A SLIGHTLY INSANE ATTEMPT AT RE-APPROPRIATING VACANT BUILDINGS THROUGH METHODS OF UNMITIGATED ABSURDITY, IDIOCY AND EFFORT

A RE-APPROPRIATION GUIDE

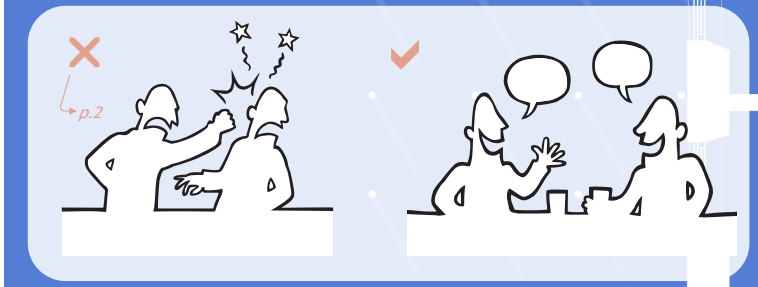
Note: Most of the following proposals are illegal. This guide is in no way encouraging those actions but making knowledge available in order to balance today's social power relations. ***The city is owned by the people who live and dwell within it!***

In the face of the issue of empty buildings, the following guide will give six different re-appropriation techniques, allowing anyone to reclaim absurd private property. The following techniques are presented in an order of increasing complexity. If one proves to be impossible in a given context, the next one might do the trick.
For each step by step guide, six labels will inform you about its price, the amount of people and the time needed for its execution, its accessibility for specially abled or blind people as well as the possibility to undertake those actions with children .

HOW TO ASK THE OWNER?

Before diving into physical methods of getting into closed empty buildings, we will take a look at the least effort intensive solution: asking the owner. In most cases, this technique will fail but it can be worth trying.
In big cities, finding the owner can be really difficult. Two options are available: looking for a way of contacting the owner on the internet, or taping a letter on the front door.
In both cases, you should present your intentions in a clear way, insisting on the fact that the ambition is not to damage but only to temporarily use.

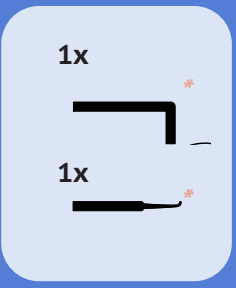
If you tried but the answer is negative, try the next method ▸ *p.2*



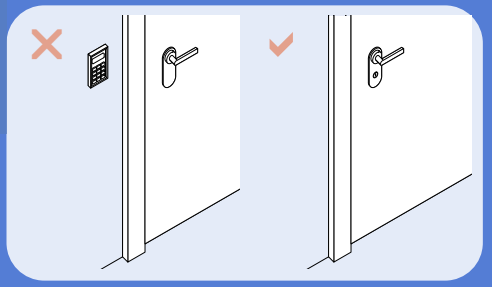
HOW TO PICK A LOCK?

Sadly, the owner is not open to discussion. Hence, we will open the building ourselves. Picking the lock of the front door is a non-destructive method, it takes advantage of the knowledge of lock mechanisms. By using simple tools, it is possible to open the door, mimicking the key by moving the pins while applying pressure on the cylinder.

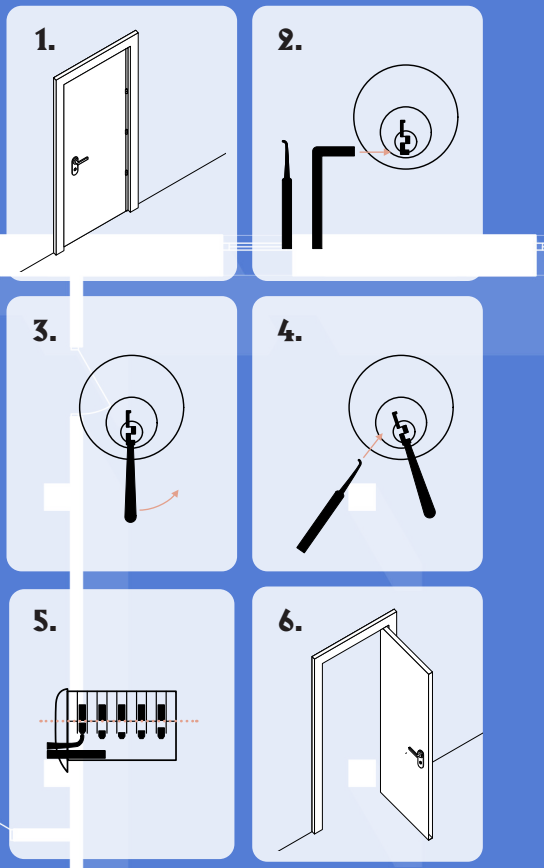
This method can only be applied to basic locks. If you are facing a complex lock or a digital password lock, try next method ▸ *p.3*



