

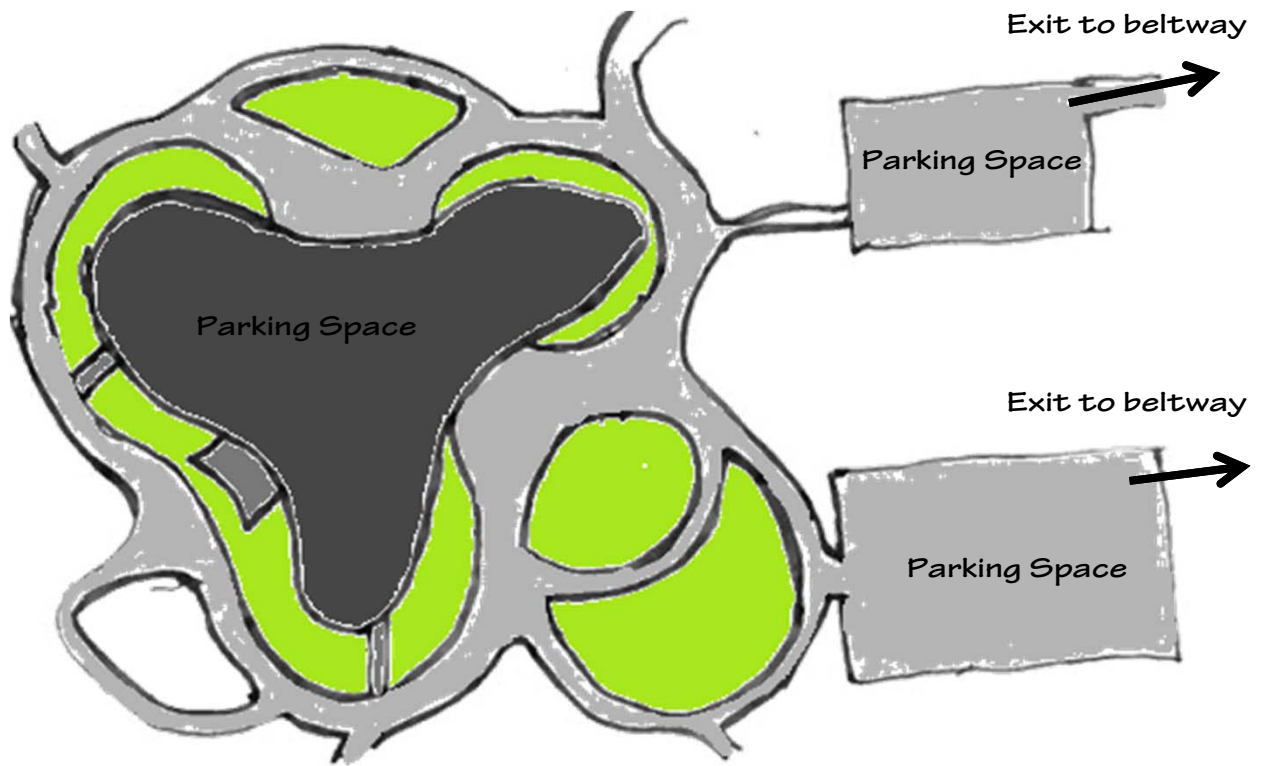
Christiaan Huygens College



Stan van Dijck
Pim van de Bunt

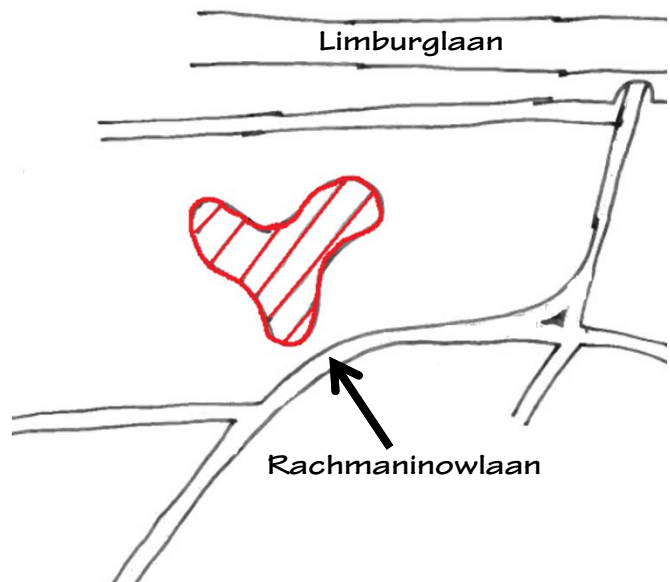
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RELATING TO THE ENVIRONMENT

