Alex Chernov
Stefan Polatschek
Martin Kummer
David Perzl

„Never delegate understanding."   *Charles Eames*

Background
Contributing factors analyzed
Supplemental story: Martin's diary

Background

WA, 2013
Contemporary Austrian Kachelofen
air-gap system
Built mostly with EU materials

Austria, 2014
Comparative testing
Grundofen + Bell heater
Both built with EU materials

WA, 2019
Heater with air-gap system
Built using US materials only

Masons may often say „It won't work!"

It will work by sharing dreams, techniques and experiences through our comparative approach!
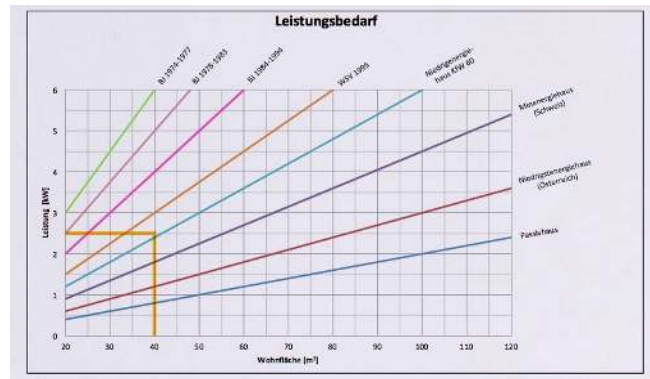

functional design: techn. dimensions, feeling comfy, views, distances etc.

Wildacres 2013 - Austrian hands-on result

1 Basic menu

heat load and insulation quality, Ortner Heizkultur 2014 brochure

Quality of insulation,
airtightness,
heat requirements

Dry firewood in stock!

somewhere in Europe

Human (f)actors
customer / inhabitant
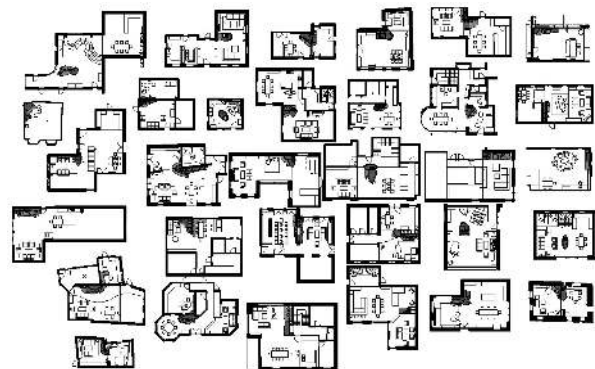planning teams
masons and construction teams

customer specs 2018

Architectural - structural
floor plan layout, positioning ...

Coordination, planning, calculation,
teamwork, documentation

Promotion, Social media ...
individual settings

comparison of floorplan-layouts WA 2013

2 Heater menu

Jason Temple, 2018

Firebox, fire door, combustion air

Heat storage device

heat storage, channel system by Ratz, Austria 2012 (Y)

Partial elements
acting as one functional unit

Heatkit with rear white oven and wraparound heated bench Upper Peninsula, Michigan

