

landscape and architecture

manifesto on a sustainable building culture in rural areas



*a matter of attitude!
bean bag view of the lecturers home*

landscape and architecture

manifesto on a sustainable building culture in rural areas



*a matter of attitude!
bean bag view of the lecturers home*

sustainable development

Brundtland report on our common future



Lecturers son – needs of future generations?

sustainable development

Brundtland report on our common future

27. Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits - not absolute limits but **limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities.**

sustainable development

Brundtland report on our common future

30. Yet in the end, sustainable development is not a fixed state of harmony, but rather a **process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs.** We do not pretend that the process is easy or straight forward. Painful choices have to be made. Thus, in the final analysis, sustainable development must rest on political will.

sustainable development

Greta Thunberg, climate activist



Greta Thunberg, stiking for climate

constructive alps

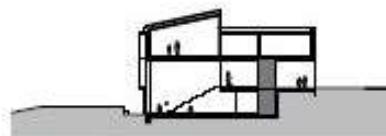
international architecture award on sustainable
renovation and construction in the alps

cultural
ecologic
social
economic

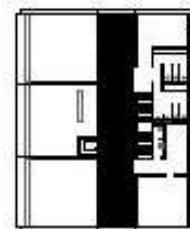




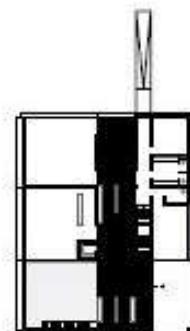
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1. Prize PRIMARY SCHOOL AND KINDERGARDEN BRAND. AUSTRIA



