

THE COURTYARD

Master project
Inspace 2012
Åsa Agerstam

ABSTRACT

I am designing an architectural structure for my courtyard that will research the sites, in my opinion forgotten architectural potential. In showing this, my aim is that the inhabitants will get a unique architectural experience. My apartment is situated in the corner of Drottninggatan/Wallingatan in Stockholm.

The aim of the project is to show a new scenario for my courtyard and to solve the site specific problems that I am faced with. But it is equally a research into a material and a method of designing.

The structure is born from a need of an addition to Wallingatan 10, but the principal of it can be applied elsewhere. I am working with the meeting of the facades of the building as a blank canvas where I put my mark. I have made practical research about surfaces in various material ending up in working with shrink plastic. It's an industrial product that I work with in the same manner as a craftsman would work with clay or glass, questioning the nature of what's considered craft.

It is important to recognize that the piece does not only function as a gathering point for the residents, but wants to add attention to the specific site qualities were its placed. This finger-pointing to a "problem", in this case an architectural phenomenon that is overlooked or considered trivial, is something that I think is a part of my work description as a designer. Make statements that can be eye-opening for other people.

BACKGROUND

- ▼ Sense of loss
- ▼ The claiming
- ▼ "Vacant primarily means empty, but also free and therefor full of opportunity"

Bernard Secchi

My apartment is situated in the corner of Wallingatan/Drottningatan. When I first saw the courtyard of the house I just moved into, I was captured by the image. It looked nothing like places I've lived before, or even other courtyards in Stockholm that I've visited. There was an absence of something, a gap to fill. It was not only the presence of people that was missing, but the actual site was insufficient by itself. In other cities I've visited, like Berlin for example, there seem to be a different approach in how you treat these vacant



places, claiming them for a happening, exhibition or whatever.
You can interpret them the way you want.

According to architect Bernardo Secchi,¹ an urban void can be considered as introverted desolation, a sense of loss. On the other hand, the concept can also be interpreted positively: "Vacant primarily means empty, but also free and therefor full of opportunity". I am taking this approach, and claiming my backyard.

PURPOSE AND LIMITATIONS

► Need

► Potential

The project is born from a will/need to transform the courtyard at Wallingatan 10 into something people will use. My goal with the project is for the courtyard to be a "test ground" for my design and to show the potential of a derelict site.

In this project, I am also giving myself the freedom of working with materials that might be unconventional from an architectural point of view. It's a way of letting go of my own beliefs and assumptions about materials and their possible functions.



I have primarily worked with an addition in the form of a roof and sitting opportunity to one of the three houses, although I have taken into consideration of how the rest of the site is affected by this addition.

I have on purpose excluded my landlord from the process, to retain the freedom of my own brief. I have also to this point, kept the inhabitants outside my design process. Although, I think co-designing and community projects can be an interesting and approach, there was simply no room for that without competing with my intended agenda.

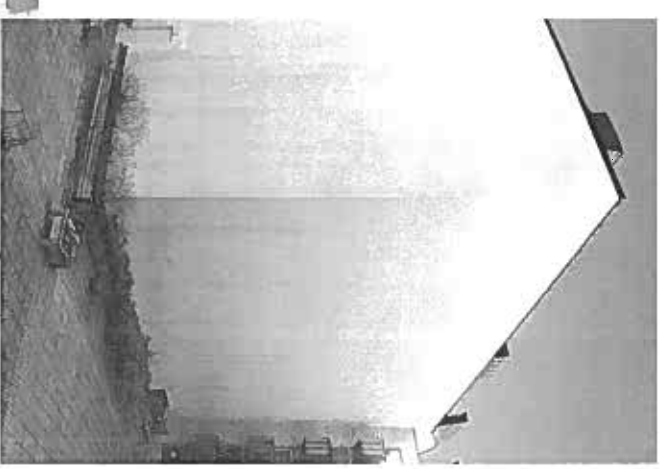
METHOD

► 1: Site study

► 2: Design process

I see this project from two points of view. The first one being a site study and the second one is about my own design process. The methods I've used for the first part includes a site analyze, done by frequent visits, writing descriptive texts, looking at plans and a long process of model making of the site. It has been both an objective mapping and a subjective dissection based on my own experience of the room.

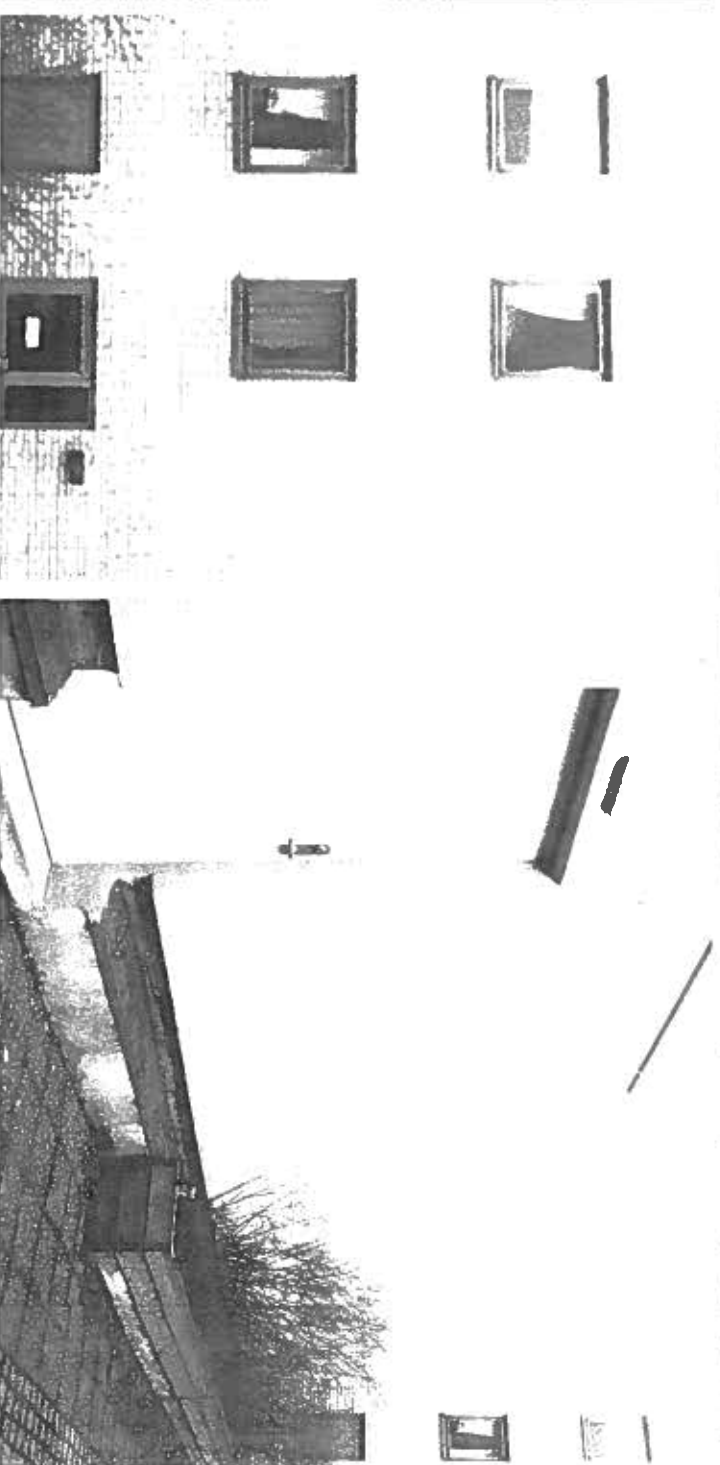
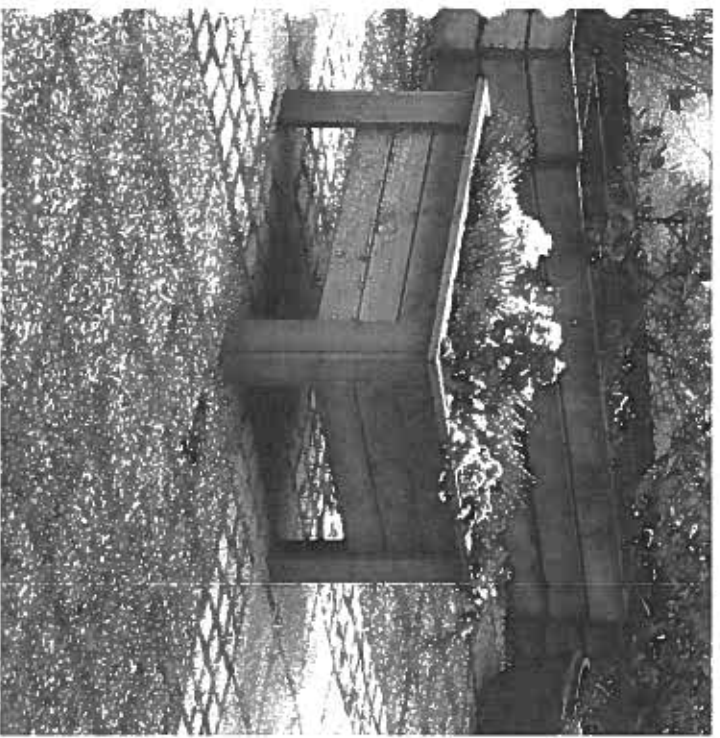
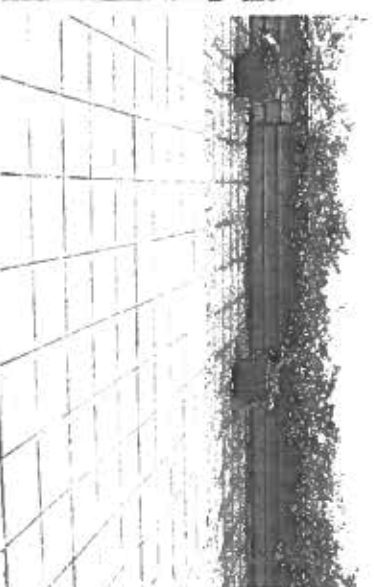
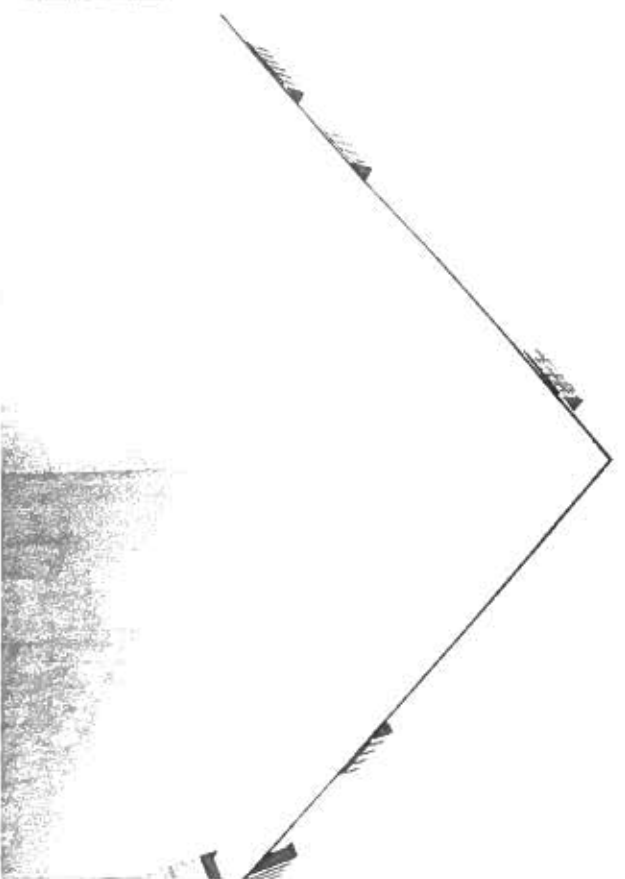
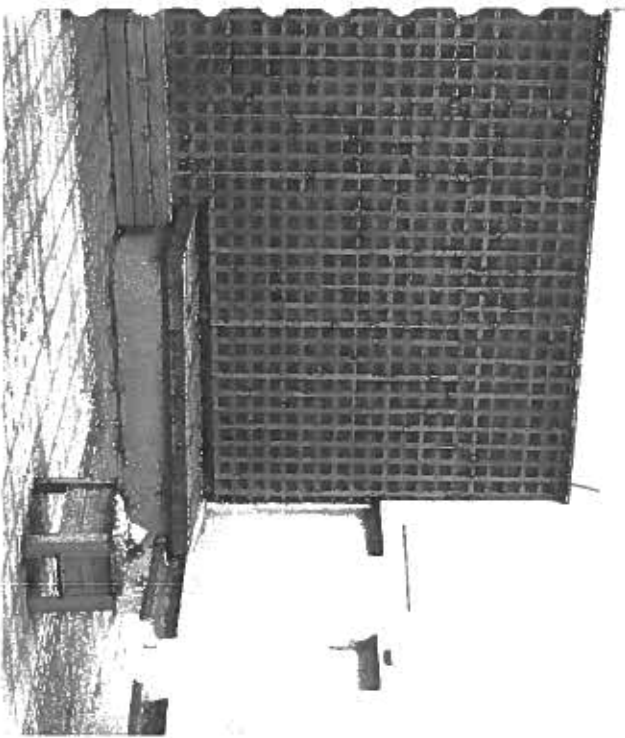
The second part is about what my addition should be. This is of course connected to the first part, but also very much free standing. It is about searching for a design method that can be applied to the site. Key words I have returned to during this process is "instant" and "hands on".



SITE STUDY

The house where I live on Wallingatan 10 is built in 1970, designed by architect by Sten Ramel.² The courtyard measures about one hundred and fifty square meters. It is surrounded by three large buildings and one fence. The two major ones, taking most of the attention and very much defining the space, are facing each other. They both are lacking windows. There is a two point five meter fence connecting them, sealing this space off from the neighbor's courtyard. I have no perception of the space behind the fence. The courtyard functions as a gated area in two ways: Sealed off from the street and only possible to access through stairwell with keys, and isolated from the courtyard next to it, through a visible boarder.







THE FACADE



FACADE= beard, bluff, color, disguise, exterior, fake, false front, front, frontage, guise, look, mask, phony, pretense, put-on, semblance, show, veneer.

At the same time, it is a representation, a face. "Hold up a facade", means not to reveal anything. As a protection, a shield.

It is also the part of the building that meets the viewer and is a part of a bigger room where it is located. They are the face of the building, where you enter. This means that the facade has a relationship both to the building it belongs to, but also to its surroundings.

I'm not sure if these buildings have facades in a traditional sense. They seem to be carved from one piece, as monoliths. It is characterized by density and solidity. The massive closedness sets definite boundaries between inside and outside. The monolithic facade clearly shows its role as a supporting and shielding wall, the wall is inseparable from the building. The monolithic facade IS the building, emphasizing its mass.

Without any windows or openings, they seem to be sucked out of them, and with its closedness, it encapsulates itself towards the surroundings. There is no surface to which the eye can cling to.

ACTIVATING THE FACADE

In understanding the different components of the site, I decided to deconstruct it, and make close up studies of the facade and the base as two factors independent from the context.

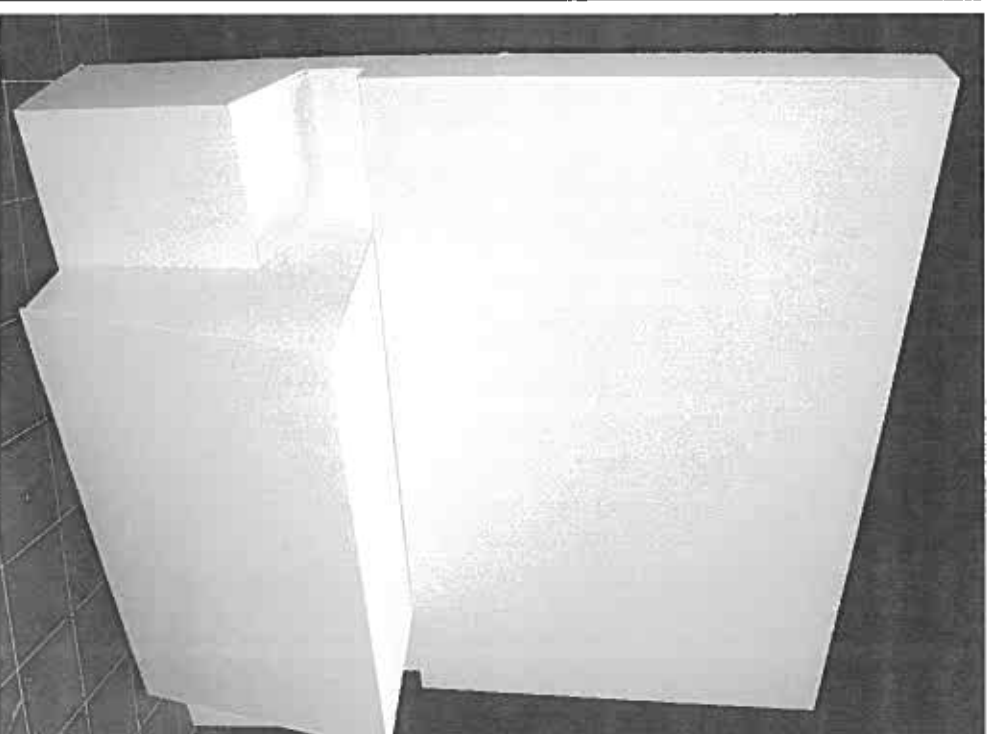
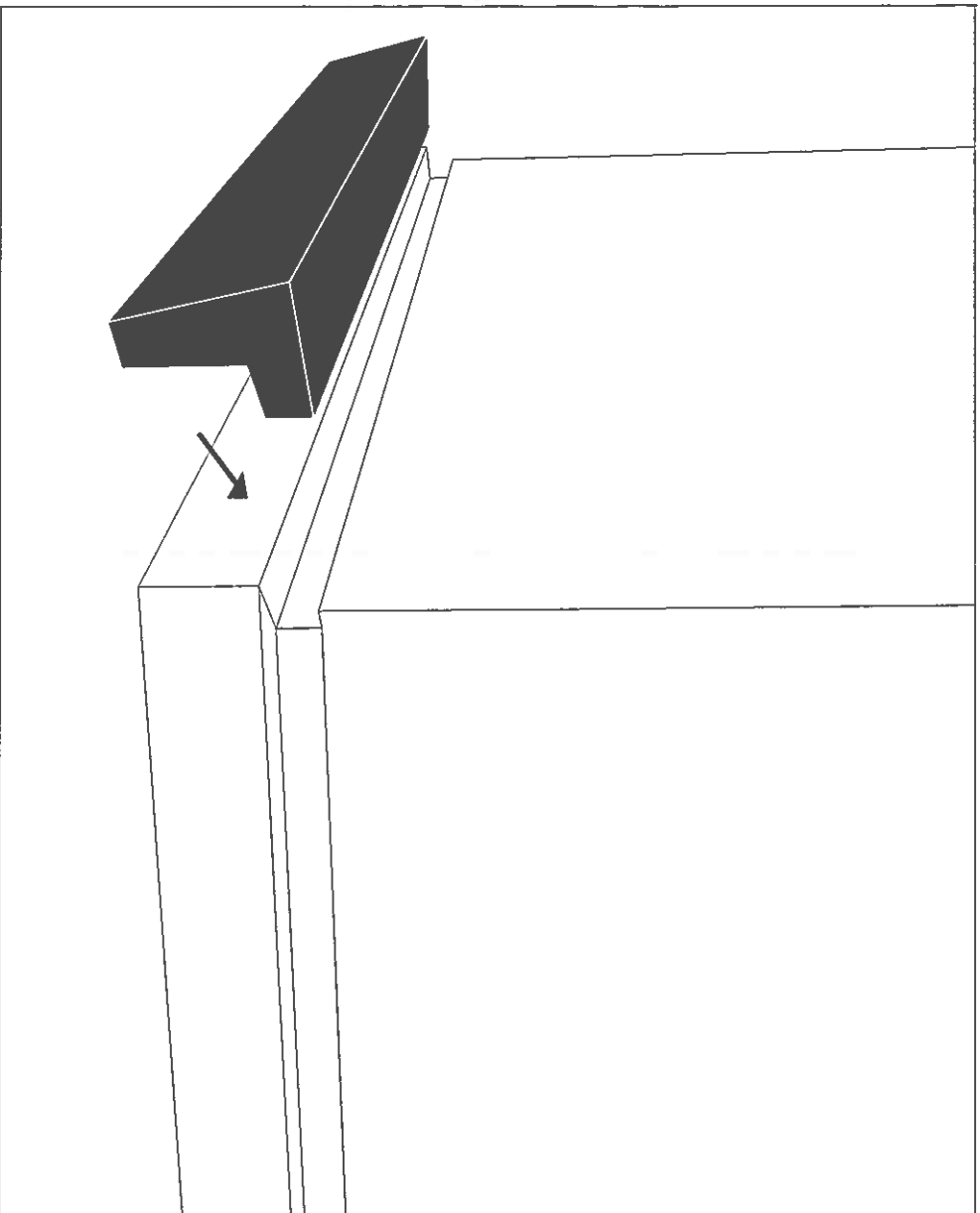
A facade has many functional qualities that can be attributed to it; it's a protection against wind, sun, rain and heat. It can be seen as a purely technical matter, which separates and acts as a room-forming component and as a symbol carrier. The façade is a boundary element between inside and outside and marks the building's inner world.