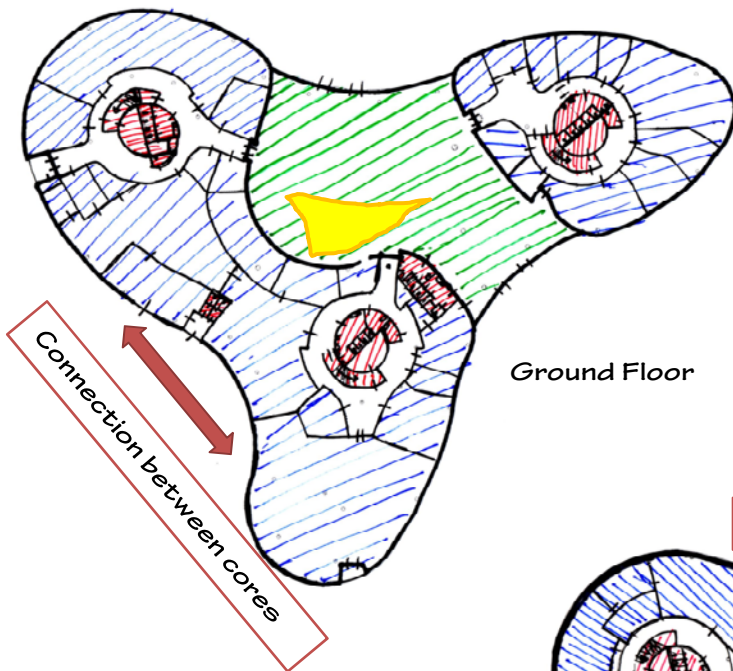


Design is integrated with the existing surroundings

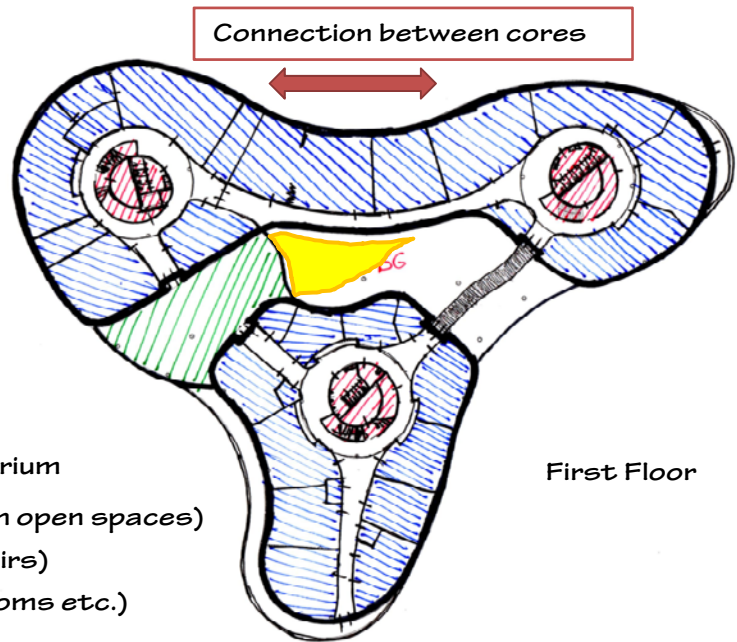
1. Bicycle road via the long lane of trees
2. Car exit next to the beltway
3. Green barrier between the old buildings in the south
4. Extra produced energy is given to surrounding buildings