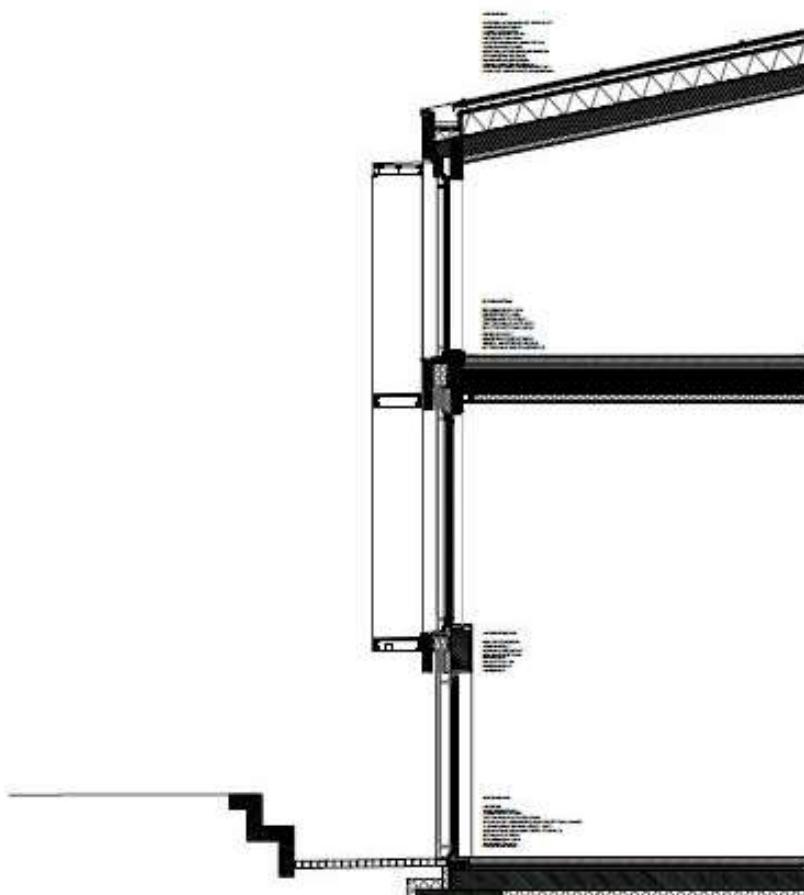
Querschnitt | Section



Obergeschoss |
Upper floor

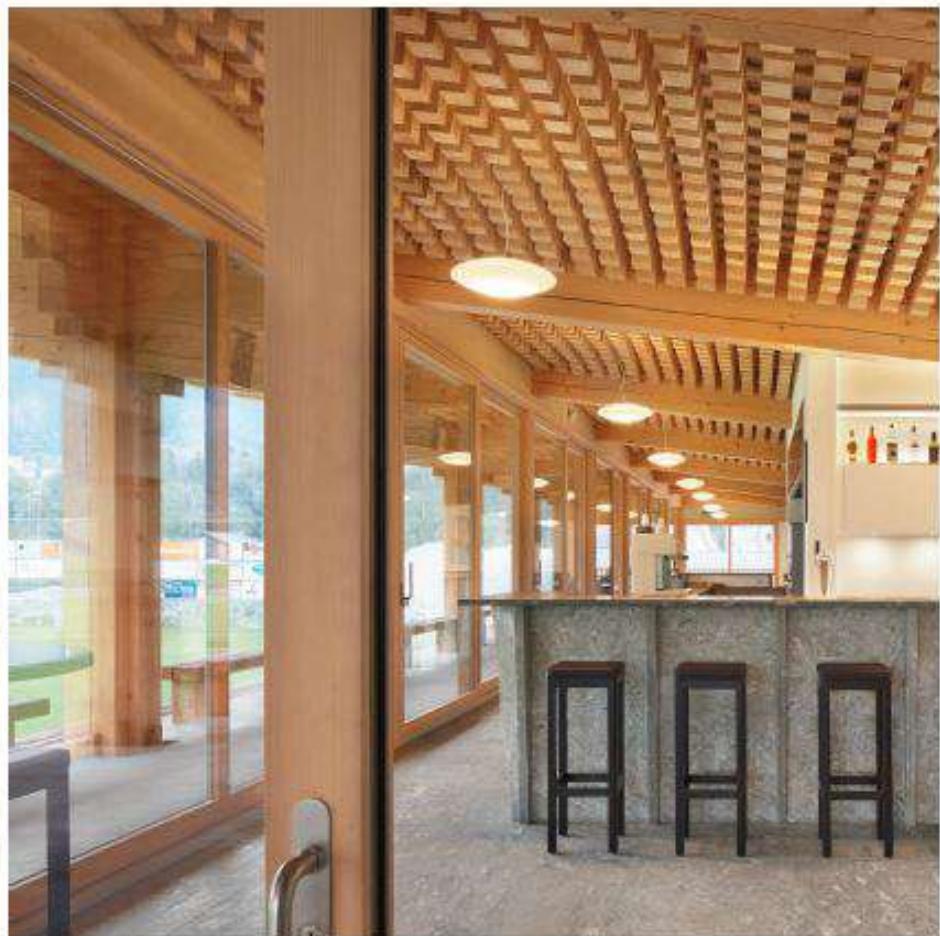
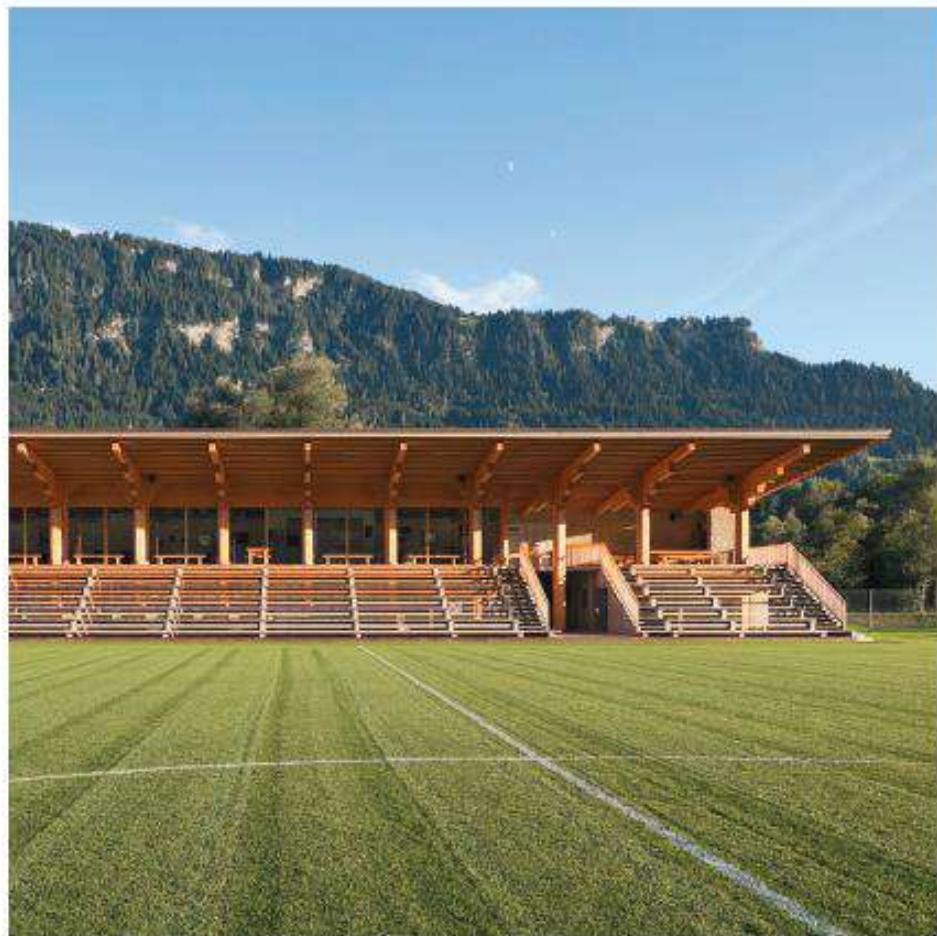


Erdgeschoss |
Ground floor





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2nd prize CHEESERY KASLABN IN CARINTHIA, AUSTRIA



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SOCCER STATION, GRISON SWITZERLAND



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OFFICE OF EGGER TIMBER INDUSTRIES, TIROL AUSTRIA



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HOSTEL, RAVNE SLOVENIA.



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KINDERGARDEN MUNTЛИX, AUSTRIA