The second part was to enlarge was the base. I wanted the addition I was making and the building to communicate, have an exchange.

Jan Gehl's is a Danish architect, and his most famous book is "In between buildings". There, he talks about human behavior in the public life and how the facade is an important factor in public space. How people seek to facade for rest and socializing, a place for lingering.

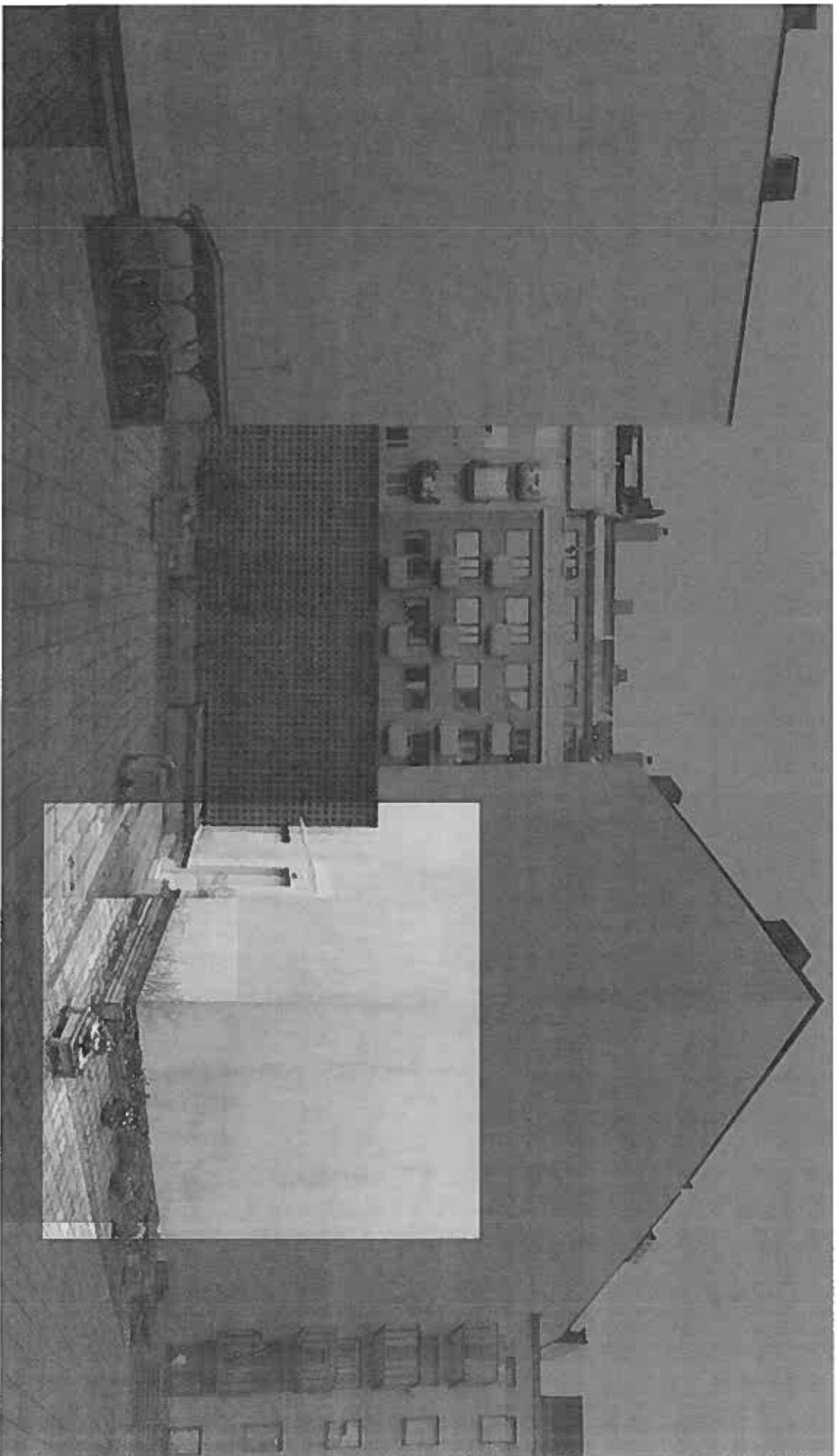
I took up this approach, the idea of having your back against the facade, as a starting point for an idea about a sitting opportunity.





The bench is being supported and held up by the facade, making the building an active participant in the form giving of a furniture. An encounter with the building.

WHAT AM I ESTHETICALLY ATTRACTED
TO / PROVOKED BY IN THE SPACE? HOW
CAN I INTENSIFY / DECREASE IT?



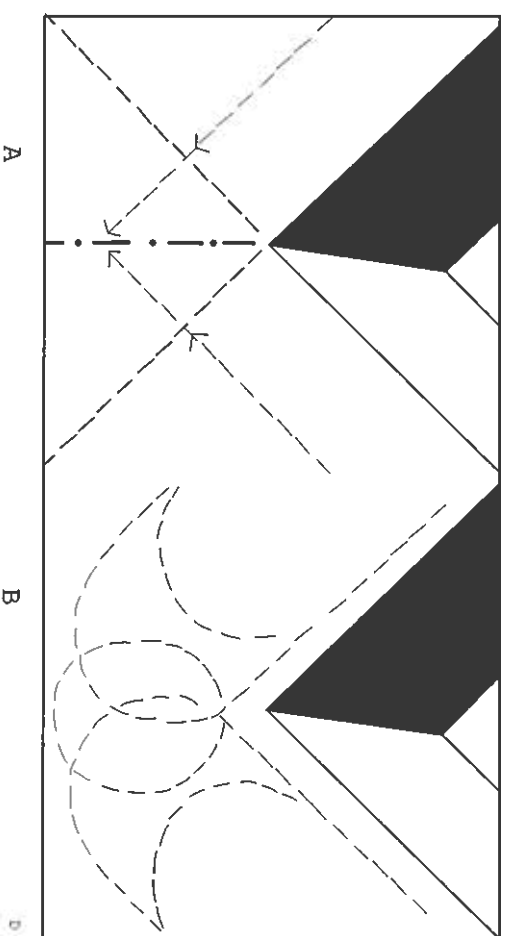
These were two leading questions when continuing the work.

"Architecturally, the corner is about two meeting facades having a dialogue.

Anyone who approaches a corner by its axis has a tangible sense of how the sharp edge of the corner cuts the room into two.

Image A and B are images from architect and professor Fredrik Wulz's book "Fasaderna och stadsrummet"⁶ and explains a theory about corner and the spatial, possible situations that can occur by a corner. The concrete axis functions as a point that can only be passed through a circular movement and you get these areas around the corner that is influenced by it.

Architecturally, I am fetched to the corner in the courtyard because of it is a strong feature and has dramatic qualities. I want to magnify the meaning of it, use the sharpness of the angles and the meeting between two facades. Something that unifies.



IMAGINARY ROOMS

A room is not just a container of some sort. The room is not defined by

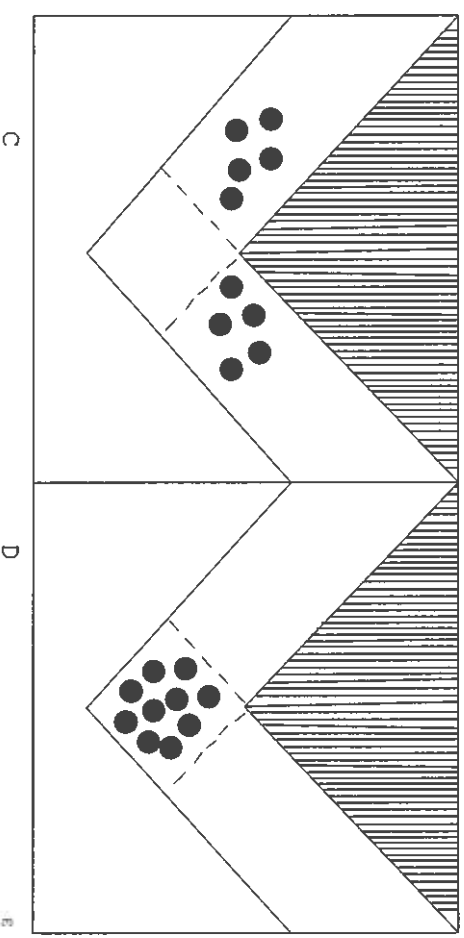
the utility, since not all rooms serve a practical purpose. The room represents

more than to be a protected enclosure. It may also encapsulate ,be inviting or exclude, be open or full of taboos. The room has a definite place in life, and as an idea, it shows itself in one concrete and in one imaginary form.

Picture C and D is about how corners can create these imaginary rooms taken from the same book. This is a quote from it:

"The overlap constitutes an imaginary room that doesn't belong to itself but is part of the two streets. That does not mean that this serving room can't be made autonomously by marking the intersection as a special room in which the junction adopts an organizing position"⁸

Applying these principals to my courtyard, I thought that the corner would be the spot to intensify. I think it's more efficient to make one big gesture than several small ones.



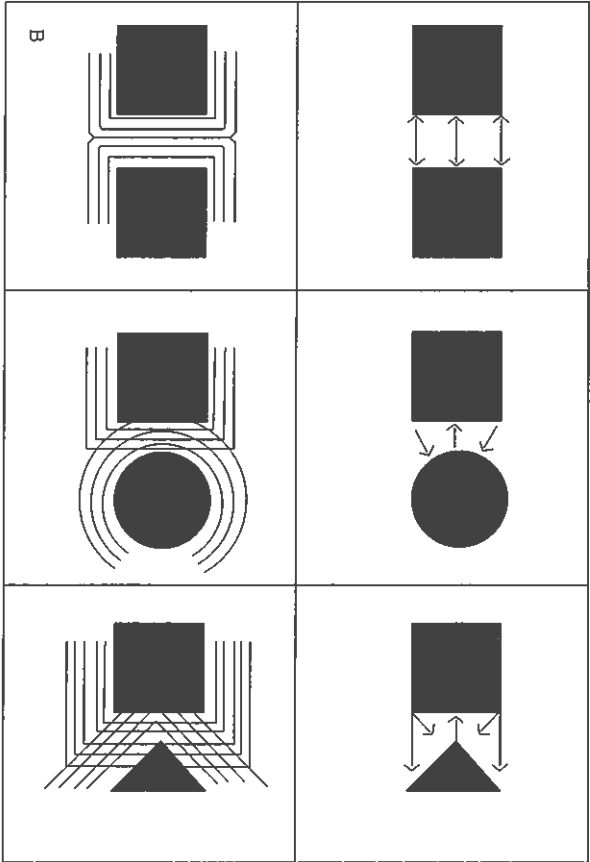
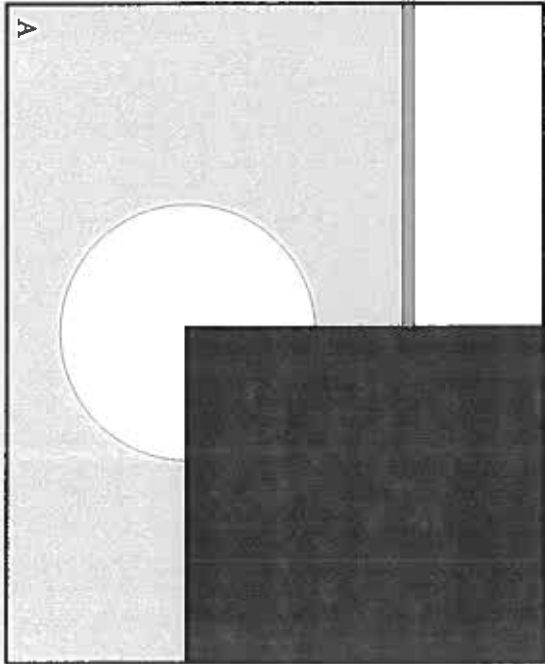
The corners imaginary room:

C+D the intensive imaginary room



THE COLLISION

The concrete axis functions as point that can only be passed through a circular movement. This operation means that the figure system of the spheres is confronted by the figure system of the square. When combining these movements, the circle and square, an interesting collision appears. Circumcling the corner is a powerful gesture and gives a new dynamic to the site. I decided to give the idea a try in a 3d program.

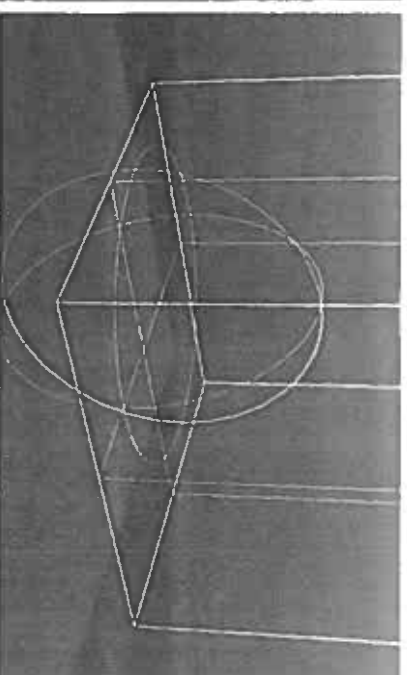
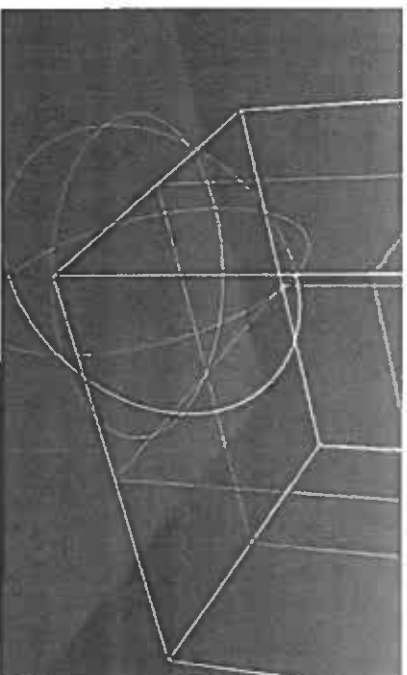
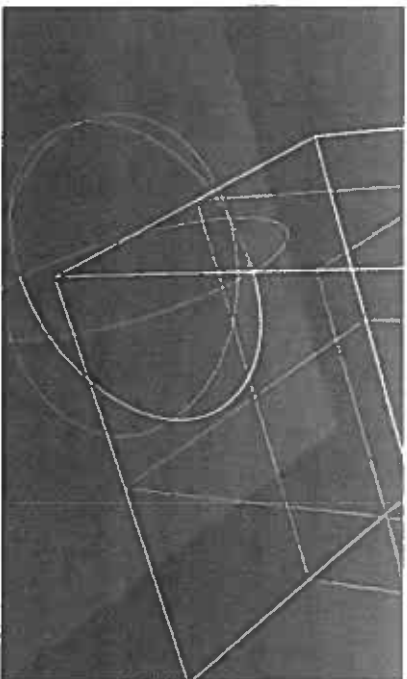
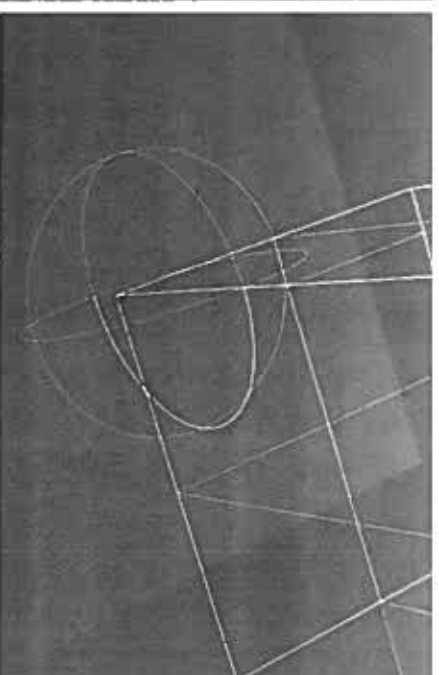
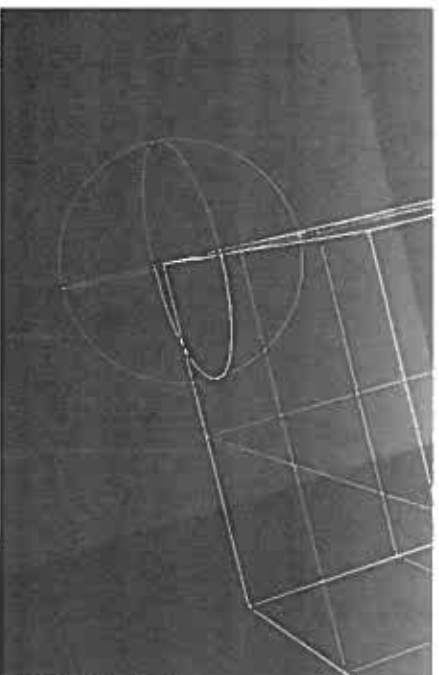
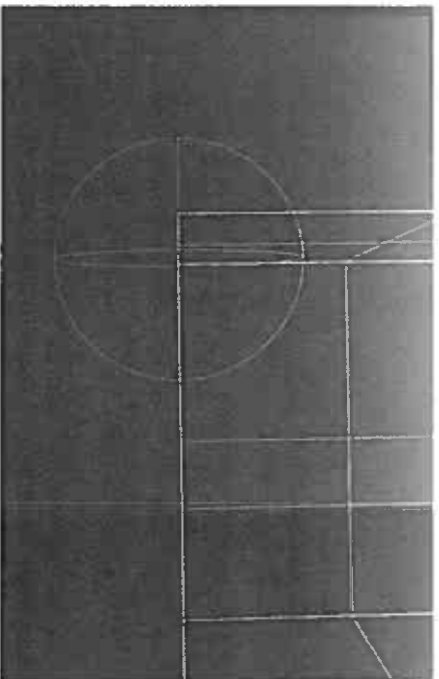


A. Top view of the courtyard B. Form-versus form: The relationship between forms in terms of their geometrical system and area of influence

DESIGN PROCESS

IN THREE DIMENSIONS

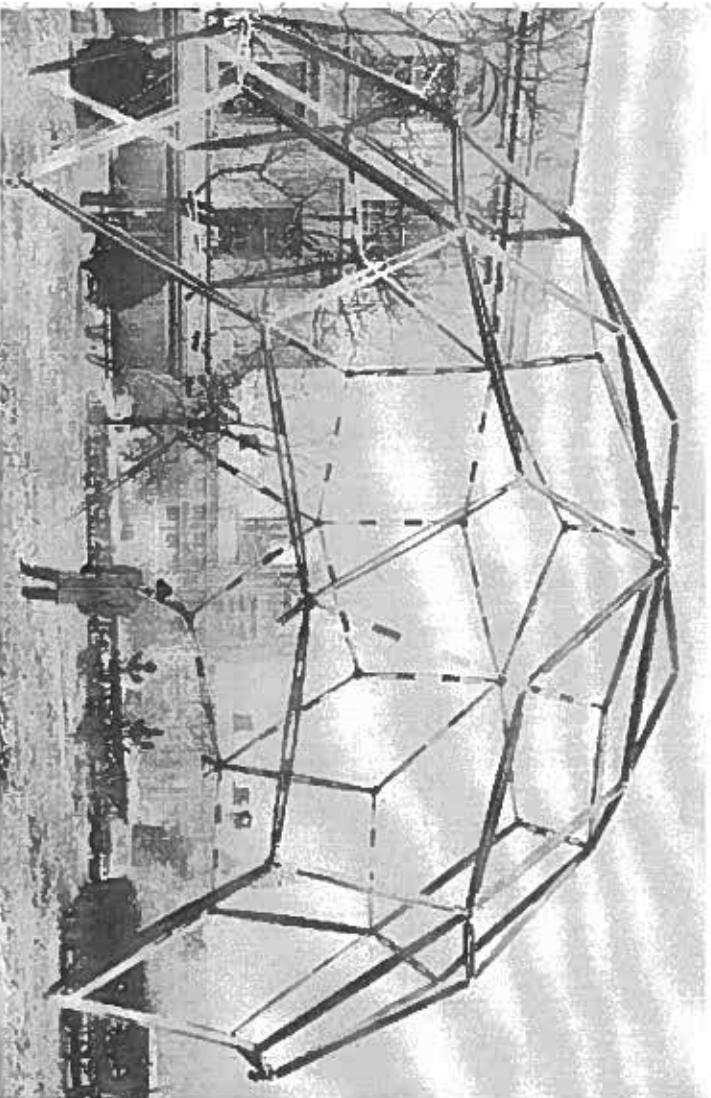
I consider the work I have done so far also as a part of my design process, but I am marking the breaking point between preparatory studies and the moment I pick up the pen and stark drawing. These two are of course woven and strongly connected, and the distinction is sometimes impossible to make. What I did with the circle was basically translating it into three dimensions and came up with a sphere-like structure. Finding a two dimensional solution that can be translated into three dimensions can be difficult but following the logic of geometric systems, it made sense.