** Lock picking tools can also be created out of folded paperclips*



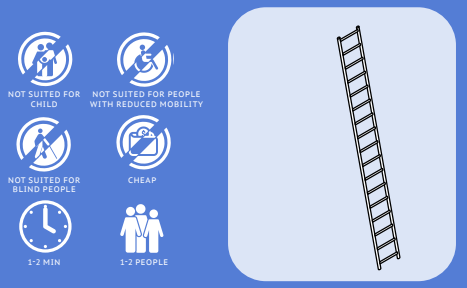
For in-depth videosguides:

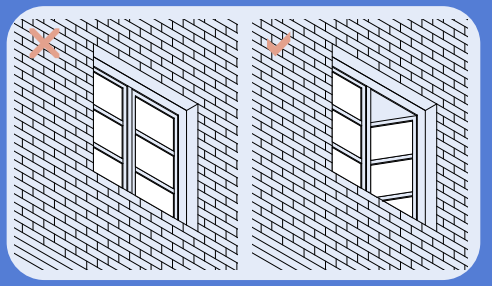


HOW TO REACH AN OPEN WINDOW WITH A LADDER ?

Another non-destructive technique to get in could be to locate an open window and reach it with a ladder. This requires a bit more organization because you have to look for a way to bring a ladded to the building you are trying to get access to, which is more bulky than the lock picking tools. This technique also has a limitation: common ladders can't reach higher than 18 meters. It is also quite rare that a window is open in unused buildings but it is worth keeping an eye out for one.

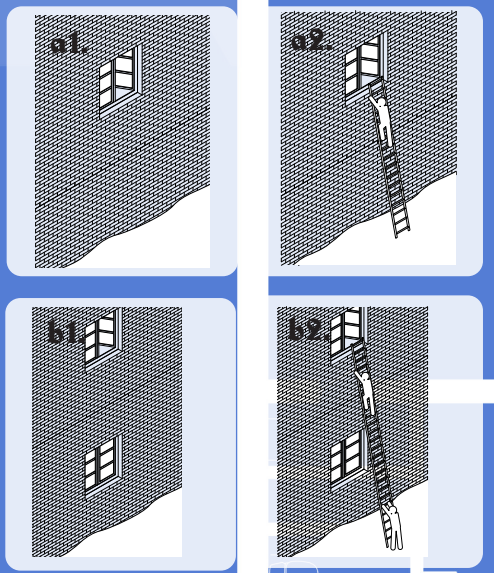
If none are open, try next method ▸ *p.4*





For safety reasons, if the window is more than 5 meters above the ground, it is recommended to get help from someone else to hold the ladder.

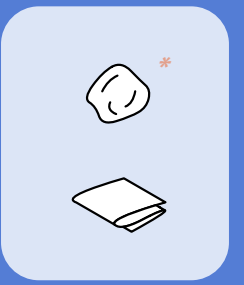
h<5m ▸ a
h>5m ▸ b



HOW TO OPEN A CLOSED WINDOW ?

None of the windows are open?! The last solution before exploring some more labour intensive methods, is to break in. Unlike last proposals, this one is destructive and compromises the integrity of the thermal insulation of the building.

If you don't want to break a window but you have time and resources, try this method:
▸ *p.5*

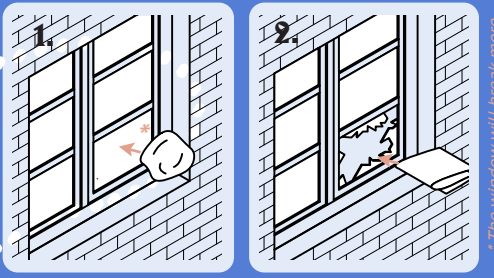


** A rock is the most accessible tool to use but any other hard and pointy tool can work and even make your life easier. (Hammer, brick, iron...)*

Not all windows are the same, it can be simple, double or triple glazed. You can count the number of layers by looking at the edge of the glass. In general, the more layers of glass the longer it will take to break through them.

This method work for simple and double glazed windows. Triple one is a different kettle of fish...