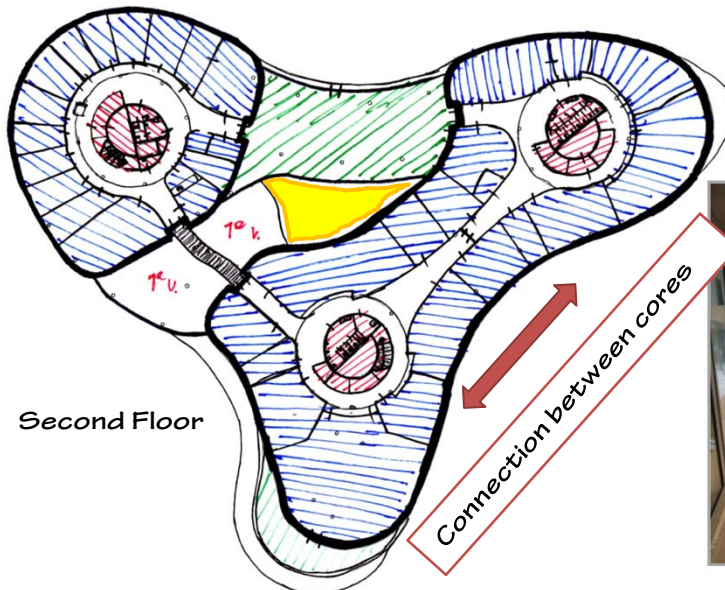
DEFINING SPACE



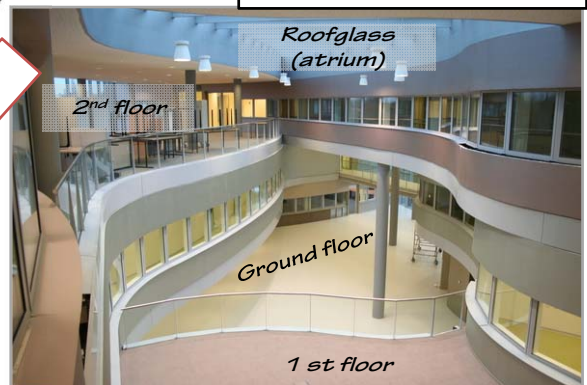
The design of the space in the building is based on the galaxy. A star is building on such a pressure that by a nuclear fusion, parts will swing out of the core.



- = Halls / Lower floors
- = Open space / Aula around atrium
- = Atrium (Connection between open spaces)
- = Cores (Lockers, Toilets, Stairs)
- = Educational Space (Classrooms etc.)



