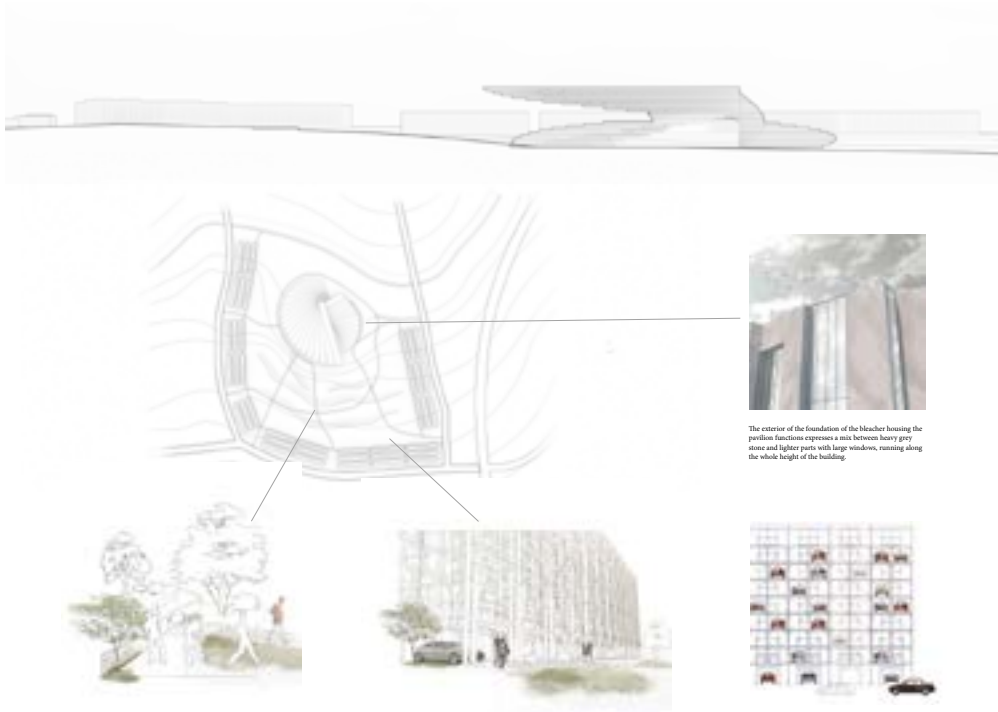




When night falls, the parking rises...

Letting the cars be the sound barrier, protect the site from the noise that occurs from themselves. Building a structure which contains mechanical car parking system, where the cars are stacked on top of each other, a smaller area of the site is needed for parking.



The exterior of the foundation of the blower housing the pavilion functions expresses a mix between heavy grey stone and lighter parts with large windows, running along the whole height of the building.



When an event is about to happen, the parking towers lifts up one by one and the site "is brought to life". Containing the car lights from outside, the car contributes to the light show in the sky. The structure will build up those protective shields around the field right before the sound protection is needed, and this will also protect the residential area in south.

No one knows how we are going to travel in the future. The height of the sound barrier is depending on today's needs, and may change over the years. A light weight structure is easily moveable and when



SURROUND



CUSTOM VIEW



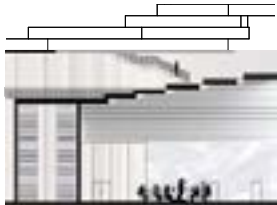
FLEXIBLE SIZE



WATER WALL



360 ° PEOPLE



When the curtains go up, the water goes down...

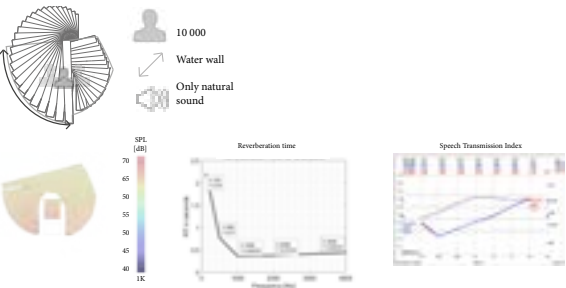
To optimize the acoustics according to the occasion for the evening, water is falling down along the edge of the roof, giving a reflective surface back to arena. At the same time, the venue adjust its size, depending on how many water walls running at the same time. This contributes to the illusion that the pavilion is custom-made for that exact amount of people. Being so close with an element brings the feeling of being in more contact with the nature and the surroundings.