For an in-depth videoguide:



** The window will break more easily if you aim for a corner.*

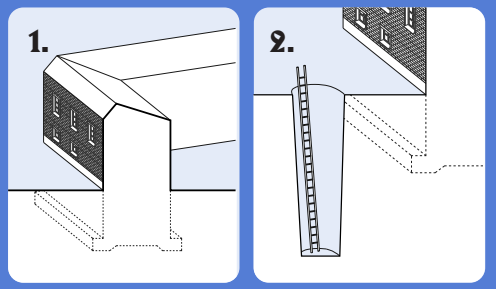
Be very careful during the whole process, broken glass is really sharp. Take your time to remove all shards before reaching the handle.

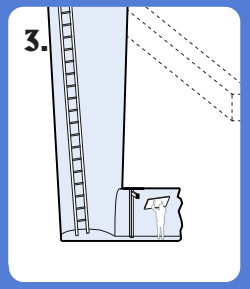
HOW TO DIG A TUNNEL ?

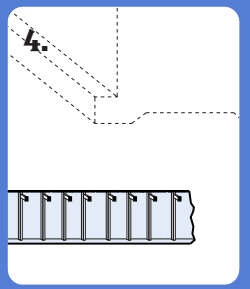
Moving on to more energy intensive methods, you could also try to dig a tunnel to access an interior courtyard, if the building you are trying to enter has one of course.

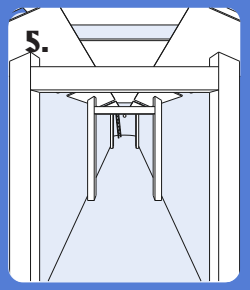
This is a huge effort, but it can be really effective. For detailed considerations on how to go about the digging, read the article that the QR-code below links to.

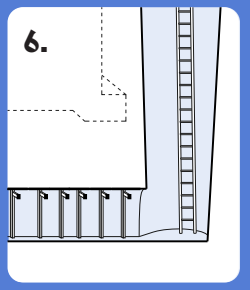
This method also requires a lot of gear, and you need to be a team of at least 2 people to prepare this kind of intervention.

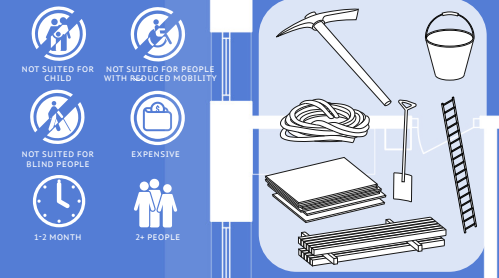










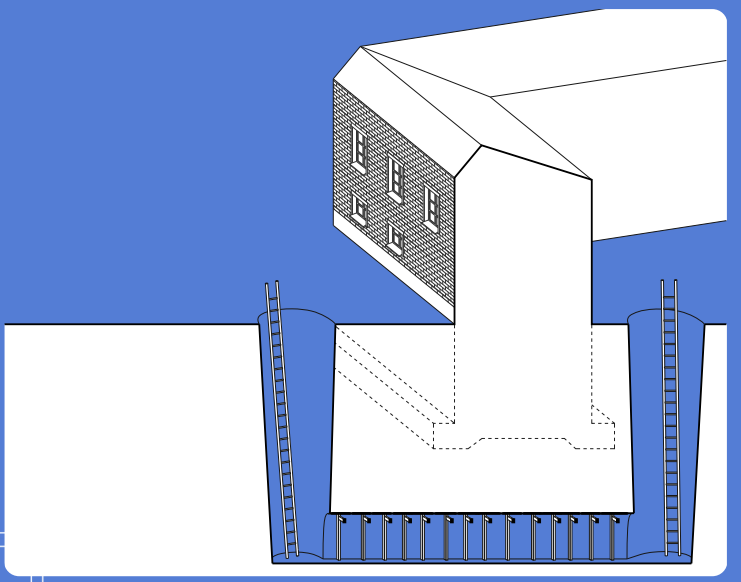


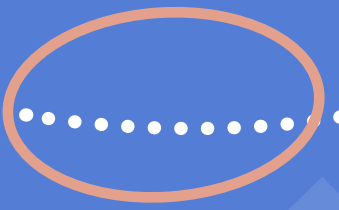
For an in-depth article (important to read):

Tunnel digging can be physically demanding. Be sure to take breaks regularly. It can also be helpful to be a team of 4 or more people so you can take turns digging and carrying out the soil.

Note: Some buildings have a basement which will require you to dig deeper. Before starting, have a look around the building if you can find any windows through which you can see a basement.

Note: If the soil you are digging in is too hard, very wet or you simply hit a layer of bedrock you can't get through, it is time to move on to the next technique.



