Rethinking Migration

Redesigning refugee camps

The case of Moria

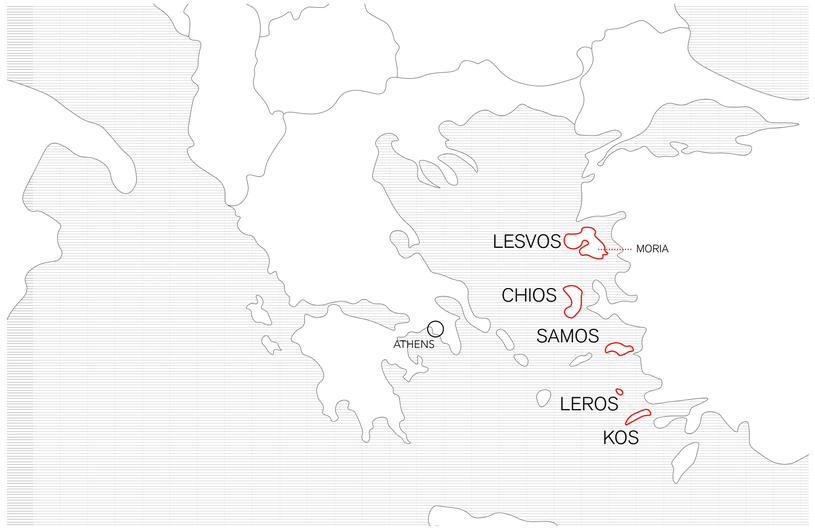
Marcel van der Maas

Studio aE

P5 4 November 2021

8 september 2020
RIC Moria

https://www.euronews.com/2020/09/09/thousands-of-migrants-flee-massive-fire-at-lesbos-camp-
Panagiotis Balaskas / The Associated Press



location of Moria on Lesvos Island, Greece.

Background

Living conditions before 8th of September 2020

Research

Existing Situation

Research

Existing Situation

https://www.is.fi/ulkomaat/art-2000006429525.html Seppo Kärki

‘informal’ settlement - tents.

Research

Existing Situation - different types of shelter

https://www.theguardian.com/world/2020/apr/23/two-migrants-injured-after-shots-fired-into-refugee-camp-on-greek-island-of-lesbos

Guy Smallman/Getty Images

trying to make a ‘home’?

Research

Existing Situation - different types of shelter

https://morningstaronline.co.uk/sites/default/files/styles/article_full/public/camp_moria.jpg?itok=z-KGIeUSn Guy Smallman/Getty Images

ingenuity in shelter construction.

Research

Existing Situation - different types of shelter

https://www.humanstories.gr/wp-content/uploads/2020/02/campMoria.jpg

baker in the camp.

Research

Existing Situation - different types of shelter

https://www.gettyimages.nl/detail/nieuwsfoto's/morteza-mousavi-left-makes-fresh-naan-bread-while-his-nieuwsfotos/1131448057?adppopup=true NurPhoto/Getty Images

make-shift shop selling baked bread.

Research

Existing Situation - different types of shelter

https://www.gettyimages.nl/detail/nieuwsfoto's/migrant-buys-food-from-a-makeshift-shop-at-the-makeshift-nieuwsfotos/1228236810?adppopup=true

Angelos Tzortzinis/Getty Images

baker in the camp.

Research

Existing Situation - different types of shelter

https://www.gettyimages.nl/detail/nieuwsfoto's/migrants-play-cards-outside-of-their-tents-at-the-nieuwsfotos/1228236703?adppopup=true

Angelos Tzoritzin/Getty Images

more ingenuity. adding a door for privacy.

Research

Existing Situation - different types of shelter

https://www.irinsider.org/easterncentral-europe/2021/3/4/pregnant-refugee-who-set-herself-on-fire-in-greece-charged-with-arson

Petros Giannakouris / AP

MOTG Tents.

Research

Existing Situation - different types of shelter

https://www.gettyimages.nl/detail/nieuwsfoto's/migrant-puts-a-bottle-of-water-on-the-floor-outside-of-nieuwsfotos/1164991331?adppopup=true Angelos Tzortzinis/Getty Images

overcrowding in initial camp area.

Research

Existing Situation - different types of shelter

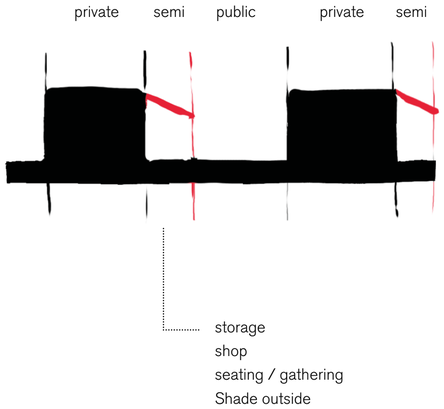
https://questionnaires.bma.org.uk/news/aplaceofrefuge/assets/AzyBJ0G68O/moria-2560x1440-2560x1440.jpeg Socrates Baltagiannis

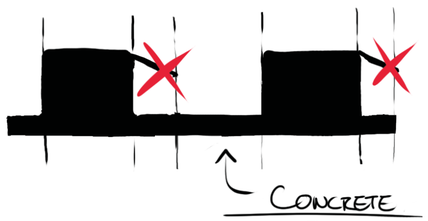
IKEA shelters, public / private?

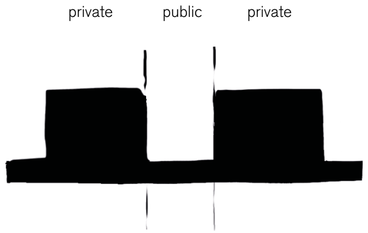
Research

Existing Situation - different types of shelter

https://media.spokesman.com/photos/2016/04/03/Greece_Migrants.JPG.jpg







the use of space and need for privacy.

Research

Existing Situation - conclusions

VICE World News

Violence Is Exploding in Europe's Most Notorious Migrant Camp

Residents of the Moria refugee camp on the Greek island of Lesvos are living in fear under lockdown and a spate of vicious knife attacks.

TH By Tim Hume

June 12, 2020, 3:47pm Share Tweet Snap

The attacks have prompted some residents to flee the camp altogether, while many who remain are terrified to leave their shelters at night, arming themselves in their beds.

"When you go to sleep, you just pray you wake up alive the next morning," said one 31-year-old asylum seeker, who was threatened outside his tent just weeks ago. "We're obliged to sleep with something to defend ourselves with."

The factors behind the attacks are complex, but people who live or work in the camp say the appalling conditions and severe overcrowding have created a perfect breeding ground for violence. A recent coronavirus lockdown imposed over Moria since March has only fuelled the problem, they say, stranding terrified asylum seekers with their tormentors, and ratcheting up the pressure cooker atmosphere in the camp.

violence.

Background

Living conditions before 8th of September 2020

https://www.vice.com/en/article/5dzg7k/moria-refugee-camp-violence-attacks

waiting.

Background

Living conditions before 8th of September 2020

https://time.com/5781936/lesbos-greece-refugee-camps-dangerous/ Ivan Romano / GettyImages

from an architect's perspective.

Background

state of the art theory and practice on camp design

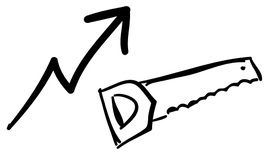
Research

overall design question
straw as a building material
vision for the future
character of Lesvos

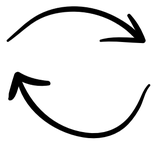
Construction and design

experience life in this place (from camp to city)

co-creation
(of a *home)*



(economically) active
- having control



interdependence -
getting rid of isolation

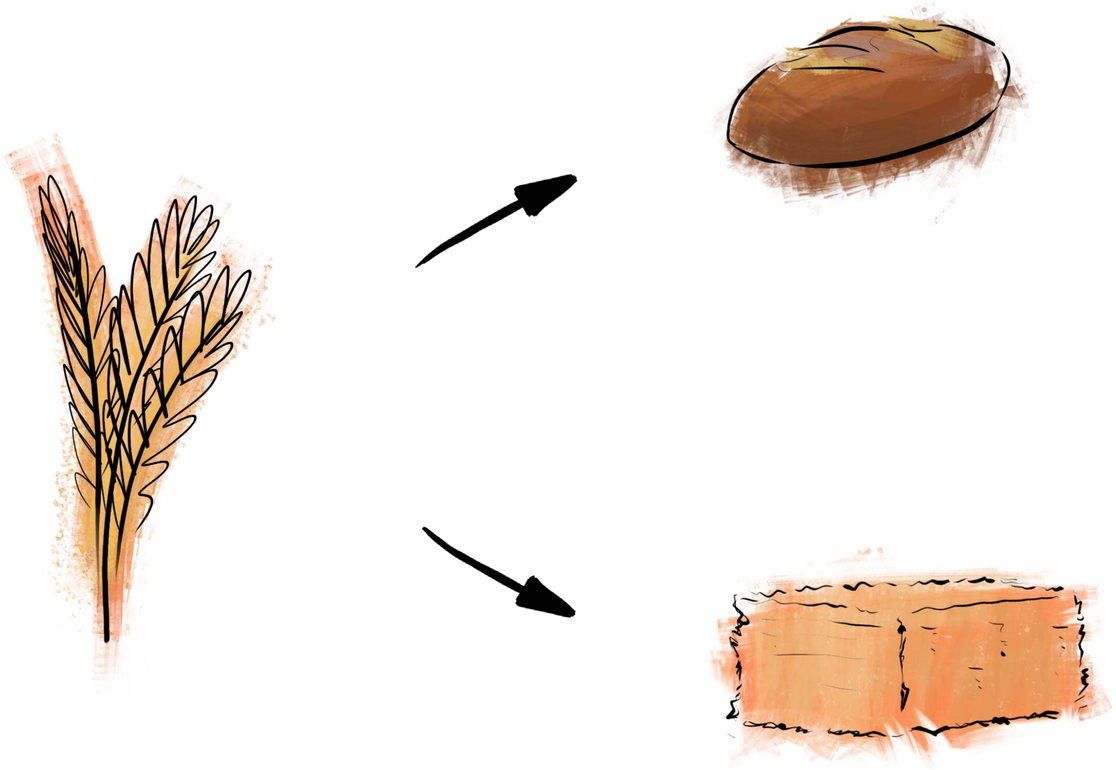
integration

“How to redesign the layout and shelters of Reception and Identification Camp Moria, Lesvos, into a sustainable, affordable, co-created and climate appropriate design, fostering (economic) activity and interdependence with its surroundings?”

Thematic Research

Straw as a building material

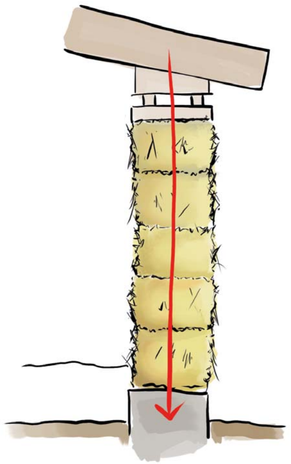
https://www.pexels.com/nl-nl/foto/bruin-gras-1204998/



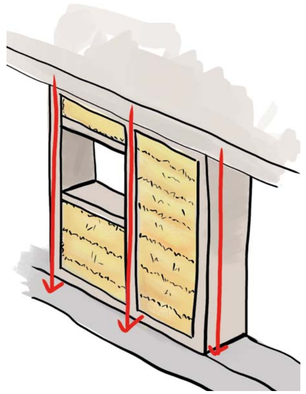
two-fold application of straw. food and building material.

Thematic Research

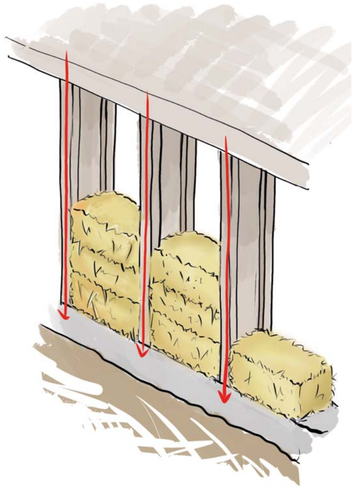
Straw as a building material



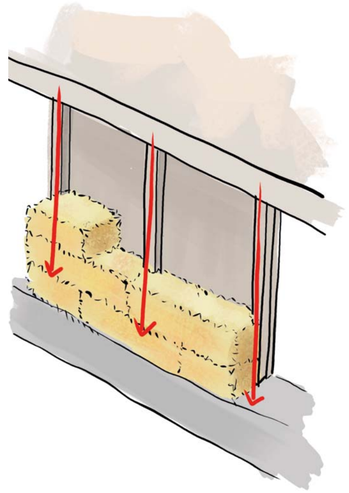
load-bearing



prefab



infill

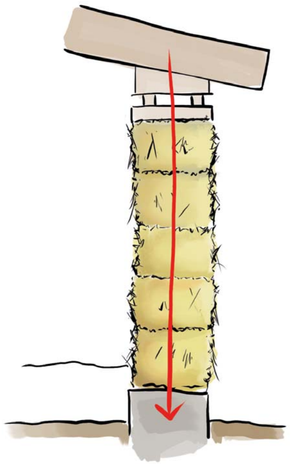


wrapping

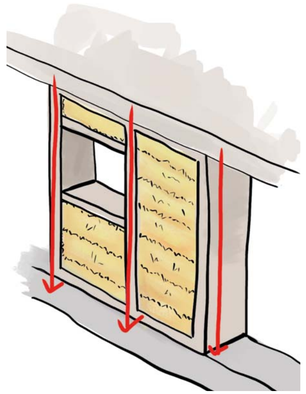
four main construction methods with straw.

Thematic Research

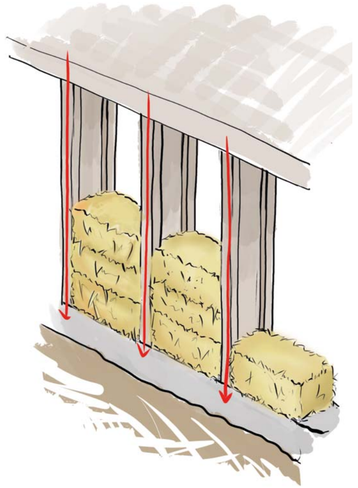
Straw as a building material



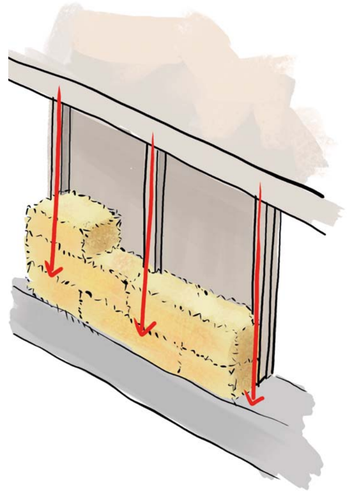
load-bearing



prefab



infill

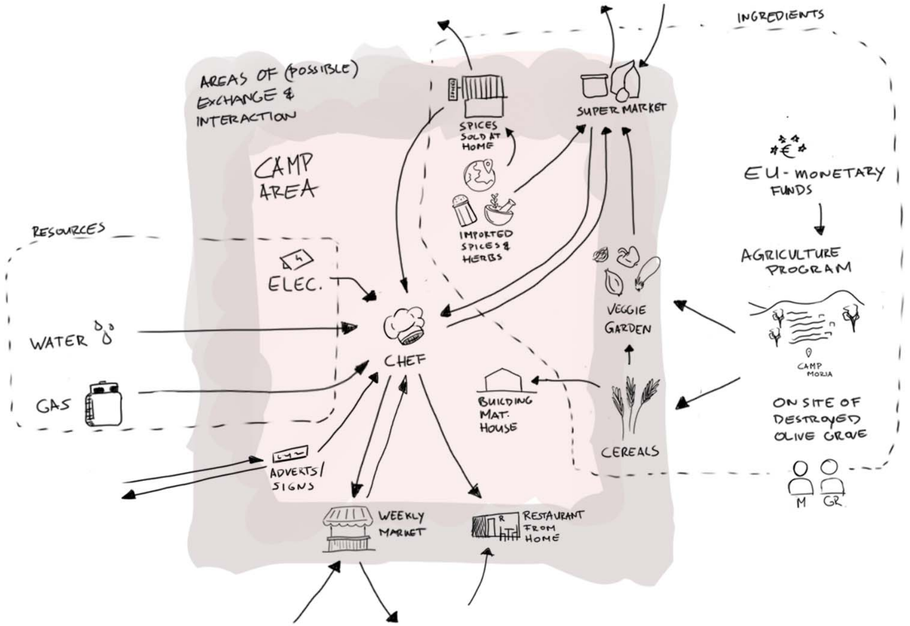


wrapping

load-bearing; low-tech, low tradeskill.

Thematic Research

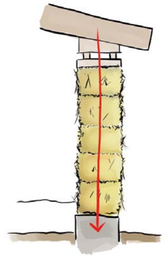
Straw as a building material



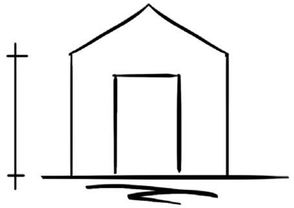
flow of goods and services.