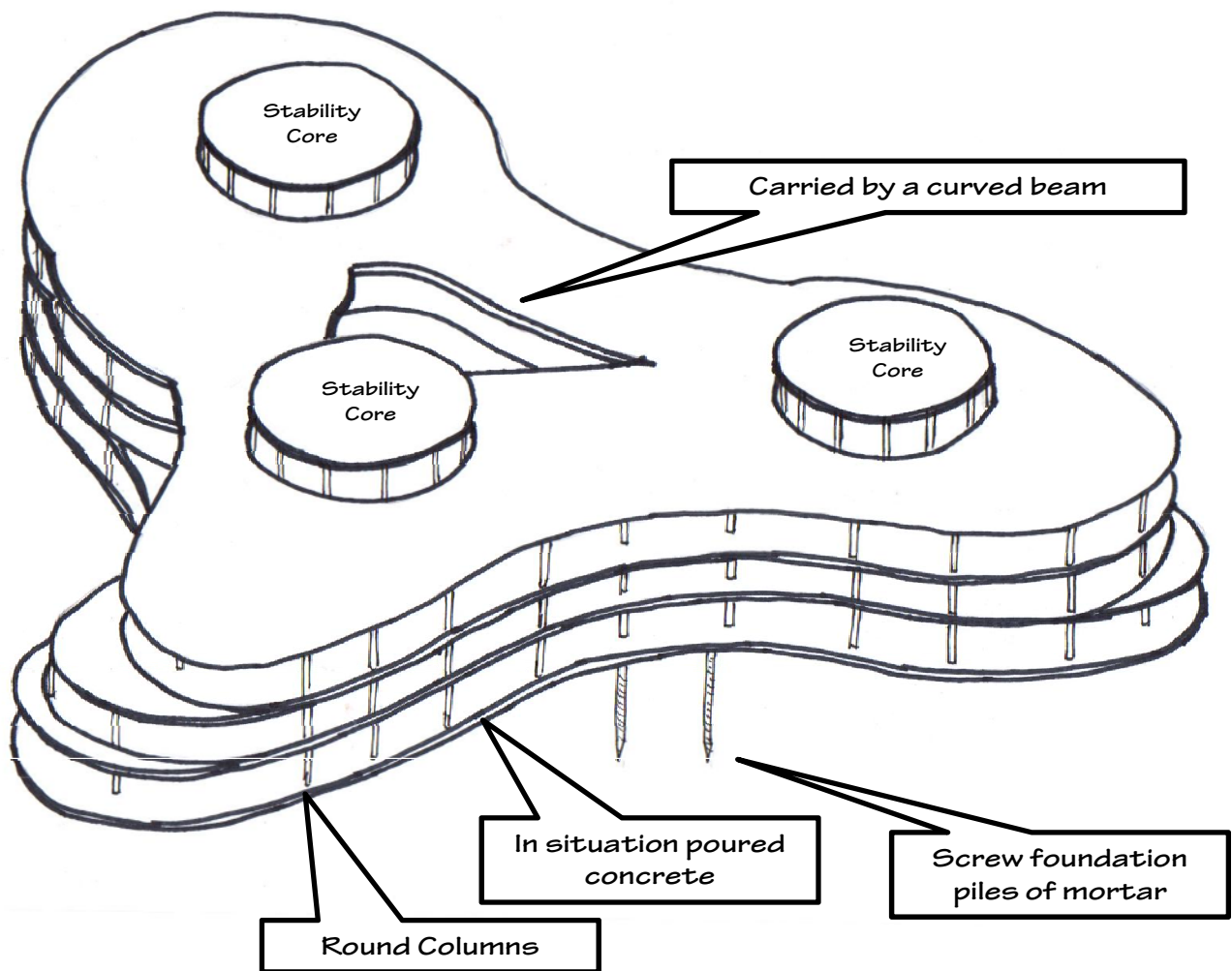
Open spaces connected to atrium



STRENGTH & STABILITY

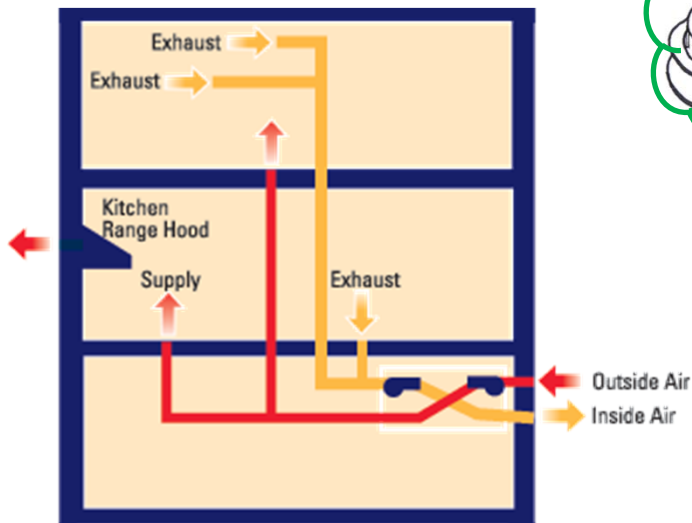
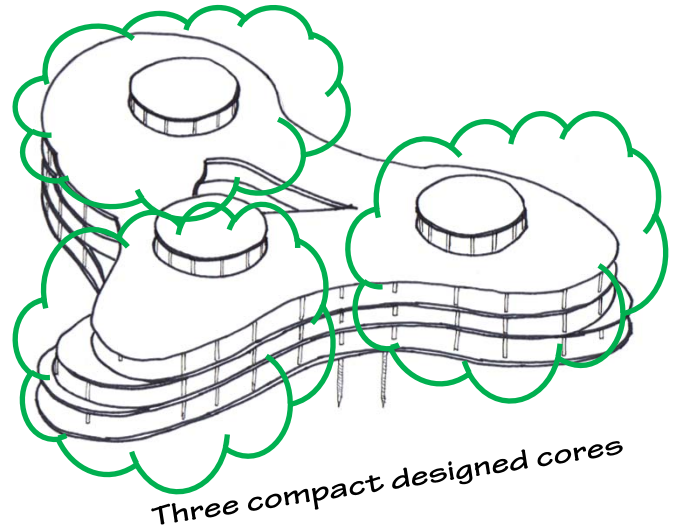
The building is built on screw piles of mortar with a in situation poured concrete ground floor. The entire construction is made of in situation poured concrete and consists mainly of solid floors carried by free placed columns and three stability cores.