Thinking about this sphere shape, I of course read up on domes, looking at Buckminster Fuller and I found this quote:

"In domes there is an inward focus. You feel that you are in the center of things. There is simply no way that you can be shoved into a corner".

I found this to be an interesting thought. The whole meaning of the dome actually changes when it's cut into.



A. Geodesic structure, Buckminster Fuller



B. Teufelsberg, Berlin

FACADES-----SURFACES

Doing this intervention of the three dimensional components of the site, and finding an idea about a skeleton I wanted to work with, I started thinking about the cover of it, how I should "dress it".

It led me into one of my subjects of interests.

I have had an interest for surfaces for a long time, treating them and interfering with them. This is something I wanted to continue with in this project, testing new methods for creating surfaces. My working method is quick and intuitive with lots of testing, trial and errors.

The pictures on the right side is from my application to Konstfack, and I can see how it is connected to what I'm doing in this project. In this, I'm using filling, that is meant for covering up cracks and faults in walls, as an in between layer between the wall and the paint or wallpaper. The movement of doing this is very consistent with a clear direction. The material is dragged out. Using this technique and blending wall filler with color pigments, it enhances the craft of this. The surface gets ennobled, giving a higher value to what's underneath. The result is reminding more of marble or painting with its own drama, than something to hide. A sort of plating, but with simple means.



*Pictures from my application
to Konstfack 2010*

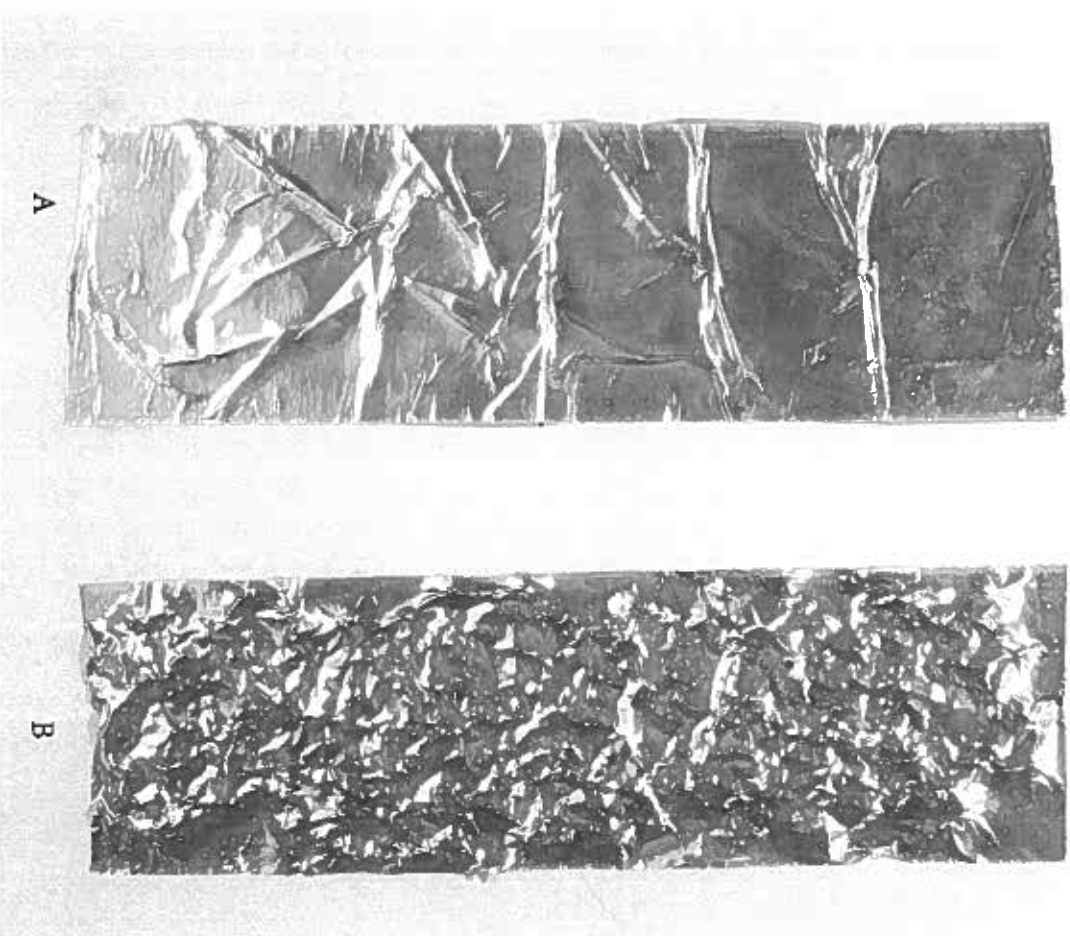
The word surface has many definitions. It means the outside part or uppermost layer of something. It can also mean: Apparent, covering, depthless, exterior, facial, outer, outside, outward, shallow, shoal, superficial, top.¹⁰

It's about trying to create/build the surface rather than penetrating and showing the content/reality, I create fiction with my surfaces.

In Swedish, "ytbehandla" directly translated it means "treat the surface" and is usually something that is done in the end of a process, for aesthetic or practical reasons. There is no expression for "treat the content", treat what's inside, the surface is just the finish, it's not the content.

I started processing different surfaces, starting with a textile, (pictures following page) in a step by step method. This textile I've waxed, folded, colored, scraped and ironed to get the effect of the wrinkles.

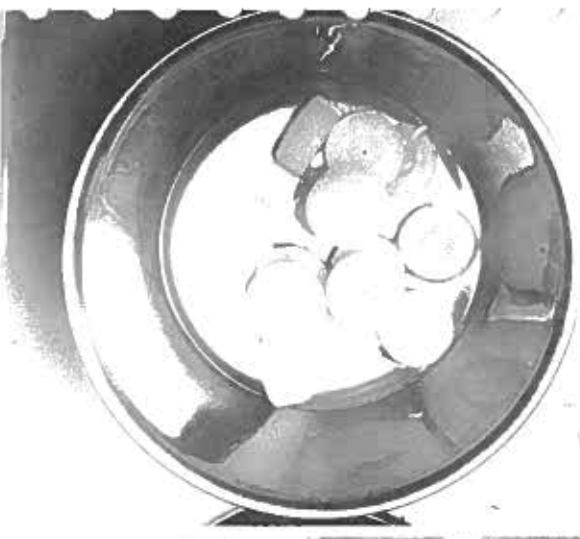
I was thinking about my guidelines which were instant and hands on, and although I thought the textile test had a poetic and beautiful process, it was not what I was after.
I needed to simplify it.



High polished aluminum that has been wrinkled.

ARTIFICIAL WRINKLES

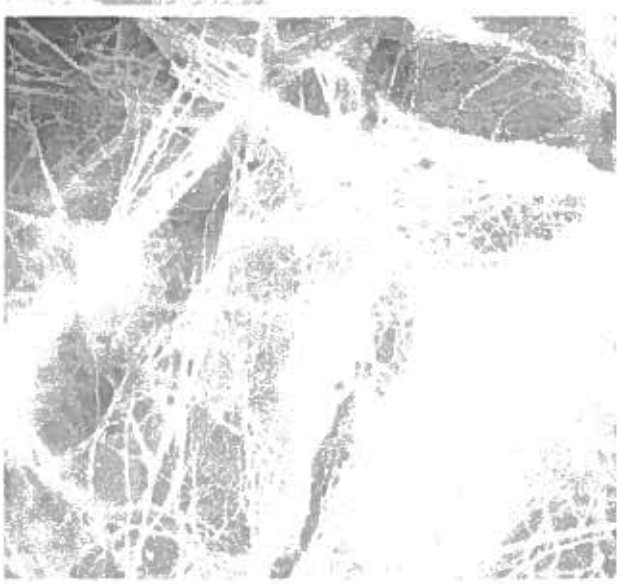
1. Melting wax



2. Applying wax over the whole surface



3. Folding the textile



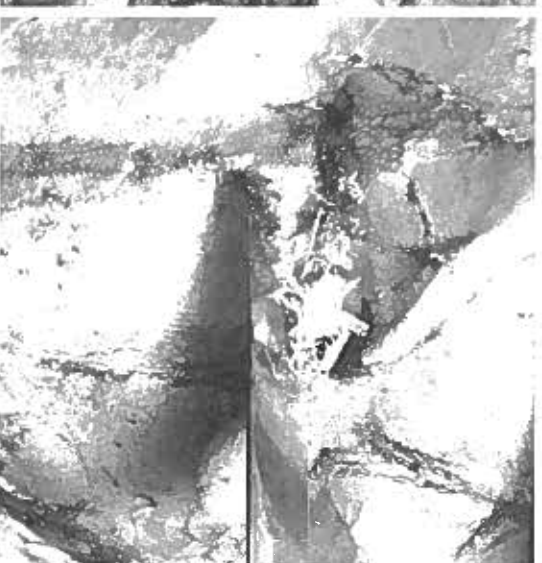
4. Adding colour



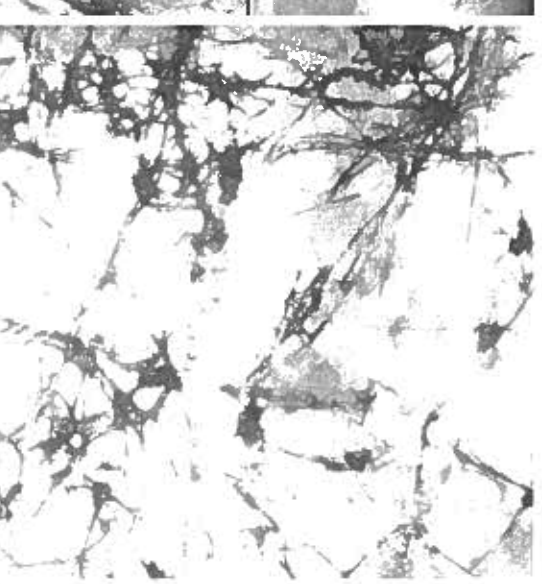
5. The colour remains in the cracks.



6. Peeling the excess wax off.



7. End result after ironing.



WHAT'S VISIBLE IS MERELY THE SURFACE OF THE MATERIAL, SERVING AS SHELLS TO THE CARRYING CONSTRUCTION INSIDE

I decided to try a different material. This is a shrink plastic, and it is an industrial product, often used for covering boats for winter seasons. It is also used in the packaging industry, covering products for transport and selling. The processing of the material is quick and fascinating.

What's inside has a higher value than the packing material. This is a truth I want to question.



HOW IT WORKS:
[HTTP://WWW.YOUTUBE.COM/WATCH?V=AOBC2VYYAY4](http://www.youtube.com/watch?v=AOBC2VYYAY4)



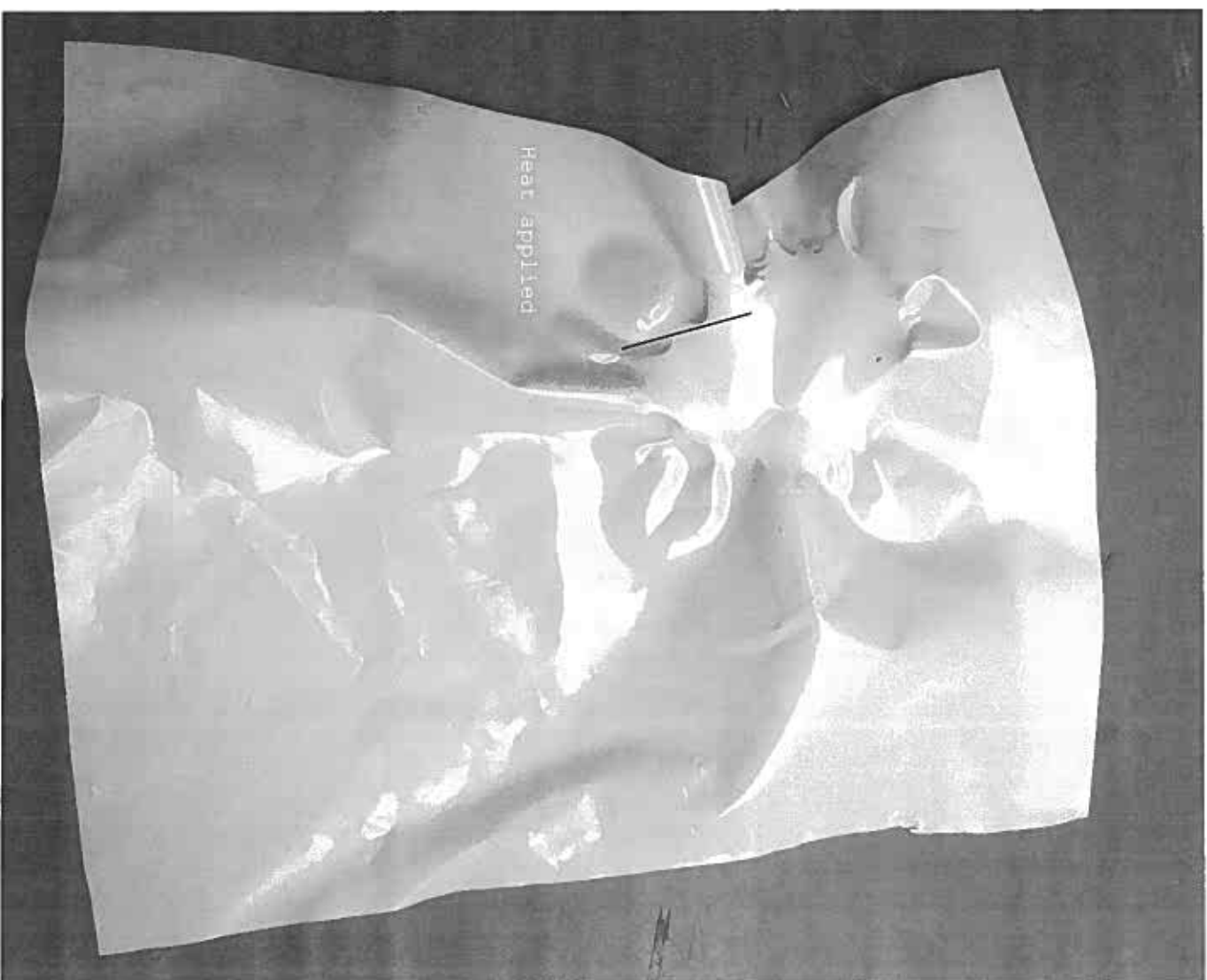
And now, my tryouts with the material began:

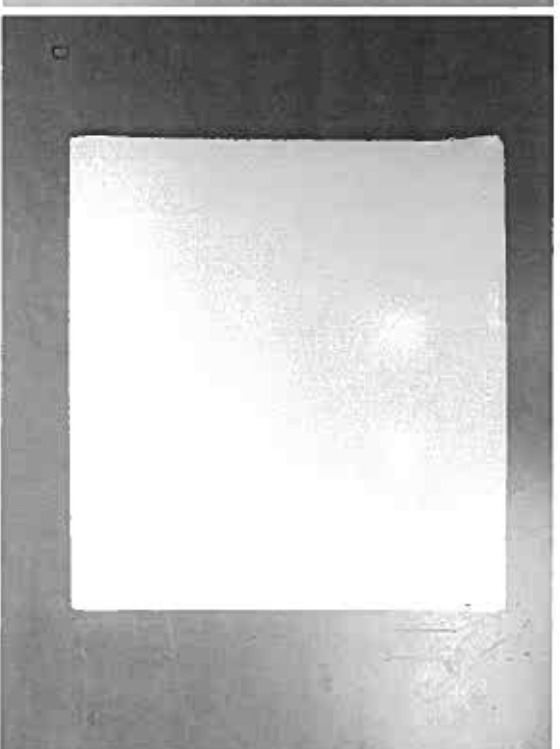
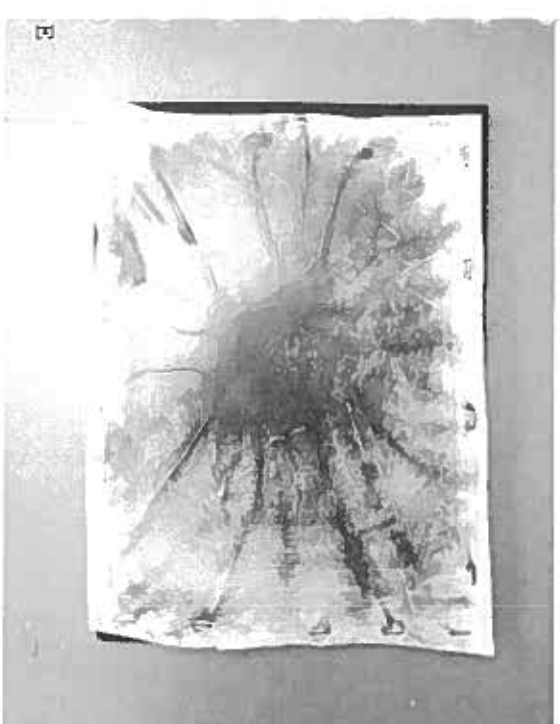
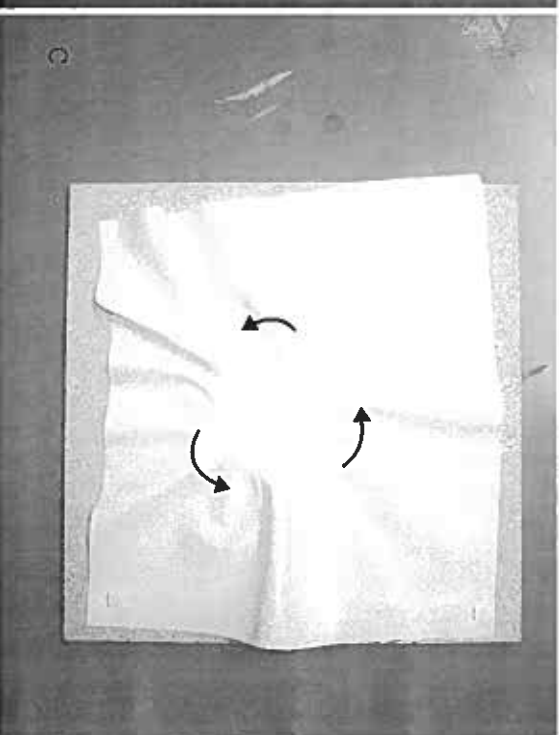
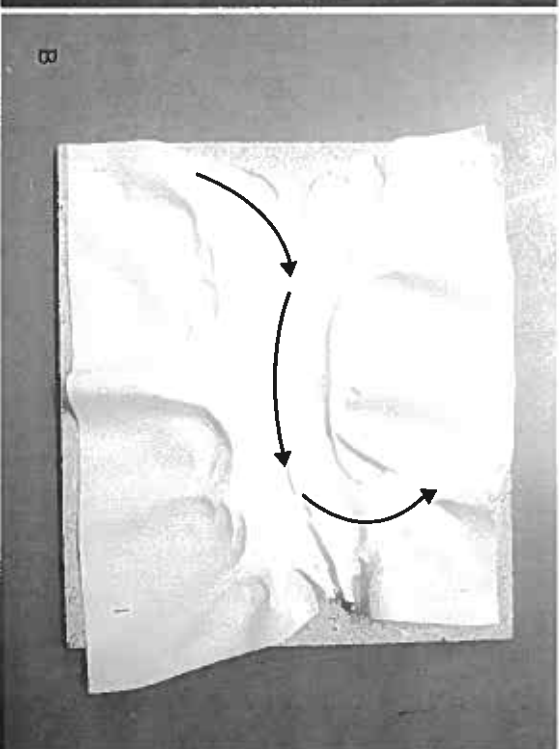
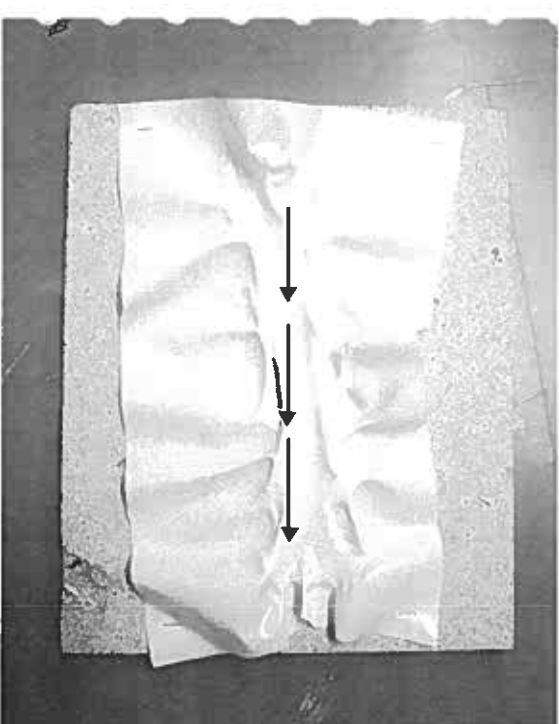
"Materials are like words. The richer your design vocabulary, the more distinctive the design solutions you can express. Sketching ideas with a pencil or rendering them with computer software are useful experiences, but there is no substitute for confronting physical forms and materials directly."

