Cloud-based Teaching

Boris Bähre

Marco Hemmerling

AUTODESK UNIVERSITY

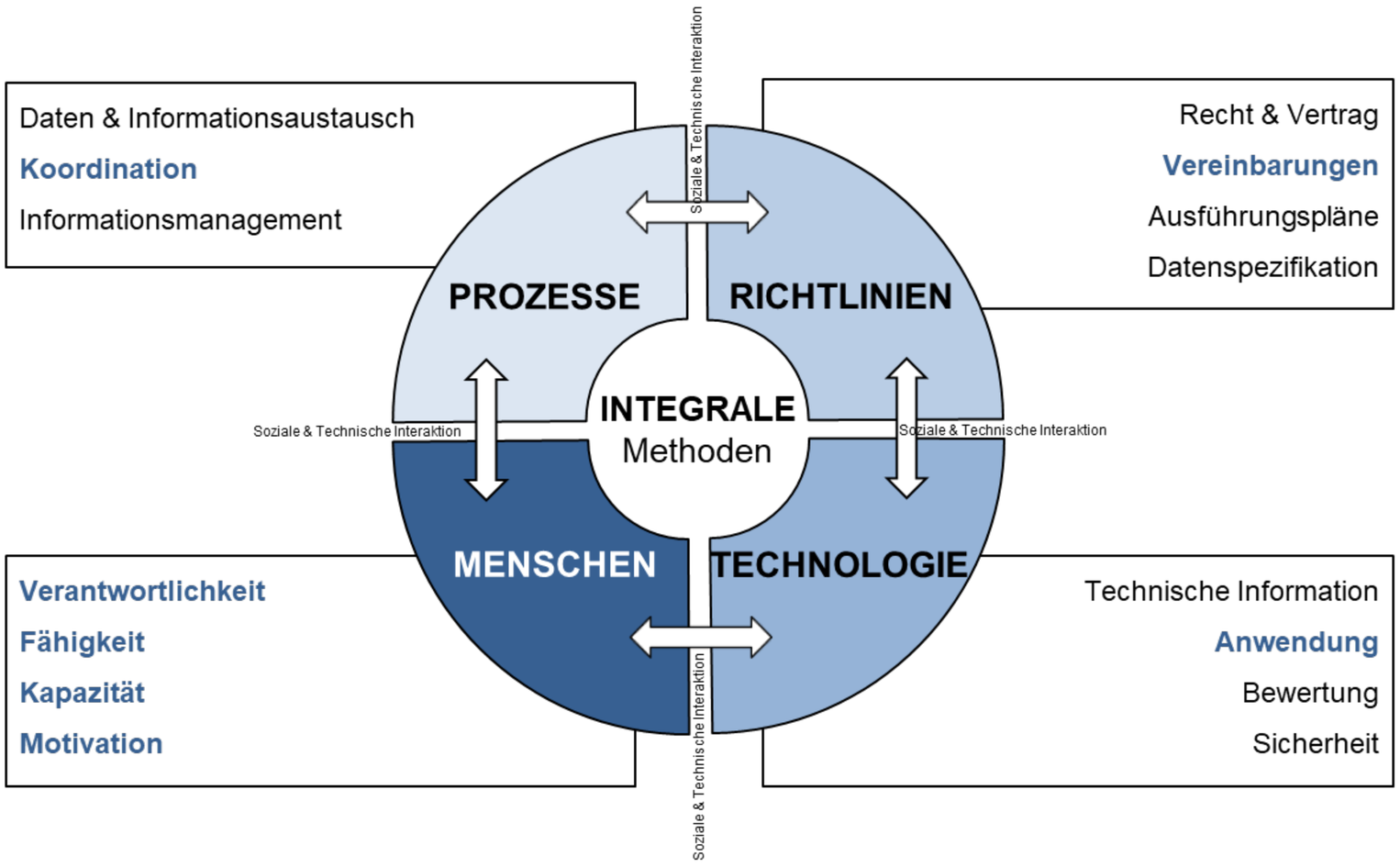
Learning from Bricks

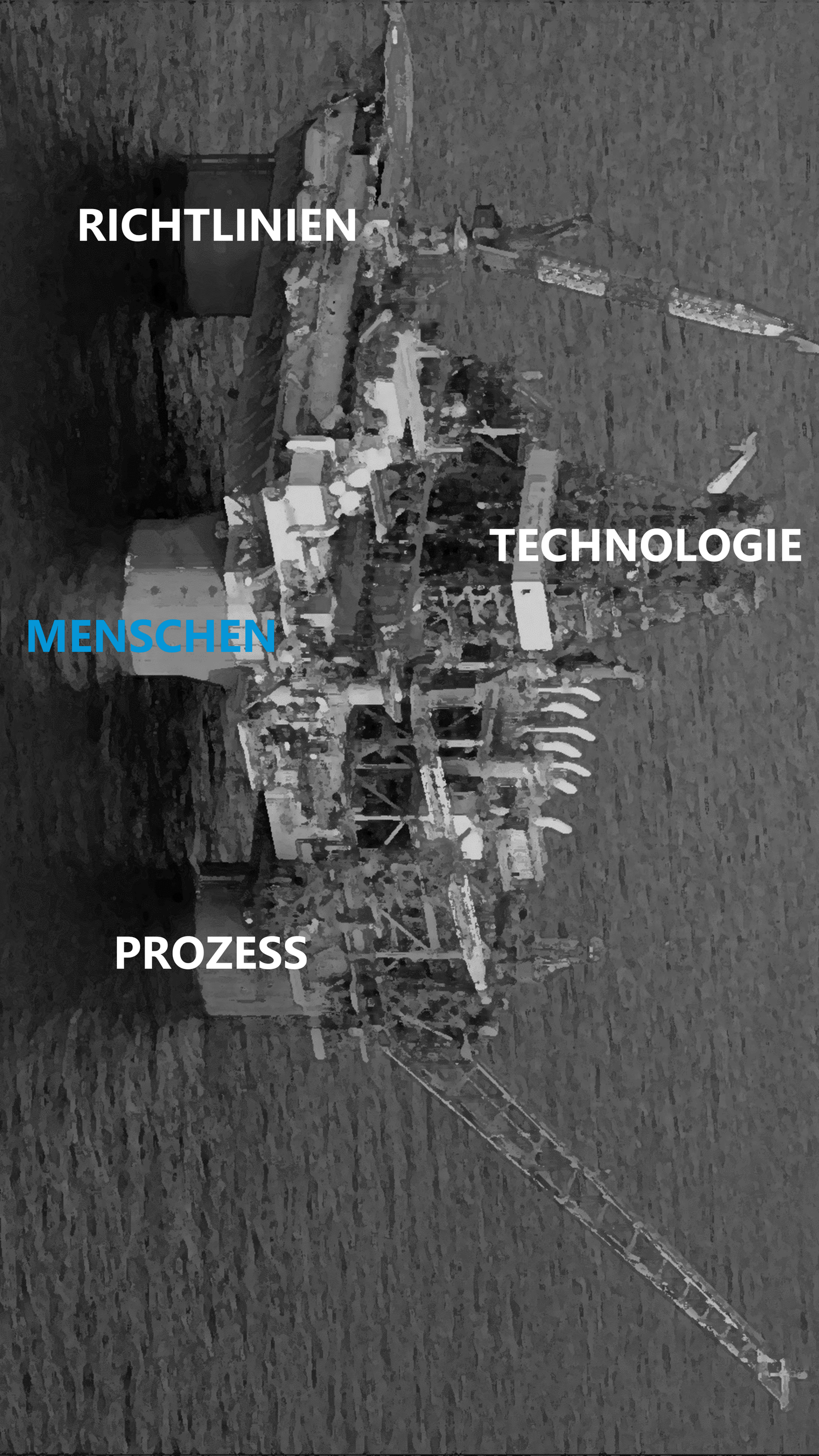
Boris Bähre

Dipl.-Ing., Architect (NL), Dozent & Forscher

AUTODESK UNIVERSITY

Grundlagen


Daten & Informationsaustausch
Koordination
Informationsmanagement
Recht & Vertrag
Vereinbarungen
Ausführungspläne
Datenspezifikation
Soziale & Technische Interaktion
PROZESSE
RICHTLINIEN
INTEGRALE
Methoden
Soziale & Technische Interaktion
Soziale & Technische Interaktion
MENSCHEN
TECHNOLOGIE
Verantwortlichkeit
Fähigkeit
Kapazität
Motivation
Technische Information
Anwendung
Bewertung
Sicherheit
Soziale & Technische Interaktion


RICHTLINIEN
TECHNOLOGIE
MENSCHEN
PROZESS


Die 4 Beine sind alle gleich wichtig...

Ich spreche jetzt meist über
Prozesse, Richtlinien oder Technologie…

Heute werde ich über uns sprechen…

…oder wie wir Menschen
erst einmal mit BIM umgehen lernen müssen.

Wie also mit diesem B.. beginnen?

Im Team!

Minor ‚Built Digital‘ (2 x 3months, 2 x 15EC‘s)

Hanzehogeschool Groningen University of Applied Sciences

Crash Course 2EC	Studio ‘GETTING THERE’ (Quarter1&3) Learning from Best Practices based on an existing site 6EC			Studio ‘GOING FROM THERE’ (Quarter2&4) Using Best Practices while redefining the site 6EC				Data Exchange 2EC
	BIM - Theory and Reality 2EC			BIM Management 2EC				
	Visual Programming 2EC	The ‘I’ in BIM 2EC		Physical Programming 2EC		Automation& Fabrication 2EC		
	ELECTIVES	TUD1/Hanze1	per elective 1EC	TUD2/Hanze2	per elective 1EC	TUD3/Hanze3	per elective 1EC	
		TUD2		TUD3		TUD1		
		TUD3		TUD1		TUD2		

Change of Designer

just one elective per student and quarter mandatory!

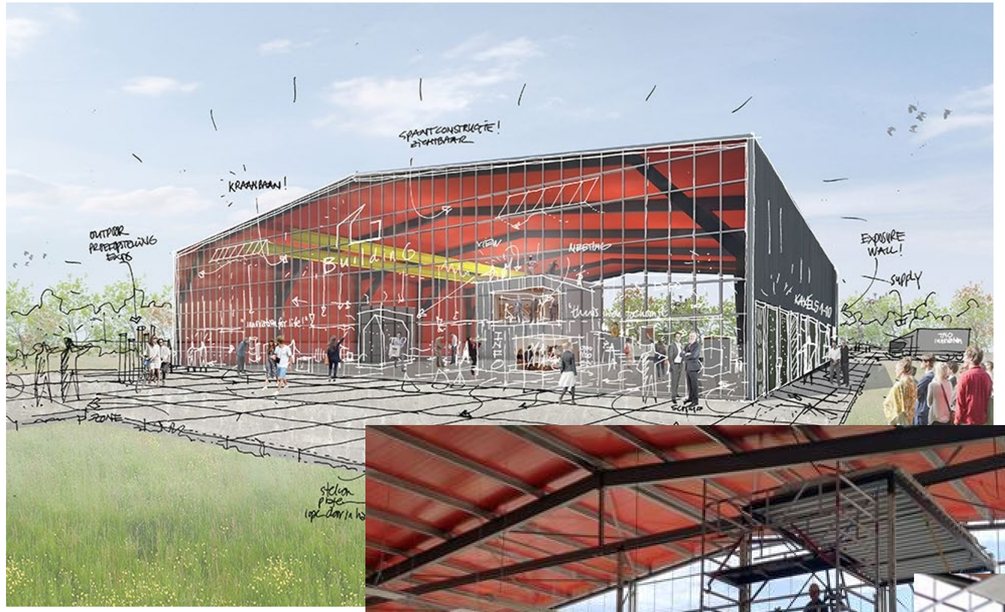
Electives:

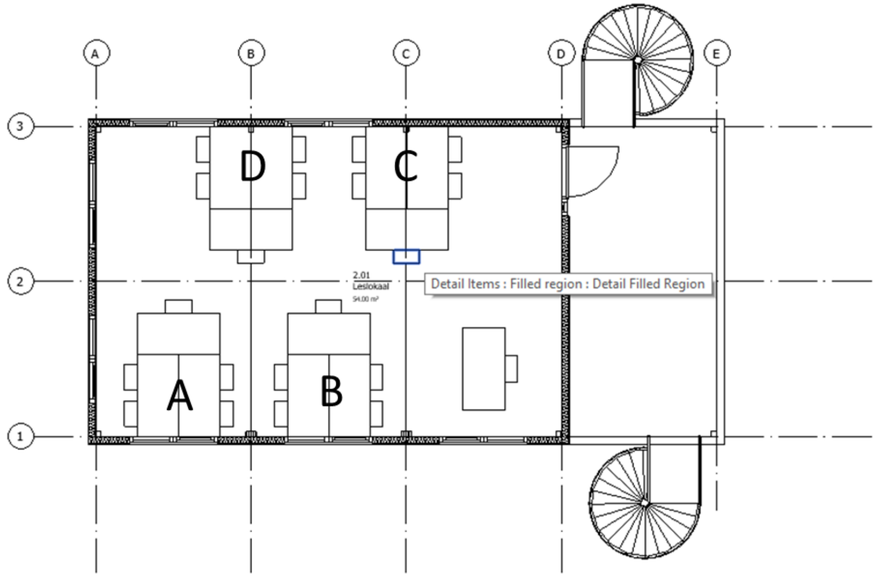
TUD1: Energy
TUD2: Ressources
TUD3: GIS

Hanze1: Earthquake
Hanze2: Circularity

TU Delft Delft University of Technology | Technology Arts Sciences TH Köln | Hanzehogeschool Groningen University of Applied Sciences | BE#

Ort


SPANTCONSTRUCTIE!
KRAANBAAN!
OUTDOOR RECREATIEVELD
EXPOSURE WALL!
SUPPLY
KAKELSMID


A
B
C
D
E
1
2
3
D
C
A
B
2.01
Leslokaal
Detail Items : Filled region : Detail Filled Region

mit der Wolke mit BIM360 Design

Student.One

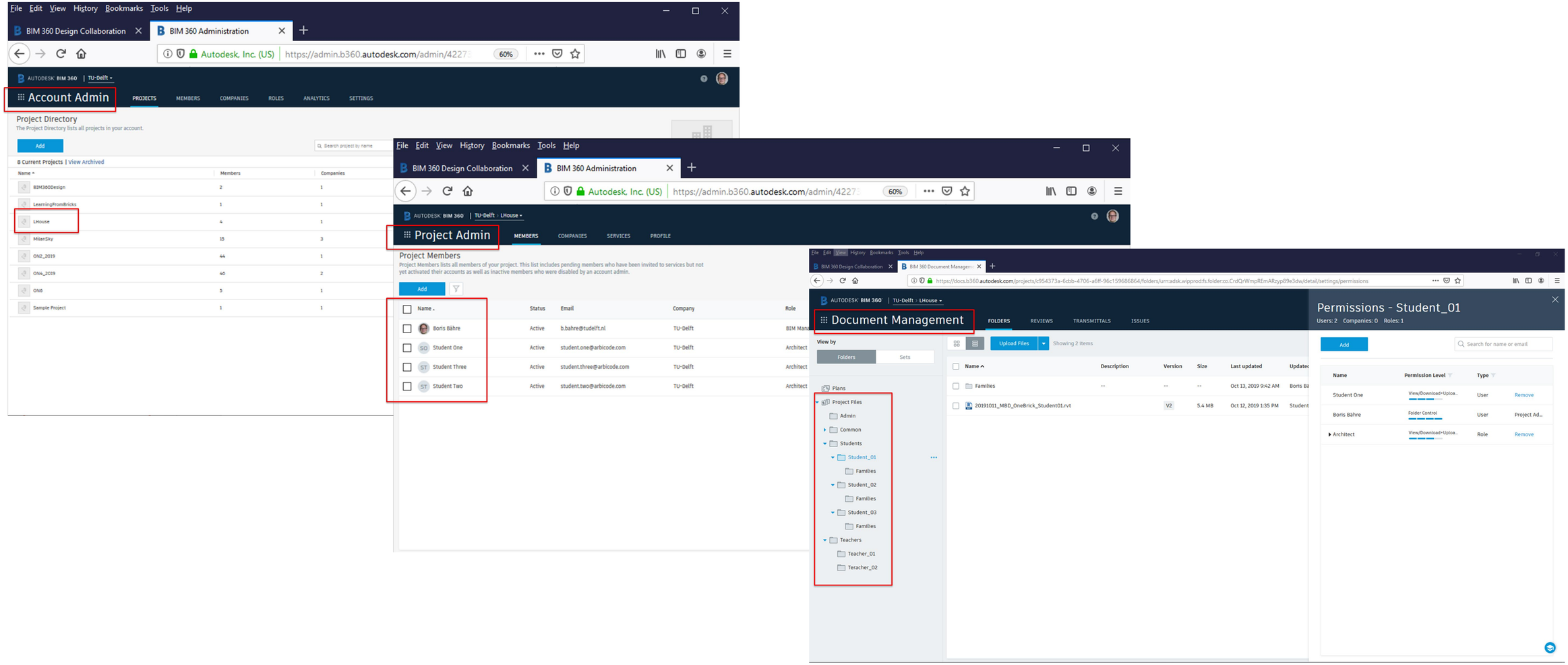
Student.Two

Student.Three

Teacher.One

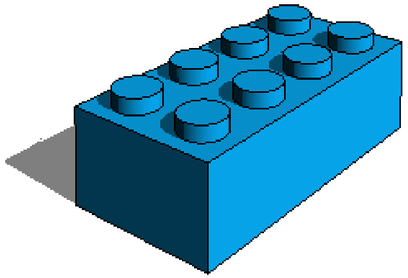
BE#

Struktur

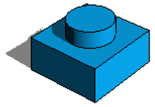


TU Delft Delft University of Technology
Technology Arts Sciences TH Köln
Hanzehogeschool Groningen University of Applied Sciences
BE#

von Steinen lernen



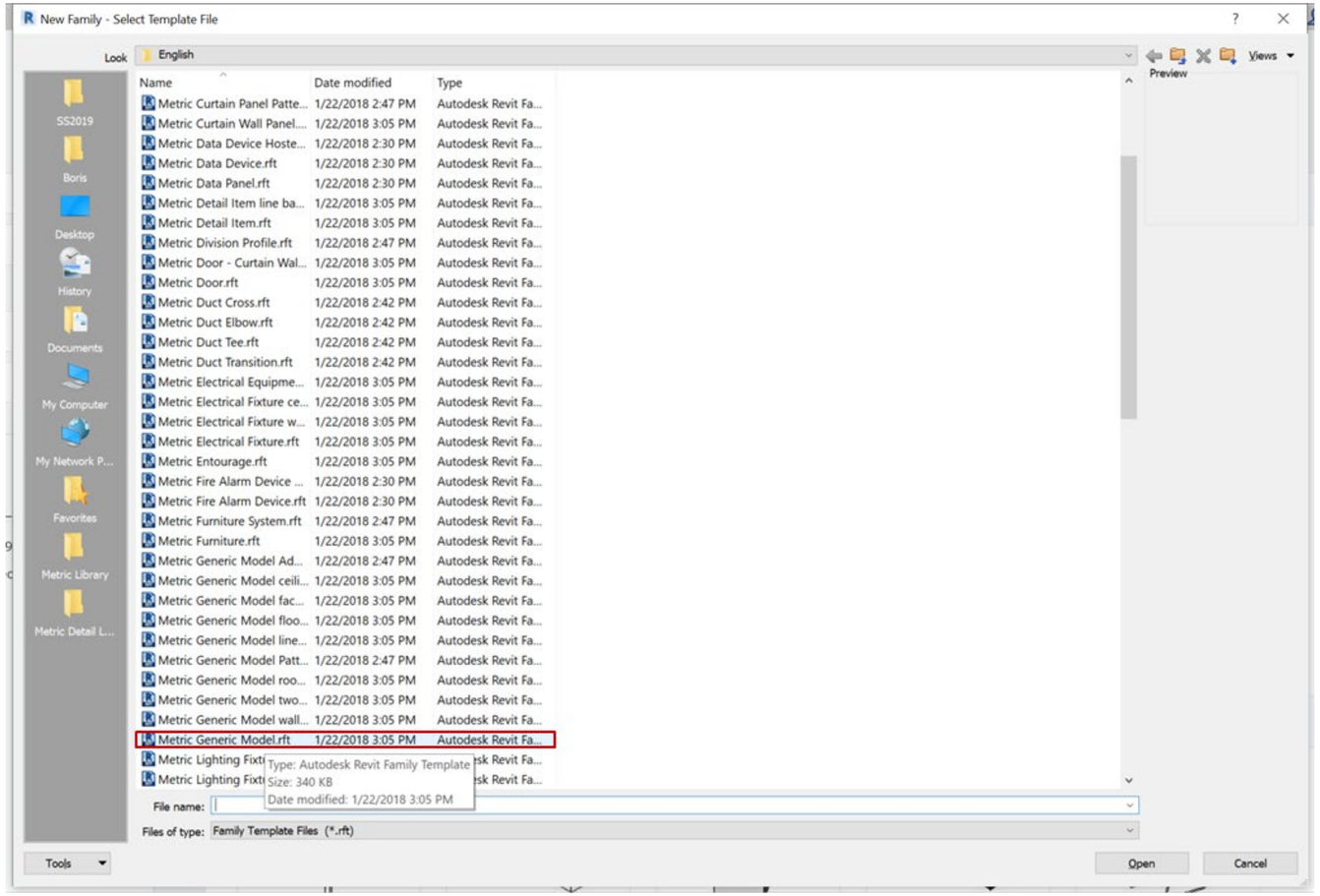
vom Modul lernen



Hands.On

Anschaulich BIM in 2,37 Minuten.

Generic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Look
English
Views
Preview
SS2019
Boris
Desktop
History
Documents
My Computer
My Network P...
Favorites
Metric Library
Metric Detail L...
Name
Date modified
Type
Metric Curtain Panel Patte... 1/22/2018 2:47 PM Autodesk Revit Fa...
Metric Curtain Wall Panel.... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Data Device Hoste... 1/22/2018 2:30 PM Autodesk Revit Fa...
Metric Data Device.rft 1/22/2018 2:30 PM Autodesk Revit Fa...
Metric Data Panel.rft 1/22/2018 2:30 PM Autodesk Revit Fa...
Metric Detail Item line ba... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Detail Item.rft 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Division Profile.rft 1/22/2018 2:47 PM Autodesk Revit Fa...
Metric Door - Curtain Wal... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Door.rft 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Duct Cross.rft 1/22/2018 2:42 PM Autodesk Revit Fa...
Metric Duct Elbow.rft 1/22/2018 2:42 PM Autodesk Revit Fa...
Metric Duct Tee.rft 1/22/2018 2:42 PM Autodesk Revit Fa...
Metric Duct Transition.rft 1/22/2018 2:42 PM Autodesk Revit Fa...
Metric Electrical Equipme... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Electrical Fixture ce... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Electrical Fixture w... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Electrical Fixture.rft 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Entourage.rft 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Fire Alarm Device ... 1/22/2018 2:30 PM Autodesk Revit Fa...
Metric Fire Alarm Device.rft 1/22/2018 2:30 PM Autodesk Revit Fa...
Metric Furniture System.rft 1/22/2018 2:47 PM Autodesk Revit Fa...
Metric Furniture.rft 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Generic Model Ad... 1/22/2018 2:47 PM Autodesk Revit Fa...
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Metric Generic Model fac... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Generic Model floo... 1/22/2018 3:05 PM Autodesk Revit Fa...
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Metric Generic Model Patt... 1/22/2018 2:47 PM Autodesk Revit Fa...
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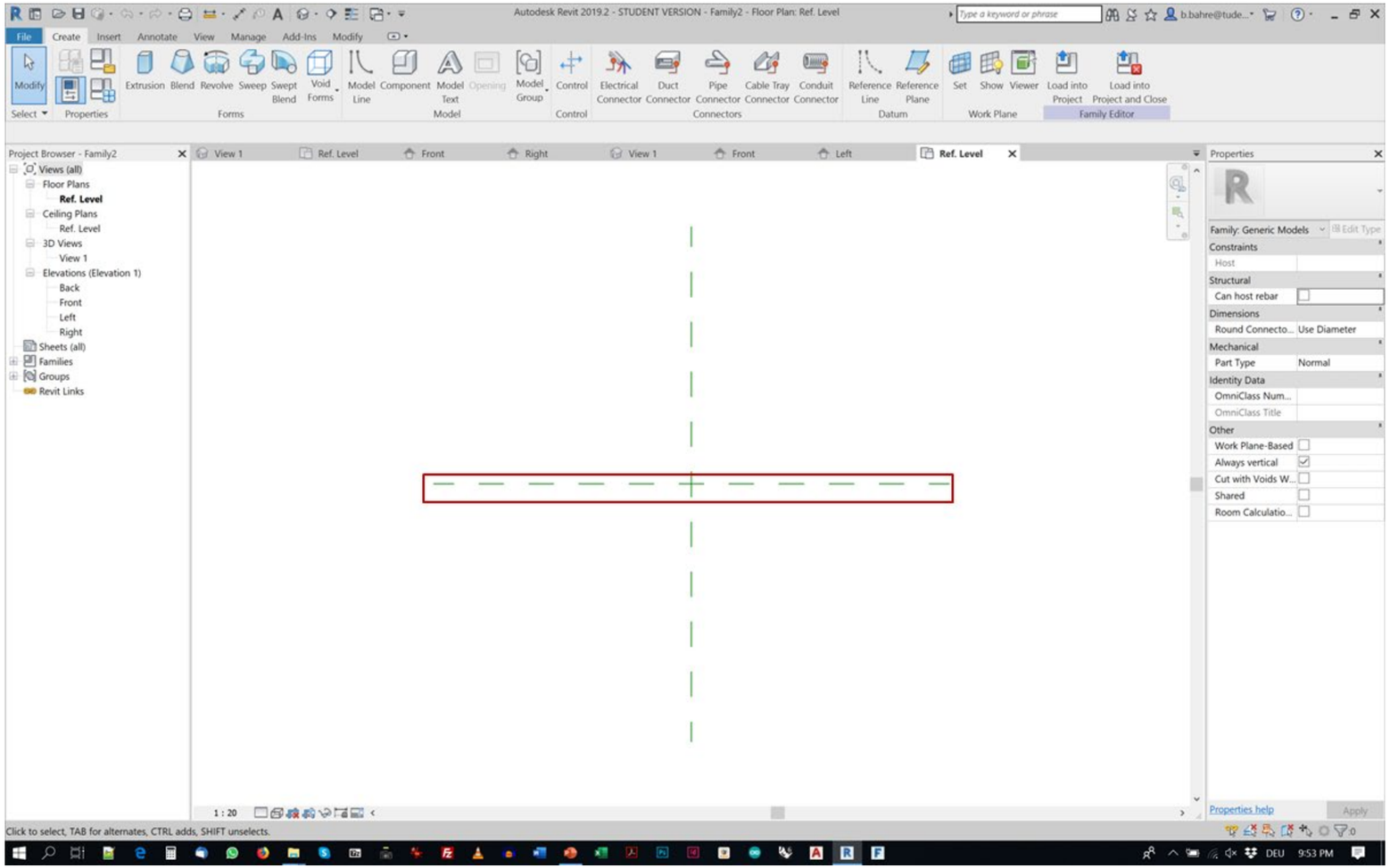
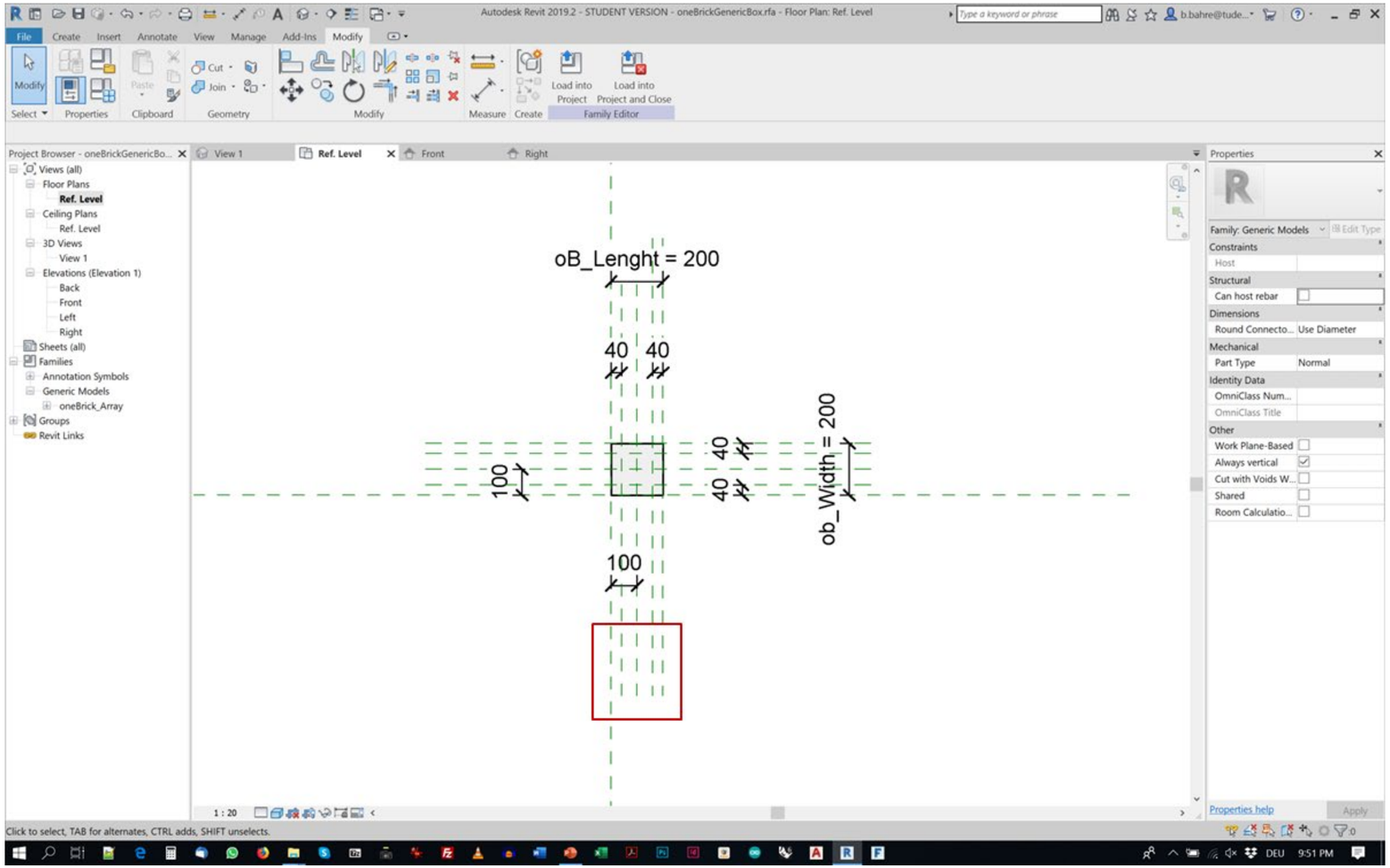
Metric Generic Model two... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Generic Model wall... 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Generic Model.rft 1/22/2018 3:05 PM Autodesk Revit Fa...
Metric Lighting Fixt
Metric Lighting Fixt
Type: Autodesk Revit Family Template
Size: 340 KB
Date modified: 1/22/2018 3:05 PM
File name:
Files of type: Family Template Files (*.rft)
Tools
Open
Cancel