A system where drainage from the ground beneath the standing crowd and including with rain water and water from the river, pumps up the water in the structure and forms a wall made of water, contributing to the needed reflections.

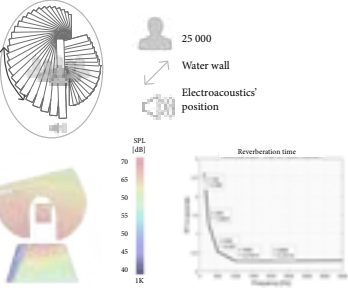
To avoid noise from the water, the water is falling down a crack and hits the bottom far beneath the ground surface.



Symphony orchestra



Pop and rock concert



Take your seats

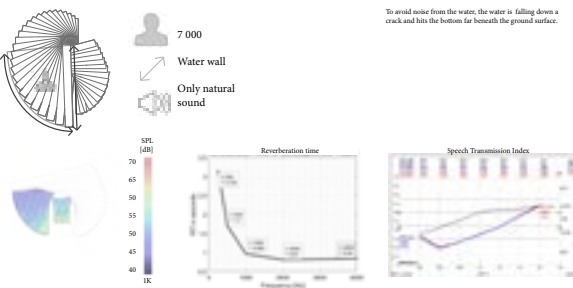
Surround is a pavilion with the purpose of bringing people together, both figuratively and literally. Allowing people to gather in all directions, besides, under and above, bring them closer, both to each other and the performance on stage.

With three different acoustical settings and spatiality, the pavilion can house both a giant festival as well as a delicate symphony. For each occasion, the pavilion adjusts its size to fit the current audience. It is created by dividing th structure with water walls, creating intimacy, better acoustics and a closeness to the nature.

To give the visitors an optimized experience, all the blower sections are directed towards the stage, giving a real sight for everyone.



Theater, opera and ballet



SURROUND

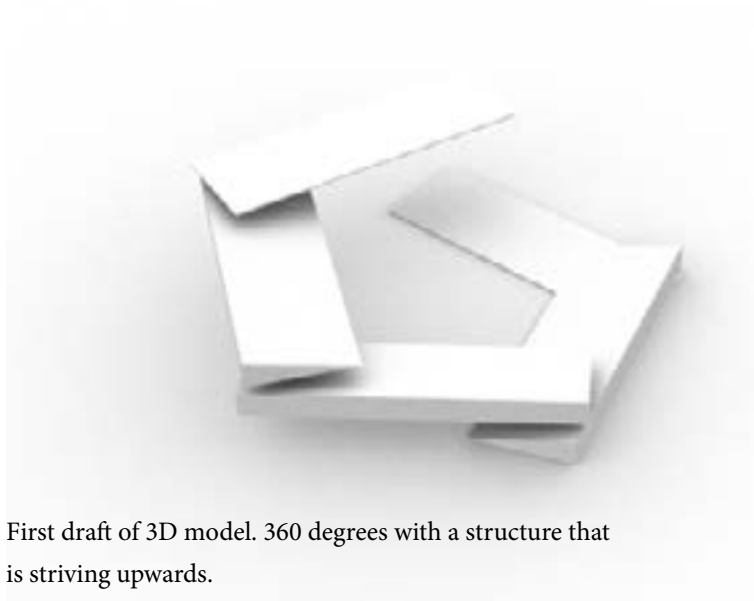
A pavilion for intimate ballets and captivating rock concerts

Course Bachelor Thesis

Year Spring 2020

Form Together with Anna Högberg and Piyush Annigeri (acoustics)