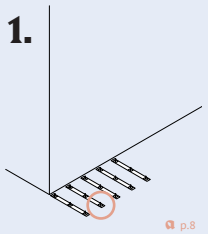


109 a
HISSMASKIN

HOW TO BUILD A SCAFFOLDING?

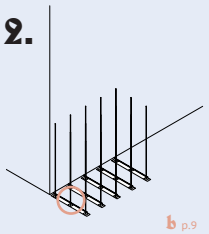
Giving up on digging our way through underneath the building leaves us only one solution: Going over it. This method is the only one requiring material addition.
For execution convenience, this part of the guide will give you all the basic principles for building a tube and coupler scaffolding that will serve as a bridge to go over the building.

1.



a p.8

2.



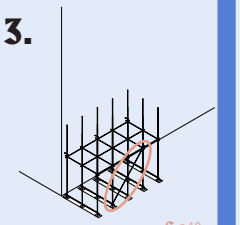
b p.9

Scaffoldings are great for temporarily making accessible surfaces, as much horizontal as vertical one, thus it is a great tool for city appropriation. Moreover it blends in the cityscape.

They also offer very nice spaces within themselves, which can be great places that add diversity to the public urban fabric.

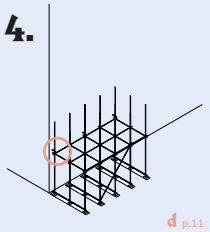
If none of those solutions are possible
▸ *give up*

3.



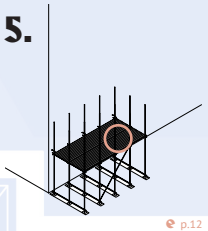
c p.10

4.



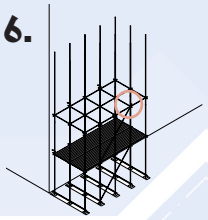
d p.11

5.



e p.12

6.



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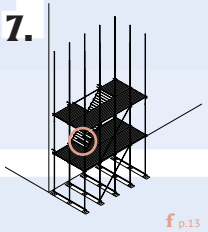

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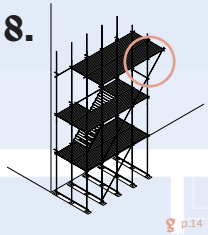
8.



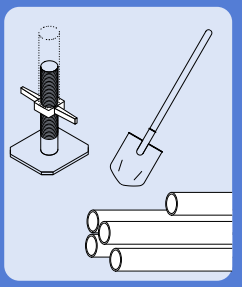
g p.14

a. How to ground a scaffolding?

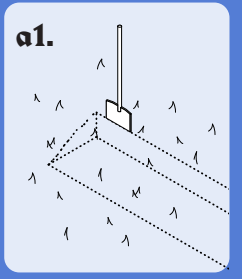
First things first, we will start with scaffolding feet. This step is crucial for the scaffolding's structural integrity, thus take your time. When building on soft and sloped surfaces, a plank is needed below the feet to spread the load. When building on a slope, scaffolding feet allow you to adjust the height of the first tubes in order for them to all start at the same level.

Note: Make sure the surface on which you build will be able to handle the mass of the scaffolding! Prioritize resting the structure directly on the ground if you can.

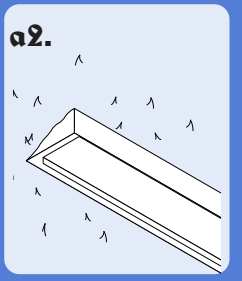
Roof: 100-200kg/m²
Usual concrete slab: ~500kg/m²
Wooden construction: ~150kg/m²



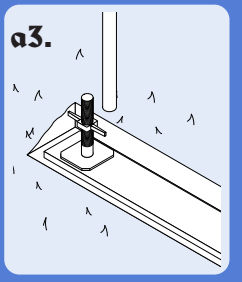
a1.



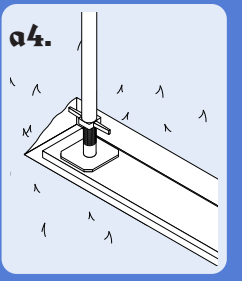
a2.

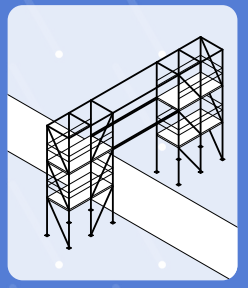


a3.

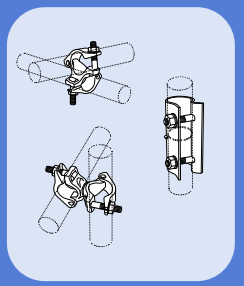


a4.





b. How to join two tubes with couplers?



