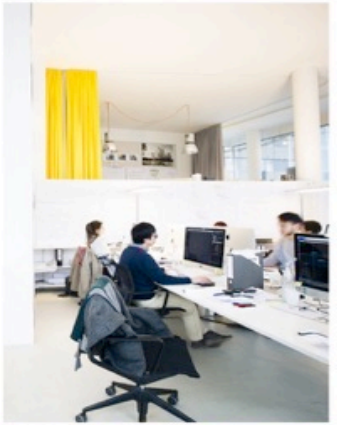
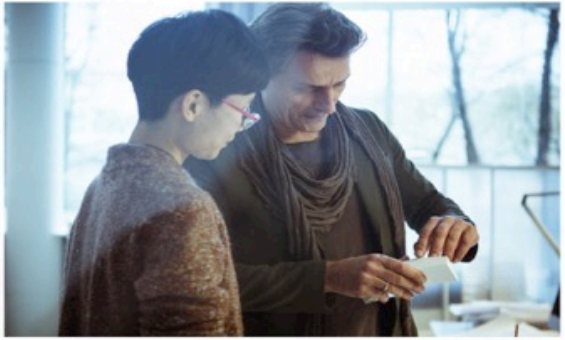
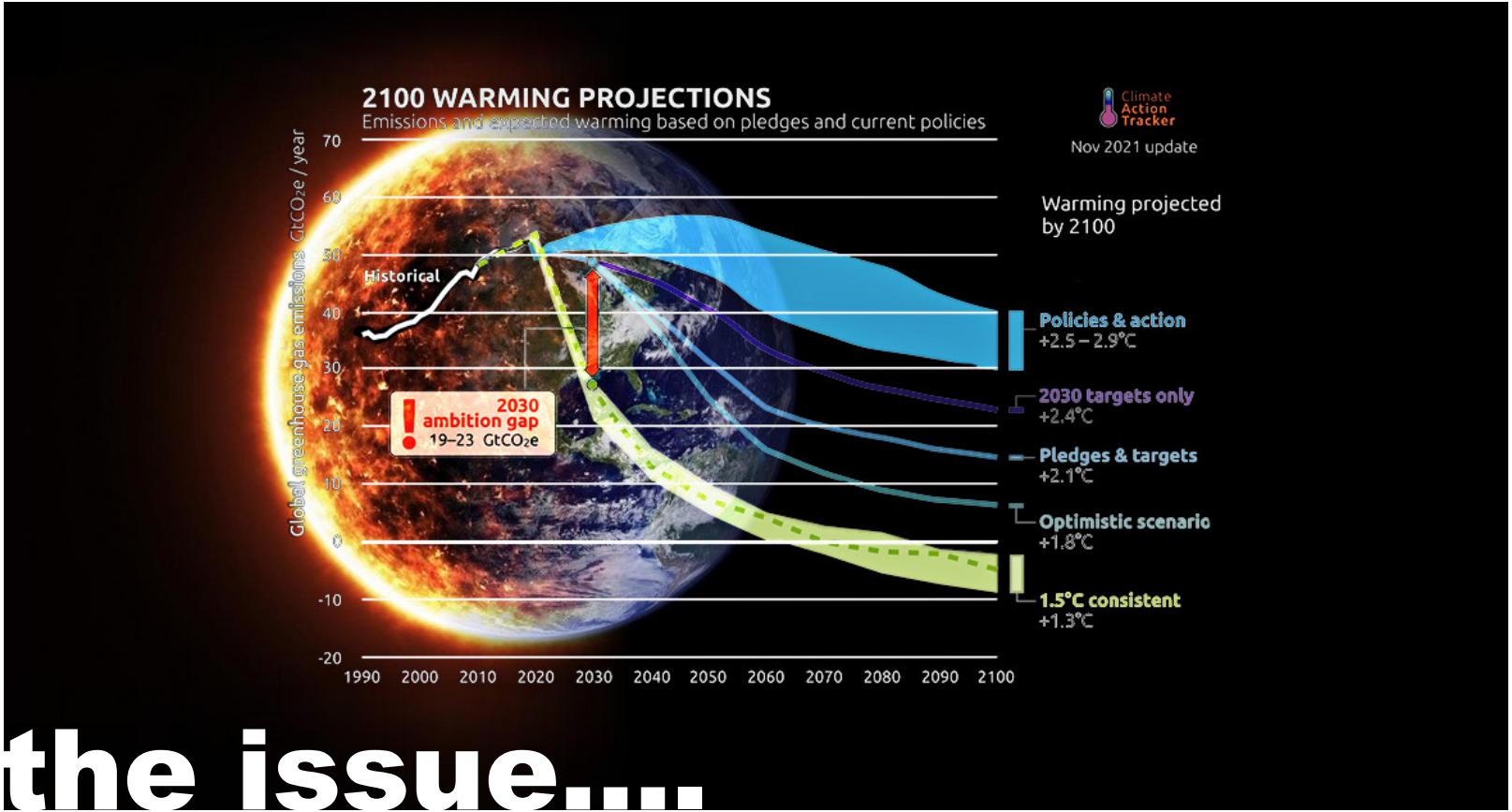