I wanted to test its two dimensional qualities, stretch the limits of the material, its strengths, weaknesses and unexpected surprises. Moving the heat gun in different ways different effects were achieved. I also tried powdering pigment over the surface, hoping it would compressed and have an intensified color over the heated area but with horrific result.

What I found interesting with the material in the initial stage was its ability to form smoothly after any shape, become like a second skin. My tests so far had only resulted in flat surfaces with "ruffles". I wanted to see if the slick, tight surface was possible to achieve, heating the whole surface with UN even movement, with good result

Moving on to three dimensions, with a basic cube, I found out that corners are tricky; they tend to crack or wrinkle, but that's the nature of the material.



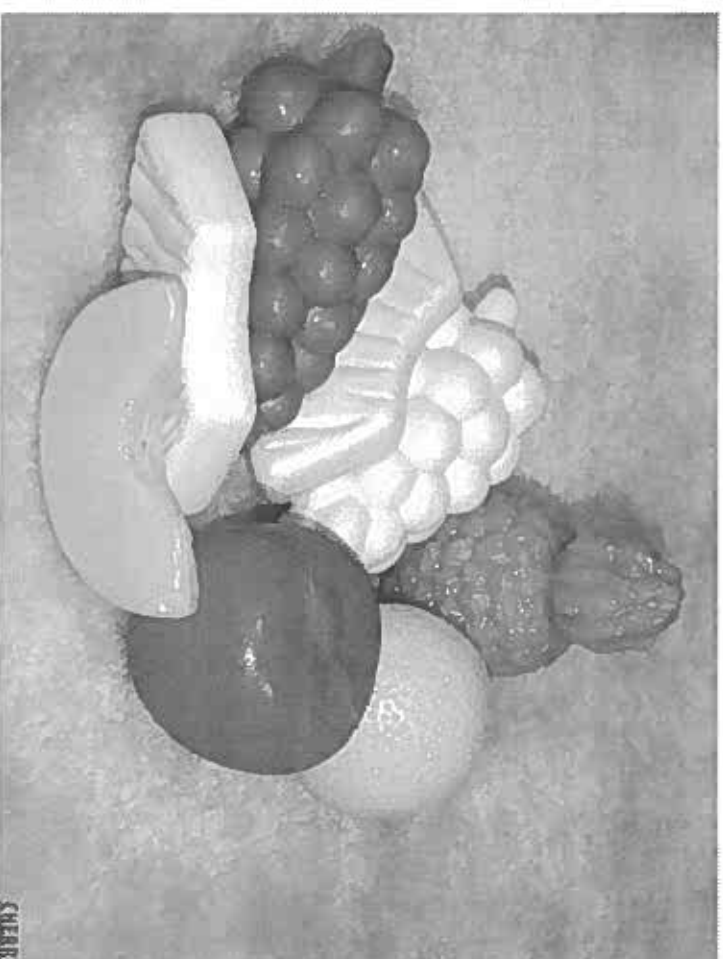


THE ESSENCE OF PLASTIC

Being an artificial material, I wanted to try the qualities of the plastic on a usual white plastic bag. It really surprised me! Depending on how I treated it, it behaved differently and told different stories. It could look crinkly, wavy, frilly, shrunken or whatever. When working with picture A, the plastic turned ridged, almost like beautiful, old leather.

Dealing with plastic, you of course deal with the hierarchy of materials. Plastic is often used for imitations of other materials, I don't want to imitate anything, and I want to work WITH the plastic. I think it's an interesting material with many contradicting qualities.

If you describe something as "plastic", it is often a suppressant remark that refers to a cheap object. I was curious of this bad reputation of plastic, how a material can be insulting and unreal. I want to elaborate these thoughts further in my work.

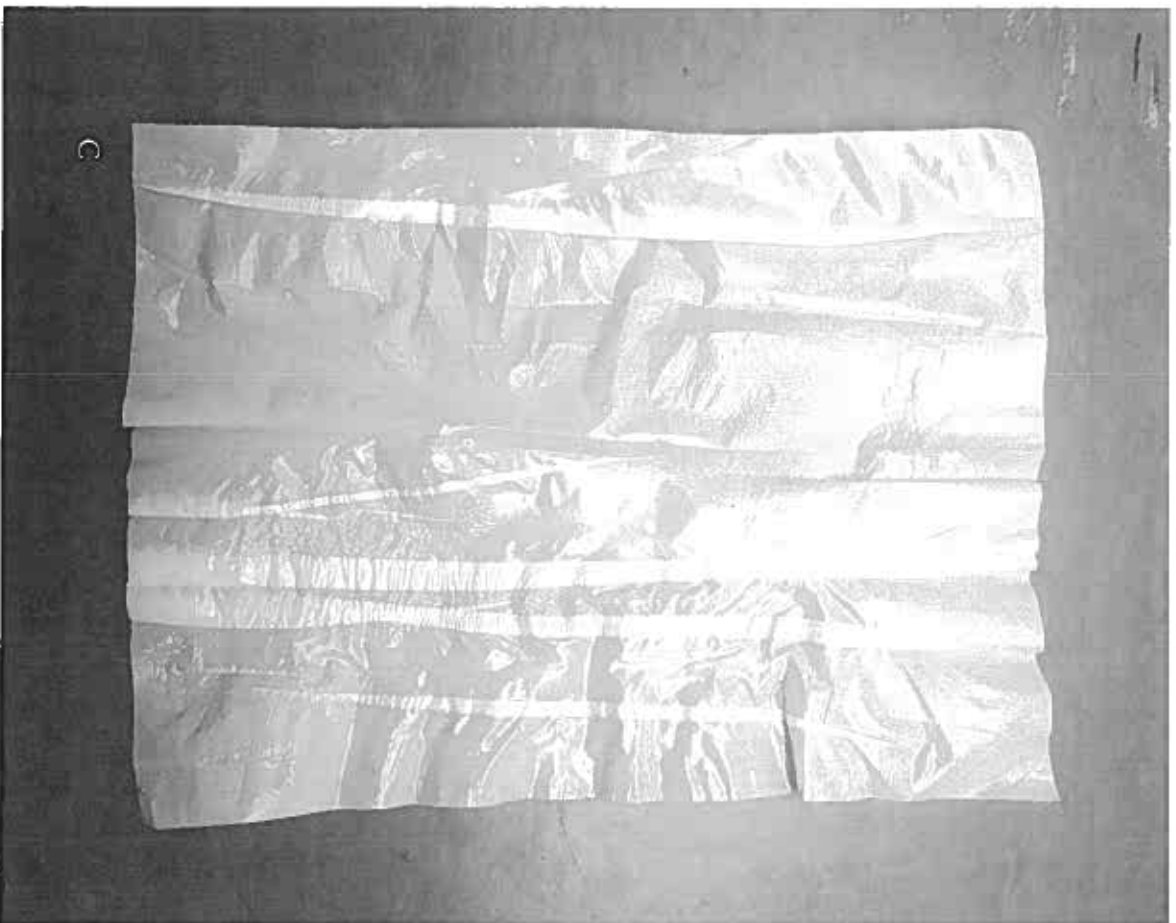




A. Ironing plastic on smooth surface

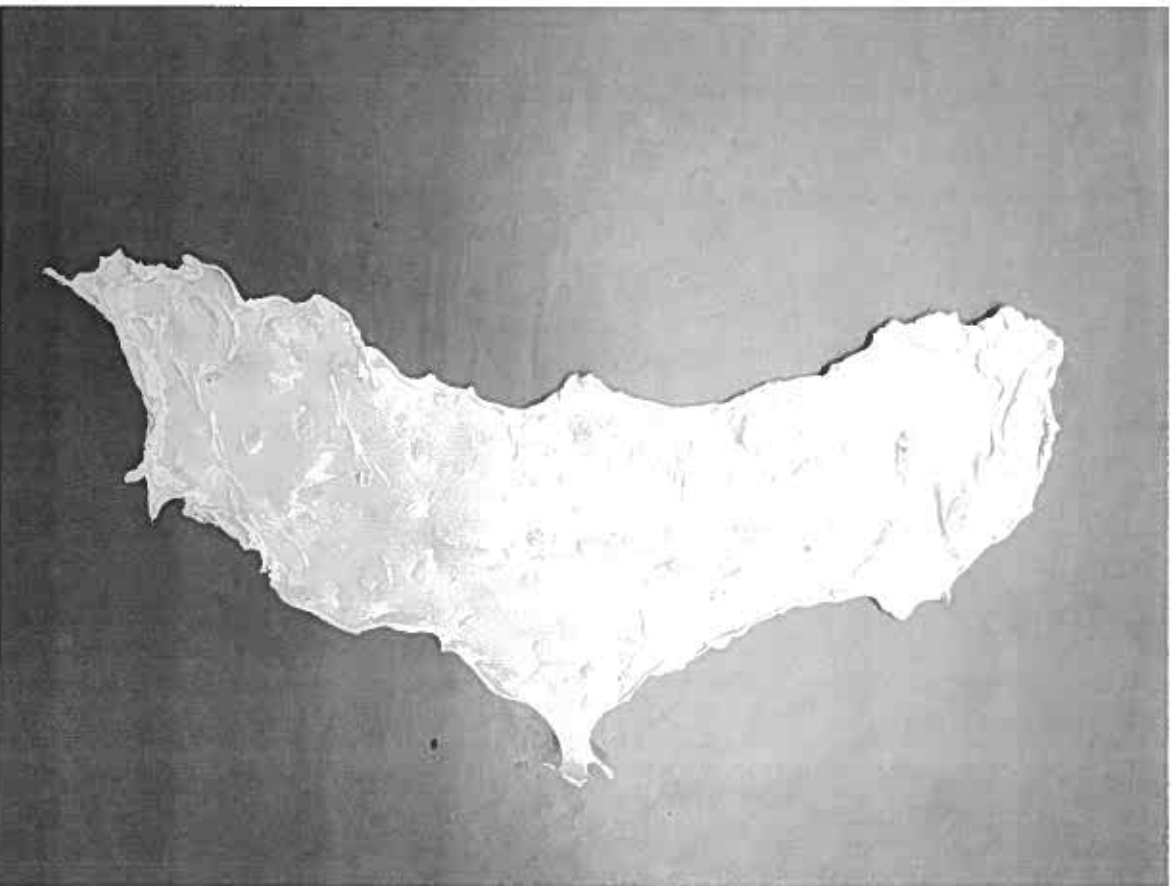


B. Ironing plastic on uneven, lumpy surface

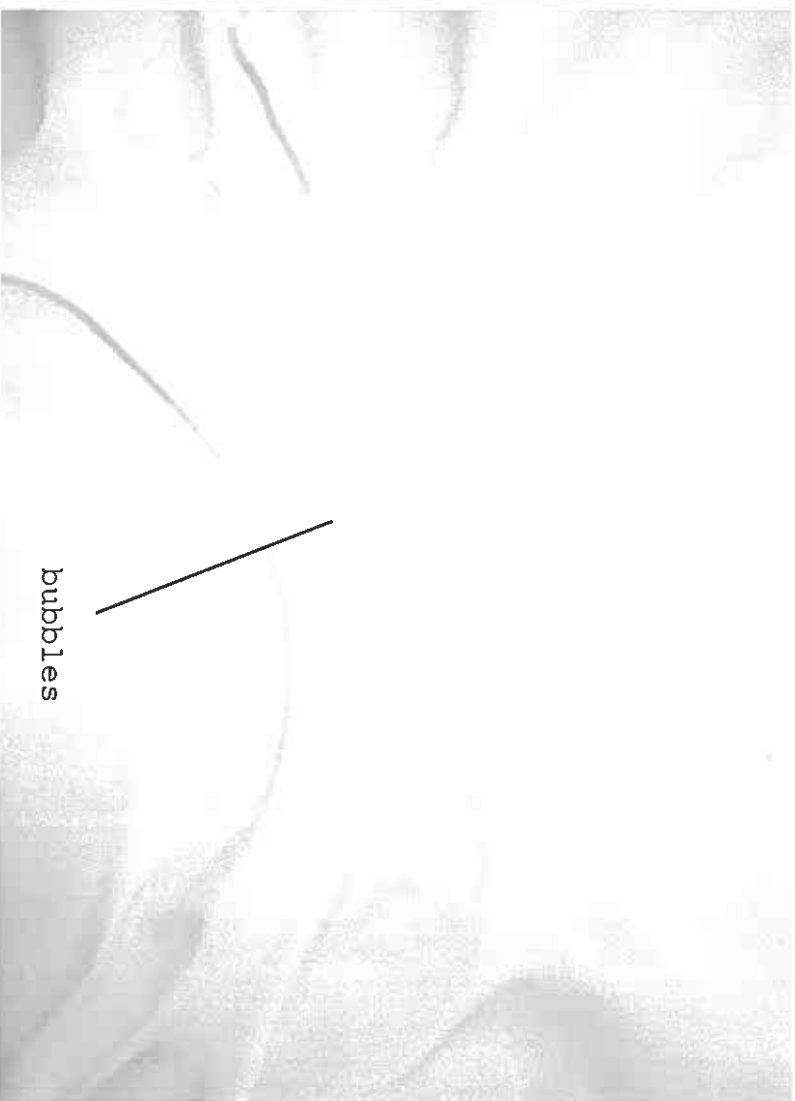


C

C. Ironed with folds



D. Heated in oven



*When the plastic is not heated enough, it gets these
inverted bubbles*

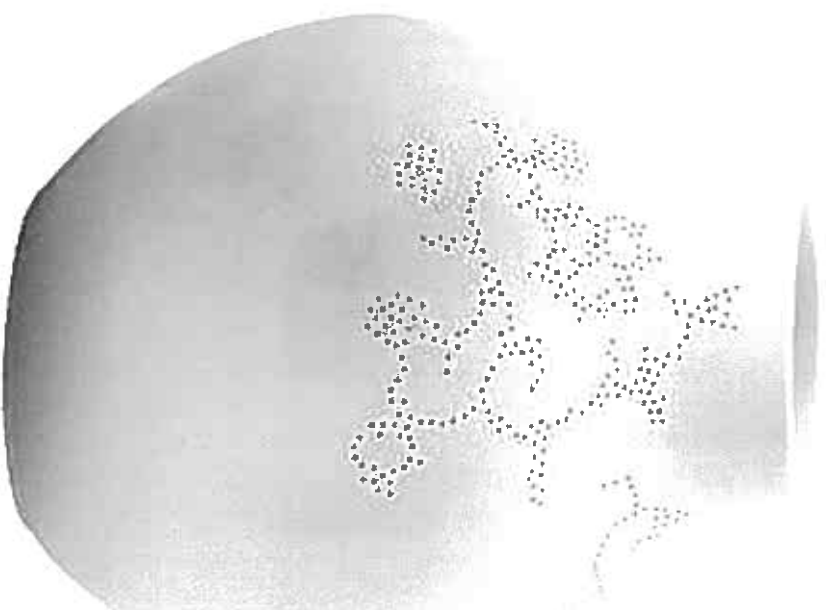
CRAFT & INDUSTRY

I find it to be an efficient method whenever I work to find an antagonist. Someone who does the opposite of what I'm doing. It's a way of positioning myself, not for the outside world, but for myself while working.

The hybrid between craft and industry is significant for Hella Jongerius and has become her signature. Borrowing details and expressions from handcraft traditions, the products look as they are created all by human hands without the help from a machine. Uneven stitches or blending patterns gives a craft expression without being craft in a traditional sense.

In the same way as Jongerius is using this craft expression as a language for her industrially made products, I want to use the industrial materials and processes as a language for my craft.

I just mention this briefly, it is not a critic, but a way for understanding.



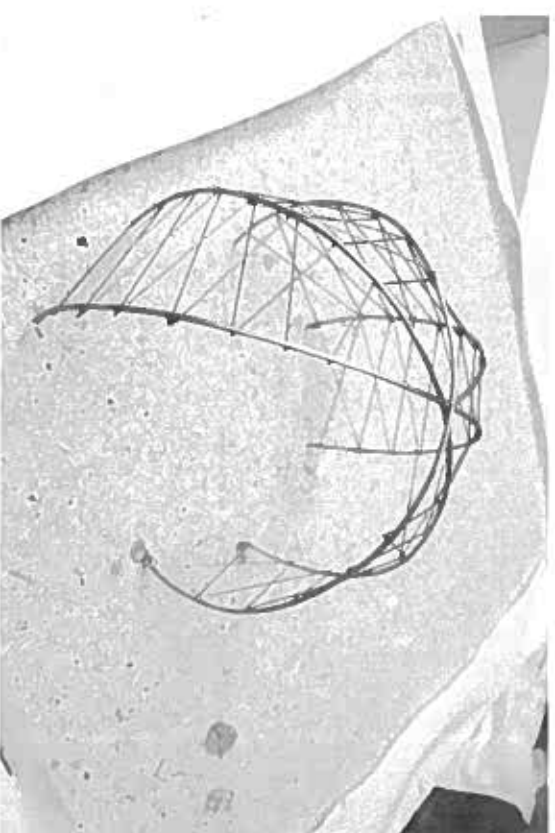
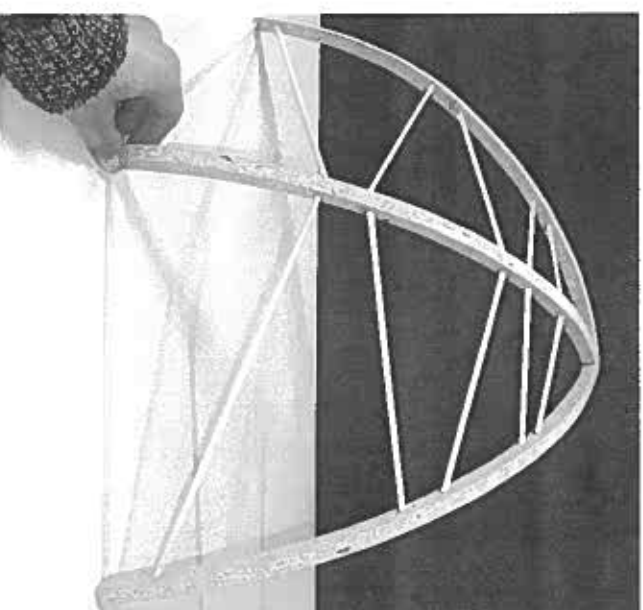
Vase by Hella Jongerius for IKEA 2009

Working with the dome structure, I didn't want to make a copy of Buckminster's geodesic construction,¹² I wanted to make my own using both curved and straight lines. It is very basic, since I wanted the plastic to be the main focus. I also wanted the illusion of it to continue around it and not be cut off.

