMOVED



Some marks of the removed parts are left to tell the story of this building.

Fig. 05

Windows and Staircase were used in another in another space.

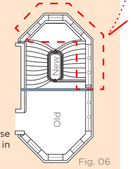


Fig. 06

THE VAN STEIJN BUILDING

INSPIRED FROM HISTORY

Looking back at the typology of De Lakenhal:
How to fit a big building into a small urban context?

- Step back from the row of houses
- Using proportions related to urban spaces to break down the hugeness of the building.

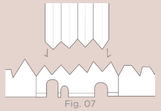


Fig. 07

ELEVATION

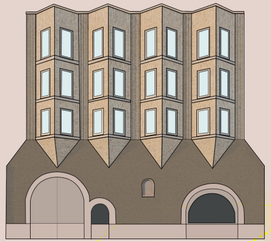


Fig. 08. South Facade

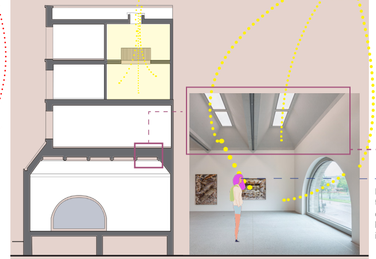


Fig. 09. SECTION:A.A

Fig. 10. New Gallery Interior

DETAILS

Variety of Brick use that sometimes resembles a textile pattern.

Fig. 11

Re-designing the key symbol of the museum

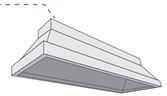
COMPLETE 2019

It was mentioned that Leiden was famous for a specific blue- shade cloth. I assumed the color of the walls may have a connection to that color.

Fig. 12

The roof elements are made of prefab concrete poured at once. Therefore the roof panles are one element. This construction system made it possible to have a 4-meter height as well as enough space to put installation and light.

Big window to make a connection between inside and outside.



REFERENCE PROJECT

Project Name: Janskerkhof 2-3a
By: MARX&STEKETEE, 2004-2016
Location: Utrecht, Netherlands

Vs.

Let's Go Back!

Introduction: It was rather a difficult task to find a reference for a massive complex such as De Lakenhal Museum. Since there are a variety of buildings next to each other, they cannot be judged as a whole and therefore it is hard to make a comparison on a visual level.

HCVA

Vs.

M&S

Therefore, it was wise to look at the goals, programs and approaches used in this project and find a similar scheme in another project. That is when Janskerkhof 2-3a seemed like the right fit in this context. Janskerkhof 2-3a was a renovation project which resembles a lot in its process of renovation to De Lakenhal Museum [*].

COMPARISON

TIMELINE

Janskerkhof History

The Janskerkhof building is a complex which now homes the faculty of law of Utrecht University. It has faced many phases of renovations and the last one was done by the MARX&STEKETEE architecture firm.

- 1264 — Foundation of the Minderbroeder monastery
- 1581 — The Demolition of the monastery church
- 1880 — The Janskerkhof 2 was purchased by the government and the house was transferred to Utrecht University.
- 1900 — The function changed into an institute for Zoology and Anatomy
- 1960 — The function changed into the library of Utrecht University
- 2011-2015 — Renovation by MARX&STEKETEE and the function changed into a study center for faculty of law.

RENOVATION PHASES

Before Renovation — After Renovation

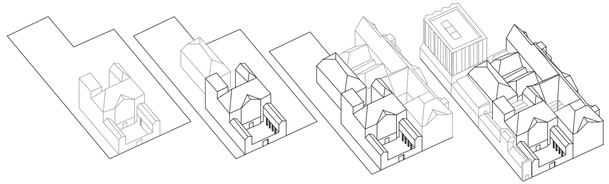


Fig. 01. De Lakenhal Through Time

The First demolishing

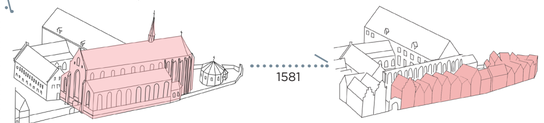
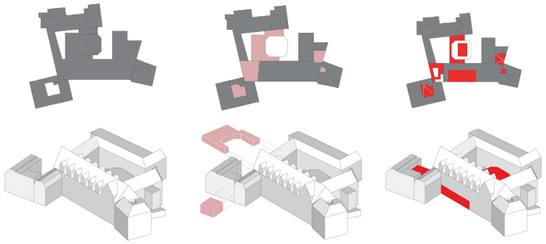


Fig. 02. The Demolition of the monastery church

The Last Renovation



Before Renovation — Demolished spaces — After Renovation

GOAL NO. 1: ORIENTATION

DIRECT ROUTING — RE-LOCATORS

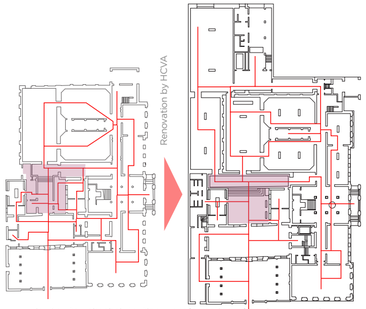


Fig. 03. De Lakenhal Routing Transformation After The Restoration

Re-locators
For a better orientation in the building, both architects have thought of specific spaces that can help people in re-locating themselves. In De Lakenhal Museum, some parts of the Harteveltzaal was removed to create an open space in which all the paths lead back to. This way, people can easily navigate through the building. In the Janskerkhof building, the architect created a variety of spaces such as staircases, courtyards and a canteen which can help users to lead themselves within the building.

RELOCATORS

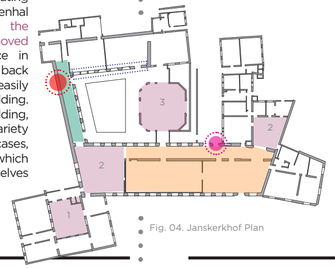


Fig. 04. Janskerkhof Plan

Fig. 04. The Janskrkhof Routing Transformation During Different Renovations

Direct Routing
Both projects had a maze-like routing as the result of different buildings joining each other. One of the aims of the architects was to create a more direct routing so people can find their way around the building. Before the renovation, the paths consisted of several loops which made it hard to get oriented within the building. For Janskerkhof, these loops have been cleared out entirely and in the case of De Lakenhal Museum, the loops have been limited but not completely removed.

Fig. 05. Re-locators in the Janskerkhof

GOAL NO. 2: BACK TO ORIGINALITY

Removing the thick color of the facade and creating a more natural look that was close to the original state. Also coloring the window covers into its original reddish-brown.

The wooden walls and the staircase existed in the building but were covered with partitioning walls. In the renovation, the added materials were removed and the room was transferred to its original state.

In the process of renovation, 2 windows were added to the entrance vestibule. Their place already existed in the walls, but they were filled through the previous renovations.

The green color of the staircase was removed and instead was colored into its natural original state.

Fig. 06. De Lakenhal Comparison: Past Vs. Now

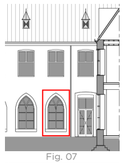
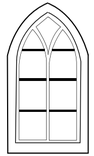


Fig. 07



A set of windows in the Gothic style was used in one of the buildings in the complex. Through the renovation process, they changed into double glazed windows without any extra transformations.

Fig. 08

The remaining arch of the 13th century monastery was kept in the transformation.

In the process of renovation, a basement was found with brick arch structure. The arches kept it and the space was used for student gathering.

Fig. 11

Fig. 09

Fig. 10

The hallways were covered with false ceiling. The architect removed them and they discovered the wooden ceiling and they decided to keep it intact.

From the very first demolishing of the 13th century monastery church at 1581, only one wall was left. The architect preserved the remaining but framing it.

PROJECT NO. 4

Project Name: Montignystraat 25
By: META, 2008-2013
Location: Antwerp, Belgium

"Laziness Is a Virtue!" [1]

Introduction: This building is located in the south of Antwerp which is the 19th-century extension of the city, thus it is embedded in the dense urban context. To integrate this building to its surrounding, horizontal and vertical grids are used in the facade. Also, the white color of this project refers to the notion of "white city" since in the 19th-century, a series of white (or light color) houses were built in this area [2].

