

summary



present day - pré planning

recognize places

urban plan

1 recognize places

strategy for **Lisbon** Portugal

3 program

2 basic structure
infra structure

"the wafer"

use for the present

use after disaster

use for the future

scaffold shelter



disaster -

temporary shelter

post reconstruction

public space

students

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institution

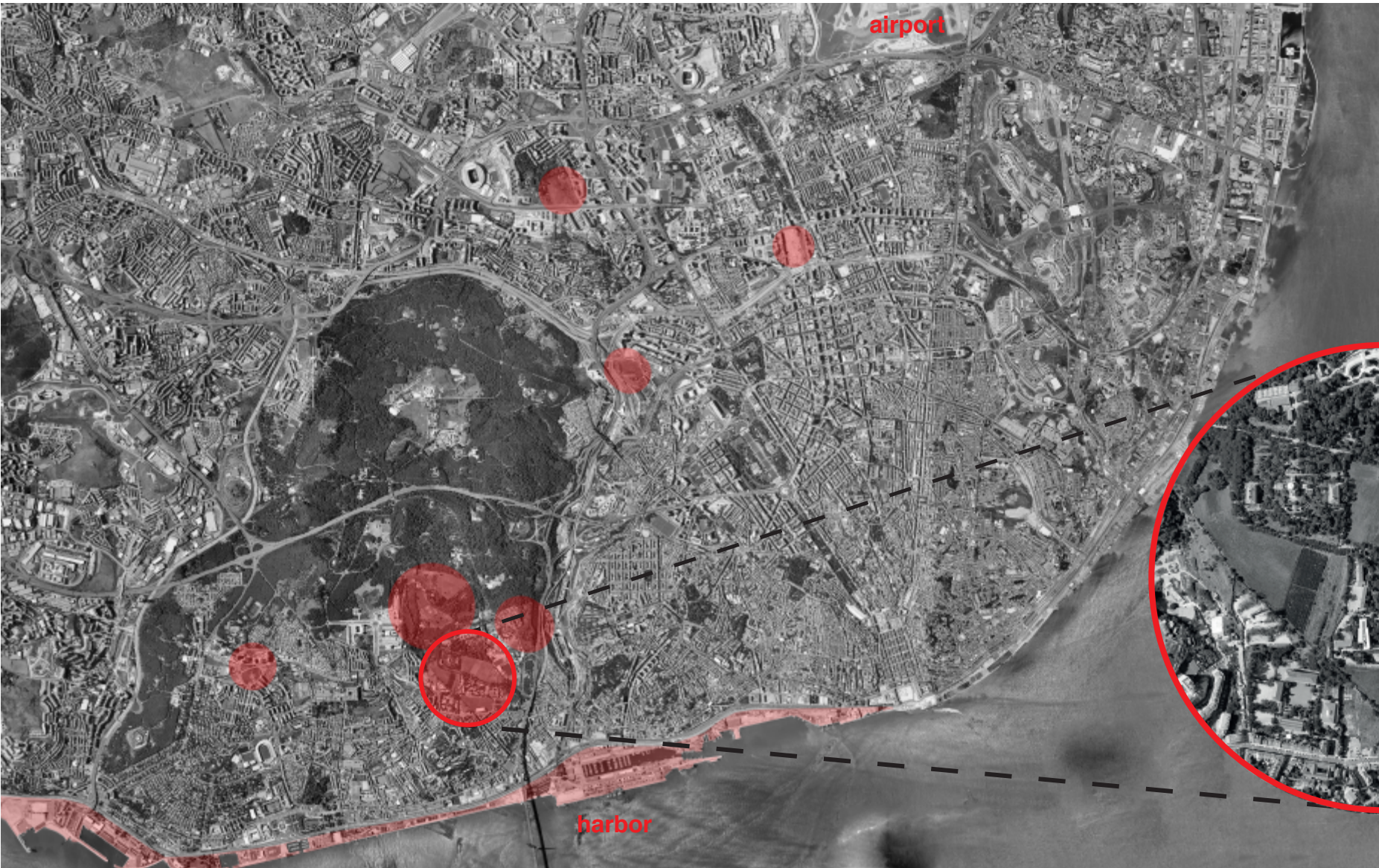
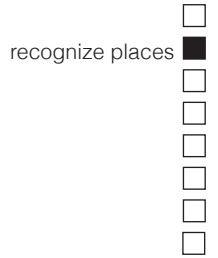
school of architecture
university of minho
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Lisbon is the capital and the most important city of Portugal. Has a metropolitan area of 2870 km², concentrating 27% of the total population of the country.