The auditorium of the building is completely free of columns and the light trough the roof of glass can deeply penetrate the building.



COMFORT

The building is compact of volume, so the possibility of overheating in the summer and heat loss in the winter is very small.



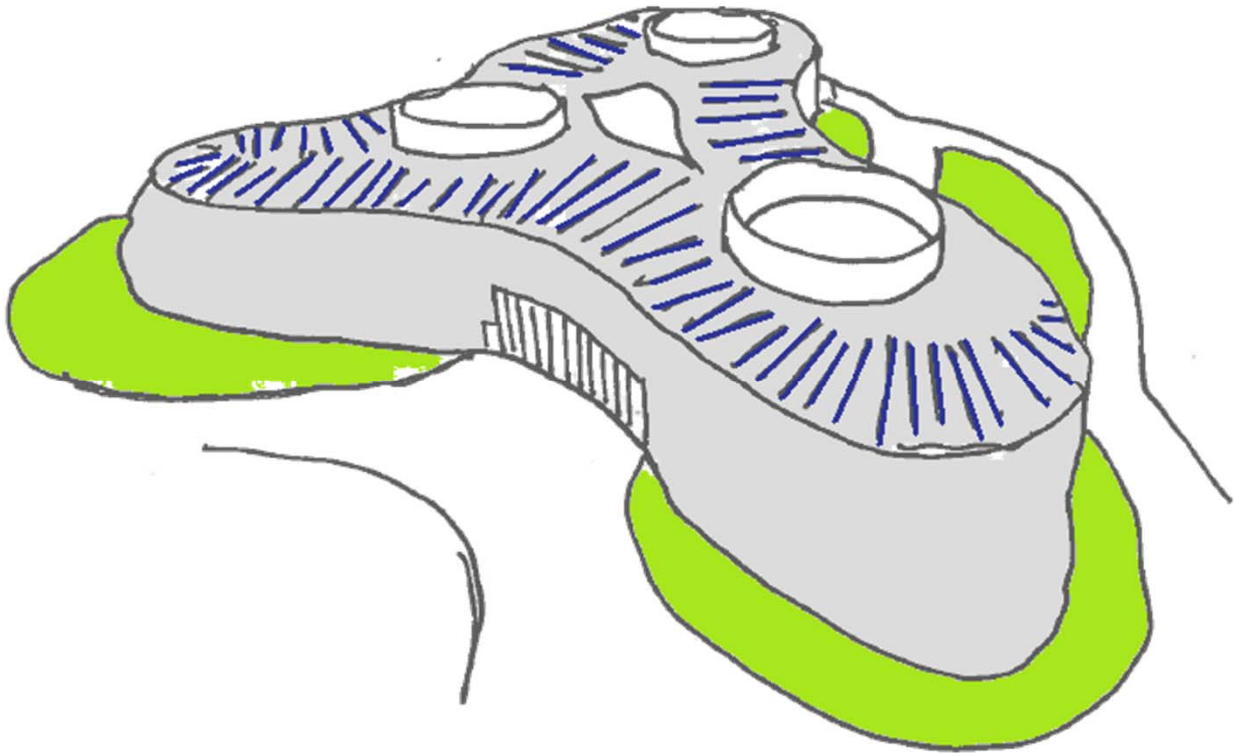
Balanced ventilation is used in the entire building

High quality isolated windows allow the interior rooms to catch a lot of light, without seeing the building getting overheated.