Referenzen


Autodesk Revit 2019.2 - STUDENT VERSION - Family2 - Floor Plan: Ref. Level
File
Create
Insert
Annotate
View
Manage
Add-Ins
Modify
Modify
Select
Properties
Extrusion
Blend
Revolve
Sweep
Swept Blend
Void Forms
Forms
Model Line
Component
Model Text
Opening
Model Group
Model
Control
Control
Electrical Connector
Duct Connector
Pipe Connector
Cable Tray Connector
Conduit Connector
Connectors
Reference Line
Reference Plane
Datum
Set
Show
Viewer
Work Plane
Load into Project
Load into Project and Close
Family Editor
Project Browser - Family2
Views (all)
Floor Plans
Ref. Level
Ceiling Plans
Ref. Level
3D Views
View 1
Elevations (Elevation 1)
Back
Front
Left
Right
Sheets (all)
Families
Groups
Revit Links
View 1
Ref. Level
Front
Right
View 1
Front
Left
Ref. Level
Properties
Family: Generic Models
Edit Type
Constraints
Host
Structural
Can host rebar
Dimensions
Round Connecto...
Use Diameter
Mechanical
Part Type
Normal
Identity Data
OmniClass Num...
OmniClass Title
Other
Work Plane-Based
Always vertical
Cut with Voids W...
Shared
Room Calculatio...
Properties help
Apply
1 : 20
Click to select, TAB for alternates, CTRL adds, SHIFT unselects.
DEU
9:53 PM

Skelett


Autodesk Revit 2019.2 - STUDENT VERSION - oneBrickGenericBox.rfa - Floor Plan: Ref. Level
File
Create
Insert
Annotate
View
Manage
Add-Ins
Modify
Load into Project
Load into Project and Close
Family Editor
Project Browser - oneBrickGenericBo...
Views (all)
Floor Plans
Ref. Level
Ceiling Plans
Ref. Level
3D Views
View 1
Elevations (Elevation 1)
Back
Front
Left
Right
Sheets (all)
Families
Annotation Symbols
Generic Models
oneBrick_Array
Groups
Revit Links
View 1
Ref. Level
Front
Right
oB_Lenght = 200
40
40
100
40
40
ob_Width = 200
100
Properties
Family: Generic Models
Constraints
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Structural
Can host rebar
Dimensions
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Part Type
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Work Plane-Based
Always vertical
Cut with Voids W...
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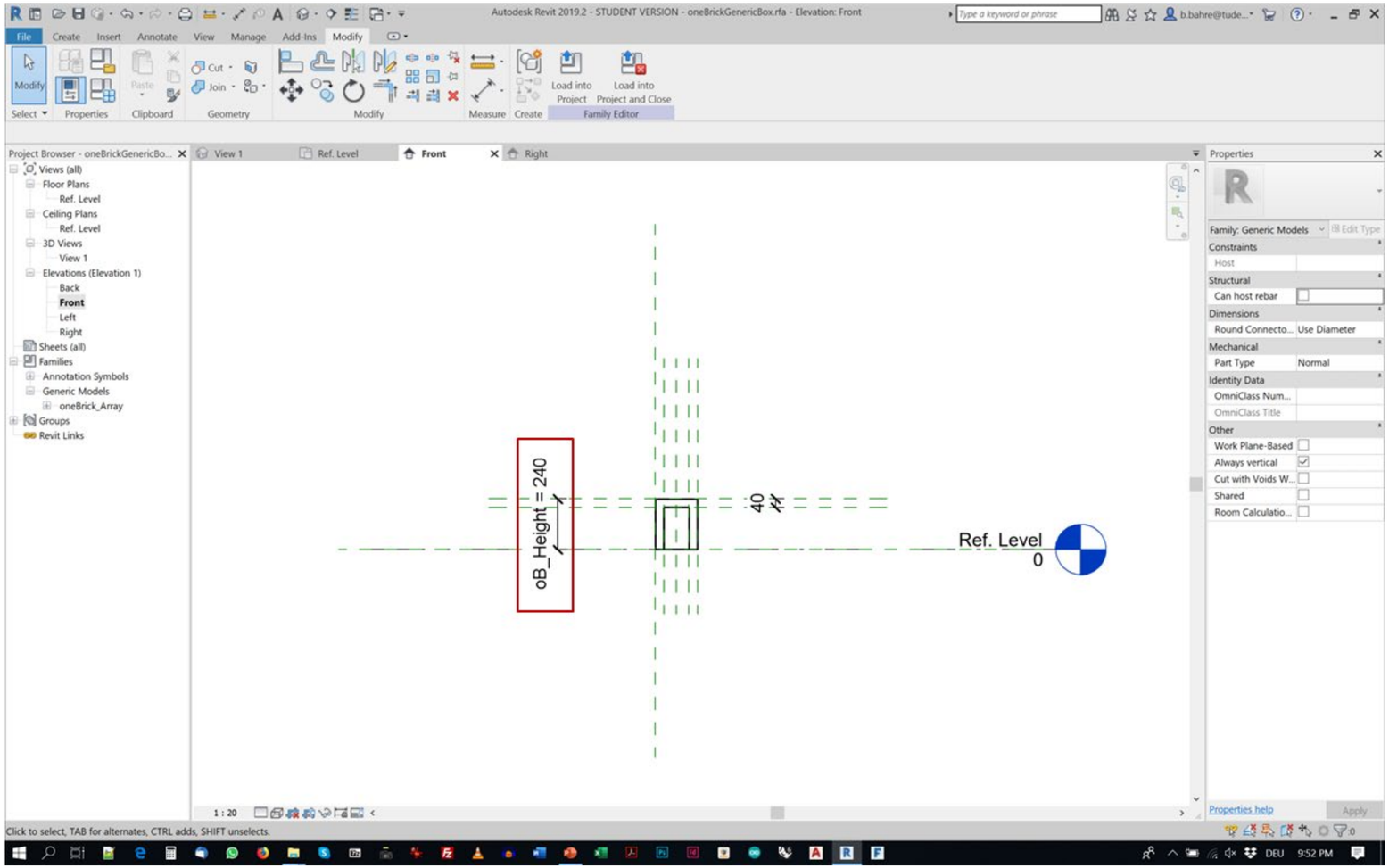
Room Calculatio...
Properties help
Apply
1 : 20
Click to select, TAB for alternates, CTRL adds, SHIFT unselects.

Parameter


Autodesk Revit 2019.2 - STUDENT VERSION - oneBrickGenericBox.rfa - Elevation: Front
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Create
Load into Project
Load into Project and Close
Family Editor
Project Browser - oneBrickGenericBo...
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Ceiling Plans
Ref. Level
3D Views
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View 1
Ref. Level
Front
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oB_Height = 240
40
Ref. Level
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Family: Generic Models
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Can host rebar
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Part Type
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OmniClass Title
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Work Plane-Based
Always vertical
Cut with Voids W...
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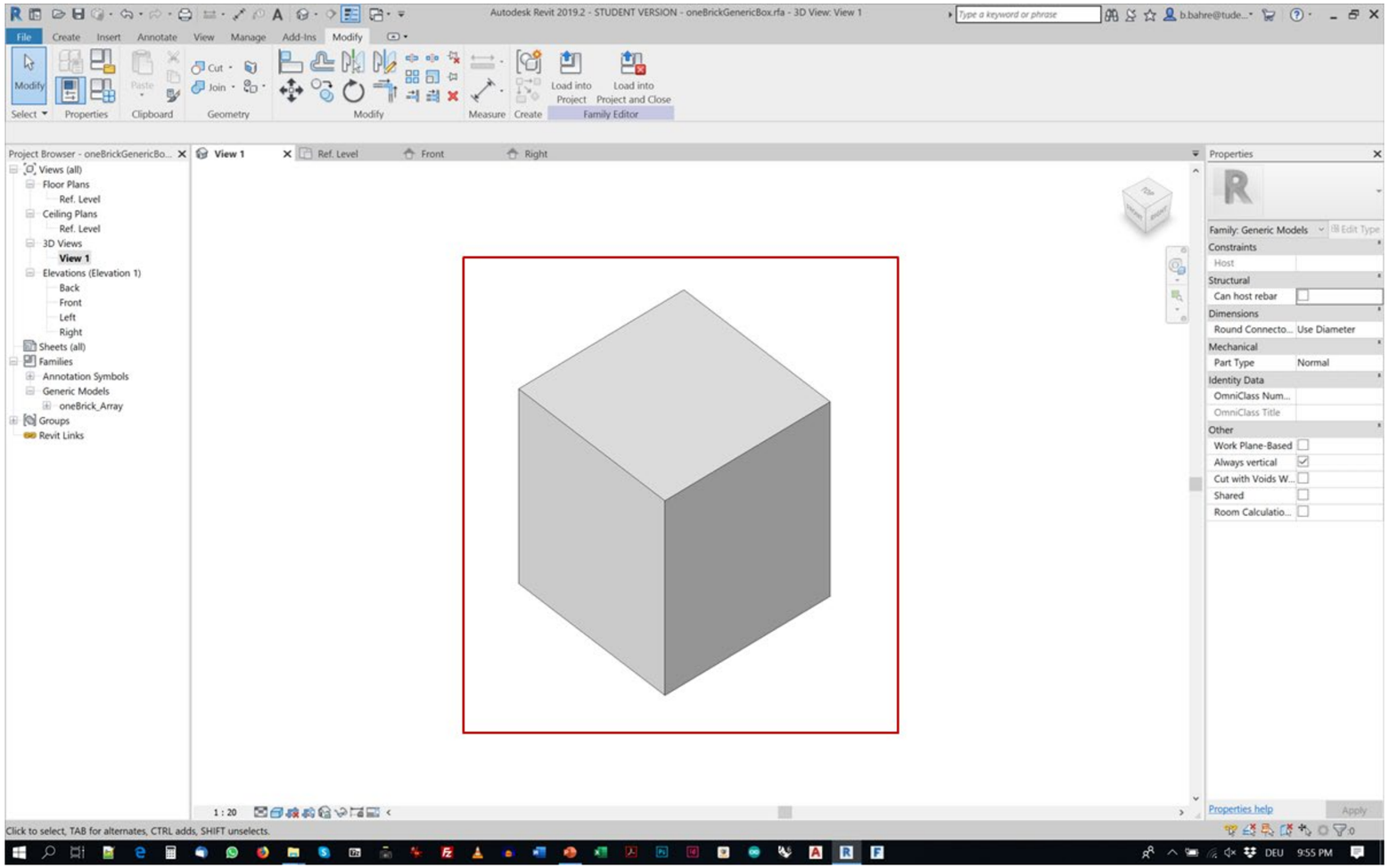
Room Calculatio...
Properties help
Apply
Click to select, TAB for alternates, CTRL adds, SHIFT unselects.
DEU
9:52 PM

Geometrie


Autodesk Revit 2019.2 - STUDENT VERSION - oneBrickGenericBox.rfa - 3D View: View 1
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Modify
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Properties help
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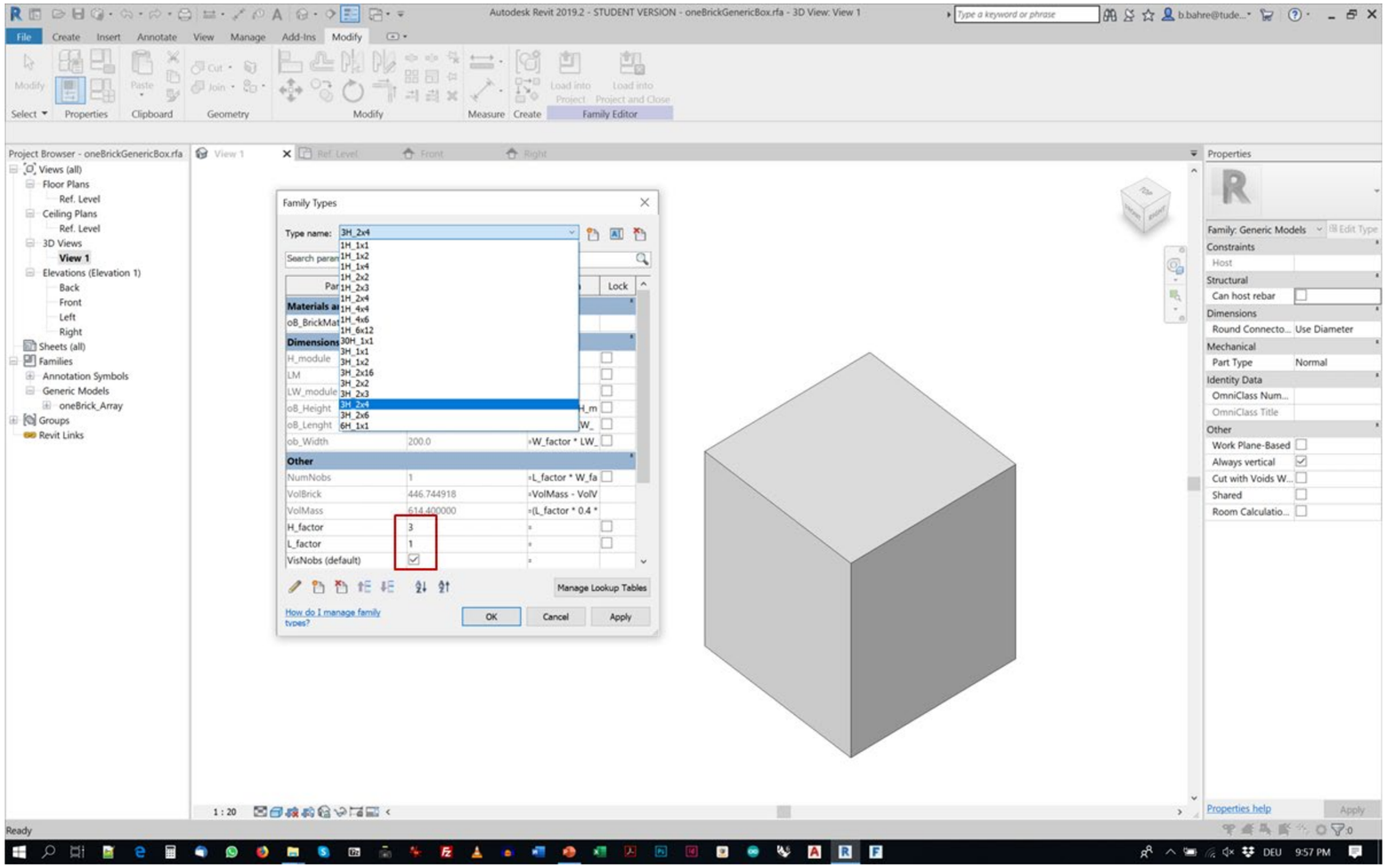
DEU
9:55 PM

Kontrolle


Autodesk Revit 2019.2 - STUDENT VERSION - oneBrickGenericBox.rfa - 3D View: View 1
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Add-Ins
Modify
Family Editor
Project Browser - oneBrickGenericBox.rfa
Views (all)
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Left
Right
Sheets (all)
Families
Annotation Symbols
Generic Models
oneBrick_Array
Groups
Revit Links
Family Types
Type name: 3H_2x4
1H_1x1
1H_1x2
1H_1x4
1H_2x2
1H_2x3
1H_2x4
1H_4x4
1H_4x6
1H_6x12
30H_1x1
3H_1x1
3H_1x2
3H_2x16
3H_2x2
3H_2x3
3H_2x4
3H_2x6
6H_1x1
Materials a
oB_BrickMat
Dimensions
H_module
LM
LW_module
oB_Height
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How do I manage family types?
OK
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Apply
Properties
Family: Generic Models
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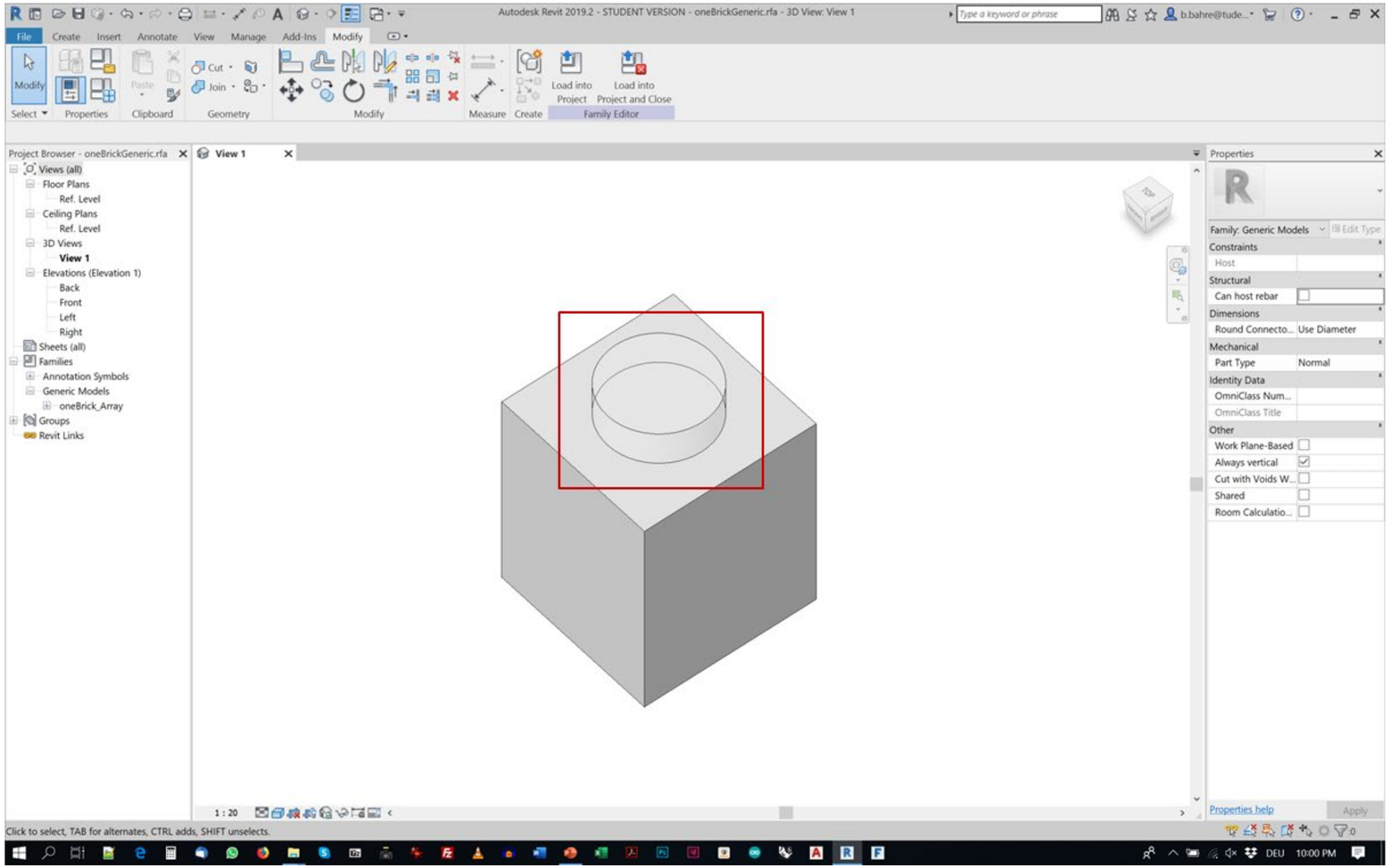
Structural
Can host rebar
Dimensions
Round Connecto...
Use Diameter
Mechanical
Part Type
Normal
Identity Data
OmniClass Num...
OmniClass Title
Other
Work Plane-Based
Always vertical
Cut with Voids W...
Shared
Room Calculatio...
Properties help
Apply
Ready

Nesting


Autodesk Revit 2019.2 - STUDENT VERSION - oneBrickGeneric.rfa - 3D View: View 1
File
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Manage
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Measure
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Load into Project
Load into Project and Close
Family Editor
Project Browser - oneBrickGeneric.rfa
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Ref. Level
Ceiling Plans
Ref. Level
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Always vertical
Cut with Voids W...
Shared
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Properties help
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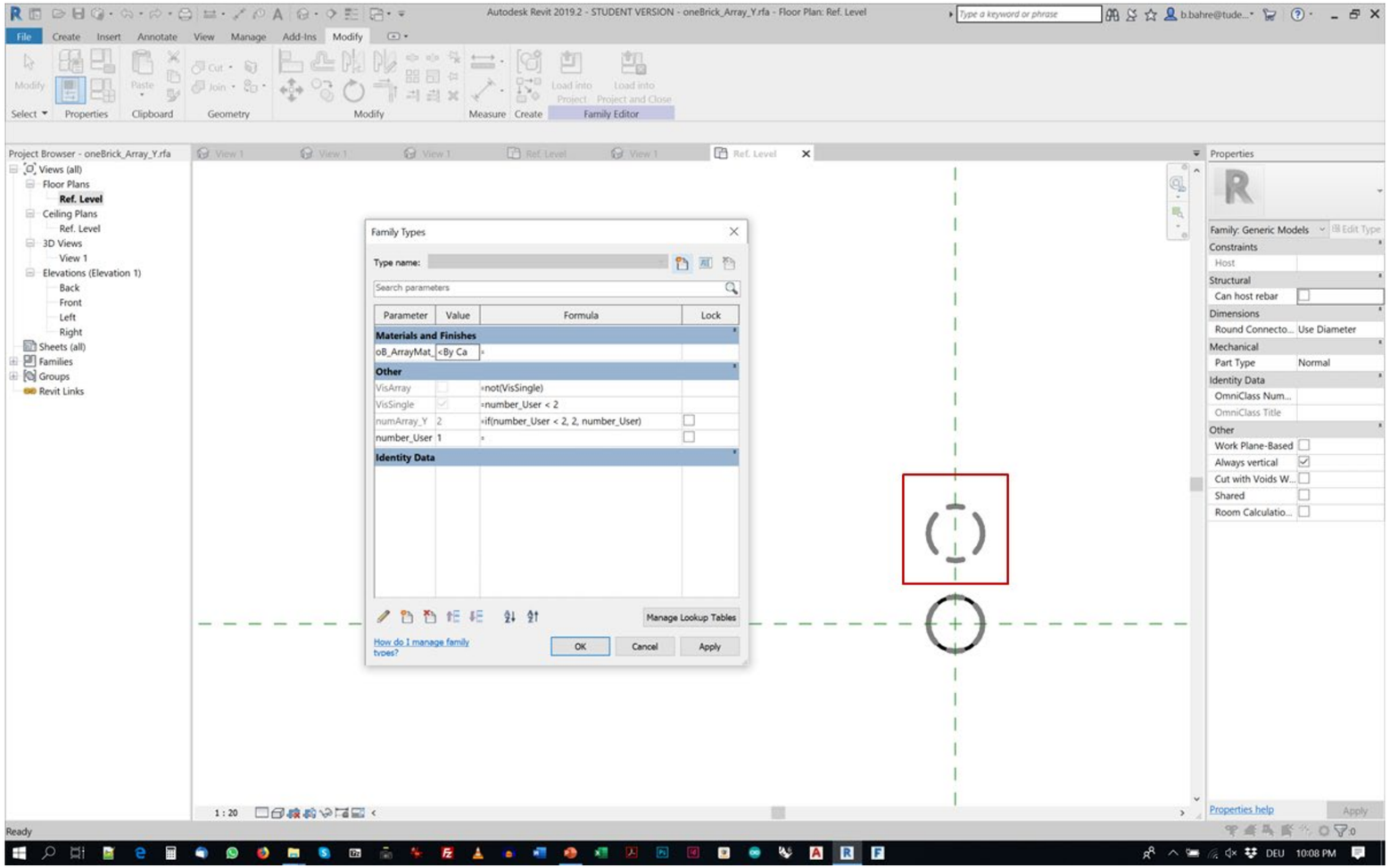
Click to select, TAB for alternates, CTRL adds, SHIFT unselects.
DEU
10:00 PM