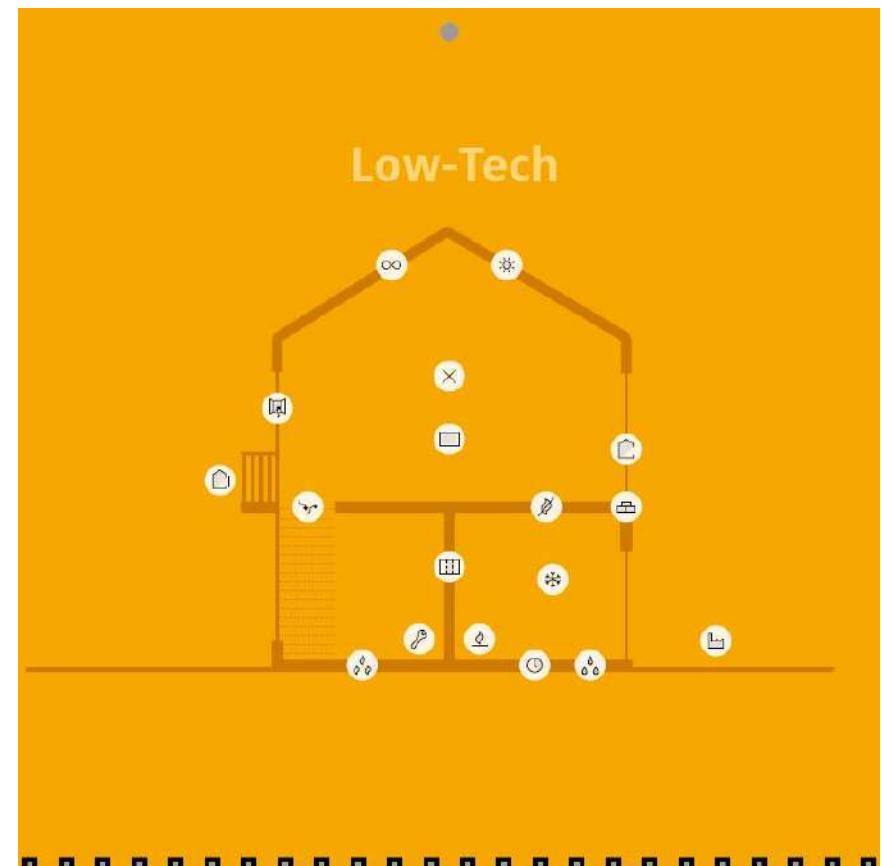
low tech buildings at lake constance

“Concepts for energy efficient, climate compatible [Low Tech Buildings](#) around Lake Constance”,

financed by Interreg, IBK Bodensee Konferenz, EU, CH and FL.

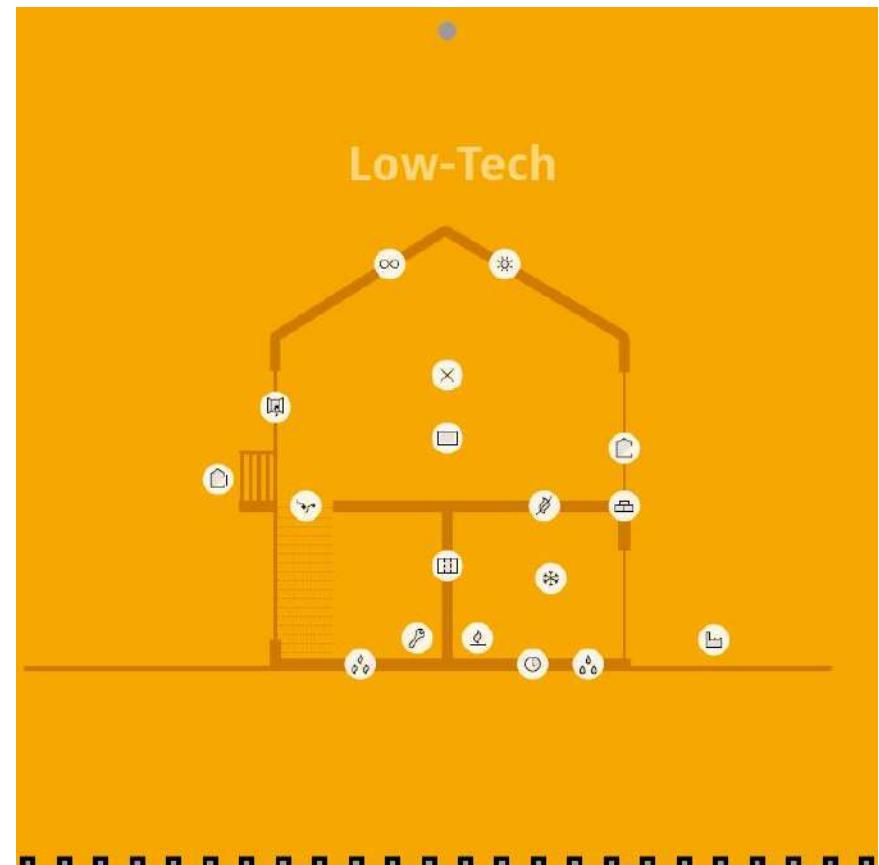
Project partners

University of Liechtenstein
Energieinstitut Vorarlberg,
Energieagentur St. Gallen,
Energieagentur Ravensburg,
Energie- und Umweltzentrum Allgäu



low tech buildings at lake constance

"Low tech buildings **are energy efficient, resource efficient** and economical. They are robust and designed for a long service life. Their **construction** is planned and executed accordingly and offers the **user comfort** throughout the year. The still necessary, **reduced building technology is simple** in operation and maintenance."