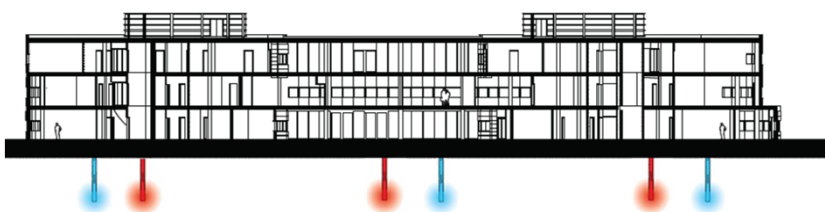


The atrium provides extra daylight and it connects all the floors, giving it an open and enjoyable work environment

EFFICIENT & EFFECTIVE USE OF MATERIAL



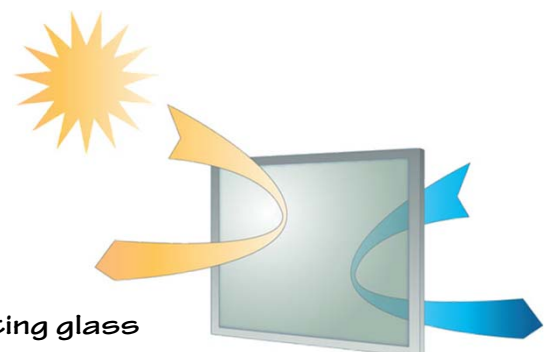
Energy roof, providing the school for sufficient electricity .