The city of Lisbon, and the entire south coast of continental Portugal, presents a potential seismic risk. This is due to its geographical proximity of the boundary between the Eurasian tectonic plates and African tectonic plates.

Several earthquakes have been witnessed in the Portuguese coast. The earthquake in 1755 was one of the most destructive and felt throughout Europe and North Africa.

The earthquake was followed by a fire, and later by a giant wave that invaded Lisbon and the much of the coast of Portugal.

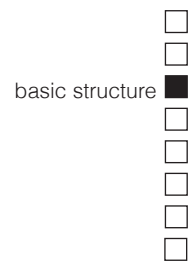


The selected sites with potential areas for the installation of the base structure are those that meet the requirements for an effective function in a situation of earthquake.

These sites are located near the port, in areas with fewer buildings and protected from possible rise of sea water, highest points of the city.

“the wafer”

infra structure



pre existence



infra structure
for cultural events, festivals, fairs
also a public park



temporary shelter
the place is able to quickly contain
the temporary shelters



after reconstruction
the place remains as a
public space for the city.



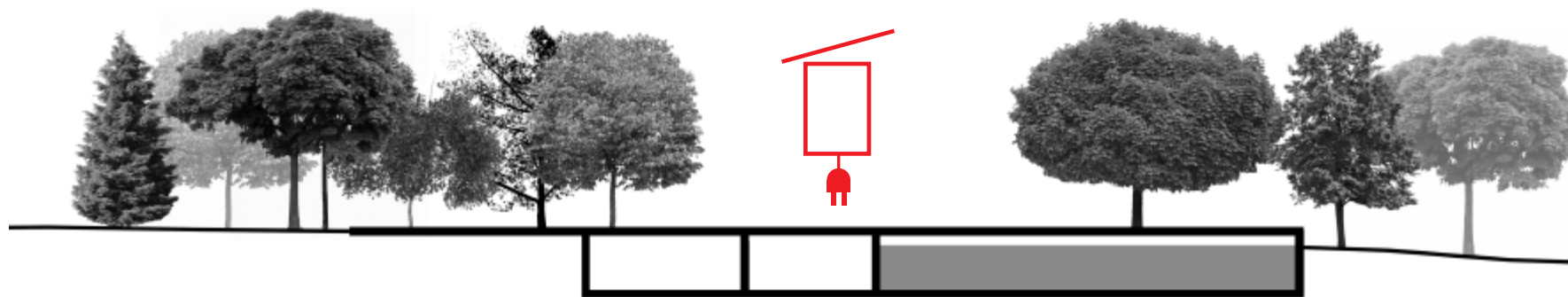
light - solar panels



water - rainwater harvesting



sewerage - locker rooms



The proposal consists of a **basic structure**, named **“Wafer”**, already prepared before the disaster happen.

It is a reinforced concrete platform, which offers great structural stability in the event of earthquakes, and a storage system containing water from the rain.

