

INTERNATIONAL PROJECT

CASUS SYRIA

CURRENT SITUATION

- War
- Power loss
- Kids with trauma
- Earthquakes

TARGET GROUP AND TREATMENT

NEED SCHOOL
197,856 orphans

2, 081, 507 refugee in the north of Syria
179.000 refugee IN Harem

45% have injured

55 % have war trauma
197,856 orphans' children

2 euro per day , below the poverty line

TREATMENT

MAKE THEM HAPPY
Make a safe space to complete their needs:

- Outside space:** playing and connecting with nature.
- Inside space:** Playing inside for students who have war trauma or another psychological problems.
- Technological rooms**
- Large space** (ceremony, musical and theater activities, celebration, interviews with parents)

CLIMATE

Hot summer mediterranean climate (CSA)

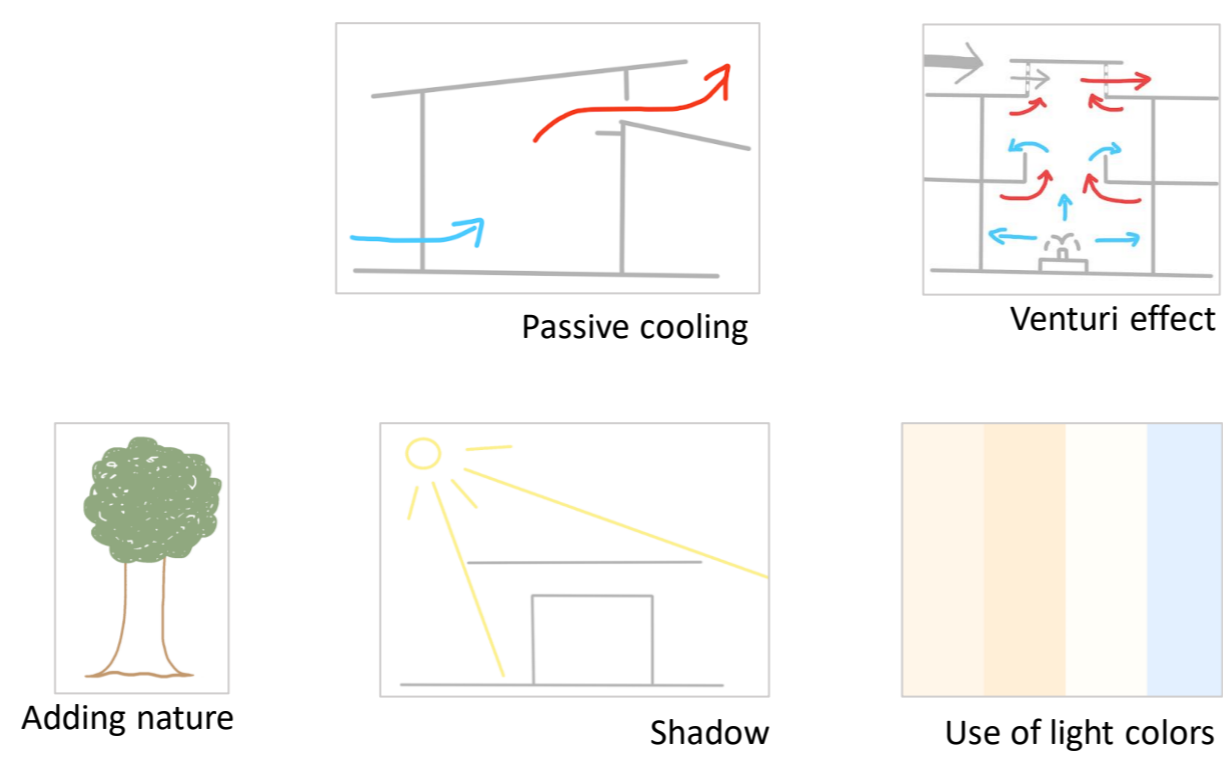
- Summers; Hot and dry
- Winter; moderate temperatures and changeable, rainy weather

Table weather

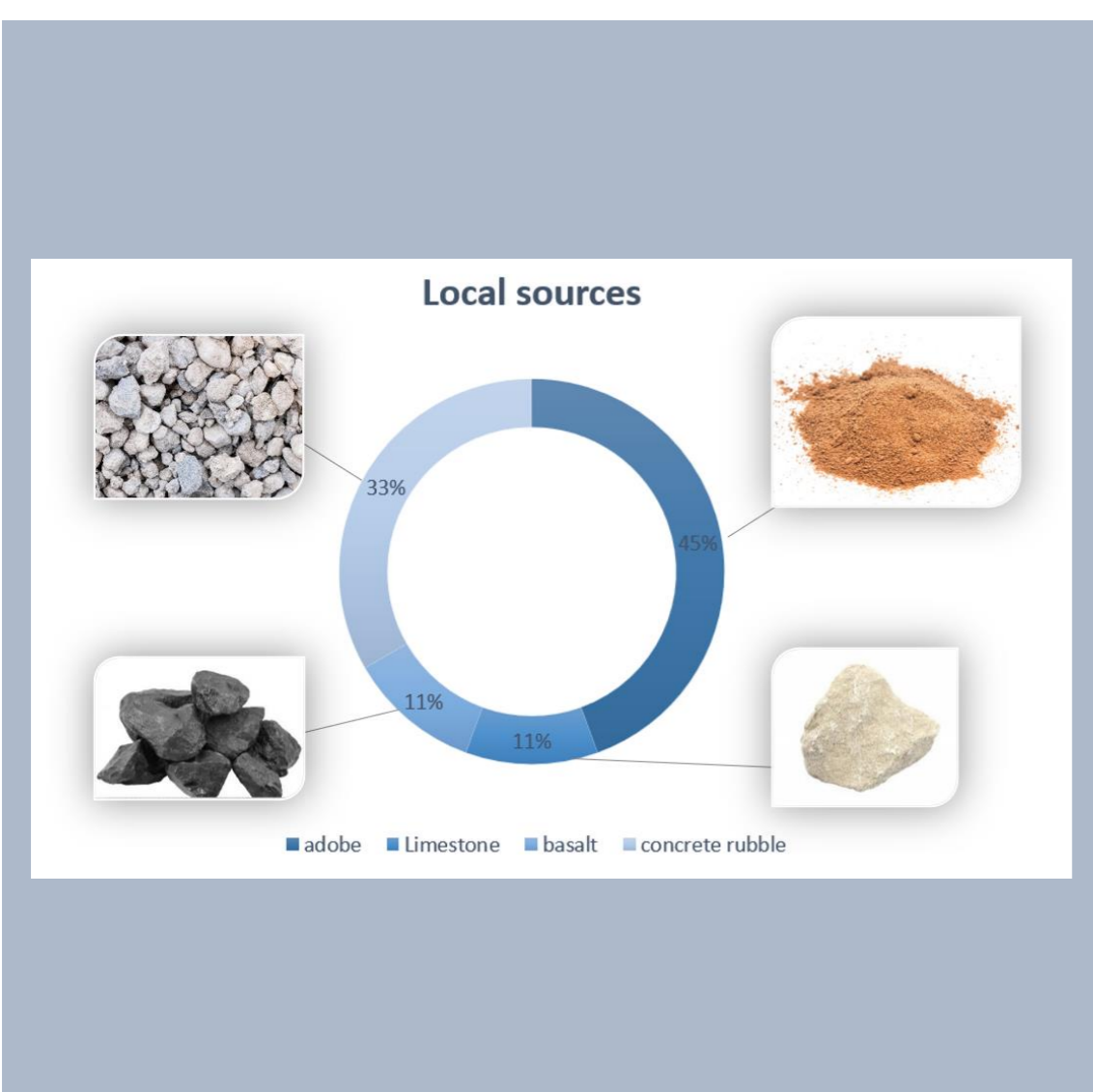
	temp (°C)	Precipitation (mm)	Humidity (%)
highest	37	16.5	79
lowest	2	0.5	46

(Climate & Weather Averages in Idlib, Syria, z.d.)