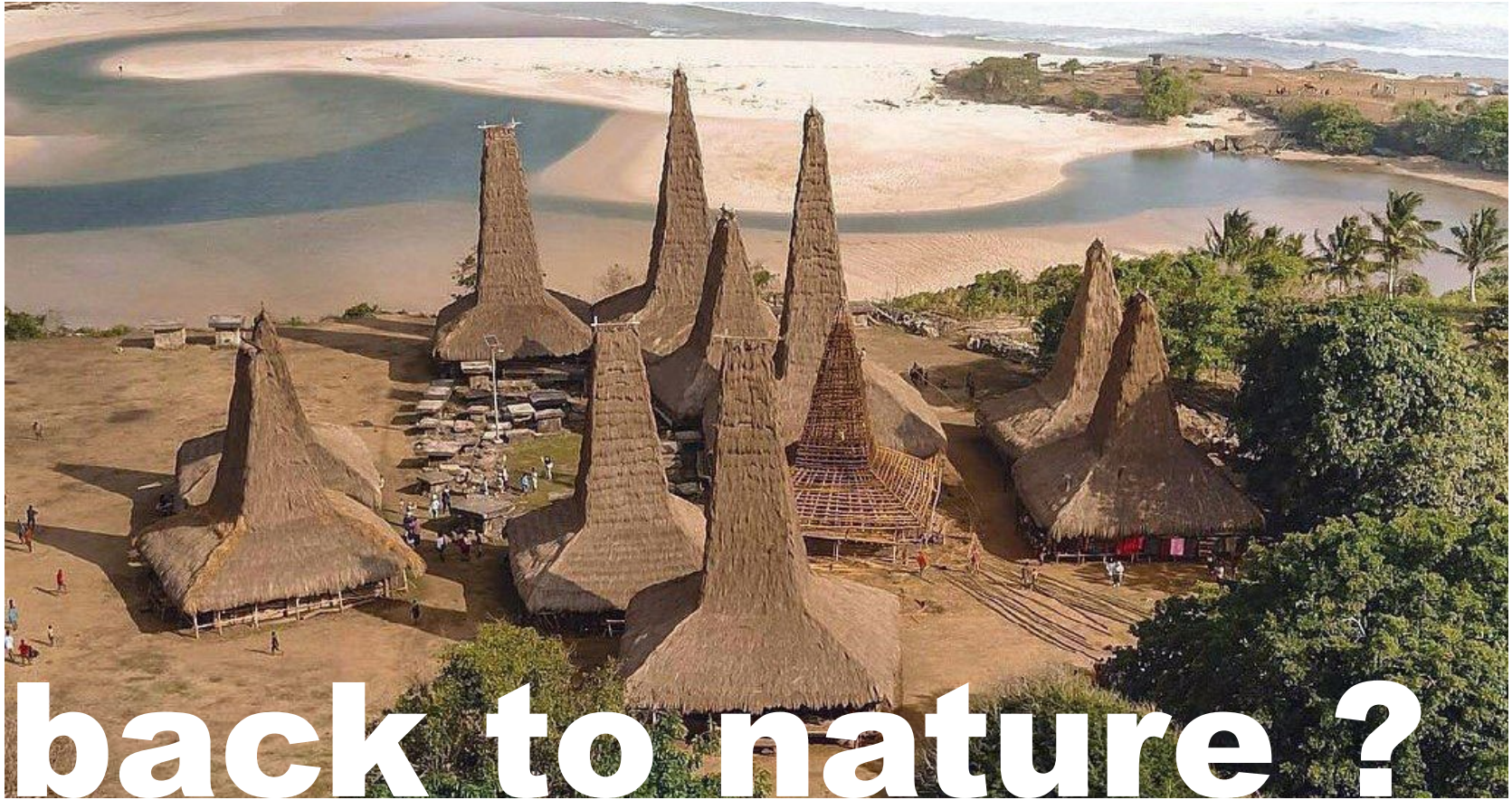
haas cook zemmrich STUDIO **2050**



IDENTITY

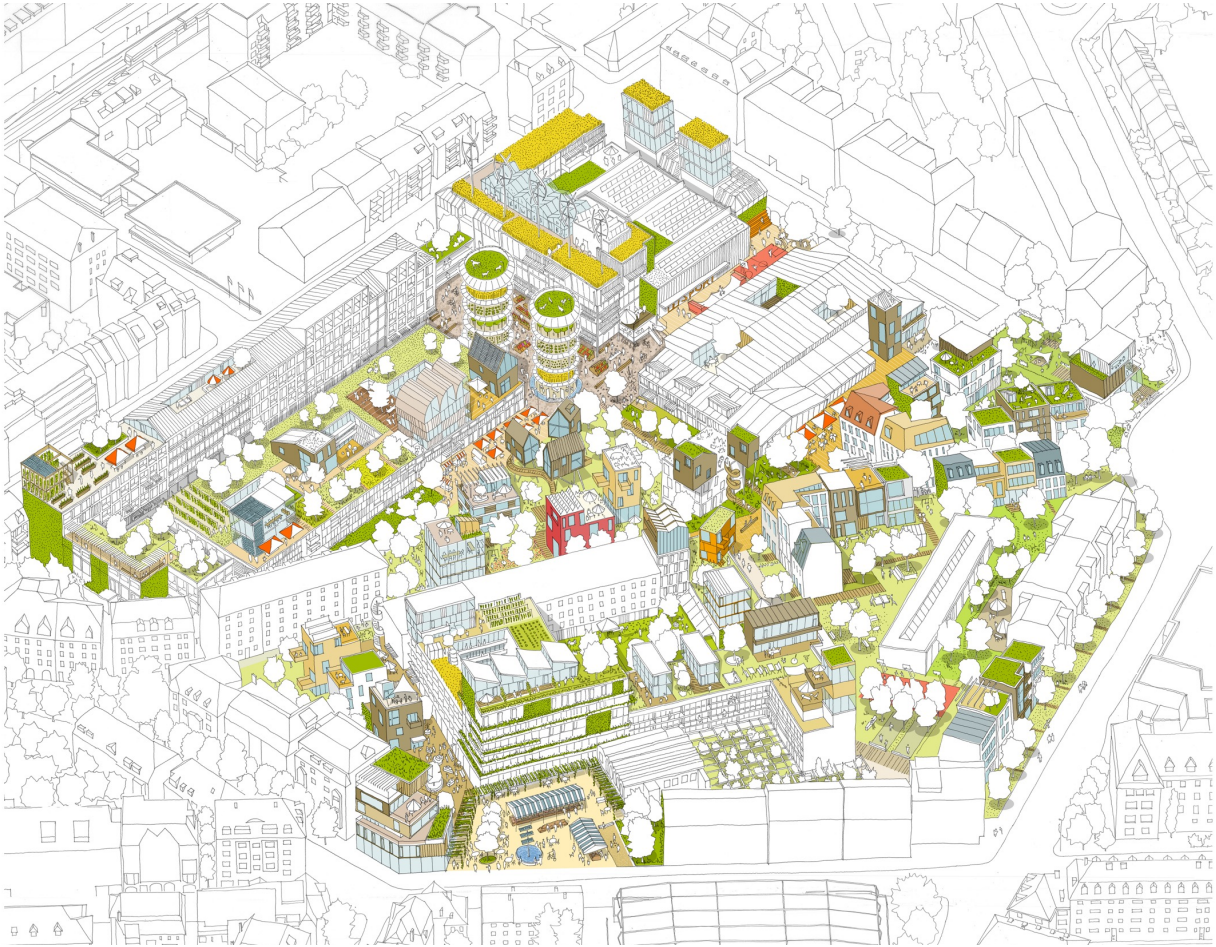

2100 WARMING PROJECTIONS
Emissions and expected warming based on pledges and current policies
Climate Action Tracker
Nov 2021 update
Global greenhouse gas emissions GtCO₂e / year
70
60
50
40
30
20
10
0
-10
-20
1990
2000
2010
2020
2030
2040
2050
2060
2070
2080
2090
2100
Historical
2030 ambition gap
19–23 GtCO₂e
Warming projected by 2100
Policies & action
+2.5 – 2.9°C
2030 targets only
+2.4°C
Pledges & targets
+2.1°C
Optimistic scenario
+1.8°C
1.5°C consistent
+1.3°C

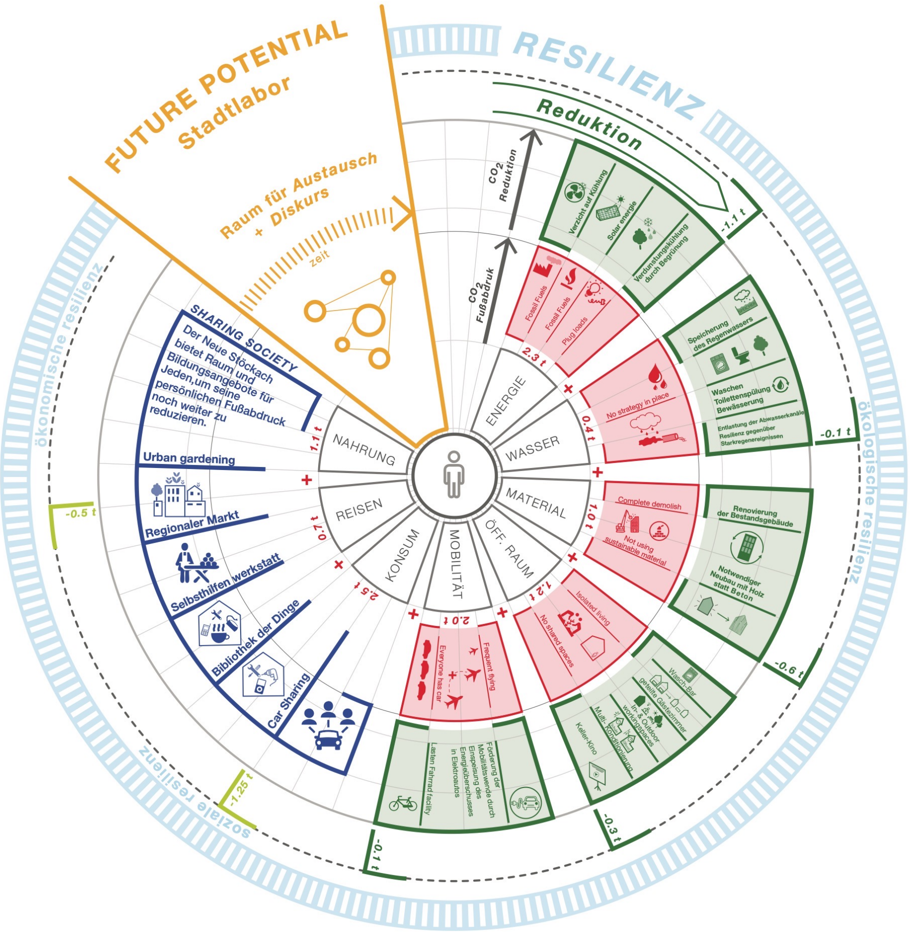
the issue....



back to nature ?


২৫১৬
2516



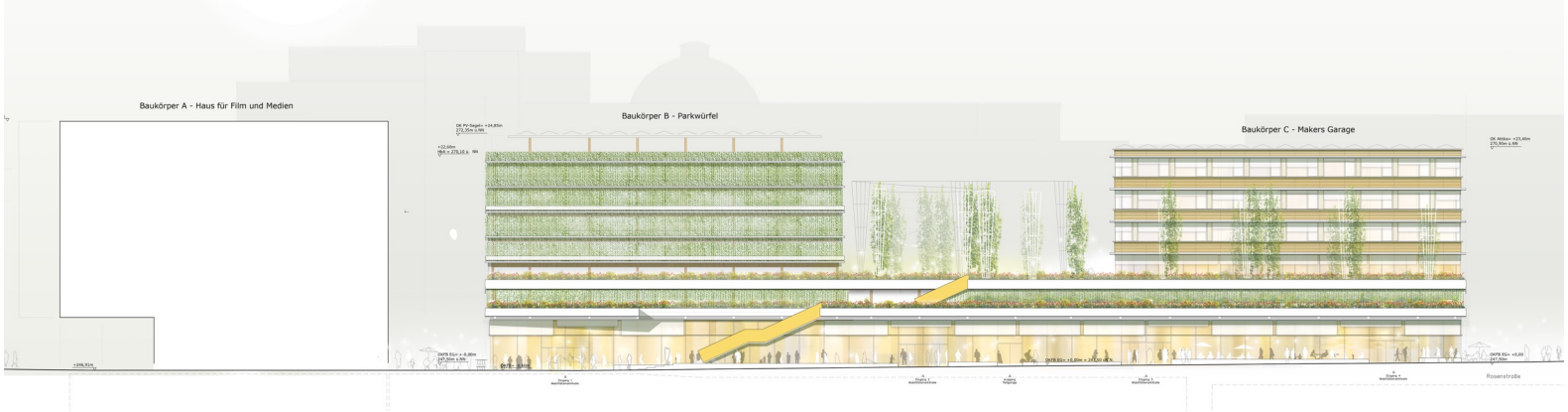

FUTURE POTENTIAL
Stadtlabor
Raum für Austausch + Diskurs
Zeit
RESILIENZ
Reduktion
CO2 Reduktion
CO2 Fußabdruck
SHARING SOCIETY
Der Neue Stöckach bietet Raum und Bildungsangebote für Jeden,um seine persönlichen Fußabdruck noch weiter zu reduzieren.
Urban gardening
Regionaler Markt
Selbsthilfen werkstatt
Bibliothek der Dinge
Car Sharing
NAHRUNG
REISEN
KONSUM
MOBILITÄT
ÖFF. RAUM
MATERIAL
WASSER
ENERGIE
1.1 t
0.7 t
2.5 t
2.0 t
1.2 t
1.0 t
0.4 t
2.3 t
Fossil Fuels
Fossil Fuels
Plug loads
No strategy in place
Complete demolish
Not using sustainable material
Isolated living
No shared spaces
Everyone has car
Frequent flying
Verzicht auf Kühlung
Solar energie
Verdunstungskühlung durch Begrünung
-1.1 t
Speicherung des Regenwassers
Waschen Toilettenspülung Bewässerung
Entlastung der Abwasserkanäle Resilienz gegenüber Starkregenereignissen
-0.1 t
Renovierung der Bestandsgebäude
Notwendiger Neubau mit Holz statt Beton
-0.6 t
Wasch-Bar
geteilte Gästezimmer
In & Outdoor workingspaces
Multi-funktionsräume
Keller-Kino
-0.3 t
Förderung der Mobilitätswende durch Einspeisung des Energieüberschusses in Elektroautos
Lasten Fahrrad facility
-0.1 t
-0.5 t
-1.25 t
ökonomische resilienz
ökologische resilienz
soziale resilienz

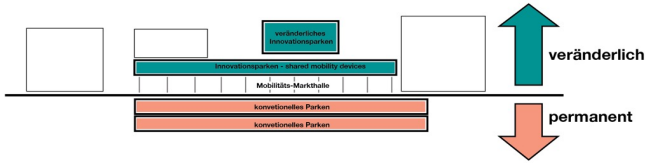
DAUERHAFT ?

TEMPORÄR ?

VERÄNDERLICH !


MOBILITY HUB STUTTGART

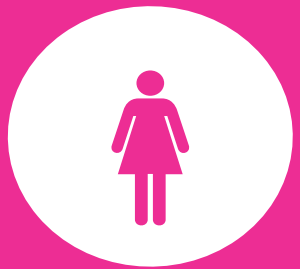

Baukörper A - Haus für Film und Medien
Baukörper B - Parkwürfel
Baukörper C - Makers Garage


veränderliches Innovationsparken
Innovationsparken - shared mobility devices
Mobilitäts-Markthalle
konventionelles Parken
konventionelles Parken
veränderlich
permanent