Fig. 01

START

2, 3, 1, 2, 3, 4, 1, 2, ...

With the thought of durability and adaptability, the architect aimed for a generic design for the plan. A plan that can be used for a variety of functions in the future.

META

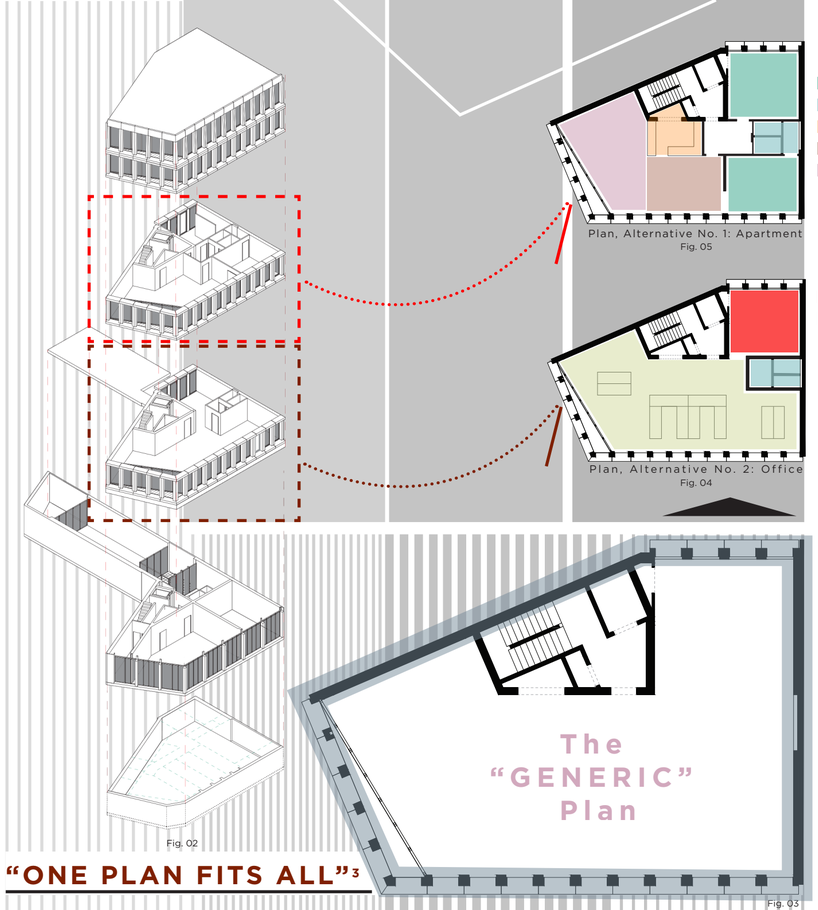


Fig. 02

Fig. 03

"ONE PLAN FITS ALL" [3]

Bedroom
Bathroom
Kitchen
Dining area
Living room

Meeting room
Bathroom
Work station

Exoskeleton: The load bearing element

The monotone white color of the building helps in blending with the urban context of 19th-century Antwerp.

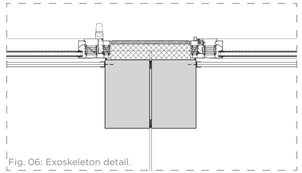


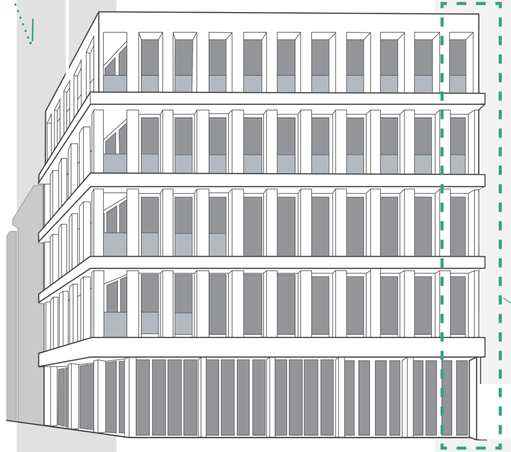
Fig. 06: Exoskeleton detail.

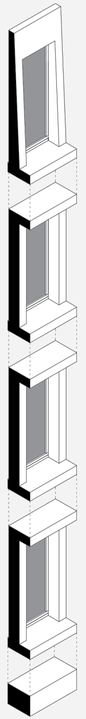
This leads to the opportunity of having a complete open plan.

The facade is the load burier element

The building is made based on the Exoskeleton system, which offers support for the building from outside.

EXOSKELETON





2013 | COMPLETE

X16

Fig. 07
The facade is made of prefab concrete units repeated through the facade.

REFERENCE PROJECT

Project Name: Im Birch School
By: Peter Markli, 2000 - 2004
Location: Zürich, Switzerland

A Grey Rational Classicism

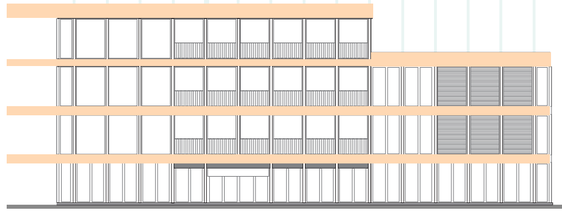
Introduction:

The "Im Birch" school designed by Peter Markli, is located in a formal industrial era at Zürich. This large school consists of a kindergarten, primary school, and high school [1]. The appearance of the building shares a lot of resemblance to the Montignystraat 25 by META. Both buildings share a classical expression as the result of their monotone color and their rational architectural vibe with their strong rhythmic grid. Moreover, the positioning of both buildings on the edge of the street as well as the materials used in the facade are similar. The "Im Birch" school is a large project but since the design pattern is the same in different parts, I will focus on one of the buildings.

Fig. 01

GRIDS: Horizontal - Vertical

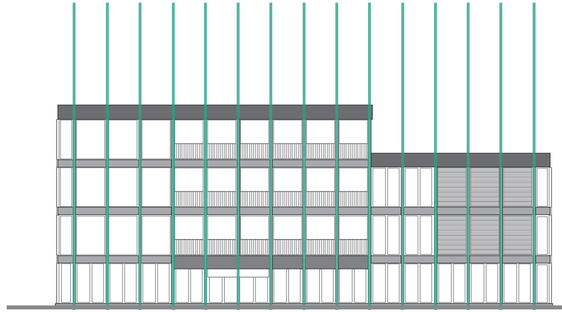
Both buildings have strong, rigid grids in both horizontal and vertical patterns. In both buildings, the emphasis on the horizontal lines are much stronger than the vertical lines. These grids create a somehow classical expression and on the other hand, the strict appearance of the facade lends itself to rational architecture.



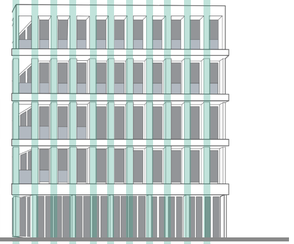
The "Im Birch" Schol Elevation: Horizontal Grids

The Montignystraat 25 Elevation: Horizontal Grids

Horizontal Grids



The "Im Birch" Schol Elevation: Vertical Grids

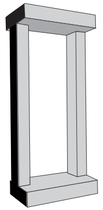


The Montignystraat 25 Elevation: Vertical Grids

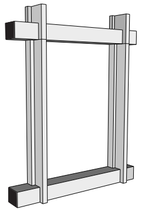
Vertical Grids

MATERIAL: Prefab Concrete

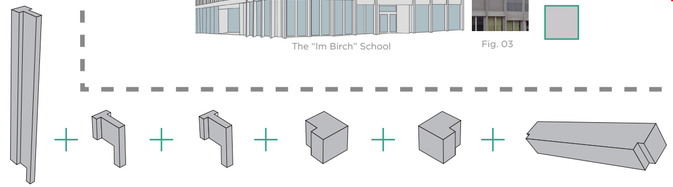
Both buildings, use prefab concrete in their facade. In Montignystraat 25, each concrete module is one element and the horizontal components rule over the vertical ones. In the "Im Birch" school', however, the module is assembled from different parts attached together and the vertical elements cross over the horizontal ones. Although this fact does not disturb the strong emphasis on the horizontal grids.