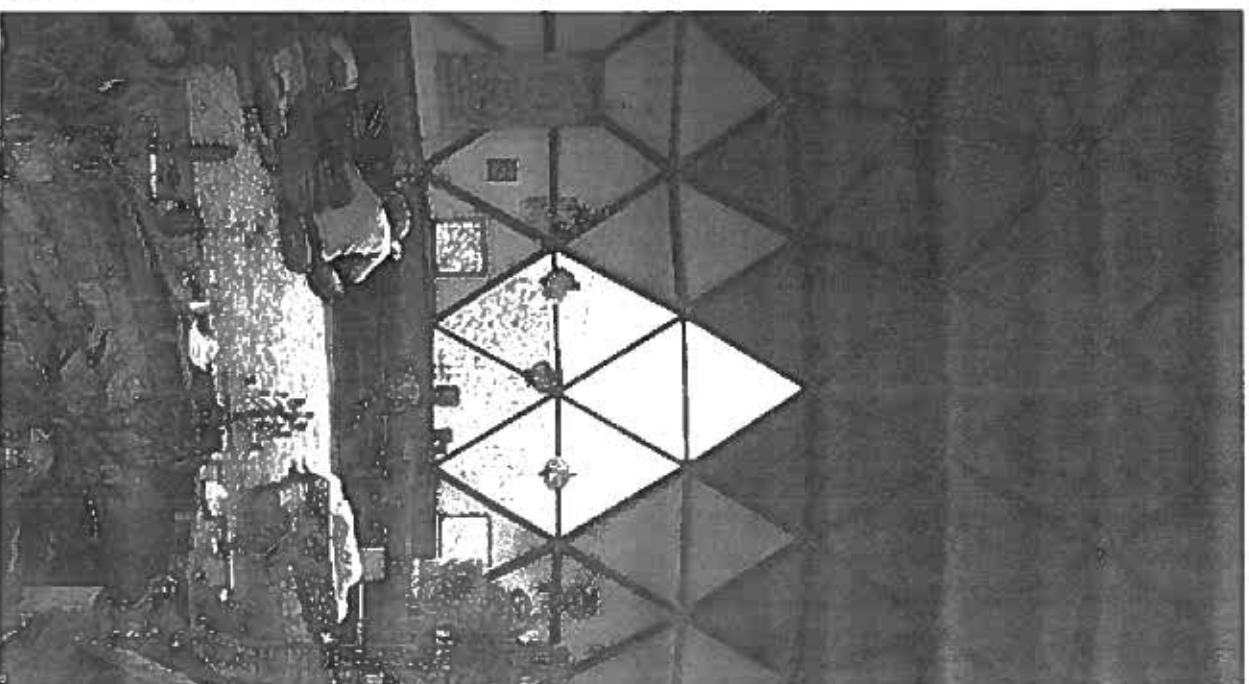
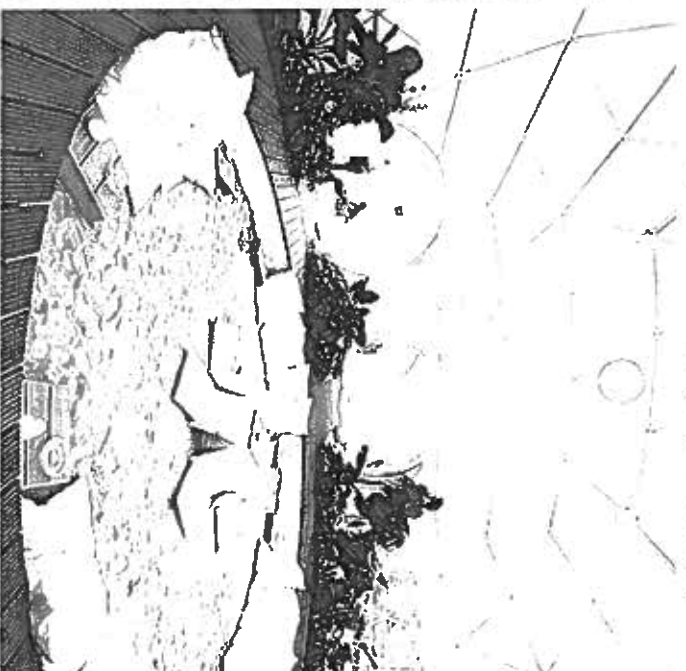
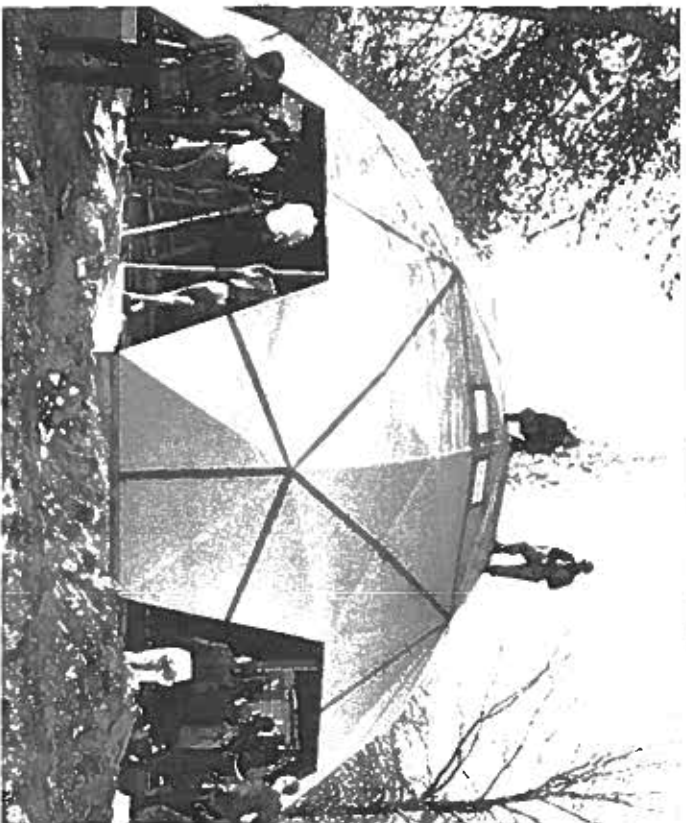
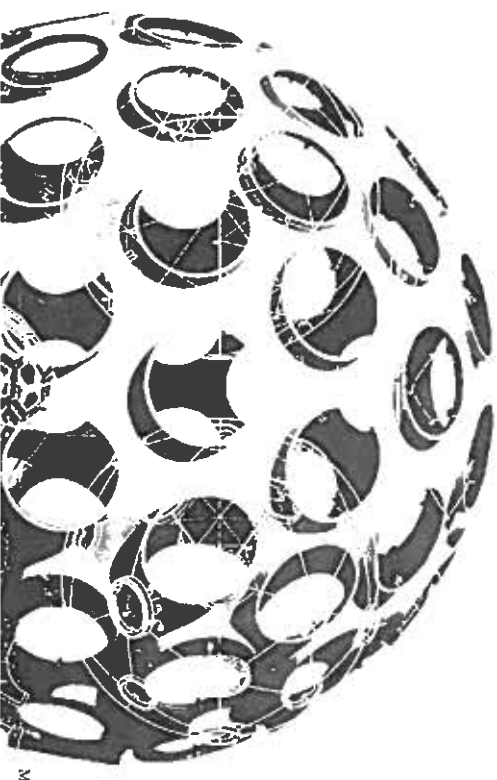
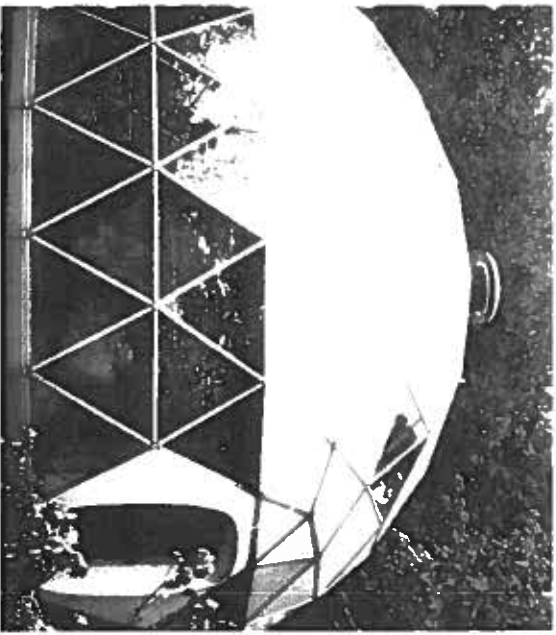
The material I chose is aluminum for the curved frames and possibly steel for the pieces in between.

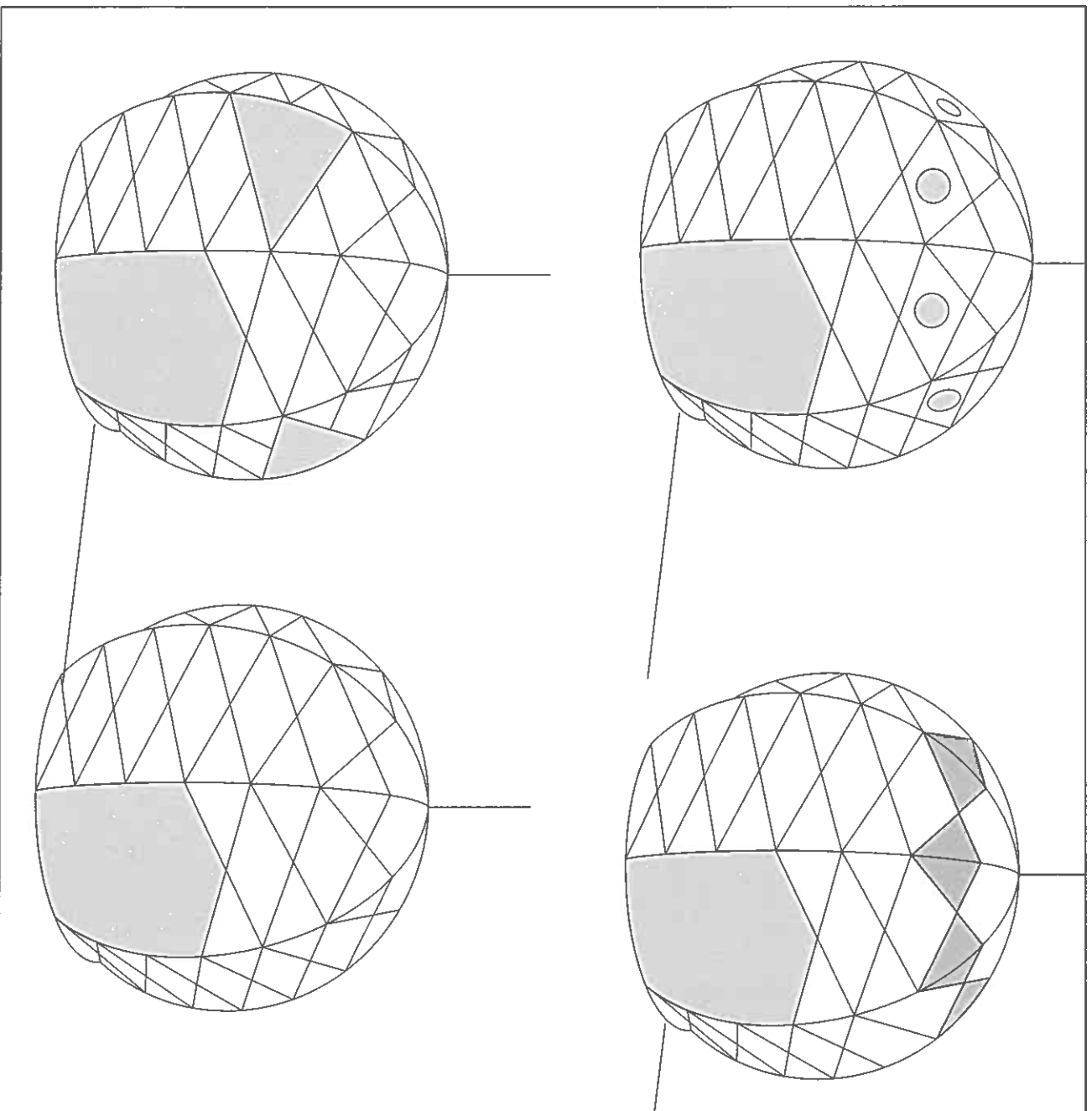
Thinking about scale, I wanted it to be "human" and handle able since I planned to build it in a 1:1 scale.

The well-defined form of the sphere has its advantages, but also a downside. I experienced that the sphere in its closed form had an excluded effect. The space around it became negative, left out. I started to cut and slice the shape to create a flow through it, and thereby also around it. I started look on variations of openings in the dome structure.