Reihung_X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Manage
Add-Ins
Modify
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Clipboard
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Create
Load into Project
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Project Browser - oneBrick_Array_Y.rfa
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Ceiling Plans
Ref. Level
3D Views
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Elevations (Elevation 1)
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Sheets (all)
Families
Groups
Revit Links
Family Types
Type name:
Search parameters
Parameter
Value
Formula
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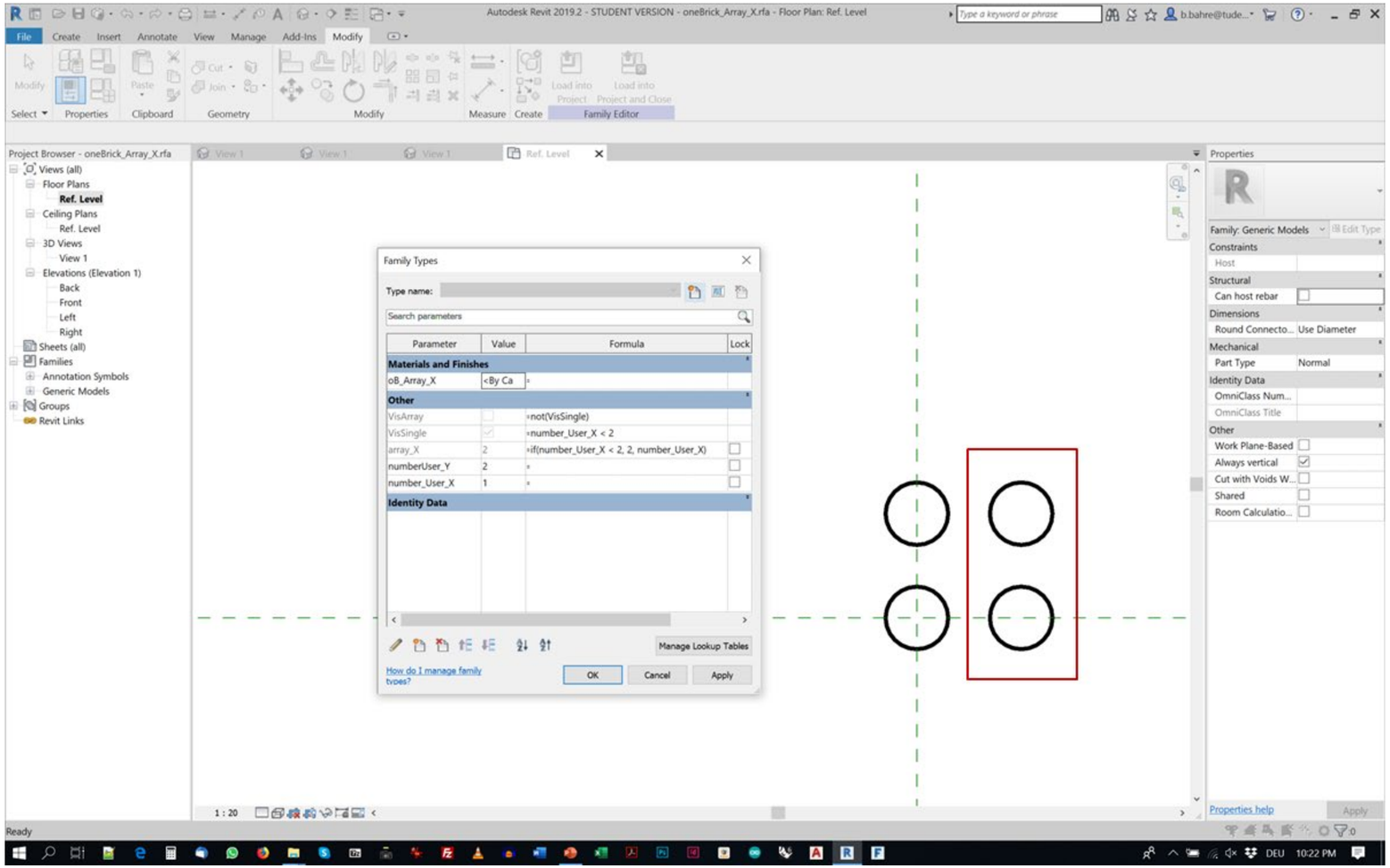
VisArray
=not(VisSingle)
VisSingle
=number_User < 2
numArray_Y
2
=if(number_User < 2, 2, number_User)
number_User
1
Identity Data
Manage Lookup Tables
How do I manage family types?
OK
Cancel
Apply
Properties
Family: Generic Models
Edit Type
Constraints
Host
Structural
Can host rebar
Dimensions
Round Connecto...
Use Diameter
Mechanical
Part Type
Normal
Identity Data
OmniClass Num...
OmniClass Title
Other
Work Plane-Based
Always vertical
Cut with Voids W...
Shared
Room Calculatio...
Properties help
Apply
1 : 20
Ready
DEU
10:08 PM

Reihung_Y


Autodesk Revit 2019.2 - STUDENT VERSION - oneBrick_Array_X.rfa - Floor Plan: Ref. Level
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numberUser_Y
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OK
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Structural
Can host rebar
Dimensions
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Use Diameter
Mechanical
Part Type
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Identity Data
OmniClass Num...
OmniClass Title
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Always vertical
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Properties help
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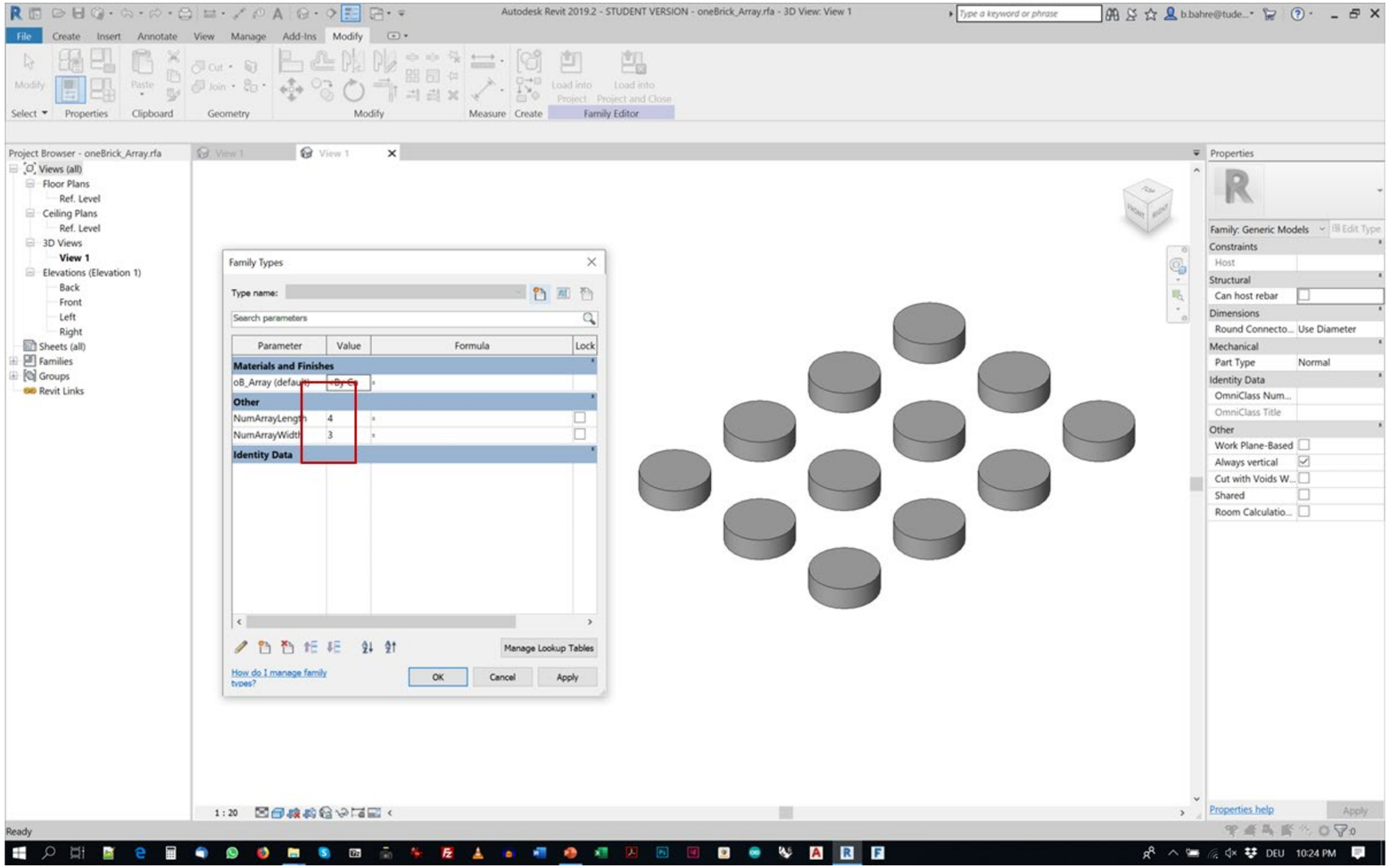
Ready
DEU
10:22 PM

Reihung_X&Y


Autodesk Revit 2019.2 - STUDENT VERSION - oneBrick_Array.rfa - 3D View: View 1
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Manage
Add-Ins
Modify
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Clipboard
Geometry
Modify
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Load into Project
Load into Project and Close
Family Editor
Project Browser - oneBrick_Array.rfa
Views (all)
Floor Plans
Ref. Level
Ceiling Plans
Ref. Level
3D Views
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Families
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Revit Links
Family Types
Type name:
Search parameters
Parameter
Value
Formula
Lock
Materials and Finishes
oB_Array (default)
By Ca
Other
NumArrayLength
4
NumArrayWidth
3
Identity Data
Manage Lookup Tables
How do I manage family types?
OK
Cancel
Apply
Properties
Family: Generic Models
Edit Type
Constraints
Host
Structural
Can host rebar
Dimensions
Round Connecto...
Use Diameter
Mechanical
Part Type
Normal
Identity Data
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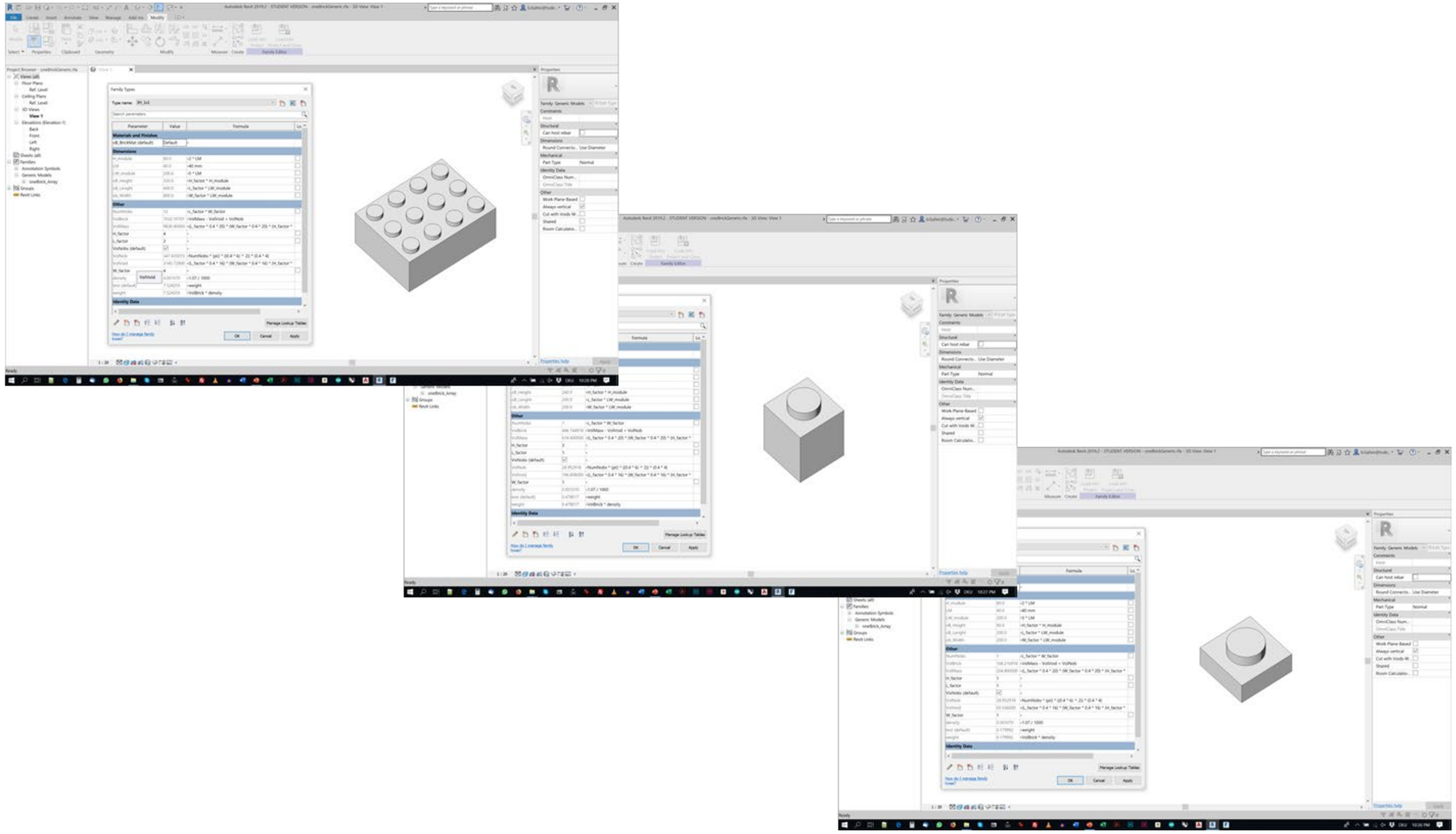
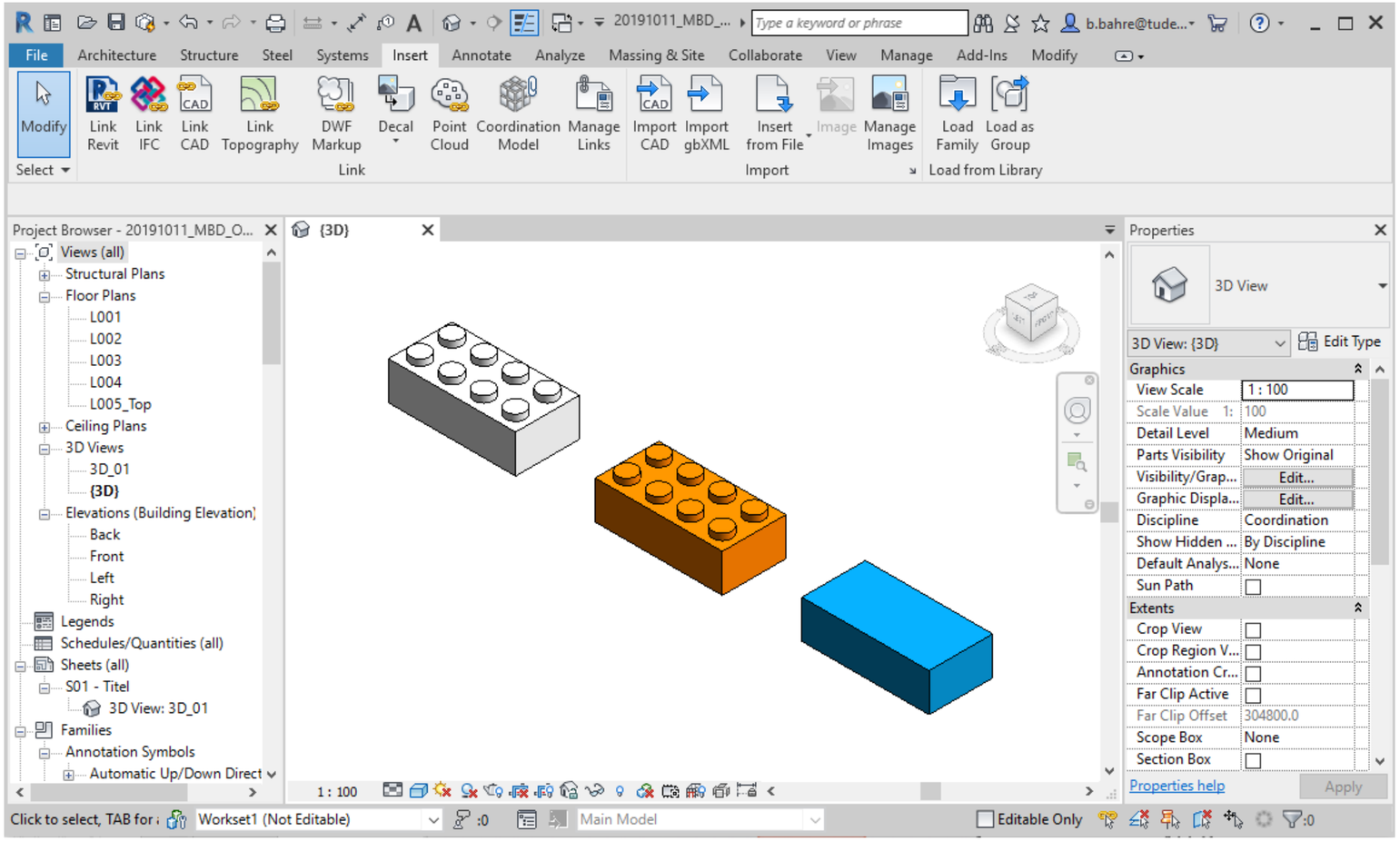
OmniClass Title
Other
Work Plane-Based
Always vertical
Cut with Voids W...
Shared
Room Calculatio...
Properties help
Apply
1 : 20
Ready
DEU
10:24 PM

Typen



Instanzen


File
Architecture
Structure
Steel
Systems
Insert
Annotate
Analyze
Massing & Site
Collaborate
View
Manage
Add-Ins
Modify
Modify
Link Revit
Link IFC
Link CAD
Link Topography
DWF Markup
Decal
Point Cloud
Coordination Model
Manage Links
Import CAD
Import gbXML
Insert from File
Image
Manage Images
Load Family
Load as Group
Select
Link
Import
Load from Library
Project Browser - 20191011_MBD_O...
Views (all)
Structural Plans
Floor Plans
L001
L002
L003
L004
L005_Top
Ceiling Plans
3D Views
3D_01
{3D}
Elevations (Building Elevation)
Back
Front
Left
Right
Legends
Schedules/Quantities (all)
Sheets (all)
S01 - Titel
3D View: 3D_01
Families
Annotation Symbols
Automatic Up/Down Direct
{3D}
1 : 100
Properties
3D View
3D View: {3D}
Edit Type
Graphics
View Scale
1 : 100
Scale Value 1:
100
Detail Level
Medium
Parts Visibility
Show Original
Visibility/Grap...
Edit...
Graphic Displa...
Edit...
Discipline
Coordination
Show Hidden ...
By Discipline
Default Analys...
None
Sun Path
Extents
Crop View
Crop Region V...
Annotation Cr...
Far Clip Active
Far Clip Offset
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Section Box
Properties help
Apply
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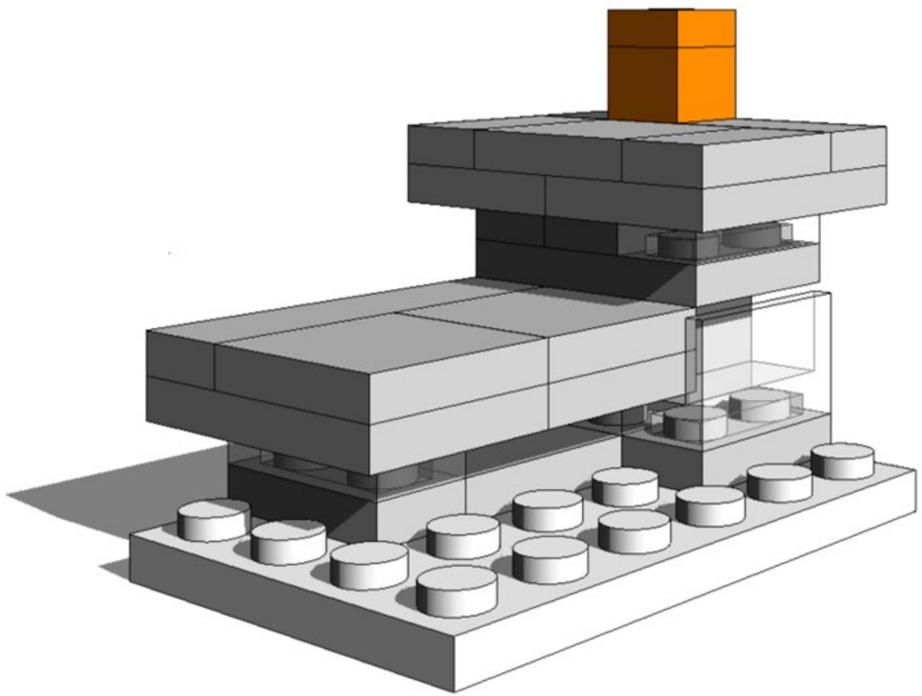
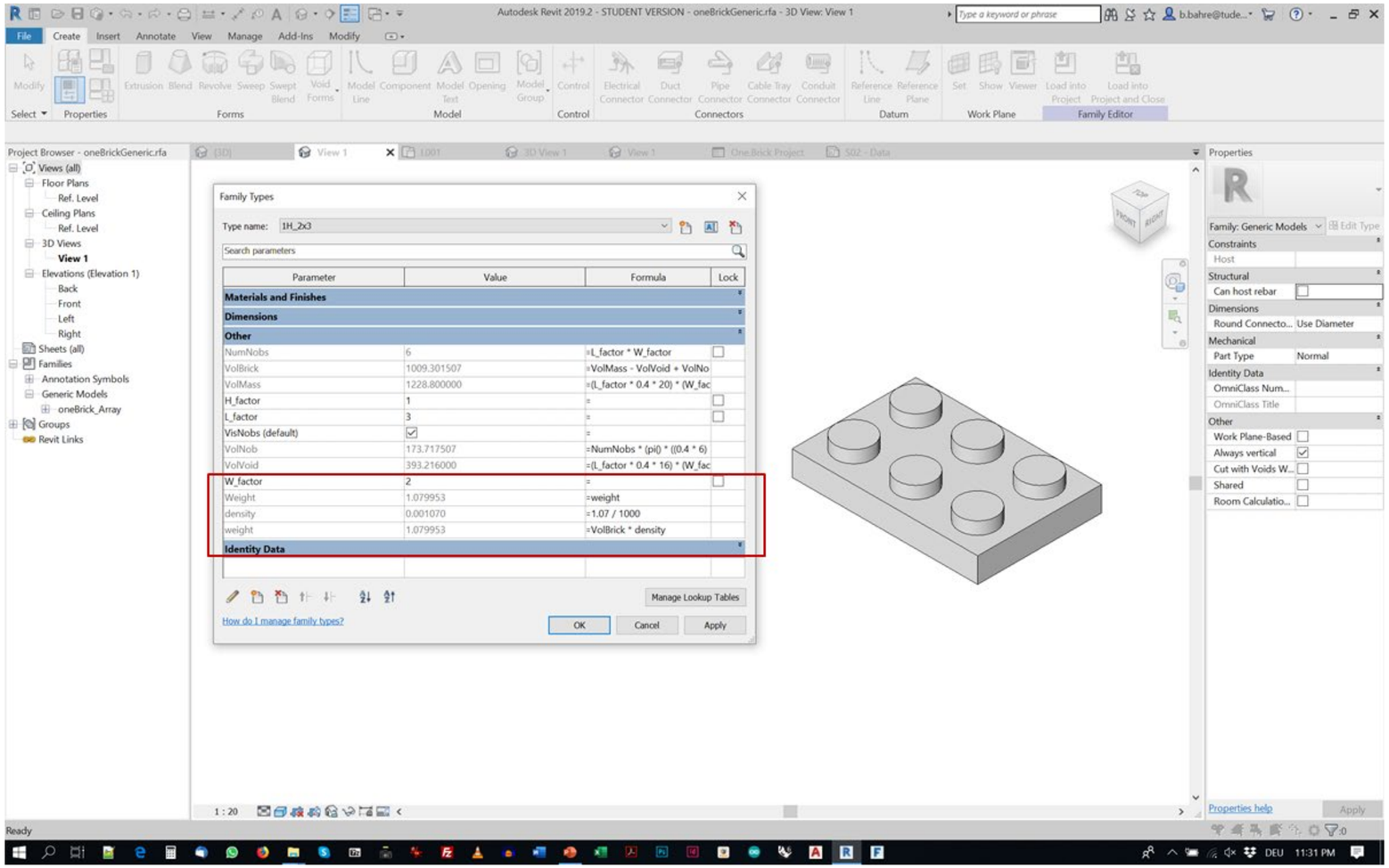
Workset1 (Not Editable)
Main Model
Editable Only