The Montignystraat 25 Prefab Concrete Module

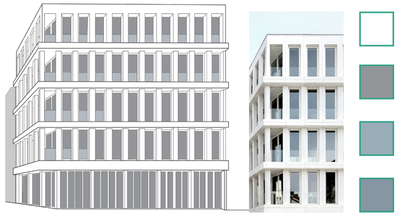


The "Im Birch" School Prefab Concrete Module



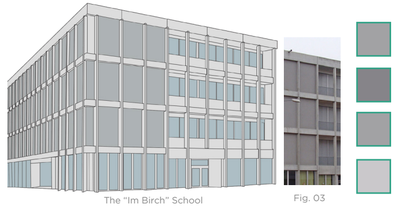
Color: Monotone: White Vs. Grey

Both buildings appear in a monotone color and they fit perfectly in their surroundings. The white color of Montignystraat 25 is well harmonized with the light color neighborhood buildings and also refers to the notion of "light city". The "Im Birch" school with its grayscale colors, creates an industrial look for the building which is well integrated to its ex-industrial context.



The Montignystraat 25

Fig. 02

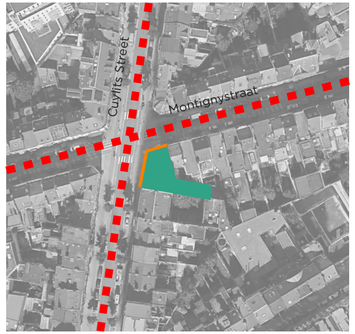


The "Im Birch" School

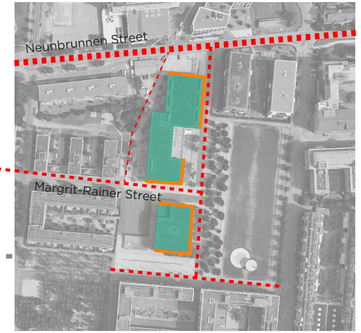
Fig. 03

Positioning: Edge

Both buildings use the potential of their location by positioning on the edge of the street. The Montignystraat 25 follows the exact pattern of the street in its plan and uses the nice perspective offered by the edge. The "Im Birch" school has different buildings and they all are located on a corner of different streets, therefore they all use the 2-side view from the street.



The Montignystraat 25 Site



The "Im Birch" School Site

PART III

REFLECTION

The overall structure of this course was very different from the previous courses I have obtained. It was very interesting to listen first hand from the architects of the projects, how they have faced the process of making, how they have dealt with the struggles during the design and so on. Also, the combination of architectural firms that presented in this course, from an international office like OMA to smaller ones like Hilberinkbosch, illustrated how differently and uniquely each project is approached and designed.

Aside from the process of making, it was nice to see how different architects present their projects. What vocabulary they use and which parts of the process of making they show. Do they start straight from a final render, or do they start step by step from the very first phases of the design? Or in some cases, they start before their project assignment and cover some history lessons.

One interesting aspect that I did not expect, was part II of this booklet where we had to find reference projects. At the first sight, it seemed like an impossible task to do, since either there are too many projects resembling the same approach to the main projects, or there are not good enough similar traits to be compared to. But after a few attempts, I realized that I can filter aspects that render more important and I ended up discovering great architectural studios and great projects.

I have to say, aside from the very time-consuming process of making this booklet, I have enjoyed the struggle to create a timeline based on each project. And more importantly, I enjoyed each lecture, the theme presentations and also the guest lectures. I wish we had the chance to attend the rest of the canceled sessions.

THEME 1:
SCENOGRAPHY

Introduction

To talk about the scenography, it is nice to start from Rem Koolhaas himself and his thoughts and beliefs. He came to the world of architecture after architects such as Manfredo Tafuri and Peter Eisenman with their cynical view towards the discipline of architecture. In contrast, Rem Koolhaas started as an architect with the hope of creating new opportunities and making amazing buildings. His approach in his field can be traced back to his earlier careers. As a journalist, he learned realism and looking at the society as it is and from movie making, he adopted a new way of creating architecture, not only in plans, elevations, and sections, but thinking in scenes and plots, i.e. Scenography [1].

This new approach creates connection, sequence and flow in spaces which follow a narrative [2]. These themes are visible in most of OMA's design. The elements referring to scenography can be divided in 3 parts:

- Solid vs Void
- Superimposition
- Congestion

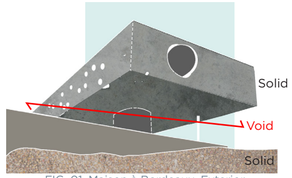


FIG. 01. Maison à Bordeaux, Exterior

Sold Vs. Void

"Imagine a building consisting of regular and irregular spaces, where the most important parts of the building consist of an absence of building" [3]. This pattern of solid and void is visible in numerous OMA's projects in different scales. From massive voids between different levels, creating a visual connection throughout the building (Fig. 01 and Fig. 02), to smaller scale close and open spaces such as panels used over the windows which filter the light inside the building and sometimes creating a pattern.

Superimposition

This happens when there is a contrast in the juxtaposition of different elements on different floor plans and in circulation also in juxtaposing different programs in one project [4]. There are many examples such as the Bibliotheque Nationale de France in Paris or the famous Zeebrugge Sea Terminal in Belgium. Using different programs and playing with the circularity in space leads us to the third theme of scenography: Congestion.

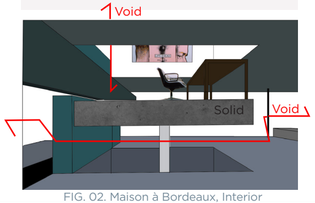
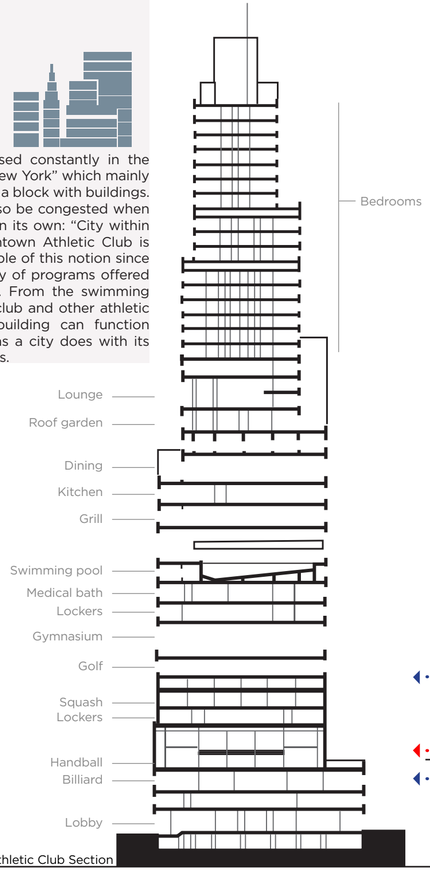


FIG. 02. Maison à Bordeaux, Interior

Congestion

This is a term used constantly in the book "Delirious New York" which mainly refers to filling up a block with buildings. A building can also be congested when it can be a city on its own: "City within a city" [5]. Downtown Athletic Club is the perfect example of this notion since there are a variety of programs offered within a building. From the swimming pool to the golf club and other athletic programs. This building can function on its own, just as a city does with its different programs.



Downtown Athletic Club Section

FIG. 03

Comparison

It is rather interesting to compare these notions from OMA's point of view to another project from the lectures. Among all projects, OMA, being an international office working worldwide, the size of their projects are almost not comparable to the rest of the projects presented for this course. However, this could be a beneficial way to see how these concepts can be implemented in different contexts.