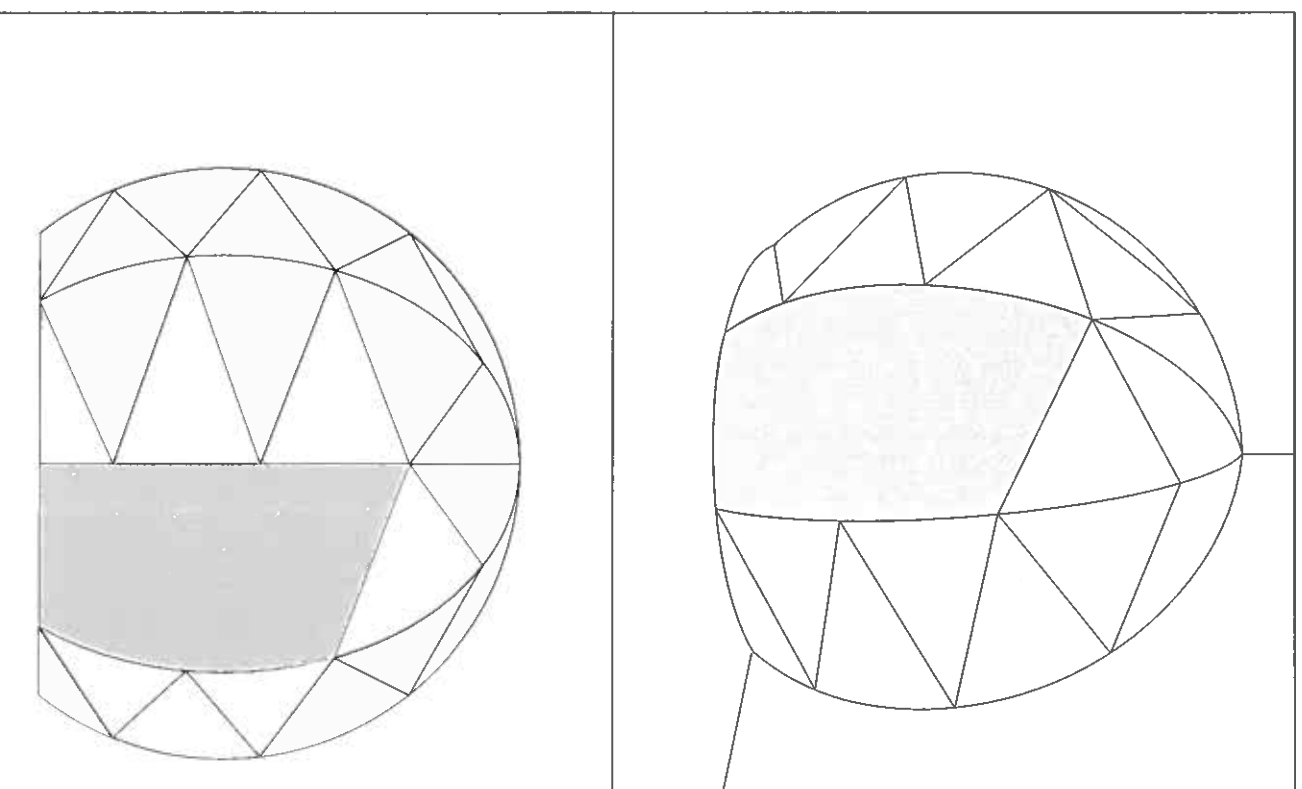


Scale model 1:40





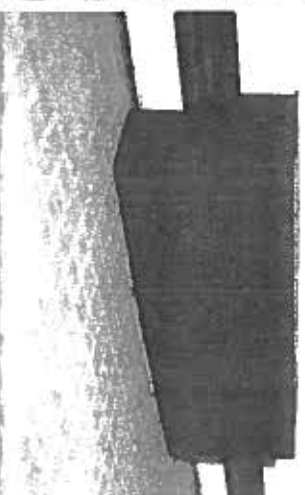
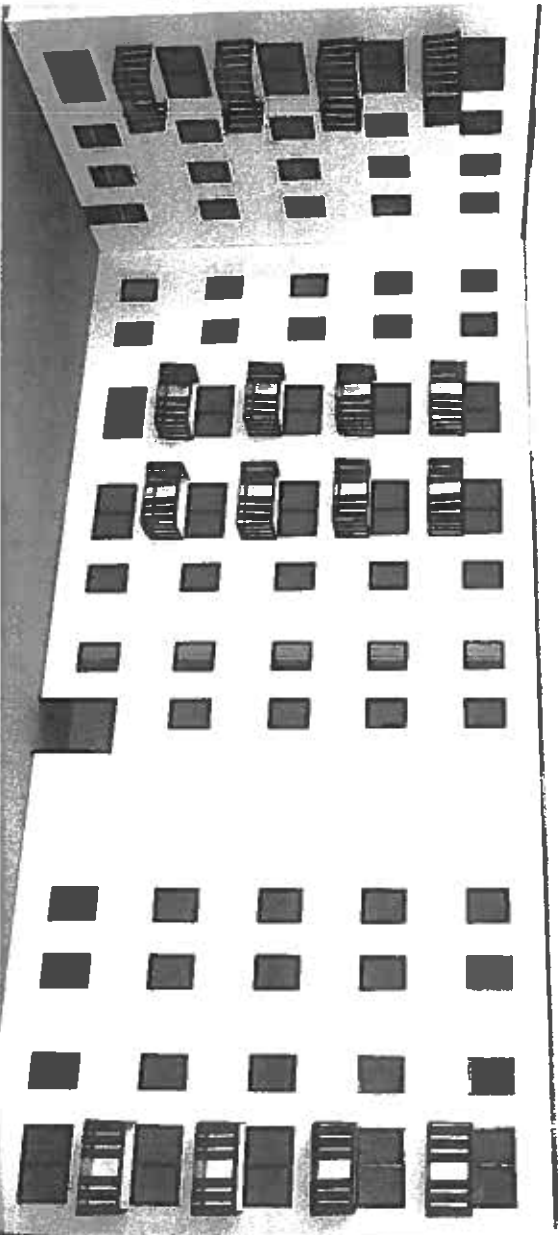
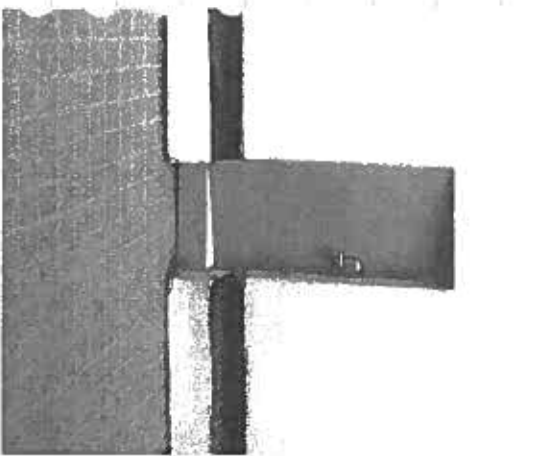
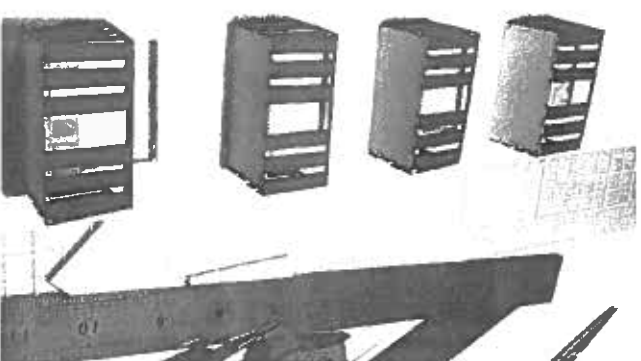
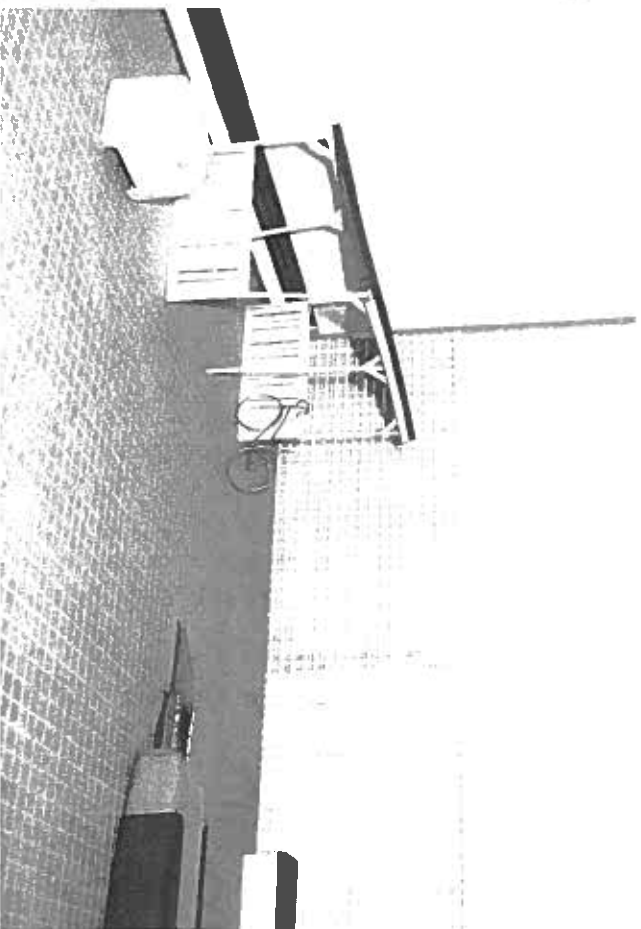
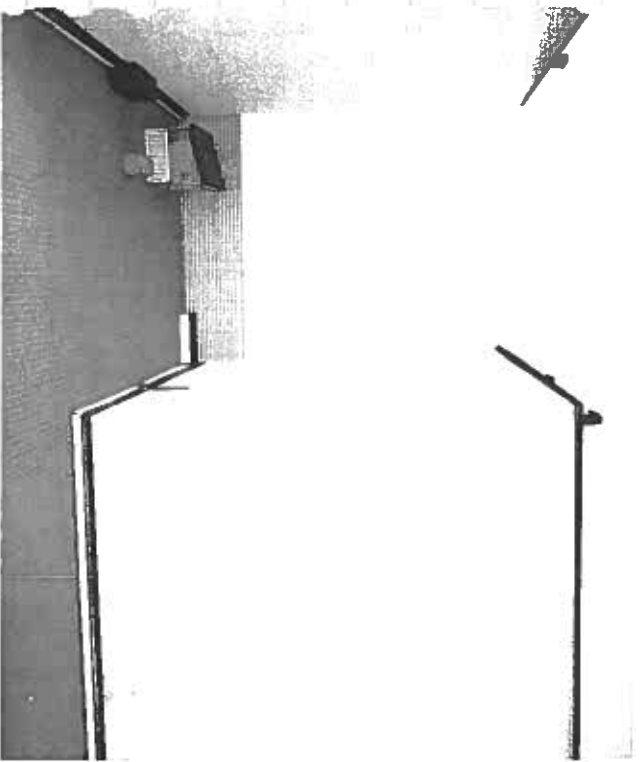
Variations in bars with openings

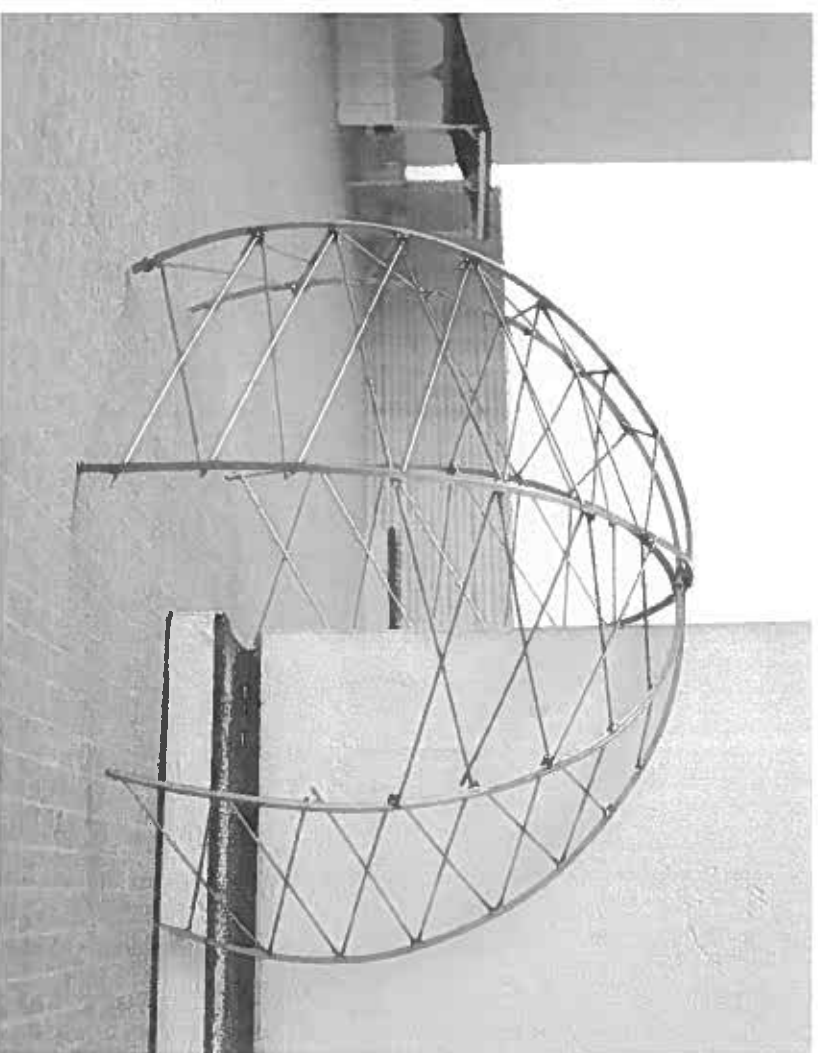
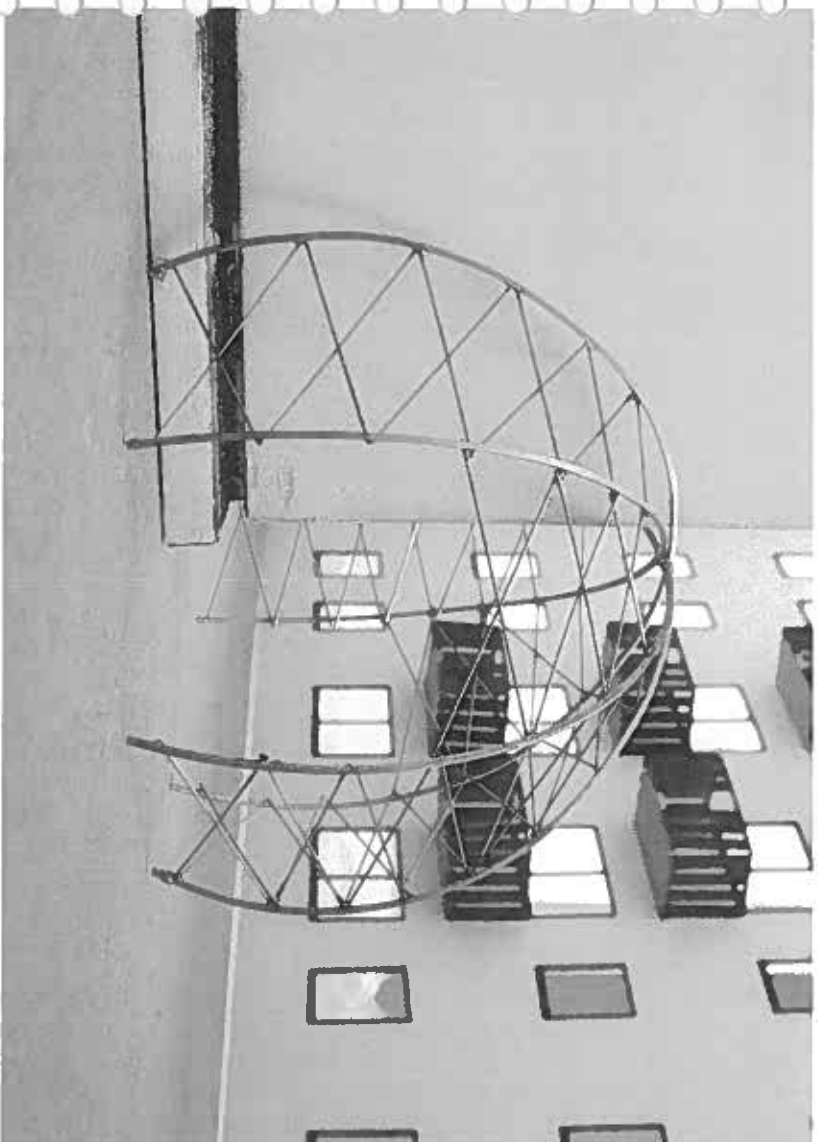


This was the version I decided to go for.

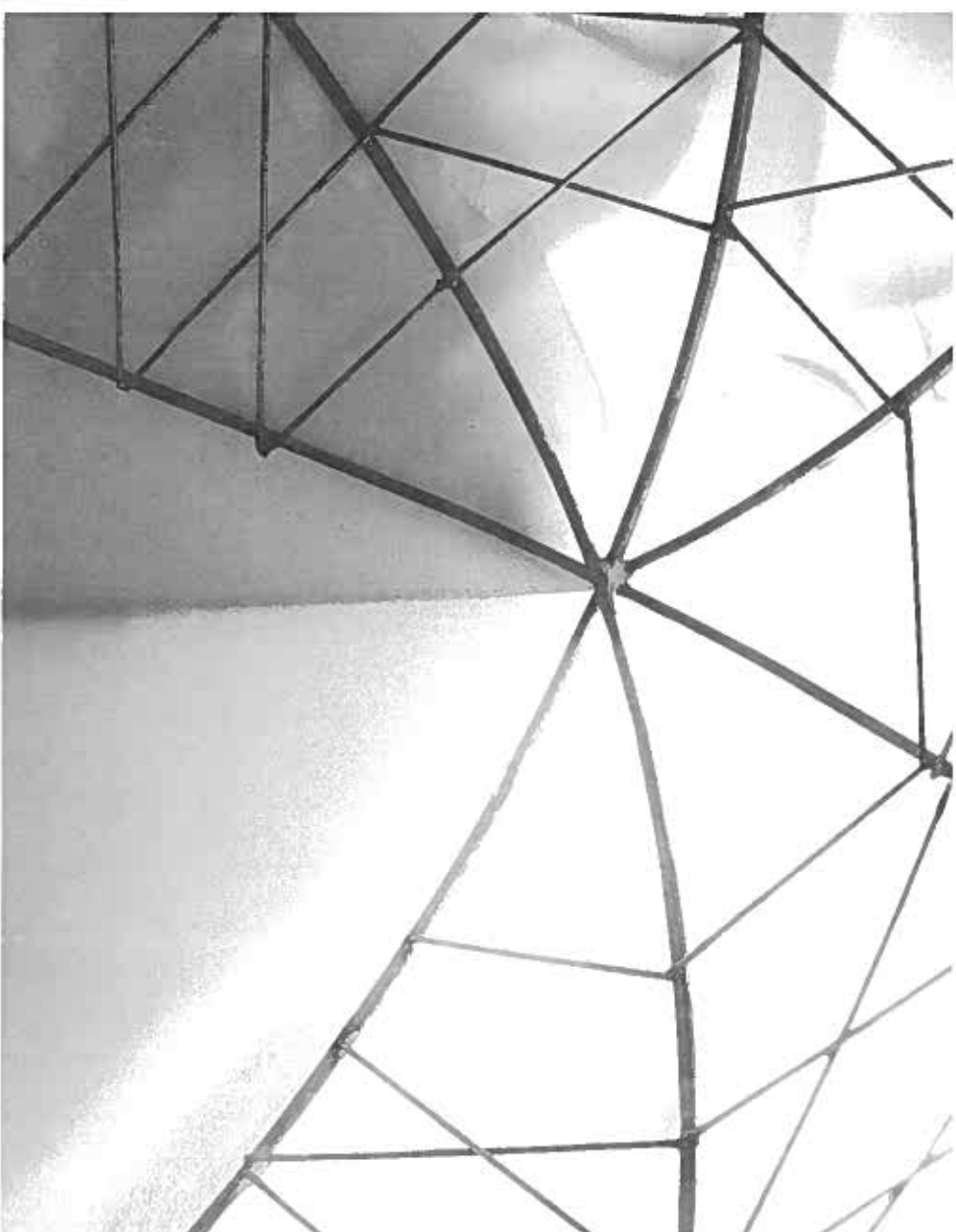
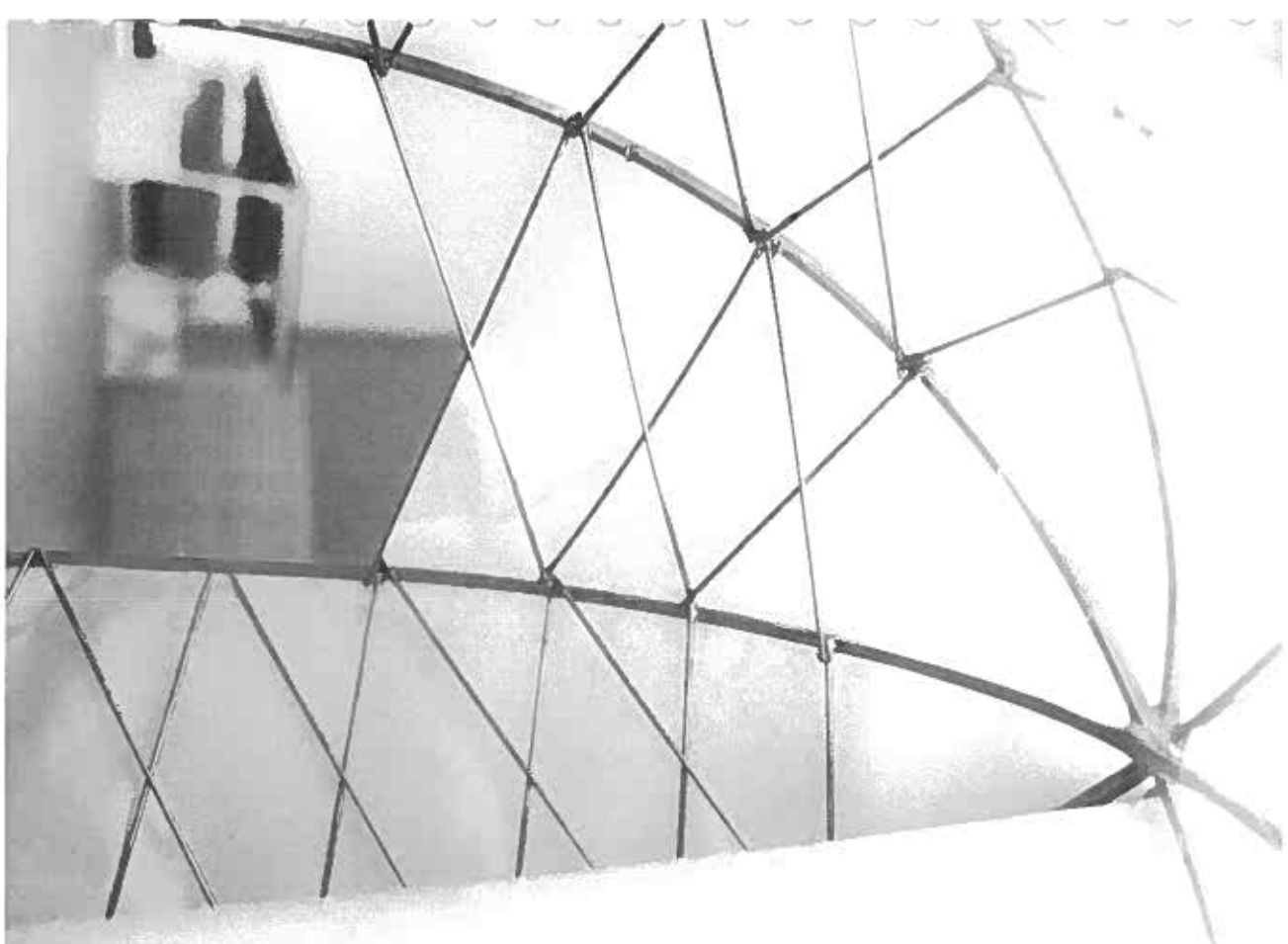
MODEL, SCALE 1:40