NUTZUNG



Nutzungsneutral Mehrfachnutzung

Räume können verschiedenen
genutzt werden



Flexible Grundrisse

Größe von Nutzeinheiten
veränderbar



Tageslichtnutzung

Hoher Tageslichtanteil
in den Räumen



Weglassen

Bedürfnisse hinterfragen



BAUTECHNIK



Speichermasse

Speichermasse in Böden,
Decken und Wänden einbauen



Feststehender Sonnenschutz

Bauliche Maßnahmen an der Fassade



Dauerhaftigkeit

Lang nutzbare Materialien
verwenden



Graue Energie

Materialien mit niedrigem Anteil
Grauer Energie bevorzugen



Luftaustausch

über Fenster

Wirkungsvolle Lüftung

GEBÄUDETECHNIK



Kein Wärmeverteilssystem

Verzicht auf
wassergeführte Verteilung



Wärmepumpenboiler und Solarstrom

Kombination von Wärmepumpen-
boiler und Solarstrom



Reduzierte Luftmengen und Betriebszeiten

Luftmengen auf typischen Betrieb
mit kurzen Betriebszeiten auslegen



Wärmeerzeugung dezentral

Dezentraler Wärmeerzeuger
in beheiztem Gebäudeteil



Installationen einfach zugänglich

Leitungen, Armaturen und
Geräte sichtbar installiert



keine Wärmeerzeugung

Verzicht auf
Wärmeerzeugung



Warmwasser dezentral

Reduzierung von Installationsleitung
durch Erzeugung an der Verbrauchsstelle



Kaskadenlüftung

Bereiche von Zuluft, Überstöming
und Abluft definieren



Freecooling

Kühlung ohne
Kälteerzeugung



KW 2 – 6

Bürogebäude
BE 2226
Lustenau



KW 7 – 11

EFH H17
Wiggensbach



KW 12 – 16

Tennishalle
Bad Schussenried



KW 17 – 21

KITA Oberlinhaus
Kempten



KW 22 – 26
Bürogebäude I+R
Lauterach



KW 27 – 31

Rupert-Neß
Gymnasium
Wangen



KW 32 – 36

Bürogebäude
Gasser
Chur



KW 37 – 41

KIGA Muntlix
Zwischenwasser



KW 42 – 46

MFH Rüedi
Chur



KW 47 – 51

EFH Gstöhl
Eschen

regional building culture

- does it still exists?
- can we claim it for the future?
- does it help to reduce resource consumption and climate pollution?



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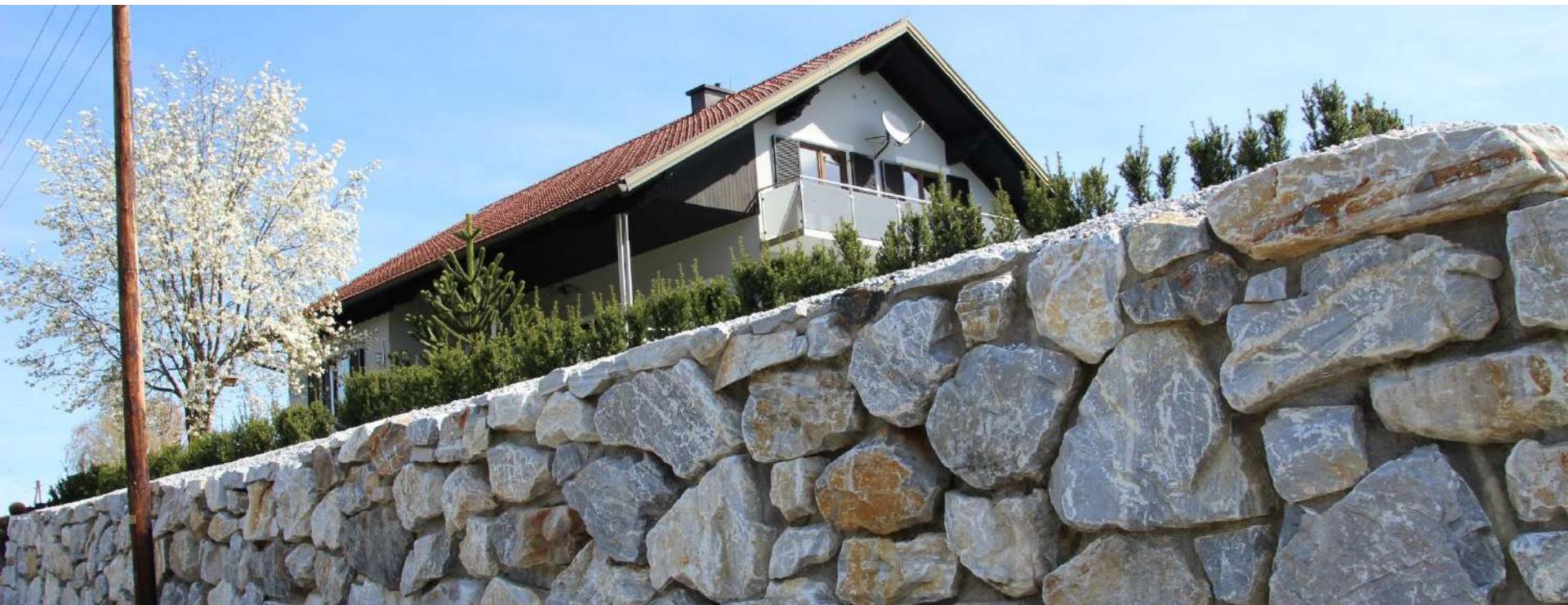
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regional building culture