One of the main advantages of tube and coupler scaffolding is that it requires only six main structural elements: tubes and five different types of couplers. The three most important ones are illustrated on this page.

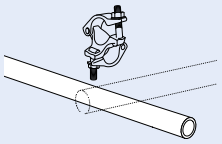
b^{I}: fixed 90 degrees coupler, mainly used for the main 3D grid

b^{II}: rotating couplers, mainly used for diagonals

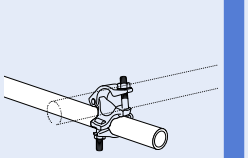
b^{III}: extension couplers, exclusively used for extending tube length

Make sure you fasten the coupler tightly. With those three couplers and tubes, you can build the whole structural grid of your scaffolding!

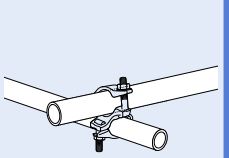
$b^{I}1.$



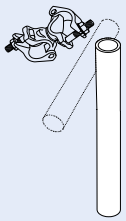
$b^{I}2.$



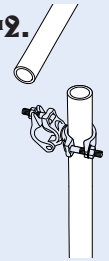
$b^{I}3.$



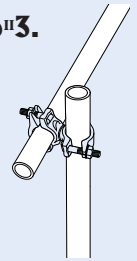
$b^{II}1.$



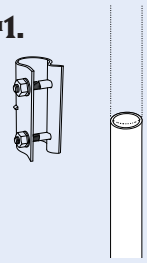
$b^{II}2.$



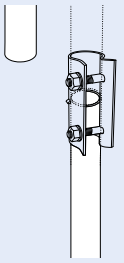
$b^{II}3.$



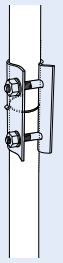
$b^{III}1.$



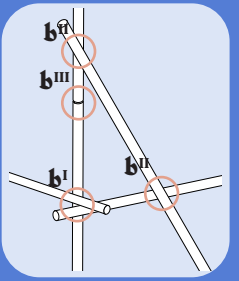
$b^{III}2.$



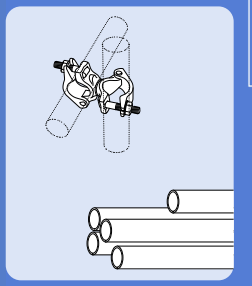
$b^{III}3.$



Note: When used, a scaffolding shakes. Repeated small vibration tend to unfasten bolts, it is then crucial to verify and fasten each coupler regularly.



c. How to stiffen a scaffoling with diagonals?

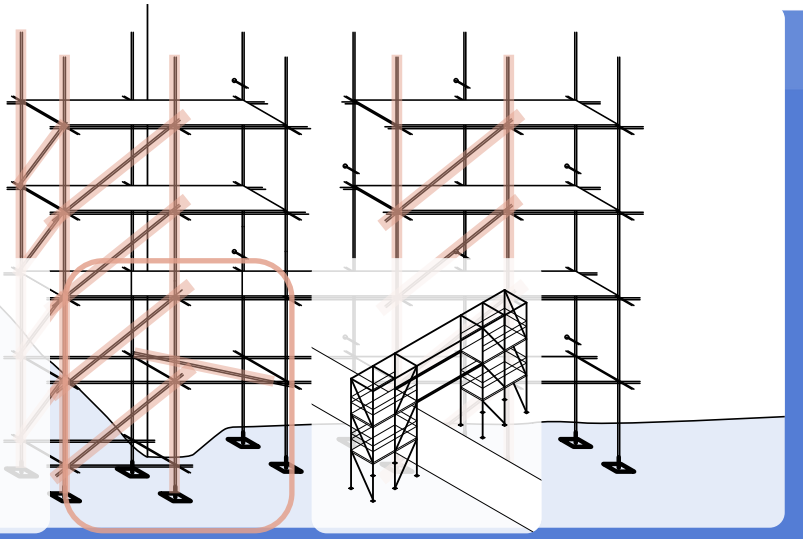


Once you know how to ground a scaffolding and how connections between tubes work, it is time to raise the first tubes. Start by raising vertical tubes, continue by fixing the horizontals with B^{I} couplers. You will end up with a standing 3d grid.
At this stage, the structure can handle vertical forces but not horizontal forces induced by scaffolding usage or wind. To fix this issue, diagonals are needed. The amount that will be necessary depends on the scaffolding usage but a minimum of one per four spans in every direction is required. Of course, the more diagonals you add the stiffer the scaffolding will be.