Martin Kummer, 2009 © loxpix

MHA website 2018
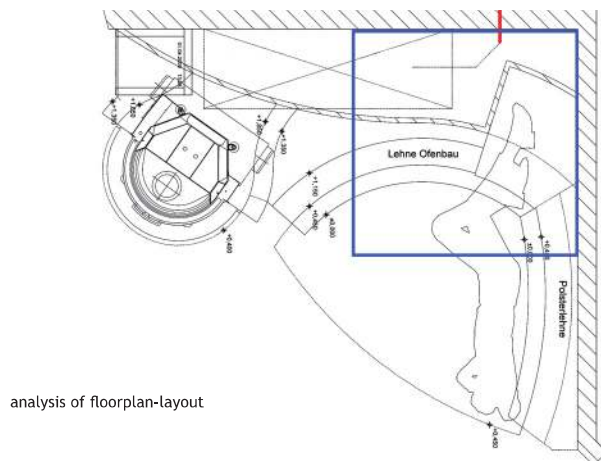
analysis of floorplan-layout
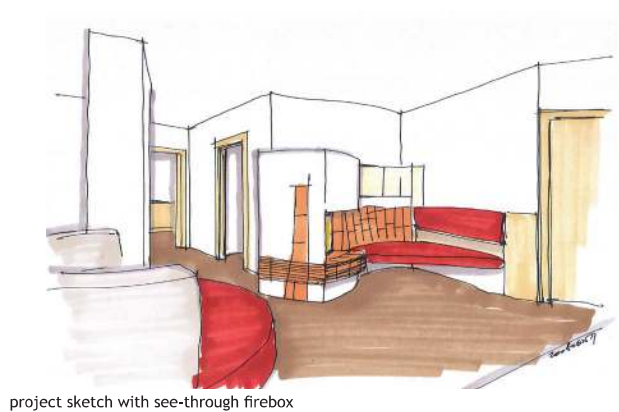
project sketch with see-through firebox
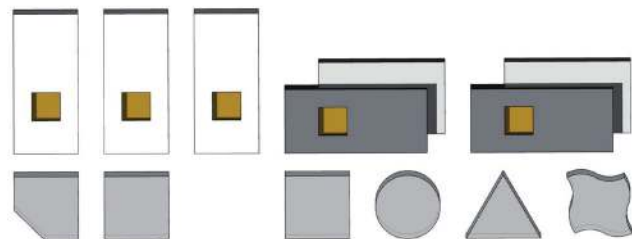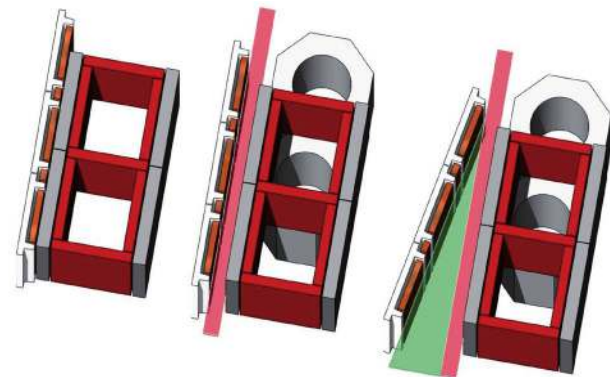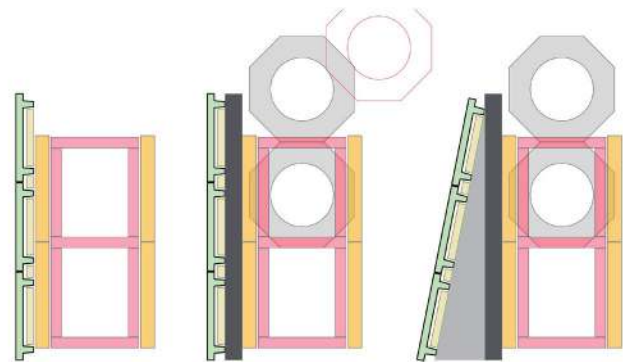
3 Functional menu

Dimensioning
(calculation, simulation, testing ...)

Type of construction
(custom built, air-gap system ...)

Gas physics (fast, slow ...)

Technology, size and proportion
(FI, SE, J // Bell, AT // and more)

(shapes more vertically, horizontally,
less / more flexible shapes and results)

Specifications of materials used
(spreadsheet €, $ ...)

finetuning: KMS, T++, slow KBPl, longer storage (Die Hafnerei, 2014)

finetuning: refractory, ins.mass+, T-, takes longer until warm (Die Hafnerei, 2012)