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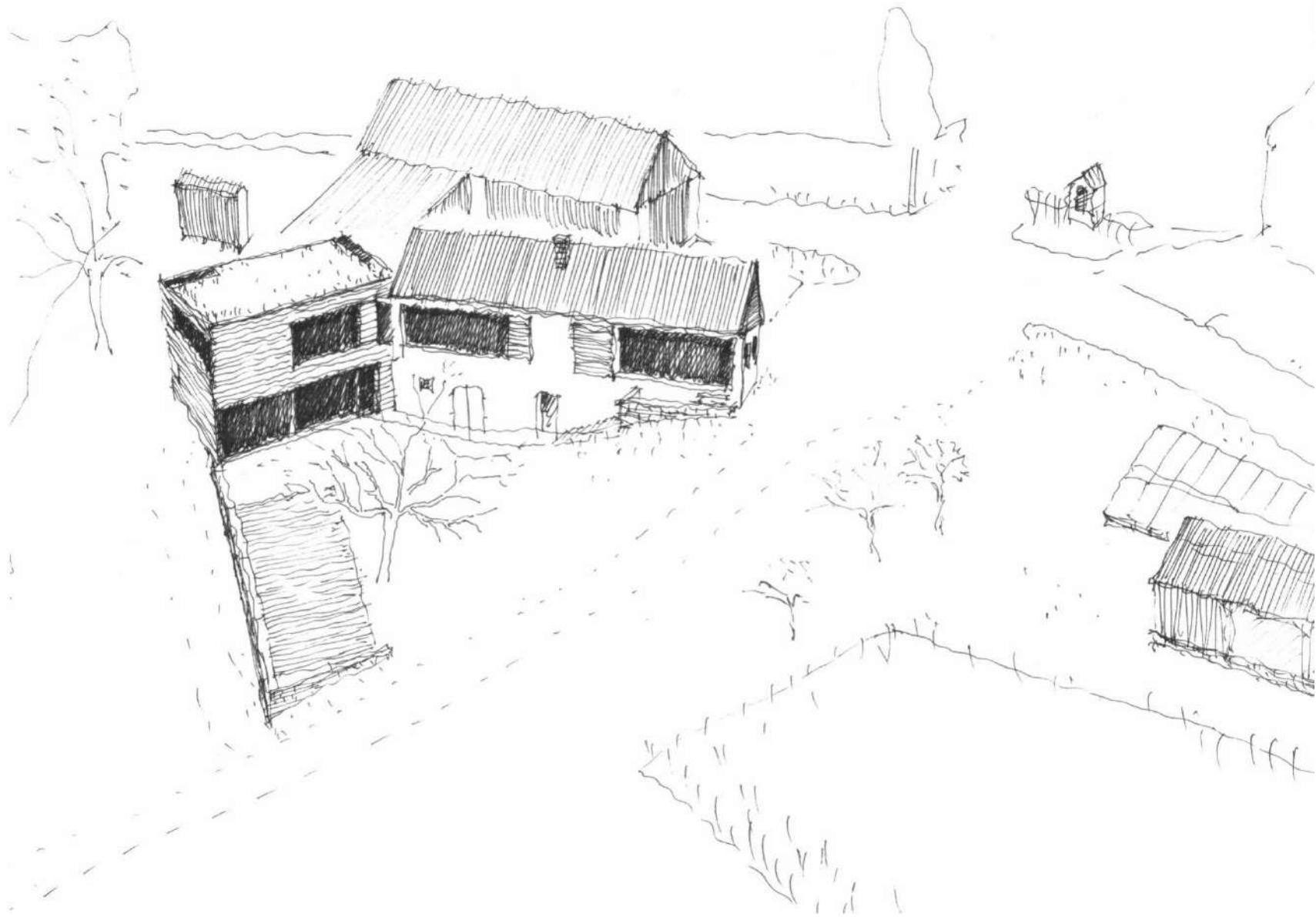