Projekte



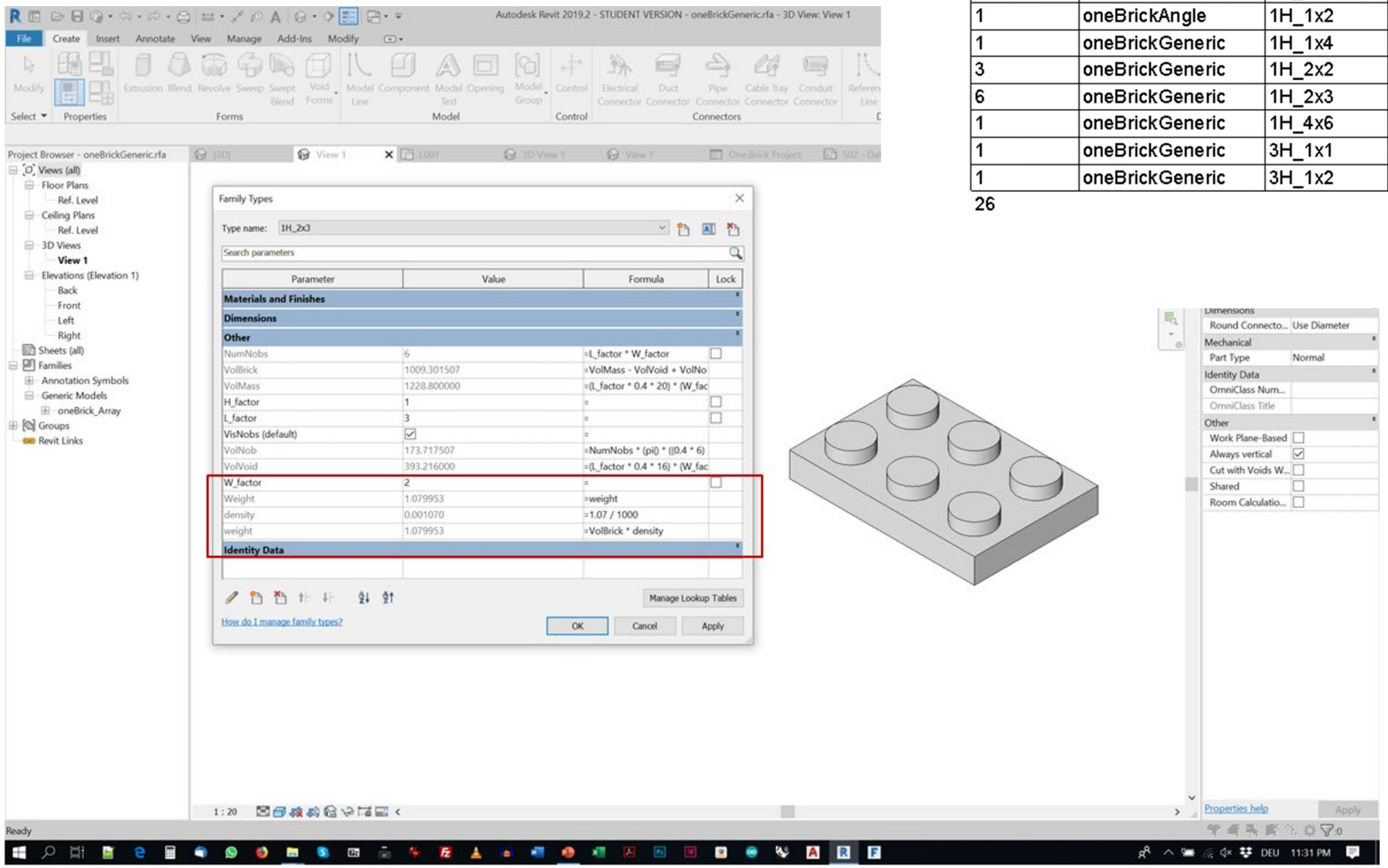
Unikate

Kalkulationen&Listen

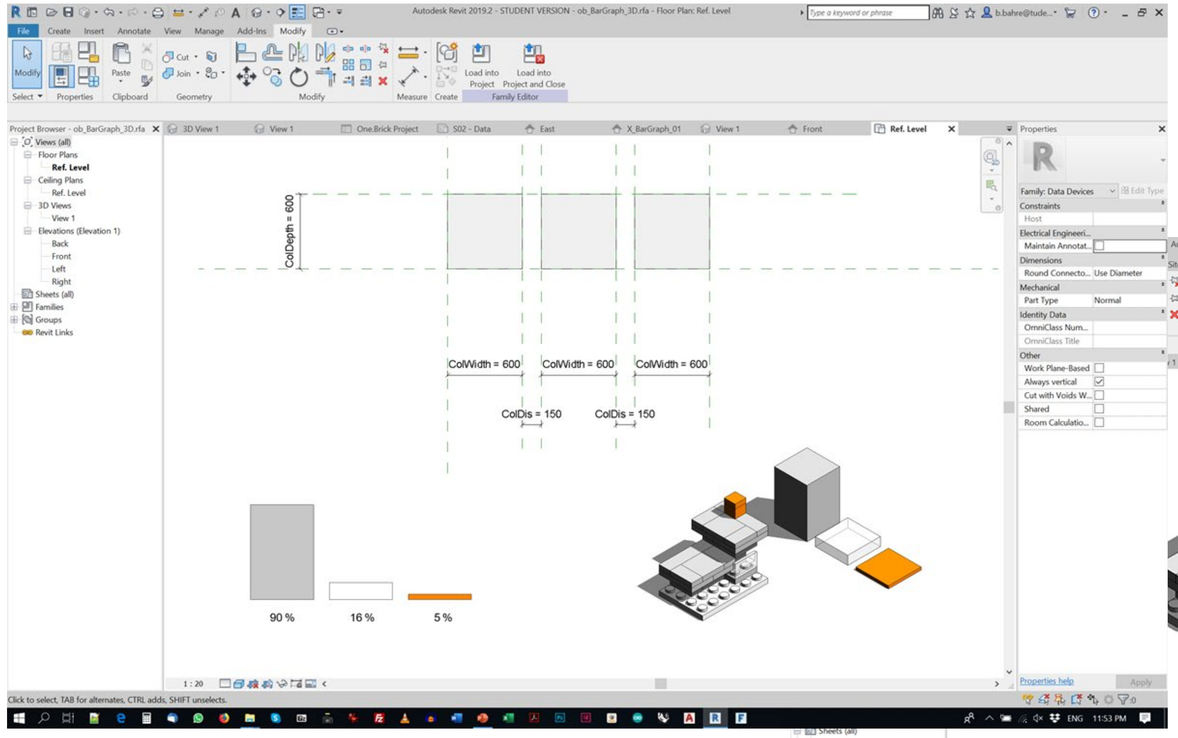


Kalkulationen&Listen

One.Brick Project				
Count	Family	Type	Cost (euro)	Weight (gr)
2	oneBrickGeneric	1H_1x1	0.10	0.36
10	oneBrickGeneric	1H_1x2	0.60	3.60
1	oneBrickAngle	1H_1x2	0.15	0.96
1	oneBrickGeneric	1H_1x4	0.09	0.72
3	oneBrickGeneric	1H_2x2	0.30	2.16
6	oneBrickGeneric	1H_2x3	0.90	6.48
1	oneBrickGeneric	1H_4x6	0.60	4.32
1	oneBrickGeneric	3H_1x1	0.07	0.48
1	oneBrickGeneric	3H_1x2	0.00	0.96
26			2.81	20.03



Diagramme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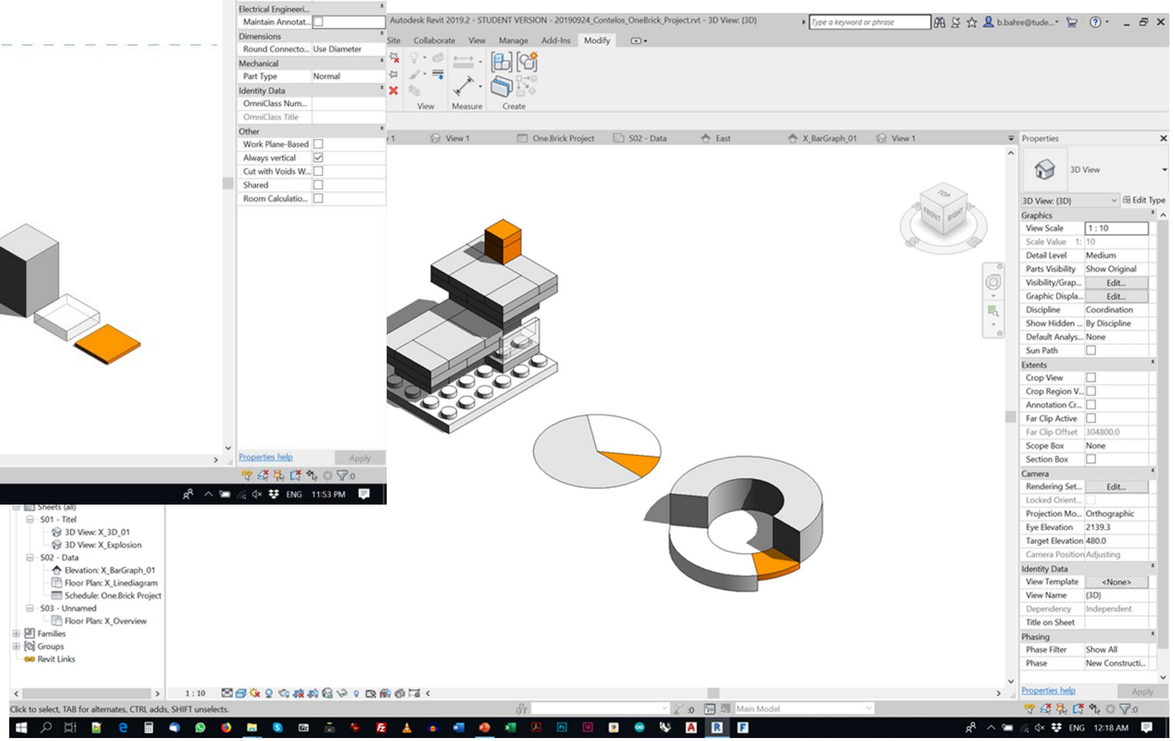
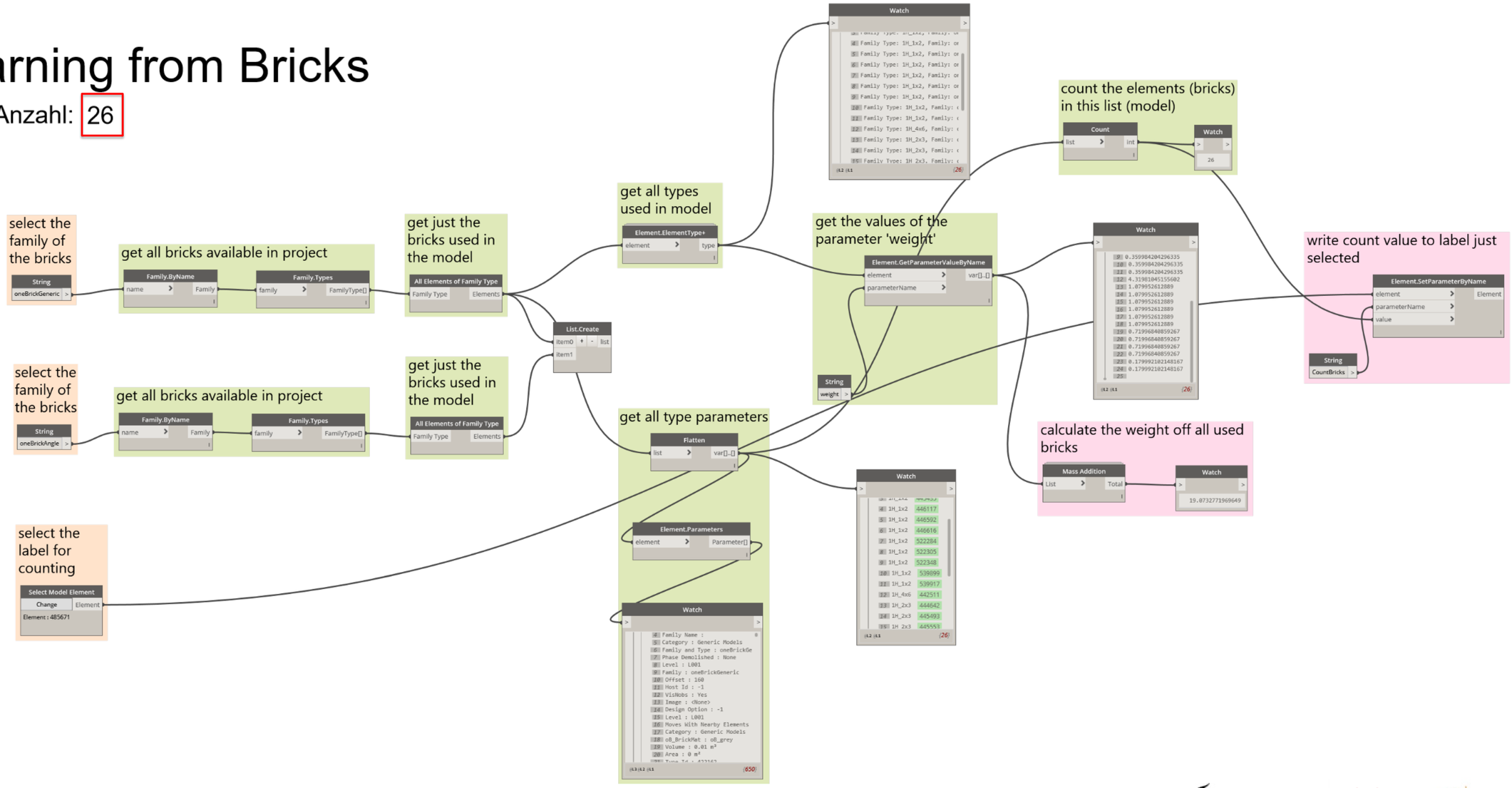
16 %
5 %



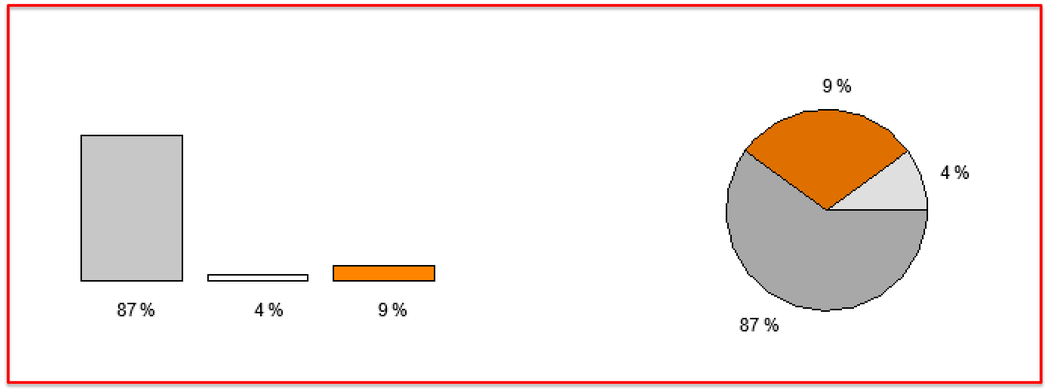
Labelkontrolle

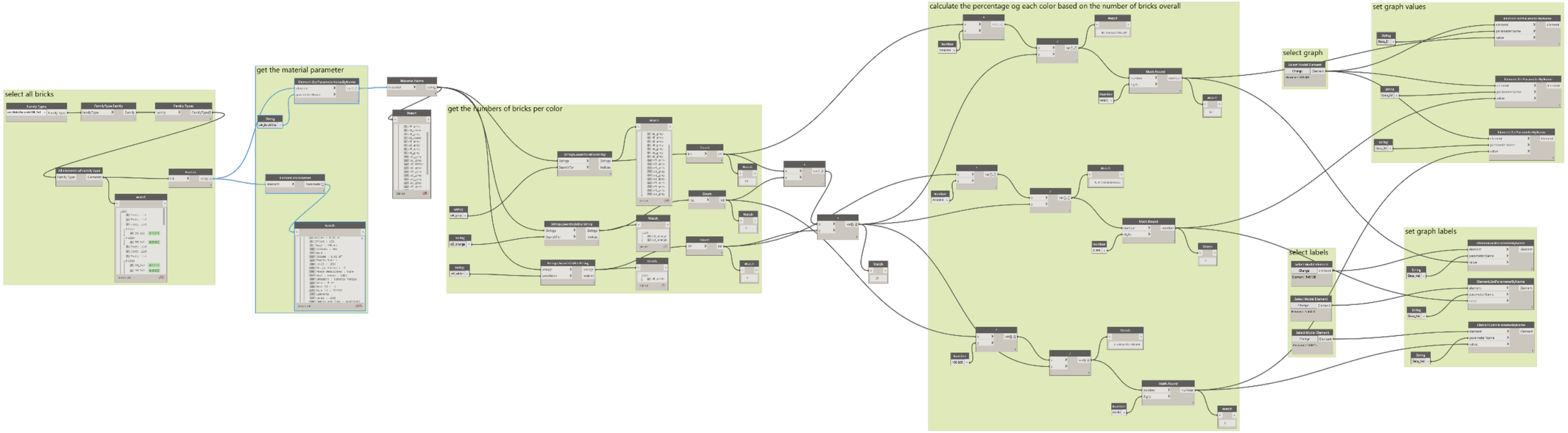
Learning from Bricks

Stein Anzahl: 26

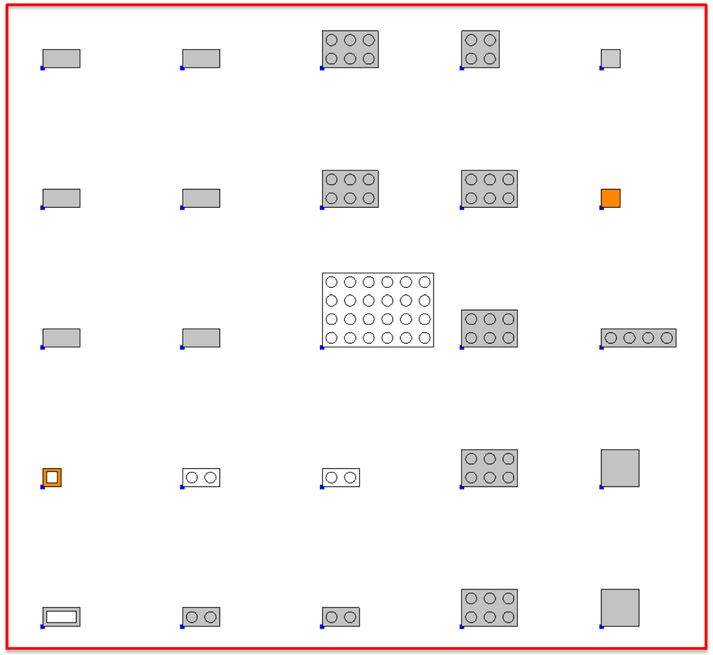


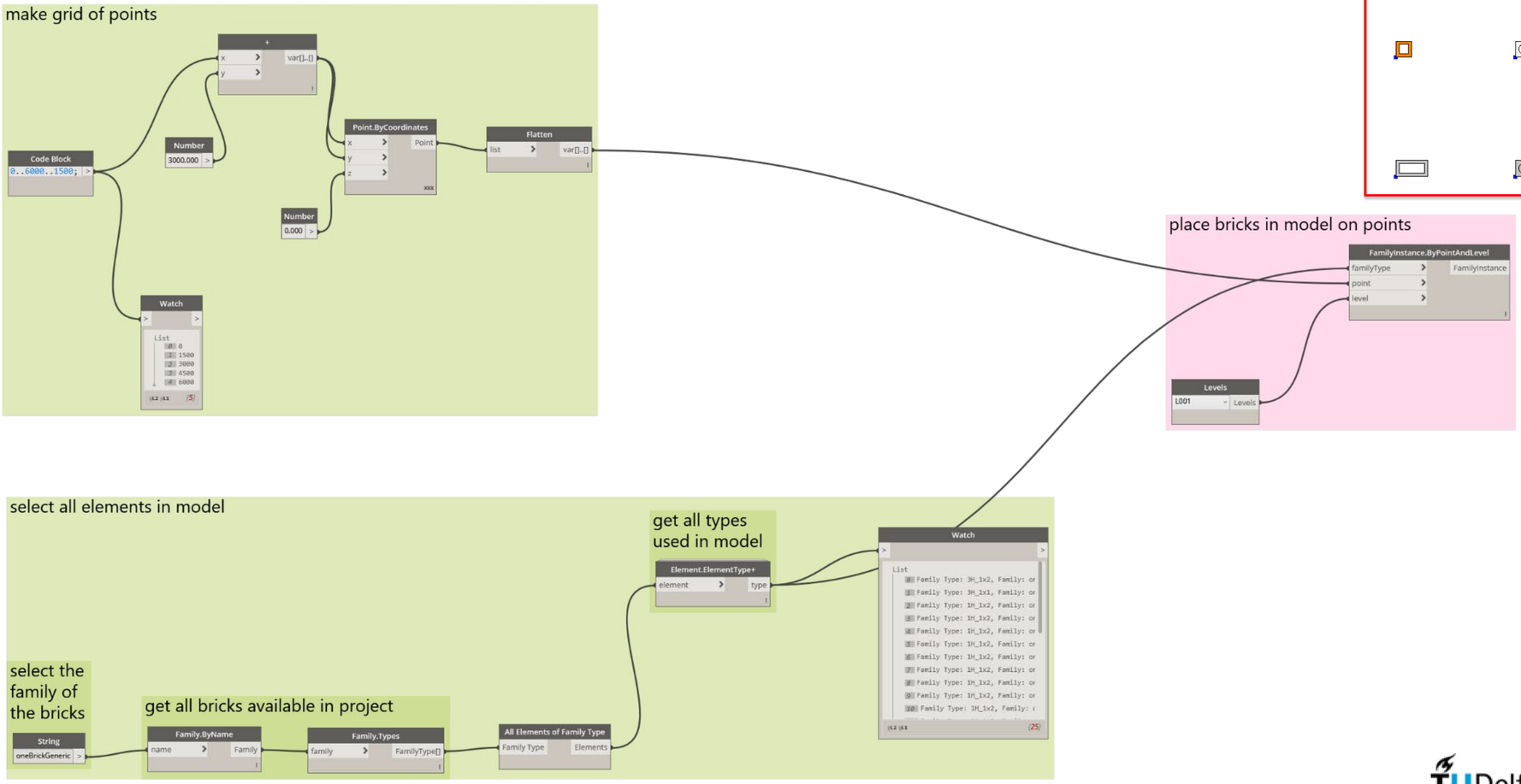
Diagrammsteuerung





Übersichten





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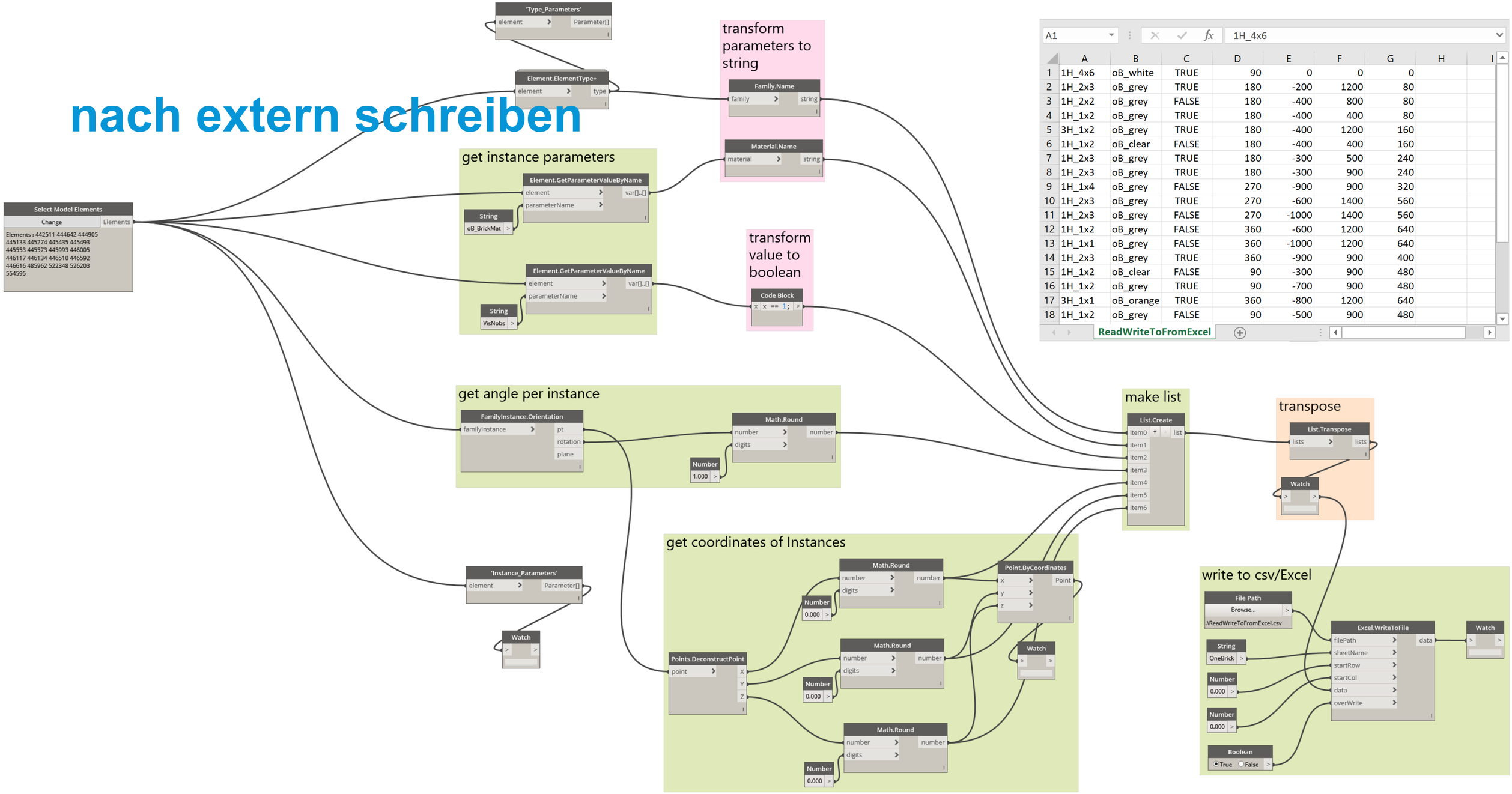
nach extern schreiben