Thematic Research

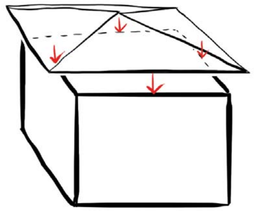
Straw as a building material



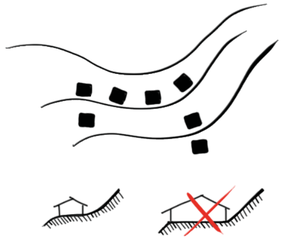
load bearing straw bale walls



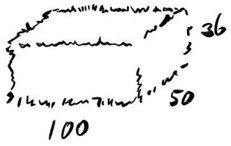
height - one storey
smaller bales - can be carried by people



square type.
equal distribution of roof loads on walls, easy construction methods



free standing houses to account for terrain changes, minimize terrain prep



size of straw bale

19,8 kg at 110 kg/m³

foundation of used car tires filled with concrete

construction parameters of the building system.

Thematic Research

Straw as a building material

Research

Character of Lesvos

streets of Mytilene.

Research

Character of Lesvos

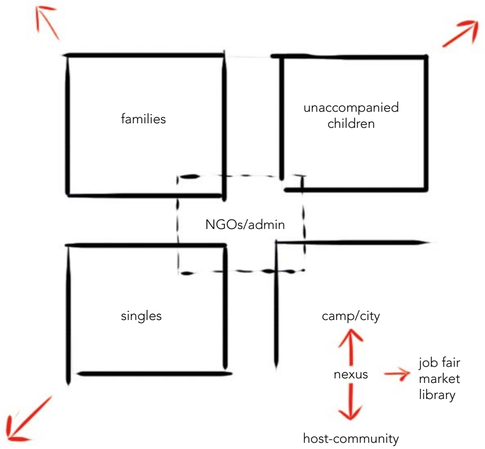
DESIGN

Urban Design

need for structure.

Design

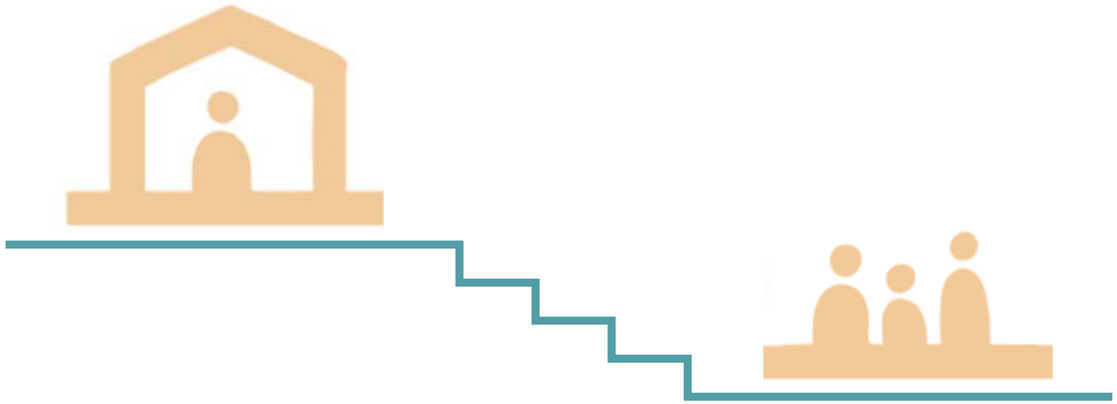
Organisational structure



diagrammatic lay-out refugee city

Design

Urban design

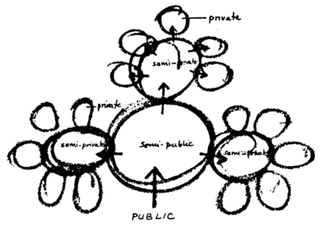


safety.
sense of belonging.
community.

Design

Urban design

Diagram showing a hierarchically organized housing area with private, semiprivate, semipublic, and public spaces. The clear structure strengthens natural surveillance, helps the inhabitants know which people "belong," and improves the possibility for making group decisions concerning shared problems. (From Oscar Newman, Defensible Space *[41].)*



in the residential group are, it is true, publicly accessible, but have – because of close connection to a limited number of residences – a semipublic character. The communal spaces in the neighborhood are somewhat more public, while the city's town hall square is a totally public space.

The scale between public and private also can be considerably more differentiated than mentioned here. Or it can be considerably less defined, as in the case with the multistory residence or the single-family house in the undefined city structure. In many such cases, almost no middle ground or transition between private and very public territory exists.

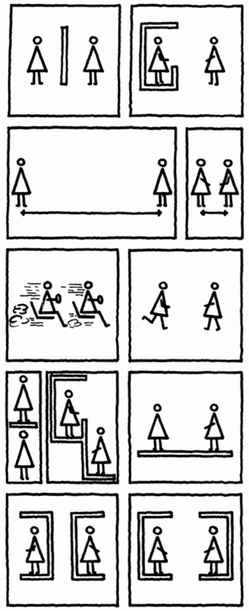
territories, security, and sense of belonging

The establishment of a social structure and corresponding physical structure with communal spaces at various levels permits movement from small groups and spaces toward larger ones and from the more private to the gradually more public spaces, giving a greater feeling of security and a stronger sense of belonging to the areas outside the private residence. The area that the individual perceives as belonging to the dwelling, the residential environment, can extend well beyond the actual dwelling. This in itself may result in greater use of public spaces – such as parents permitting young children to play outdoors at an earlier age than they otherwise might.

Establishing residential areas so that there is a graduation of outdoor spaces with semipublic, intimate, and familiar spaces nearest the residence also makes it possible to know the people in the area better, and the experience of outdoor spaces as belonging to the residential area results in a greater degree of surveillance and collective responsibility for this public space and its residences. The public spaces become part of the residential

the senses and communication

Physical arrangement can promote or prevent visual and auditory contact in at least five different ways.



INHIBITING CONTACT Visual and auditory	*PROMOTING CONTACT Visual and auditory*
1. Walls	*1. No walls*
2. Long distances	*2. Short distances*
3. High speeds	*3. Low speeds*
4. Multiple levels	*4. One level*
5. Back-to-back orientation	*5. Face-to-face orientation*

Gradual transition between private and public, and tools to encourage social interaction.
Life between buildings, using public space. Jan Gehl.

Design

Urban Design

Life between buildings, using public space. Jan Gehl

Design

Urban framework

Scale 1:600

Design

Urban framework

Scale 1:600

Design

Urban framework

Scale 1:600

Design

Urban framework

Scale 1:600

Design

Urban framework

Scale 1:600

Design

Urban framework

Scale 1:600

urban neighbourhood design.
1:600

Design

Urban framework

Scale 1:600

urban neighbourhood design.
1:600

Design

Urban framework

Scale 1:600

urban neighbourhood design.
1:600

Design

Urban framework

Scale 1:600

urban neighbourhood design.
1:600

Design

Urban framework

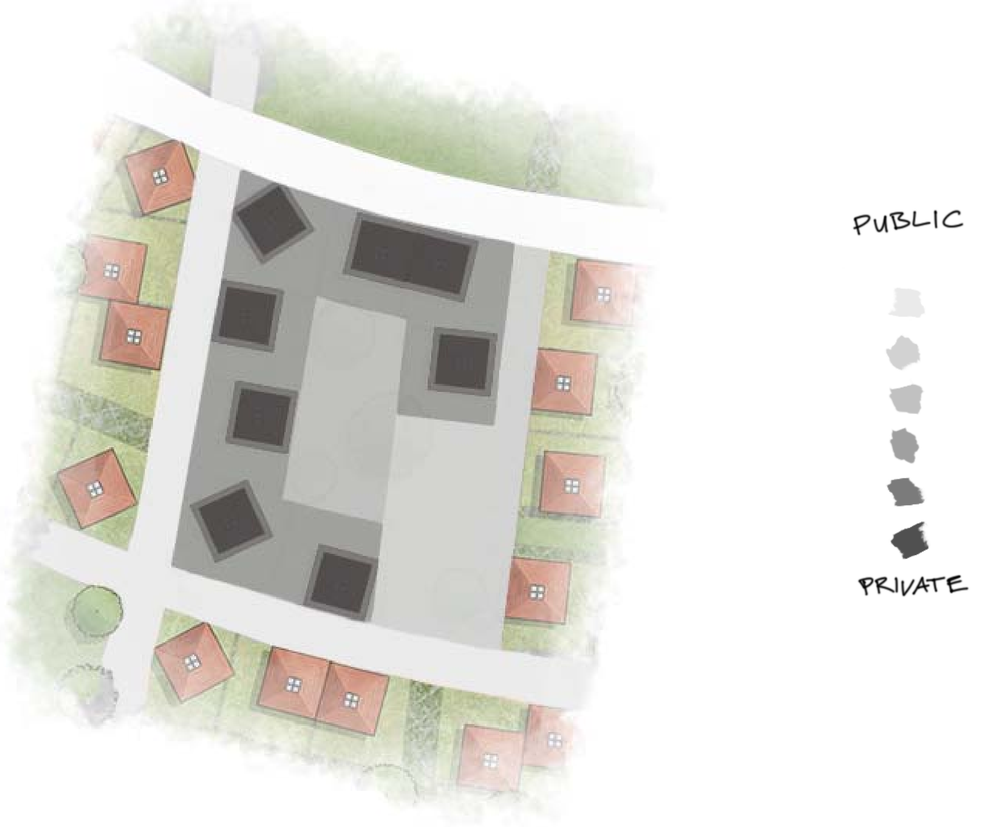
Scale 1:600

urban neighbourhood design.
1:600

Design

Urban framework

Scale 1:600



public to private scheme.

Design

Urban framework

urban neighbourhood design.
1:600

Design

Urban framework

Scale 1:600

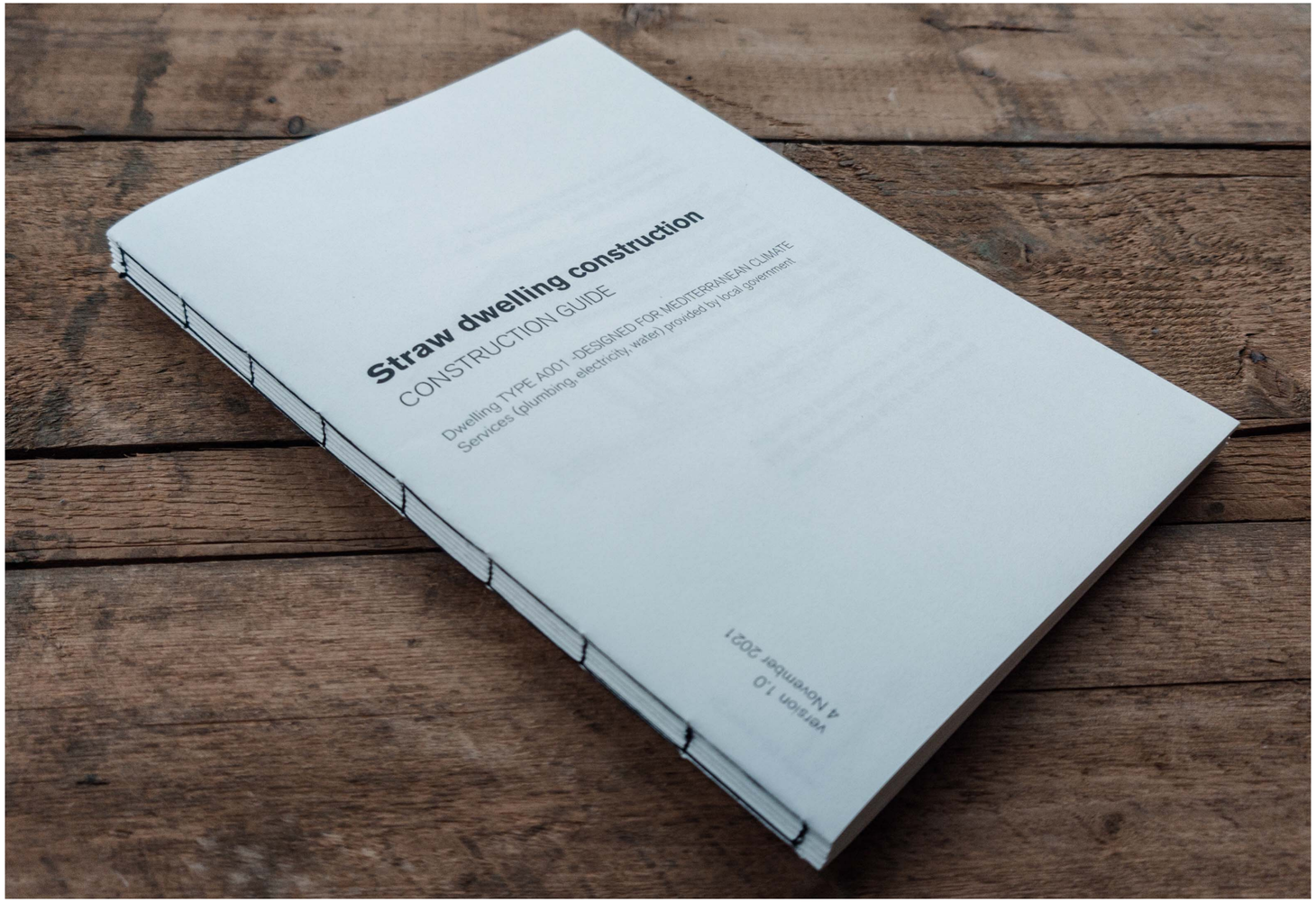
DESIGN

Construction process

construction process.

Construction and design

Instructions and construction of the dwelling



Construction and design

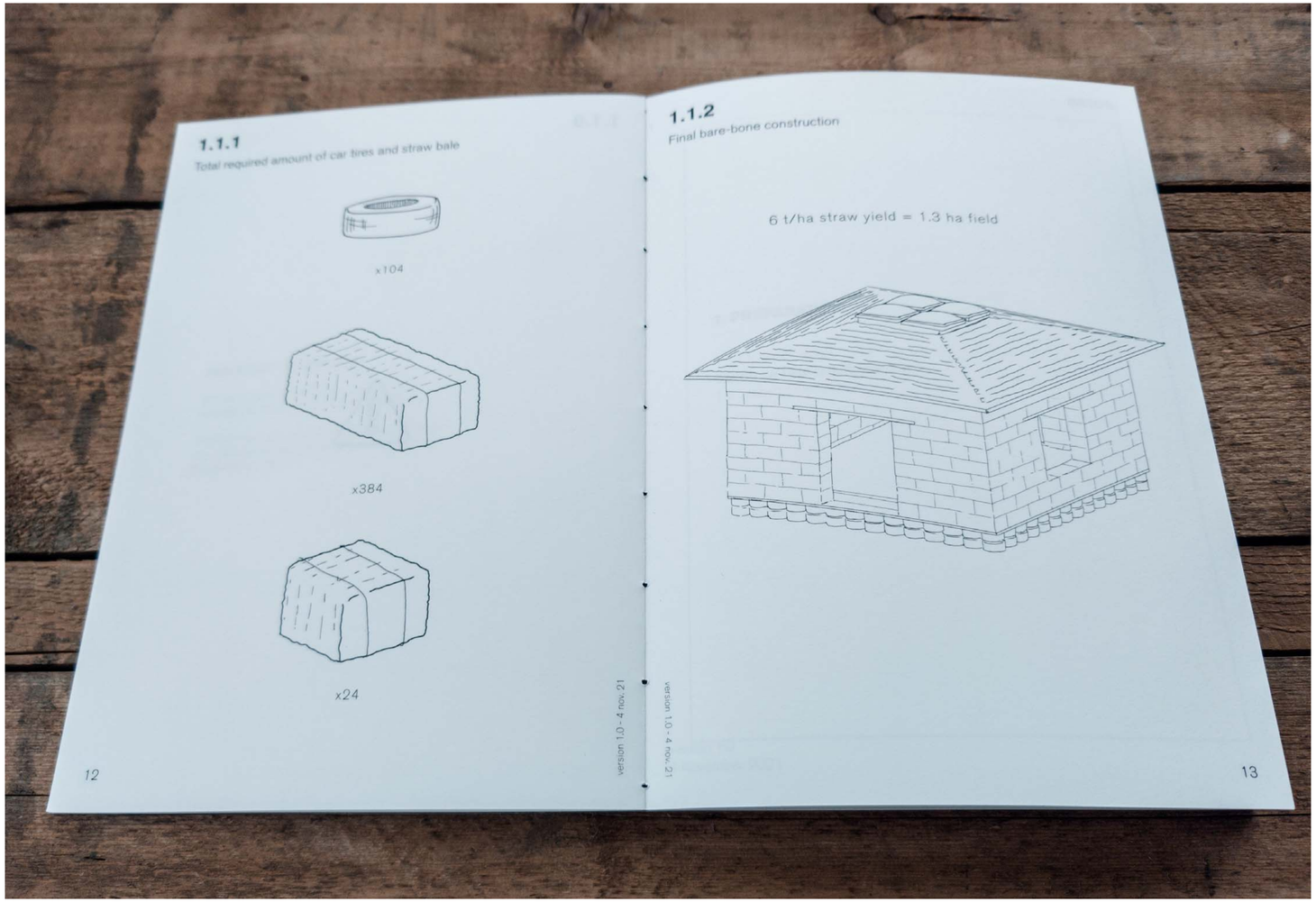
Instructions and construction of the dwelling