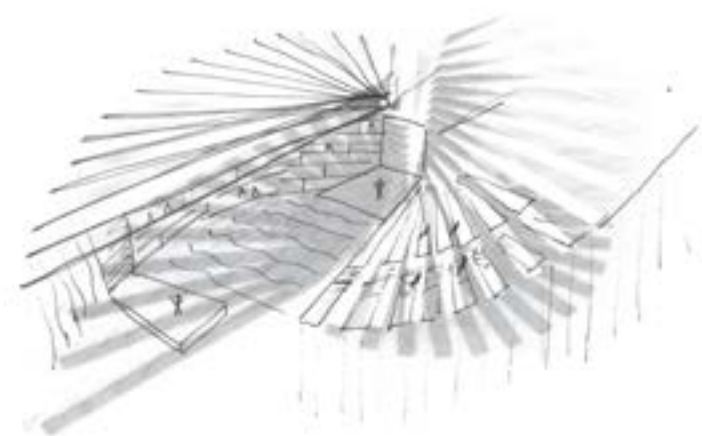
Teachers Peter Christensson, Morten Lund, Wolfgang Kropp



First draft of 3D model. 360 degrees with a structure that is striving upwards.



Second draft. An idea of roof that is to cover 5000 people.



Development. Idea with water wall and thoughts on where people will be seated and where the stage(s) can be located.

METHODOLOGY

The design process were following a schedule with different focus areas for each period. This made the foundation for the development of the architectural proposal.

Sound and distance / Spatial concepts

To understand the concept of sound travelling and distances.

Quickly draw some spatial concepts over three very different areas in Gothenburg to get the creativity going, keeping an unprejudiced and open mind.

Spatial design

What is important to us?

The concert experience - getting closer together

The idea of a pavillion - the spiral

Integrated prototypes

What kind of feature in our pavilion is gonna help to achieve the right acoustics?

Water wall

Parking wall

Competition narratives

Make the design proposal come together as a whole.

Because of the advanced geometry of our pavilion, we ended up sketching a lot in Rhino and Grasshopper, which was new to me. The structure had to be thought of in 3D, which made sketching by hand, as I normally do, not so productive. It also complicated the otherwise so efficient and valuable interaction of a physical model.

The multiple deadlines and gallery critiques along the design process made us always keeping the overall concept in mind and to keep us on the right track. It also forced us to produce and update presentation material a lot of times, which I believe was a major advantage in the period right before the final deadline, a lot of material were already thought through and could just be updated with some final touches. Going back and forth between larger and smaller scale, felt like a productive plan to not get stuck at one specific problem, and to always keep the bigger picture in mind.

EARLY SKETCHES

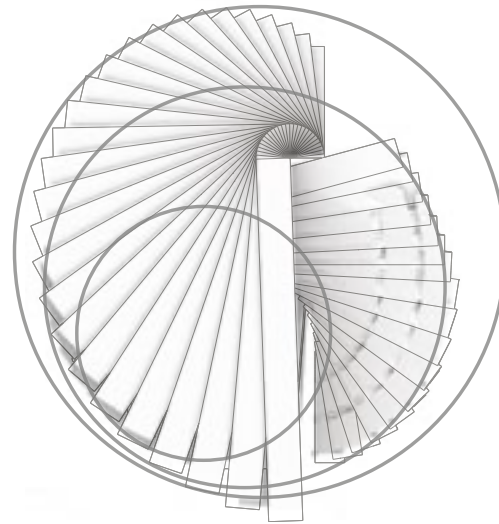
The importance of clear sight for every single visitor. To get closer to the performer is to be more involved, more engaged with the event. We hear what we see. The realization that we needed to reduce the radius of the audience area was a crucial design necessity and that led to the conclusion that we needed to build upwards. And we required people striving in all directions, almost 360 degrees around the stage. It was important to us that a venue with so diverse amount of people at different occasions would be flexible and feel like the appropriate size at the specific time.