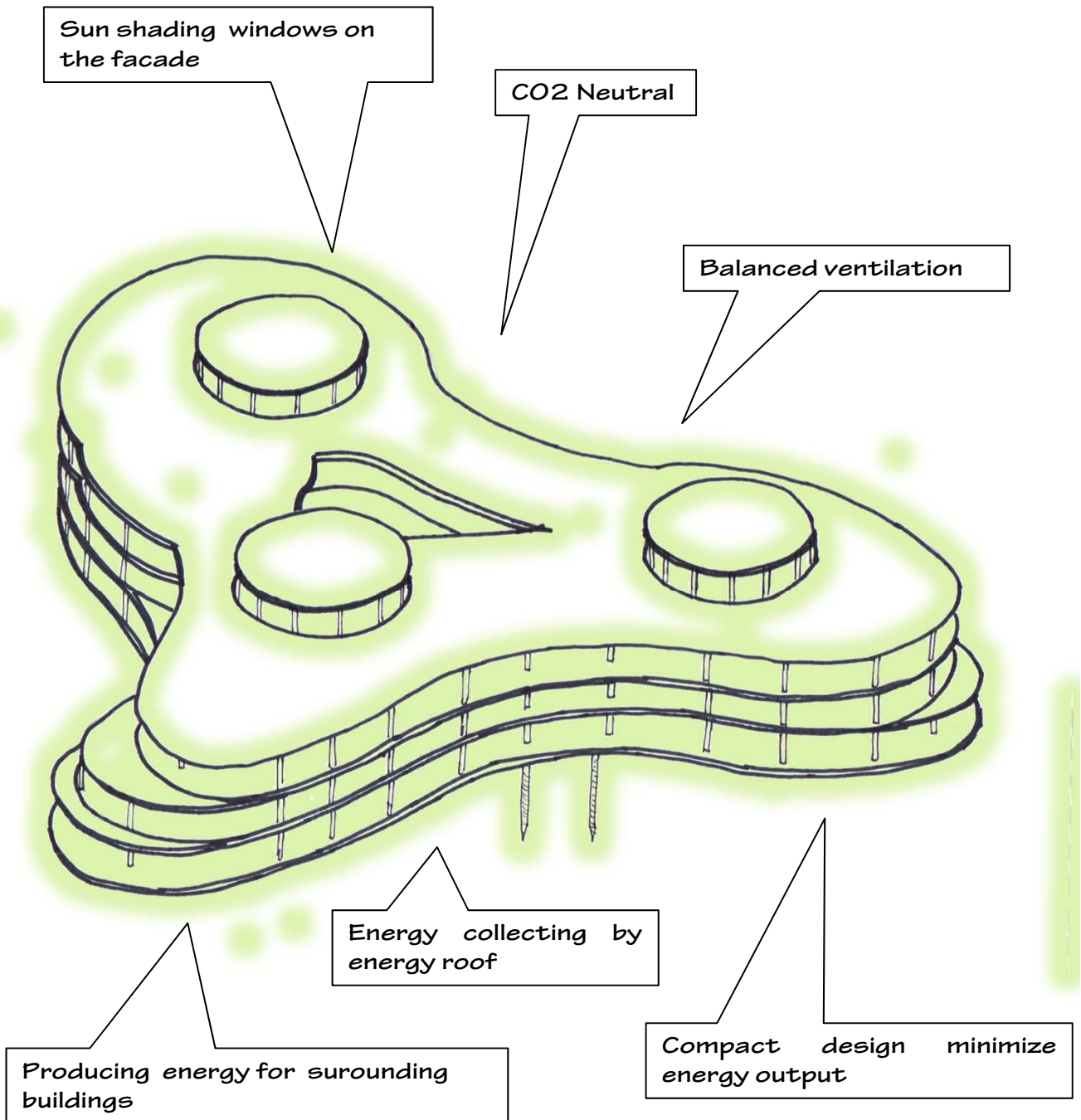
Floor heating/cooling

1. Balanced ventilation
2. Use of maintenance-free materials
3. Integration of installations in the construction

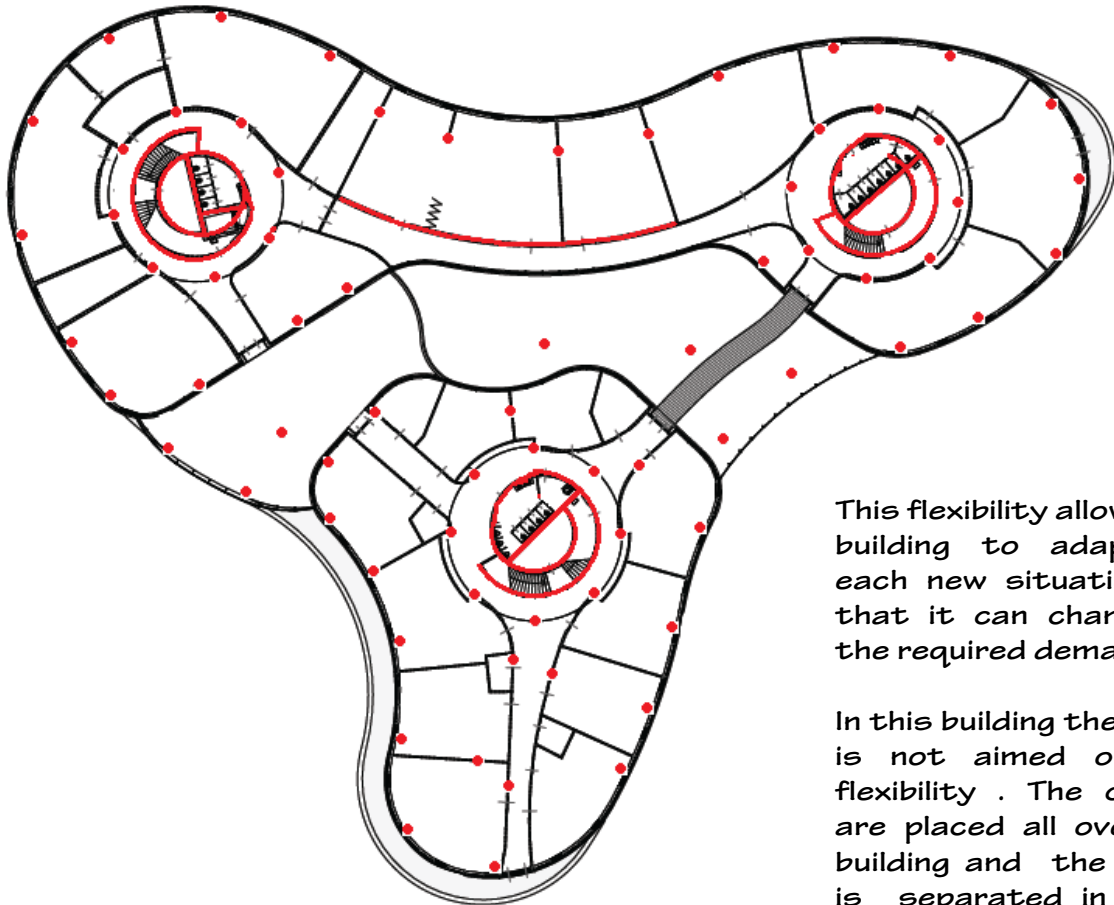
Sun averting glass



EFFICIENT & EFFECTIVE USE OF ENERGY



FLEXIBILITY & ADAPTABILITY



This flexibility allows the building to adapt to each new situation, so that it can change to the required demands.