Construction and design

Instructions and construction of the dwelling

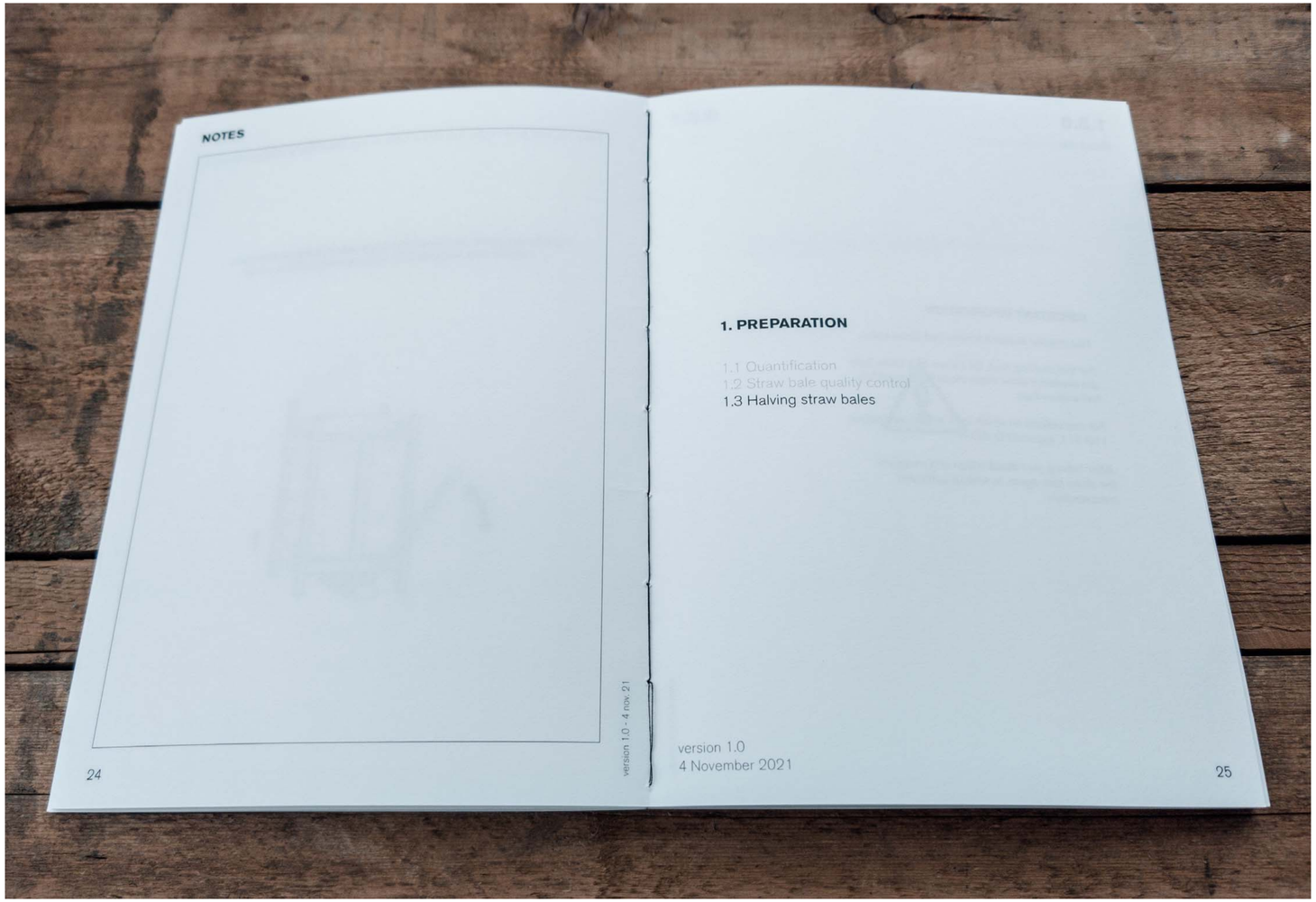
Construction and design

Instructions and construction of the dwelling



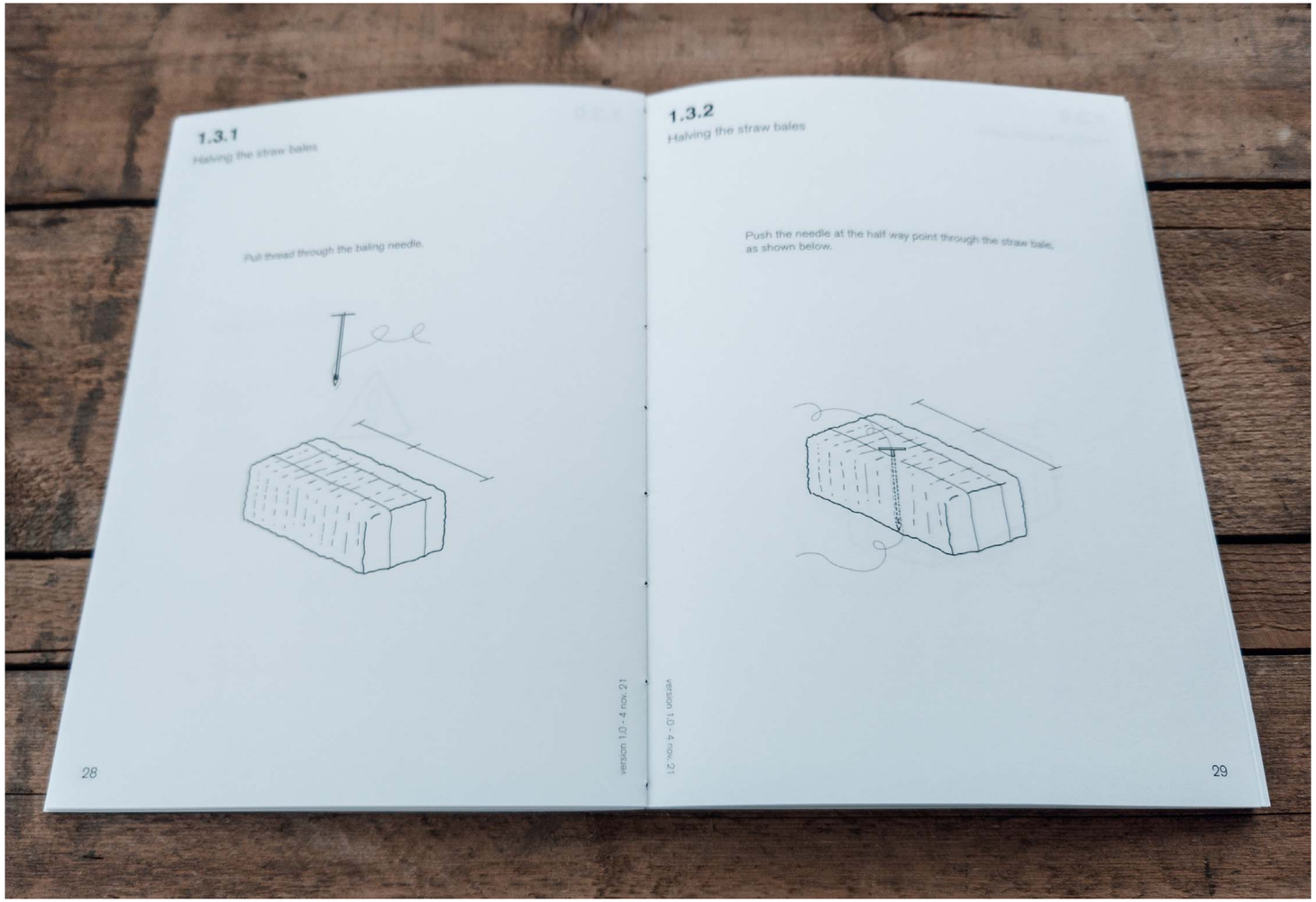
Construction and design

Instructions and construction of the dwelling



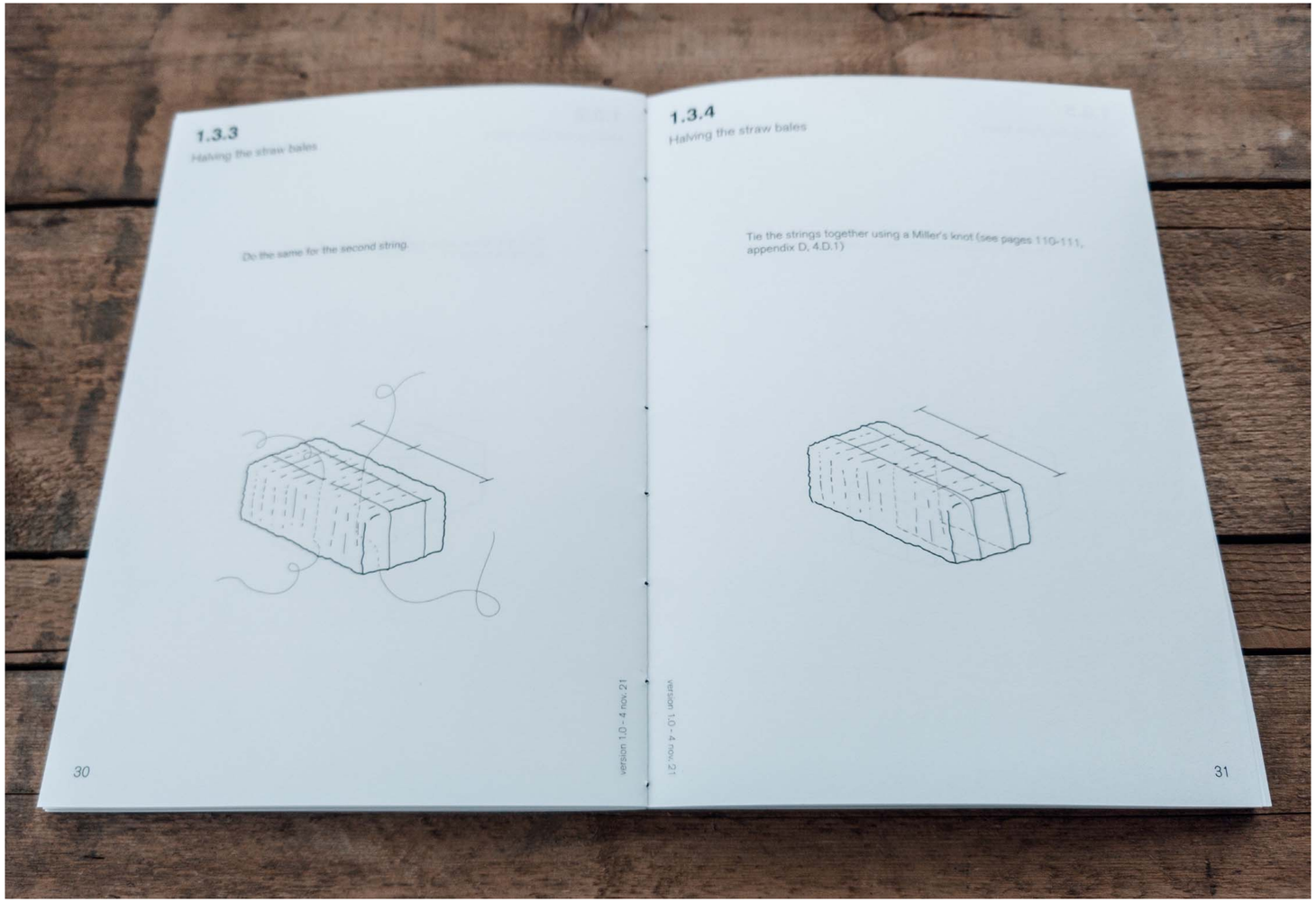
Construction and design

Instructions and construction of the dwelling



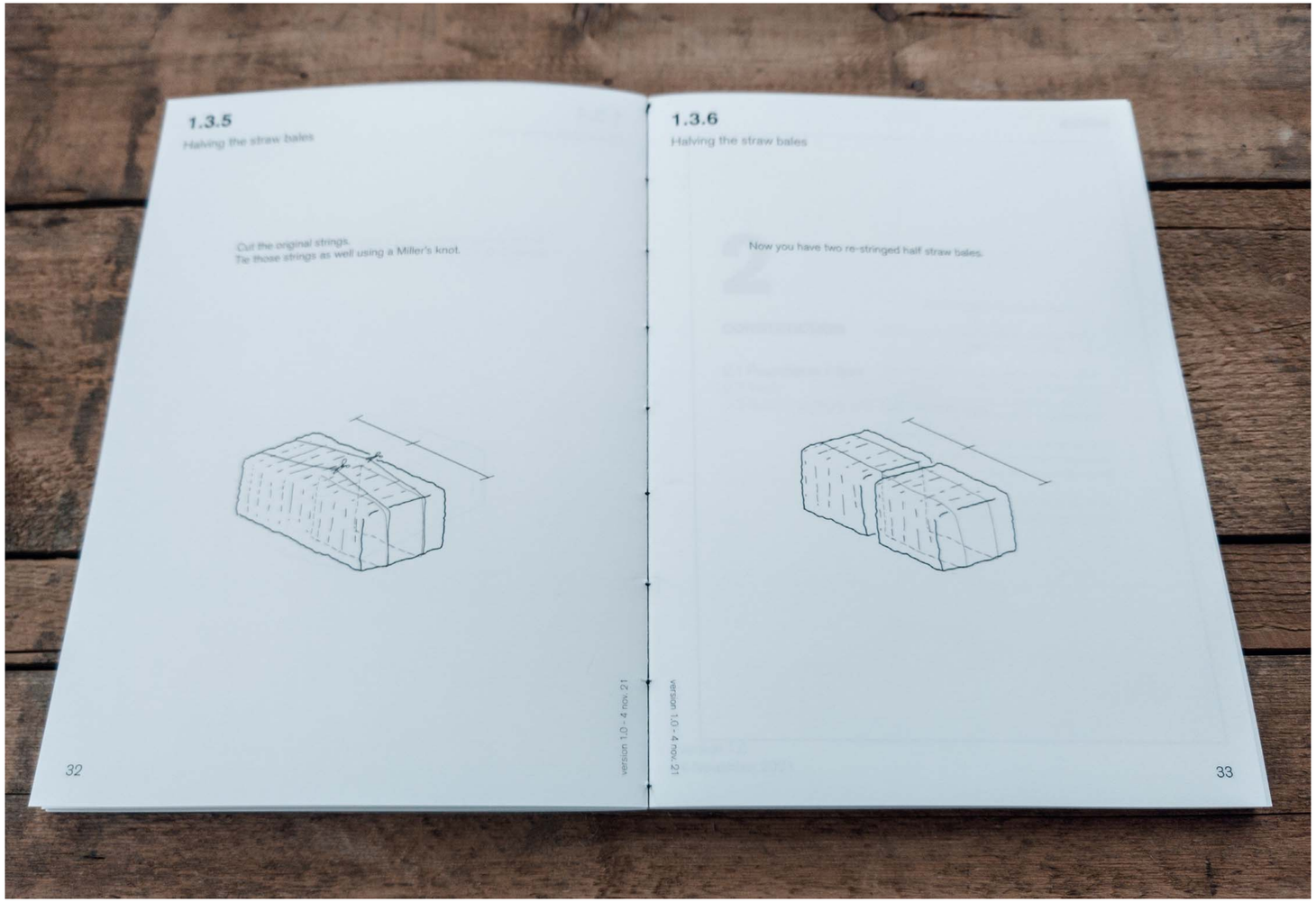
Construction and design

Instructions and construction of the dwelling



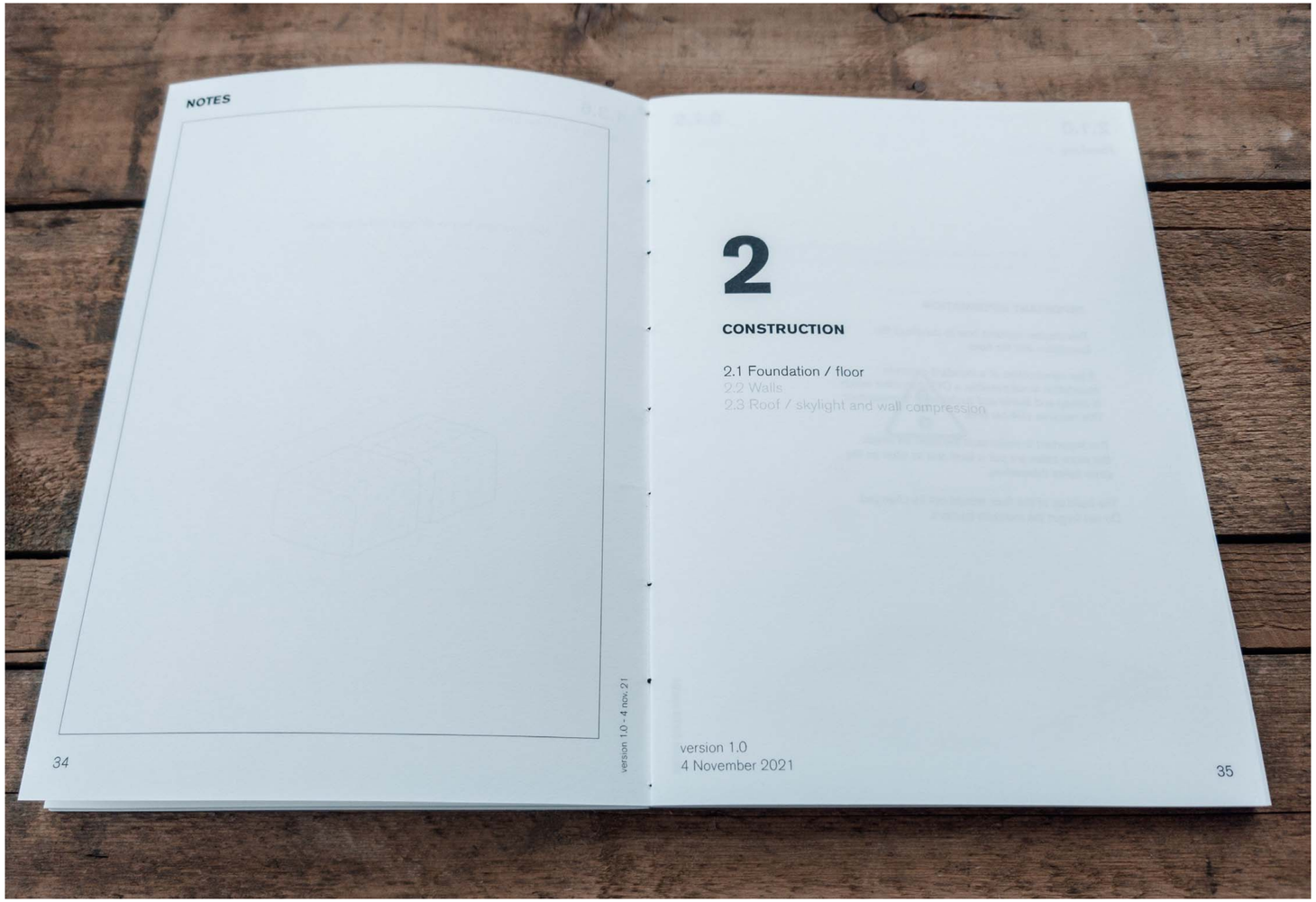