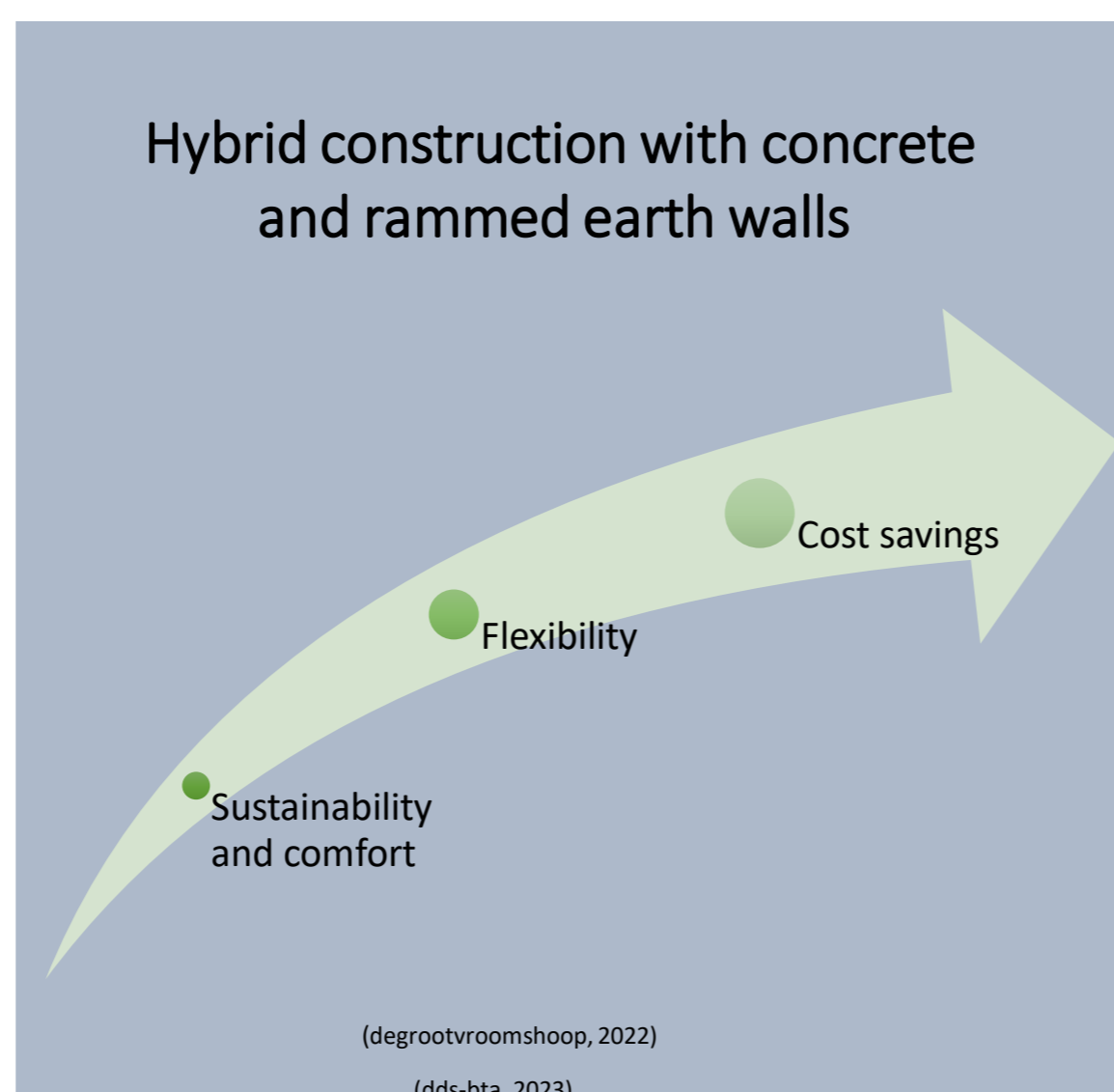
COOLING DOWN PRINCIPLES



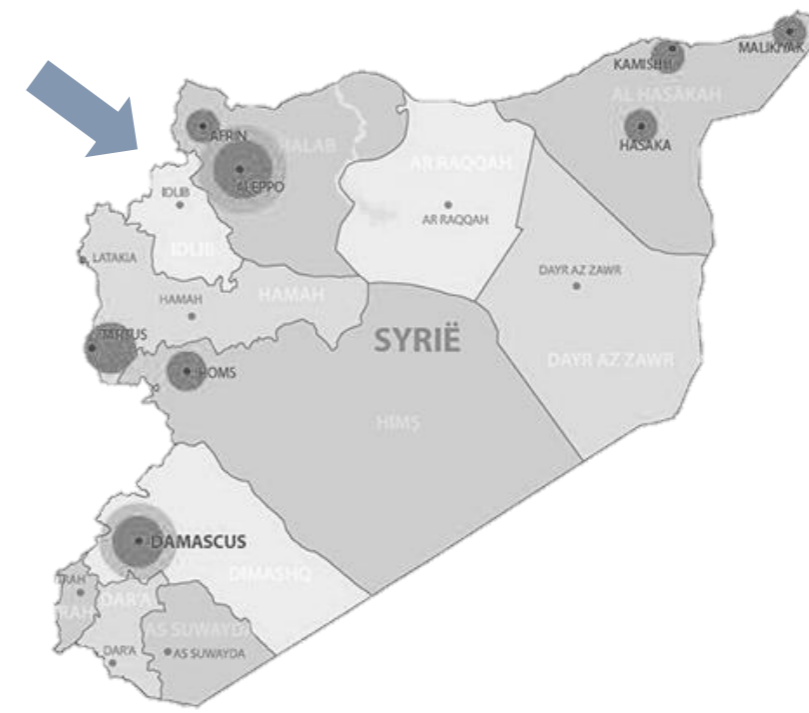
LOCAL SOURCES



CONSTRUCTION METHOD



LOCATION



North-West in Syria (Idlib), the closest biggest city is Aleppo close to the Turkish border. Mostly desert, enclosed by part of the so-called 'fertile crescent'.

EARTHQUAKES

STEEL

(HEA profiel (op maat), 2021)

Produced in Syria

Flexible and light

Smaller horizontal loads

Needs connections → Weak points

(Alco Smorenburg, 2017)

CONCRETE

(- NEMO Science Museum, z.d.)

Produced in Syria

Strong and heavy

Greater horizontal loads

Poured into work → Fewer weak points

(Alco Smorenburg, 2017)

BASE ISOLATION

Shockbreakers prevent building from moving

Expensive method

(Tomassen, 2023) (Wind, 2018)

Little open space

Square designs

Constant distance between columns

(Pasterkamp, 2023)

CONCLUSION

Floors are from concrete poured into work. Pouring it along with the columns creates fewer weak points. Besides that, when an earthquake occurs the building will move as a whole.

(Alco Smorenburg, 2017)

ARCHITECTURE



- Courtyard**
- Privacy
 - Cooling down effect
 - Safe environment
 - Lots of green and colors
 - Water sounds (Islamic instrument)
 - Rich in decorations (Ajami)



- Riwaq**
- Provides shadows
 - Aesthetically pleasing
 - Provides cover when it's raining



- Iwan**
- Covered area to enjoy the courtyard
 - Elevated to create an overview of the courtyard
 - High wooden ceiling with Ajami

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VISION

OUR VISION IS TO PROVIDE EDUCATION AND ACCESS FOR EVERY CHILD EVEN DURING DIFFICULT TIMES AND CHALLENGING SITUATIONS.

OUR GOAL IS TO DESIGN A SCHOOL THAT PROVIDES:

ACCESSIBILITY



SAFE PLACE



FUTURE PERSPECTIVE



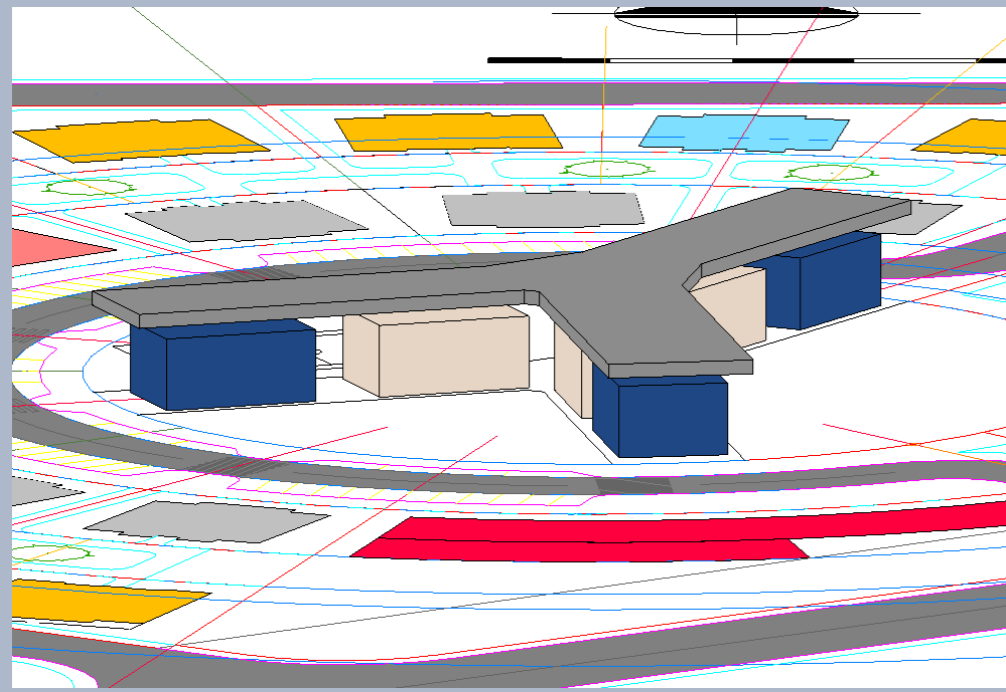
PROGRAM OF REQUIREMENTS

- 20 classrooms
- library
- 2 labs
- administration office
- Playground
- Toilets
- Residential space
- Lecture hall
- Courtyards
- First Aid