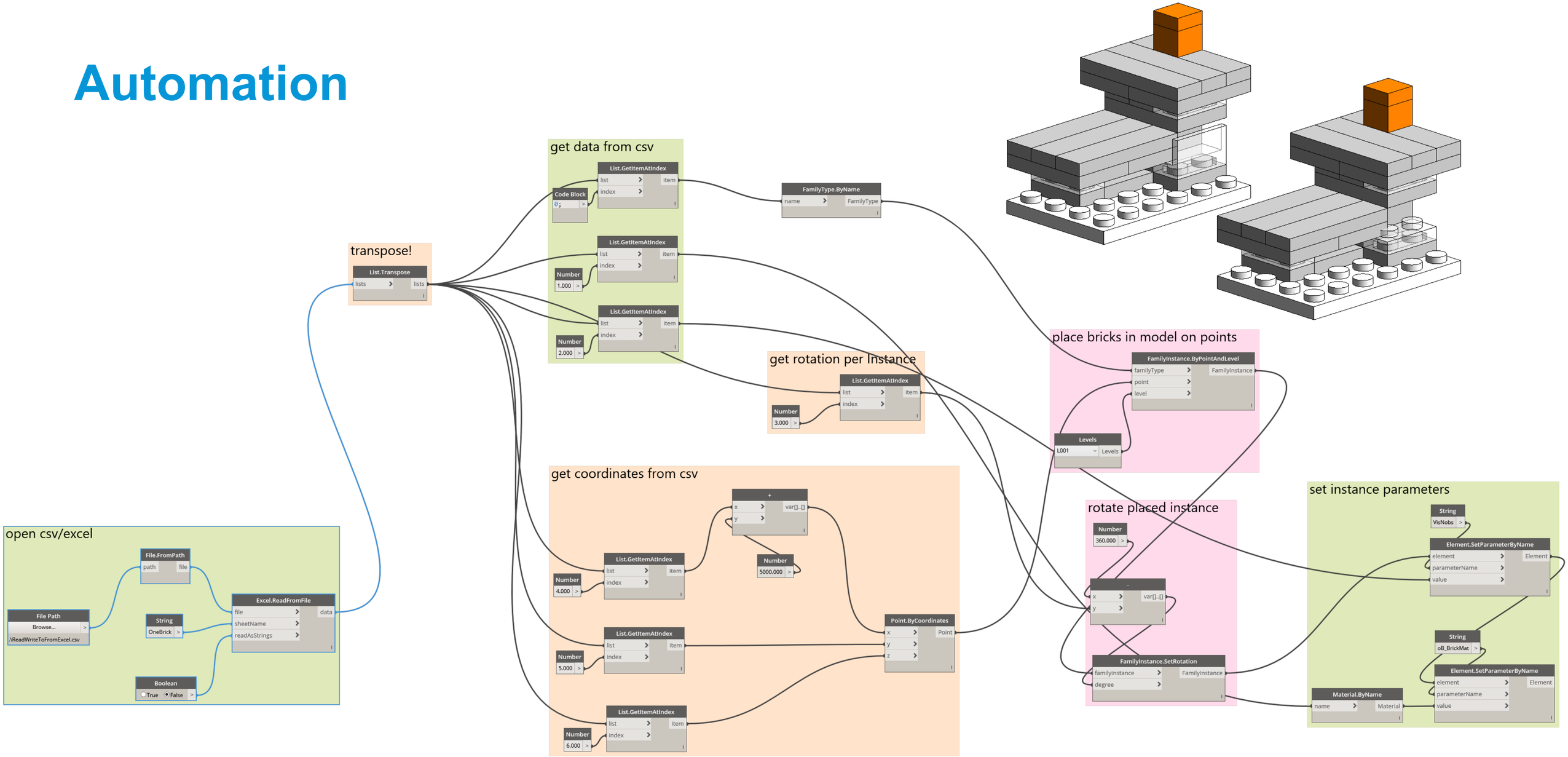


A1 | 1H_4x6

	A	B	C	D	E	F	G	H	I
1	1H_4x6	oB_white	TRUE	90	0	0	0		
2	1H_2x3	oB_grey	TRUE	180	-200	1200	80		
3	1H_2x2	oB_grey	FALSE	180	-400	800	80		
4	1H_1x2	oB_grey	TRUE	180	-400	400	80		
5	3H_1x2	oB_grey	TRUE	180	-400	1200	160		
6	1H_1x2	oB_clear	FALSE	180	-400	400	160		
7	1H_2x3	oB_grey	TRUE	180	-300	500	240		
8	1H_2x3	oB_grey	TRUE	180	-300	900	240		
9	1H_1x4	oB_grey	FALSE	270	-900	900	320		
10	1H_2x3	oB_grey	TRUE	270	-600	1400	560		
11	1H_2x3	oB_grey	FALSE	270	-1000	1400	560		
12	1H_1x2	oB_grey	FALSE	360	-600	1200	640		
13	1H_1x1	oB_grey	FALSE	360	-1000	1200	640		
14	1H_2x3	oB_grey	TRUE	360	-900	900	400		
15	1H_1x2	oB_clear	FALSE	90	-300	900	480		
16	1H_1x2	oB_grey	TRUE	90	-700	900	480		
17	3H_1x1	oB_orange	TRUE	360	-800	1200	640		
18	1H_1x2	oB_grey	FALSE	90	-500	900	480		

ReadWriteToFromExcel

Automation



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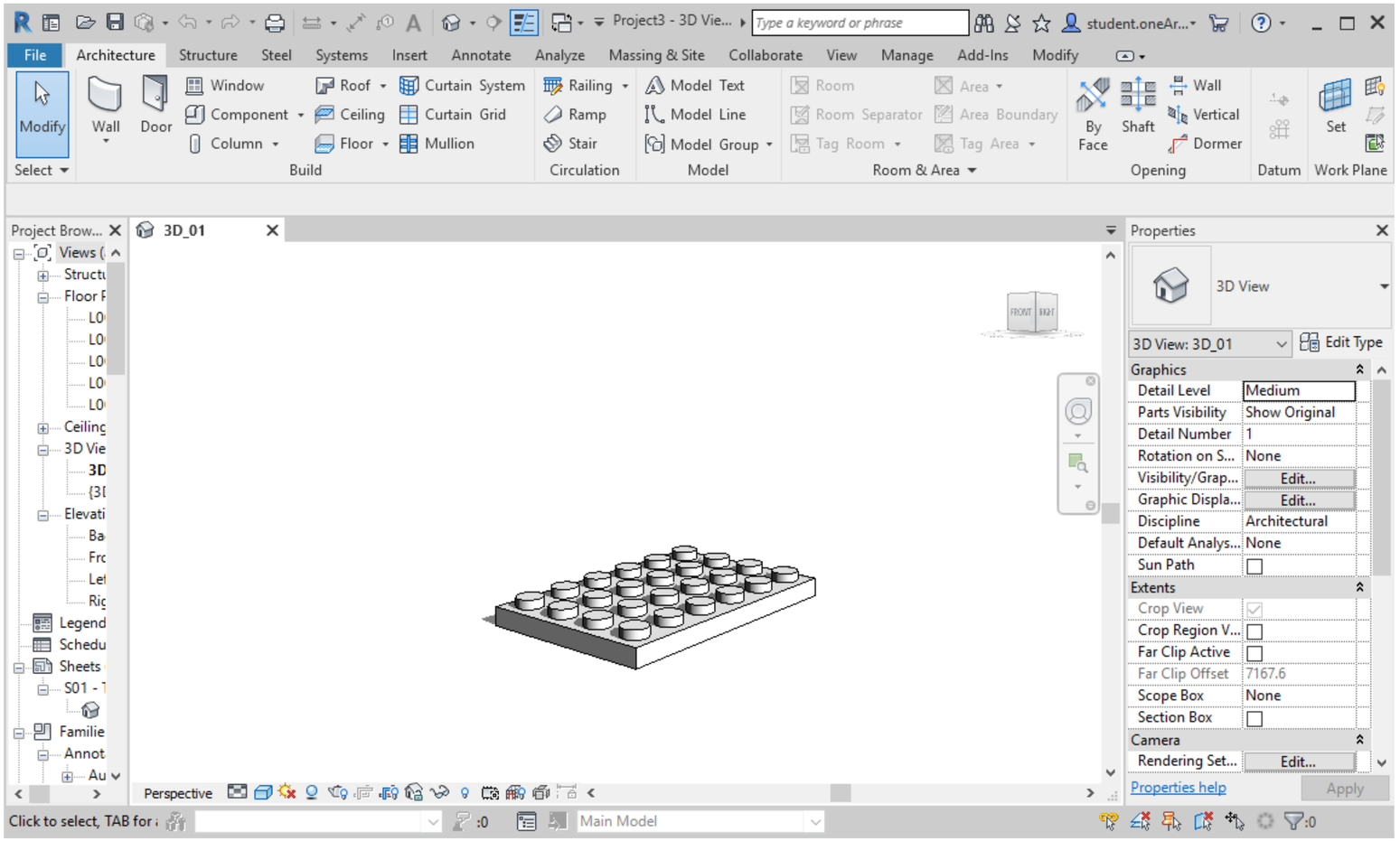
Common


Project3 - 3D Vie...
Type a keyword or phrase
student.oneAr...
File
Architecture
Structure
Steel
Systems
Insert
Annotate
Analyze
Massing & Site
Collaborate
View
Manage
Add-Ins
Modify
Modify
Select
Wall
Door
Window
Component
Column
Roof
Ceiling
Floor
Curtain System
Curtain Grid
Mullion
Build
Railing
Ramp
Stair
Circulation
Model Text
Model Line
Model Group
Model
Room
Room Separator
Tag Room
Area
Area Boundary
Tag Area
Room & Area
By Face
Shaft
Wall
Vertical
Dormer
Opening
Datum
Set
Work Plane
Project Brow...
Views (
Structu
Floor P
Ceiling
3D Vie
3D
Elevati
Legend
Schedu
Sheets
S01 - 1
Familie
Annot
3D_01
Perspective
Properties
3D View
3D View: 3D_01
Edit Type
Graphics
Detail Level
Medium
Parts Visibility
Show Original
Detail Number
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Rotation on S...
None
Visibility/Grap...
Edit...
Graphic Displa...
Edit...
Discipline
Architectural
Default Analys...
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Sun Path
Extents
Crop View
Crop Region V...
Far Clip Active
Far Clip Offset
7167.6
Scope Box
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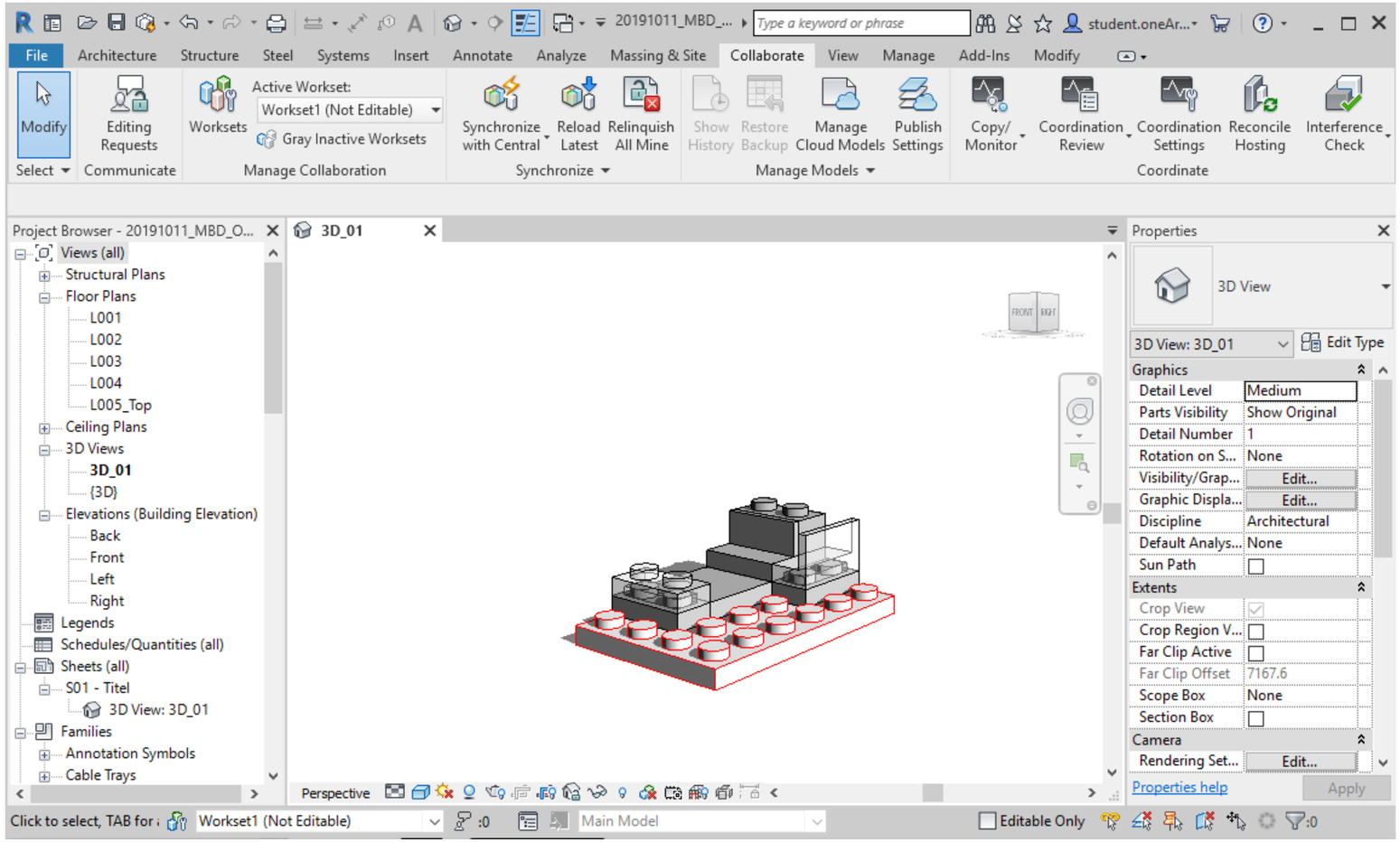
Section Box
Camera
Rendering Set...
Edit...
Properties help
Apply
Click to select, TAB for
Main Model

Student.One

Student.One

TU Delft



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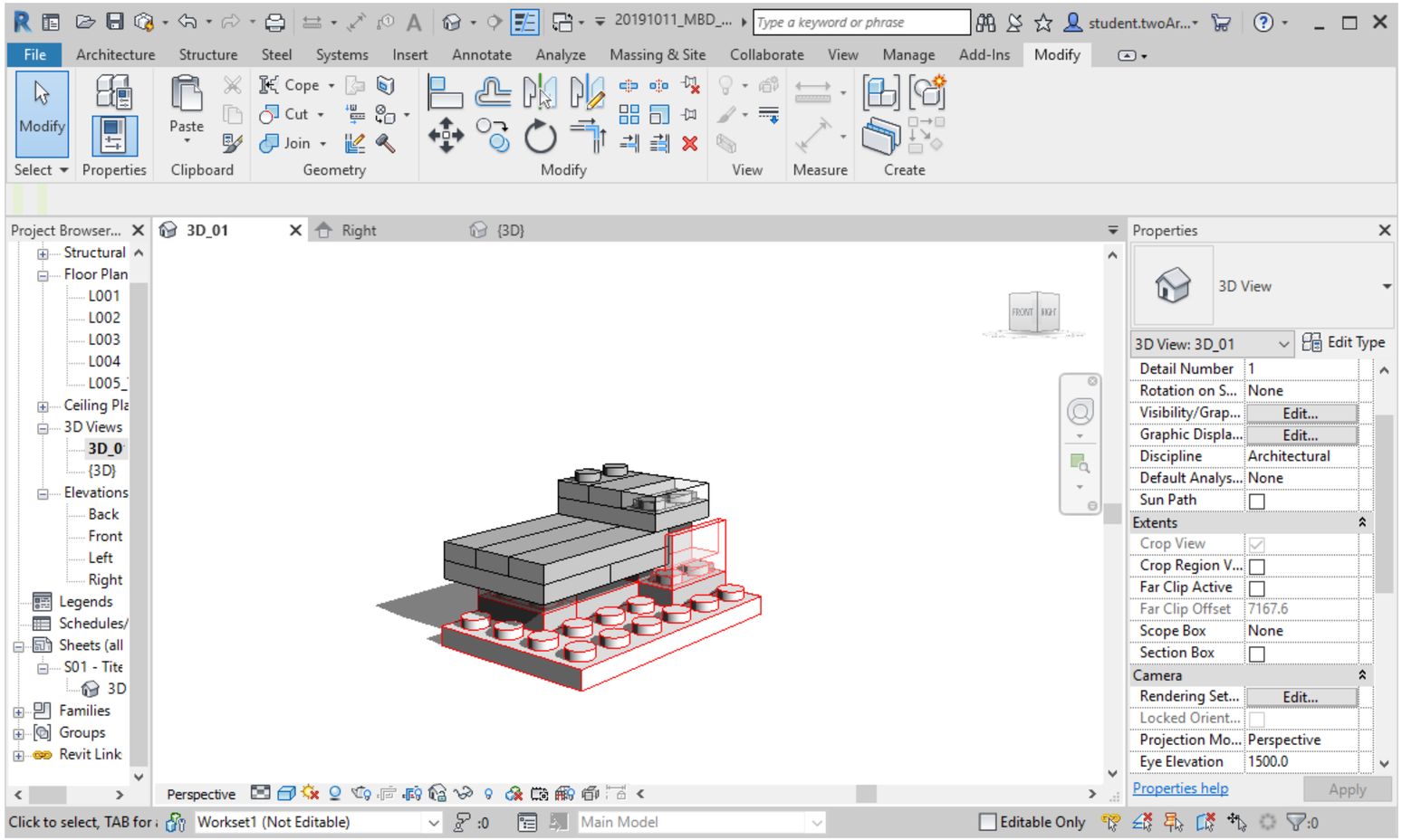
Student.Two

Student.Two

Hanzehogeschool Groningen
University of Applied Sciences



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Hanzehogeschool Groningen University of Applied Sciences
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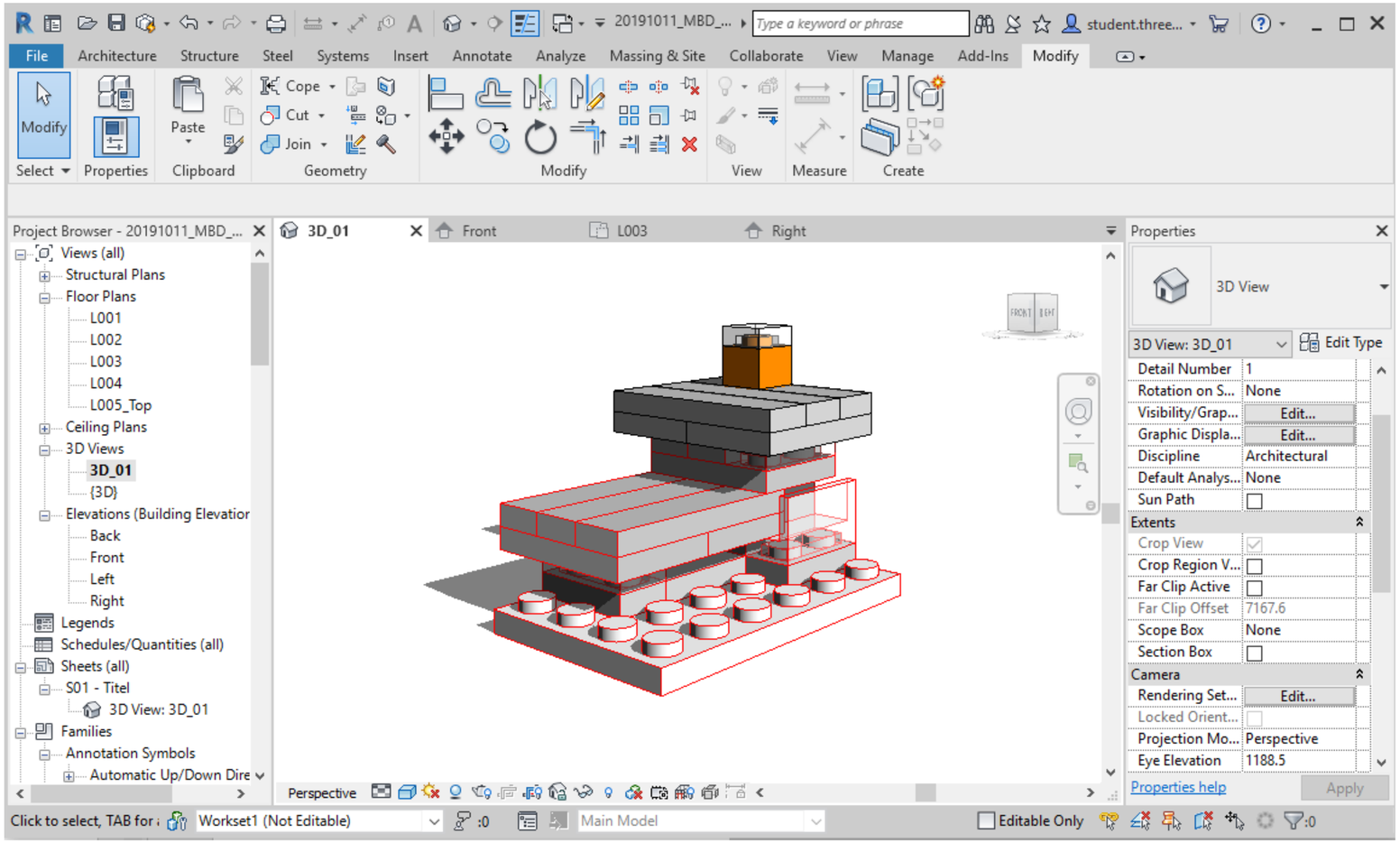
Student.Three

Student.Three

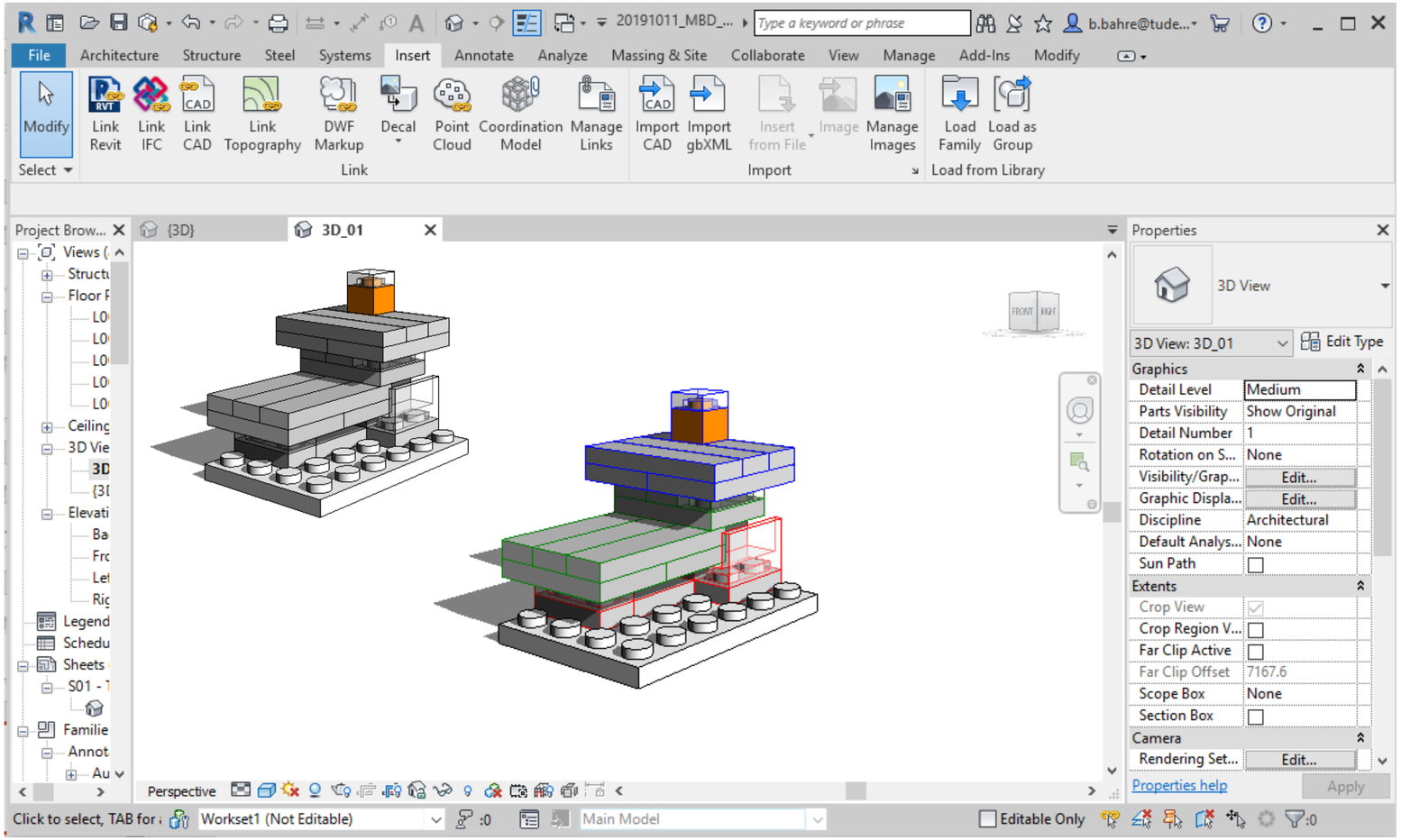
Technology
Arts Sciences
TH Köln



Teacher.One

Teacher.One

BE#



L.House - Lernziele

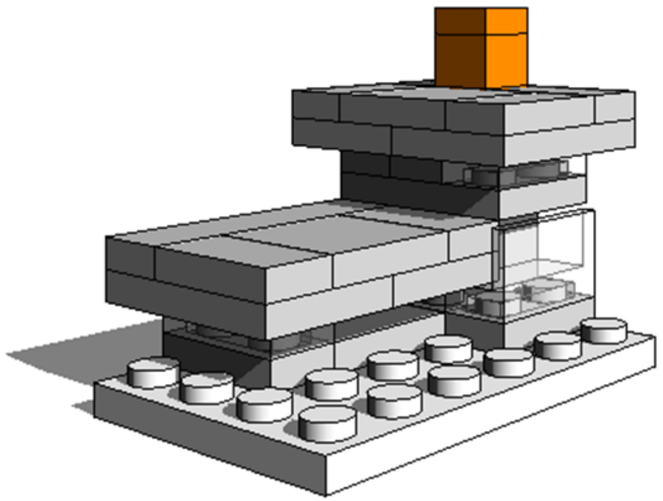
- Der Objektgedanke und Nomenklatur
- Projekt, Kategorie, Familie, Typen und Instanzen
- Das Konzept von Referenzen, Skelett und Geometrie
- Genestete Familien und durchgegebene Parameter
- Datenauswertung intern (Formeln & Listen)
- Datenauswertung extern (Dynamo)
- Bidirektionaler Datenim- und export Von und Nach Excel

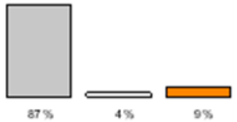
- Teamarbeit in der Wolke
- Verwaltung und Betreuung von Kursen in der Wolke
- Backup und Archivierung in der Wolke.