Construction and design

Instructions and construction of the dwelling



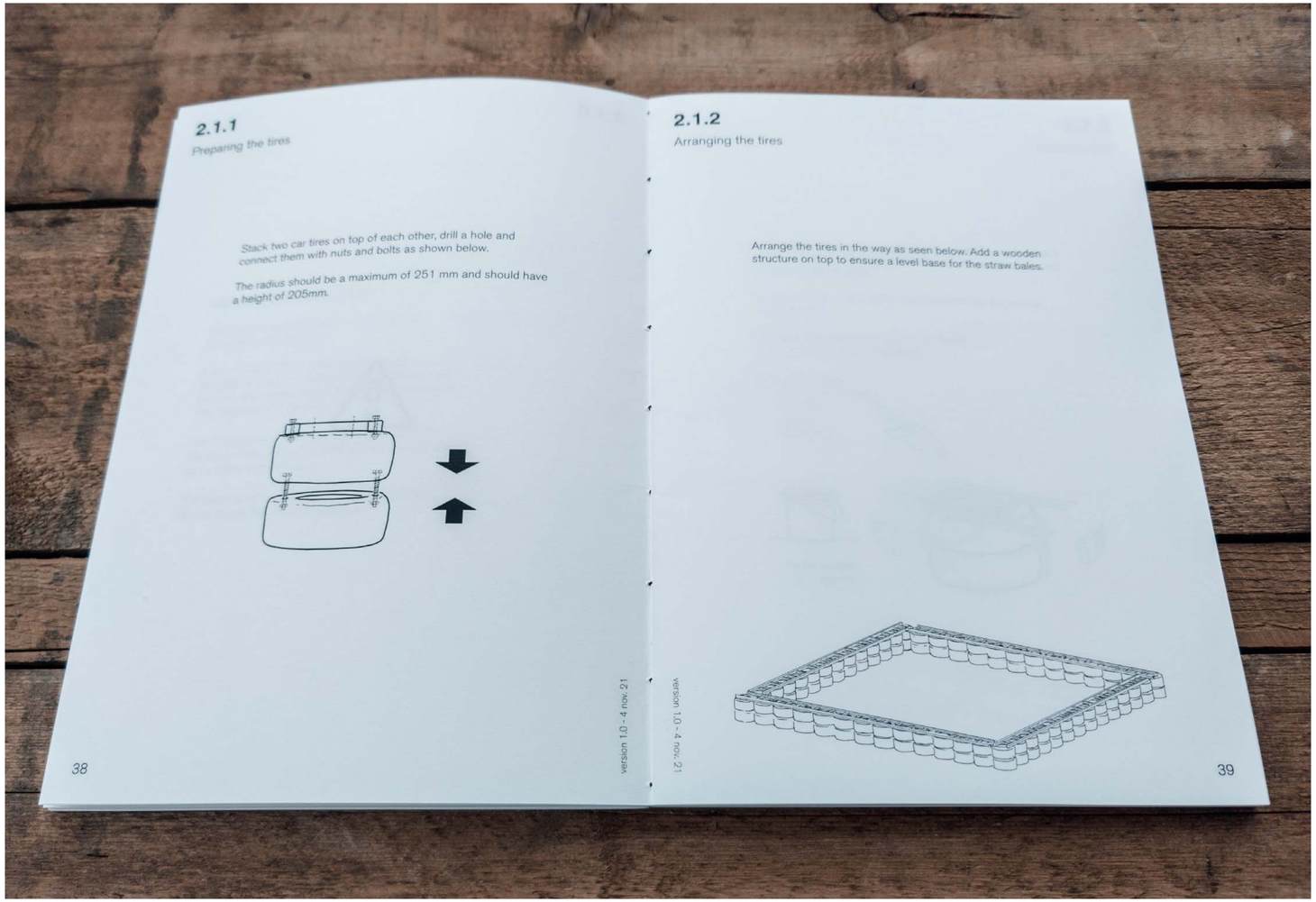
Construction and design

Instructions and construction of the dwelling



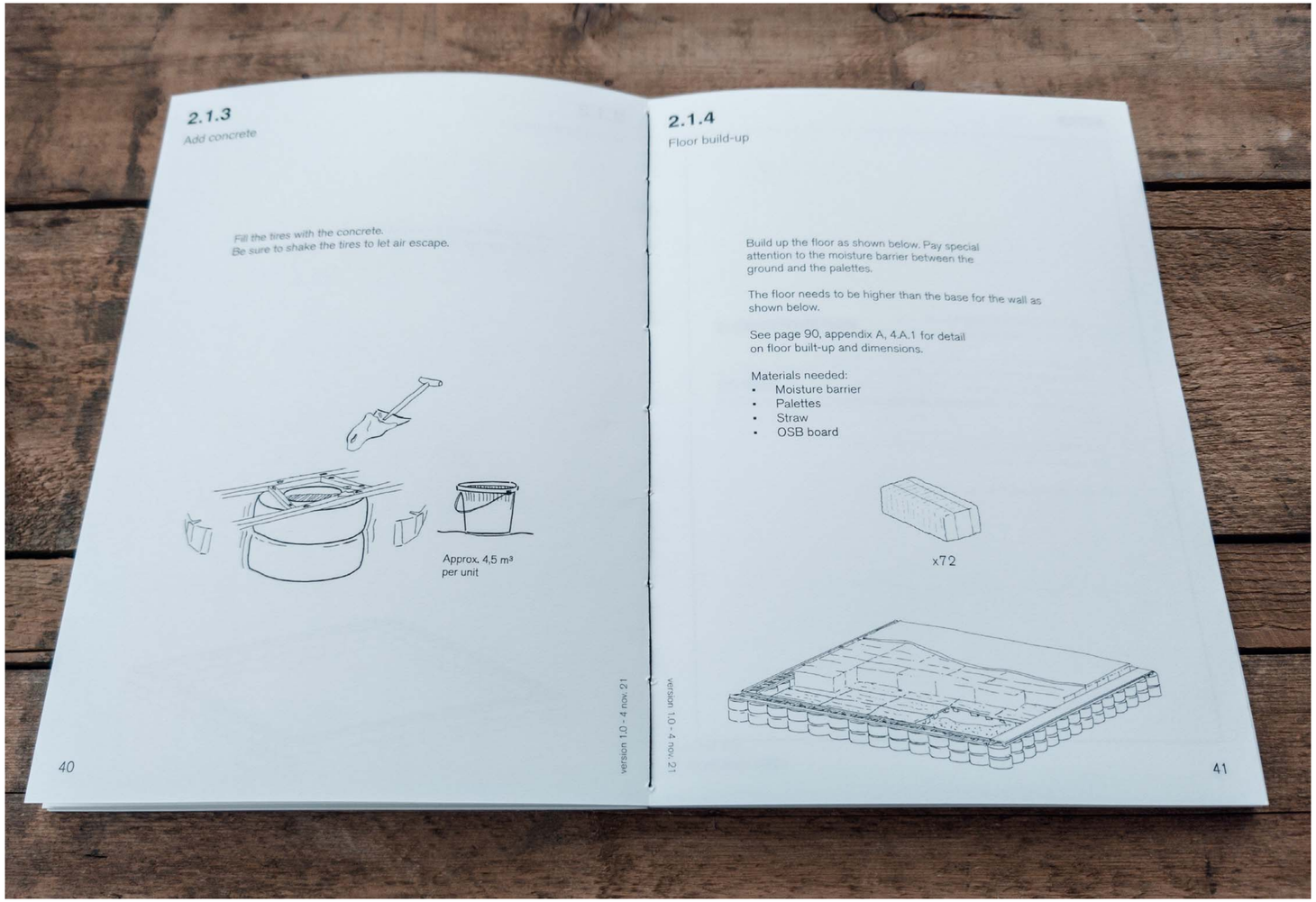
Construction and design

Instructions and construction of the dwelling



Construction and design

Instructions and construction of the dwelling



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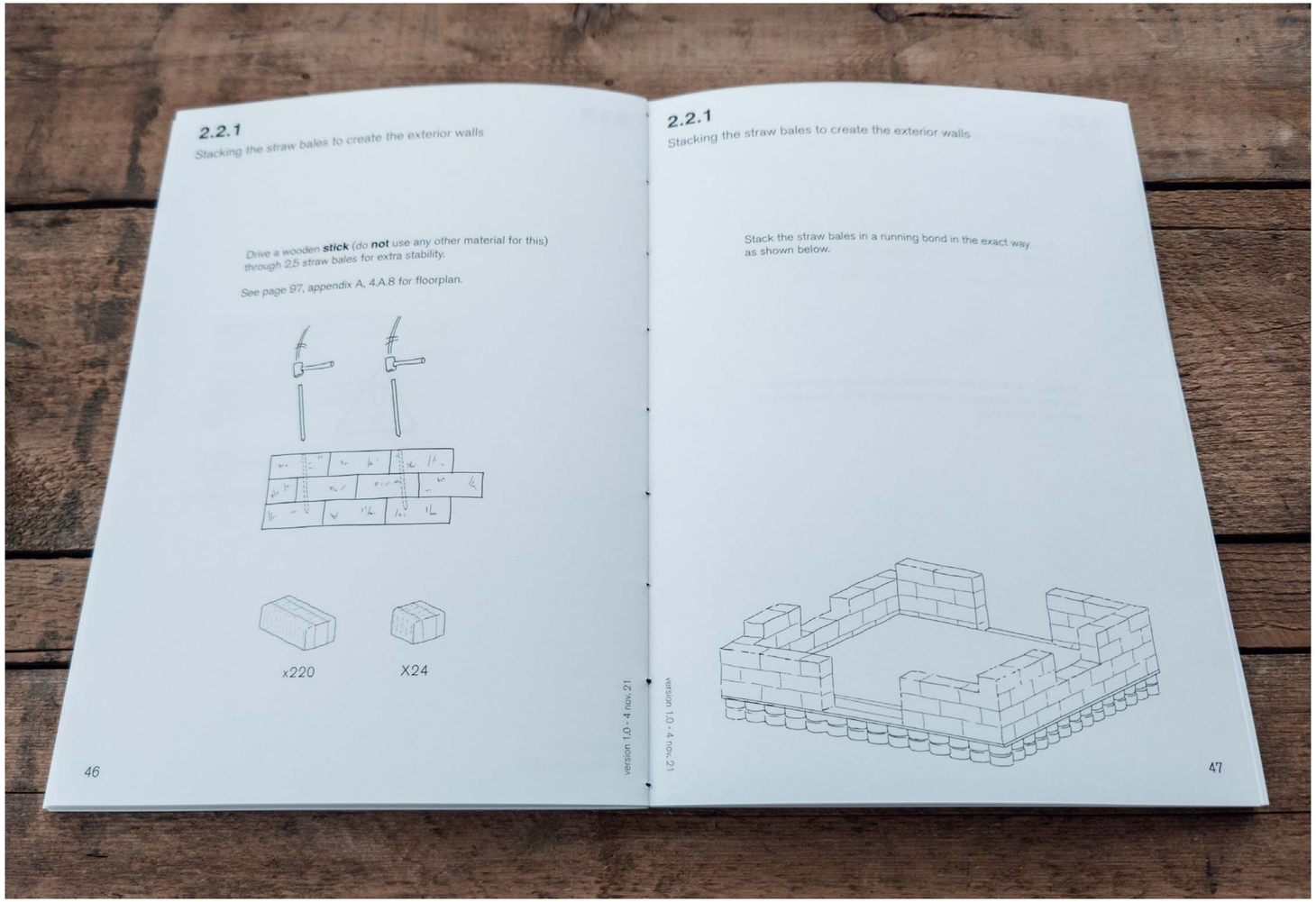
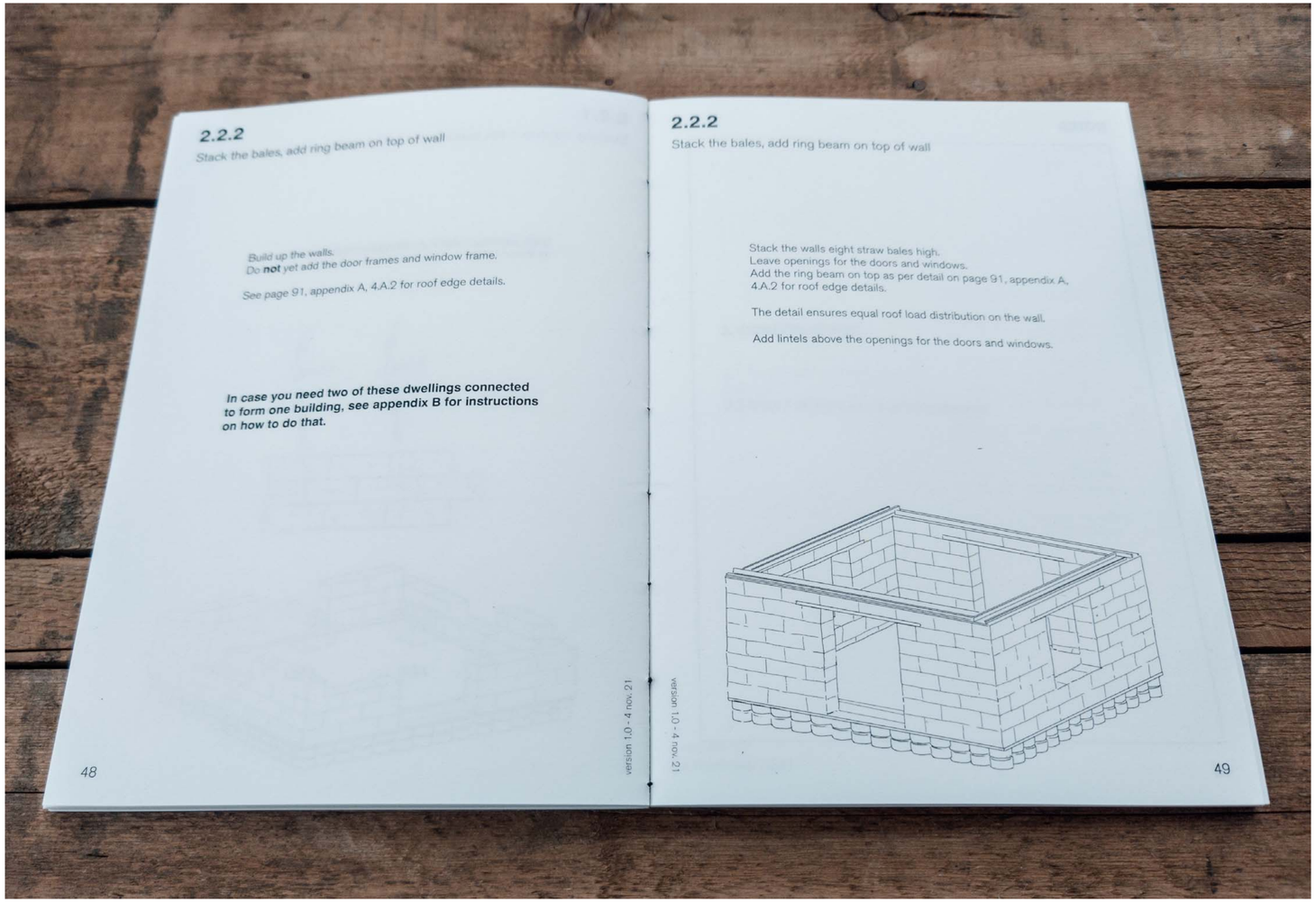
Instructions and construction of the dwelling