OMA Vs. META

To begin with, it worth mentioning that I find the approach of META quite different from OMA in general but to compare the notions such as Solid/Void and Congestion, they offer some good examples (comparing to other projects of other lectures).

Solid Vs. Void

As mentioned before, the topic of solid versus void, light versus dark and creating space with not building, is very visible in OMA's work. Sometimes even the same approach can be traced through their works such as the Kataoma resort in Bali and Prada Epicenter [Fig. 04]. They both offer an open ground space, completely solid, hovering building above and again an open rooftop. To trace back this concept in the "Gebouw 0" by META it can be seen that they have also offered a somehow similar approach. The building is lifted from the ground to create an open ground floor as a void, therefore it is welcoming people from all directions [Fig. 05].

On the edge of the "Gebouw 0" building, the empty gap is bigger to form an opening [Fig. 07]. This approach is also close to OMA's Casa da Musica where instead of having a hanging box and an open space, the void is created by cutting some pieces from the solid structure [Fig. 08].

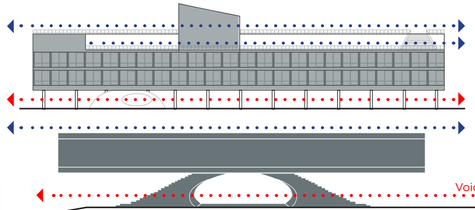


FIG. 04. Kataoma Elevation Vs. Prada Epicenter Concept

Superimposition

This concept is not always applicable to projects since there is a need for a multi-story building. This concept was one of the reasons I have chosen projects from META since most of the other projects where single-story housing. In figure 06, the comparison between the plans of "New Museum" from OMA is compared to the "Gebouw 0" by META. The plans of The New Museum, are juxtaposed very differently over each other and they create a complex spatial experience. The stairs and ramps in the building are positioned in a way that creates different circulation. The same pattern of superimposing but milder in a way, can be seen in the arrangement of the "Gebouw 0" plans. The structure of the plan here is more strict, especially the outer layer of the plan is fixed. Another point regarding this concept is the way different programs are layered in different stories which creates different experiences while walking within the building. Also, the voids within the buildings offer vision connection in different stories. Both buildings use this approach, while Meta uses a simple square void in the center of the plan, OMA works with different elements such as staircases, ramps, and reflections.

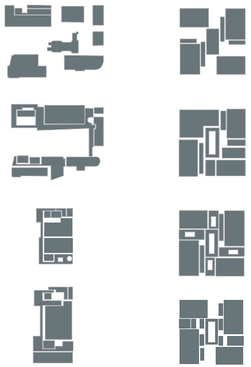


FIG. 06. "New Museum" Plans (left) Vs. "Gebow 0" Plans (right)

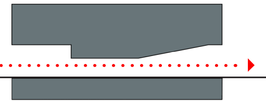


FIG. 05. "Gebouw 0" Concept

Aside from different patterns of plans, one other aspect which plays an important role in creating scenography for OMA in The New Museum was the notion of "Narrative Loops" which are different routing patterns with a variety of entrances that let people in from different locations so they can plan their visit using the paths of their own choosing and experience the museum in a variety of options. In addition to the paths, the forms are shifted throughout the building, therefore, people never have a similar experience while walking along the paths. There are also 2 main loops within the complex: Horizontal and Vertical. The Horizontal loop is in a way a signature in OMA projects, a path that connects different buildings together and provides visitors a full circulation of the complex (Fig. 09).

FIG. 07. "Gebouw 0" Entrance

Congestion

One of the important aspects of congestion is creating a place for people to meet and both projects provide such spaces. The New Museum with its "City Room" [Fig. 09] which is an open urban space designed in a void where it offers an interaction place for the public. The "Gebouw 0" in general is a building where people from different faculties can come to meet and use the auditoriums, lecture rooms, and laboratories. As mentioned before, the reason the building is lifted up and the ground floor is open from different sides servers this meeting function.

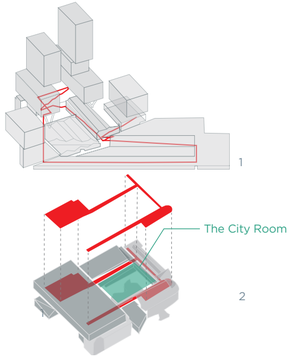


FIG. 09. Horizontal Loop in the VDMA Project (1) Vs. The "New Museum" (2)

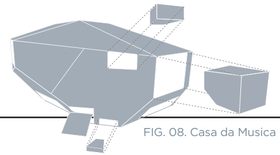


FIG. 08. Casa da Musica

THEME 2:
EINDHOVEN SCHOOL

Introduction

To begin with Eindhoven school we need to know about Delft which was established in 1905. The general impression of Delft can be summarized in a few key notions: Traditional, elite, technology underexposed and Delftse school style. In contrast, there was Eindhoven school from 1967. Architecture in Eindhoven School was at the same level as other fields in contrast to Delft where Architecture was on top and other disciplines were somehow secondary. Moreover, there is no "school" in Eindhoven School! Therefore, there is no style either. As a result, the outcome of the projects was diverse since they did not follow a style. However, their approach can be put into the category of rationalism [1]. Such as the works of John Habraken with his strict "level" concept which illustrated different levels and scales in designing [Fig. 01] [2].

In Eindhoven School, the approach is considered to be modest and down to earth. Maybe this approach can be linked to the importance of craftsmanship. Another important characteristic of Eindhoven School is their respect for the ordinary which is the result of being straightforward and being to the point [3].

Fig. 01. The "Level" Concept by John Habraken.
1. The different level of spatial organization design and its relation to hierarchy territory
2. The different level of spatial organization design and the control distribution: A single user has control over the furniture but is not the only person in control regarding the building organization.
3. The different level of spatial organization design and the control distribution based on "site and service" program (shelters for homeless people)
4. The different level of spatial organization design and the control distribution based on "core house: program (The professional build the house, the users further expands it)[4].

Comparison

A very interesting opportunity was created in this series of lectures and it was that 2 people from Eindhoven School's generation, Paul Diederen and David Gianotten, presented 1 project (VDMA) in their separate lecture. This provided a unique moment to compare their approach in making architecture and also to observe how they present the same project, what vocabulary they use and what part of the design process renders more important to them.

I will demonstrate the presentations chronologically, from David Gianotten and then Paul Diederen, covering the pattern of how they illustrated the VDMA project and finally I will make a conclusion of their approaches to this specific project. Then I will follow on the traits of Eindhoven School on their other projects to try and grasp on the similarities and differences of their attitude and how far they have a connection to their ancestors, i.e. Eindhoven School.

David Gianotten

Gianotten, Presented the VDMA as his third and final project of the lecture. He began by giving the description of the site and what other functions are located at the surrounding. He then followed on with a quick description of how they worked on this project alongside some of the local architects, namely, Paul Diederen and others. He continued by moving straight to give an explanation about how they have identified the program and illustrated the notions of high-rise buildings and sustainability. The rest of the explanation circles around the idea of the micro forest which was created in the void and the application of various programs such as apartments, offices, innovative-inspiring lab, and public spaces.

So far we had all the scenography notions back again, void, public access and combination of different programs or congestion and finally is the superimposition which is iconic but similarly presented as a connecting ramp which circles around the complex and connects different functions together, from the forest to the high-rise area.

Gianotten keywords

Program, Public, Void, Loop, Connection, Program, Us, Program, We.

Paul Diederen

In contrast to Gianotten who ended his presentation by VDMA, Diederen started his lecture with it. He did so by giving a comprehensive summary of the history of the Eindhoven Ring and how small villages developed and grew and joined to create this ring. It is worth mentioning that Diederen quoted one of his lecturers, Geert Bekaert: "The present is always linked to the past" and I believe this link to history is also present in Diederen's way of presenting and designing. After the history lesson, he focused on some examples of Eindhoven building types (high-rise) and gave descriptions regarding their characteristics.