optimism



own work

as
experimental
proof
of
theory



Design sketch



construction site





construction site



construction site



construction site



construction site



construction site



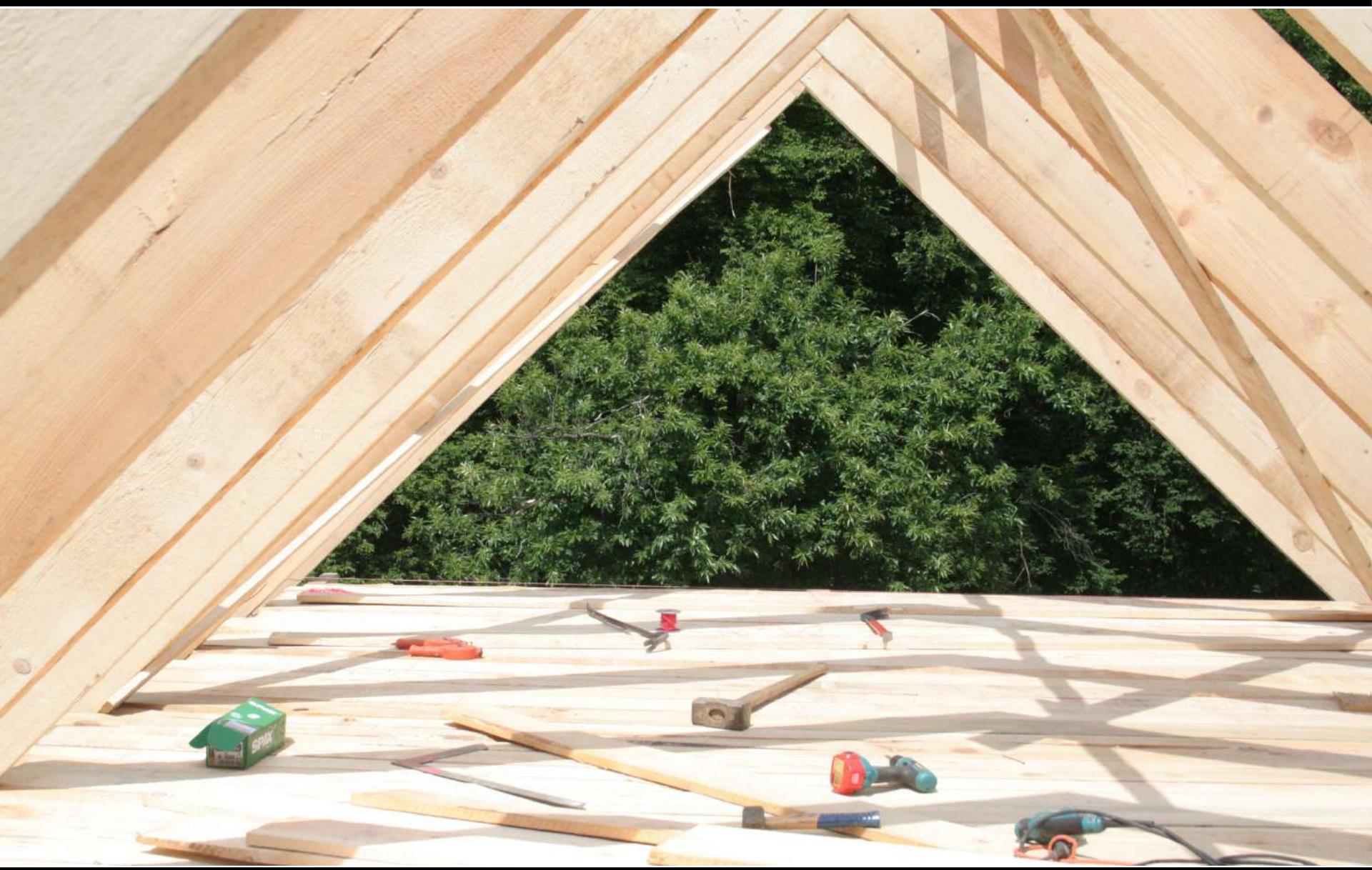
construction site



construction site



construction site