SMART MOBILITY HUB I **Stuttgart**

Individuality + Conectivity

INCREASING DEMANDS ON THE WORKING ENVIRONMENT



einsam

PRODUZIEREN

gemeinsam

PRODUZIEREN
+
KOMMUNIZIEREN

kooperativ

PRODUZIEREN
+
KOMMUNIZIEREN
+
REGENERIEREN

Norddeutsche Landesbank Hannover Behnisch & Partner

Norddeutsche Landesbank Hannover Behnisch & Partner 2002

Unilever Hamburg Behnisch Architekten 2009

Unilever Hamburg Behnisch Architekten 2009

KOMMUNIKATION

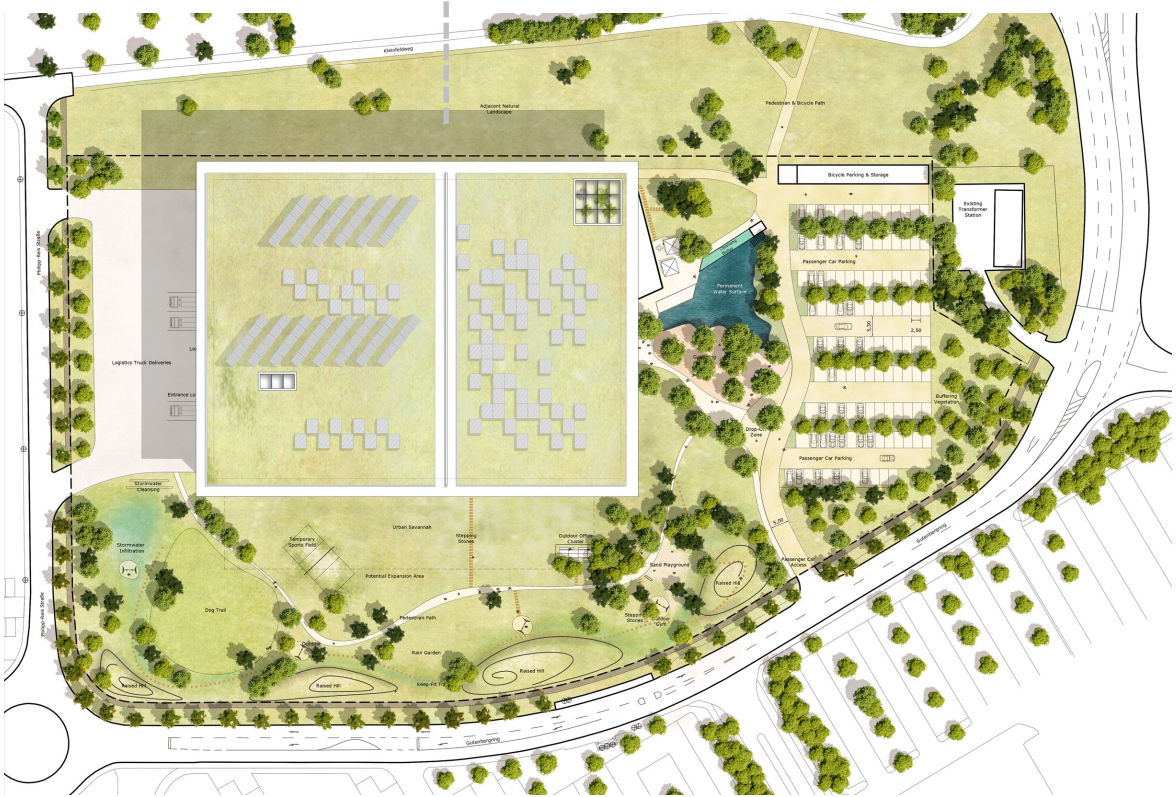
Promega Walldorf haascookzemmrich STUDIO 2050

Promega Walldorf haascookzemmrich STUDIO 2050

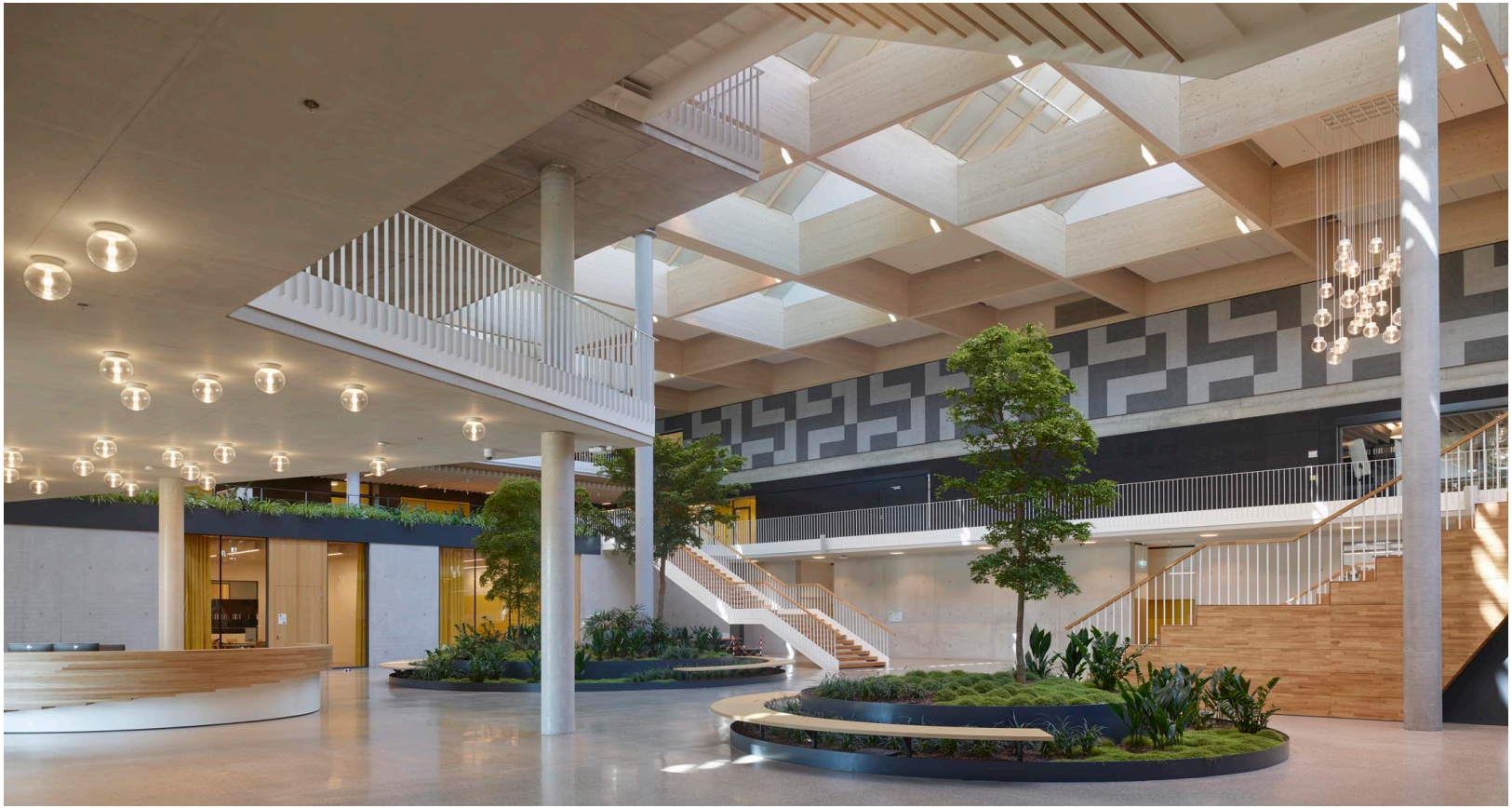
PROMEGA HEADQUARTERSI **Walldorf**

Logistik

Verwaltung

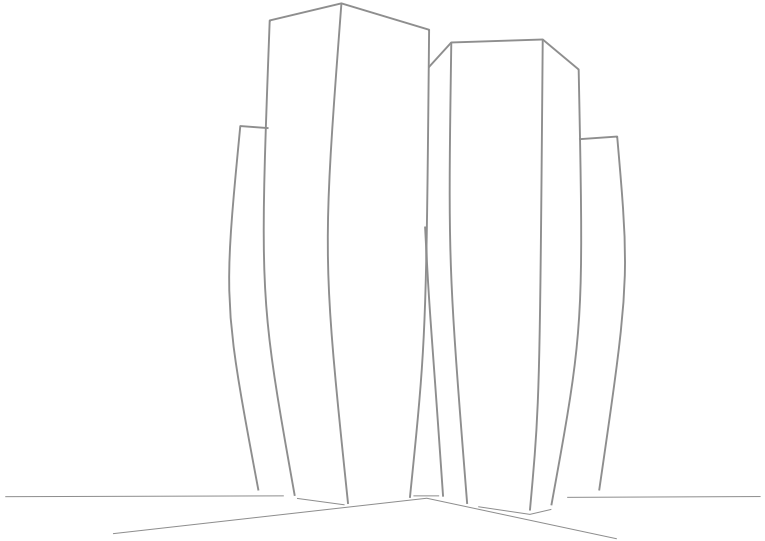


PROMEGA HEADQUARTERSI **Walldorf**



PROMEGA HEADQUARTERSI **Walldorf**


resource space
OPEN 24 HOURS
TOSHIBA
MARRIOTT MARQUIS
"ANDREW LLOYD WEBBER HAS BROADWAY ROCKING!"
Are you ready to wake up?
GREAT COMET
OUTERONT
A BRONX TALE
THE ILLUSIONISTS
CHICAGO
WAITRES