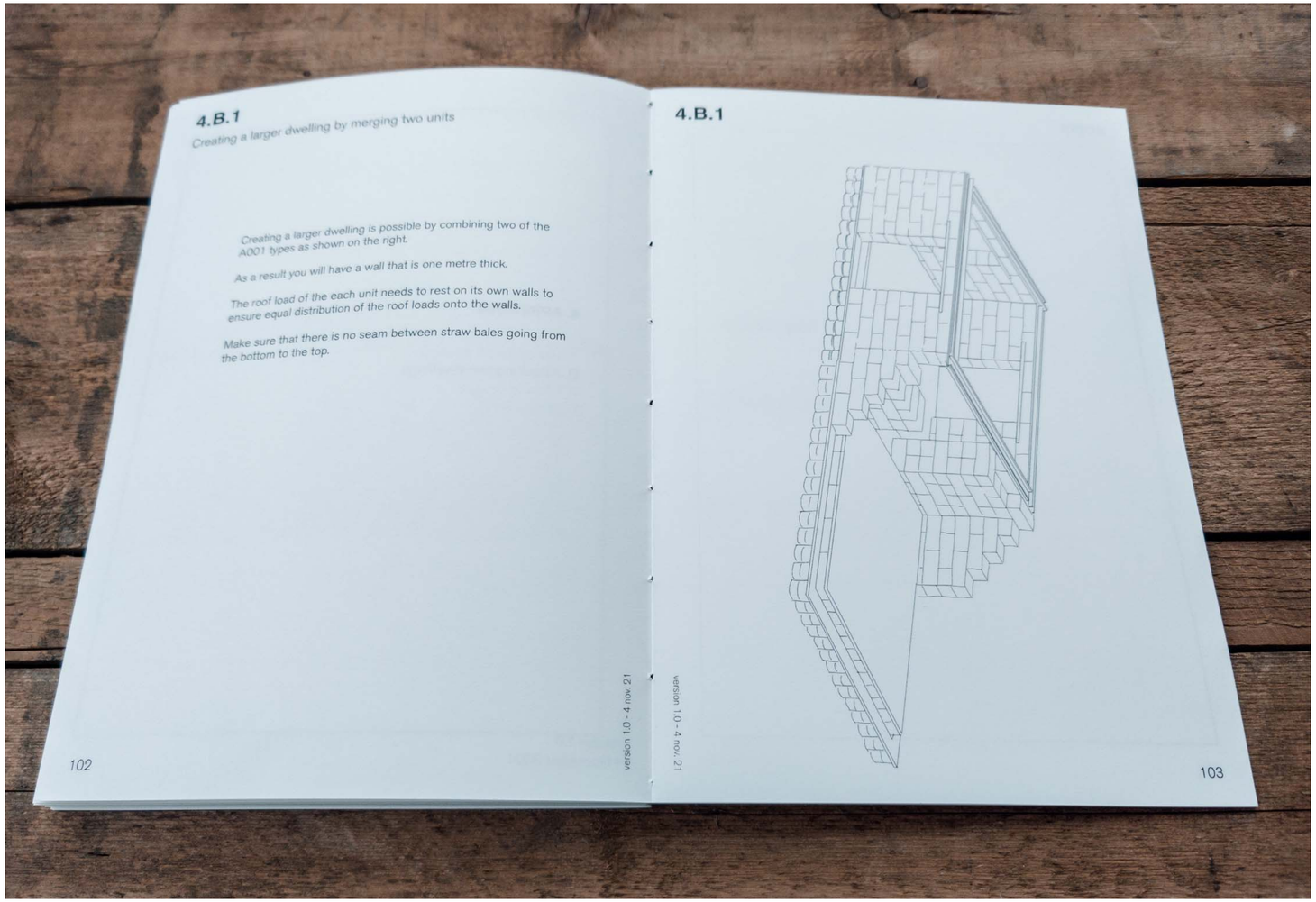
Construction and design

Instructions and construction of the dwelling



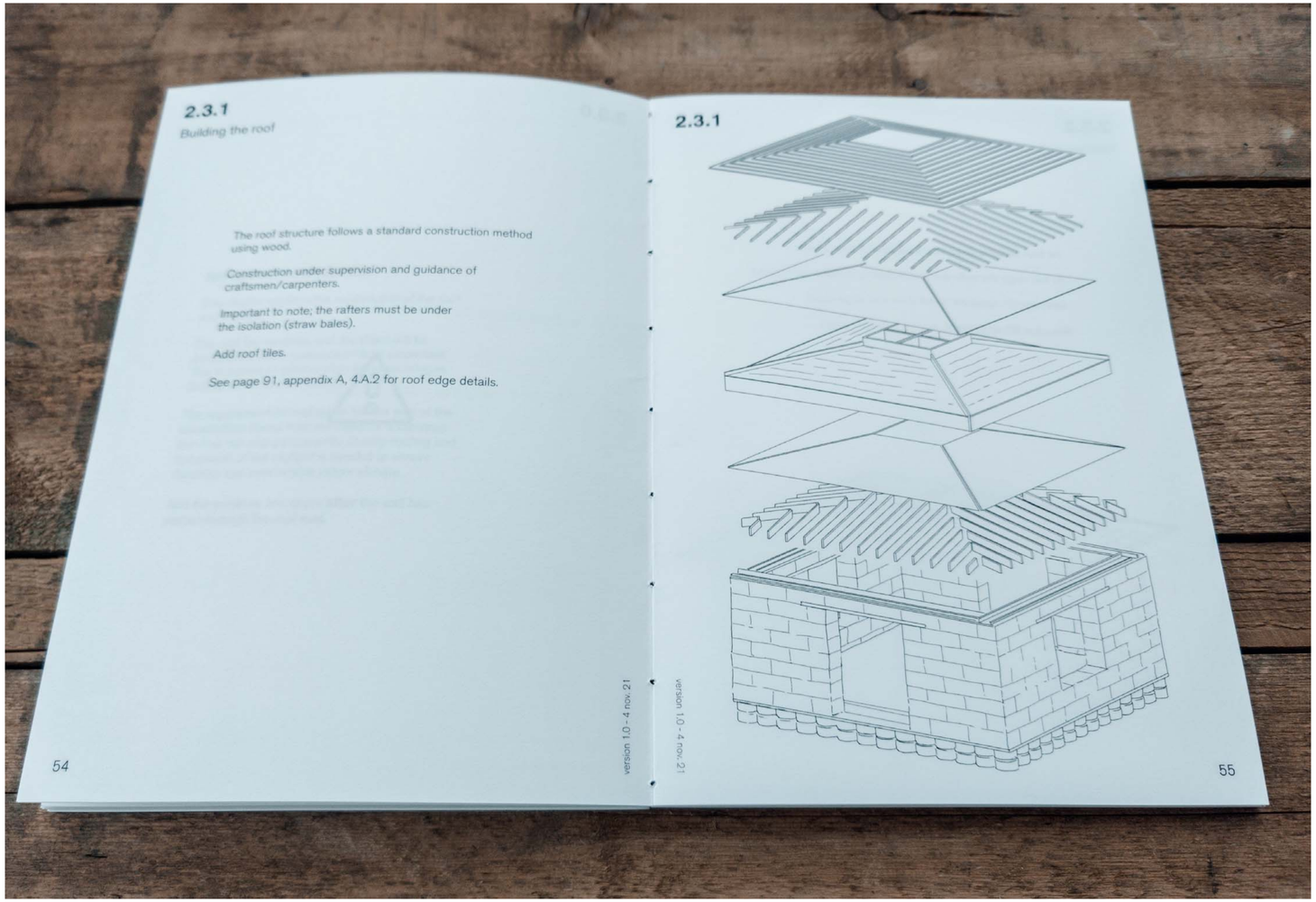
Construction and design

Instructions and construction of the dwelling



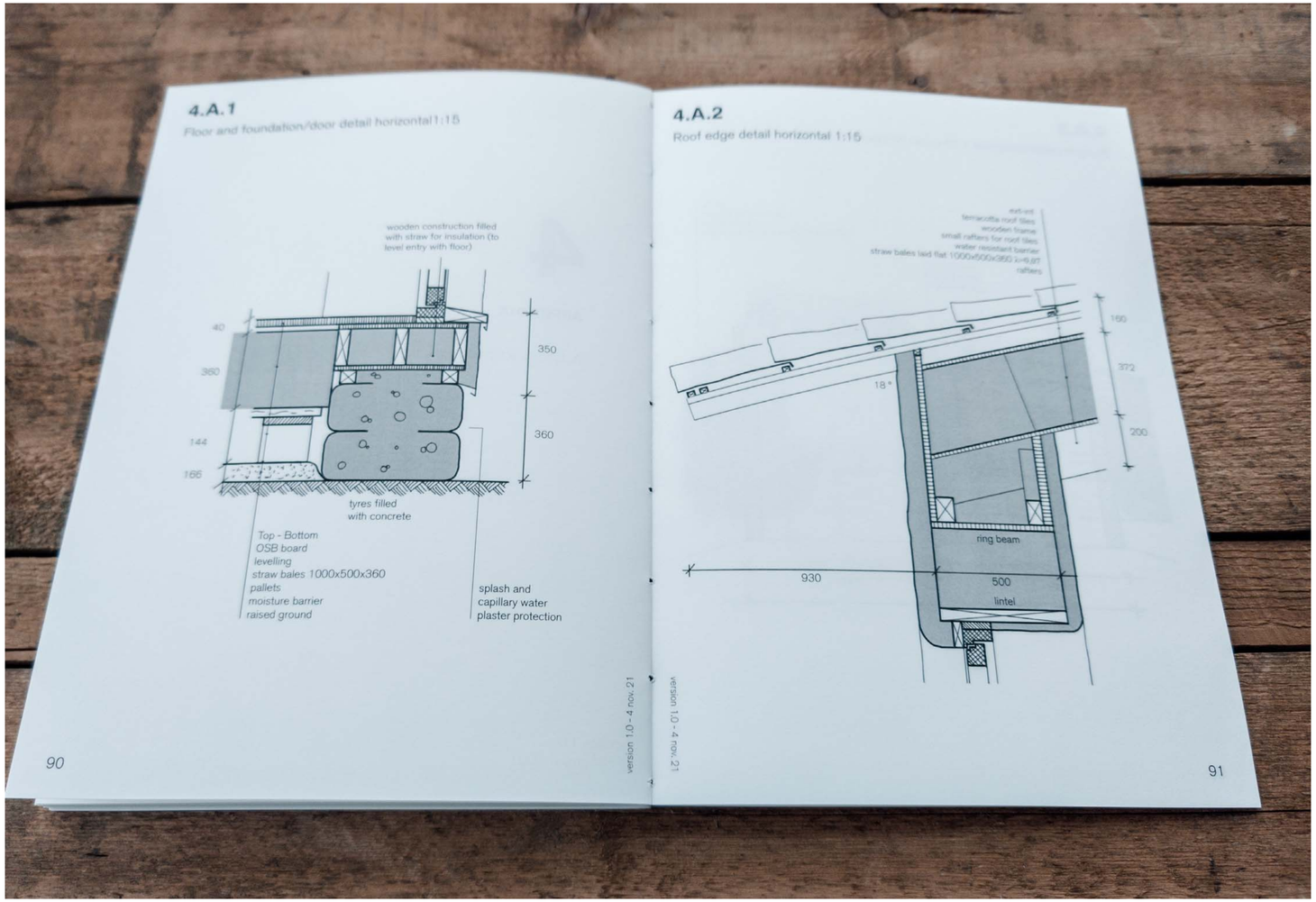
Construction and design

Instructions and construction of the dwelling



Construction and design

Instructions and construction of the dwelling



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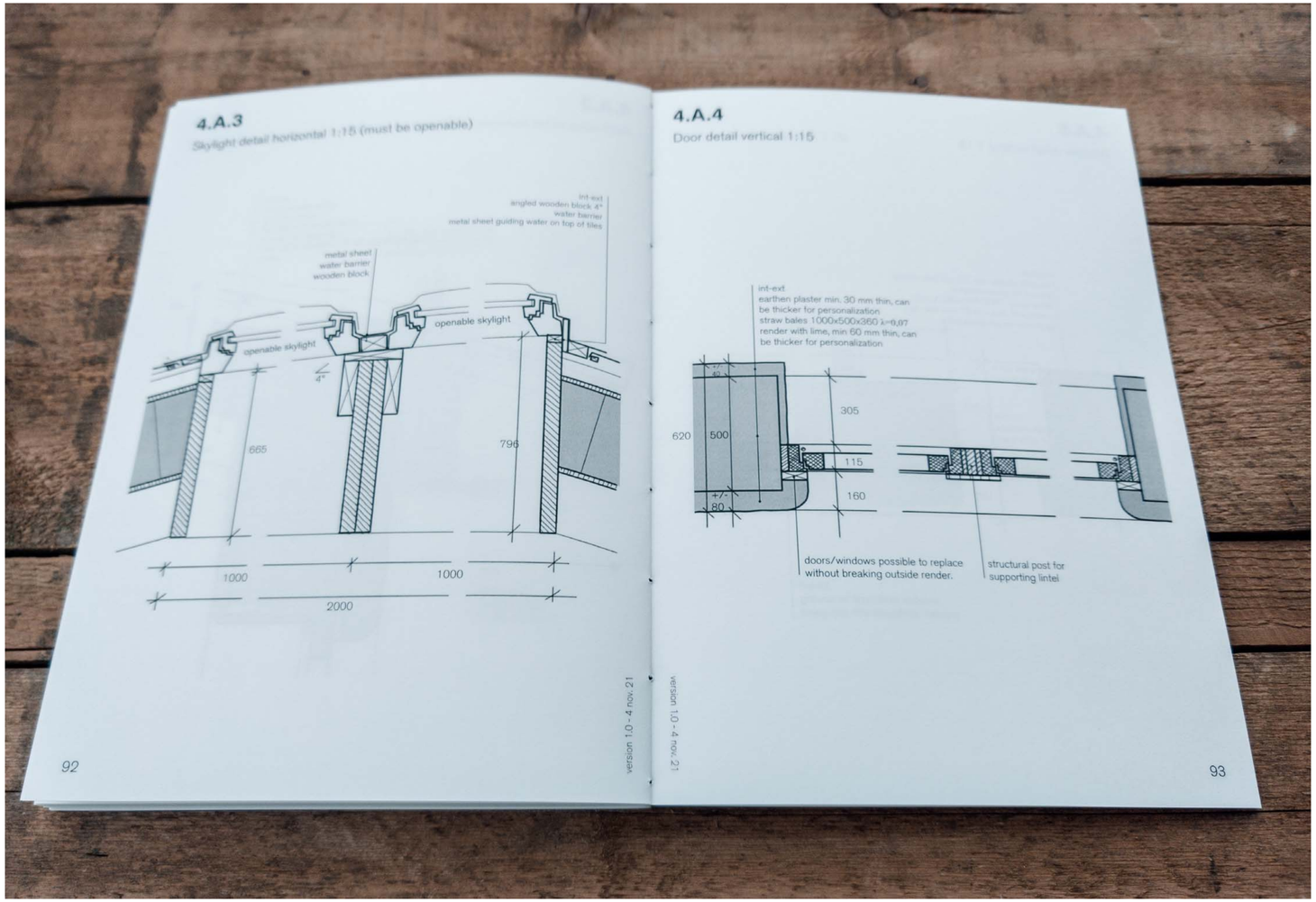