VARIANTS

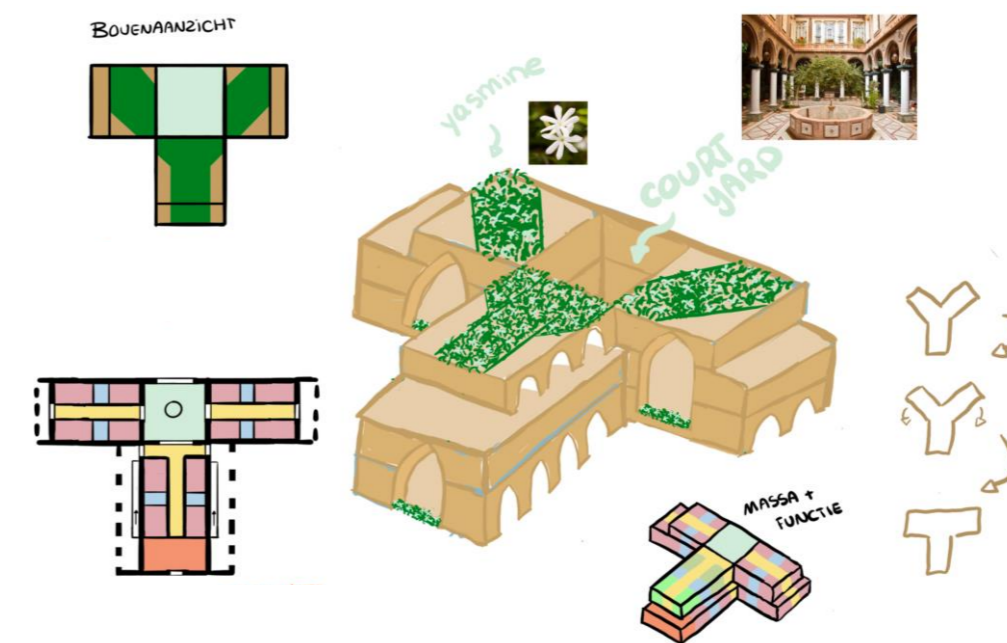
PEACE-PRISON CONCEPT



FOLLOWING THE FORM OF THE SEDNAYA PRISON AND WITH THE PEACE SIGN IN MIND, WE CAME UP WITH THIS CONCEPT. IT IS FOLLOWED BY THE JUNGLE ROOF REFERENCE. WITH THIS ROOF ABOVE THE BUILDING, WE CAN MAKE SURE THAT IT REMAINS COOL IN AND AROUND THE SCHOOL.

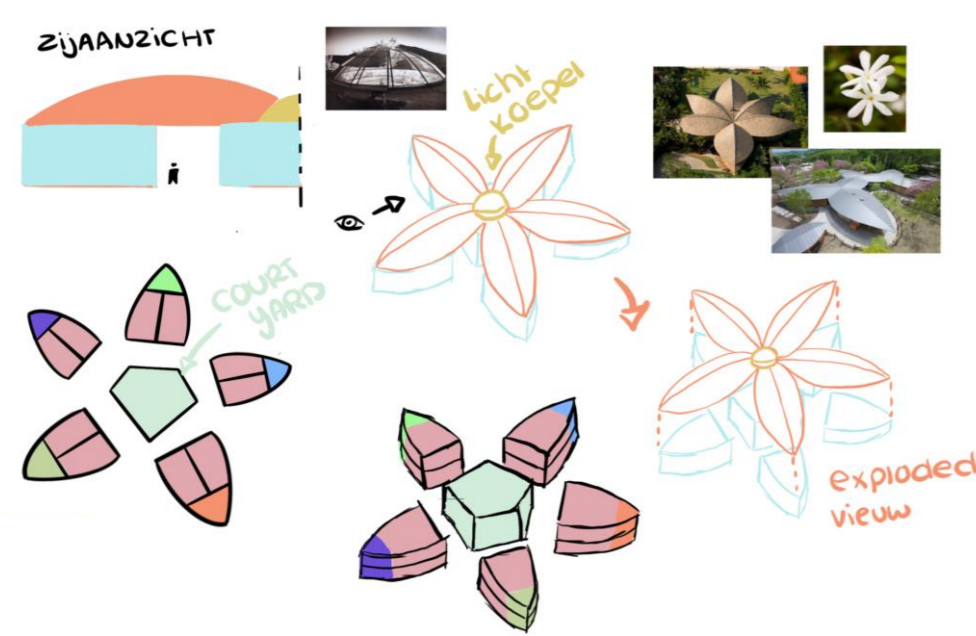


FUNCTIONAL CONCEPT



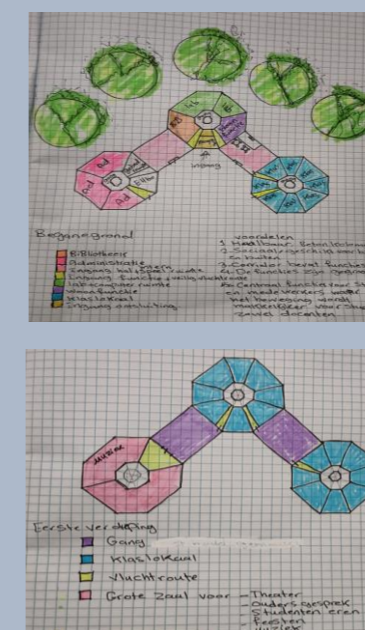
By creating this concept, it was mostly about functionality. We made the shape simpler and let the original shape come back on the roof. In the floorplan we focused on the functionality and the movements of the children.

EXTREME CONCEPT



By this concept we wanted to create something that represent the future of the children. We choose to implicate a flower named Yasmine. It grows in Syria and give people happiness with its smell and beauty. So in this design the roof from above is in the shape of the Yasmine.

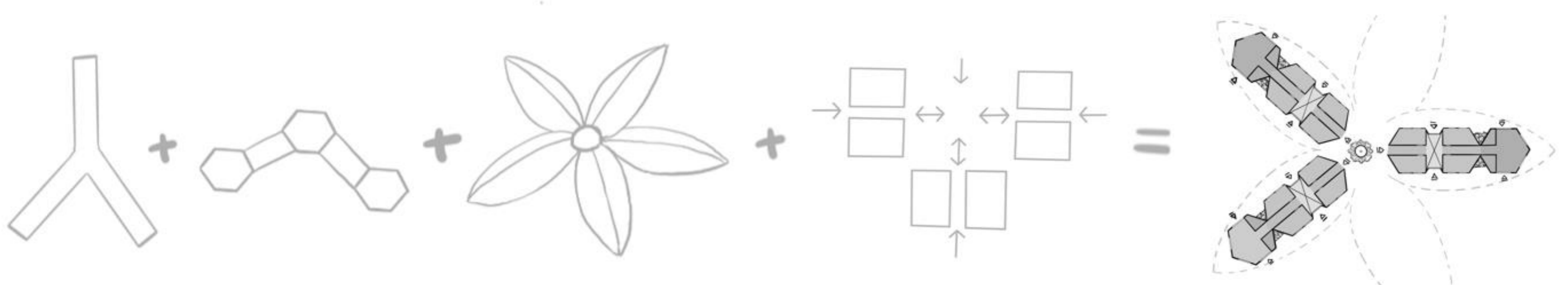
BEE COMB CONCEPT



This is a social concept that is suitable for both indoors and outdoors. It is a new form of school in which children remain very active, similar to bees. That's what the kids need according to our target research. Het shape off a bee comb can feel really safe too. Bees protect there children in those combs. Also the construction is feasible and easy to execute.