He finally moved on to VDMA with a clear explanation of their collaboration with OMA following by their role in the design process. The key topics for Diederen in relation to this studio can be summarized on how this project can represent characteristics of the Eindhoven from bringing back the lost nature to connecting the plot with the surroundings.

Diederen keywords

History, Eindhoven, development, story, Eindhoven, Heritage, expose.

Gianotten vs Diederen

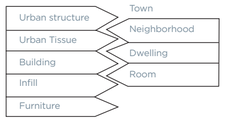
According to the above comparison, it could be seen that the humble and straightforward approach of Eindhoven School is still traceable even in the vocabulary of Paul Diederen. The way he mentioned OMA and their collaboration and his way of framing his sentences in such a way to present their role as designers who want to help explore the potentials of Eindhoven and help in exposing them, shows their down to earth characteristics. They were concerned about what is good for Eindhoven and how they can play a role in the design process to achieve this improvement.

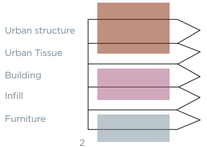
In contrast, Gianotten's way of using phrases such as "programmed by us" or "we identified it", illustrate their international approach towards the designing process. It seems for me that "the program" is the key topic in most of their design and it governs the design process.

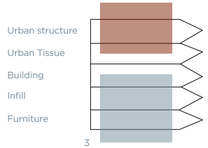
Focusing on Paul Diederen's presentation, I cannot help but be reminded of the term "bringing-forth" ["poiesis"], introduced by Heidegger when he writes about the essence of technology. He explains a kind of creation that is embedded by exploring the potentials and possibilities of nature which can be revealed by men [5].

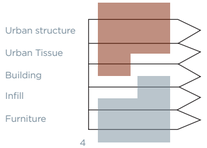
I can see a link between Diederen's approach of making architecture and the concept of "bringing-forth" by the way he emphasised on the role of history and the characteristics of the city of Eindhoven.

On the other hand, it is the world-view from a mere lens of science which creates an illusion for humans that they are in absolute control while using technology as means to an end [6]. This view is also somehow visible (probably not in a very strong way) in Gianotten's approach and vocabulary and the way he is in the position of action, programmer, director and identifier.









Next Step Comparison

To further the comparing process, perhaps it is good to investigate the reasons these differences between 2 ways of approaching architecture can occur. One assumption can simply be that David Glanotten, working at OMA has adopted the same characteristics as the office, with the same international pattern of thinking and creating. On the other hand, the much local office of Diederendirrix are still bound to their historical background. My reason for this assumption is that, if we consider the architecture of OMA before the involvement of David Gianotten, we still can find the same traits in their design [Fig. 02 Vs. Fig. 04] and even presentation [Fig. 03 Vs. Fig. 05].

Fig. 02. De Rotterdam - 1997-2013

Fig. 03. White City - 2006

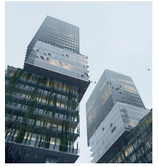


Fig. 04. VDMA - 2019

Fig. 05. VDMA - 2019

Eindhoven School Characteristics

1. Rationality and Straightforwardness

✓ **Paul Diederen**

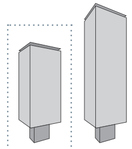


Fig. 06. De Nieuwe Einhoven, Rational Forms and Rational Decision Making70 m² vs 105 m²

✗ **David Gianotten**

Fig. 07. Casa da Musica: Exotic Forms

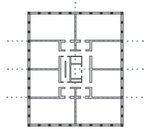


Fig. 08. De Nieuwe Einhoven, Plan Type A: Rational Grids

Fig. 09. The "New Museum" Plan: More Exotic than Rational

2. Modest

✓

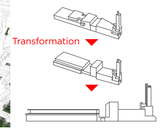


Fig. 10. DIEPEVEEN & CO building: A Transformation with Respect to History

✗

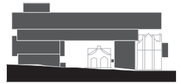


Fig. 11. The "New Museum" Extension: The new Extention Over Powers the old Buildings.

THEME 3:
C I R C U L A R I T Y

Circular Economy
The notion of circularity and more specifically, circular economy, has been a popular topic in recent years. There are various definitions for these terms which share a core idea. A general description is that "A circular economy is an economic system of closed loops in which raw materials, components and products lose their value as little as possible, renewable energy sources are used and systems thinking is at the core" [1]. In comparison to the linear economy where the sources are used and then turned into waste, the circular economy aims to minimise the input and output, but keep the resources in the cycle.

An interesting perspective offered from Slavoj Zizek, is that the ecological ideologies are not enough to face the serious ecological threads since their main function is to make people feel good as they have been doing a good deed such as recycling their waste [2]. Accordingly, there is a need for a new way of thinking and much harsher actions to help us face these dilemmas.

Circular Building
Along the process of creating a circular economy, the construction sector plays an important role since the materials and resources used in this segment are comparatively high. There are different ways to promote circularity in the building industry. "Doing the most with the Least '' was Buckminster Fuller's approach as one of the first few who thought about efficiency in the construction system. The circularity in the building sector can be achieved by deploying a variety of approaches, from the use-reuse aspect to reducing environmental pollution either with reducing carbon emission and thinking about materiality and such. There are a variety of principles and rules to be implemented from the circular economy to the built environment and one of them is the 6R principle; Retain, Refit, Refurbish, Reuse, Re-manufacture and Recycle. At the heart of these approaches, 5 main topics towards building are created: 1. Building in layers, 2. Designing-out waste, 3. Designing for adaptability, 4. Designing for disassembly, 5. Selecting Materials [3].

To illustrate some of these 5 features, 2 projects from 2 different lecturers have been chosen. Hilberinkbosch Architecten with their "Sixteen Oak Barn '' project with a focus on materiality and in comparison, the META Architecture with their "Montignystraat 25" project and a focus on modularity, design for adaptability.

Sixteen Oak Barn
This project, done by Hilberinkbosch Architecten, can be investigated through the lens of materiality in circularity. The main concept of this project was established when a few of the oak trees of the surrounding site were meant to be cut down. The architects decided to make use of the trees and create a functional space close to their studio. Finally the building was made out of 16 oak trees, concrete foundation and glass. The interesting fact about this design is not merely the fact of using a renewable resource such as wood, but the way the materials are being treated.

To begin with, Hilberinkbosch Architecten, took into account the imperfectness of materials. With this in mind, small flaws such as discolouration of the wood, or the fact that the beams are not straight but tilted and have visible cracks, not only didn't reduced the value of the material for them, but also played an important role in creating a unique atmosphere. This approach is not always conceivable specifically when there are various stakeholders present. For example, the HCVA Architecture firm, while working on the De Lakenhal Museum, had ordered a prefab ceiling element that had to be returned since the concrete surface was not clean and perfect. This is understandable since the client has expectations and within the context of a museum, if elements appear in a specific manner, they will assume to bear meaning within them. On the other hand, with the 16 Oak Barn project, since the client was the architect herself, then such small imperfection did not resulted in reproducing the product. This attitude results in less used material and at the same time, welcomes new features in the final outcome.

Moreover, aside from the material ethics that is visible throughout this design, the firm made plans for using 100% of the provided woods. From the massive elements, such as thick wooden beams and columns, to the wall structure, window frames and roof shakes [FIg. 01 and Fig. 02] were made from wood. The use-plan even went further into implementing the outer wooden layer of the tree trunk in the concrete cast, to create a unique texture for the outer walls [Fig. 03]. The same measure was used to create concrete moulds with softwood which had iron traces that resulted in blue patterns in the finished concrete wall [Fig. 04]. Finally, the remaining wood was stored to be used in the fireplace which works as the only warming device in the space.