construction site





construction site



construction site



construction site



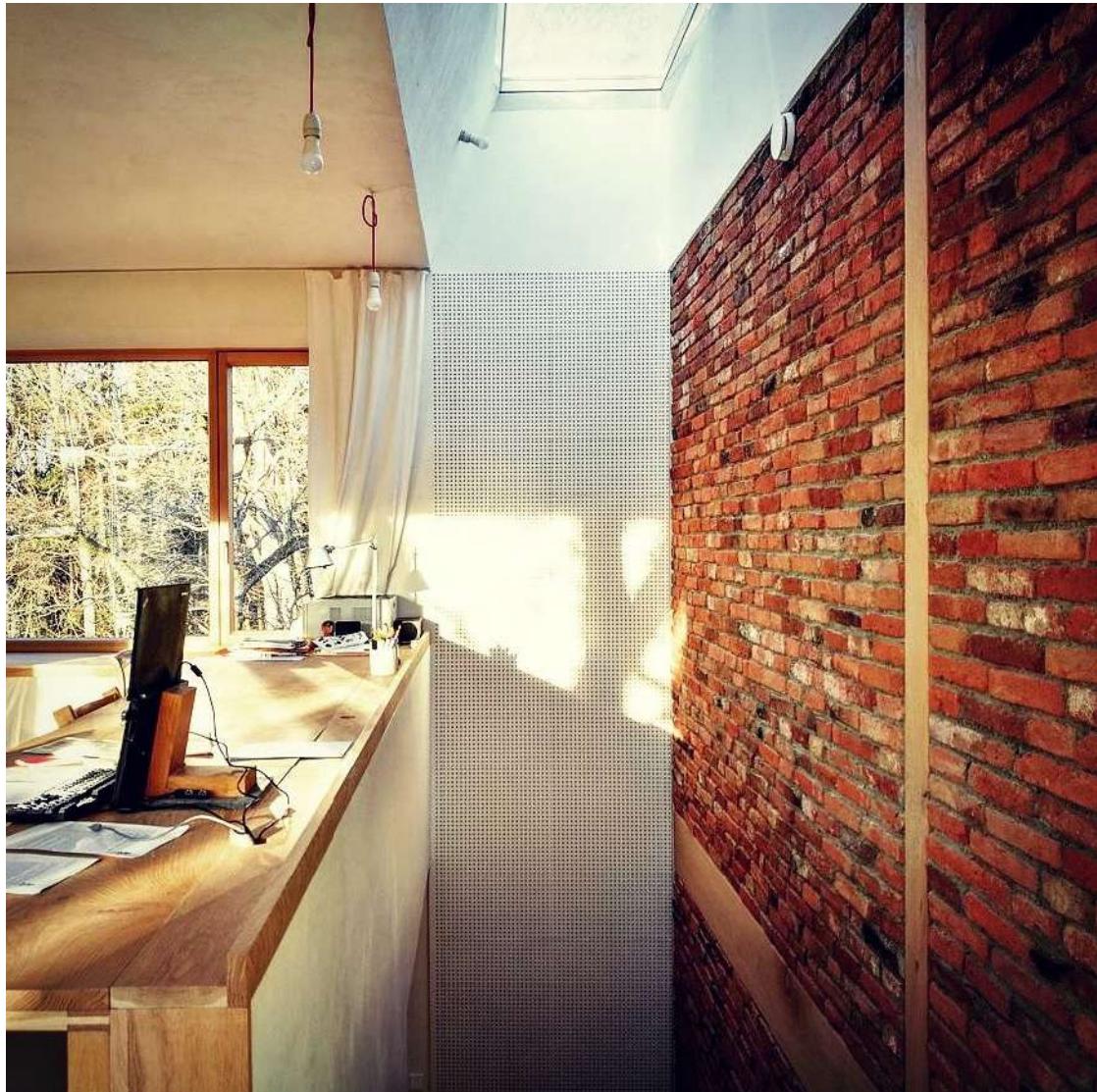
construction site



construction site



construction site



construction site



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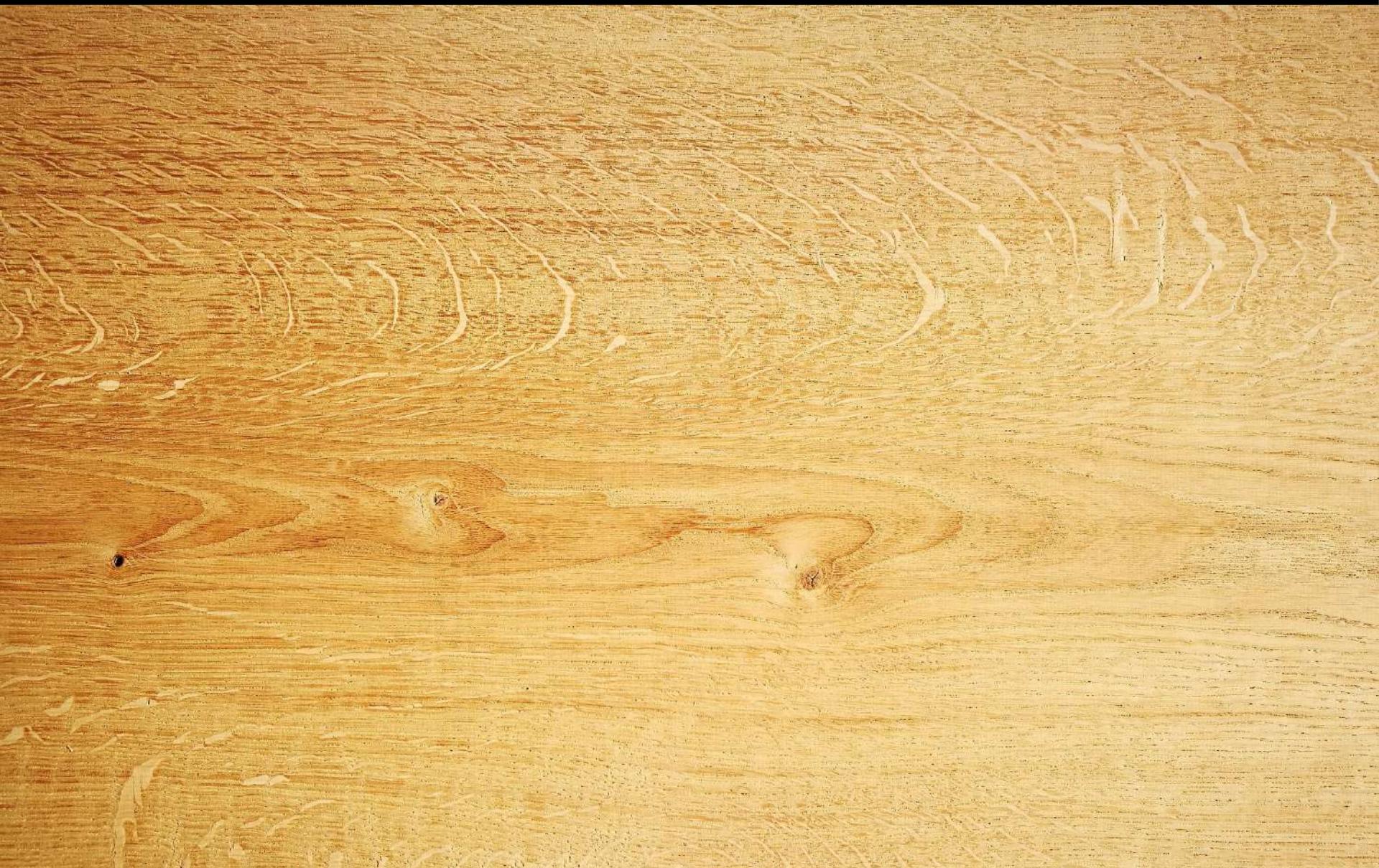