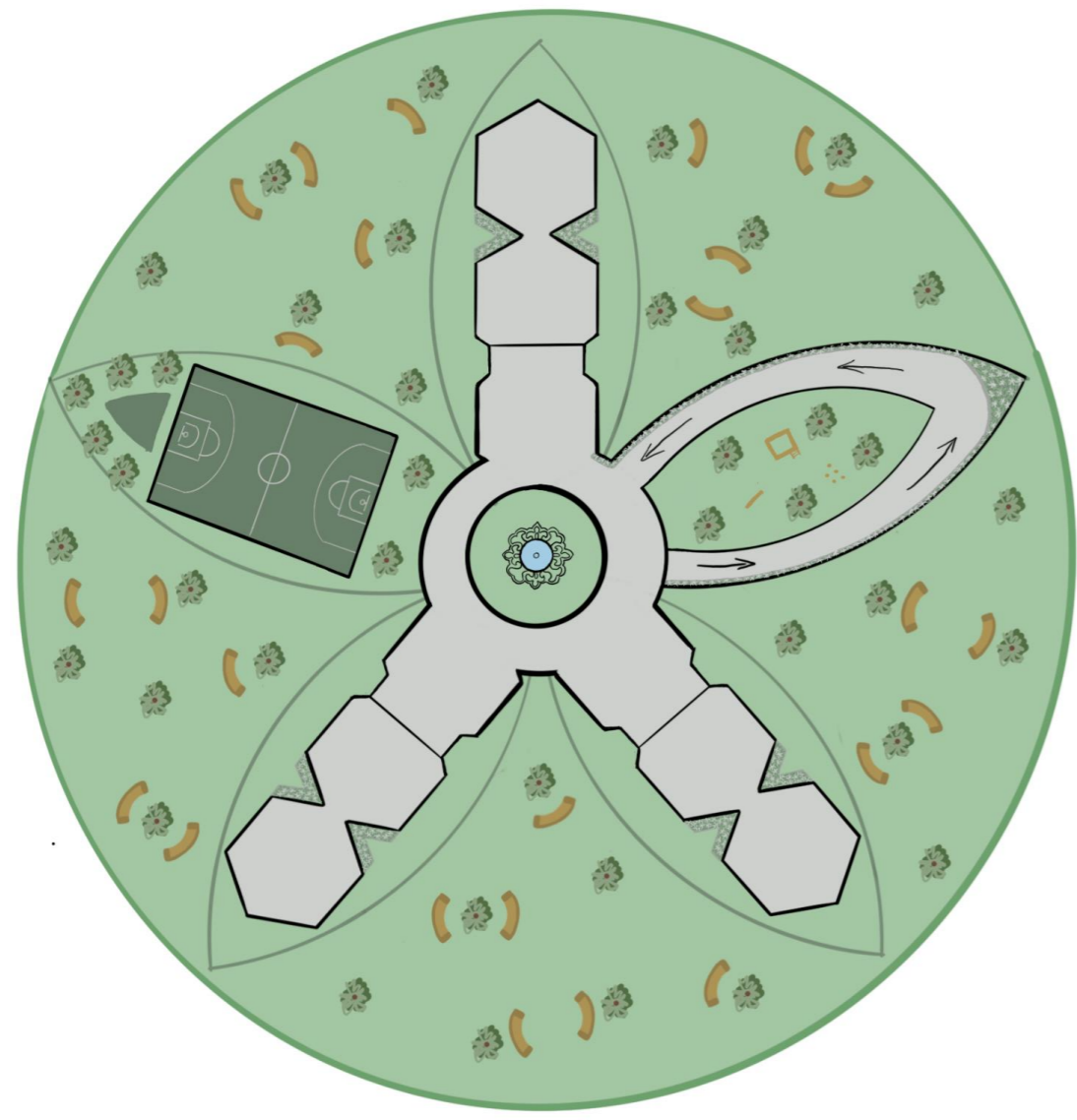
COMBINATION VARIANTS



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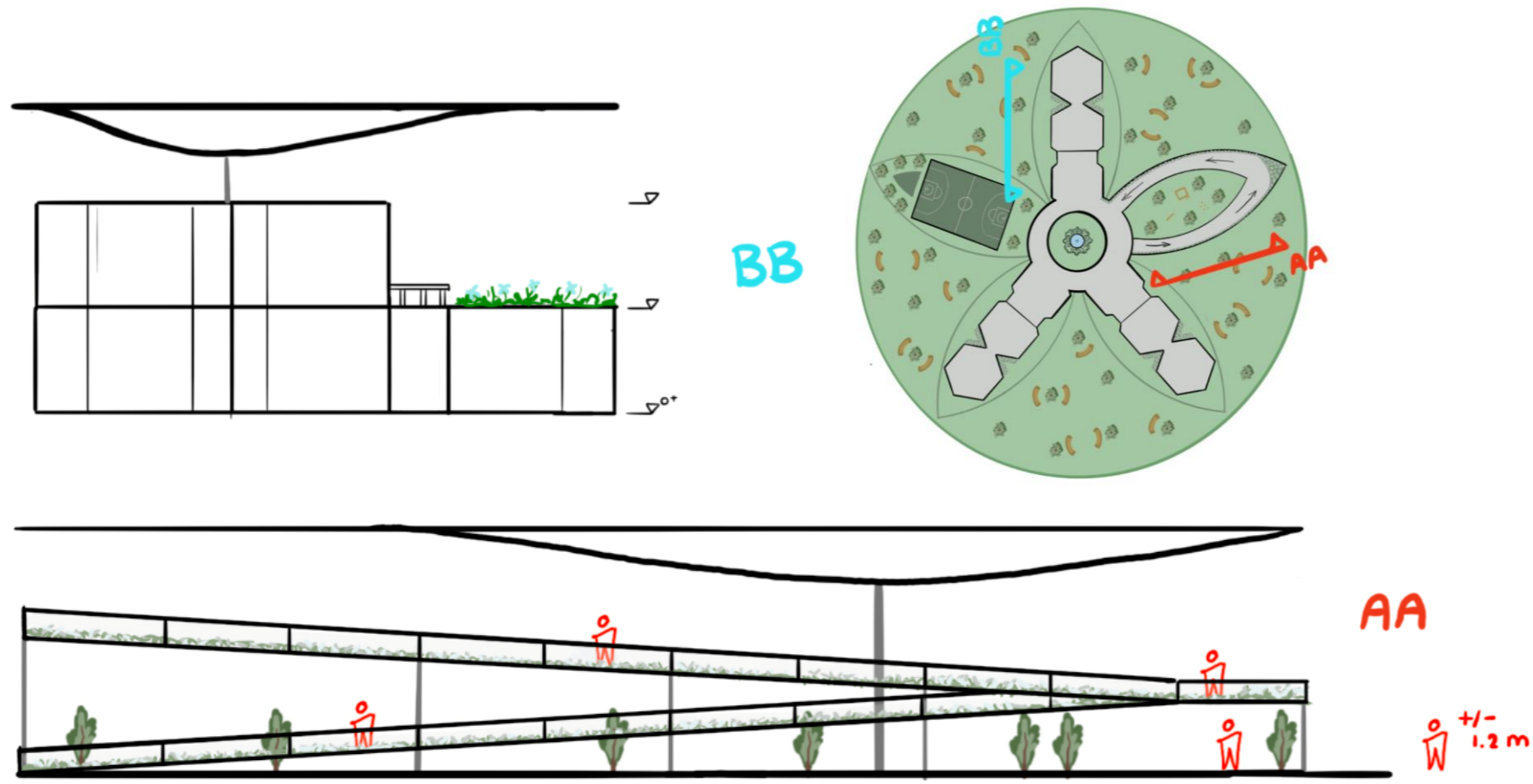
SITE PLAN



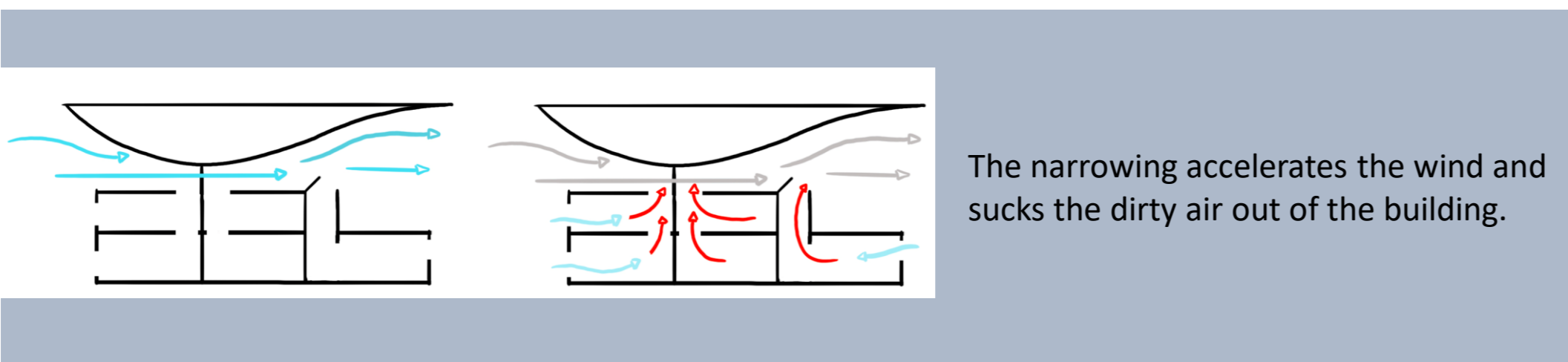
The flower shape comes back in the environment around the buildings. The playfields are placed under one leaf of the roof. Because off this there is shadow while sporting.

Also the ramp is in the shape of a flower leaf. In the middle of the ramp is a playground with wooden equipment.

Around the flower shape there is room for multiple plants and benches. So the pupils and local residents can come together and enjoy each other and nature.