SIXTEEN OAK BARN STORY

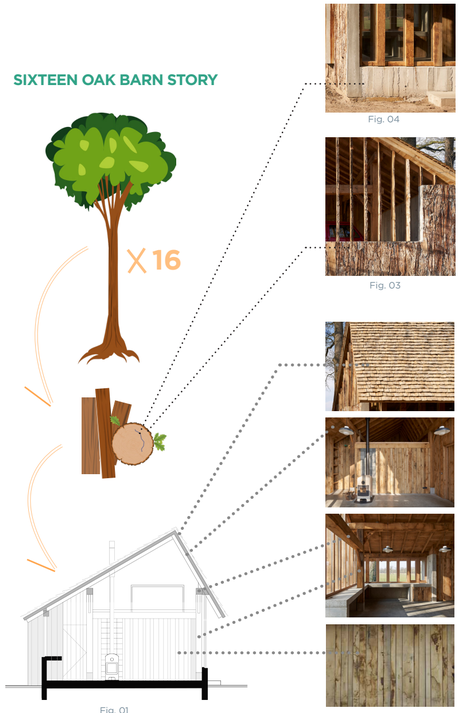


Fig. 01 Fig. 02 Fig. 03 Fig. 04

Montignystraat 25
The specific characteristic notion regarding this project is its "generic plan" which is presented as "one plan fits all" by META Architecture. This aspect is related to the topic of "Design for adaptability" in the sense that this building can be used for various functions in the future. This is the result of having an open plan which can accommodate different spaces within it, from an office to an apartment or even a shop [Fig. 08]. To achieve this open plan, META used the facade as a structural element, therefore the whole interior is one whole space that can be divided by the use of partitioning walls to become suitable for different uses. Consequently, this approach will increase the lifespan of the building.

Regarding the construction of the facade, a prefab concrete module [Fig. 05] was designed and repeated throughout the building [Fig. 06 and Fig. 07]. With having the modules pre-made, the installation process will be easier and not relevant to weather conditions [4]. "Conceiving and detailing the raw building extensively makes it usable in the final building. This strategy leads to lower material use and larger adaptability and durability" [5].

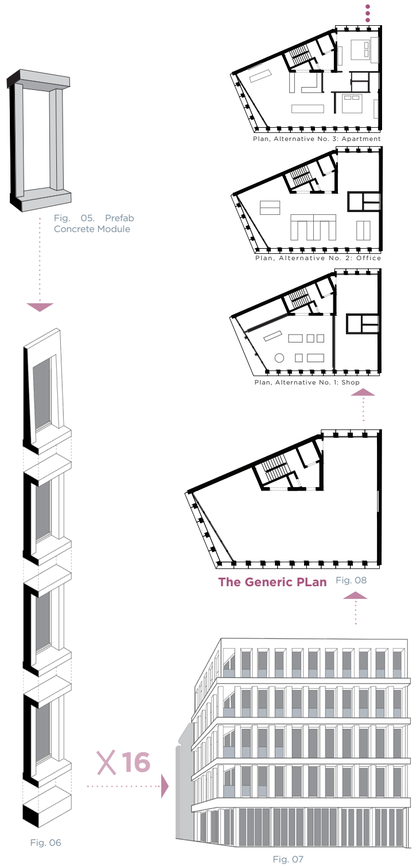


Fig. 05. Prefab Concrete Module
Fig. 06
The Generic PLan Fig. 08
Fig. 07

THEME 4:
GENIUS LOCI

Introduction

The Term Genius Loci initially refers to the spirit of a place. It is clear that when there is a talk about place, it could easily be linked to the realm of architecture. Christian Norberg Schulz, following the framework of Heidegger, uses this term to create a new existential understanding of architecture [1]. In general, Genius Loci refers to the characteristic of a place that plays an important role at the time of a man-made transformation. If the man-made places are in harmony with the landscape's features, then the genius loci will flourish. Accordingly, designers should be aware of different characteristics that exist in different natural landscapes and they should be able to recognize the qualities of the context. "Architecture means to visualize the genius loci, and the task of the architect is to create meaningful places, whereby he helps men to dwell" [2].

An important aspect to mention is that Genius Loci is not always visible but it needs study and conscious action. After 1960, there was a gap between 2 different approaches regarding the genius loci. First was Ernesto Rogers who sought to refer to the sense of place directly through the shape of his buildings. On the other hand was the approach of Smithsons who were keen to create a new artificial sense of place. This view seems to be evolving through modernity and good examples are mega-structures such as airports, giant buildings or complexes that are autonomous in their functions and they are conceived as a place disconnected from their surroundings, thus creating their own sense of place. Within this concept, the genius loci is no more an existing quality, but an artificial man-made one [3]

The theory of Bigness, introduced in the book S ,M ,L ,XL by Rem Koolhaas, is in the line of the artificial genius loci. This idea is somehow the result of the theory of "congestion" mentioned in "Delirious New York" . When a building is accommodating various programs and it is functioning as a city, then it will acquire a big space. There are 5 criteria mentioned as the result of bigness which in summary suggest that beyond a certain size, the distance between the envelope and the core of the building becomes too large, that what happens within the building cannot be revealed via the facade. Consequently, "Bigness is no longer part of any urban tissue. It exists; at most, it coexists. Its subtext is *fuck* context" [4].

To explore this concept more within the lectures and the given example projects, one side of the comparison should be OMA for 2 reasons. Firstly, the idea of bigness and congestion is visible in a number of their designs therefore it will be interesting to explore how a building can survive without relating to its context. Secondly, the OMA was the only international office among other lecturers, so it will also be the comparison between local and Global. The next party will be HCVA for the particular reason that Paul Verhoeven specifically mentioned that: " We do not fuck the context, we like the context. So we are the opposite. [...] So we really want to understand the context, we like to read it, [...] and the more complex the context is, the more we like it" [5]. Therefore, it is interesting to see how they approach genius loci in the "De Lakenhal" project within a complex urban context.

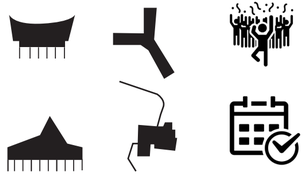


Fig. 01. Indonesian Architecture

Fig. 02. Neighbouring Resort Typology

Fig. 03. Calander for festivals

Fig. 04. Kataoma Elevation: Public Spaces

Materiality

Fig. 05. Local Materials: Brick, Wood, Concrete

Fig. 06. Corridors with "Tika" Details

The Kataoma Resort by OMA

The Kataoma resort is located on the island of Bali in Indonesia, very close to the beach. The approach of OMA in this project, in my opinion, can be divided into 2 different parts. The first part is regarding the program and the research of the making of this project which is in line with the concept of locality. On the other hand, the second part is the tectonic design of the hotel, which in general can still be traced to the international approach of OMA.

To begin with, The research regarding the program of this resort can be divided into 4 chapters:

1. Exploring the Indonesian architecture [Fig. 01] and finding a common approach among them. The result was the elevated building which offers numerous benefits in regards to the geographical locations, such as more air circulation and safety from animals and insects.
2. The study of the typology of the neighboring resorts [Fig. 02] with the conclusion that mainly the hotel areas are in-closed spaces where the public are not welcome. In contrast, for the Kataoma hotel, OMA offered public accessibility.
3. The research into the festivals and cultural events of Bali [Fig. 03] resulted in a program calendar for the resort, dedicating times for a variety of events that would take place within the hotel's grounds.

All these 3 criteria worked in harmony together; an elevated building would open up the opportunity of an open ground floor which could be dedicated to the events and festivals within the program calendar and everything offered in the ground level, as well as the rooftop level, can be accessed by the public [Fig. 04].

4. The final research was more about the construction process and more than the other 3 can make a connection to the concept of locality. The materials used for the construction of this building were provided by the local resources [Fig. 05]. The sand for the concrete was gathered from the Beaches, the woods and also the bricks were all locally produced. Moreover, the craftsmen working on this project were local as well. This aspect eventuated in the creation of buildings whose materials create a harmonious connection to the local atmosphere. An interesting detail in the corridors of the hotel which leads to the guest rooms is the use of "Tika " symbols that refers to the Balinese calendar, which created a wall with small voids all over that lets filtered light into the corridors. This creates a beautiful pattern of light and also, it filters the breeze into the rooms. These details in materiality and programming is well integrated within the Balinese context [FIg. 06].