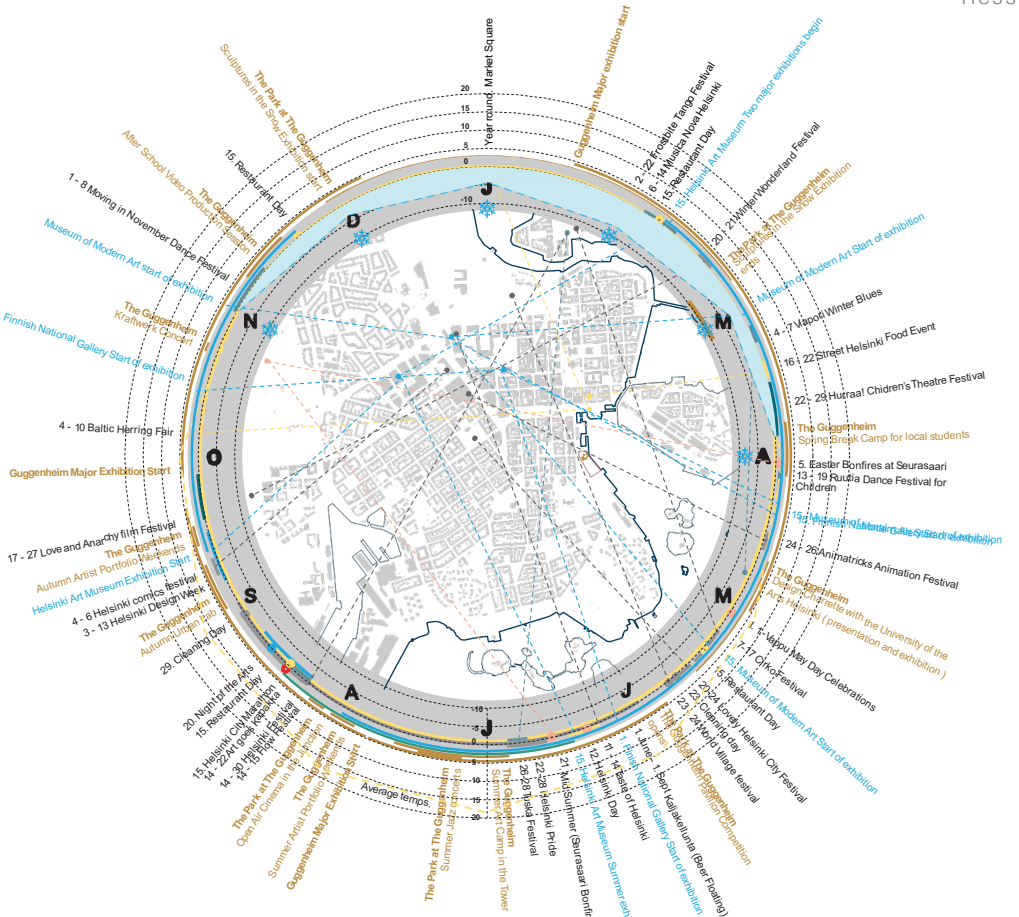
The Helsinki Five

Guggenheim at the harbour

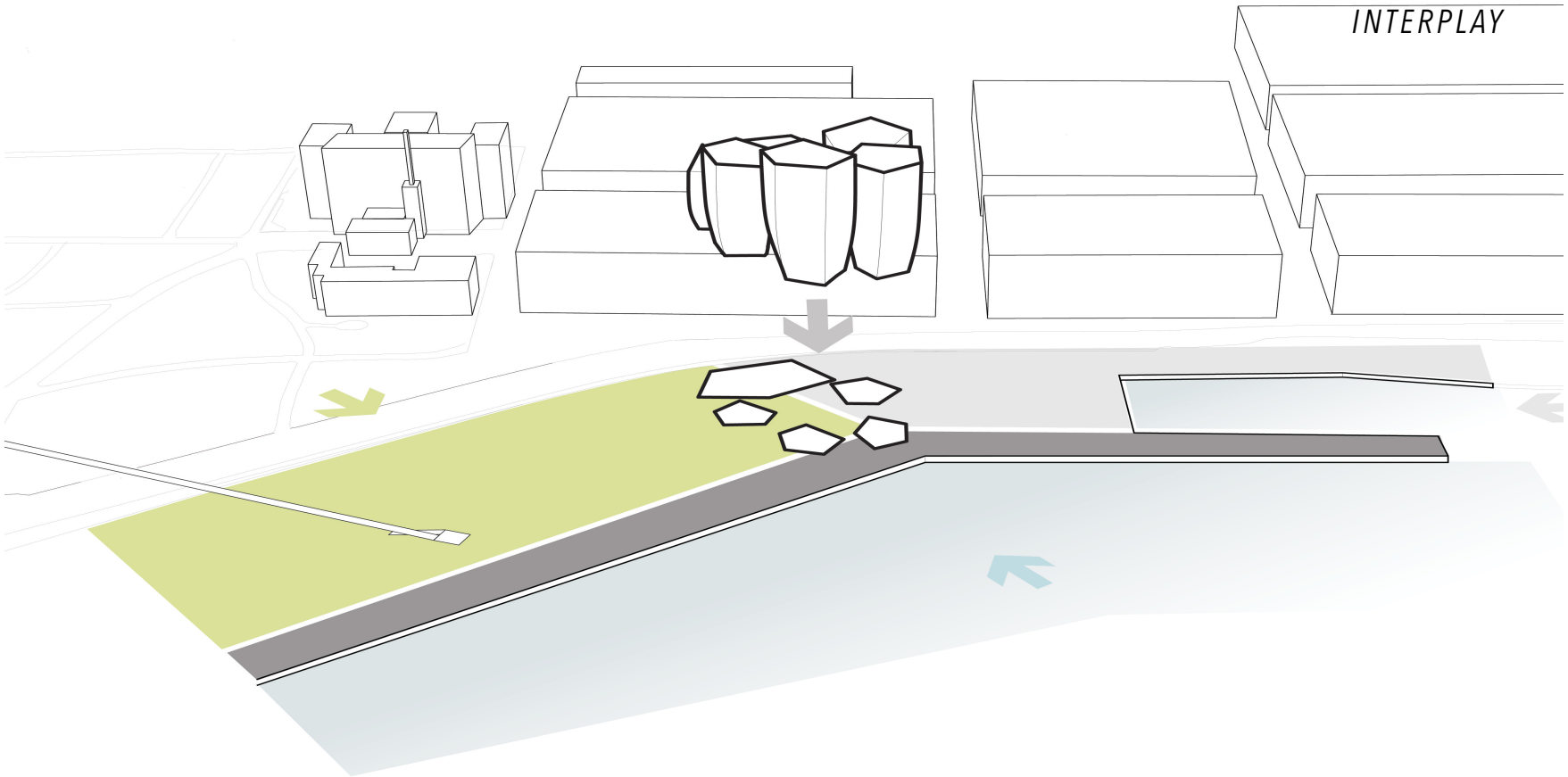

HELSINKI HARBOUR
THE SITE

Ressource SPACE GUGGENHEIM HELSINKI

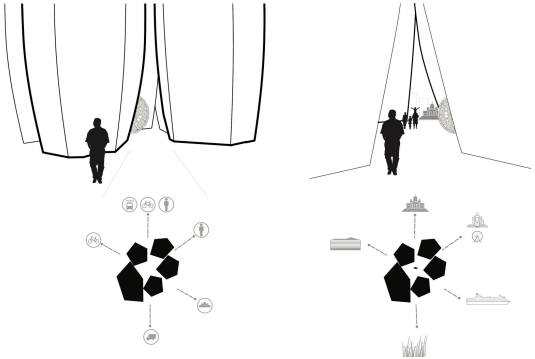
EVENTS CALENDAR



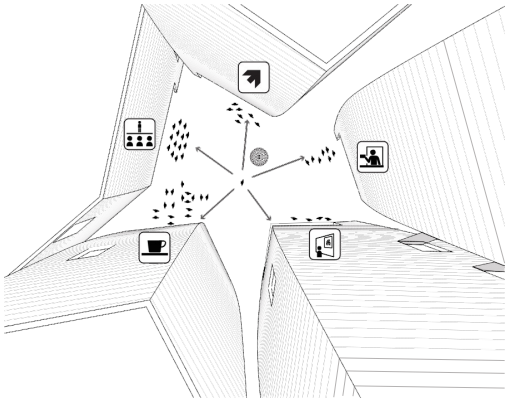
- Suggested Guggenheim Exhibtions and Activities
- Art and Design
- Gastronomy
- Cinema and Theatre
- Music and Dance
- Sport
- National Holidays
- Other