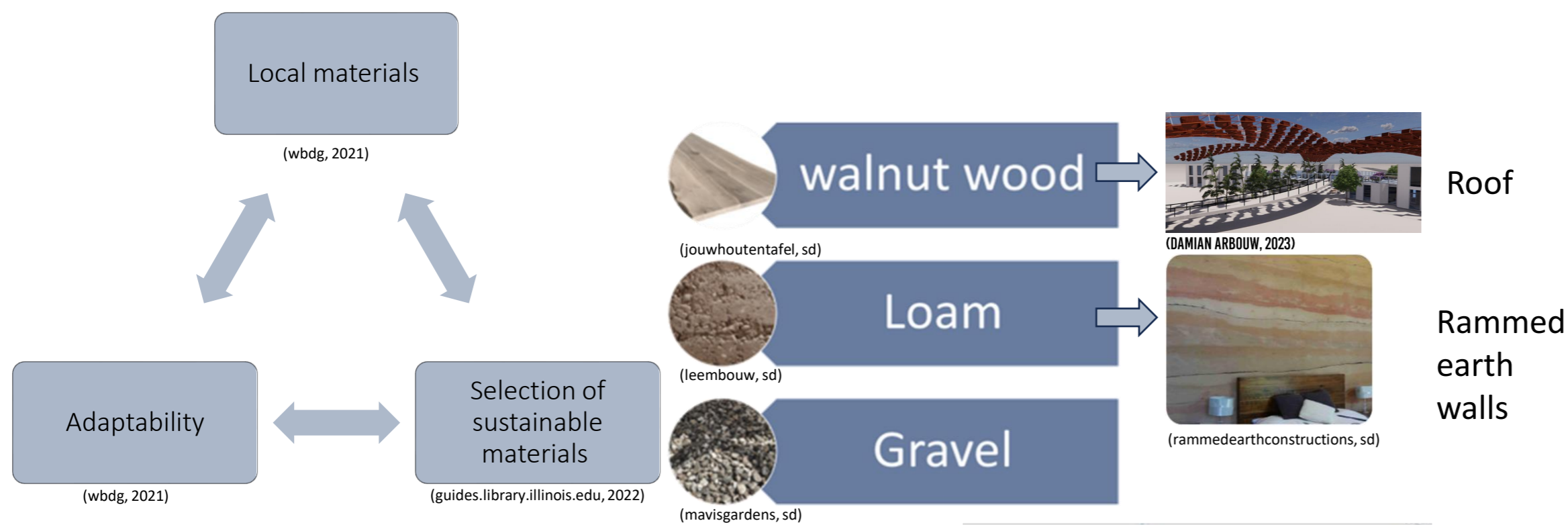


VENTILATION

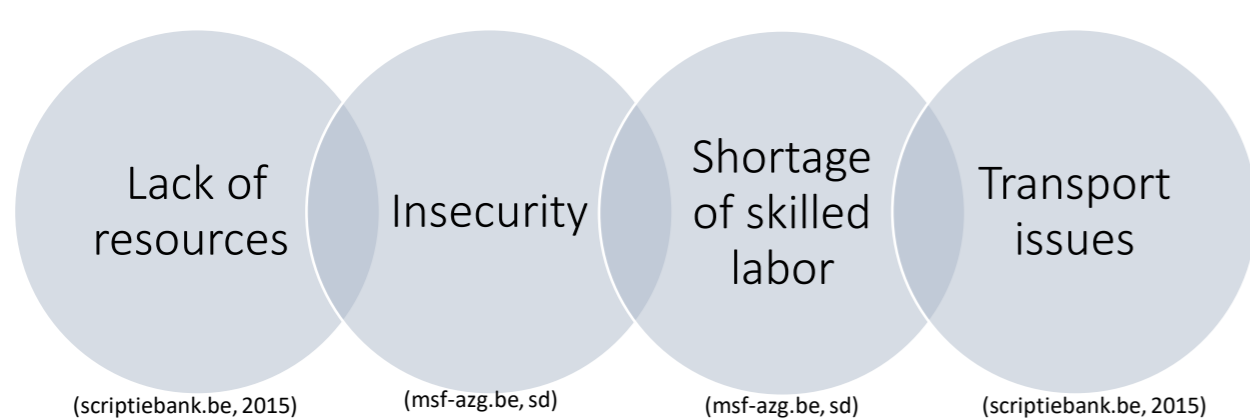


LOGISTICS

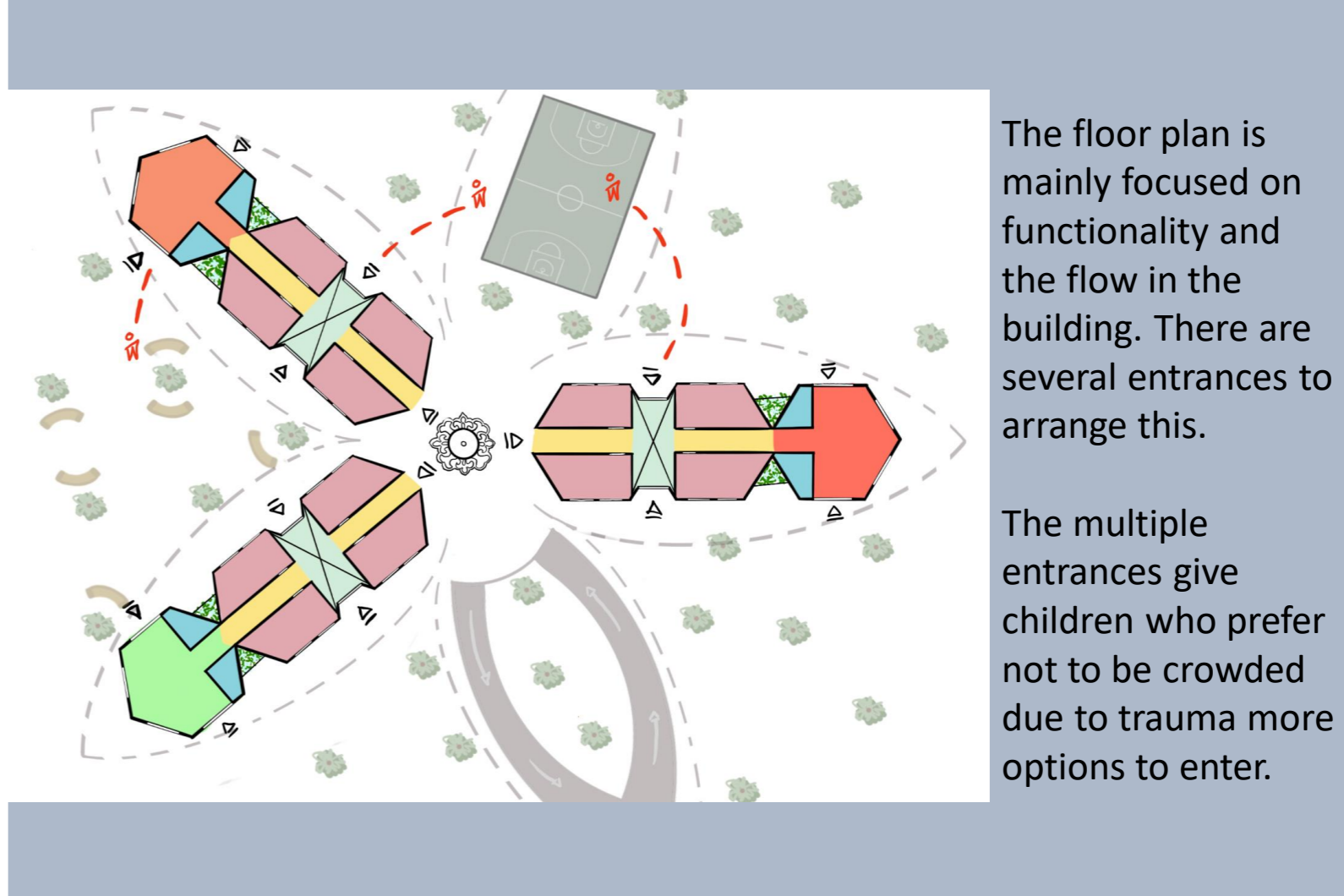
There are several logistical aspects that can be applied when building:



Possible logistical problems in Harem due to the war



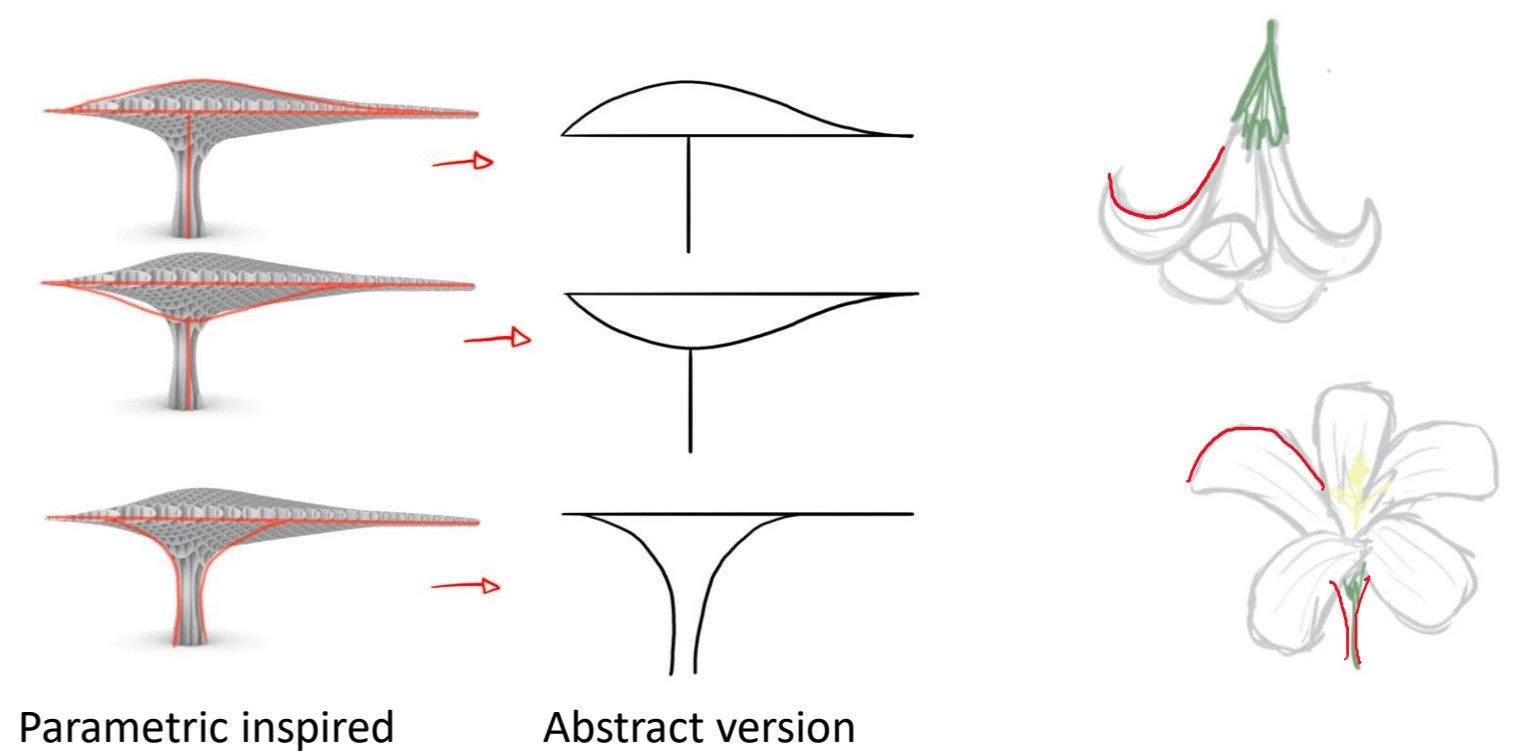
FUNCTIONALITY



The floor plan is mainly focused on functionality and the flow in the building. There are several entrances to arrange this.

The multiple entrances give children who prefer not to be crowded due to trauma more options to enter.

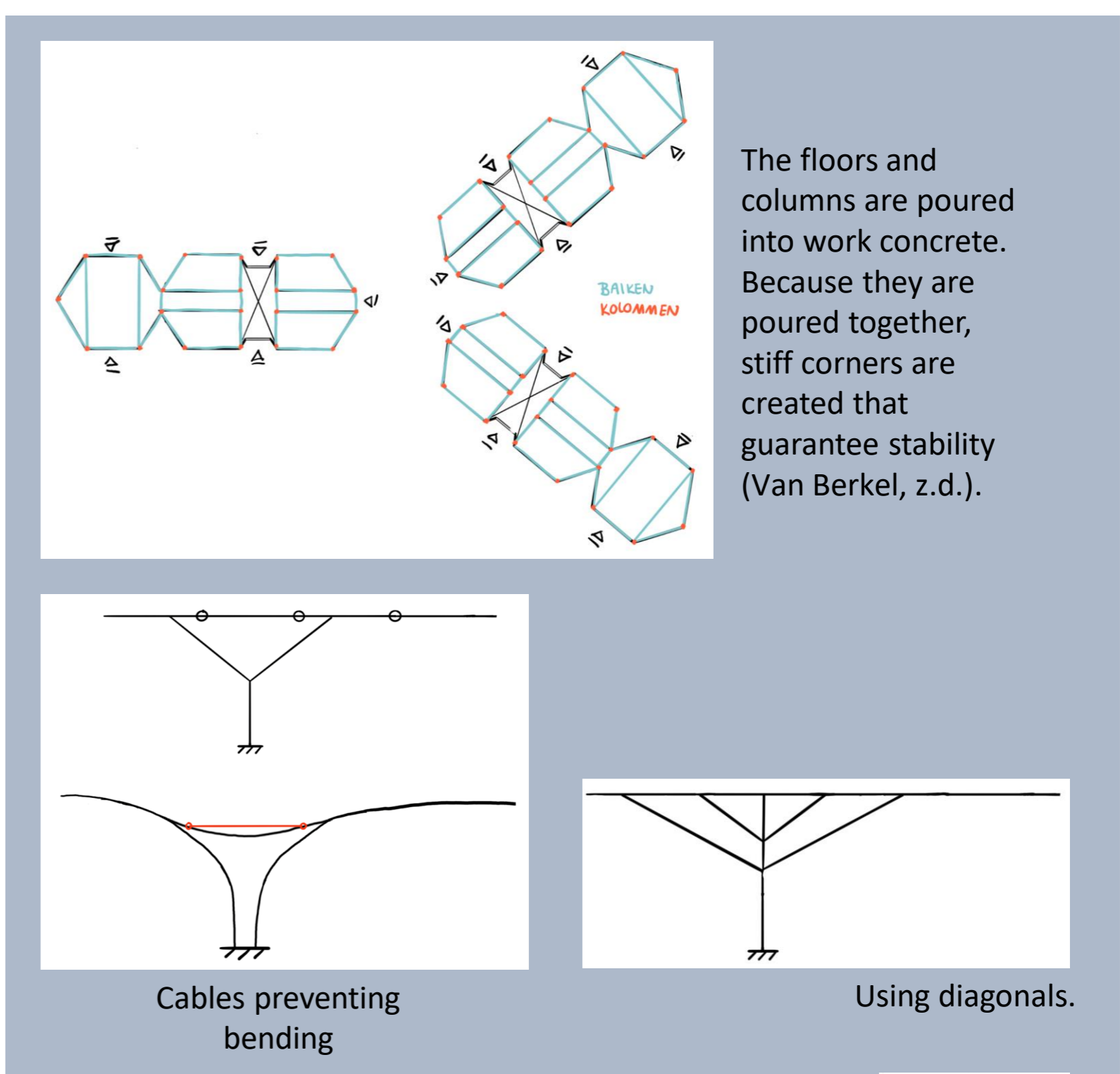
ROOF DESIGN



Parametric inspired Abstract version

A parametric inspired design cannot be drawn and executed by hand without the use of software. For that reason, we made the design more abstract. In this way it is executable without the use of parametric design programs.

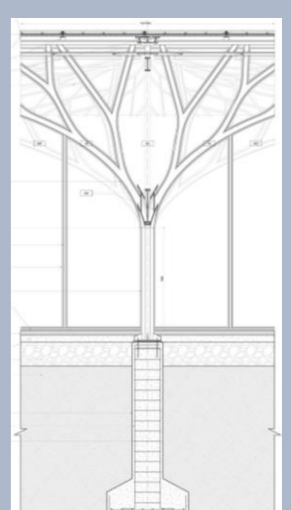
CONSTRUCTION



The floors and columns are poured into work concrete. Because they are poured together, stiff corners are created that guarantee stability (Van Berkel, z.d.).

The first option for the roof is to use a steel cable above the column to prevent bending.