4 Setting dial for our project

this choice will affect both artwork and
technical design

local materials only

refractories
concrete
soap-stone
plaster
mortars

Alex' firebox, standard fire door

Hybrid Bell heater plus channel system
mixed, partly stainless flue liners

additional metal mesh,
plastered surface
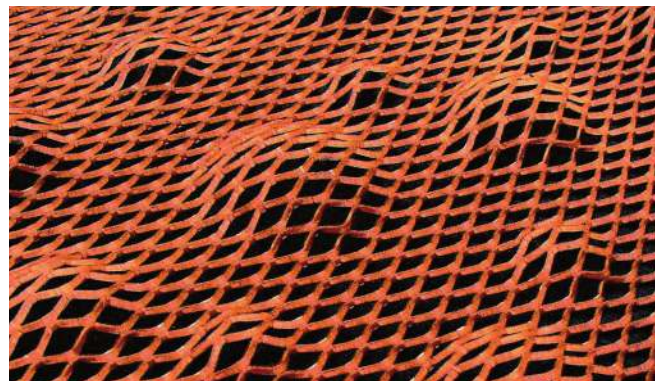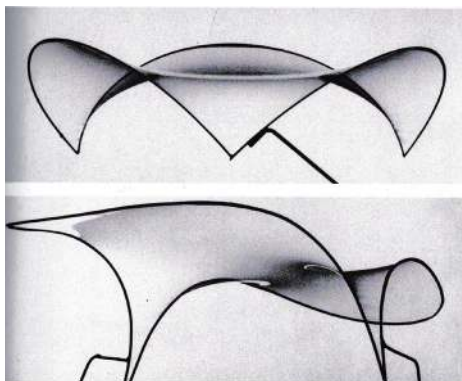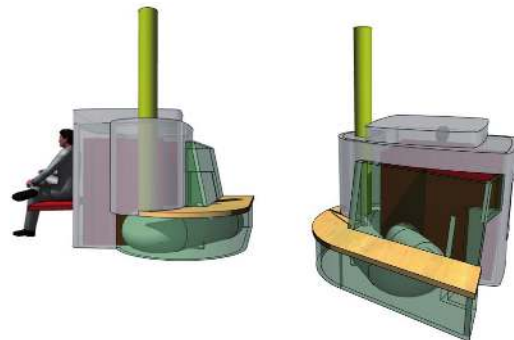
5 Shaping our project
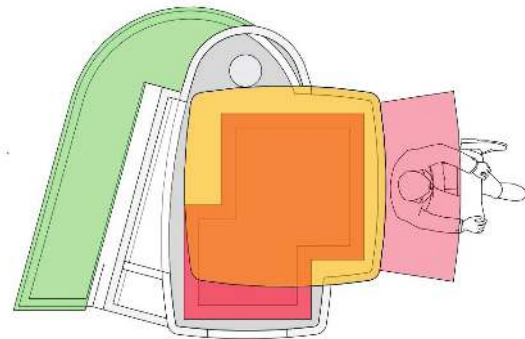
Dimensional requirements,
(warm) bench for pizza party
Inclined backrest for comfy seating,
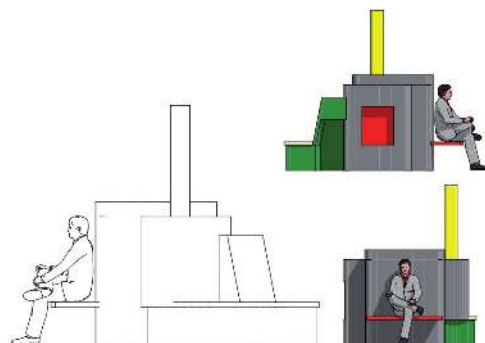varying surfaces

Design features customizable within limits.
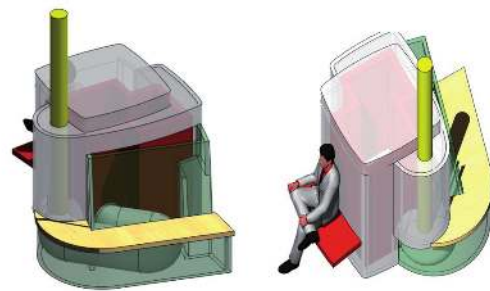
International teamwork,
intended delivery at pizza party:

It will work!

Additional considerations

Martin Kummer
Feuerspuren (Fire Lanes)

A new book outlining 35 years of Martin's work as a stove builder.

We invite interested masons to review projects presented in the book, discuss details, implications and opportunities while going through the story of Martin's work journey.

His experience likewise allows anyone to discuss tasks and approaches when building our hands on project at WA:

Technical design and artwork, availability and choice of materials, teambuilding and many many more.
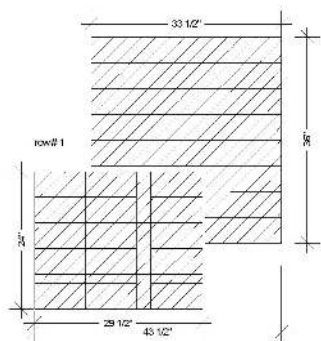
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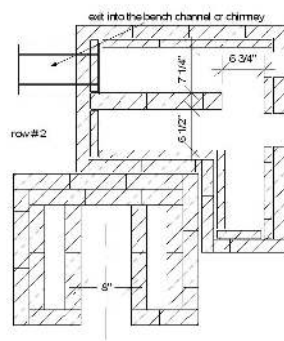
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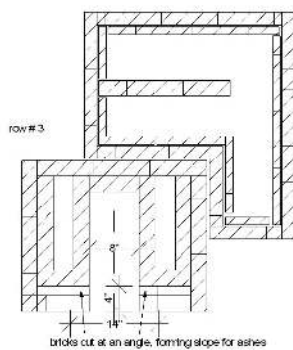
WA_2019_plan_row3
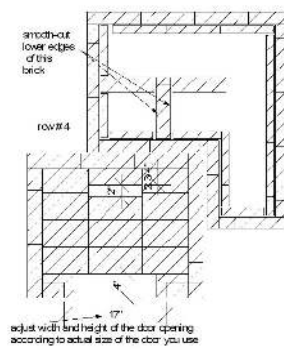
WA_2019_plan_row4
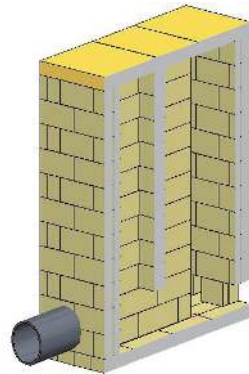
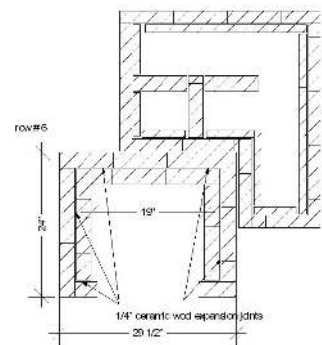WA_2019_3D_cross_02
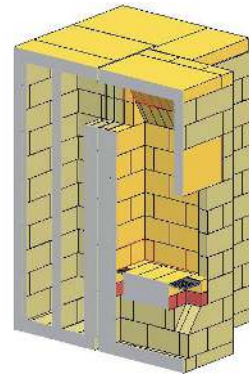
WA_2019_3D_cross_00
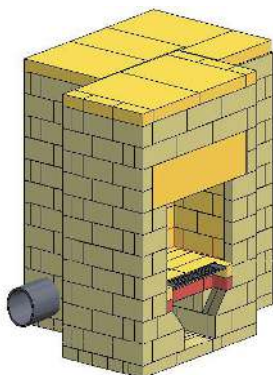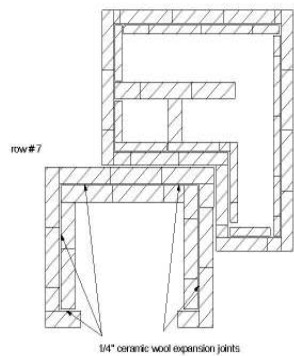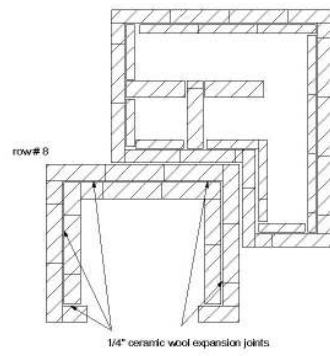

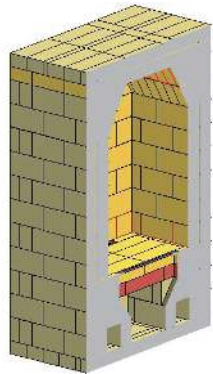WA_2019_3D_views_00
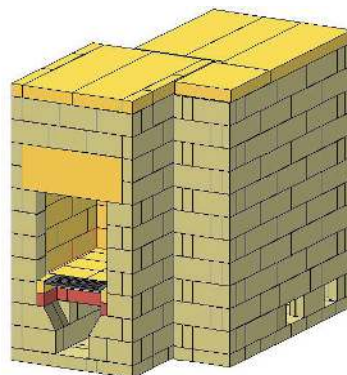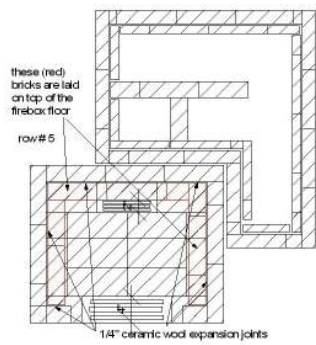
WA_2019_3D_views_01