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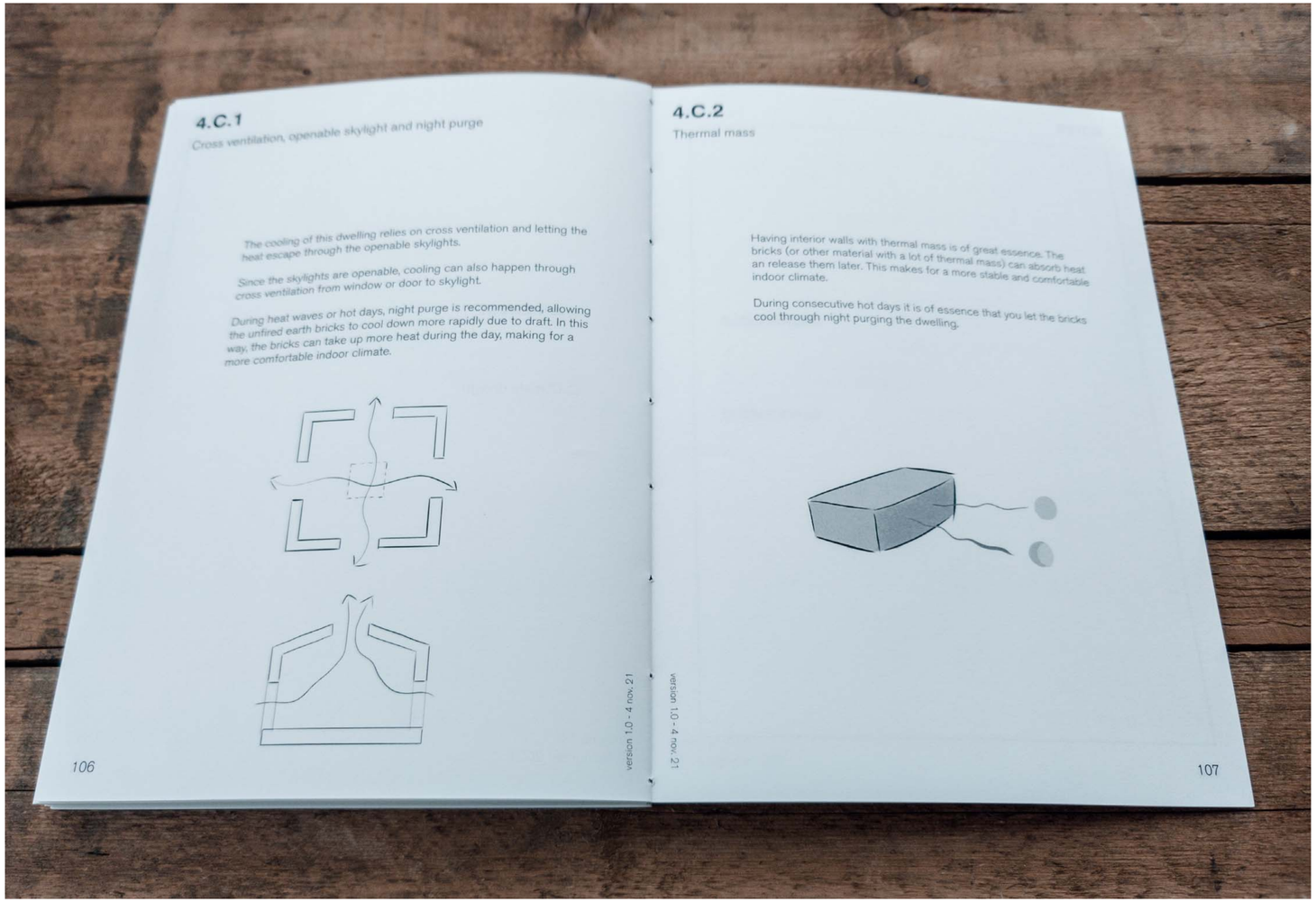

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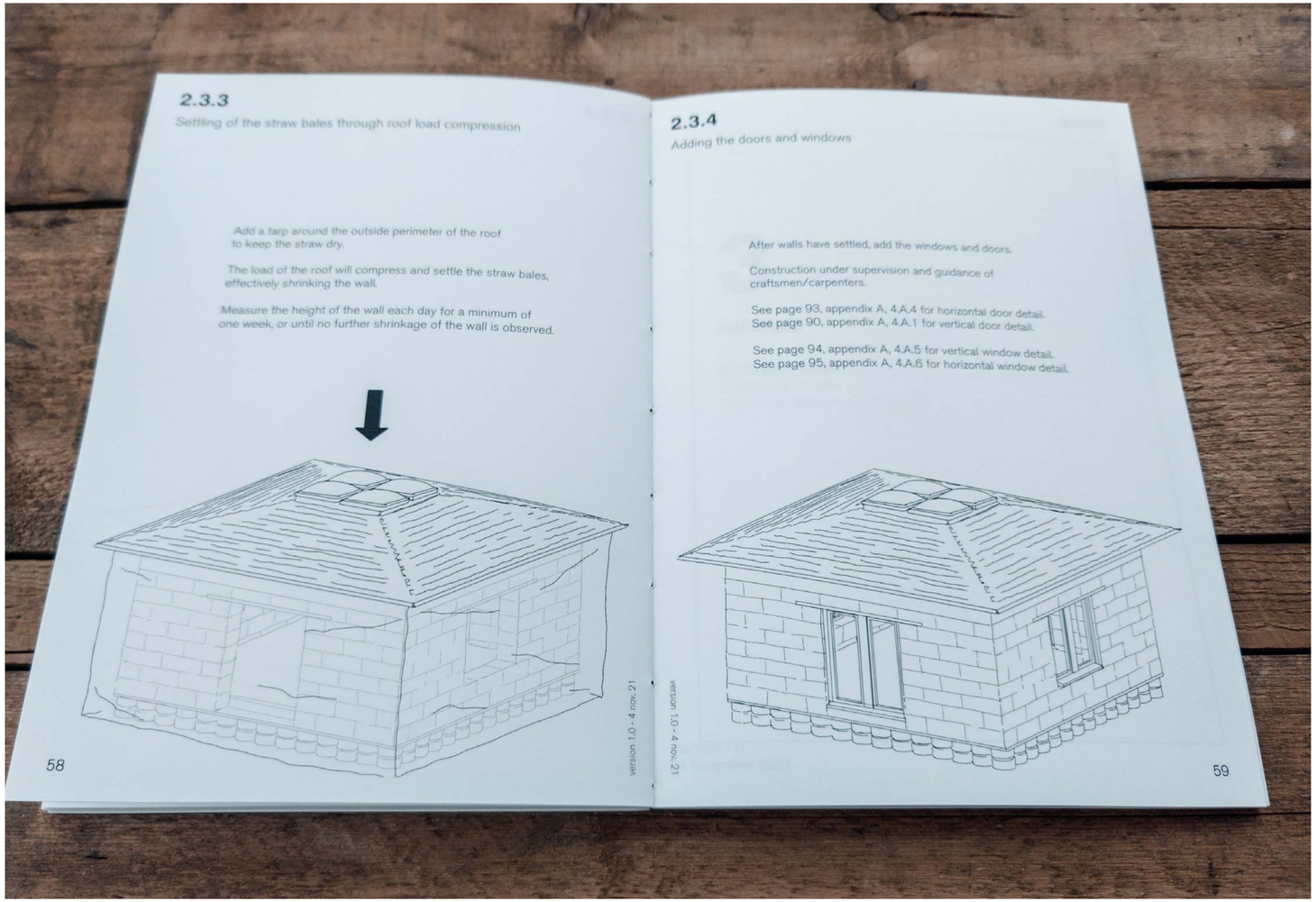
Instructions and construction of the dwelling



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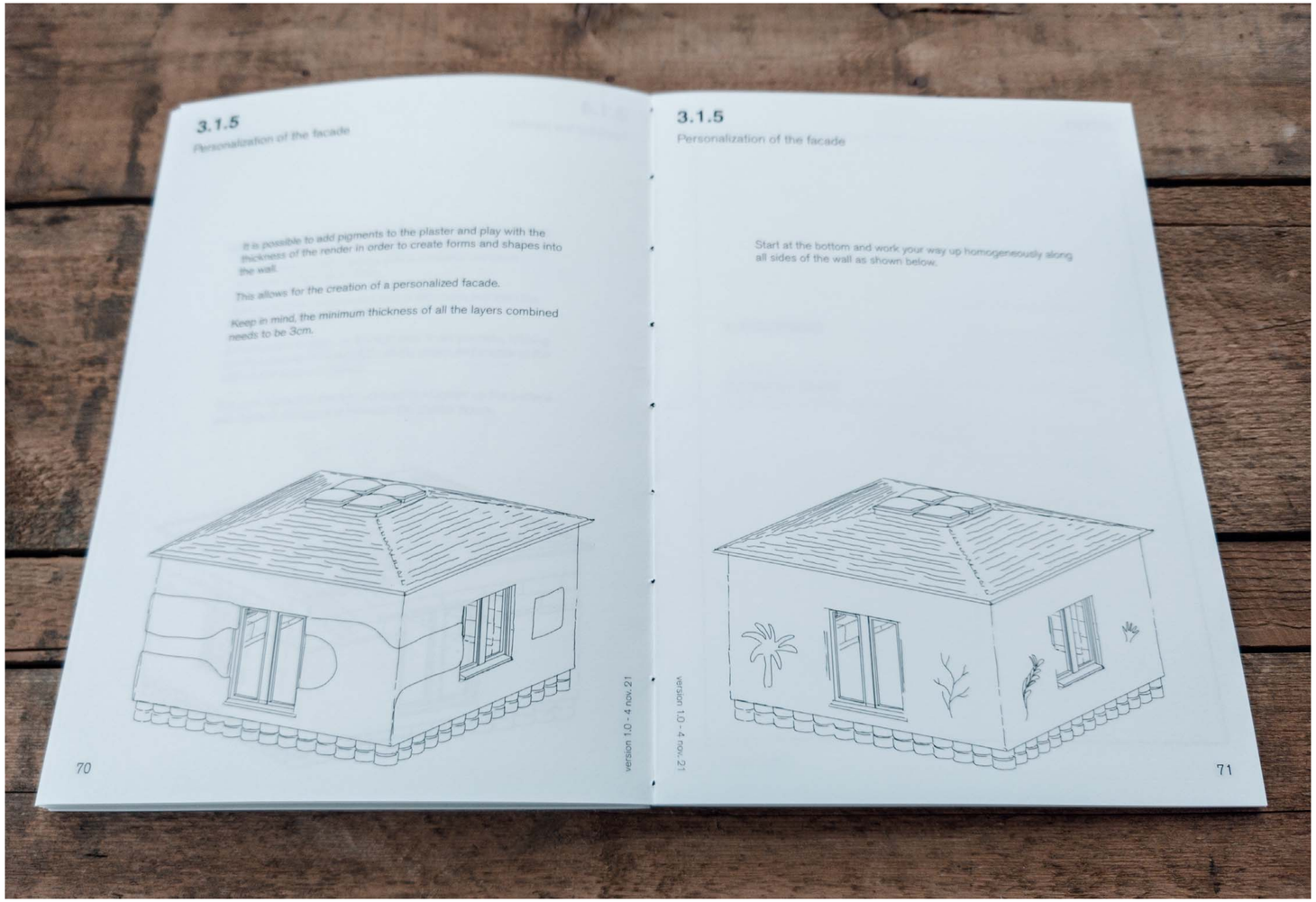
Instructions and construction of the dwelling



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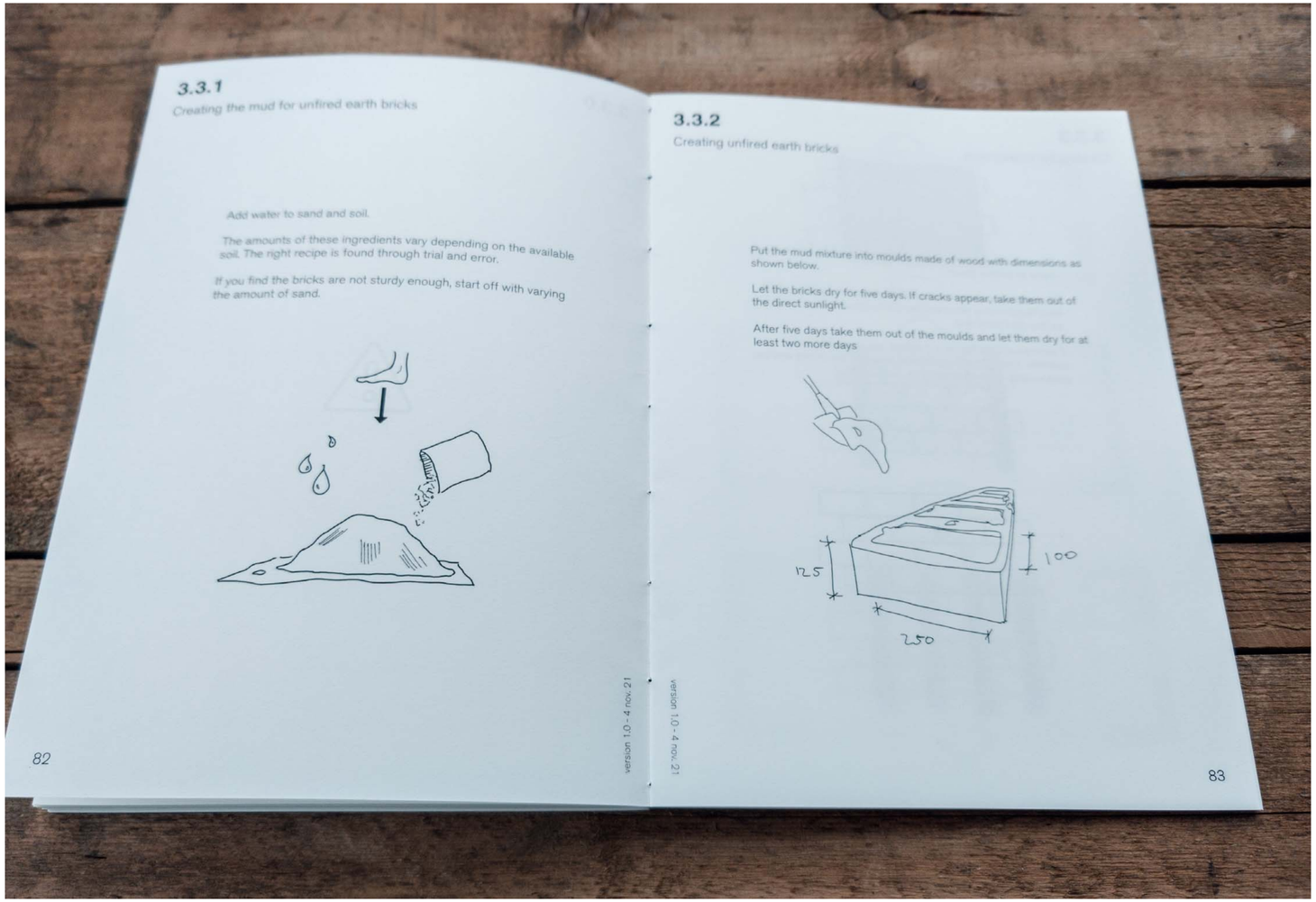
Instructions and construction of the dwelling



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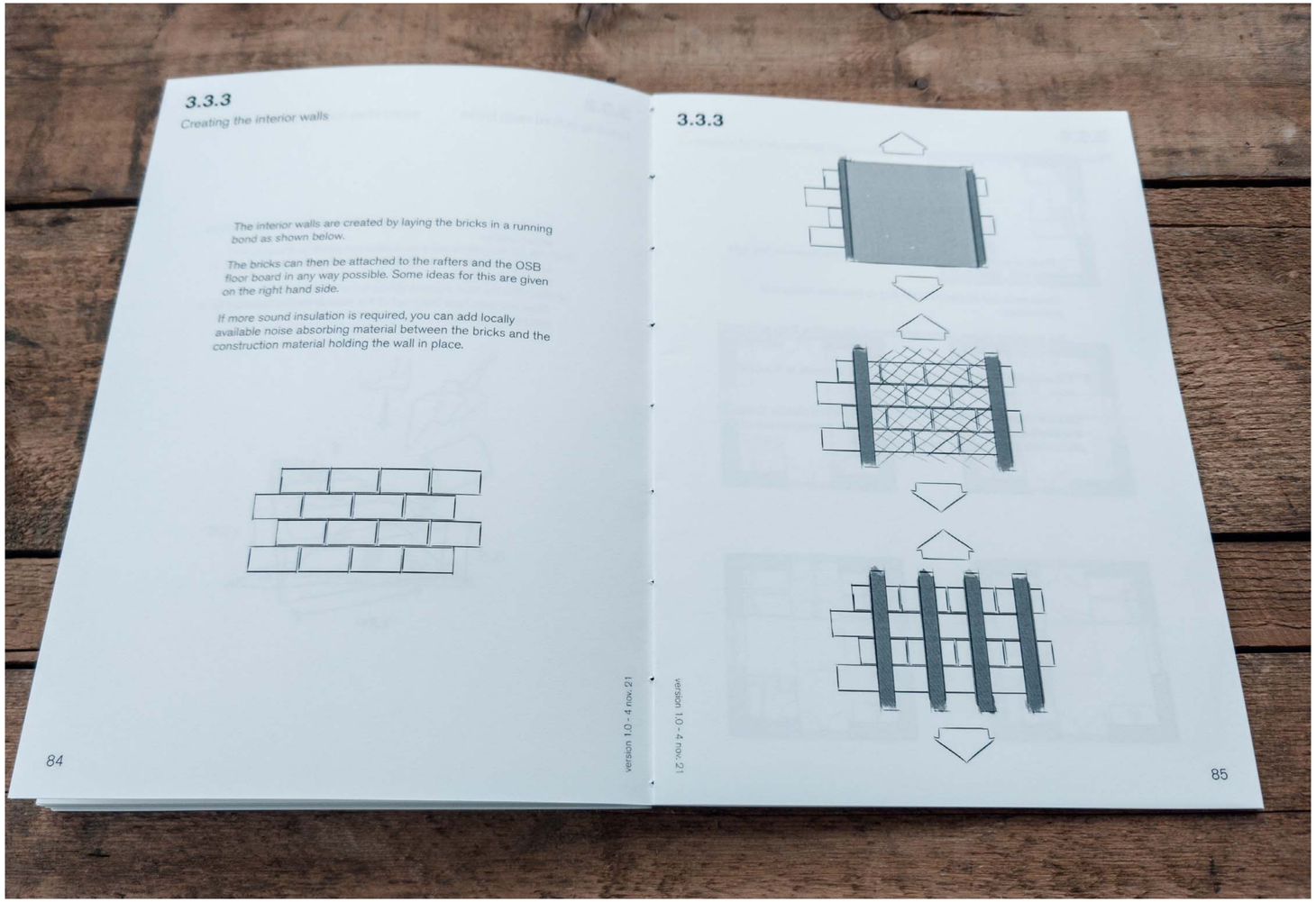
Instructions and construction of the dwelling