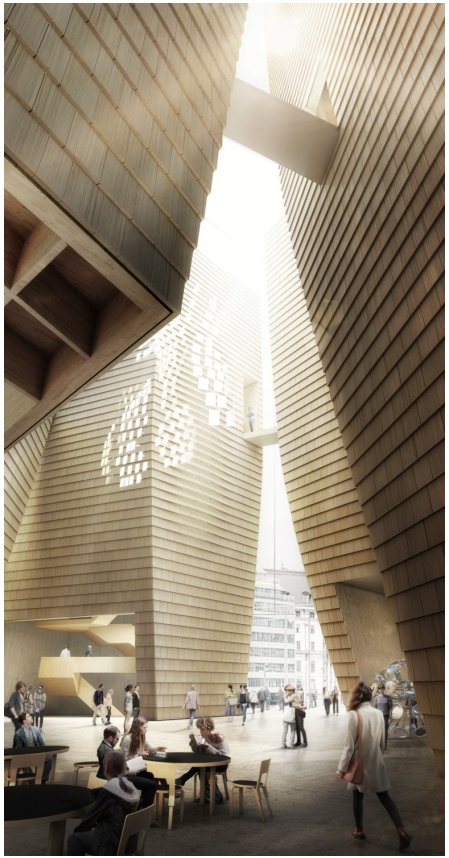

INTERPLAY

THE INTERVAL

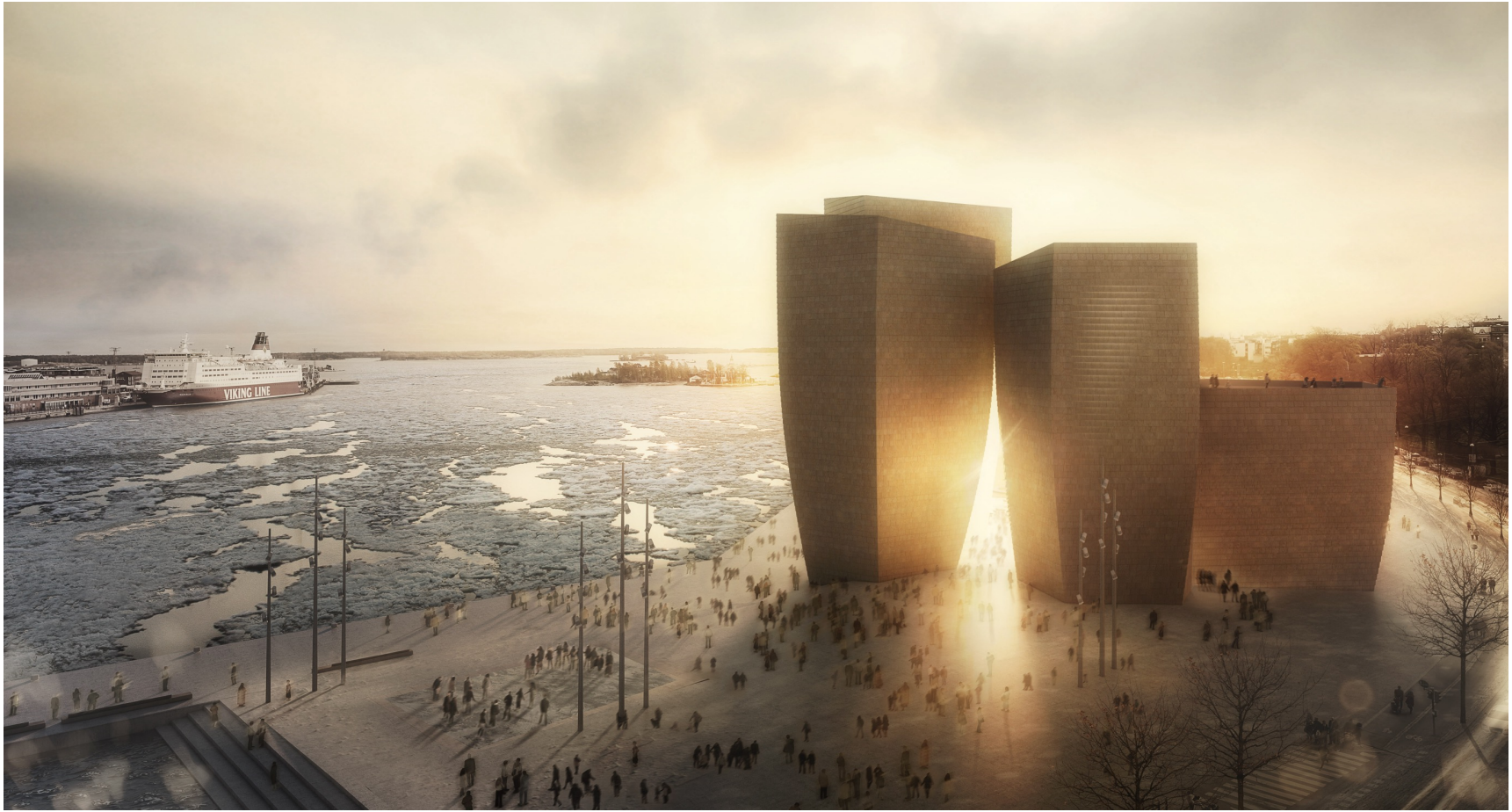


hide and seek

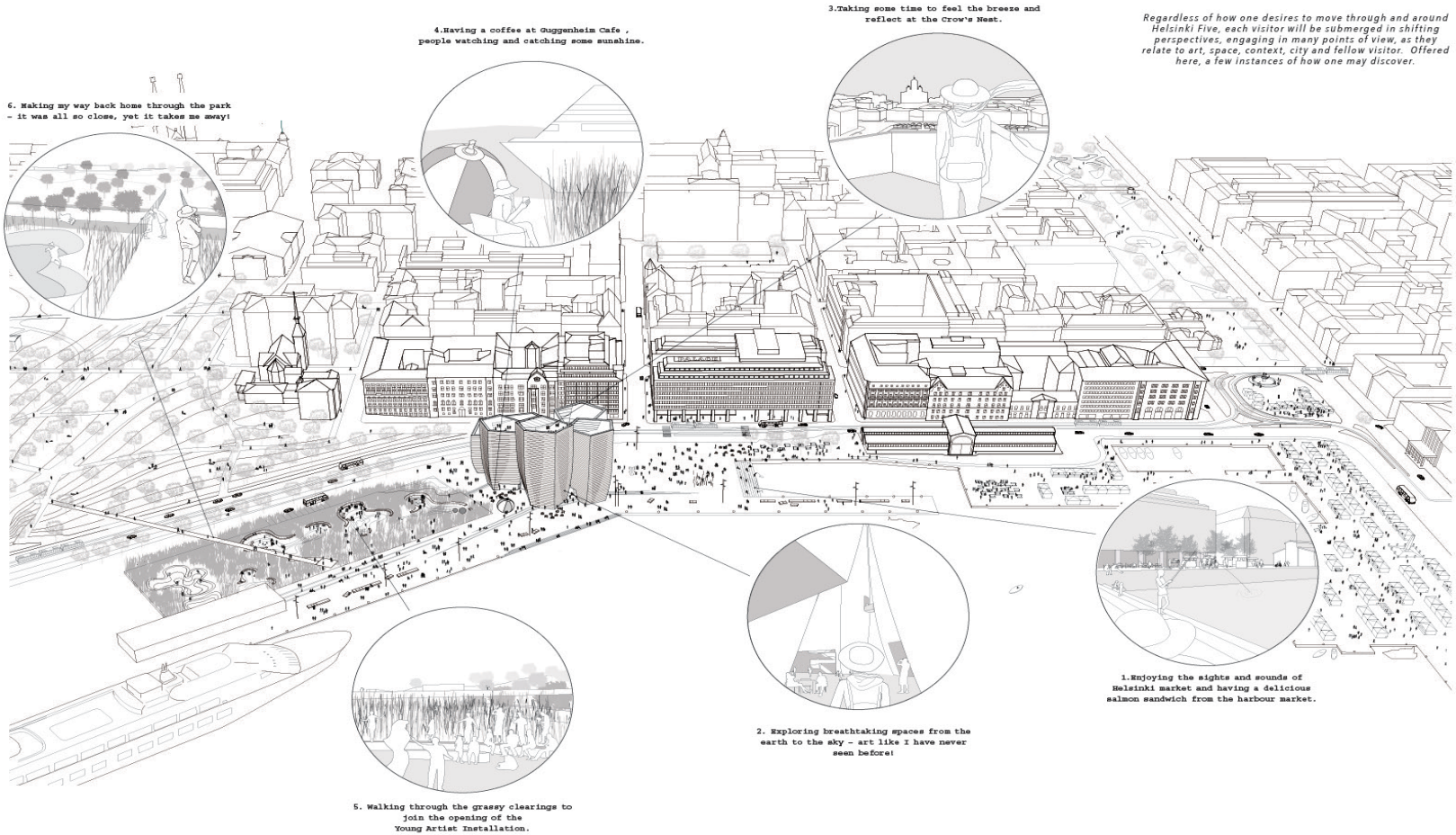




Ressource SPACE GUGGENHEIM HELSINKI

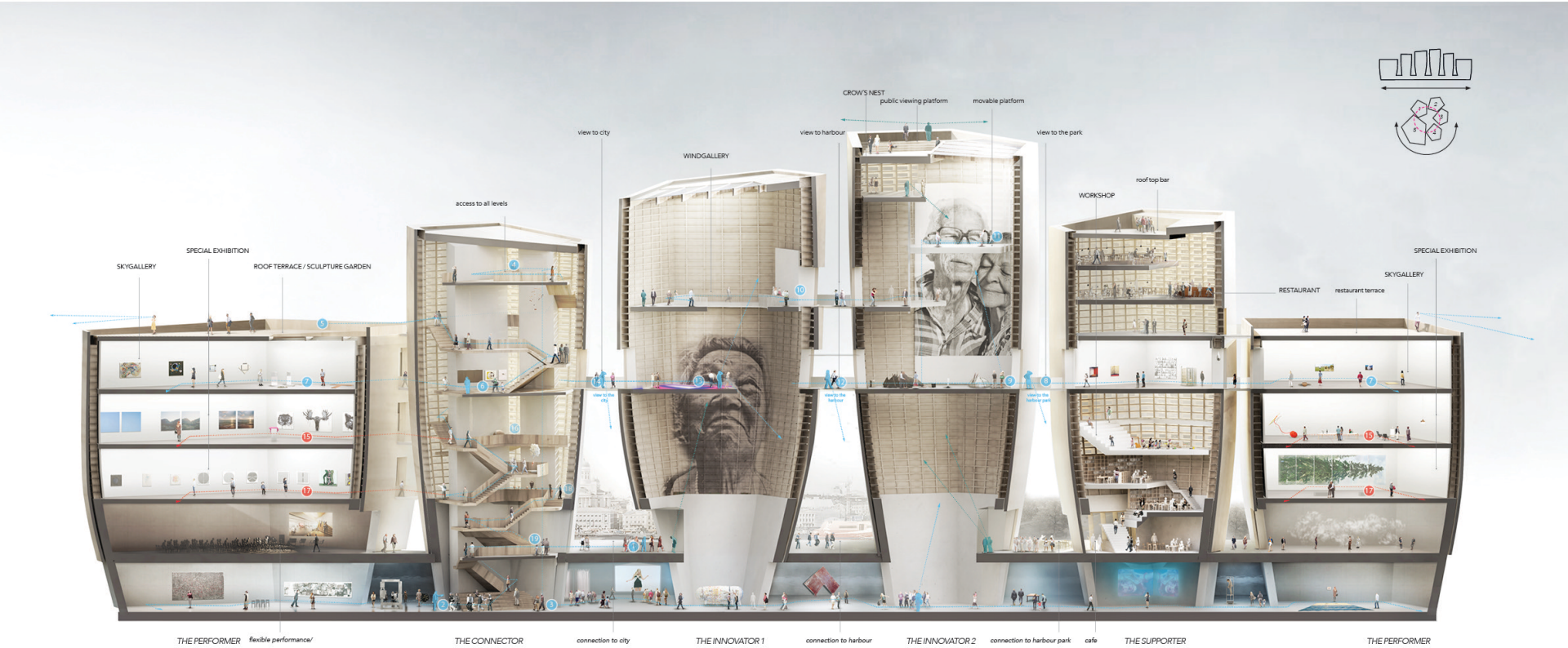


Regardless of how one desires to move through and around Helsinki Five, each visitor will be submerged in shifting perspectives, engaging in many points of view, as they relate to art, space, context, city and fellow visitor. Offered here, a few instances of how one may discover.



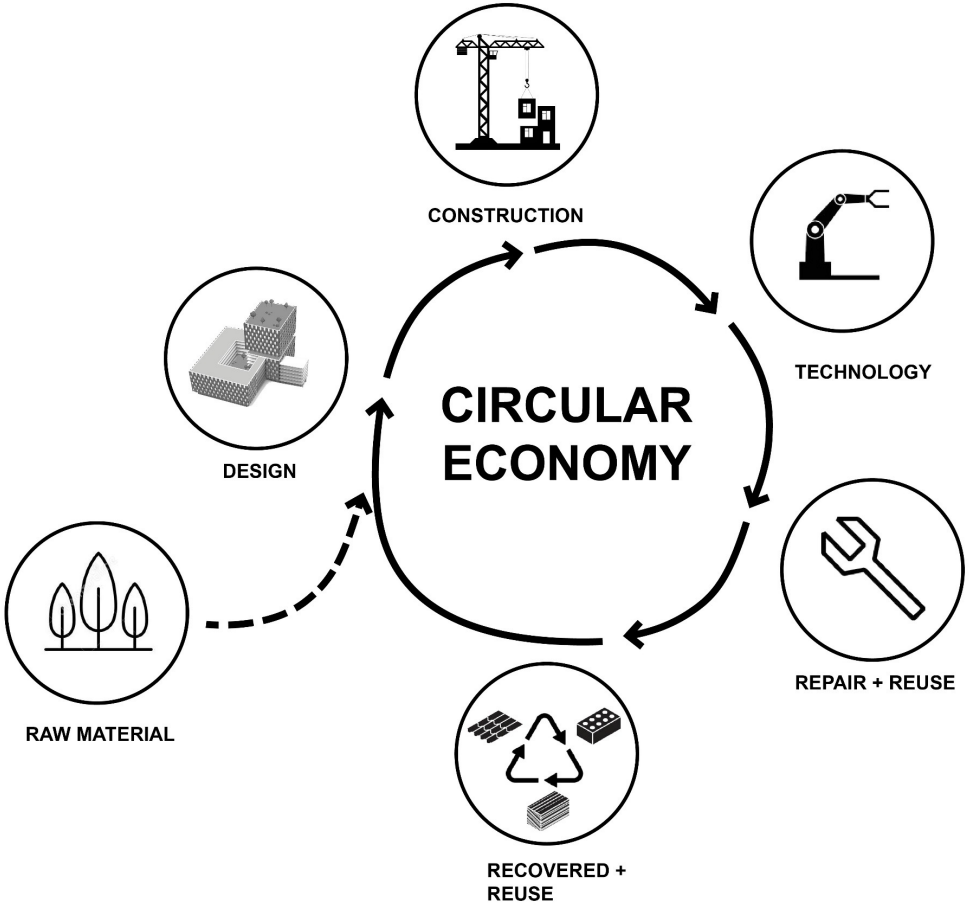
Ressource SPACE GUGGENHEIM HELSINKI

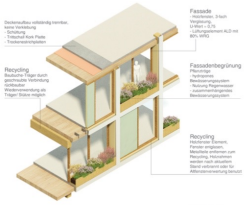
VISITOR EXPERIENCE



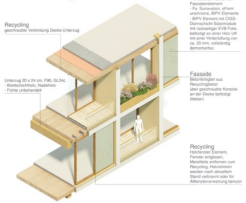
"The beauty of life lies in exploring its variety – with all our senses. And with every first touch, smell or taste we enrich our personality. The city can feel dull some-t imes. I think there should be more public spaces that can surprise you."