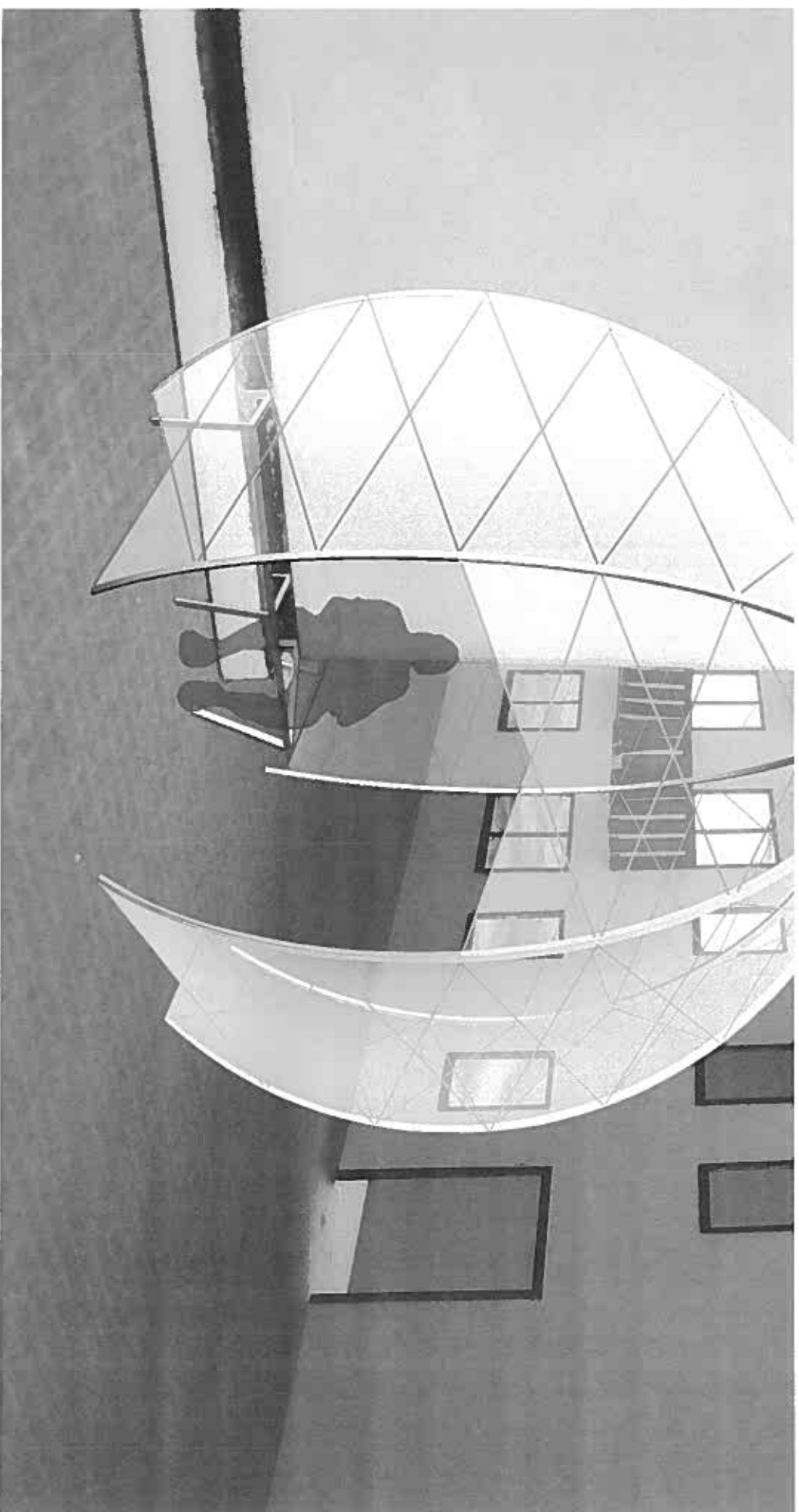
Modelmaking of the site

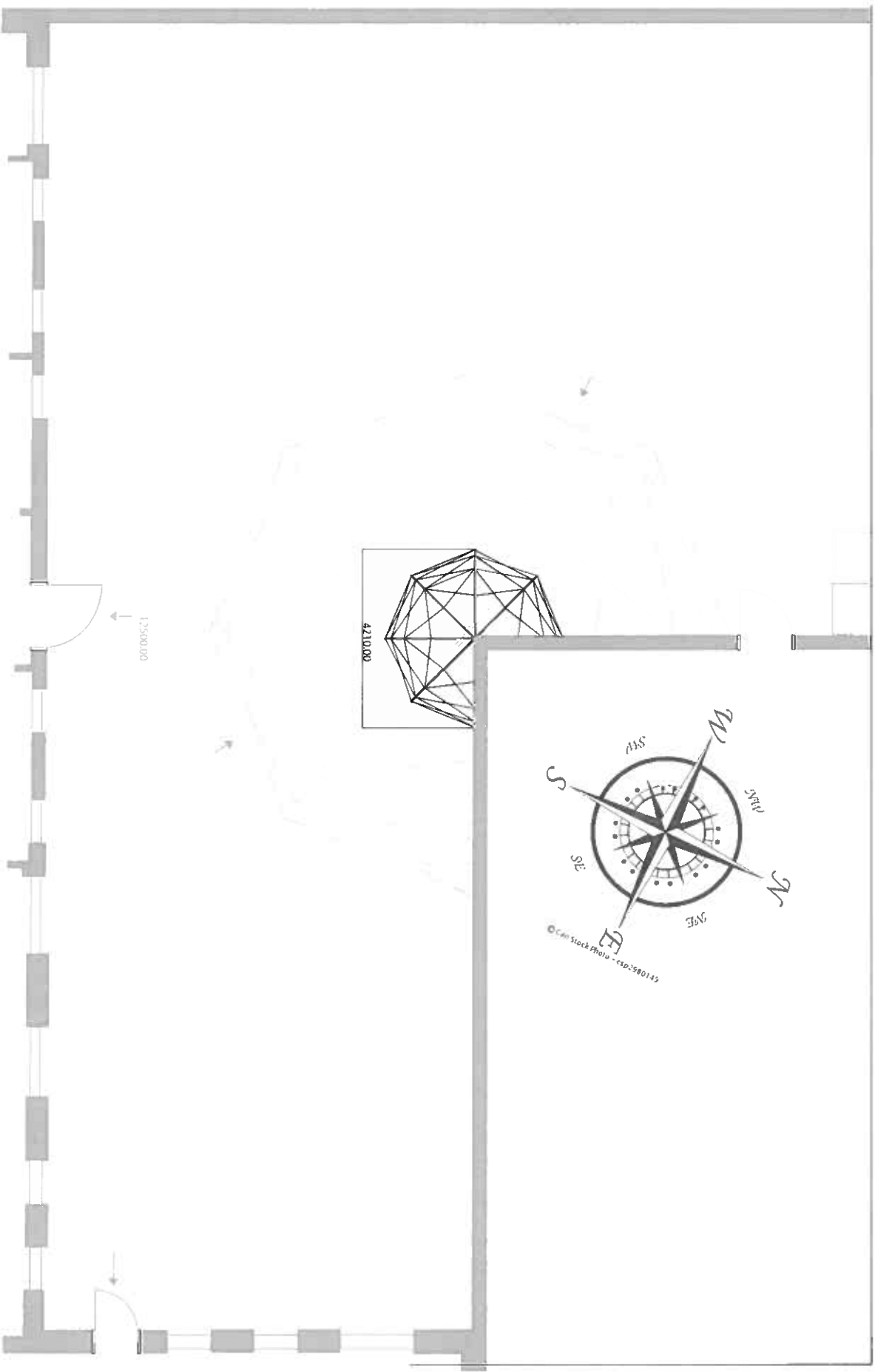




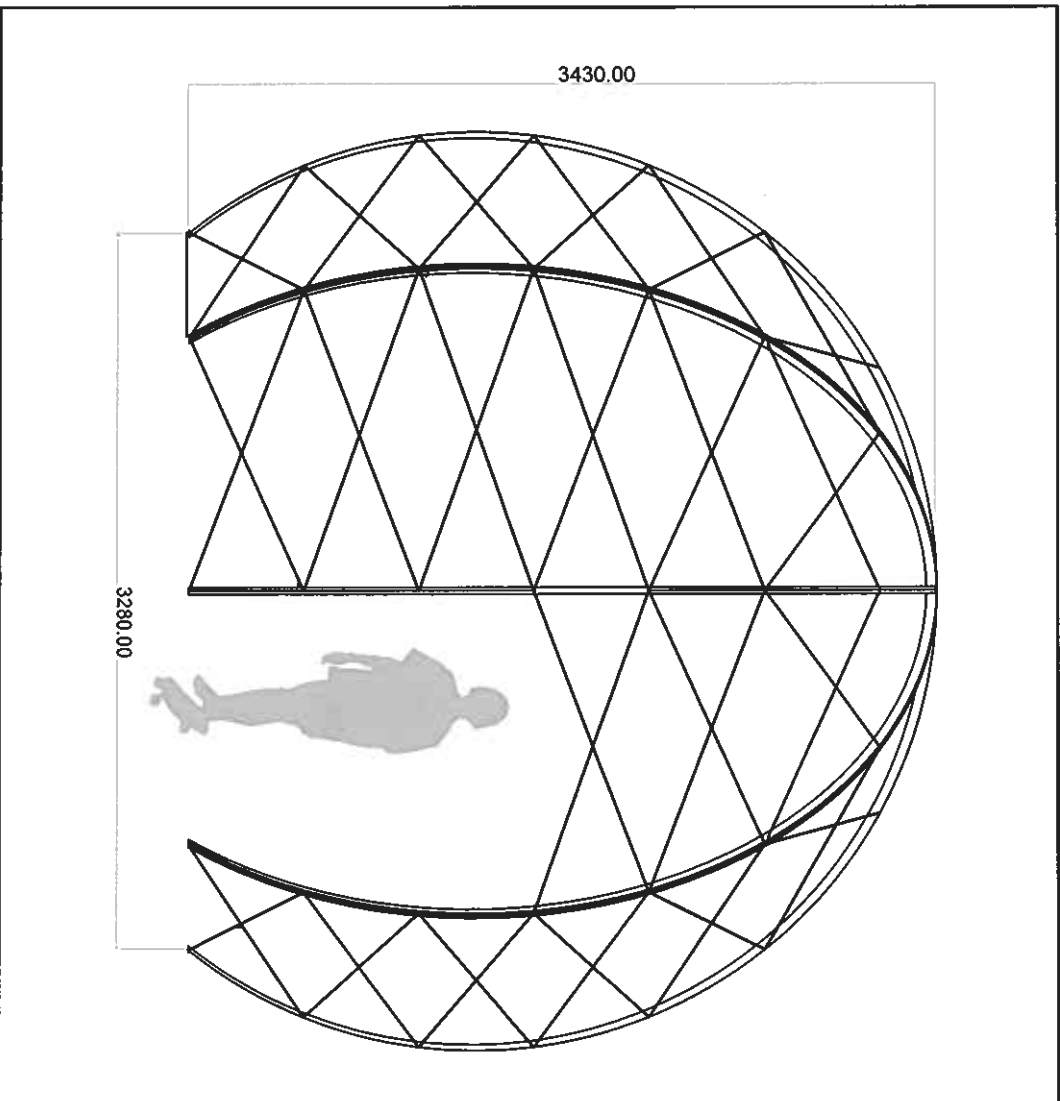
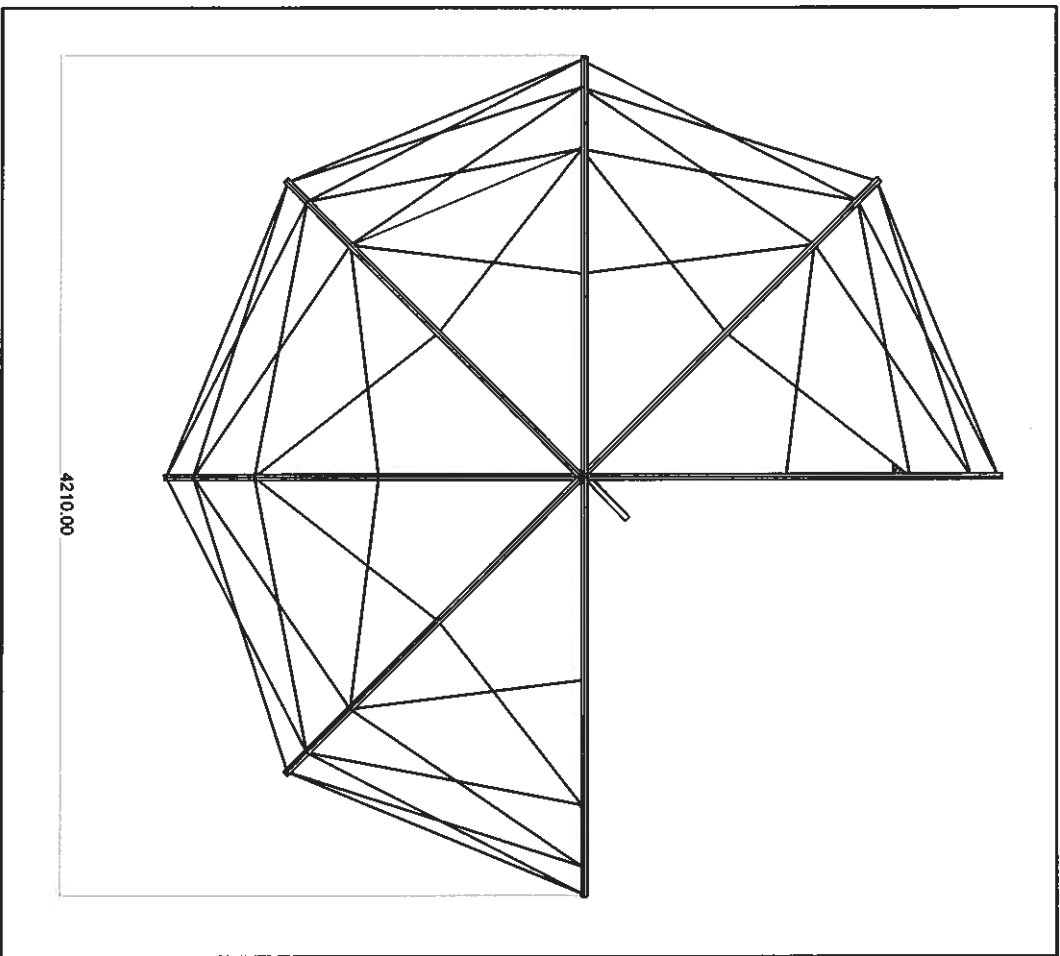
The scale model gave some idea about what the end result could look like, I also covered it with plastic and tried the light.

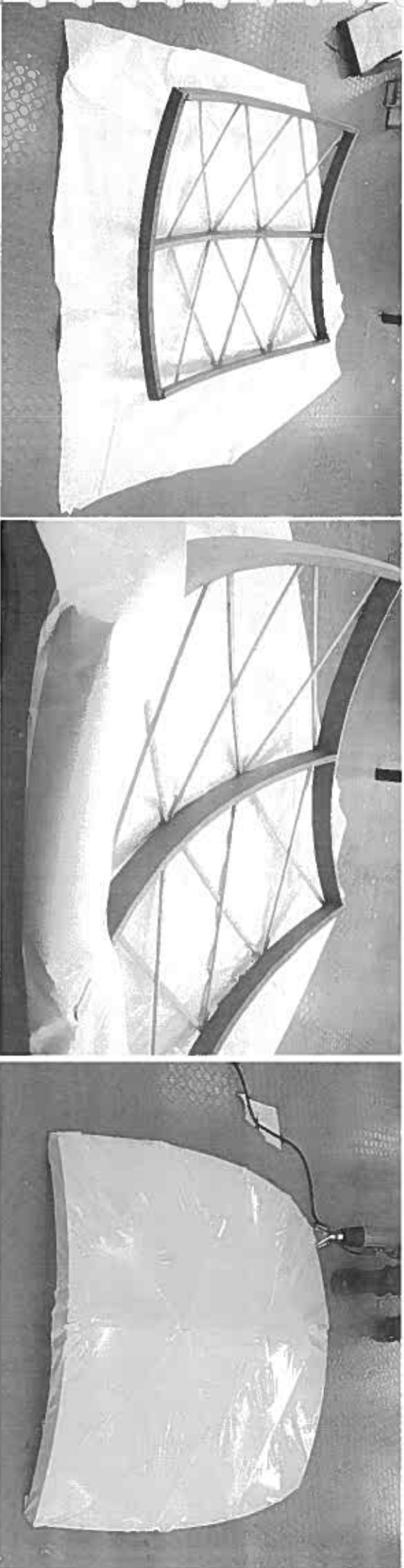






The black lines shows the dome how it was build up in Konstfack and is the scale I have been trying out in models etc. The grey lines is the size that I would like to develop for the courtyard.





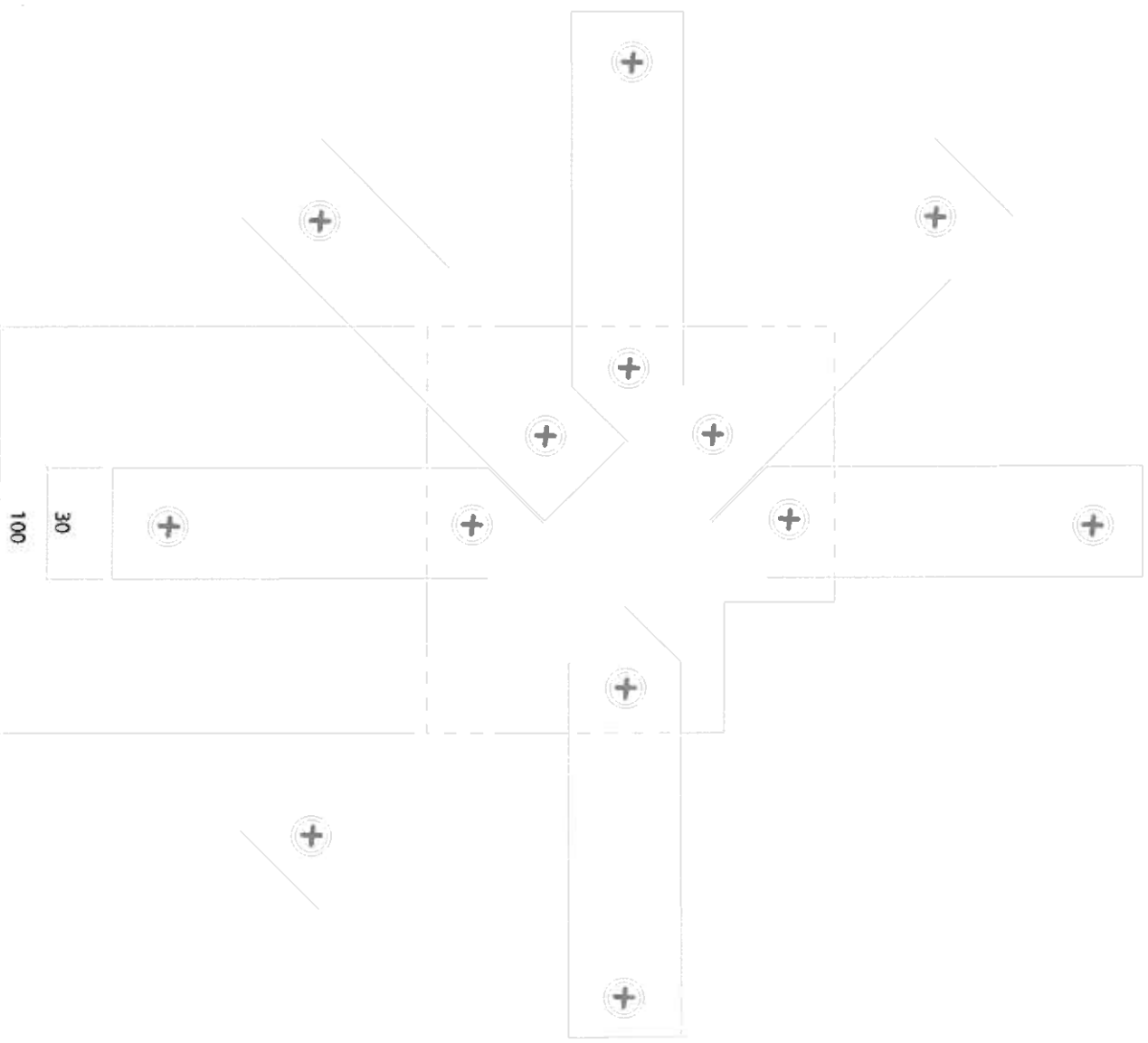
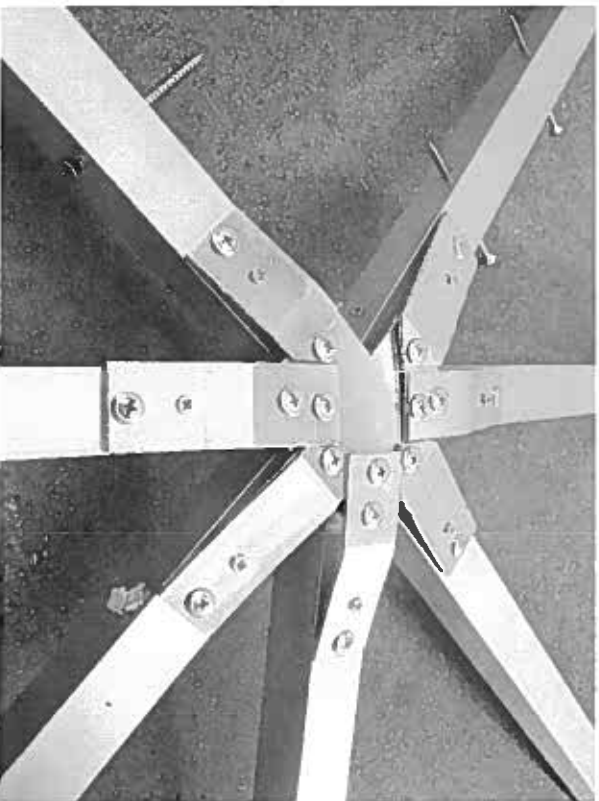
Section scale 1:3 with trying out the plastic.