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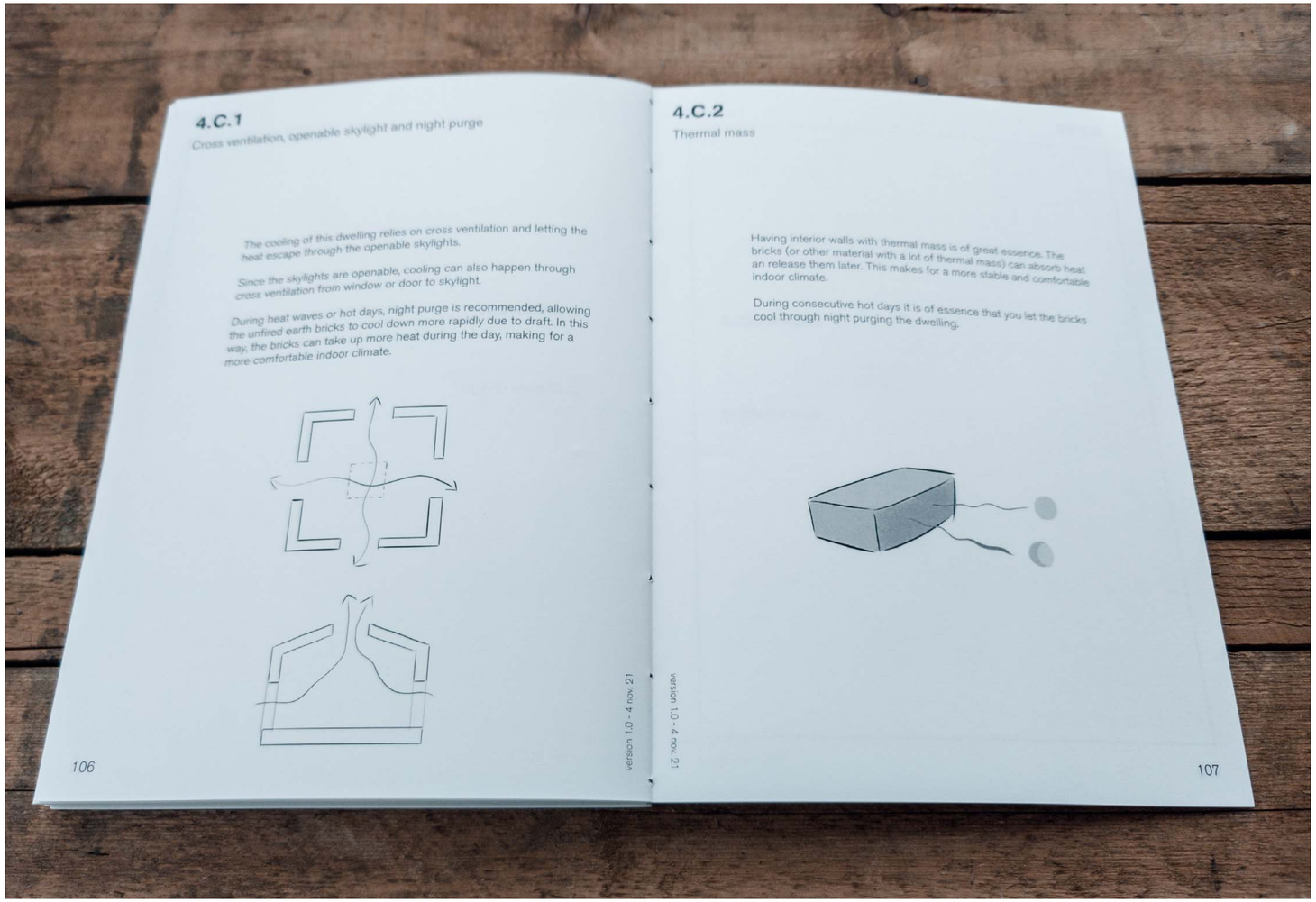

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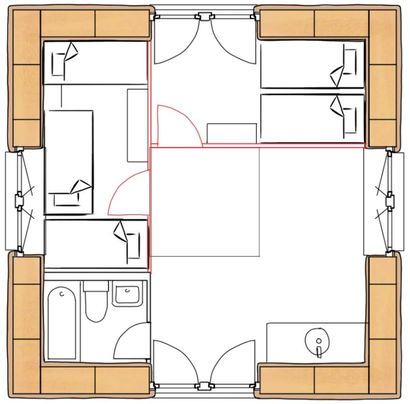

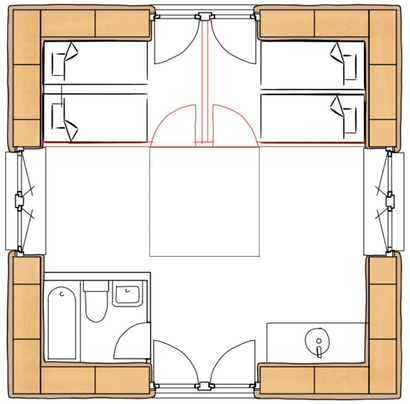

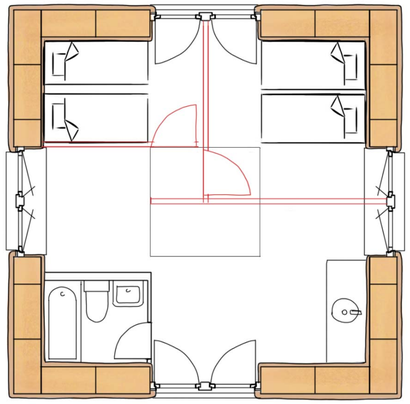

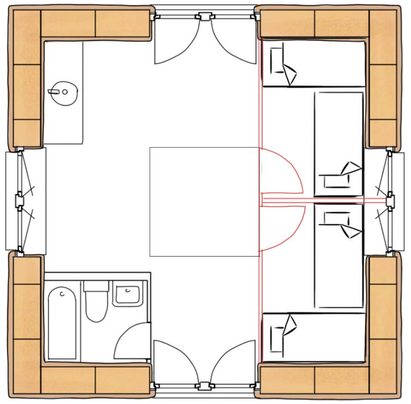

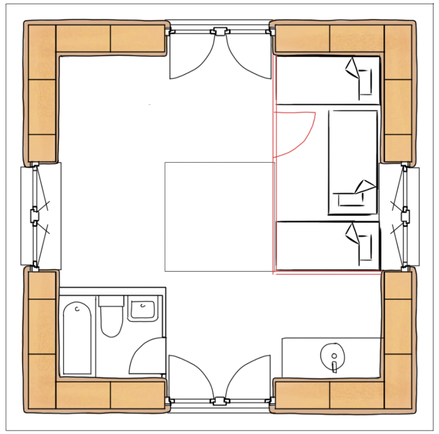

Construction and design

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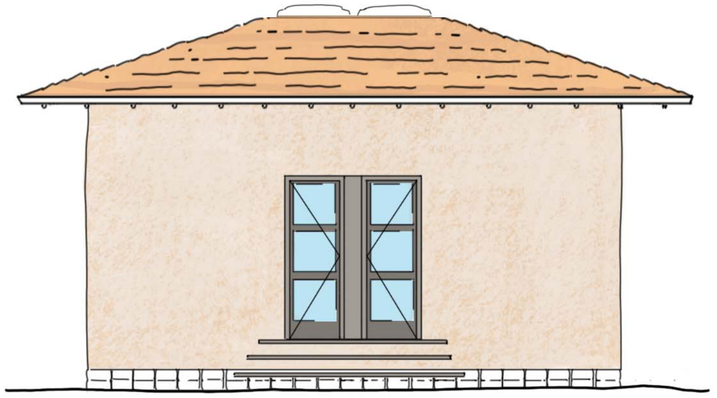
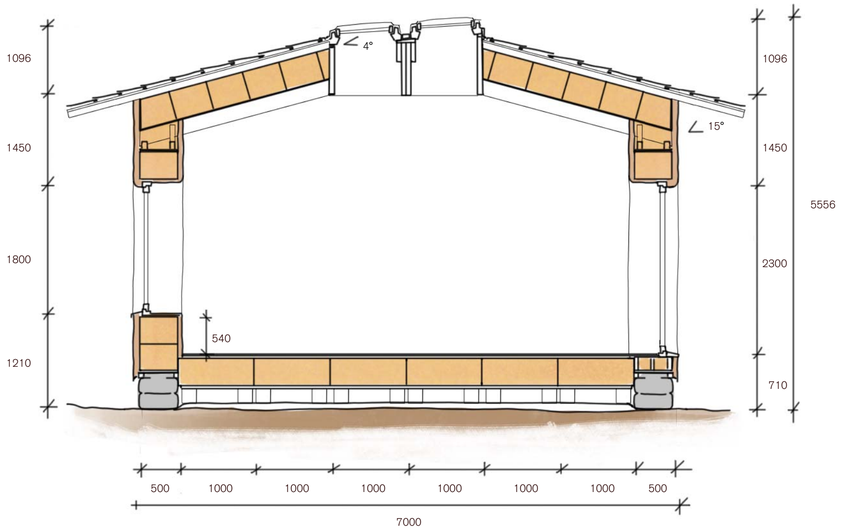
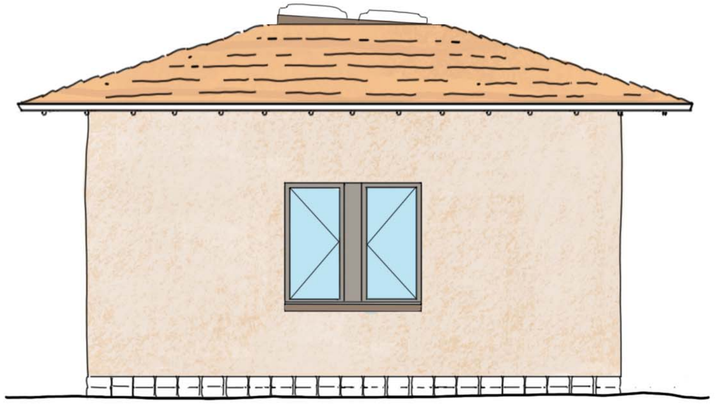
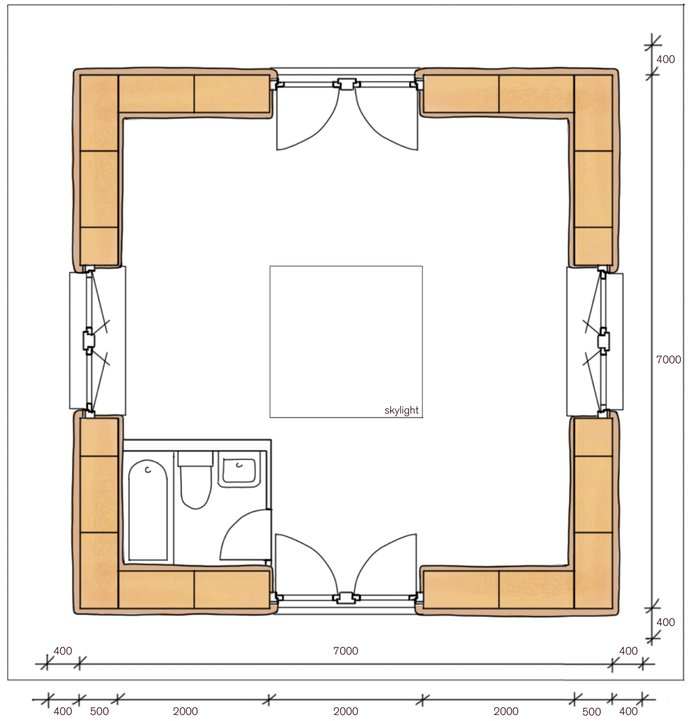