Holz
Beton
Licht
resource material
Natur
Lehm

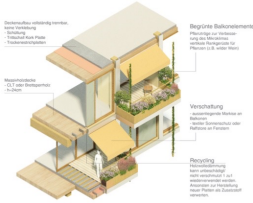

CONSTRUCTION
TECHNOLOGY
REPAIR + REUSE
RECOVERED + REUSE
RAW MATERIAL
DESIGN
CIRCULAR ECONOMY



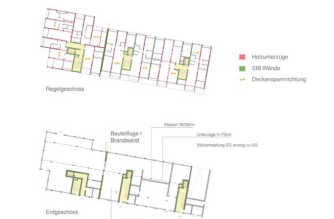
Fassadenmodul Typ 1



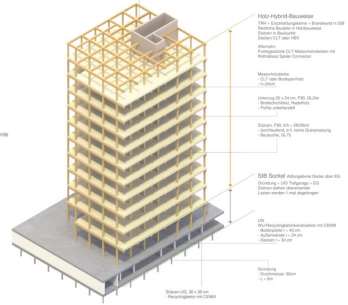
Fassadenmodul Typ 2



Fassadenmodul Typ 3



Tragwerk/ Brandschutz



Konstruktion I Material I Nachhaltigkeit

Materialkreisläufe

Materialien aus der Umgebung

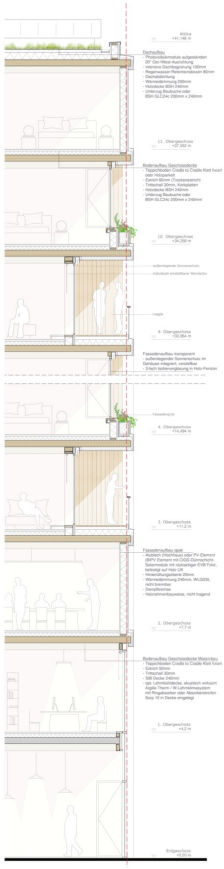
Einsatz von Recyclingbeton

nachhaltige Deckenkonstruktion

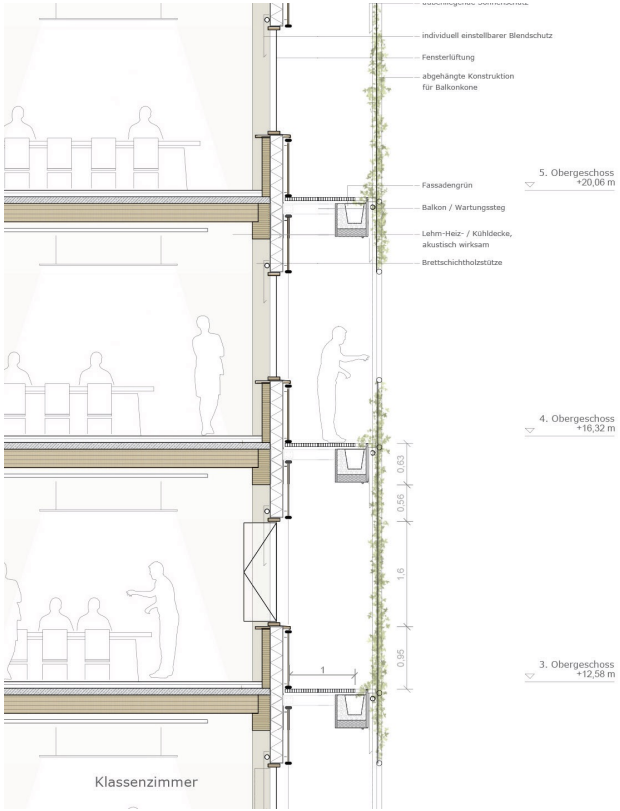
Konstruktionshinweise allgemein

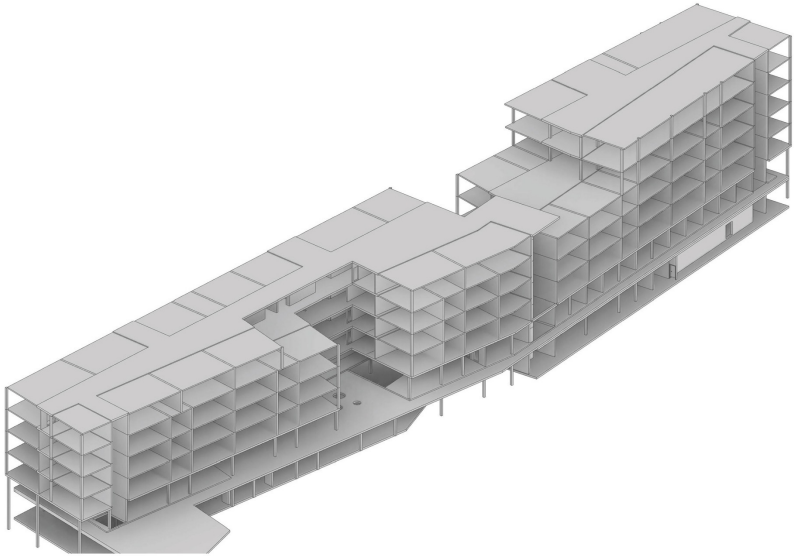
Alle verwendeten Materialien sind entweder aus nachwachsenden oder rezyclierbaren Baumaterialien. Während der Planungsphase wird eine Ökobilanz der Gesamtbaumaßnahme als fortgeschrittene Leistung den Materialentscheidungen hinterlegt. Alle Baumaterialien sollen regional hergestellt und verarbeitet werden. Bei der Fügung der Konstruktion wird auf Vorkleburg verzichtet. Stock- und Schraubverbindungen werden bevorzugt. Textile Beilage werden nur von Herstellern mit "Cradle to Cradle" Zertifikaten bezogen und mittels Klettverbindung verlegt. Der Beton für das Bauvorhaben wird als Recyclebeton ausgeschrieben. Auch bei der Dämmung wird je nach Brandschutz und Druckanforderung nur Schaumglas oder Holzwolle verwendet.

Ansicht
M 1:50

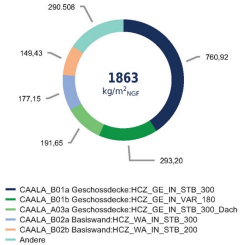


Schnitt
M 1:50


individuell einstellbarer Blendschutz
Fensterlüftung
abgehängte Konstruktion
für Balkonkone
5. Obergeschoss
+20,06 m
Fassadengrün
Balkon / Wartungssteg
Lehm-Heiz- / Kühldecke,
akustisch wirksam
Brettschichtholzstütze
4. Obergeschoss
+16,32 m
0,63
0,56
1,6
1
0,95
3. Obergeschoss
+12,58 m
Klassenzimmer

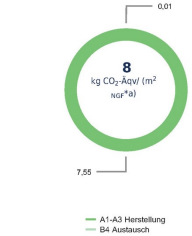


Variante Stahlbetonkonstruktion



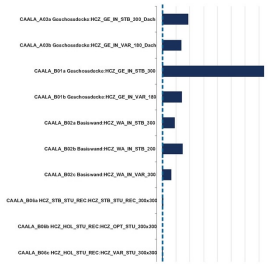
Massenbilanz :

ca. 27.945 Tonnen

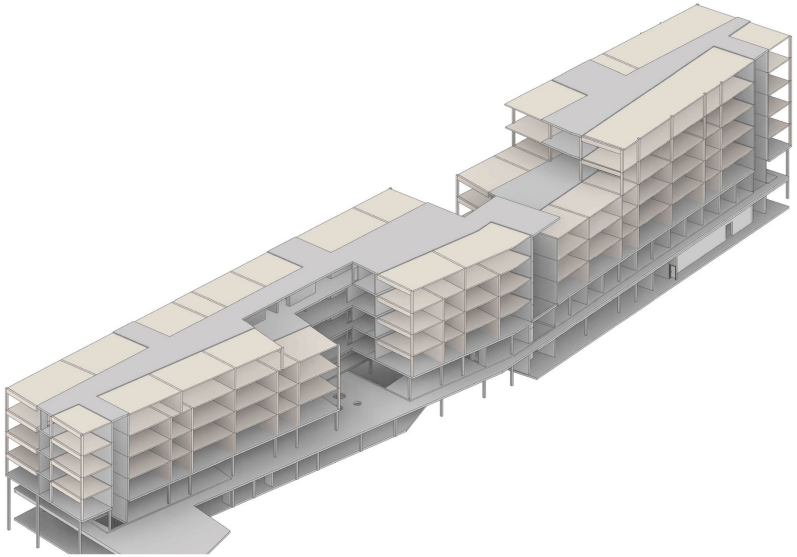


Globalwarming Potential :

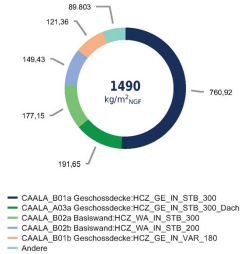
6.158,4 Tonnen CO_2



Obergeschoss 5

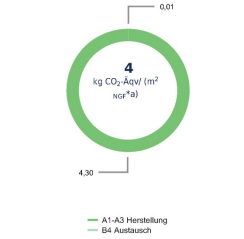


Variante Holz-Beton Verbunddecken + Vollholztrennwände



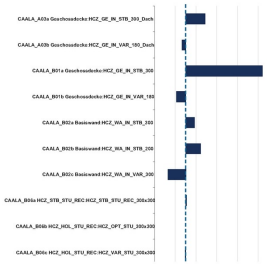
Massenbilanz :

ca. 22.350 Tonnen

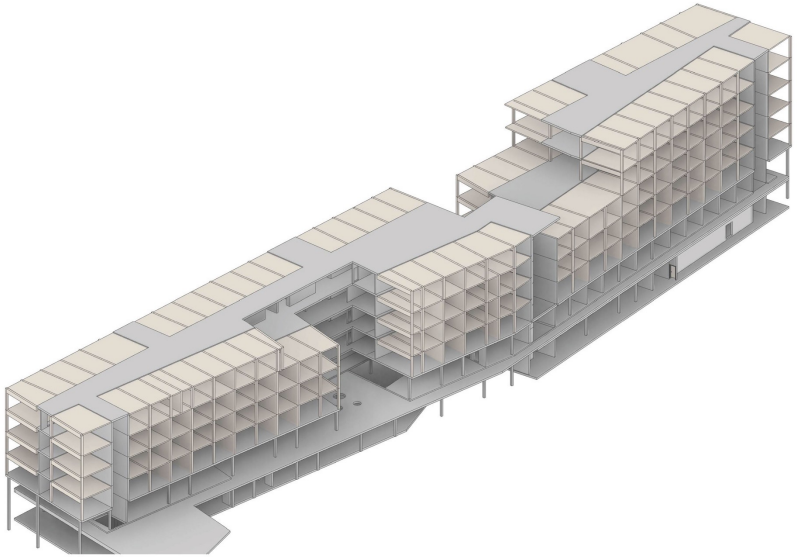


Globalwarming Potential :

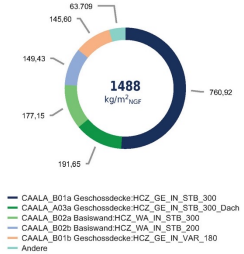
3.079,2 Tonnen CO_2



Obergeschoss 5

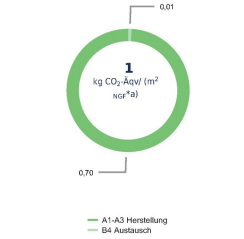


Variante Vollholzdecken + Vollholztrennwände



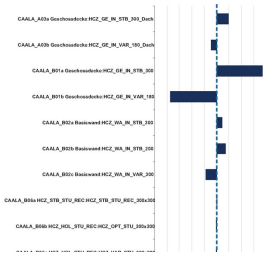
Massenbilanz :

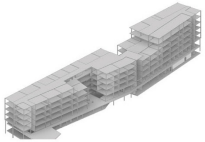
ca. 22.320 Tonnen



Globalwarming Potential :