CUSTOM VIEW



WATER WALL



FLEXIBLE SIZE



360 ° PEOPLE

RESULTING CONCEPTS

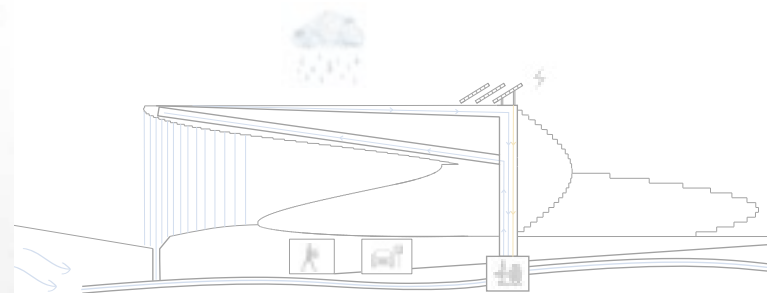
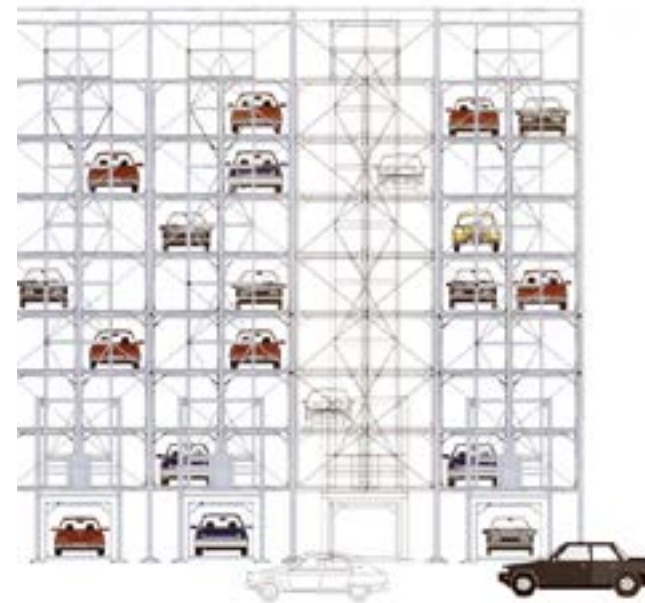
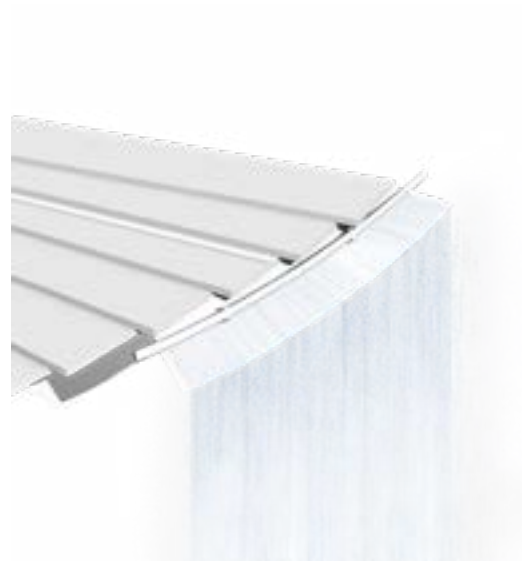
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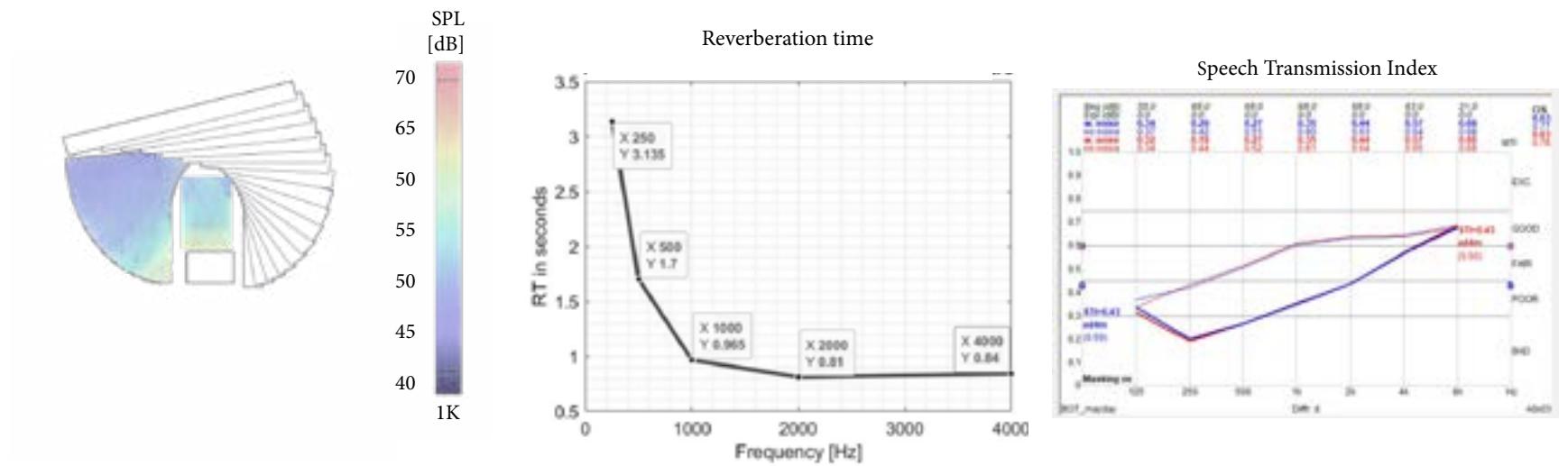
It is created by dividing the structure with water walls, creating intimacy, better acoustics and a closeness to the nature.