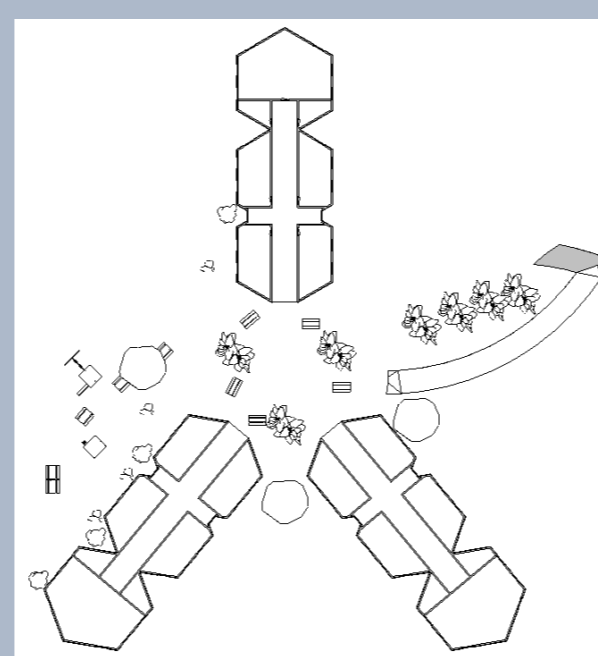
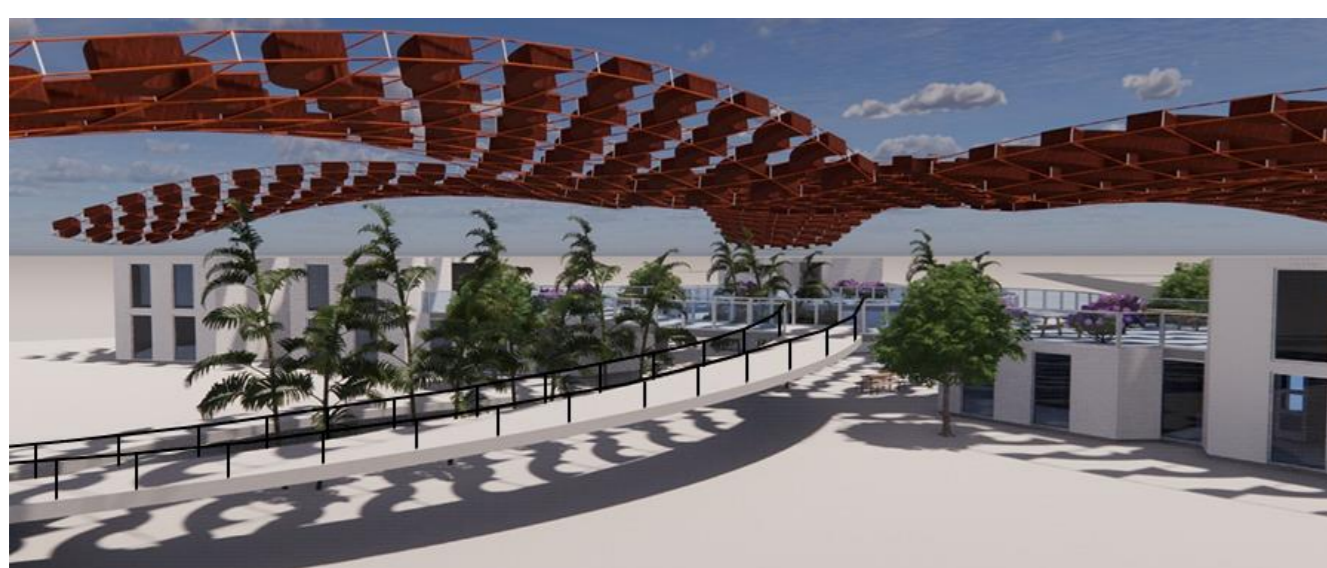
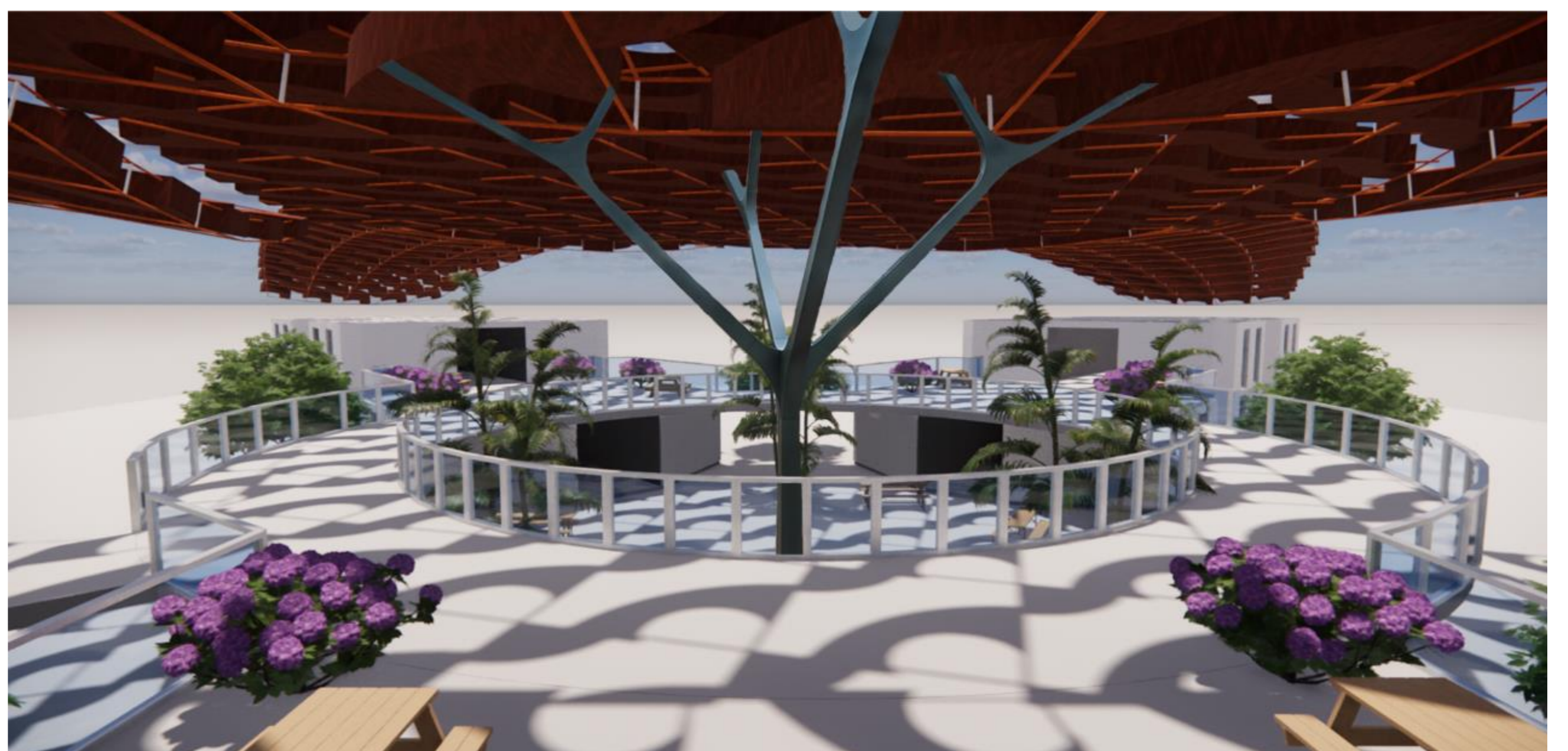
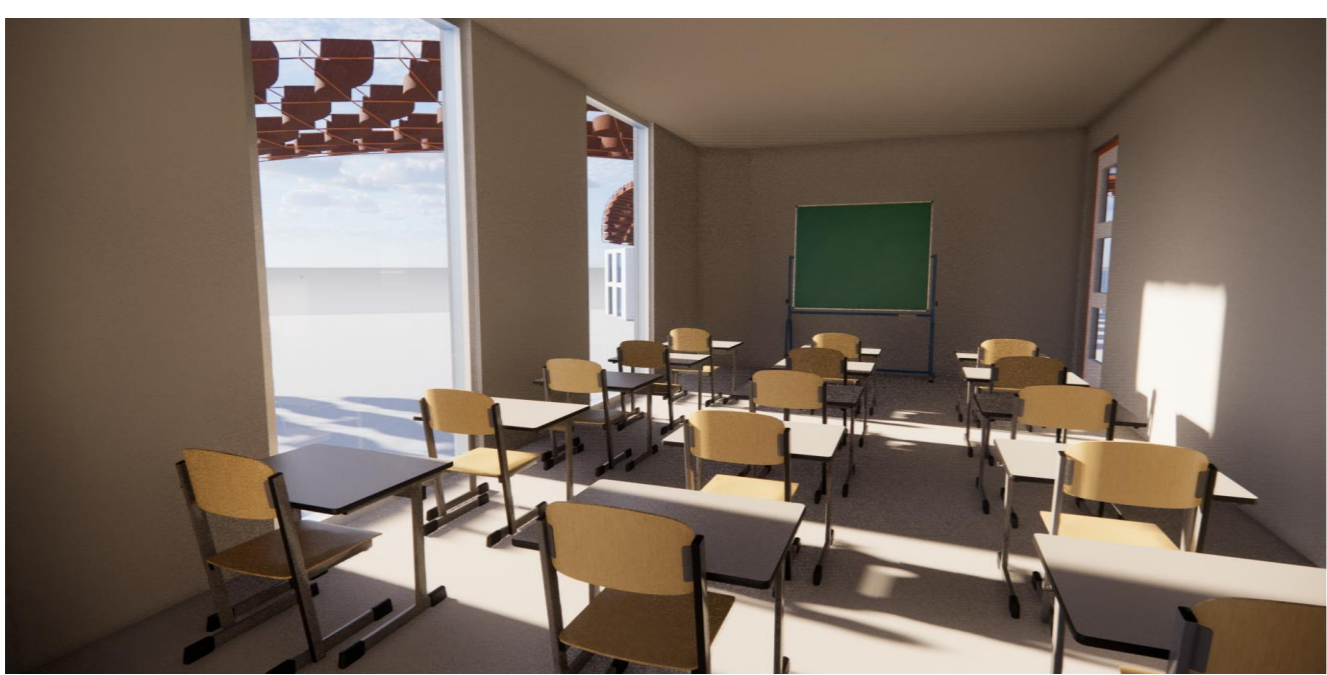
However, we would like our design to fit well together. For this reason we have chosen to use diagonals. In this way a tree trunk can be created functioning as the column. Important is the three trunk being extremely instant.