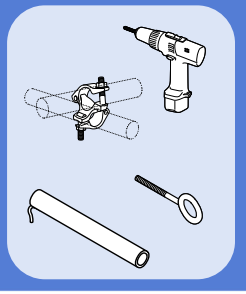
Transversal plane: When raising a scaffolding next to a building, anchoring it to the facade (‣ p.11) can be seen as a stiffening element. Either way, if you are building a scaffolding that is greater than 4 spans, additional diagonals are needed.

Horizontal plane: In most cases, the flooring (‣ p.12) takes the role of stiffening diagonals. Without a flooring, stiffening the horizontal plane needs to be considered.

c.



d. How to anchor a scaffolding to a facade ?

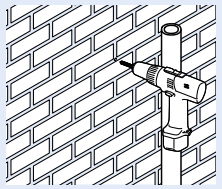


As soon as you are rising a scaffolding next to a building, it is crucial to anchor it to the façade. By doing so you increase drastically its stability and decrease the amount of diagonals needed. This also prevents the scaffolding from falling over away from the façade.

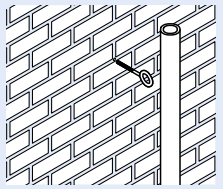
In brick walls, it is prefered to drill holes in between the joints of the bricks. For wooden constructions you should favour structural beams. You can drill anywhere if you are dealing with a concrete wall.

*Note: Anchor the scaffolding on each floor, minimalty one out of two spans. It is also crucial to alternate the position of the anchorages on every floor.

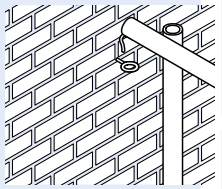
d1



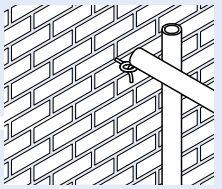
d2.



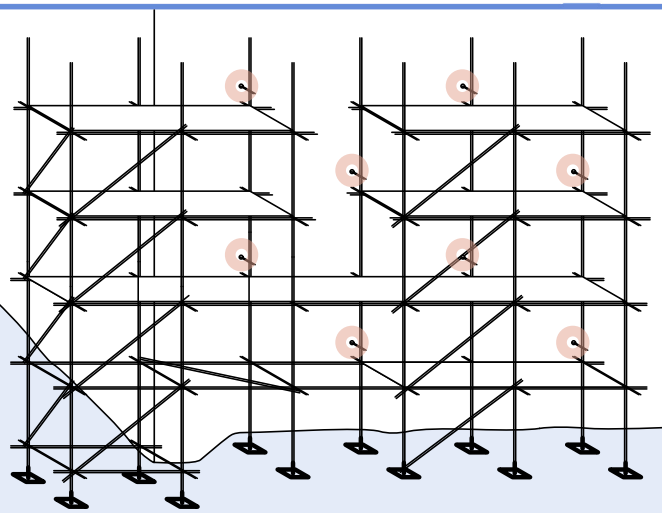
d3.



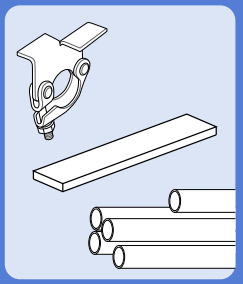
d4.



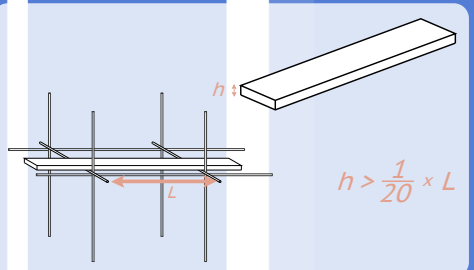
d.



e. How to create a scaffolding planking ?



So far, we went through the construction of the structure. We will now take a look at ways of making it accessible, starting with the planking. Many materials can be used, from simple wooden planks to prefabricated aluminum platforms. For the sake of simplicity, we will focus on reused wooden planks. This basic material has been used for decades before the arrival of aluminum scaffoldings. However, the distance between two scaffolding elements needs to be considered in order to calculate the thickness of the planks used. In order to secure the planks to the scaffolding, a fourth type of coupler is needed.