769,8 Tonnen CO_2

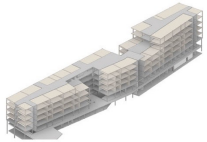




6.158.400 Kg CO_2 Äqv

Stahlbeton-Variante =

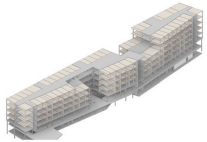
ca. 6.158 Tonnen CO_2



3.079.200 Kg CO_2 Äqv

HBV-Variante

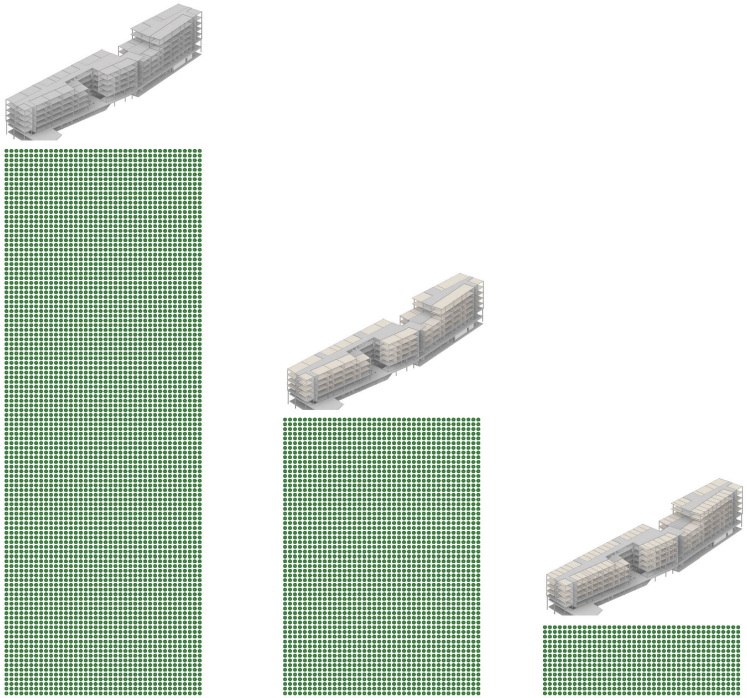
Einsparung von
ca. 3.079 Tonnen CO_2



769.800 Kg CO_2 Äqv

Vollholz-Variante =

Einsparung von
ca. 5.3889 Tonnen CO_2



Stahlbeton-Variante =

ca. 6.158 Tonnen CO_2

HBV-Variante

Einsparung von
ca. 3.079 Tonnen CO_2
≙ 3.080 Bäume (80 Jahre)

Vollholz-Variante =

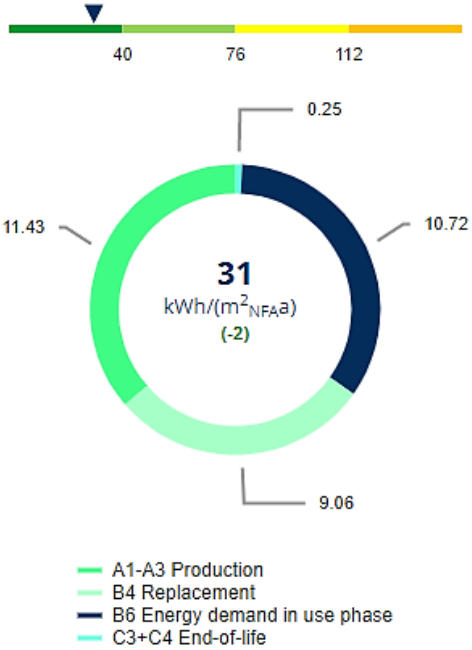
Einsparung von
ca. 5.3889 Tonnen CO_2
≙ 5.389 Bäume (80 Jahre)

Minimizing CO^2 Footprint

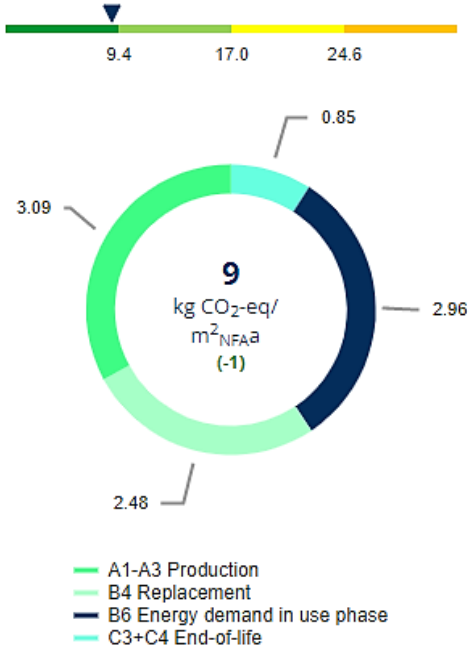
Energy Consumption (Sourcing, Construction + Operation)

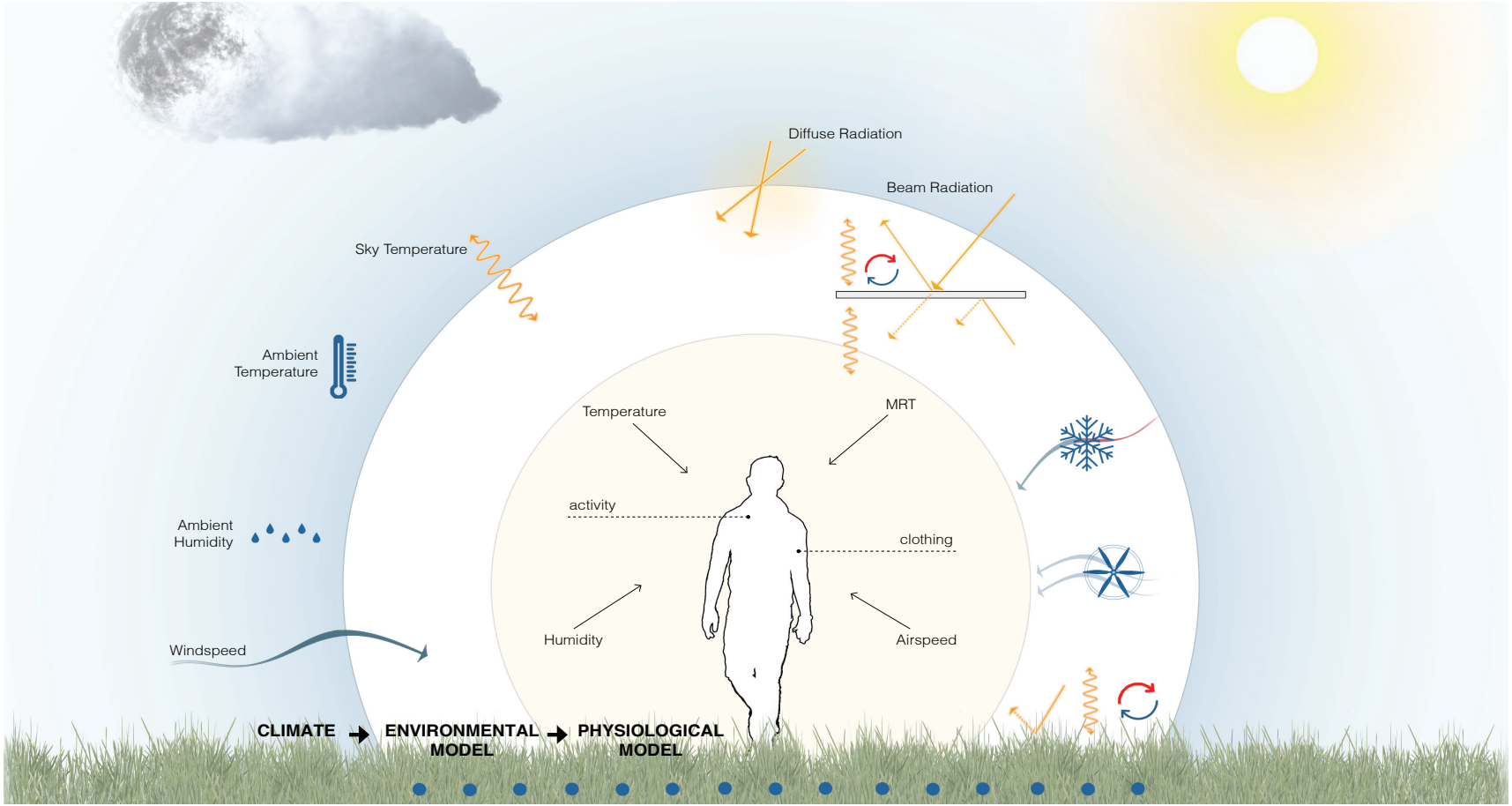
Life Cycle Assessment

Primary energy non renewable (PENRT)



Global warming potential (GWP)



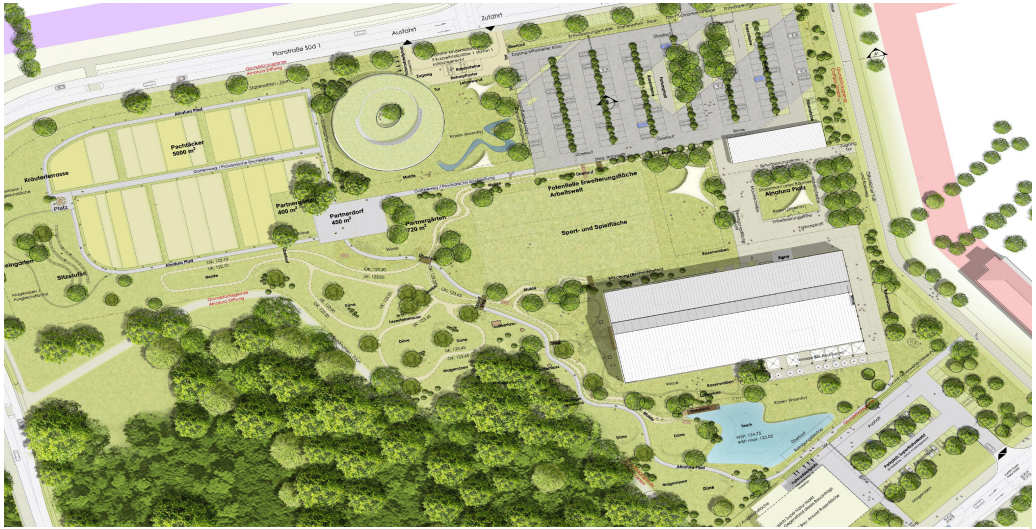

Diffuse Radiation
Beam Radiation
Sky Temperature
Ambient Temperature
Temperature
MRT
activity
clothing
Ambient Humidity
Humidity
Airspeed
Windspeed
CLIMATE
ENVIRONMENTAL MODEL
PHYSIOLOGICAL MODEL

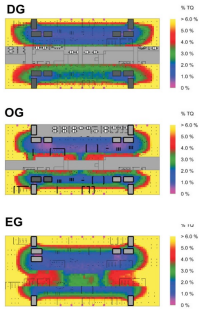
Ressource Material I **Alnatura Darmstadt**

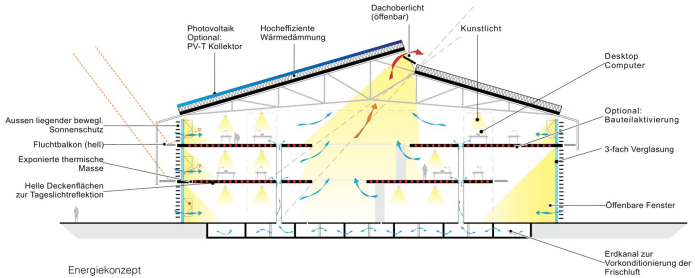
SONNE
Gebäudeorientierung
Ausrichtung der Räume
PV Dach