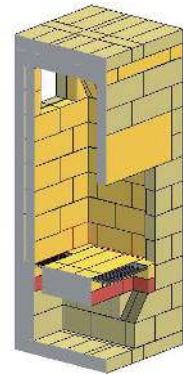WA_2019_plan_row5

WA_2019_plan_row6
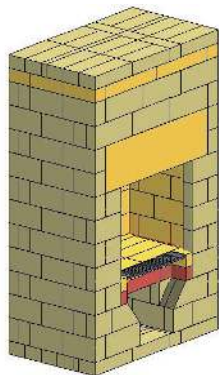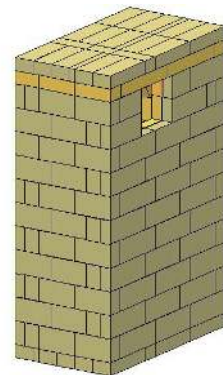

WA_2019_plan_row7

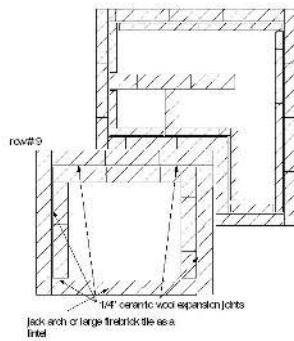
WA_2019_plan_row8

WA_2019_firebox_3D_cross_01

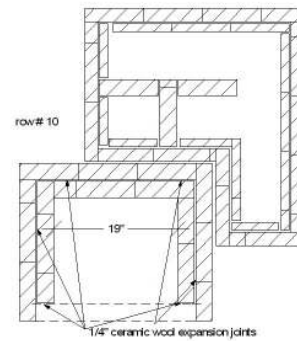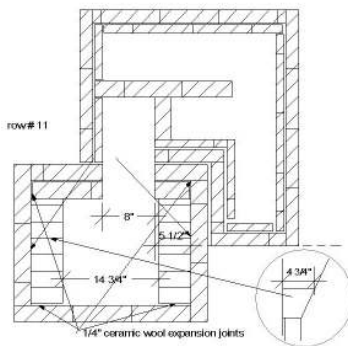WA_2019_firebox_3D_cross_02
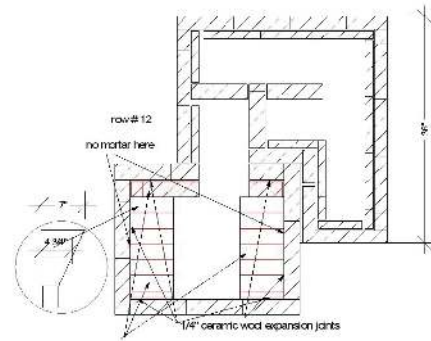

WA_2019_3D_views_02

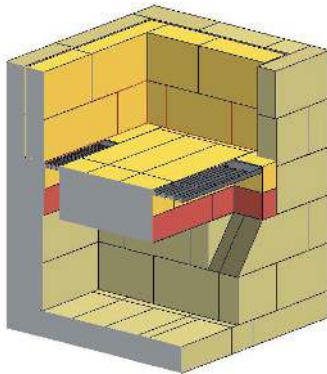WA_2019_3D_views_03

WA_2019_plan_row9
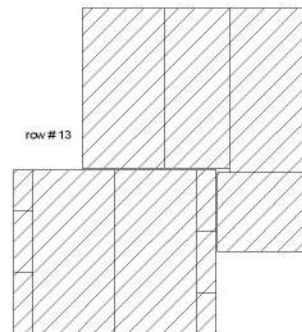

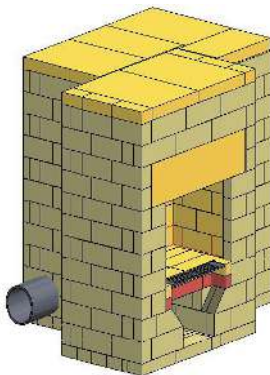WA_2019_plan_row10

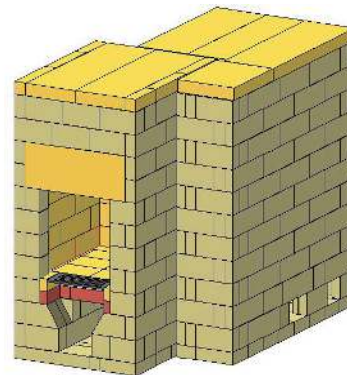WA_2019_plan_row11

WA_2019_plan_row12

WA_2019_firebox_3D_cross_row1-6

WA_2019_plan_row13

WA_2019_3D_views_00

WA_2019_3D_views_01