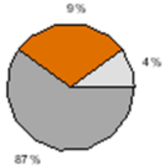
Learning from Bricks

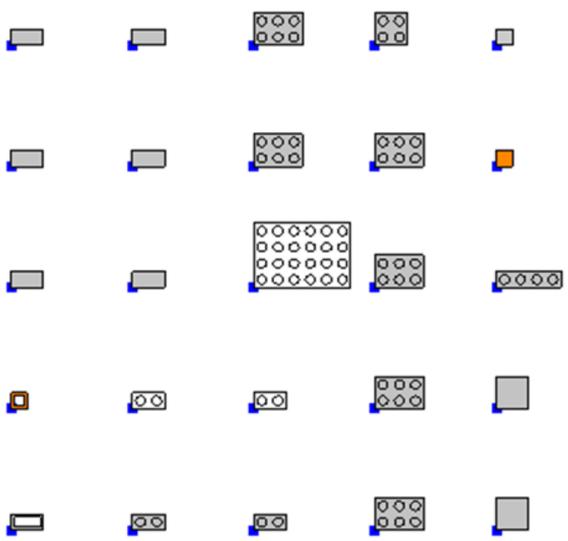
Stein Anzahl: 26

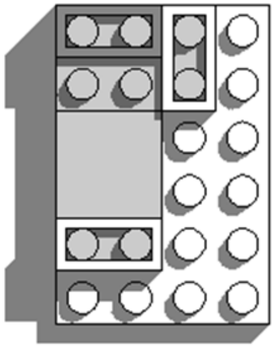
One.Brick Project				
Count	Family	Type	Cost (euro)	Weight (gr)
1			0.00	0.00
4	one BrickGeneric	1H_1x1	0.20	0.72
20	one BrickGeneric	1H_1x2	1.20	7.20
1	one BrickAngle	1H_1x2	0.15	0.96
2	one BrickGeneric	1H_1x4	0.18	1.44
6	one BrickGeneric	1H_2x2	0.60	4.32
12	one BrickGeneric	1H_2x3	1.80	12.96
2	one BrickGeneric	1H_4x6	1.20	8.64
2	one BrickGeneric	3H_1x1	0.14	0.96
2	one BrickGeneric	3H_1x2	0.00	1.91
52			5.47	39.10

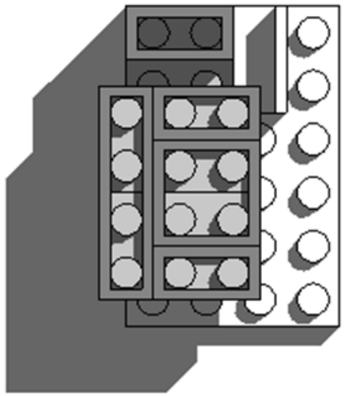


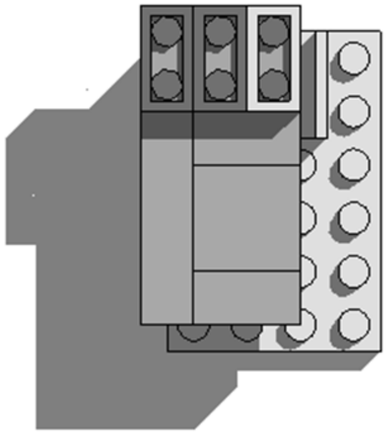


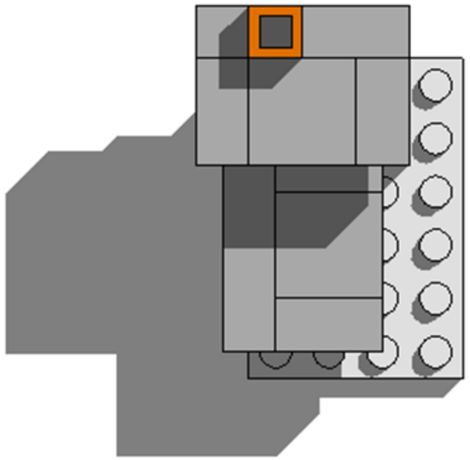


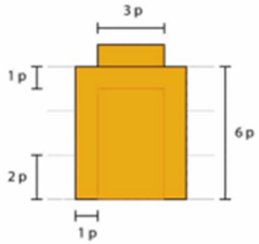












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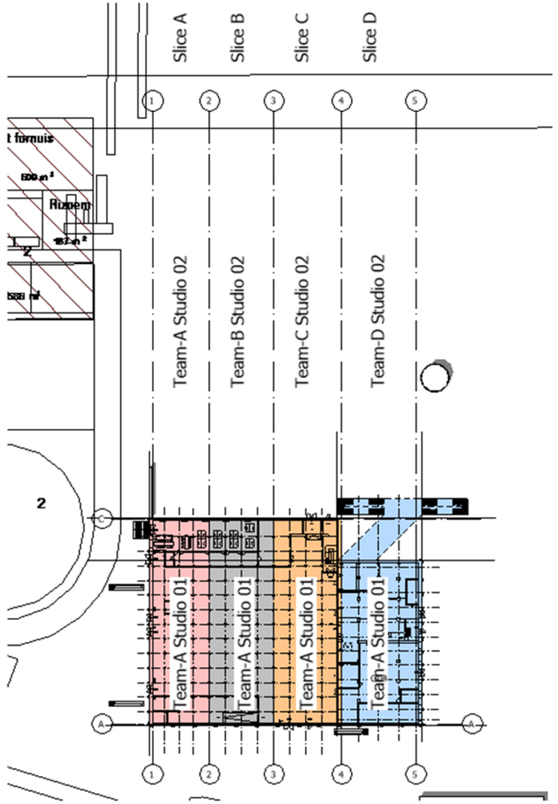
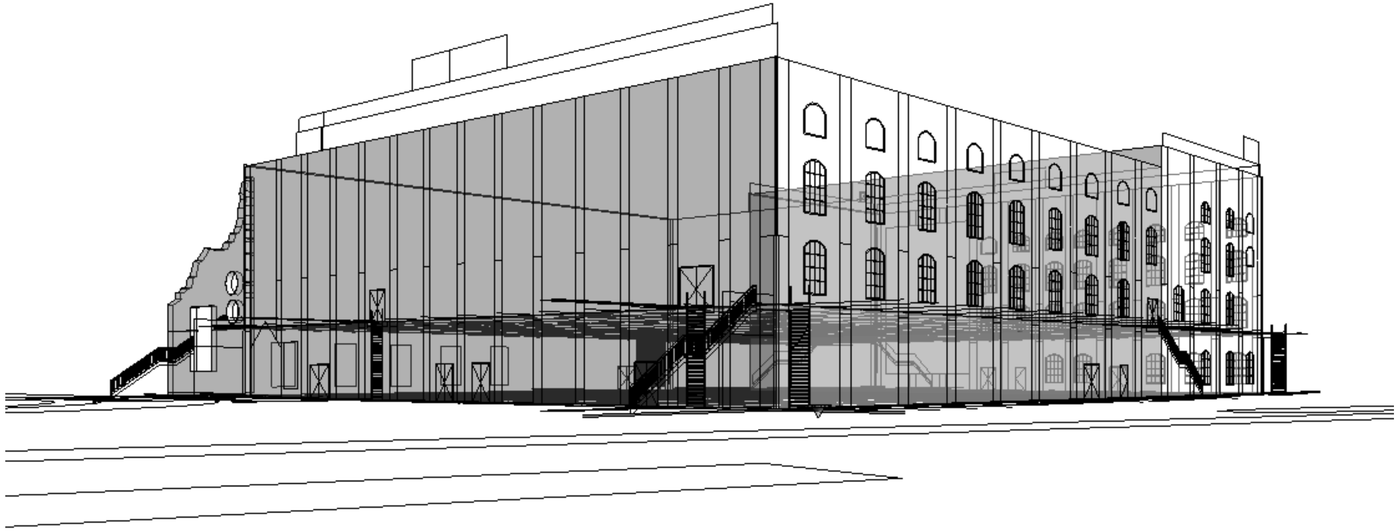
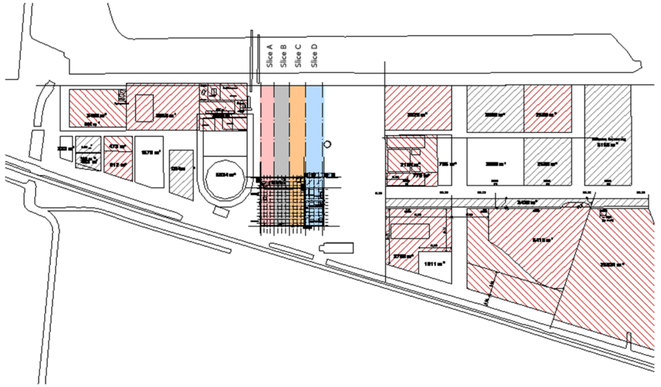
‚Live‘

‚Live‘







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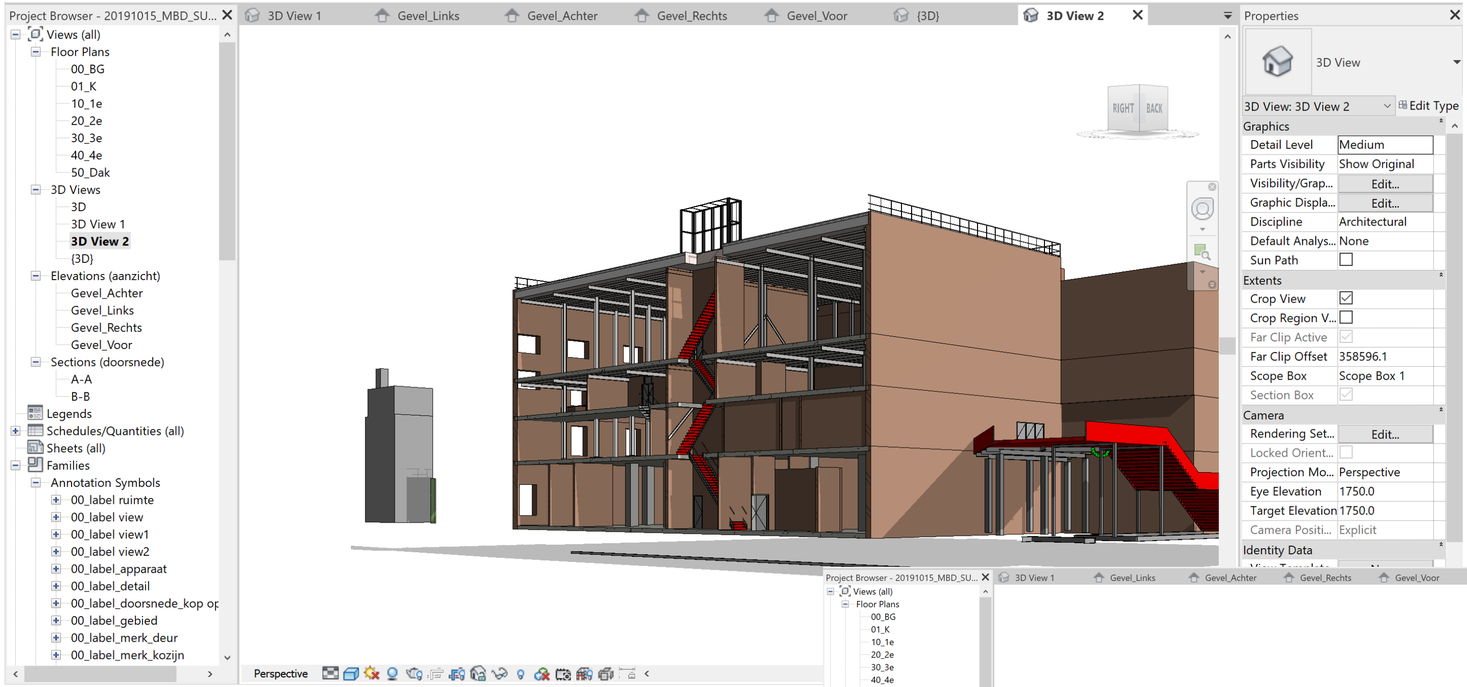

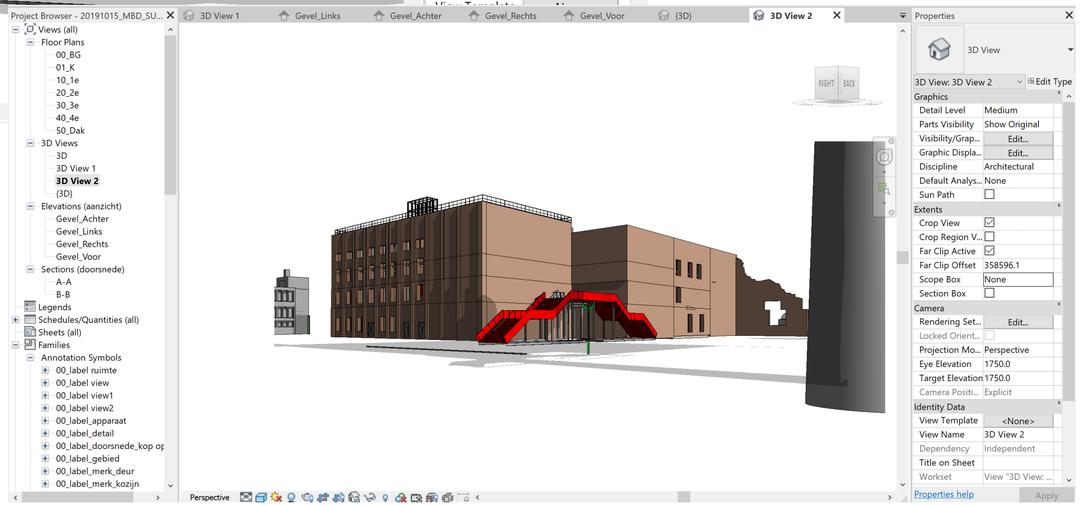

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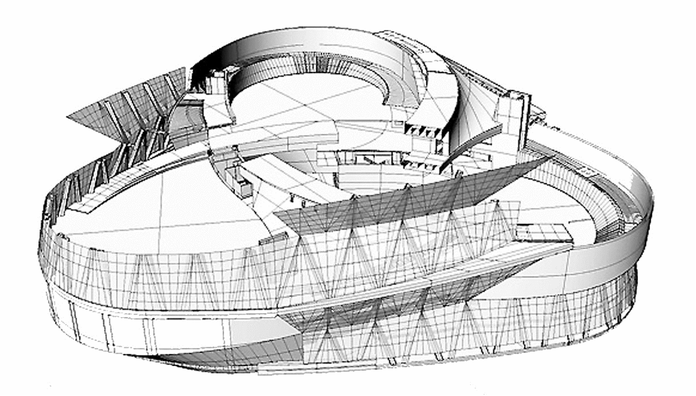
Cloud-based Teaching

Marco Hemmerling

Technische Hochschule Köln, Politecnico di Milano

AUTODESK UNIVERSITY

Hintergrund



MDDC
Master • Computational Design and Construction

CODE ARCH

POLITECNICO MILANO 1863

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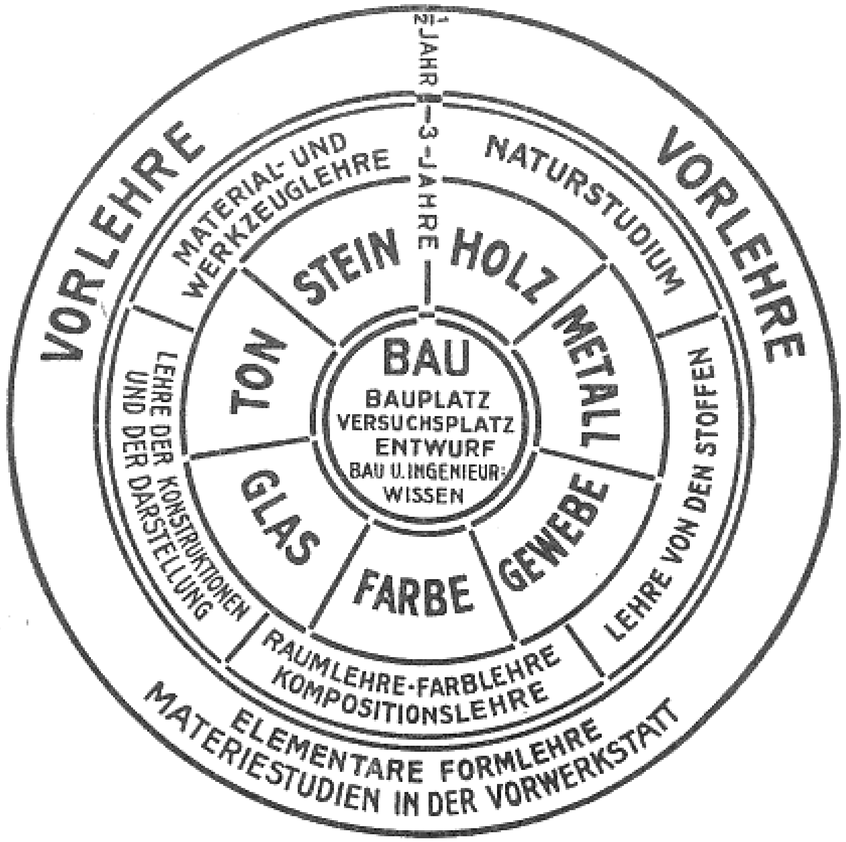
Bauhaus