However, focusing on the second part of the design, namely the tectonic expression of the building, it somehow refers to a generic form that can be used in any other place. Moreover, the closed cubic form of the hotel does not fit into the open context of Bali houses. From the experience of living in Bali for 4 months, I always found it hard to define the borders between houses and where the territory of one house stops and the other begins. Also, looking at the images taken from the city and especially in the region of Seminyak, it could be seen that the only massive structure is the Kataoma resort, with its strong presence next to the beach and probably, the "W" hotel next to it, with its slightly less impressive existence. With these features in mind, and not considering the story behind the locality of the materials, by just looking at this hotel, I find it hard to relate it to the spirit of Balinese context.

De Lakenhal Museum by HCVA

The Lakenhal Museum was a restoration project in which some new parts were added to the existing buildings. This project was very interesting since the museum is located in a dense urban context, therefore the architect should fit the new design into a row of houses and also create a harmonious connection to the existing building itself.

I have divided the approach of this project into 3 parts to investigate how it was managed to understand the genius loci of this place.

1. This part refers to the entrance of the cafe which is located next to the main entrance of the museum. This facade is made of Petersen Brick which has a patina effect and it blends in well to the neighborhood [Fig. 08] while maintaining its identity. Also, the height of this part is a bit higher than the museum and lower than the left-side neighbor, therefore makes the increase in height of the row of houses gradual [Fig. 07].

2. In this part, mainly the interior of the museum was investigated. In most parts, the architects tried to bring back the original state of the museum before the recent renovation. The color of the building, the color of the elements such as staircases, the walls, etc were changed back to its original state. Moreover, the newly designed furniture is also in harmony with the design of the museum. Consequently, the museum, while being combined with old and new elements, feels like a whole [Fig. 09].

3. The main part of the new building belongs to its south facade. The approach in the design of this part of the building could fit into the "critical regionalism" concept when a modern building tries to find its identity in the middle ground of local and global approach. The material used in the facade (brick) [Fig. 11] and the zigzag pattern which refers to the saddle roofs of the neighboring houses somehow manages to get integrated into the context [Fig. 10].

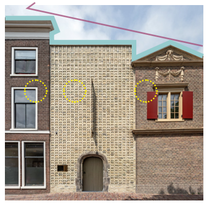


Fig. 07. De Lakenhal Cafe Entrance: Gradual increase in height

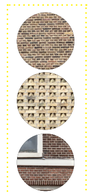


Fig. 08. Brick patterns

Fig. 09. Bringing back the original state

Fig. 10. De Lakenhal Museum, Sout Elevation

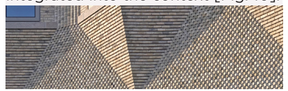


Fig. 11. Brick work

REFERENCES

PROJECT NO. 1: KATAOMA

PICTURES:
- Fig. 04, Fig. 05, Fig. 06: Gianotten, D. (2020), Constructing Architecture [PowerPoint Slides]

DRAWING:
- Fig. 01, Fig. 2, Fig. 03: All these drawings were re-drawn and/or edited from the original source: Gianotten, D. (2020), Constructing Architecture [PowerPoint Slides]

TEXT:
- [1] Gianotten, D. (2020), Constructing Architecture [PowerPoint Presentation]

REFERENCE PROJECT NO. 1: KATAOMA VS. VILLA SAVOYE

PICTURES:
- Fig. 01, Simon, M. S. (2016.). Villa Savoye [Photo]. Retrieved from https://www.khanacademy.org/humanities/ap-art-history/later-europe-and-americas/modernity-ap/a/corbusier-savoye
- Fig. 04: Gibson, E. G. (2016). Untitled [photo]. Retrieved from https://www.dezeen.com/2016/07/31/villa-savoye-le-corbusier-poissy-france-modernist-style-unesco-world-heritage/
- Fig. 05: Gianotten, D. (2020), Constructing Architecture [PowerPoint Slides]

DRAWING:
- Fig. 02, Fig. 04: The drawing was redrawn from an image from : Simon, M. S. (2016.). Villa Savoye, plan [Photo]. Retrieved from https://www.khanacademy.org/humanities/ap-art-history/later-europe-and-americas/modernity-ap/a/corbusier-savoye
- Fig. 03, Fig. 05, Fig. 08: This drawing was re-created from the original source: Gianotten, D. (2020), Constructing Architecture [PowerPoint Slides]
- Fig. 06. This drawing was re-drawn from the original source: Kalgovas, B. (z.d.). Project 2 - Villa Savoye Critical Analysis. Geraadpleegd op 10 april 2020, van http://arch1201designstudio3.blogspot.com/2011/05/project-2-villa-savoye.html

PROJECT NO. 2: SIXTEEN OAK BARN

PICTURES:
- Fig. 03, Fig. 04, Fig. 05, Fig. 06: Hilberink, A. (2020), Haphazard Esthetics: embracing coincidences [PowerPoint Slides]

DRAWING:
- Fig. 01, Fig. 02, Fig.07: These drawings were re-drawn and/or edited from original source: Hilberink, A. (2020), Haphazard Esthetics: embracing coincidences [PowerPoint Slides]

REFERENCE PROJECT NO. 2: SIXTEEN OAK BARN VS. LONGDROP AND AAA

PICTURES:
- Fig. 01: Longdrop. (z.d.). [photo]. Retrieved from http://www.invisiblestudio.org/selected_work/longdrop/
- Fig. 03: Hilberink, A. (2020), Haphazard Esthetics: embracing coincidences [PowerPoint Slides]
- Fig. 04: "Voice of Coffee / Yusuke Seki" 03 Jul 2018. ArchDaily. Accessed 15 Apr 2020. Retrieved from <https://www.archdaily.com/897330/voice-of-coffee-yusuke-seki/> ISSN 0719-8884

DRAWING:
- Fig. 02: The drawing was re-created from the original source: Longdrop. (z.d.). [photo]. Retrieved from http://www.invisiblestudio.org/selected_work/longdrop/
- Fig. 05: The drawing was re-drawn and edited from the original source: Hilberink, A. (2020), Haphazard Esthetics: embracing coincidences [PowerPoint Slides]
- Fig. 06. The drawing was re-drawn and edited from the original source: "Voice of Coffee / Yusuke Seki" 03 Jul 2018. ArchDaily. Accessed 15 Apr 2020. Retrieved from <https://www.archdaily.com/897330/voice-of-coffee-yusuke-seki/> ISSN 0719-8884

PROJECT NO. 3: DE LAKENHAL MUSEUM

PICTURES:
- Fig. 01, Fig. 04, Fig. 05, Fig. 10, Fig. 11, Fig. 12: Verhoeven, P. (2020), Constructing Architecture [PowerPoint Slides]

DRAWING:
- Fig. 02, Fig. 03, Fig. 06, Fig. 07, Fig. 08, Fig. 09: These drawings are re-drawing and/or edited from the original source: Verhoeven, P. (2020), Constructing Architecture [PowerPoint Slides]

REFERENCE PROJECT NO. 3: THE JANSKERKHOF 2-3A

PICTURES:
- Fig. 05: MARX&SKETETEE architecture bv. (z.d.). Het vernieuwde Janskerkhofcomplex. Retrieved from https://daf9627eib4jq.cloudfront.net/app/uploads/
- Fig. 06: Verhoeven, P. (2020), Constructing Architecture [PowerPoint Slides]
- Fig. 08, Fig. 09: The Vlaardingerbroek & Wevers. (2004). Janskerkhof building history value assessment. Utrecht: The Vlaardingerbroek & Wevers

DRAWING:
- Fig. 01, Fig. 03: These drawings are re-drawing and/or edited from the original source: Verhoeven, P. (2020), Constructing Architecture [PowerPoint Slides]
- Fig. 02, Fig. 11: These drawings were re-creted from the original source: The Vlaardingerbroek & Wevers. (2004). Janskerkhof building history value assessment. Utrecht: The Vlaardingerbroek & Wevers.
- Fig. 04, Fig. 07: These drawings were re-drawn from the original source provided by the architect, Ady Steketee.