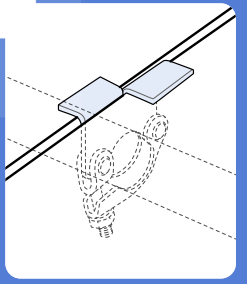


*Note: To calculate the minimal thickness of a flooring plank (h):

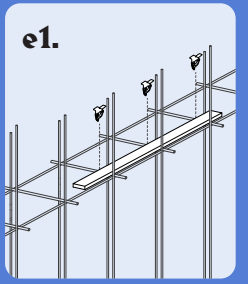
a. Measure the distance between the two points the plank will be supported on (L). Usually, these are transversal tubes of the scaffolding.

b. Divide that distance by 20. The result is the minimal thickness of the plank that will cover the distance between these two points.

Note: Look out for visible damage to flooring planks (cracks, fouling, etc) to avoid any incidents. If you are unsure about its condition, don't use a plank.



e1.



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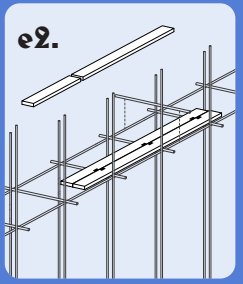
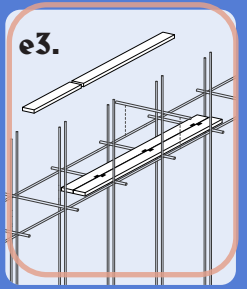
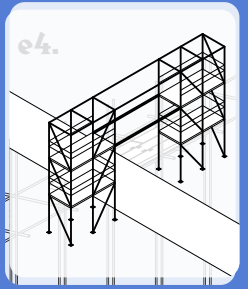


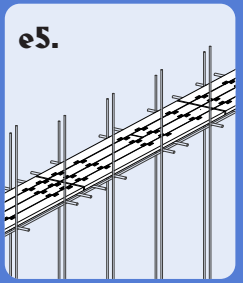
e3.



e4.

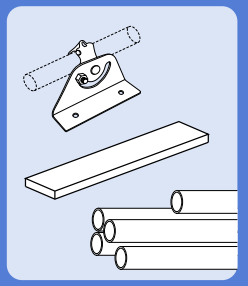


e5.



f. How to build a stairset linking two floors?

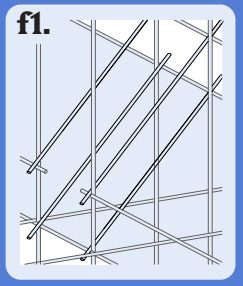
Finally, we need to create connections between all the levels using stairs. For this a fifth coupler is needed.
This one will allow us to screw planks to slanted tubes in order to create a stairset. Like for the flooring, the thickness of the planks used for the stair needs to be calculated.

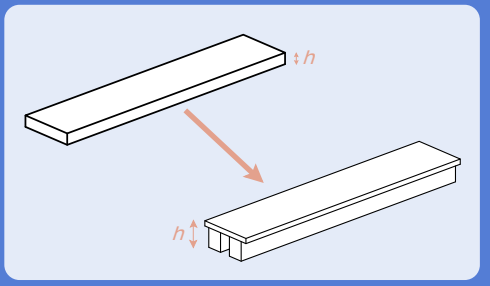


For the calculations, use the same formula as for the flooring (the planks for the stair need to be thicker than 1/20 times the total width of the stairset)

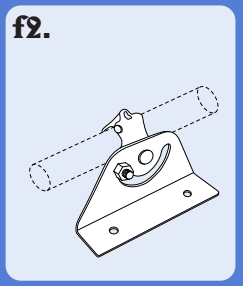
Note: If you don't have a plank that is thick enough to be used for the stairs, you can strengthen it by adding some horizontal beams underneath it. This increases the structural height by the height of the beam.

f1.



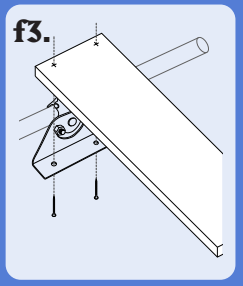


f2.

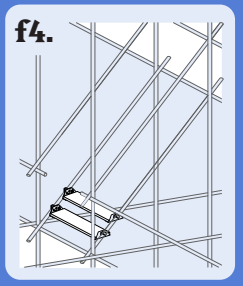


Note: Be thorough and make sure you tighten all the screws well, while making sure you don't split the wood of the plank!