construction site





construction site



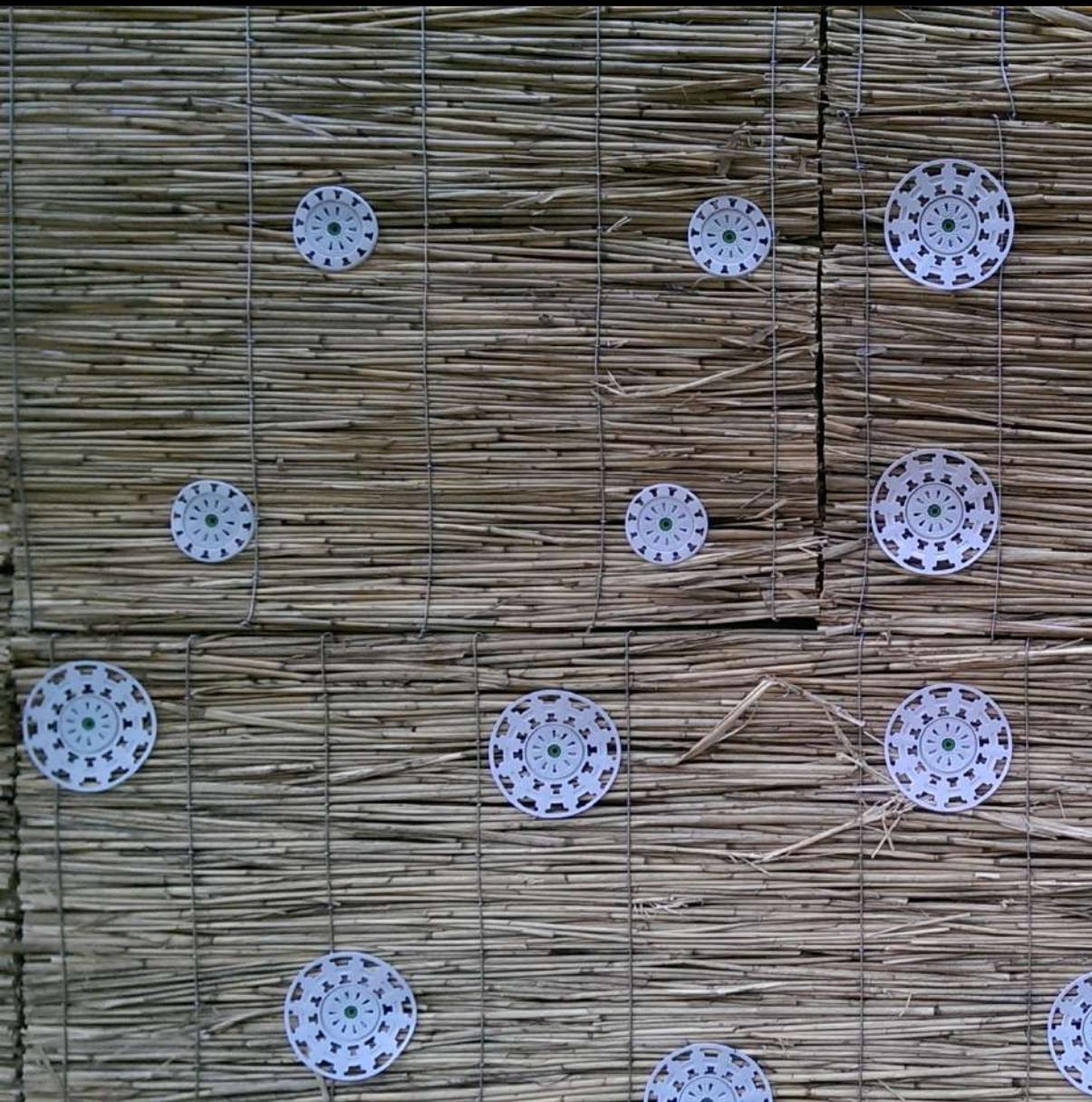
construction site



construction site



OSTRAVA 2019
Senior Lecturer DI Robert Mair



construction site



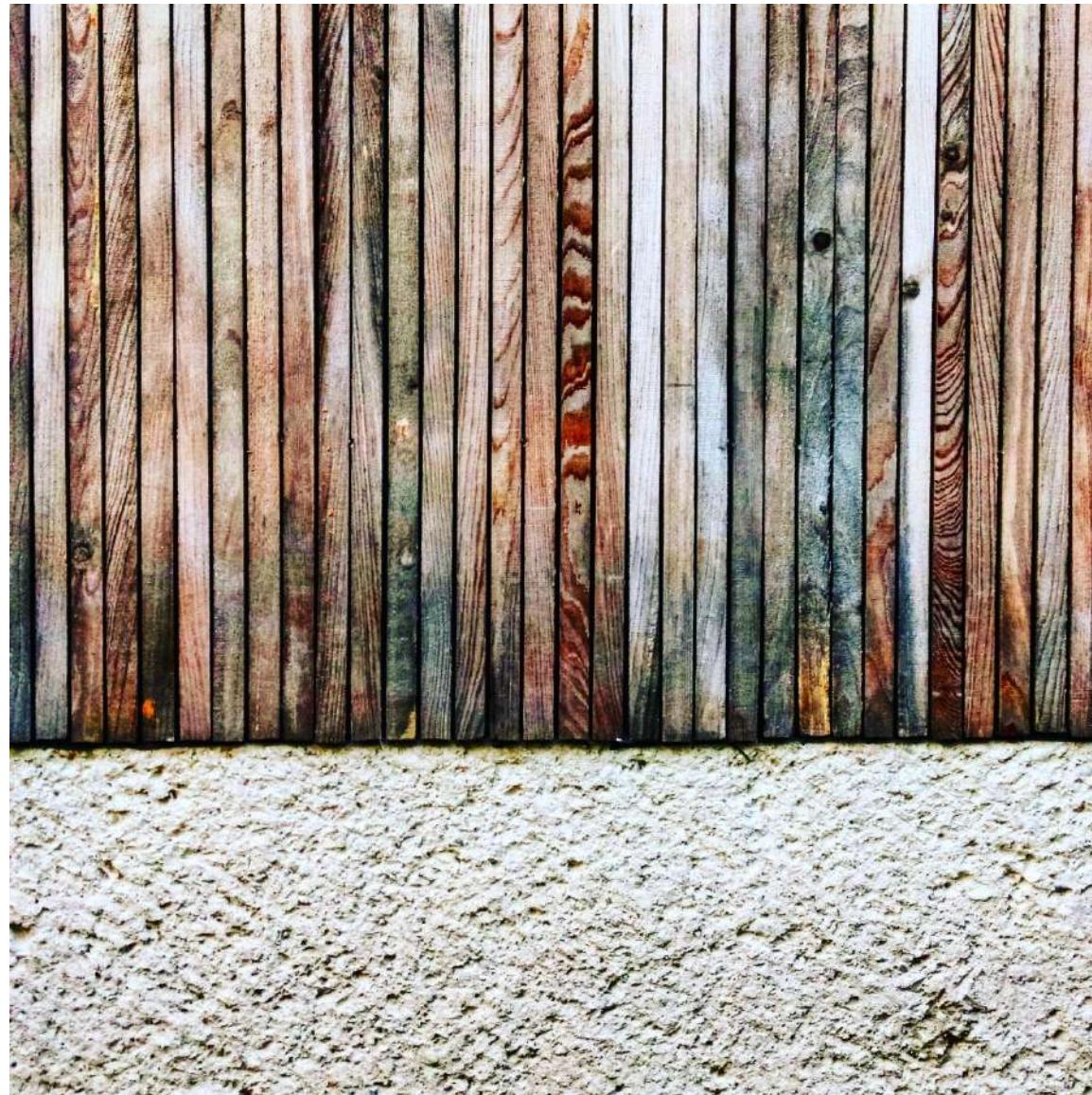
construction site



construction site



construction site



construction site



construction site



construction site

challenge



construction site

thank you for your attention !