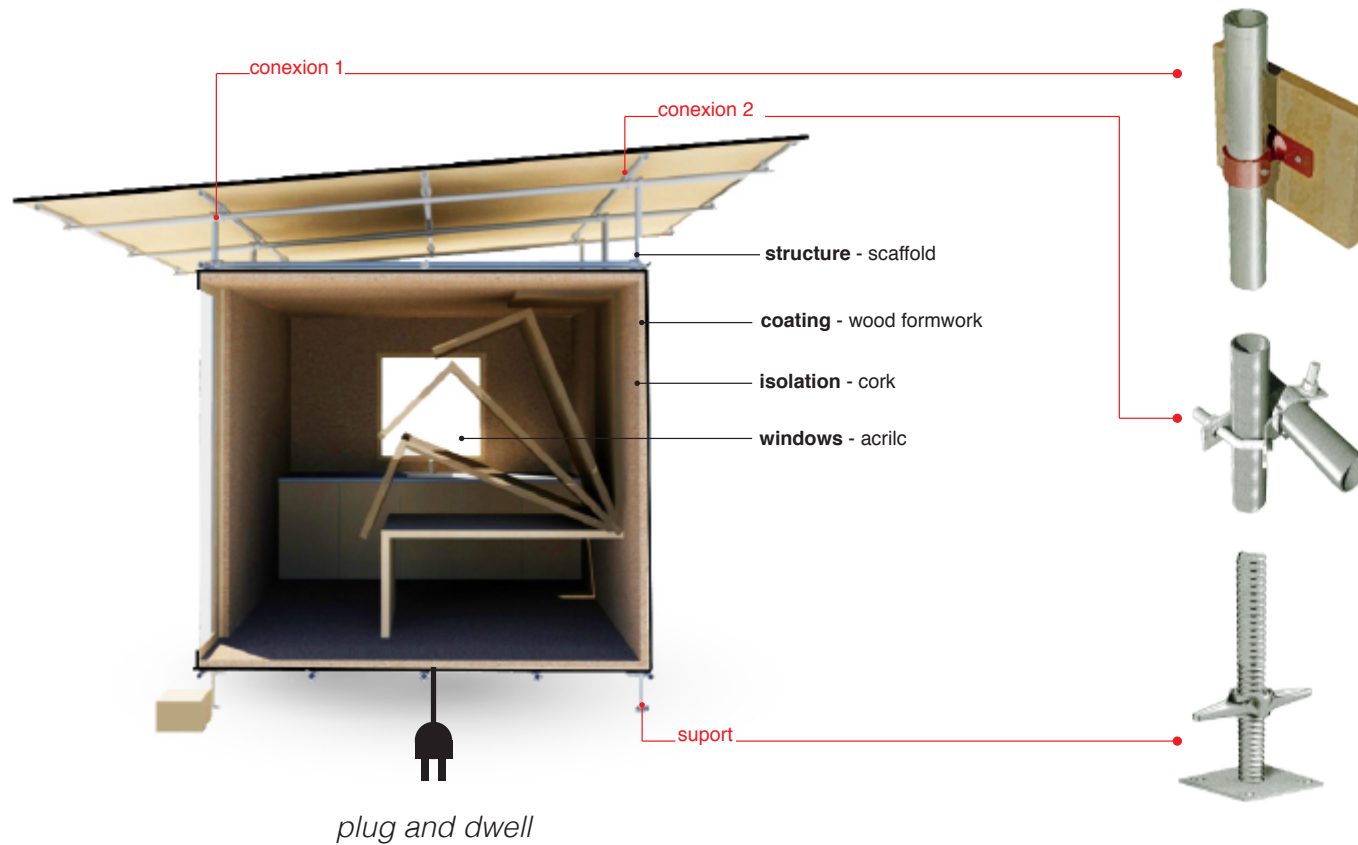
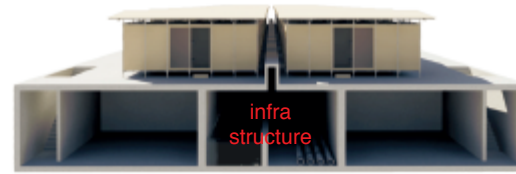
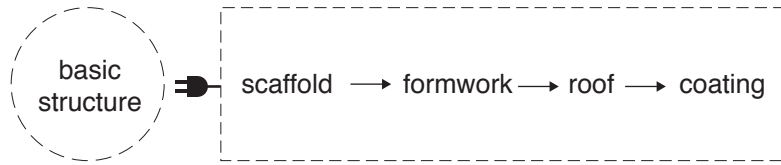
On that basis are also of infrastructure networks for emergency shelters, which will be connected to the public network. In the event of a disaster that connection will be blocked.