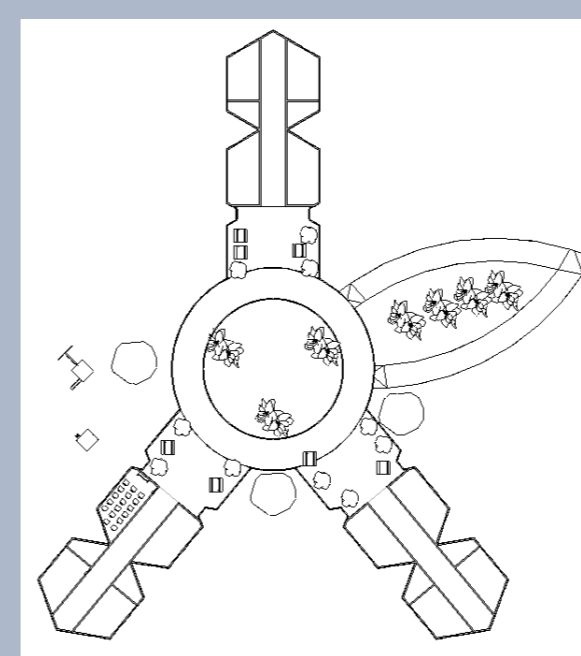
(The Tote / Serie Architects, 2013)

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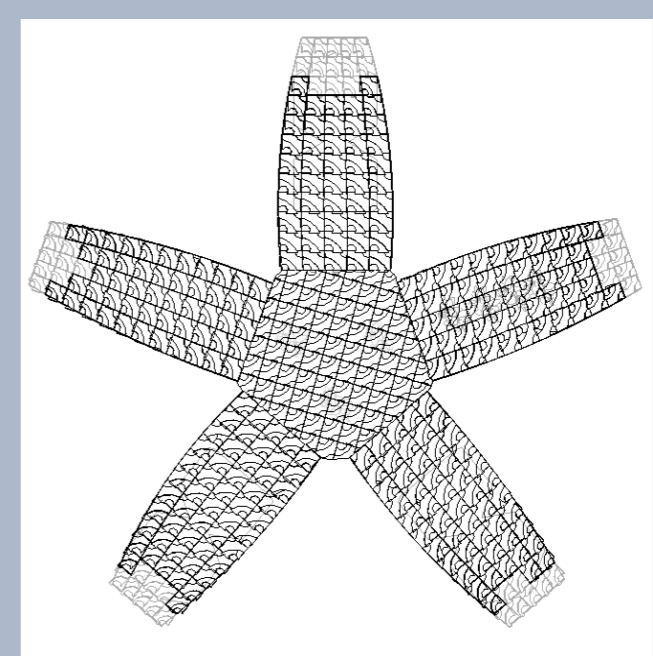
CASUS SYRIA



Ground floor



First floor



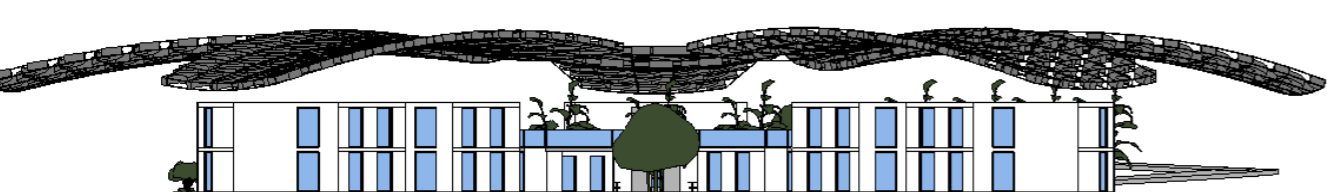
Roof



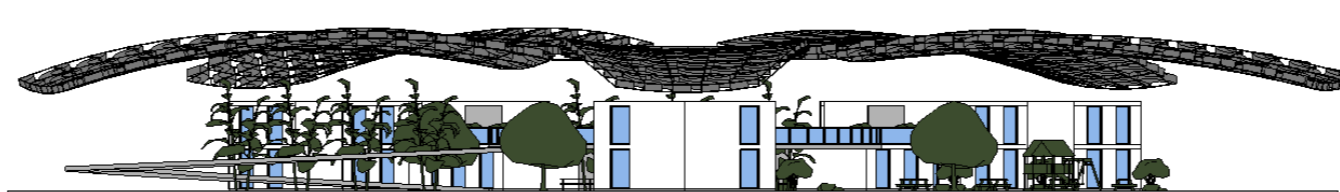
Westside



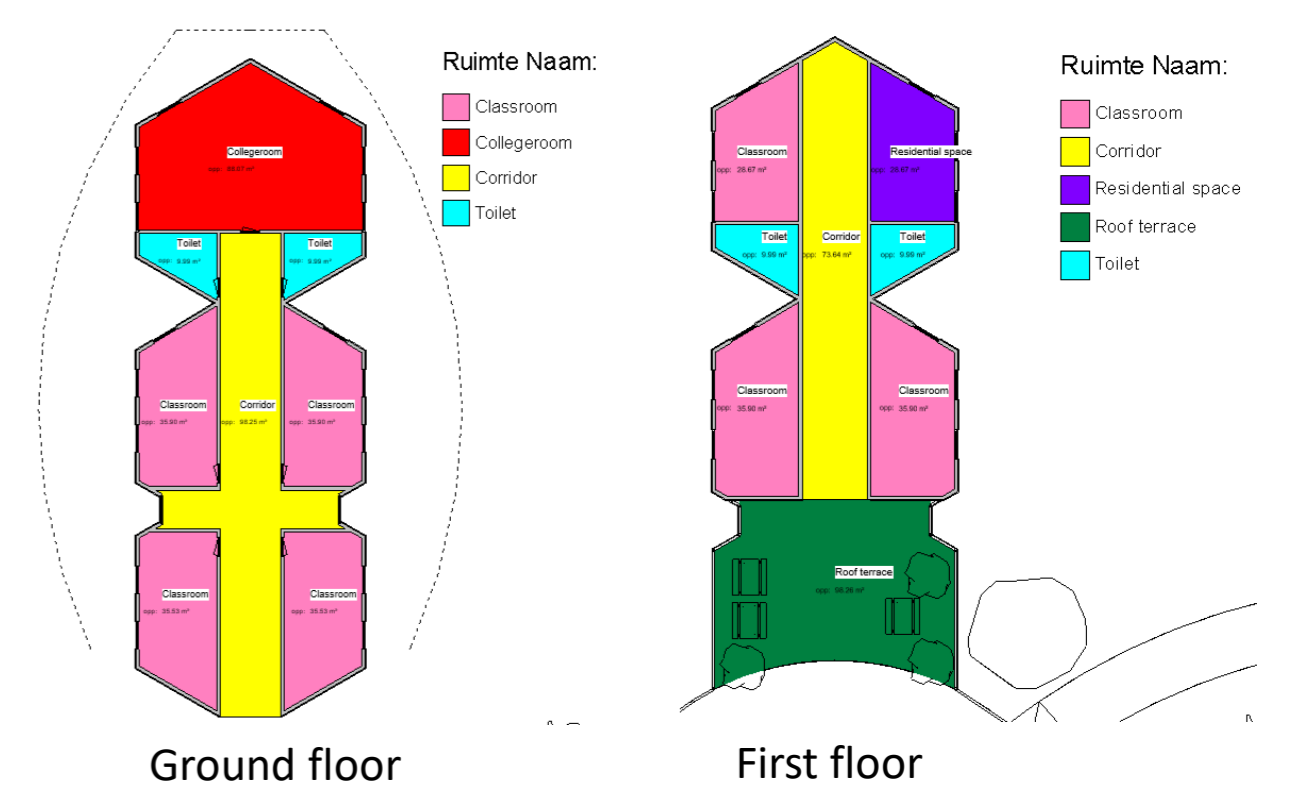
Eastside



Southside



Northside



Ground floor

First floor