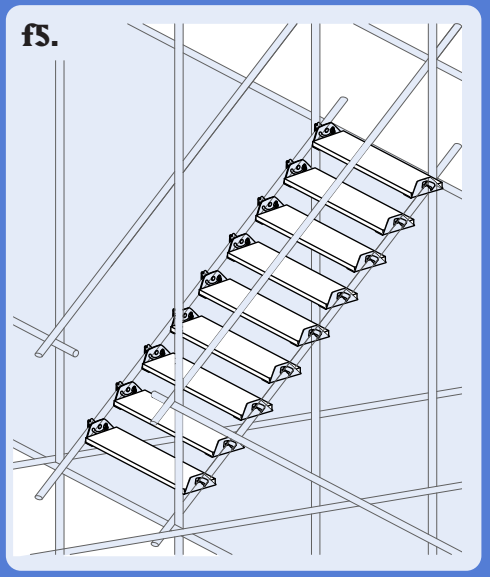
f3.



f4.



f5.



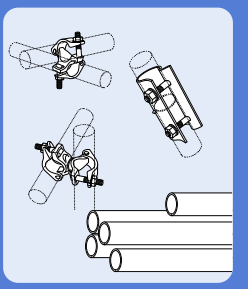
g. How to build a balcony or a bridge?

With the 6 previous principles, you will be able to build simple scaffoldings going straight up. However, it may come in handy to know how to extend the structure over a void. For this two solutions:

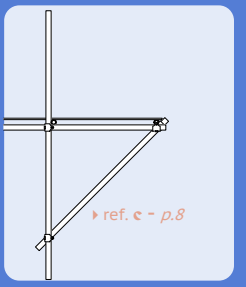
g^{I}: Creating a balcony using a cantilever.

g^{II}: Building a bridge using trusses.

Those two methods are advanced and can require some safety equipement as a harness and rope. Stay safe!

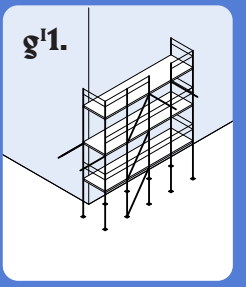


**Note: You can not build a cantilever wherever you want. For this to be possible, the scaffolding either needs to be anchored to the building on the opposite side of the balcony, or the scaffolding needs to be at least 4 times longer than the balcony itself. Otherwise you will highly impact the scaffolding's stability.*

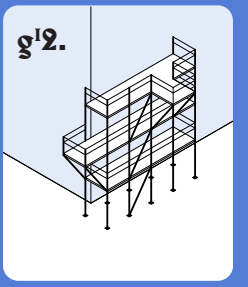

ref. c - p.8

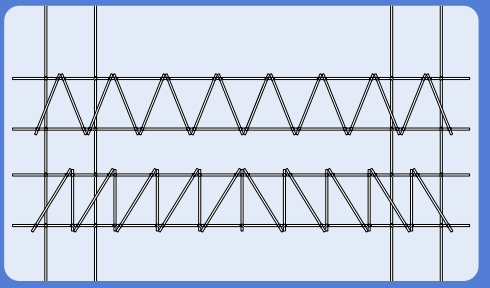
Note: It is also possible to hang a plateform. Instead of fixing the diagonal below it, you can put them above it.

g^{I}1.

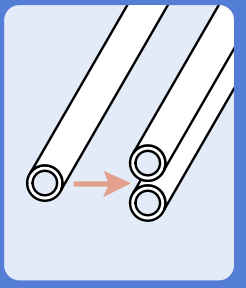


g^{I}2.



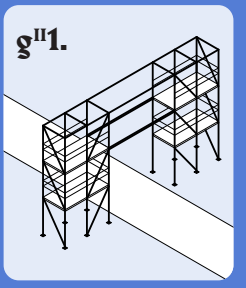


A truss is a structure that consists of members organised into connected triangles so that the overall assembly behaves as a single object.
A truss is made up of a web of triangles joined together to enable the even distribution of weight and the handling of changing tension and compression without bending or shearing. The optimal angle for each diagonals is between 45° and 60°.

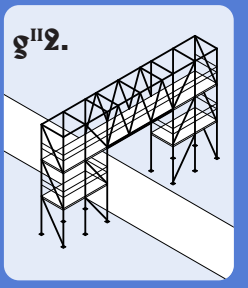


Note: A truss is subject to high efforts. Thus, if you are planning to make a very long truss that spans a large area, horizontal tubes needs to be doubled or tripled:
L<4m ▸ 1 tube
4m<L<8m ▸ 2 tubes
8m<L<12m ▸ 3 tubes

g^{II}1.



g^{II}2.



So there you have a little taste of how one could gain access to an empty building. Of course this is by no means an exhaustive guide, there is an infinite number of ways to do this.

Now that you have all this knowledge, next time you see an empty building: Let your imagination run wild, dream what could be!