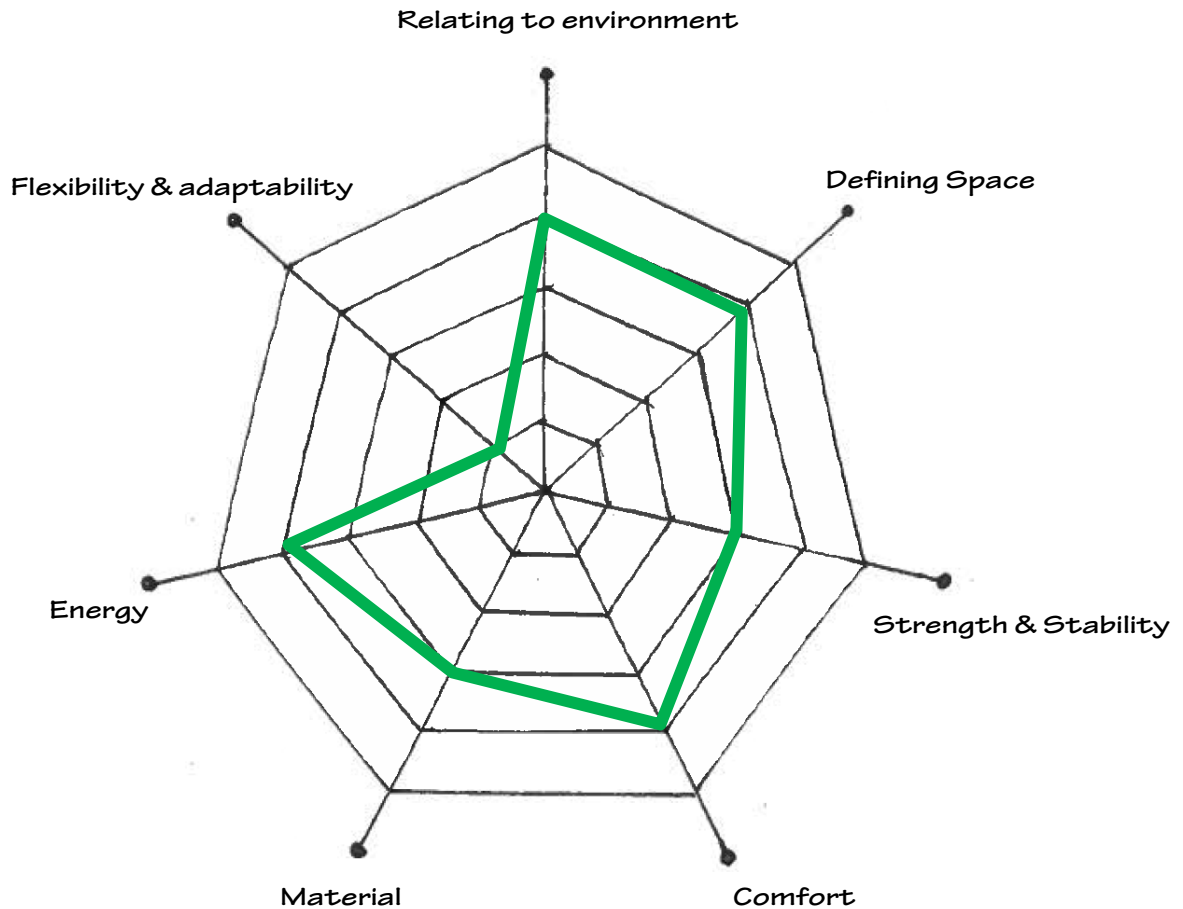
In this building the focus is not aimed on the flexibility. The columns are placed all over the building and the space is separated in round forms.



This makes it hard to adapt the building to a change of function.

The positive point of the flexibility is the application of lightweight partition walls and the column free aula in the centre of the building. This makes it possible to change the form of the rooms, as far as possible because of the column structure.

SPIDERDIAGRAM



Question:

Most of the energy is collected by the energy roof. Another way of collecting energy is by wind or water, but none of those two have been applied in this project. In any stage of the project, has there been an idea to implement another way of collecting energy?