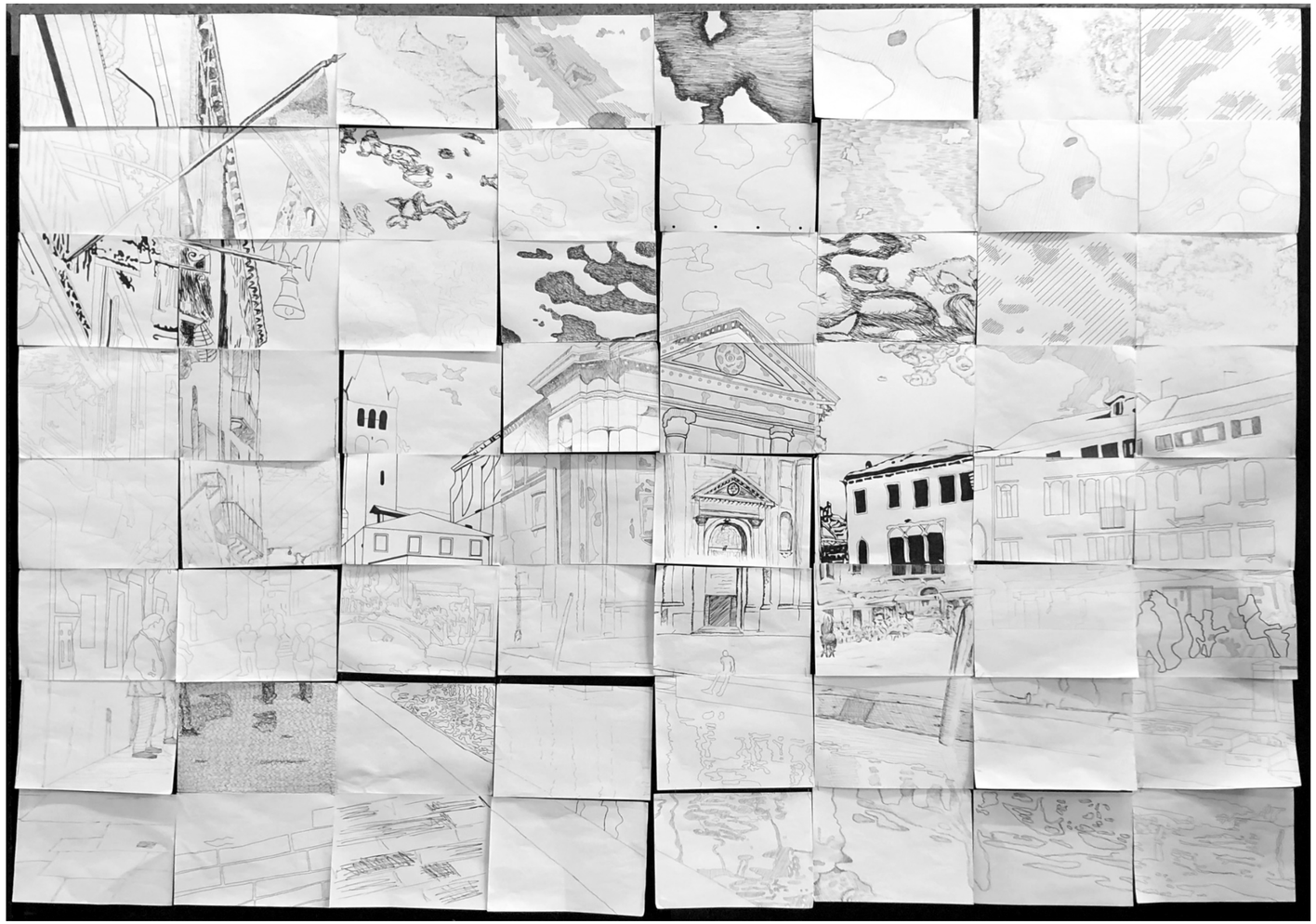
„WIR WOLLEN GEMEINSAM

DEN NEUEN BAU DER ZUKUNFT

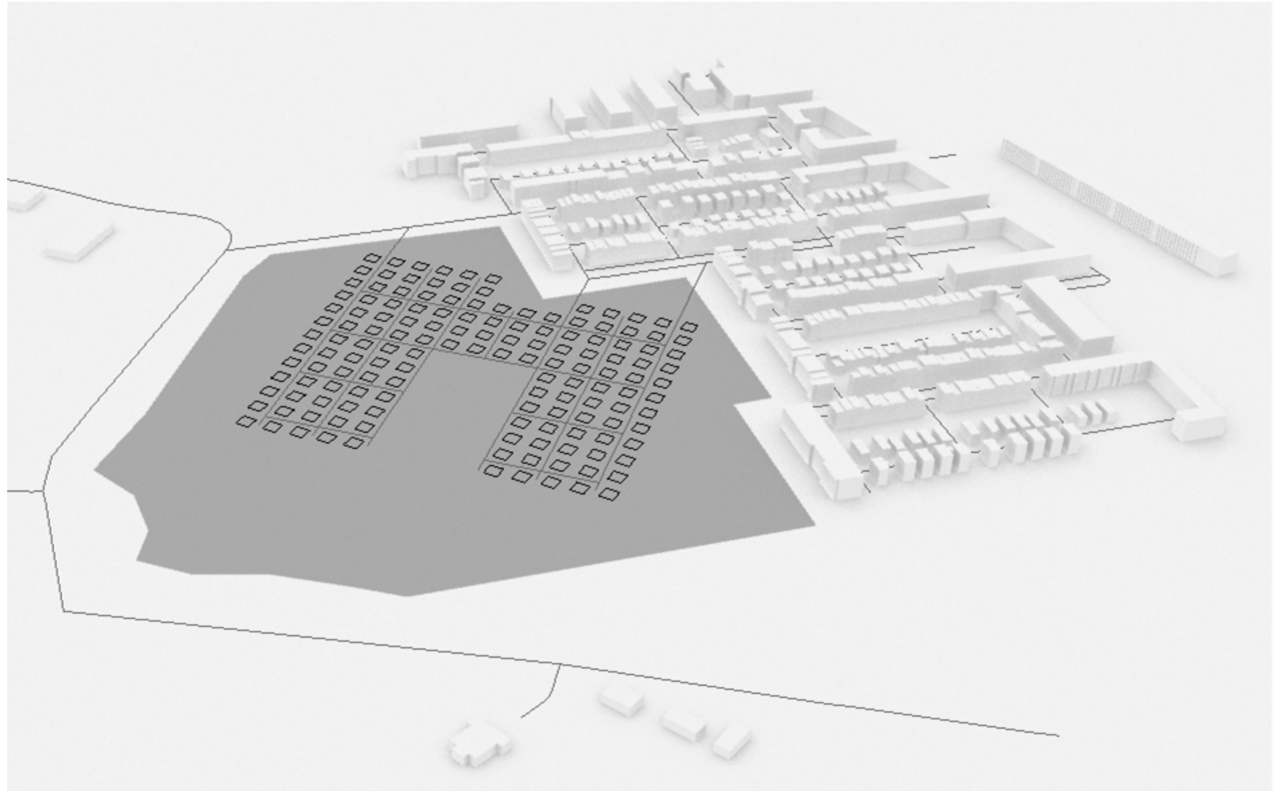
ERDENKEN UND ERSCHAFFEN ...“

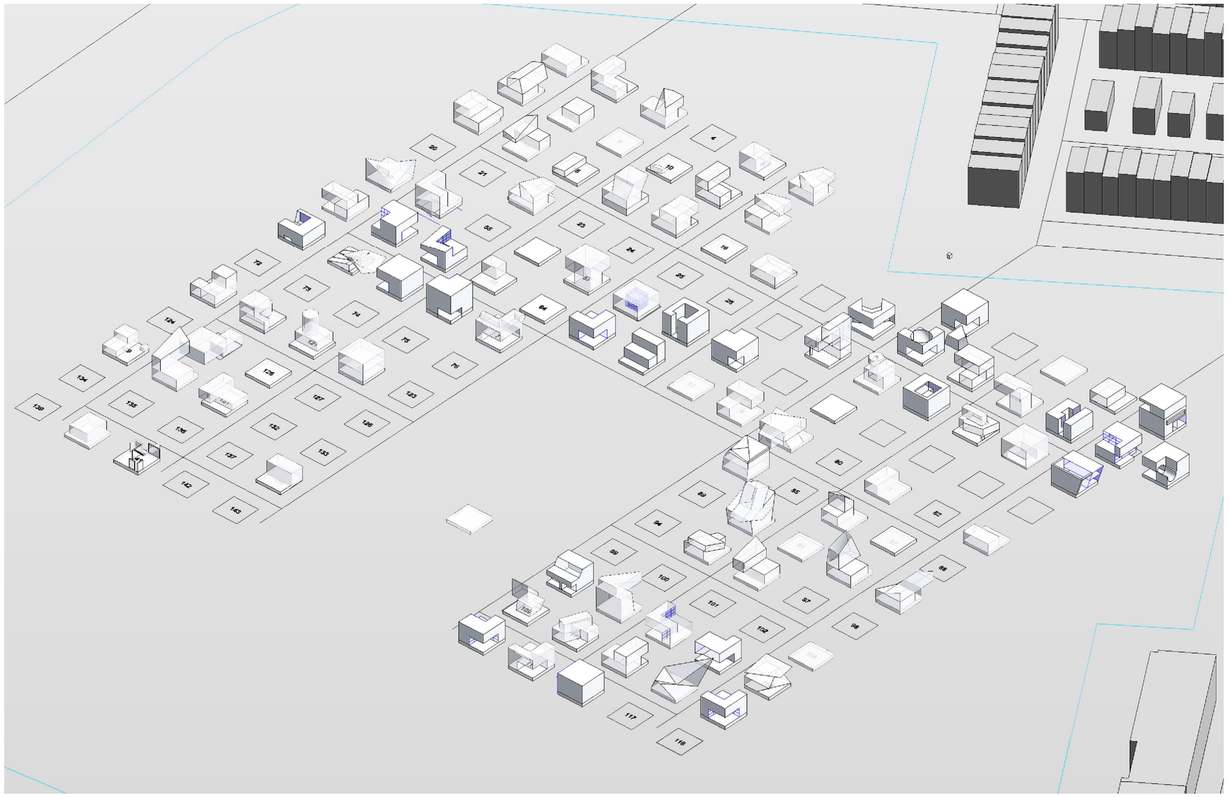
WALTER GROPIUS

Venedig

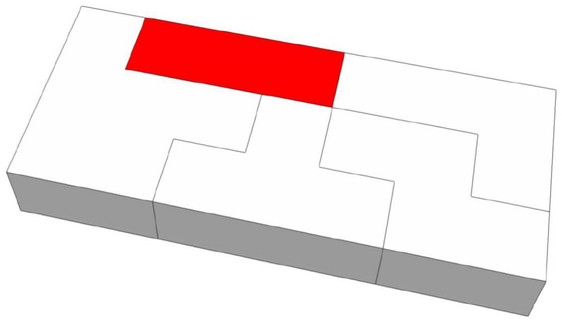


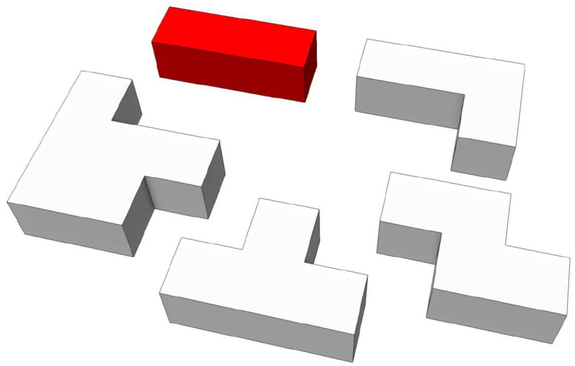
Floating Homes

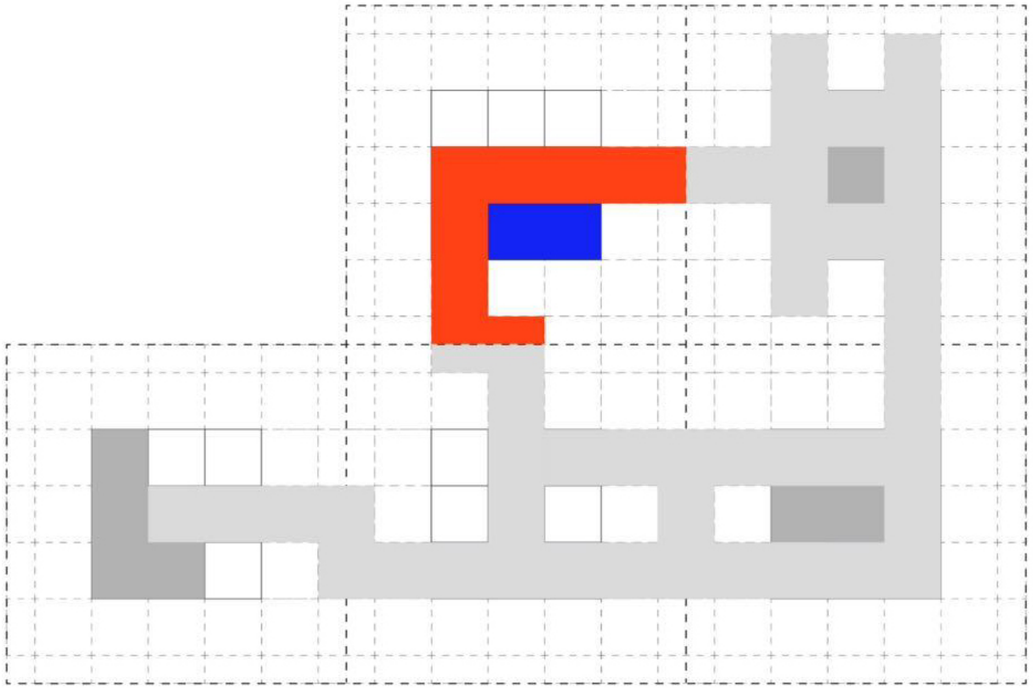




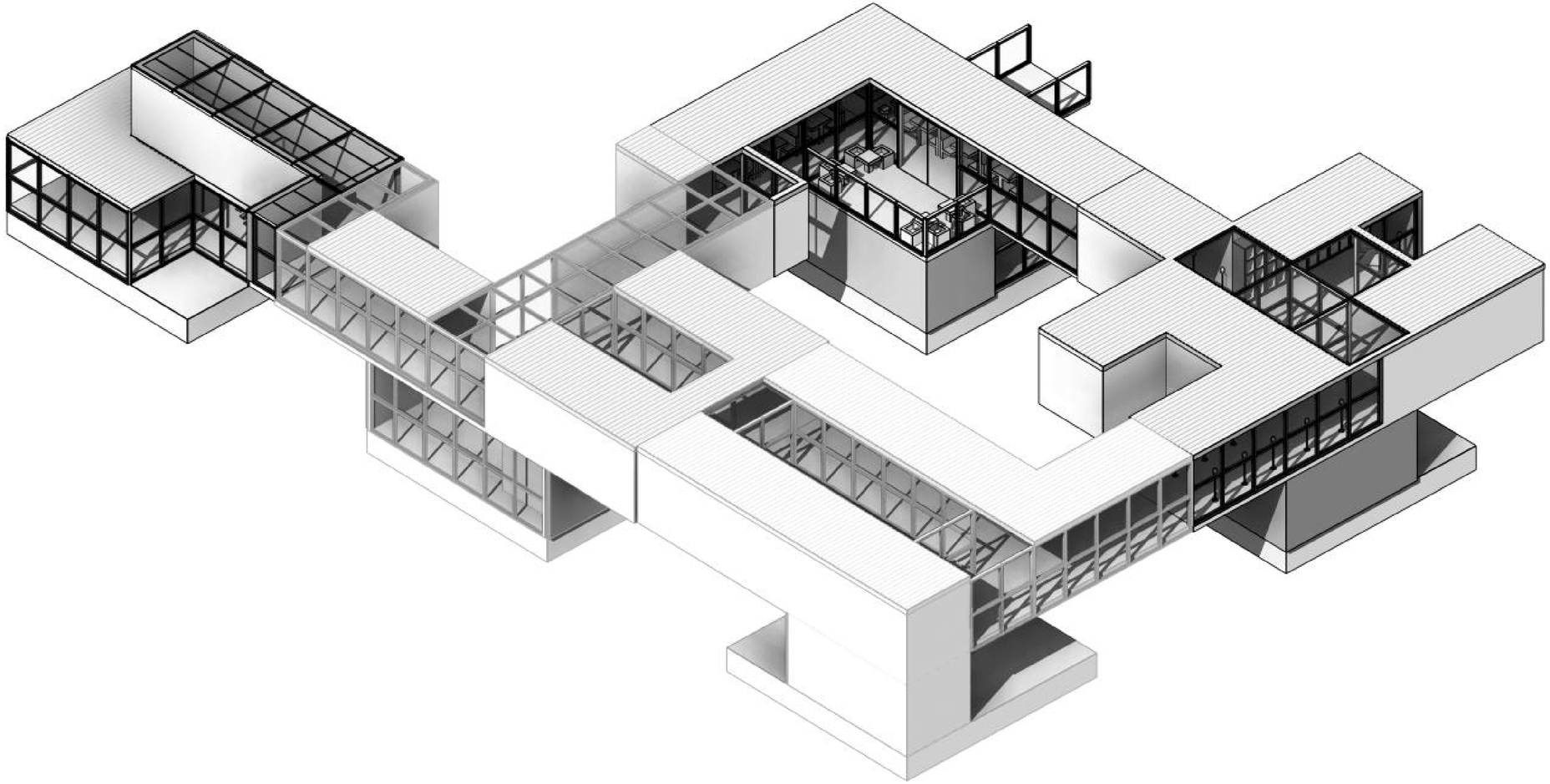
Floating Homes







Floating Homes

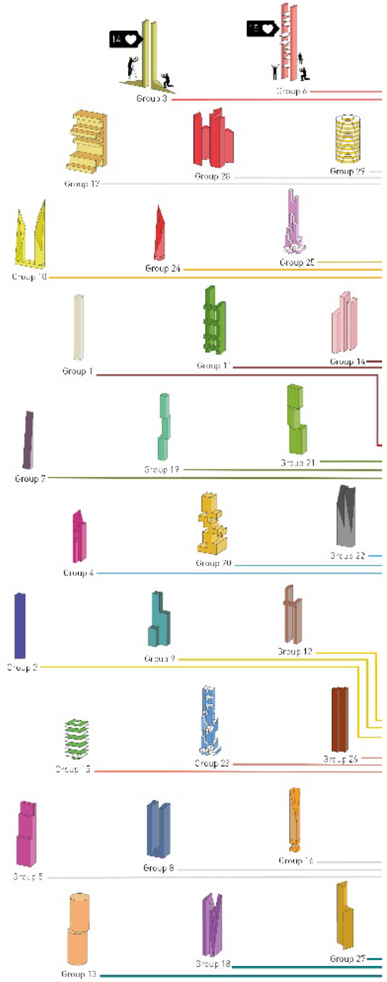


MilanSky


CORSO COMO
GAE AULENTI
BIBLIOTECA DEGLI ALBERI
CBD 1953
PALAZZO LOMBARDIA
GRATTACIELO PIRELLI


UniCredit

MilanSky



CONCEPT PHASE

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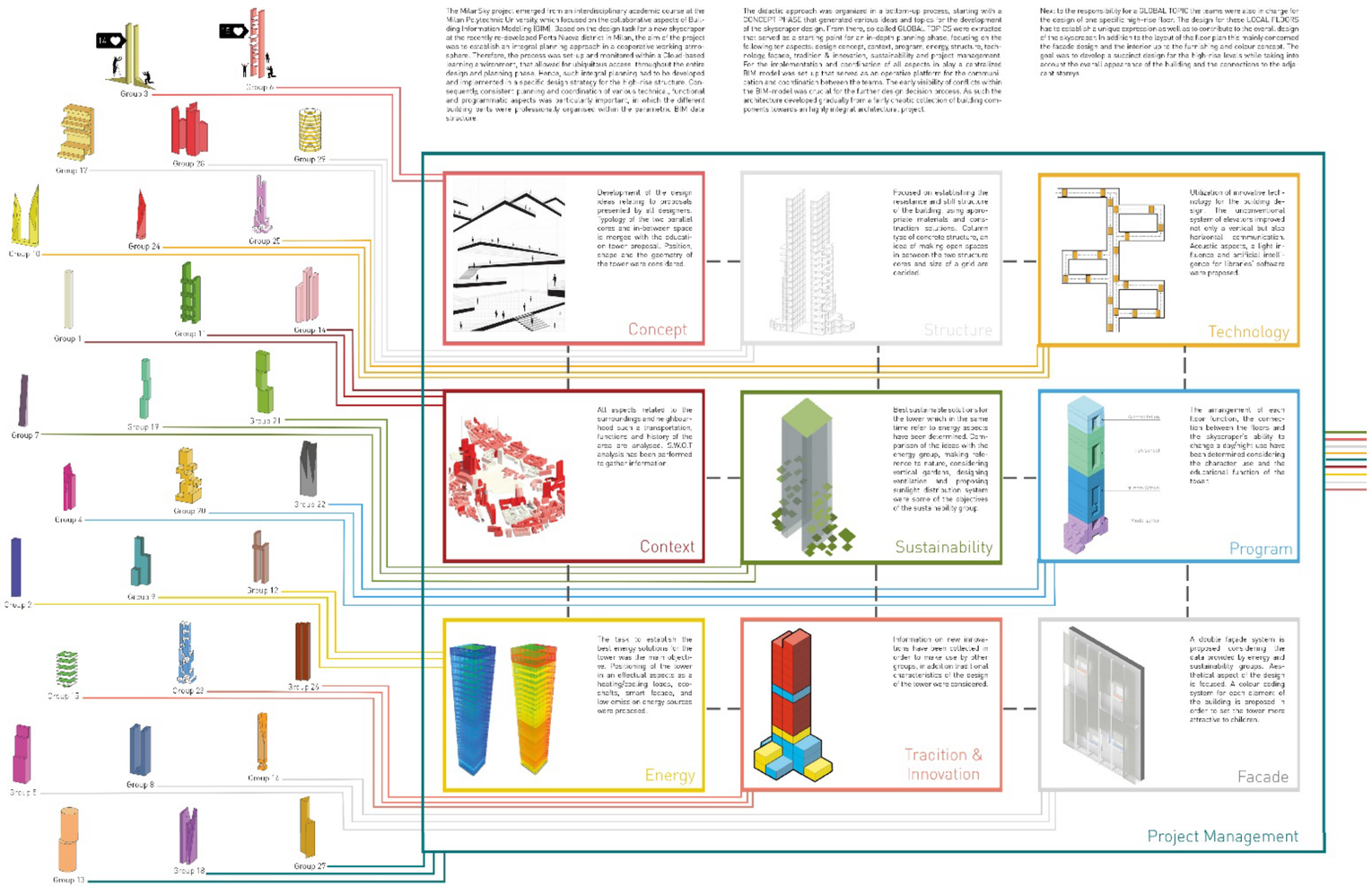
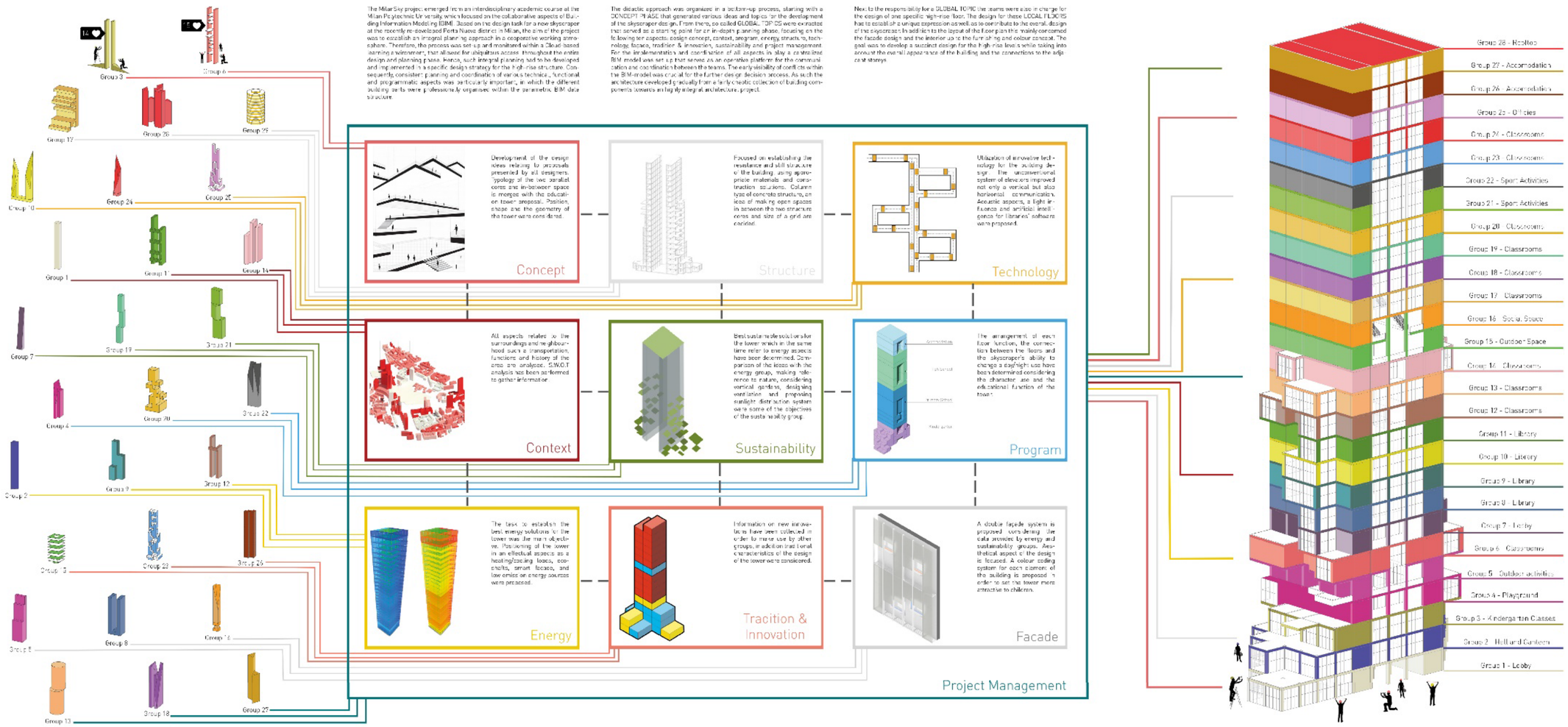


CONCEPT PHASE

GLOBAL TOPICS

MilanSky



CONCEPT PHASE

GLOBAL TOPICS

LOCAL FLOORS

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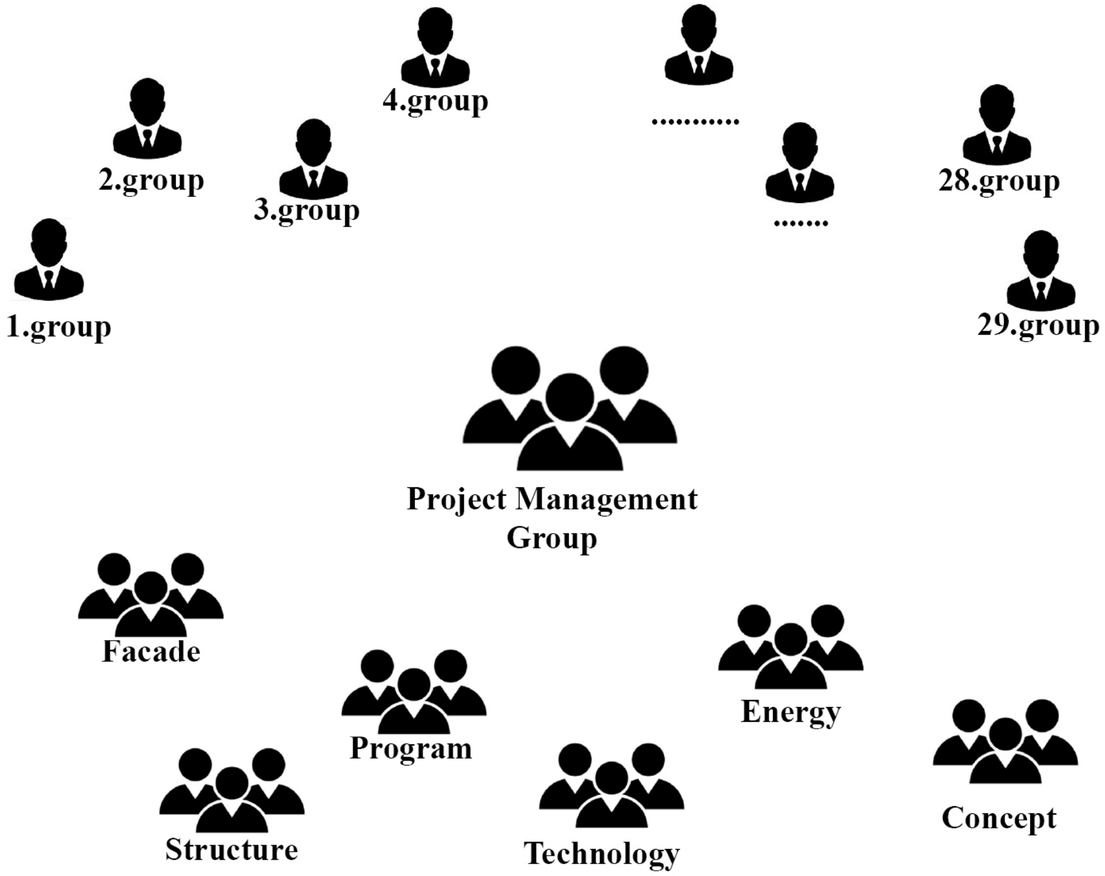
1.group
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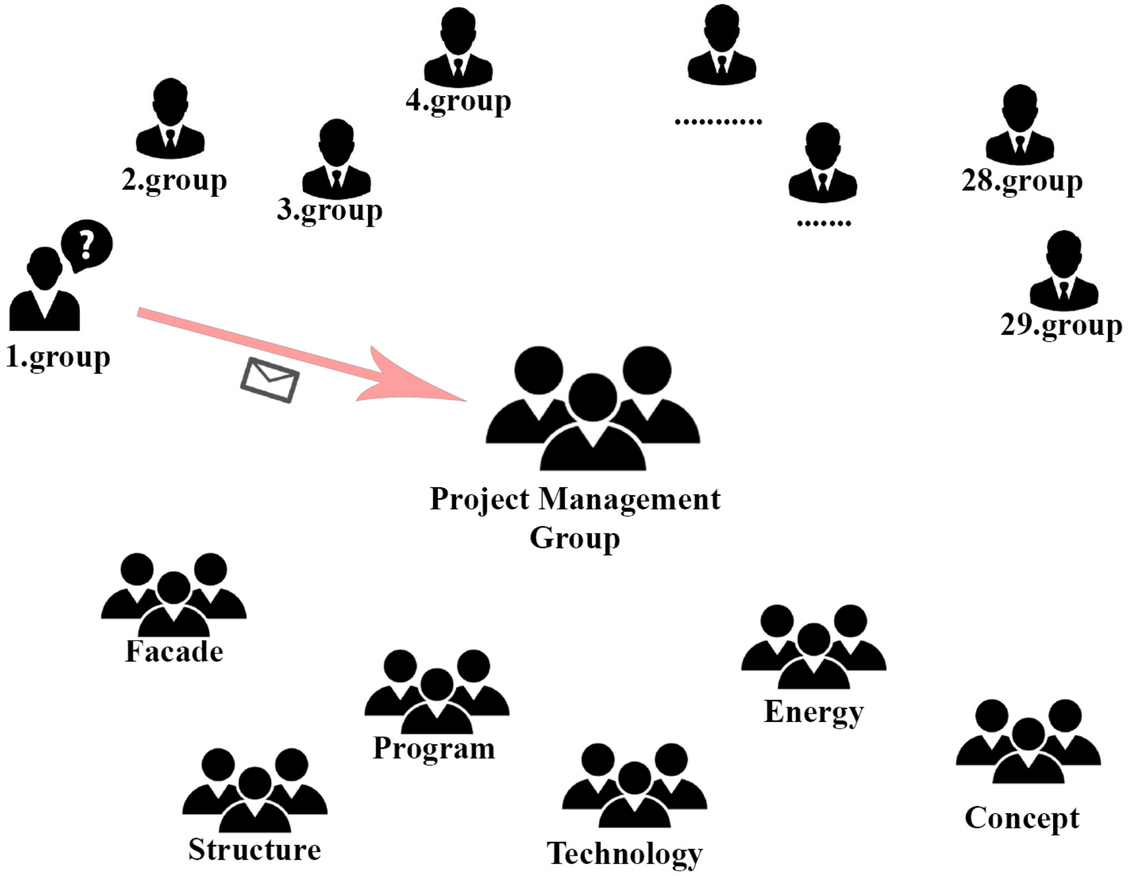
Facade
Program
Energy
Structure
Technology
Concept

MilanSky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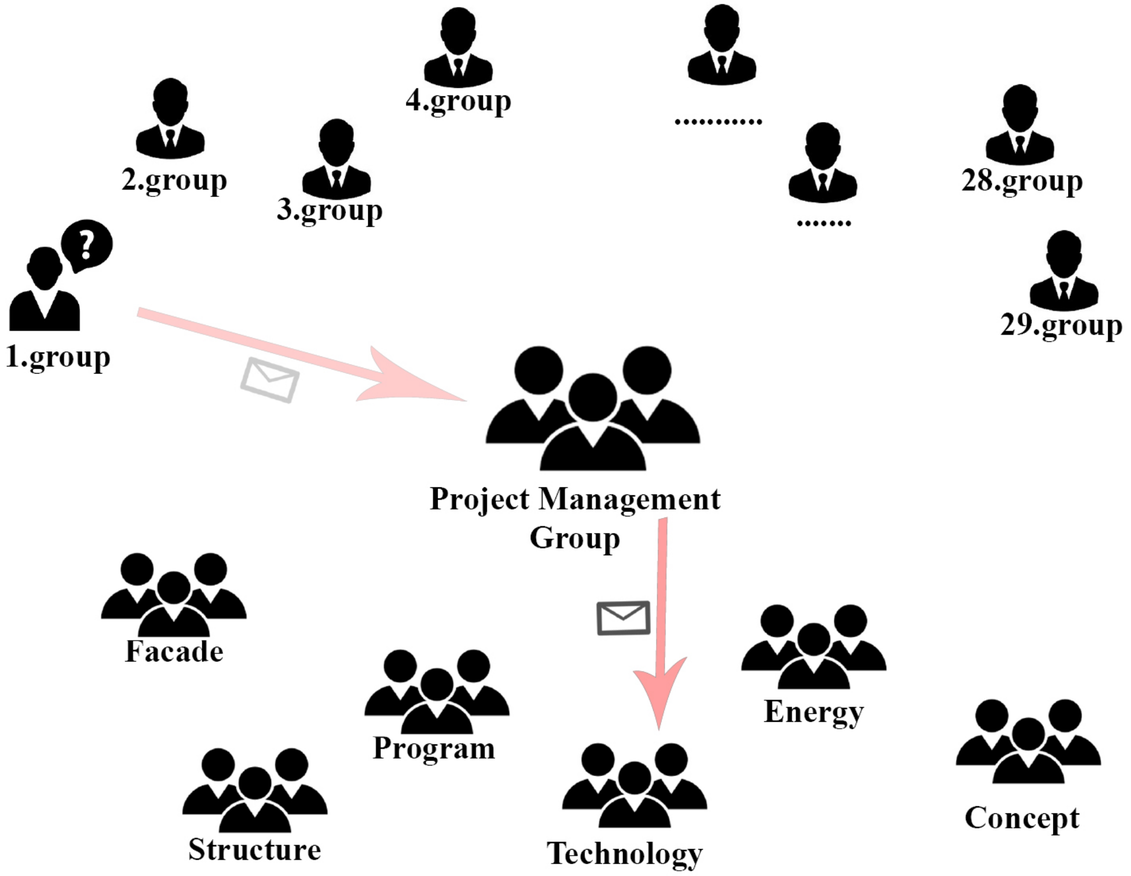
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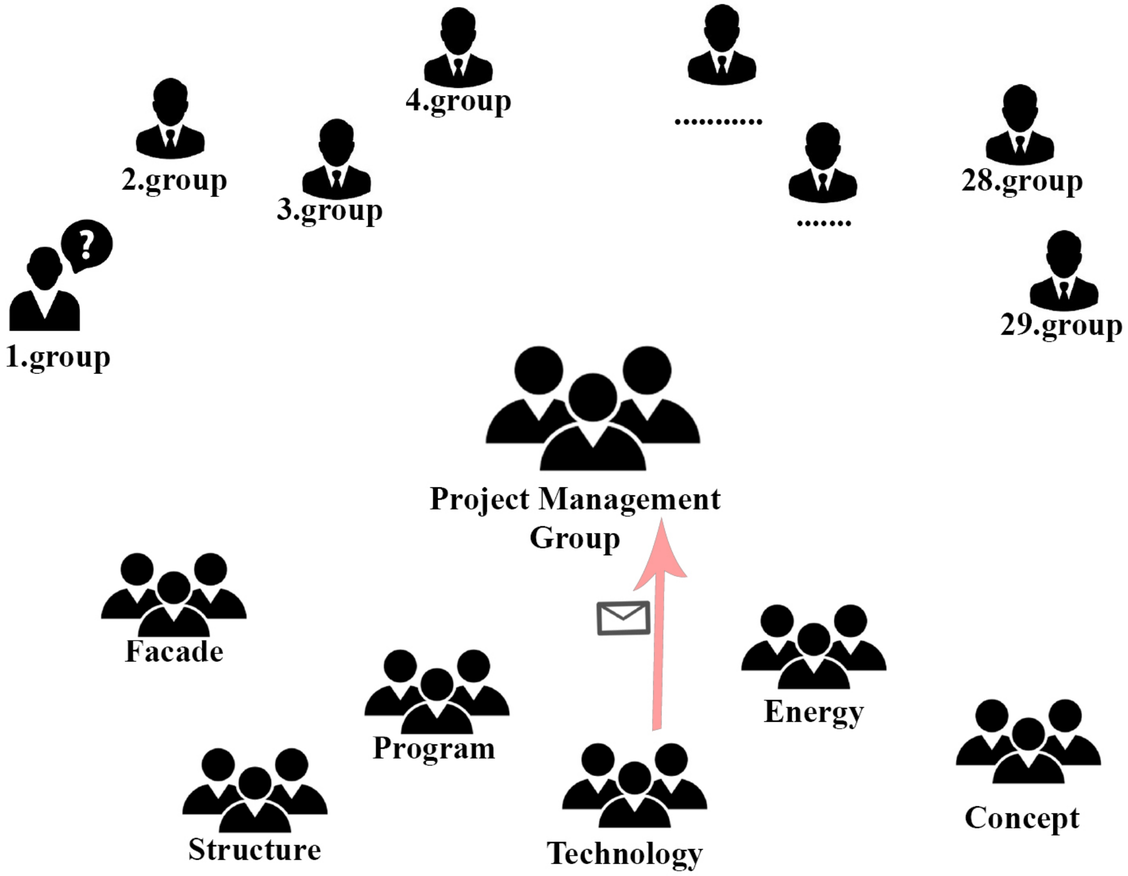
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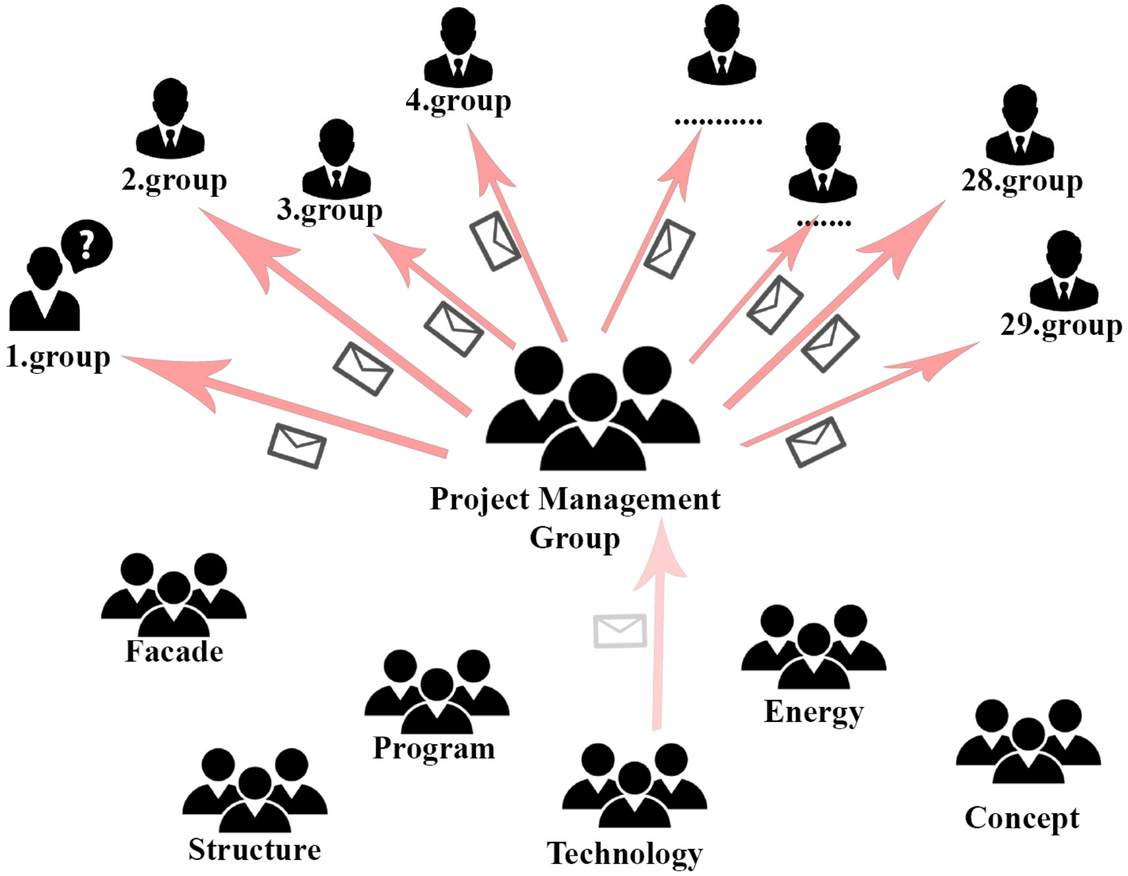
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Program
Structure
Technology
Concept