To give the visitors an optimized experience, all the bleacher sections are directed towards the stage, giving a free sight for everyone.

INTEGRATED PROTOTYPES



Theater, opera and ballet

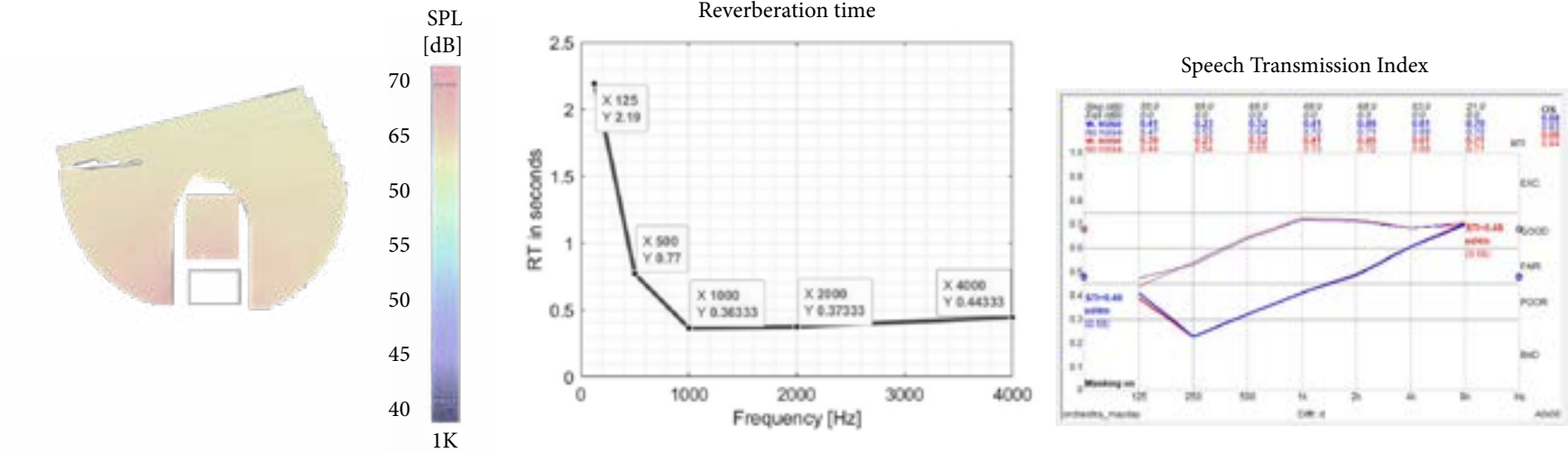


INTERDISCIPLINARY COLLABORATION

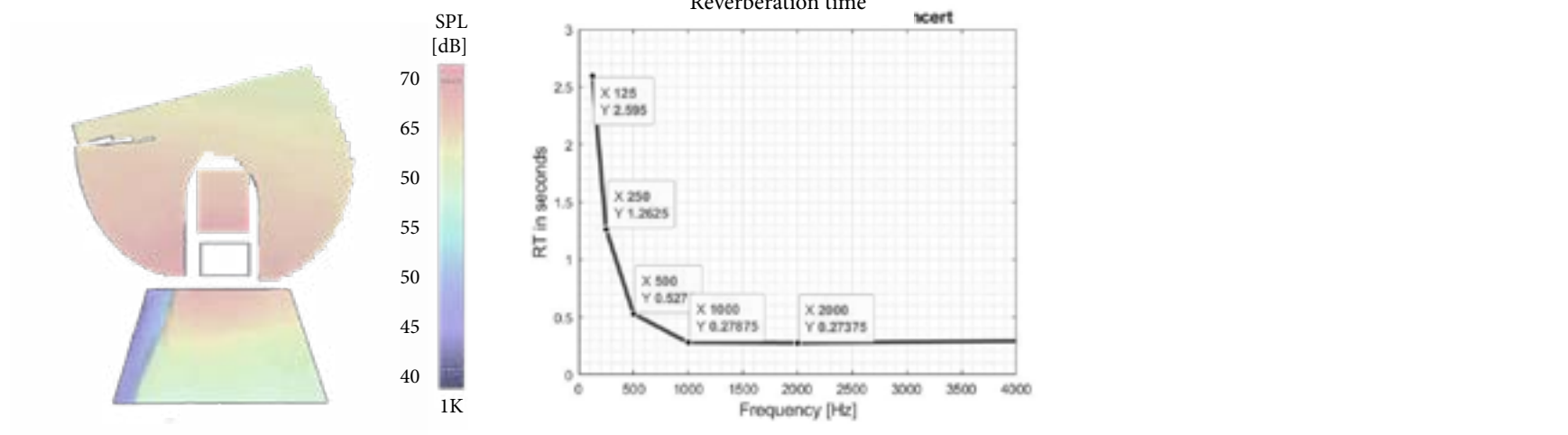
Being able to collaborate with a colleague from a totally different discipline was an interesting contribution to the design process. To have an outside point of view in terms of changing geometries according to something that has nothing or little to do with the aesthetics or the obvious function of a project felt closer to how it works in the real world. Also, this forced us to argue for our ideas for someone who is not so familiar with our field.

Here, I wish we had pushed for even more collaboration and inputs to our design, to reinforce some design decisions in the process, to have more backup and leverage for them. I will bring the acoustic knowledge with me in further projects, being aware that it is something that can be adjusted in an early stage of the project for better outcome.

Symphony orchestra



Pop and rock concert





QUALITIES

The concept with the water wall had several challenges coming along with it, some of them were solved and some were left to investigate. The acoustic concept of it, with changing the reverberation time accordingly to the activity on stage were very satisfying to achieve. We also feel that it met the aesthetic purpose of being an enclosing feature of the audience. Also, making the parking area work as a noise barrier starting of as an improbable idea, ending up working as we wanted and, as well as being a somewhat philosophical appealing concept. In the end, the pavilion fulfilled its aim and it coincided with our vision and concept. Still, the design could have been refined by being considered one more time, making an even more elegant structure supported by structural thinking and balance between the elements.

I wish more time would have been put on the overall site plan and the area around the pavilion, to make it more in contact with its surroundings and tell that story a bit more thorough. There were some very intriguing outside rooms and enclosures from the overhanging structure that would have been interesting to investigate. Also; the water wall could have been more developed and solved in more detail in order to achieve a more convincing prototype.