Besides harvesting system rainwater used for watering gardens, this base structure also has solar panels for production of electric energy and toilets open for the population. This structure provides the infrastructure to the city of Lisbon and, in the event off earthquakes, offers a quick solution to help the homeless population.

scaffold shelter

capable places

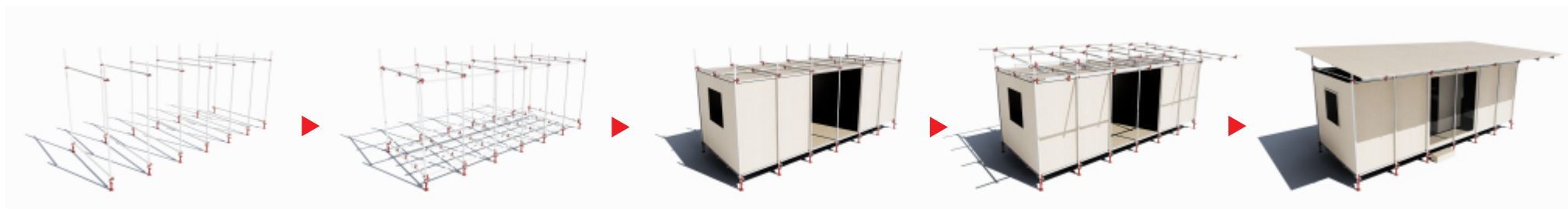
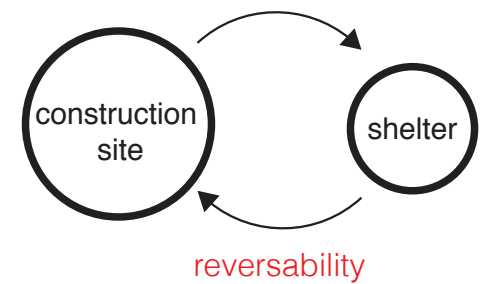
6th iRec Student Competition



plug and dwell

The emergency shelters were designed to be quickly and easily assembled, using common materials and easy to reuse.

The structure consist of scaffolding, formwork panels and a coating of cork. They can be mounted in two days after the disaster, and finished in two weeks. After this phase provides for the use of up to one year.



assembly scheme

A shelter for a family of 4

S . sleep - 7 m²

P . pack up - 1 m²

C . cooking/rest - 10 m²



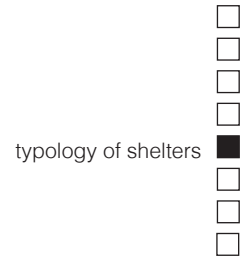
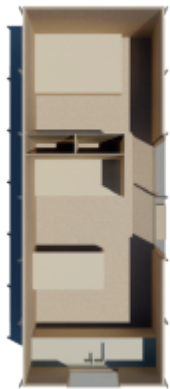
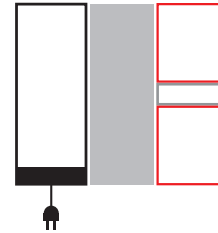
B shelter for 8 persons