facade with door (front/back)
1:50





facade with window (sides)
1:50



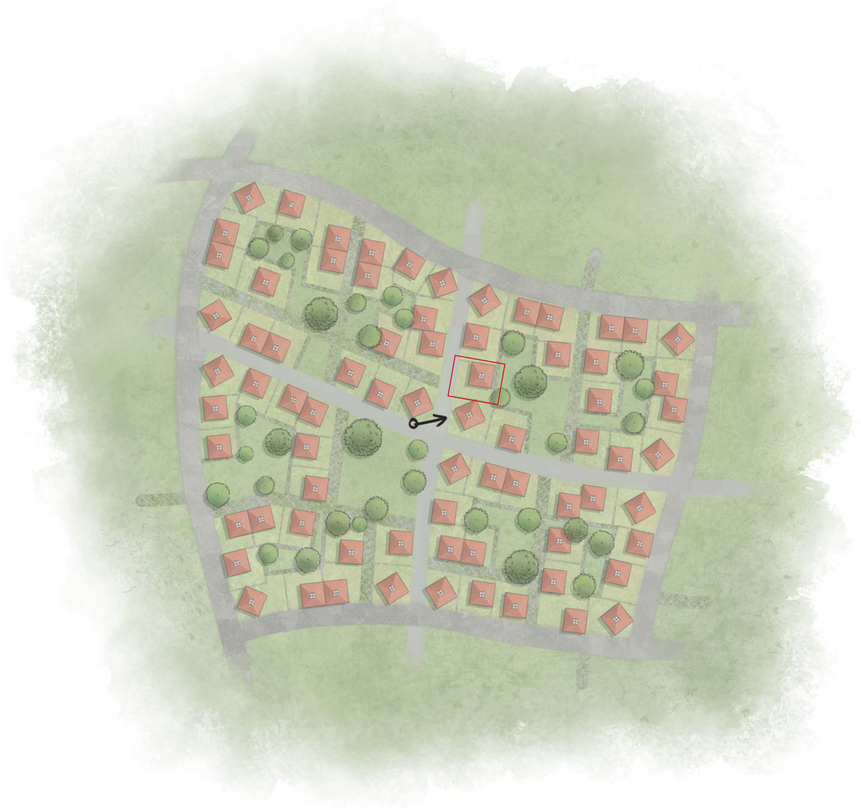
Construction and design

Instructions and construction of the dwelling

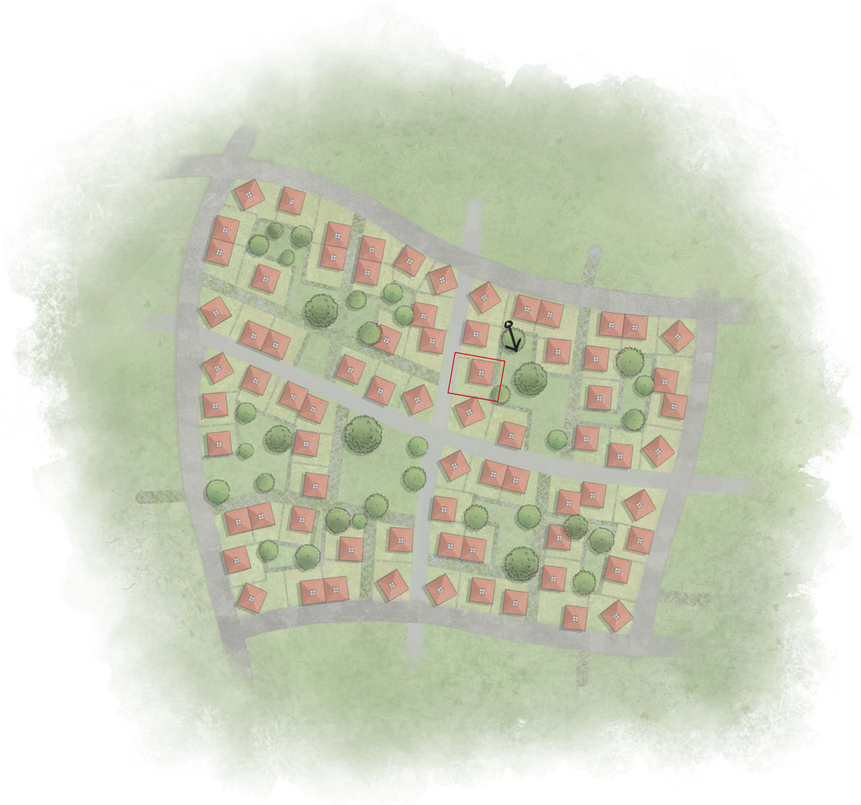
Jobfair - refugee city centre

Jobfair - refugee city centre

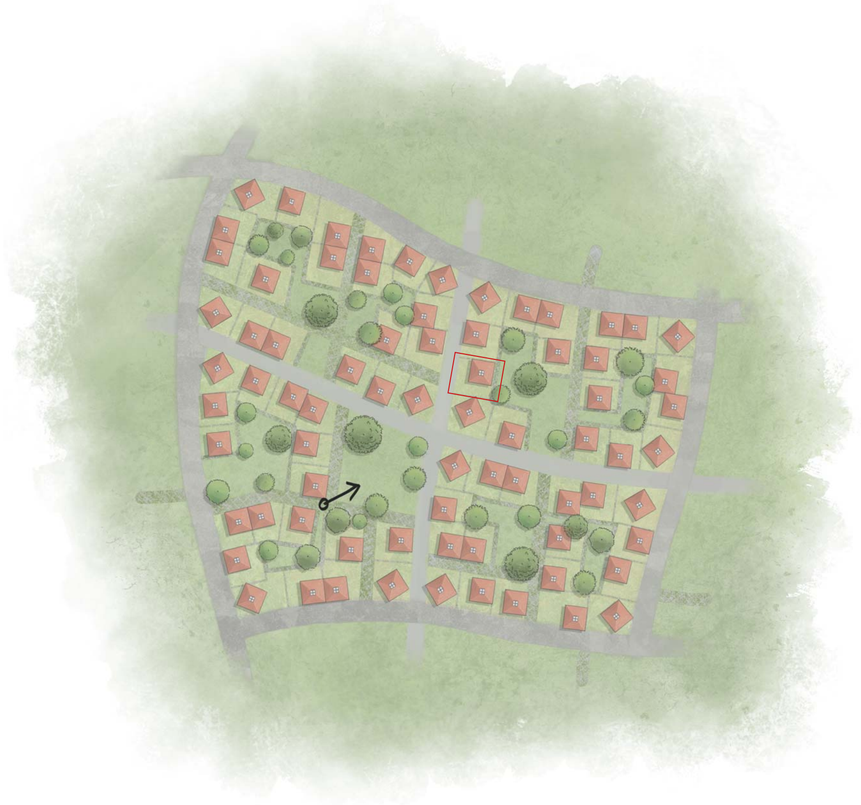
Supermarket - a place of interaction



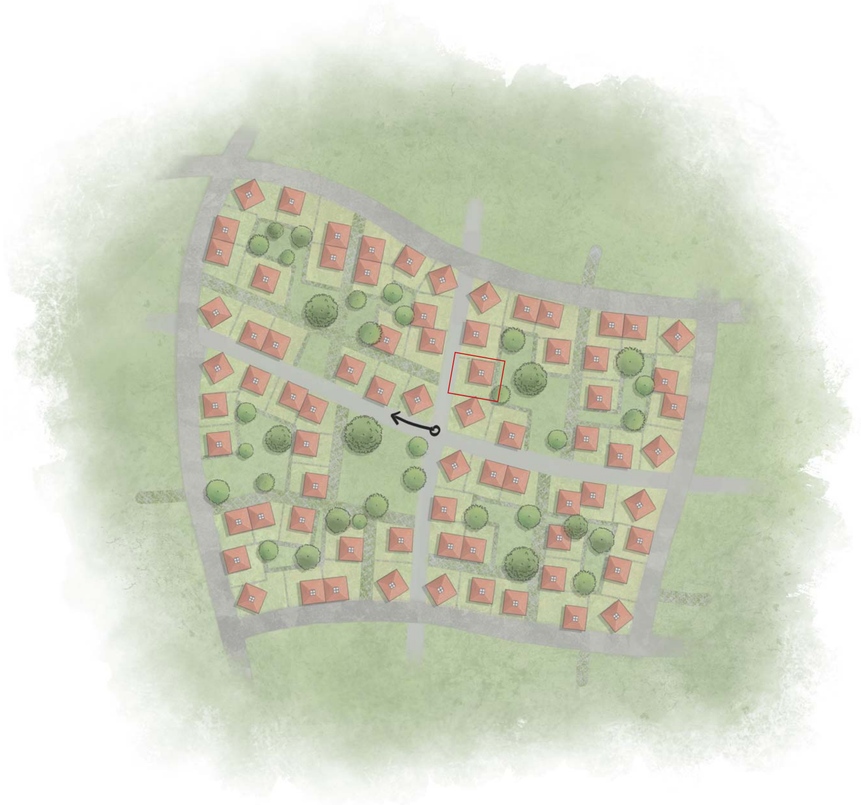
Building new homes



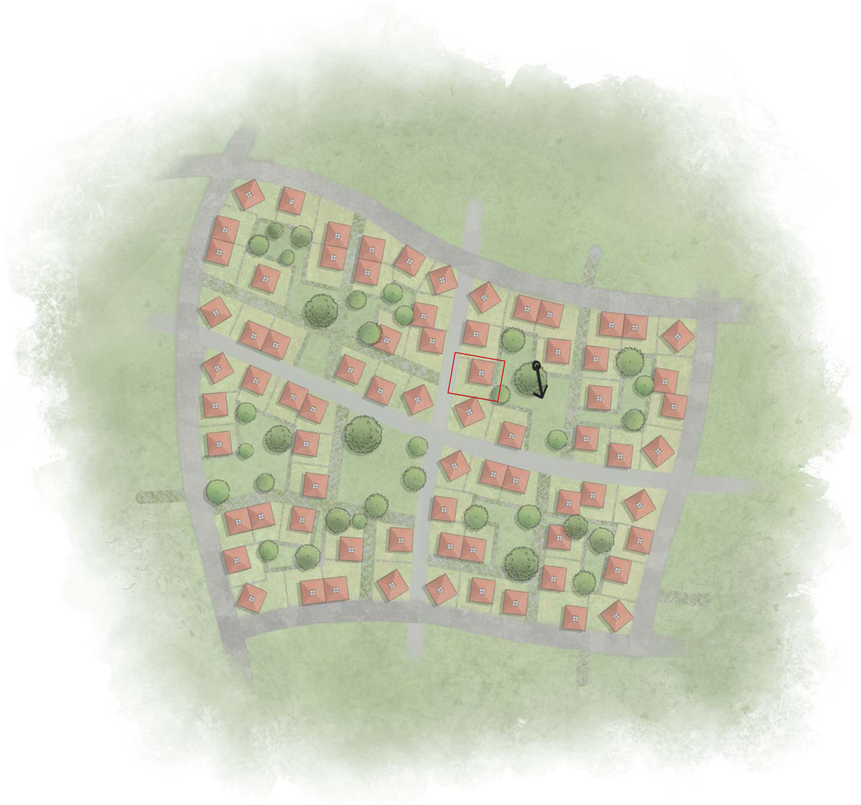
Playing safely in the courtyards



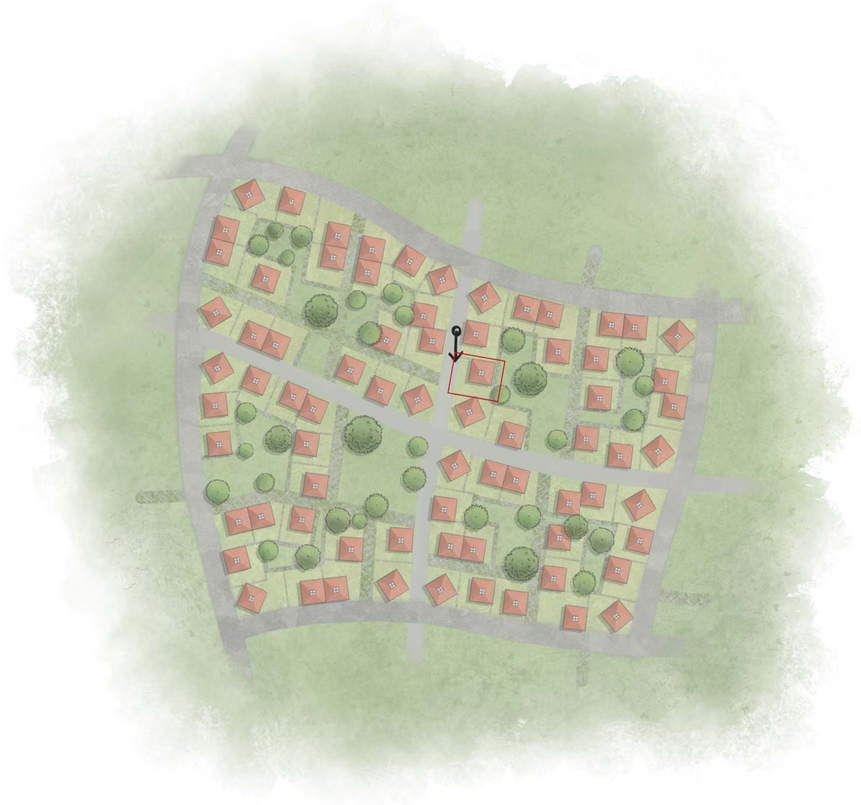
Neighbourhood square - activities



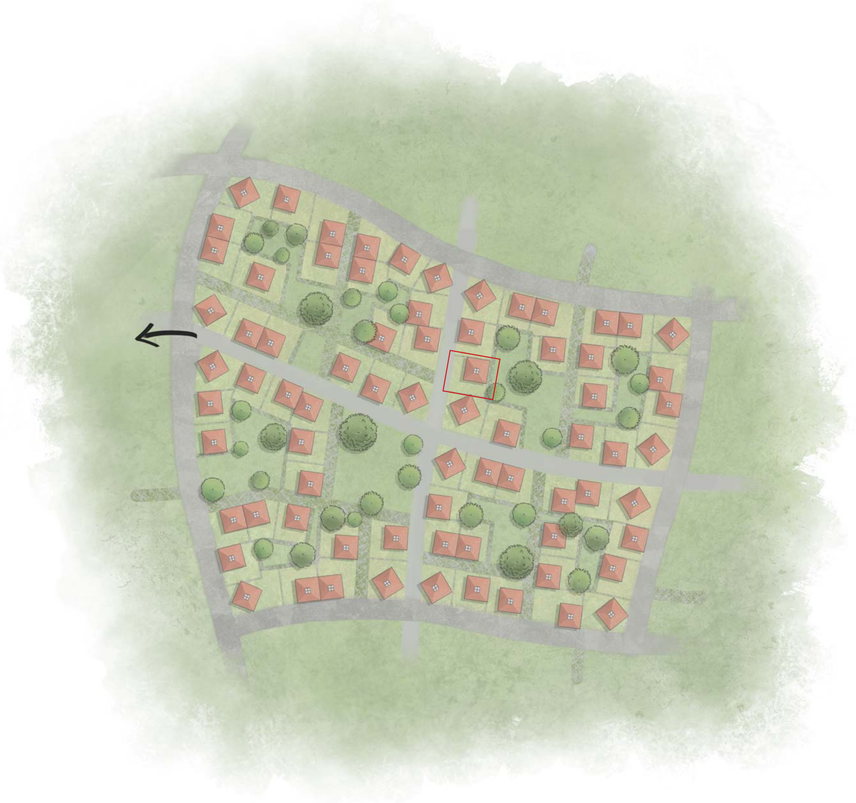
Baker on the corner



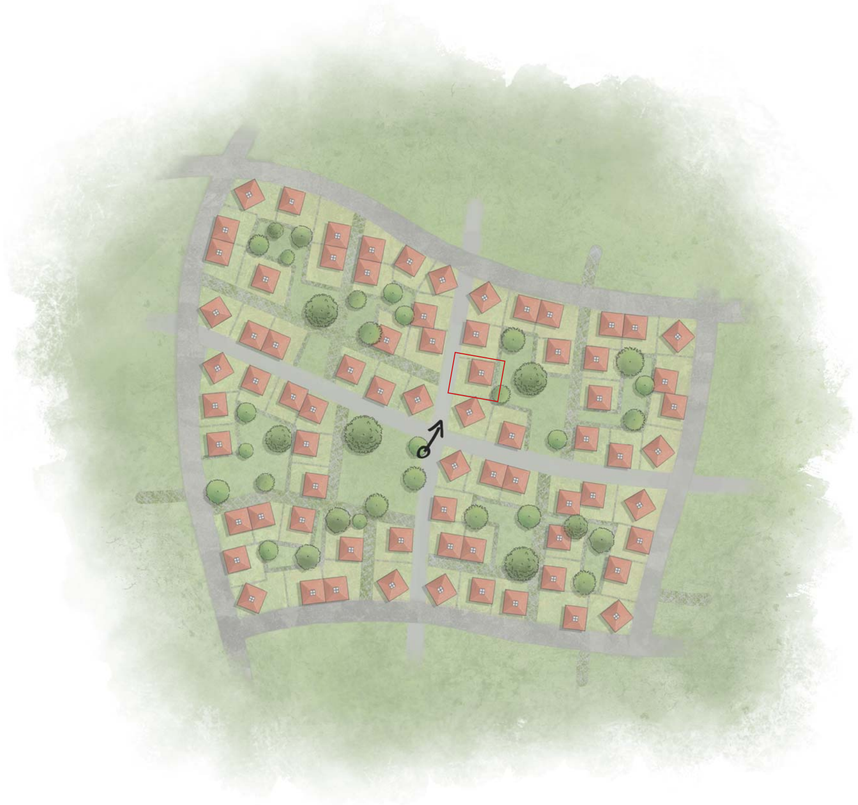
Cluster dinner



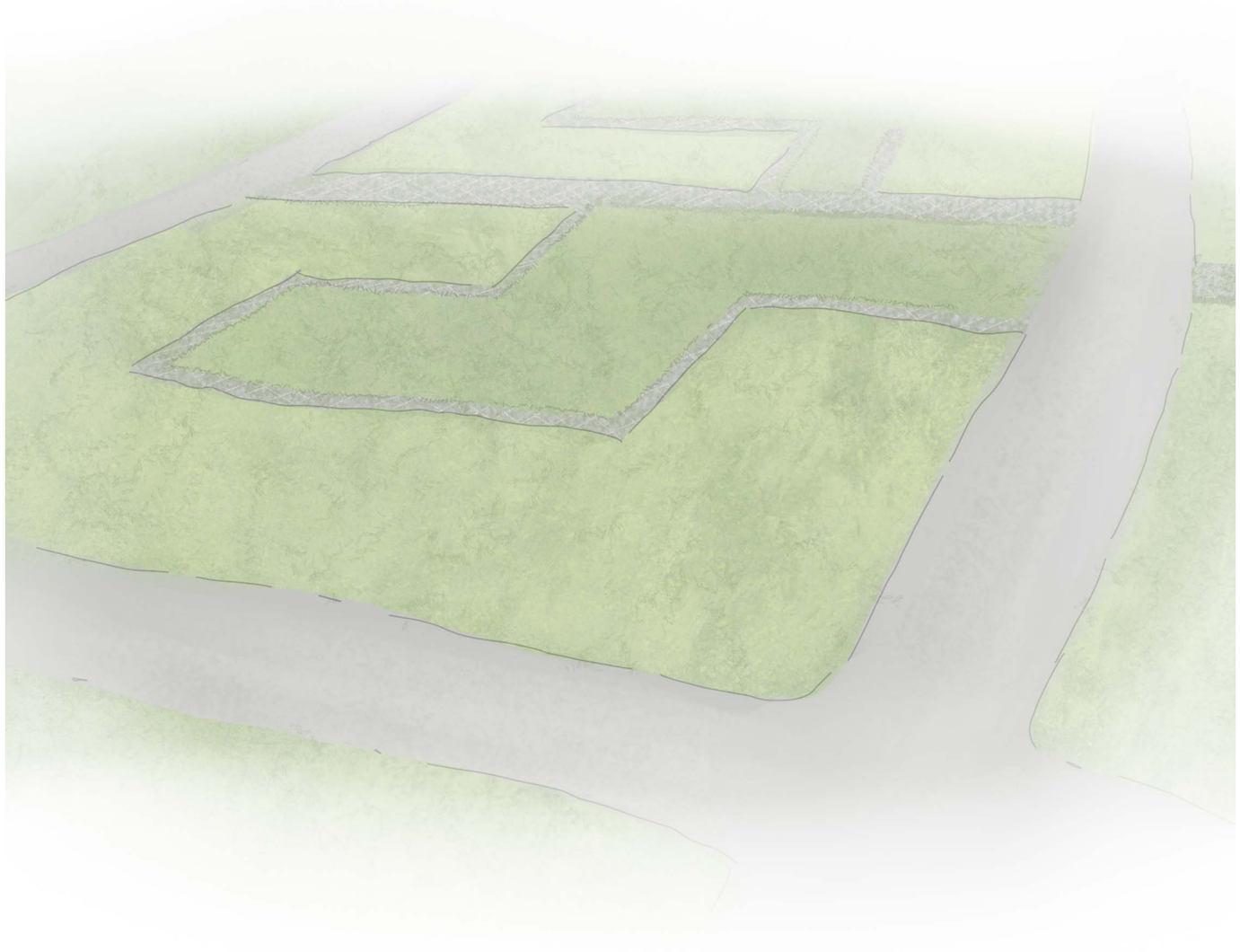
Expanding on the restaurant



Shopping in other areas of the refugee city



Social cohesion



step 1: empty framework

step 2: early development

step 3: provided space for (economic) activity is used

step 4: slow but steady development into a city, provided through its original urban framework.

Rethinking Migration

Redesign of refugee camp Moria, Greece

THANK YOU