MilanSky

Krzysztof Piotr Jedrzejewski
lun 19/11/2018, 16:23
Xi Luo; Yuhang Lin; aignerkaroline@yahoo.de; Svea Abert; Viktoriya Dimitrova; Ala Todorova; +27 altri

Hi!

Groups: 14,24,26,28
We kindly ask you to upload to the server the file of the floor that was given to you as a design task. We urgently need it to establish the linking between the local files and the global one.

Groups: 1,5,9,10,11,12,17,25
Unfortunatelly You have created the files with the wrong name, so since the name can not be changed- we delete them and ask you to create one following the given naming pattern:

20181105_MilanSky_GXX where XX stand for the number of your group

File should be created based on the orginal global file.

Please work only on the level that was given to you as a task

Best regards!

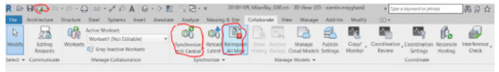
Chris,
Project management group

Krzysztof Piotr Jedrzejewski
ven 30/11/2018, 00:06
Dina Sretenovic; Katarina Radaljac; Beril Maria Kubin; Bohao Chen; Enes Sever; Egzon Feka; +53 altri

Hey!

1) We would kind ask You to **submit updates to your designs** on both local and global topics on the server till **Sunday 1 PM (02.12.2018)** so we have time on sunday to connect it to our main model and solve the possible collisions between the consecutive gropus.

2) Could You all please make sure that You are always **relinquishing** ownership of the objects in your files and **syncing before closing** your local files? It is vital, since we are at times unable to operate on the files due to ownership collision.



3) Also, a short remark from the program group:

"**Functions** of the last floors have been **changed to:**

24. Classrooms
25. Offices
26. Accommodation
27. Accommodation
28. Rooftop"

Best regards!

Chris
on behalf of Project management group

Krzysztof Piotr Jedrzejewski
dom 23/12/2018, 19:35
Dina Sretenovic; Katarina Radaljac; Beril Maria Kubin; Bohao Chen; Enes Sever; Egzon Feka; +54 altri

Also a tiny addition regarding the previous lecture:

1) We would like to reming You on saving the families which will be common for all groups in the folder "Comp_Library", in the following fashion:

Project name_What it is_ext/interial_Material_Height_Length

Example for wall:
"MilanSky_Wall_ext_General_200"

All elements which will be shared in each floor should be saved in this manner in the mentioned folder (columns, doors, windows, walls etc.) for others to use. (04.01.2019)

2) Each group **MUST** cooperate with the floor above / below to establish the footprint of the floor- since we are trying to have a building with different shapes of each consecutive floor we must make sure, that each of them will have the proper slab below and above,. Hence, you should communicate with people above and below to make sure, that the elements do not overlap (Which group does which element)

3) We do not attach columns and walls, as discussed on monday with Boris.

4) Floors should be drawn from outside of the column, not from the center.

5) On the **04.01** we would like to recieve, as mentioned by Marco, list of questions, if there is still something which is not yet clear, as well as overview of at what state each of the global topics is- Hopefully everything will be already completed then, since it is time for wrapping up (Facade group included!)

6) Below you will find mail from Boris regarding the overall chart/data visualisation as well as mass model representation tutorial (It is not obligatory to show your floor in any of these ways, but it might be helpful)

Best regards, and calm and relaxing period of the holiday / winter break!
Chris
on behalf of PM group

"This just to follow up and round off our Meeting on Monday:

Krzysztof Piotr Jedrzejewski
dom 06/01, 22:10
Dina Sretenovic; Katarina Radaljac; Beril Maria Kubin; Bohao Chen; Enes Sever; Egzon Feka; +53 altri

Hey!

1) Due to the exam that will be taking place on the 14.01.2019 we would like to ask You all to finish your designs and upload all the necessary files till **12:00 am 12.01.2019**.
It is necessary for us to brush up the model, remove not needed files and links before the final presentation.

2) For the presentations, both global topics and floors we would kindly ask you to upload the files to the server till **23:59 13.01.2019** so we avoid confusion on the day of exam. Folder is already done on the server in G00 folder
Name for the files should be as follows:

For the global topics:
MilanSky_FinalPresentation_NameOfTheGlobalTopic

or for the floor designs:
MilanSky_FinalPresentation_GrXX

Thank you and good luck during your winter exams guys! 😊

Best!
Chris
on behalf of PM group

Krzysztof Piotr Jedrzejewski
gio 10/01, 20:30

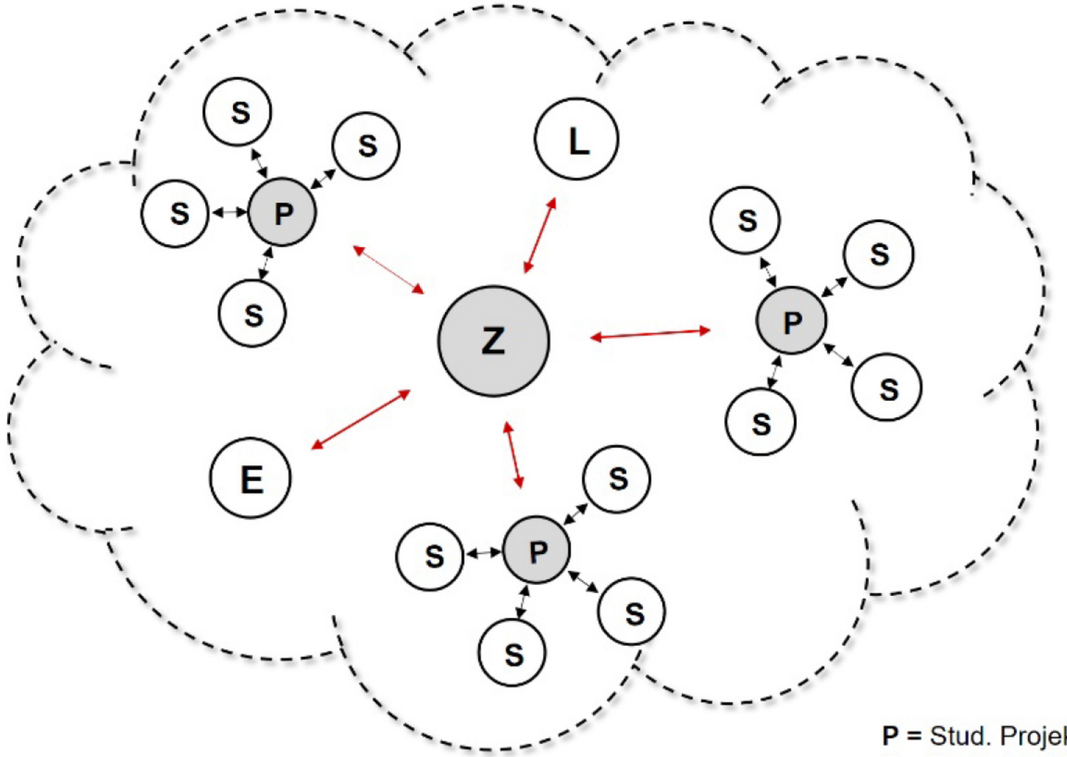
Hey!
We would like to remind You about the dates for the Informed Architecture project upload:

1) We would like to ask You all to finish your designs and upload all the necessary files till **12:00 am 12.01.2019**.
2) For the presentations, both global topics and floors we would kindly ask you to upload the files to the server till **23:59 13.01.2019**

Best
Chris
on halaf of PM group

- FILE NAME
- SUBMISSION DATES
- RELINQUISH AND SYNCHRONIZE
- PROGRAME CHANGES
- COOPERATION BETWEEN FLOORS
-
-
-
-
- DEADLINE

BIM Cloud Teaching



Multiple Projekte mit zentralem Datenmodell in einer Cloud-Umgebung

P = Stud. Projekte
Z = Zentrales Modell
S = Studierende
L = Lehrende
E = Externe Partner

INTERACT

LABORATORY FOR
ARCHITECTURE CRAFTS TECHNOLOGY

INTERCOM

PLATFORM FOR
COLLABORATIVE DESIGN PROCESSES

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Hanzehogeschool Groningen University of Applied Sciences

BE#

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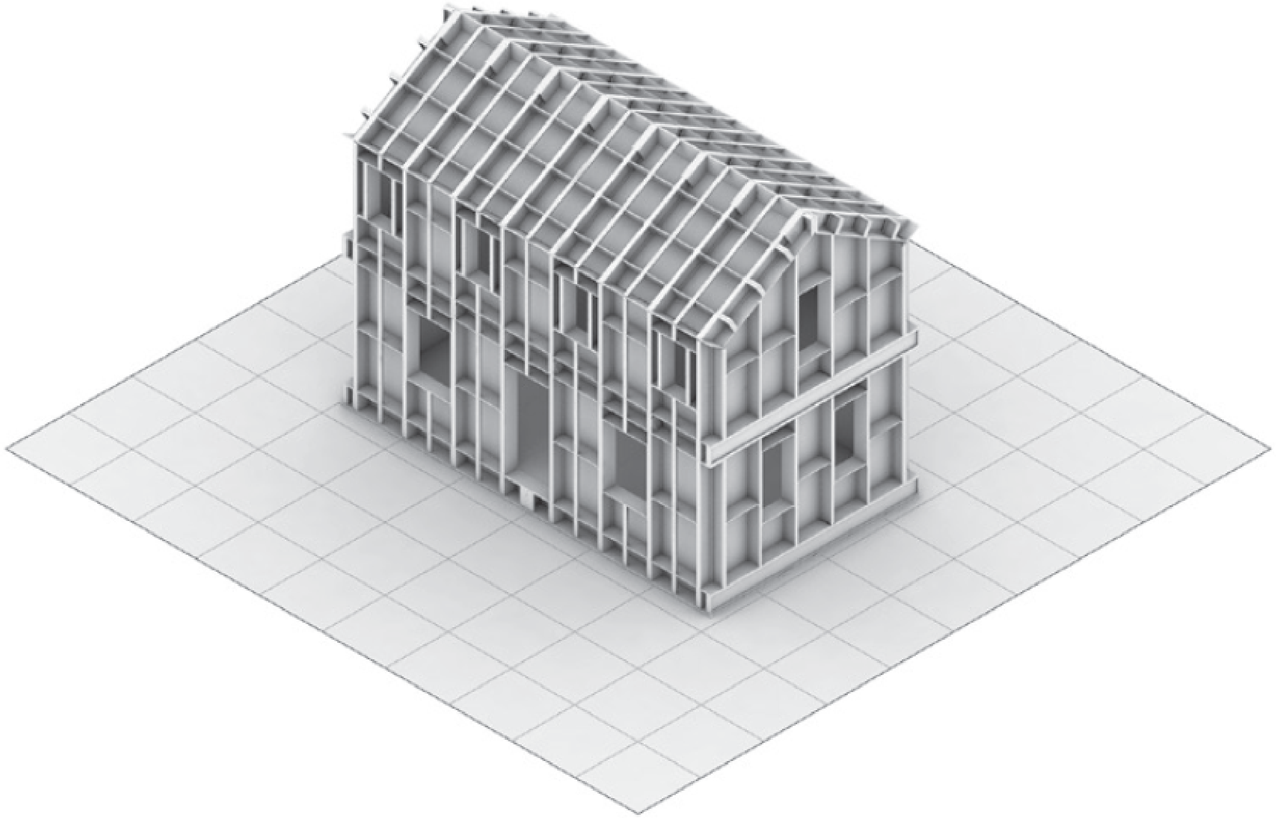

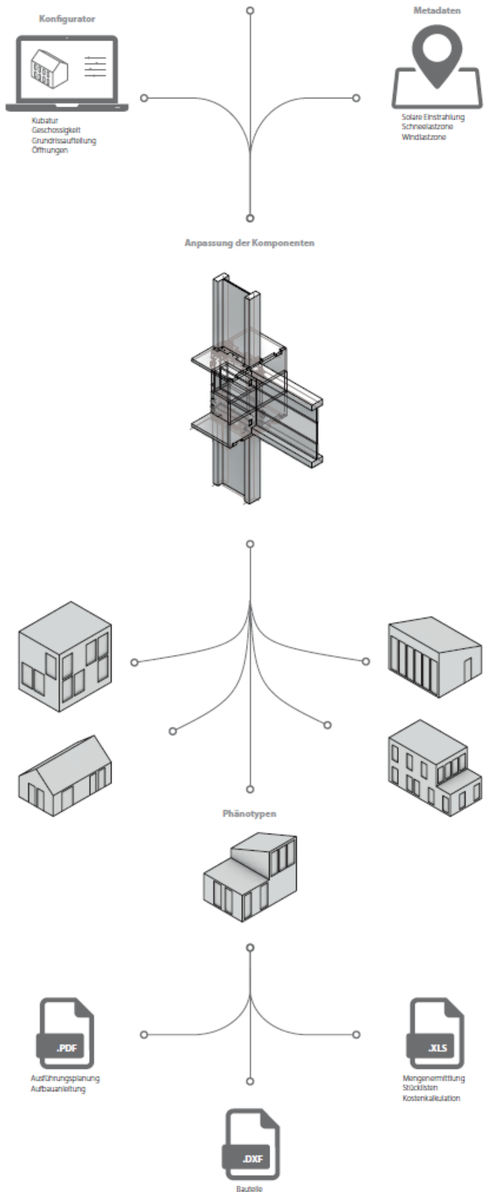

MASTERHESIS
MAX SALZBERGER,
MICHAEL LAUTWEIN

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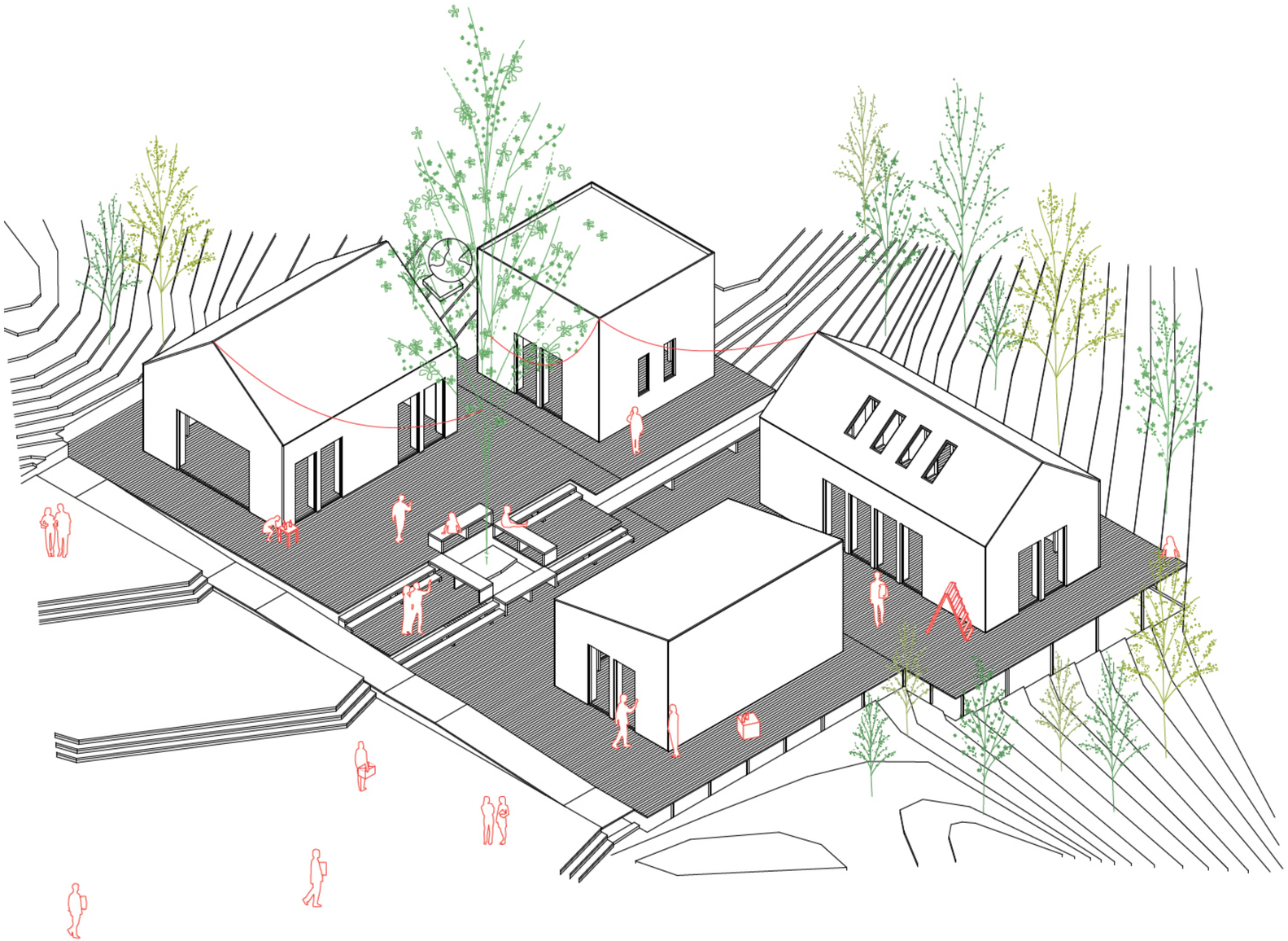

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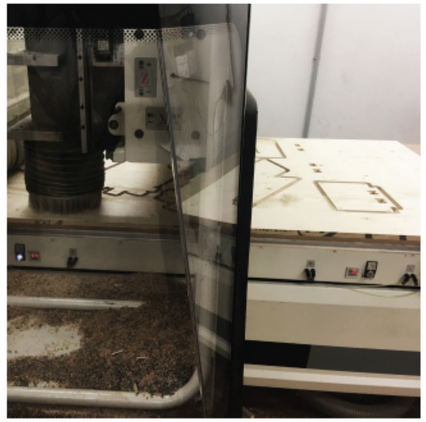
Im Mastermodul **"Technologie & Design 2"** des Lehrstuhls CodeArch wurden, unterstützt durch den Lehrstuhl für Tragwerkslehre, die Knotenpunkte des System nach statischen und produktionstechnischen Aspekten optimiert.



Die Entwicklung der Knotenpunkte des Bausystems erfolgte nach der research-by-design Methode bis in den Maßstab 1:1. Alle Entwicklungsstufen wurden in einem iterativen Prozess evaluiert.

Die Vermittlung digitaler Fähigkeiten in Planung und Produktion sowie eine Optimierung der Schnittstellen diente der Vorbereitung zur Produktion eines Prototypen.

Gemeinsam mit Auszubildenden der Handwerkskammer Köln realisierten Bachlorstudierende im Modul **"Bauen mit dem Computer"** während einer zweiwöchigen Summerschool den ersten Prototypen von InterACT.

Im interdisziplinären Austausch wurde die Prozesskette für die Produktion vermittelt und optimiert sowie die Montage des Systems evaluiert.

Der Prototyp dient im weiteren Verlauf des Projektes zur Überprüfung der Systemsstatik, sowie als Forschungsprojekt- und Präsentationsobjekt.

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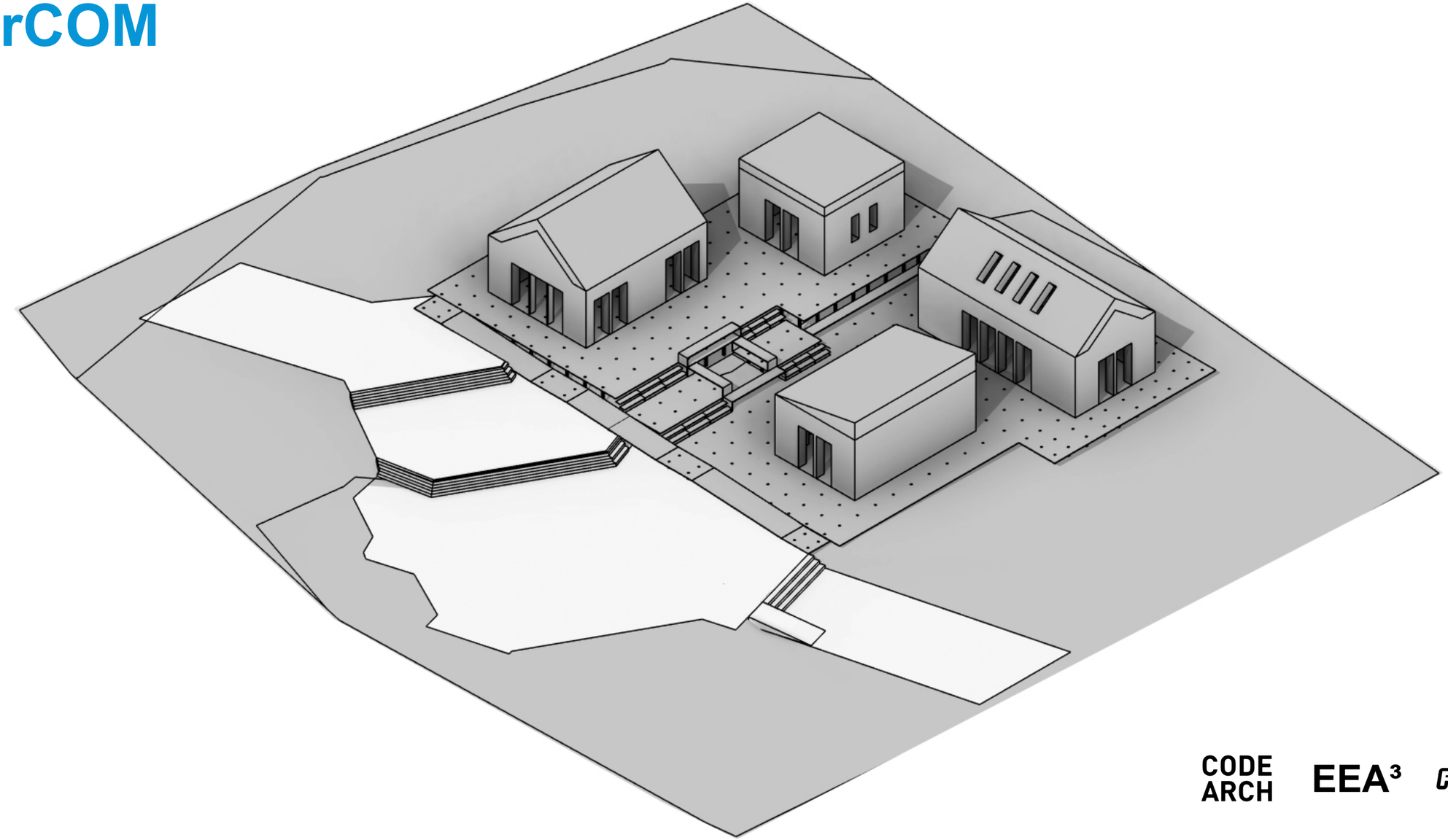

CODE ARCH EEA³ formitas

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InterCOM

Cloud-based Teaching

Boris Bähre

Marco Hemmerling

AUTODESK UNIVERSITY