S . sleep - 8 + 8 m²

P . pack up - 1 + 1 m²

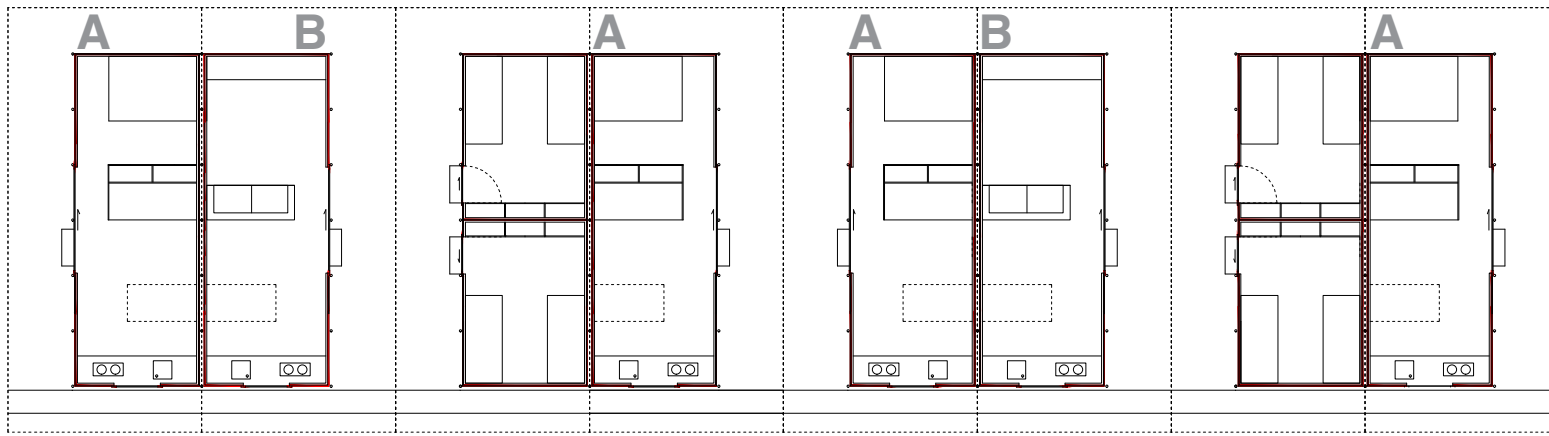
C . cooking/rest - 18 m²

E . exterior - 18 m²



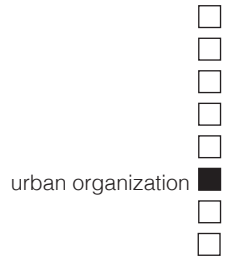
There are two types of shelters. They are intended for families of four persons and eight persons unknown, equipped with double beds, bunk beds and kitchen.





capable places

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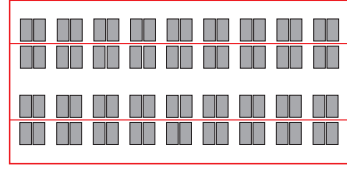


1 wafer for public use



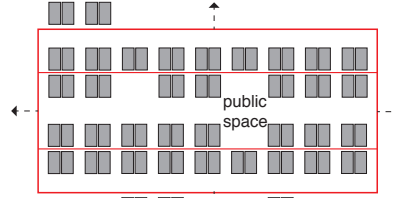
present day
the "wafer" can be use for cultural events for the city, and as a park

2 wafer supporting the shelters



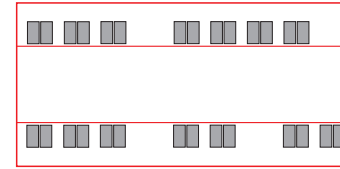
shelters
the first shelters are built quickly

3 wafer extension



extent of shelters
one wafer can support more shelters associated

4 back to the city



after reconstruction of the city
the wafer serve remains as a public space/infrastructure for the city



urban organization



The suggested structure can be used to host festivals, or other cultural events in Lisbon because it already has the infrastructure needed for these events.

It also allows an area to practice outdoor sports, being conceived like a **public park** for **the city**.

After disasters, the shelters are assembled **quickly** in order to help the homeless population.

After the city's reconstruction, the structure of the shelter can be disassembled and **reused**.

The structure shelter does not generate garbage, for is harnessed it events in the city.

The "Wafer" remains, offering infrastructures and equipment that support public spaces.



synthesis