LUFT
Nutzung Westwald
Erdkanal

WASSER
Regenwassernutzung
Mikroklimatisch
wirksamer See





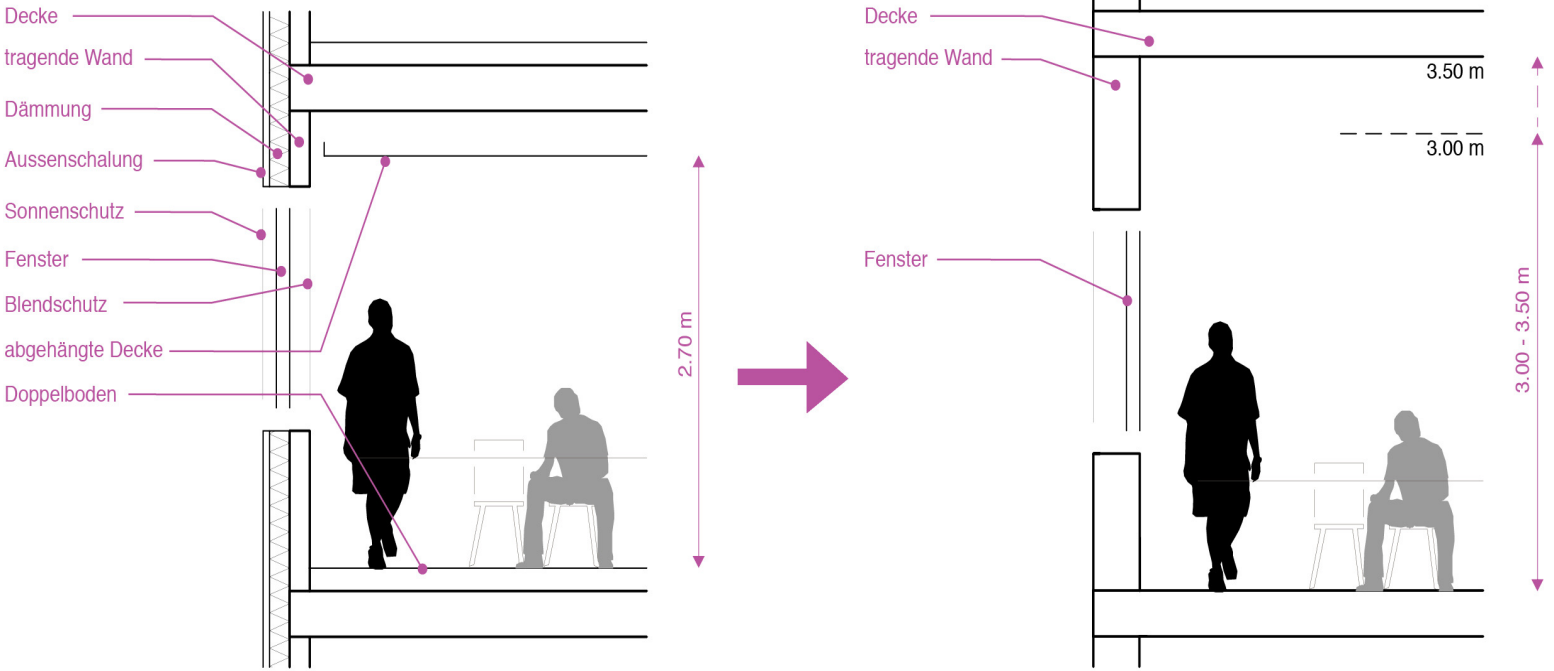


Energiekonzept

WÄRME
Geotherrmische
Wandheizung im Lehm

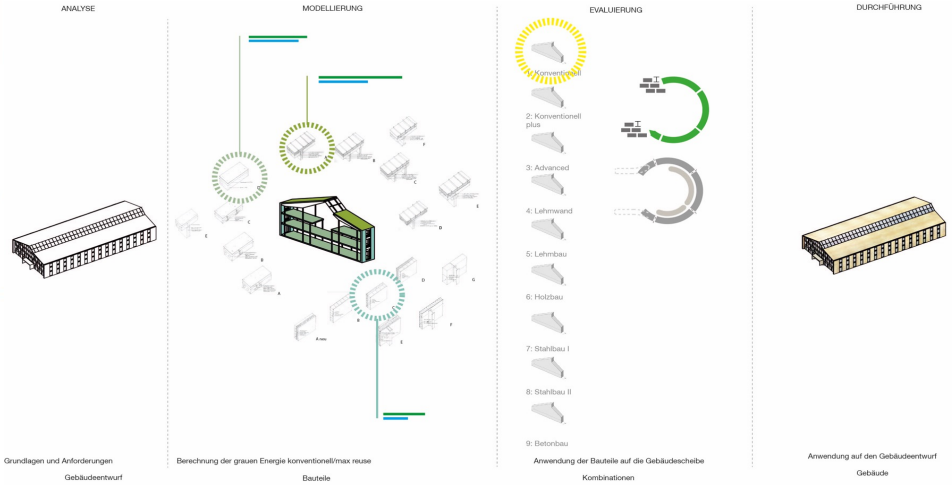
ERDE
Lehmwand aus
regionalem Boden

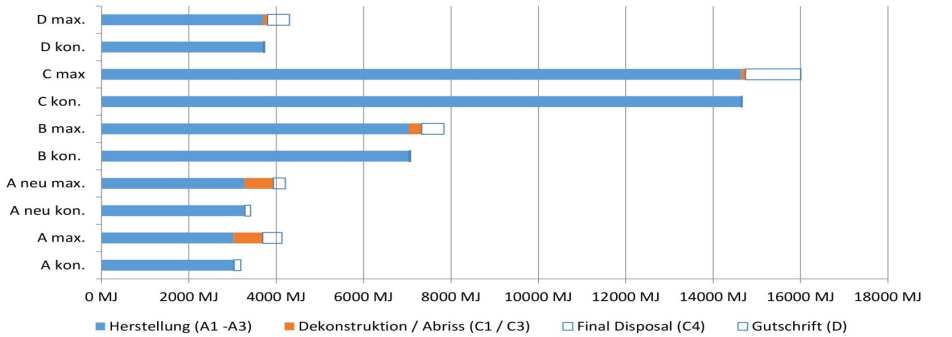
ROHSTOFFE
Wiederverwertung
der alten Baumaterialien
Des Kasernengeländes


Decke
tragende Wand
Dämmung
Aussenschalung
Sonnenschutz
Fenster
Blendschutz
abgehängte Decke
Doppelboden
2.70 m
Decke
tragende Wand
3.50 m
3.00 m
Fenster
3.00 - 3.50 m

Ressource Material I Alnatura Darmstadt

PCR phases according to EN 15804:2012		
Proudction stage	A1	Raw material supply
	A2	Transport
	A3	Manufacturing
Construction stage	A4	Transport
	A5	Construction/ installation process
Usage phase	B1	Use
	B2	Maintenance including transport
	B3	Repair and transport
	B4	Replacement including transport
	B5	Refurbishment including transport
	B6	Operational energy use
	B7	Operational water use
End of life stage	C1	De-construction demolition
	C2	Transport
	C3	Re-use recycling
	C4	Final disposal
Benefits and loads for the next product system	D	Re-use recovery and recycling potential





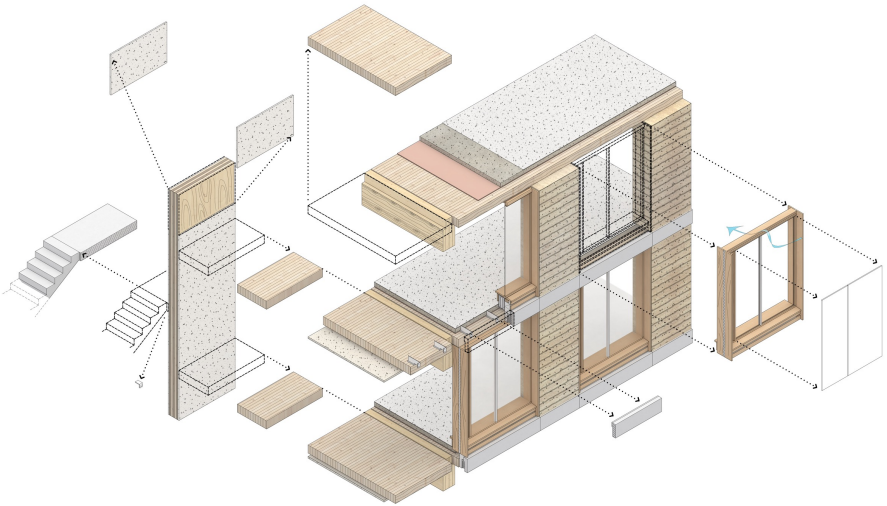
Ressource Material I **Alnatura Darmstadt**


BAY 3

Ressource Material I **Alnatura Darmstadt**

Ressource Material I **Alnatura Darmstadt**

LEHMBAU:
Regionale Fertigung vollständig rückführbar



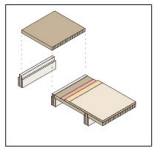
HOLZBAU:
Maximaler Vorfertigungsgrad um die Bauzeit und den Montageaufwand vor Ort zu minimieren

STAMPFLEHMHAUS I Heilbronn

Lehm

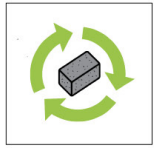
Lehm als nachhaltiger Baustoff

Materialkreisläufe

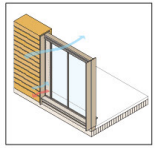


nachhaltige Deckenkosntruktion

Materialien aus der Umgebung

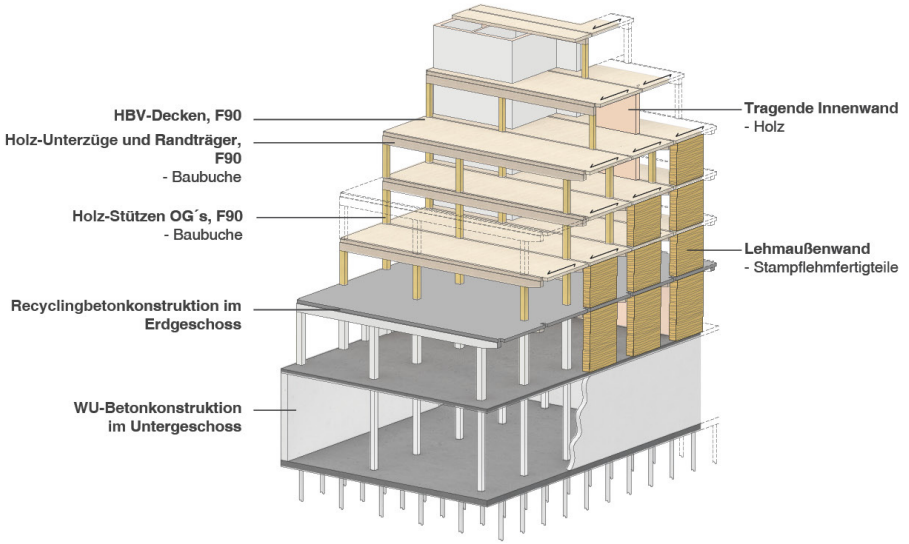


Einsatz von Recyclingbeton



nachhaltige Fassadenkonstruktion

Materialeinsatz



Konstruktionsprinzip

STAMPFLEHMHAUS I Heilbronn