TEXT:
[*] All the information regarding the Janskerkhof building was provided by the architect of the final transformation, Ady Steketee, from MARX&STEKETEE architecture firm.

PROJECT NO. 4: MONTIFNYSTRAAT 25

DRAWING:
- Fig. 01, Fig. 03, Fig. 04, Fig. 05, Fig. 07: These drawings are re-drawn from the original source: Deboutte, N. (2019), Making Architecture [PowerPoint Slides]
- Fig. 02: This drawing was edited from the original source: Deboutte, N. (2019), Making Architecture [PowerPoint Slides]
- Fig. 06: Deboutte, N. (2019), Making Architecture [PowerPoint Slides]

Text:
- [1], [2], [3]: Deboutte, N. (2019), Making Architecture [PowerPoint Presentation]

REFERENCE PROJECT NO. 4: THE IM BIRCH SCHOOL

PICTURES:
- Fig. 01, Fig. 03: Www.archipicture.eu - Peter Mrkli - "Im Birch" School Building. (z.d.) [photo]. Retrieved on 11 april 2020, from http://www.archipicture.eu/Architekten/Schweiz/Maerkli%20Peter/Maerkli%20Peter%20-%20School%20Im%20Birch%20Zuerich%20Oerlikon%202.html
- Fig. 02: Deboutte, N. (2019), Making Architecture [PowerPoint Presentation]

TEXT:
- [1]: Www.archipicture.eu - Peter Mrkli - "Im Birch" School Building. (z.d.-b). Geraadpleegd op 11 april 2020, van http://www.archipicture.eu/Architekten/Schweiz/Maerkli%20Peter/Maerkli%20Peter%20-%20School%20Im%20Birch%20Zuerich%20Oerlikon%202.html

REFERENCES

THEME NO. 1: SCENOGRAPHY

TEXT:
- [1]: Colenbrander, B. (2019), Full Circle [PowerPoint Presentation]
- [2]: Schröder, T. and Willems, M. (12 February 2020), Conctructing Architecture, Lecture 2: Scenography [PowerPoint Presentation]
- [3]: Architecture, O. F. M., Sigler, J., Werlemann, H., & Office for Metropolitan Architecture. (1995). Small, Medium, Large, Extra-large. Amsterdam, Nederland: Amsterdam University Press.
- [4]: Koolhaas, R. (1994). Delirious New York. Amsterdam, Nederland: Amsterdam University Press.

PICTURES:
- Fig. 07: Deboutte, N. (2019), Making Architecture [PowerPoint Slides]

DRAWING: All of the drawings mentioned here are re-drawn and edited from the original sources.
- Fig. 01, Fig. 2: : Kroll, A. (2011, 25 januari). AD Classics: Maison Bordeaux / OMA. Retrieved on 28 march 2020, from https://www.archdaily.com/104724/ad-classics-maison-bordeaux-oma
- Fig. 03: Downtown Athletic Club, Section. (z.d.). [Photo]. Retrieved from https://www.sportspace.eu/wp-content/uploads/2013/07/54_downtown_athletic_club1.jpg
- Fig. 04, Fig. 08: Schröder, T. and Willems, M. (12 February 2020), Conctructing Architecture, Lecture 2: Scenography [PowerPoint Slides]
- Fig. 06, Fig. 07: Deboutte, N. (2019), Making Architecture [PowerPoint Slides]
- Fig. 06, Fig. 09: Schröder, T. and Willems, M. (12 February 2020), Conctructing Architecture, Lecture 2: Scenography [PowerPoint Slides]

THEME NO. 2: EINDHOVEN SCHOOL

TEXT:
- [1], [3]: Willems, M. (19 February 2020), Conctructing Architecture, Week 3: Eindhoven School? [PowerPoint Presentation]
- [2], [4]: Habraken, N. J. The Uses of Levels, keynote address, Unesco Regional Seminar on Shelter for the Homeless, Korea, November 1989, pp.7-12.
- [5]: Heidegger, M. (2013). The Question Concerning Technology (1ste editie). New York, New York: Harper Perennial.
- [6]: ibid.

PICTURES:
- Fig. 03: White City. (z.d.). Geraadpleegd op 10 april 2020, van https://oma.eu/projects/white-city
- Fig. 04, Fig. 05: Gianotten, D. (2020), Constructing Architecture [PowerPoint Slides]

Drawings:
- Fig. 01: The drawing is re-drawn from the original source: Habraken, N. J. The Uses of Levels, keynote address, Unesco Regional Seminar on Shelter for the Homeless, Korea, November 1989, pp.7-12.
- Fig. 06, Fig. 08, Fig. 10: These drawings were re-drawn and/or re-created from the original source: Diederen, P. (19 februari 2020), Resilient Architecture [PowerPoint Slides]
- Fig. 07, Fig. 09, Fig. 11: These drawings were re-drawn and/or re-created from the original source: Gianotten, D. (2020), Constructing Architecture [PowerPoint Slides]

THEME NO. 3: CIRCULARITY

TEXT:
- [1]: Circular economy: a definition and most important aspects. (z.d.). Retrieved on 12 april 2020, from https://kenniskaarten.hetgroenebrein.nl/en/knowledge-map-circular-economy/what-is-the-definition-a-circular-economy/
- [2]: The Radical Revolution. (2018). Zizek - Ecology and Consumerism [Videobestand]. Retrieved from https://www.youtube.com/watch?v=JM-3mTCLL7U
- [3]: Cheshire, D. (2016). Building Revolutions. Zaltbommel, Nederland: Van Haren Publishing.
- [4]: Montigny herbergt woon- en werkunits. (2016, 13 juni). Retrieved on 12 april 2020, from https://architectura.be/nl/nieuws/13924/montigny-herbergt-woon--en-werkunits
- [5]: META Architectuurbureau. (z.d.). Project: Woon- en werkunits Montigny Antwerpen. Geraadpleegd op 12 april 2020, van https://meta.be/en/projects/woon-en-werkunits-montigny-antwerpen

PICTURES:
- Fig. 02, Fig. 03, Fig. 04: Hilberink, A. (2020), Haphazard Esthetics: embracing coincidences [PowerPoint Slides]

Drawings:
- Fig. 01: This drawing was re-drawn from the original source: Hilberink, A. (2020), Haphazard Esthetics: embracing coincidences [PowerPoint Slides]
- Fig. 06, Fig. 08: These drawing were re-drawn from the original source: Deboutte, N. (2019), Making Architecture [PowerPoint Slides]

THEME NO. 4: GENIUS LOCI

TEXT:
- [1]: Norberg-Schulz C (1980). Genius Loci: Towards a Phenomenology of Architecture. New York, Rizzoli.
- [2]: ibid.
- [3]: Colenbrander, B. (2019), In the Valley of Geddes [PowerPoint Presentation]
- [4]: Architecture, O. F. M., Sigler, J., Werlemann, H., & Office for Metropolitan Architecture. (1995). Small, Medium, Large, Extra-large. Amsterdam, Nederland: Amsterdam University Press.
- [5]: Verhoeven, P. (2020), Constructing Architecture [PowerPoint Presentation]

PICTURES:
- Fig. 05, Fig. 06: Gianotten, D. (2020), Constructing Architecture [PowerPoint Slides]
- Fig. 07, Fig. 09, Fig. 11: Verhoeven, P. (2020), Constructing Architecture [PowerPoint Slides]

Drawings:
- Fig. 01, Fig. 02: These drawing were re-drawn from the original source: Gianotten, D. (2020), Constructing Architecture [PowerPoint Slides]
- Fig. 10: This drawing was re-created from an image in the source: Verhoeven, P. (2020), Constructing Architecture [PowerPoint Slides]