TECHNICAL DETAILS

FLOWER

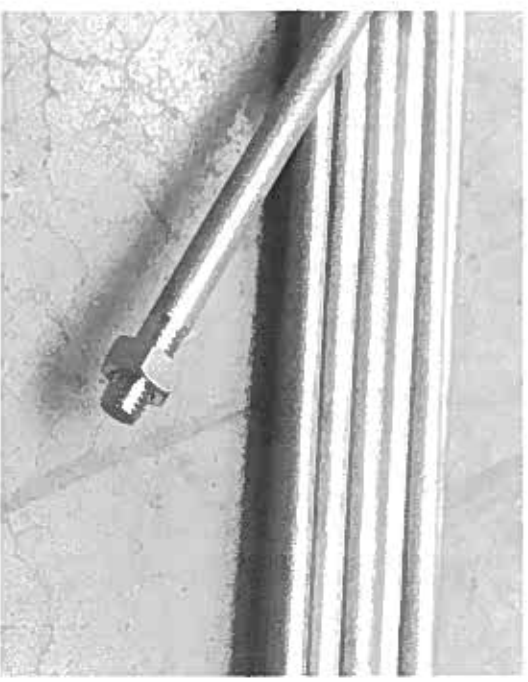
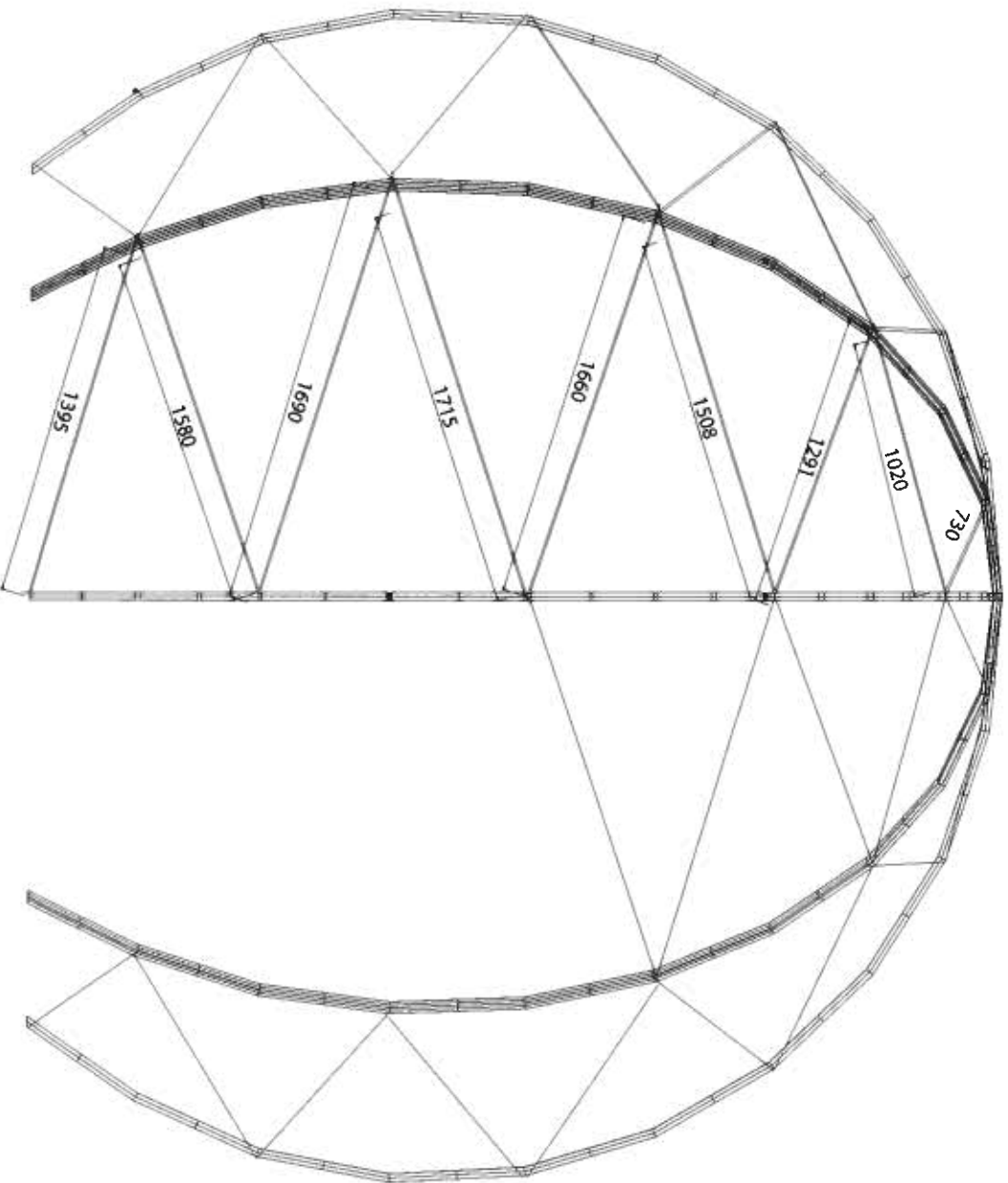
Connection pipes

Aluminum discs are screwed on to a sheet and the screwed into the top pipes of the construction, making it easy to slide the bows into this while mounting.



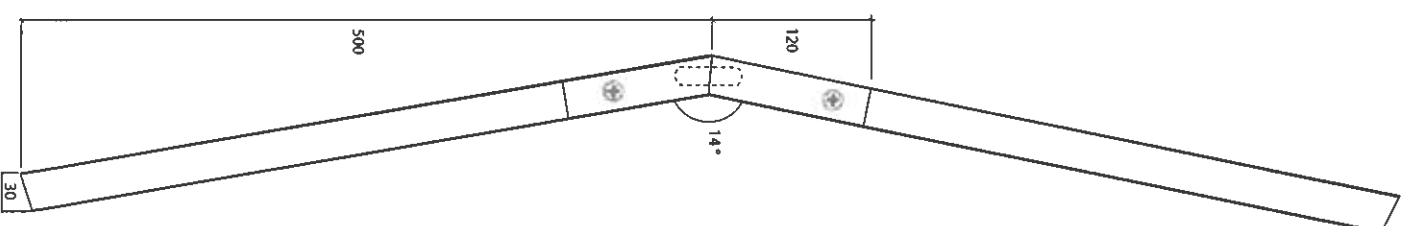
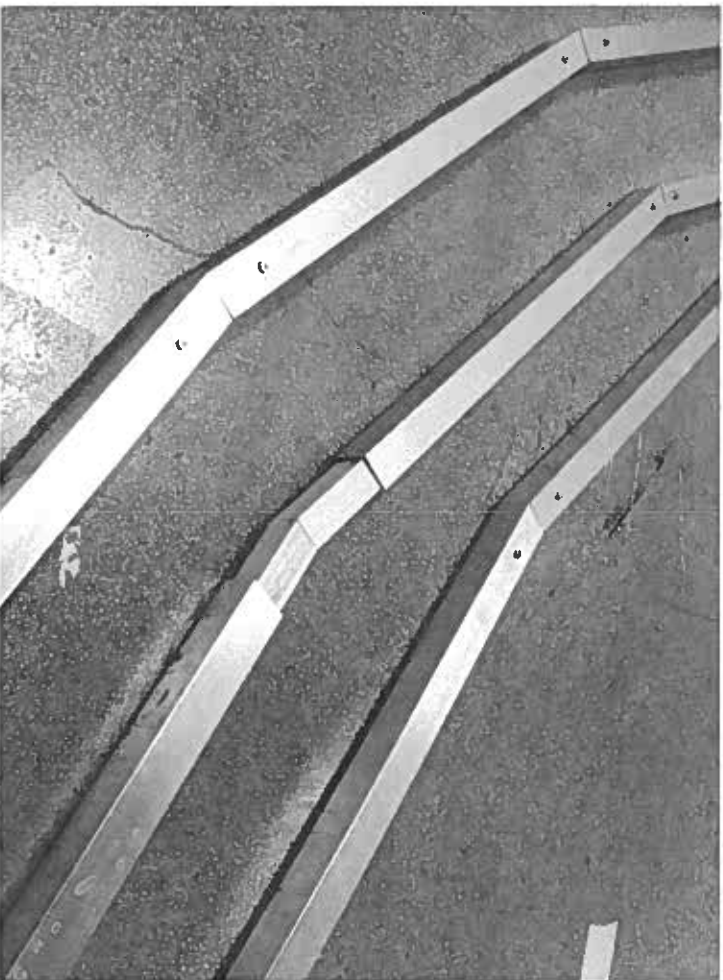
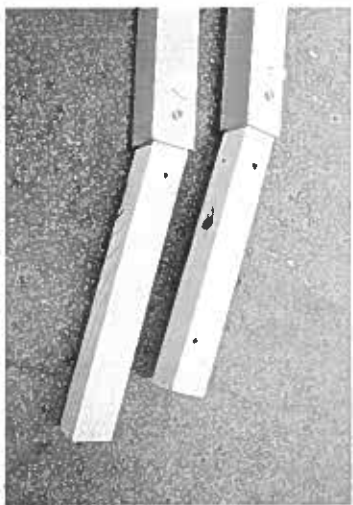
BARS

Aluminum bars in nine sizes threaded on both sides.



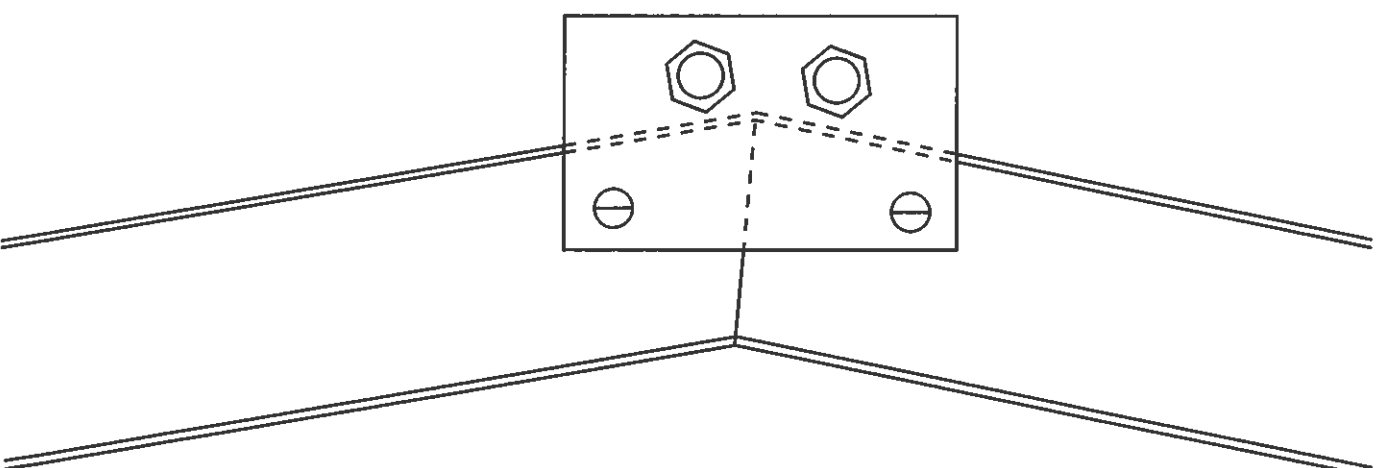
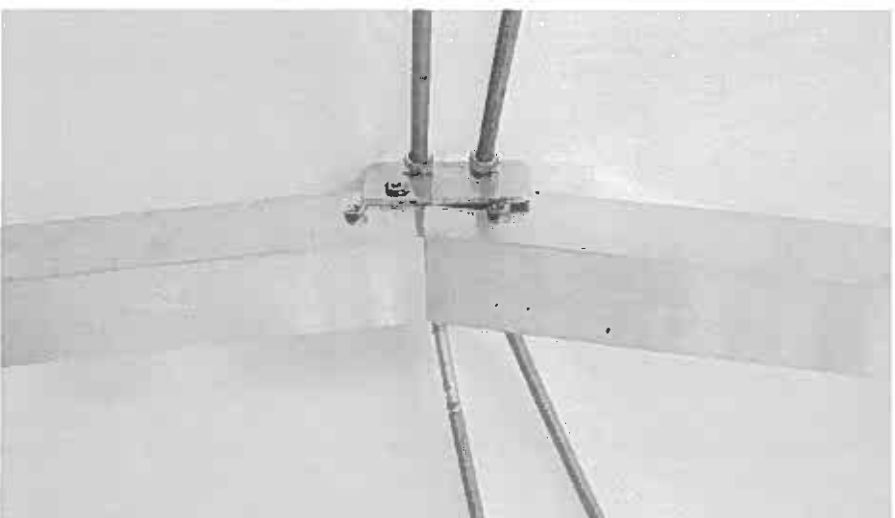
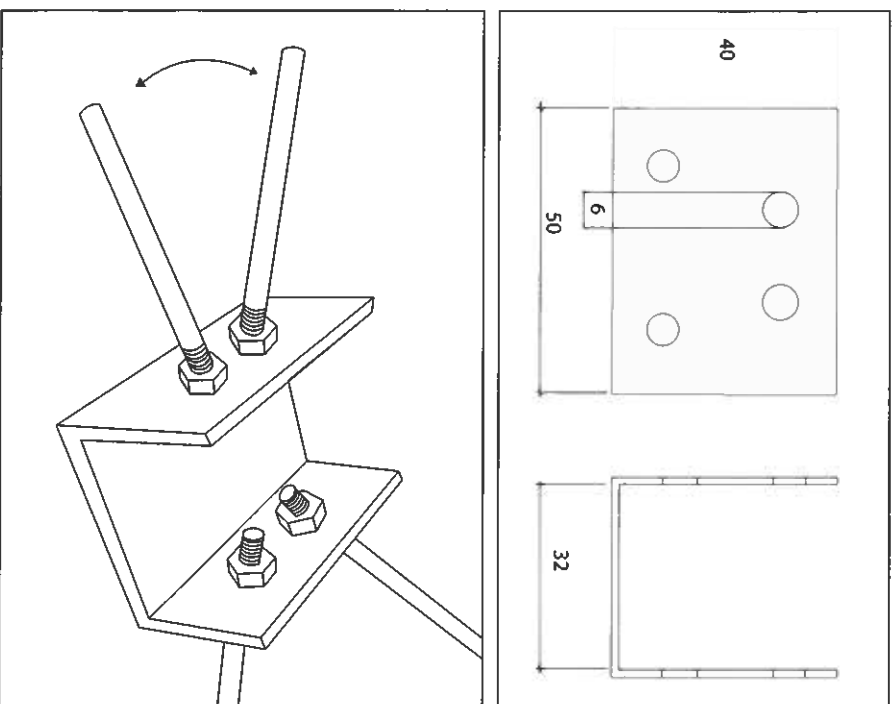
PIPES & WOODEN JOINT

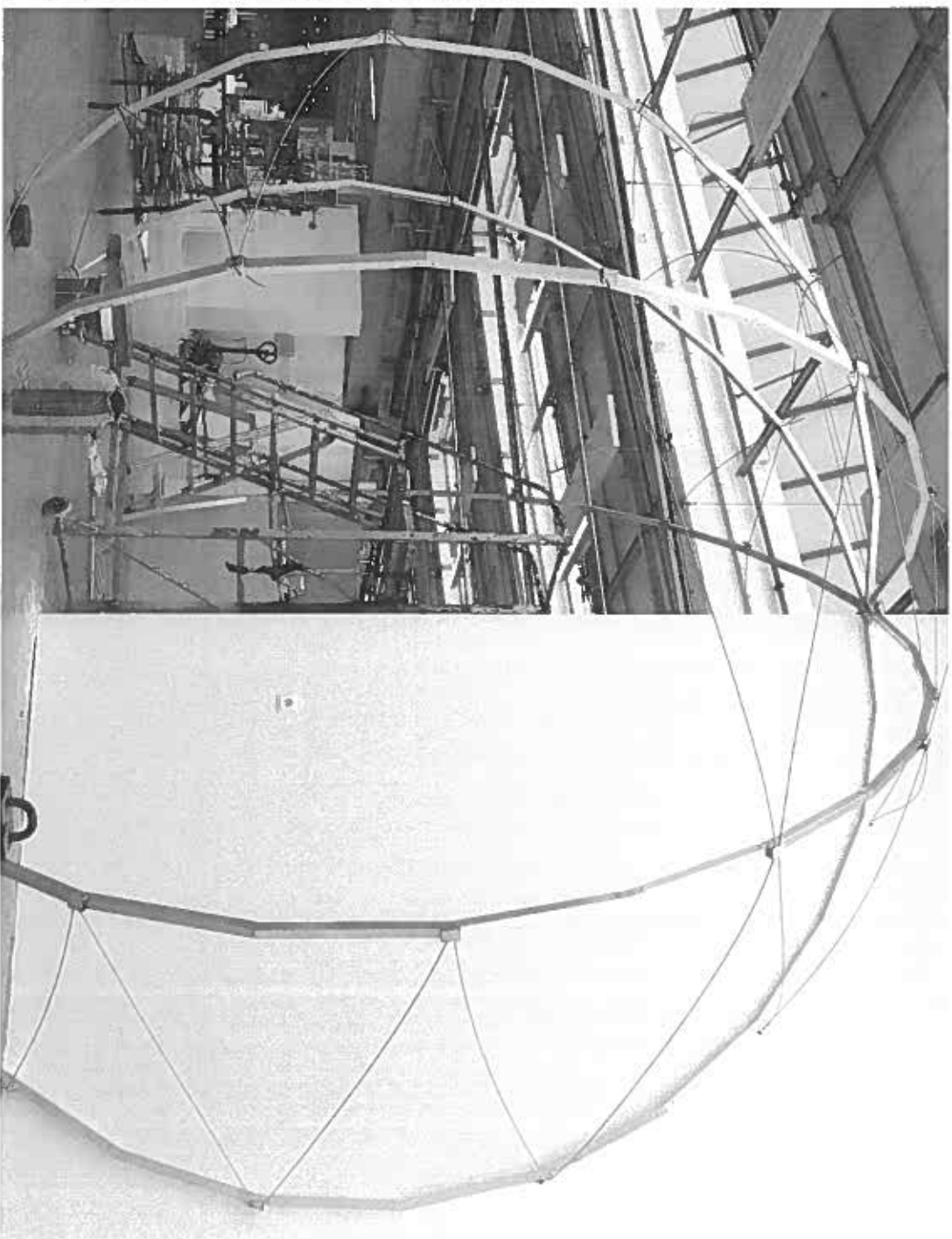
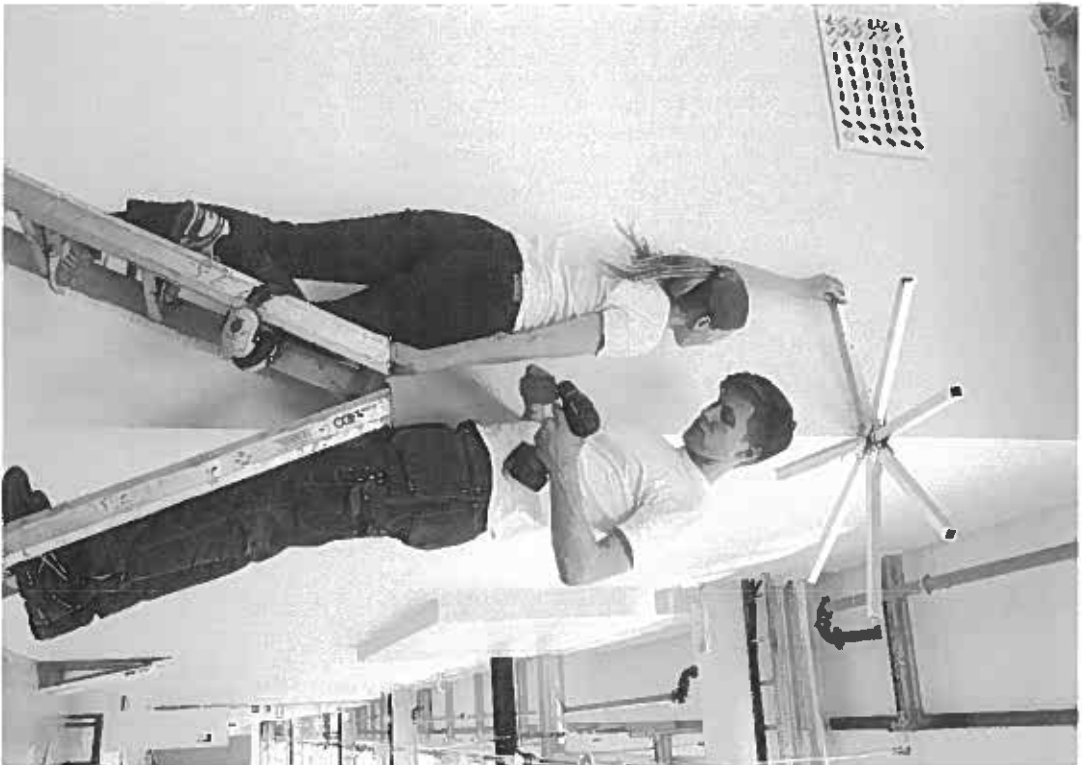
Material pipe: 30X30mm square aluminum pipe.
Joint: Pine 25x25 mm in prototype (preferred steel), fixed with glue and wooden plug 8 mm.

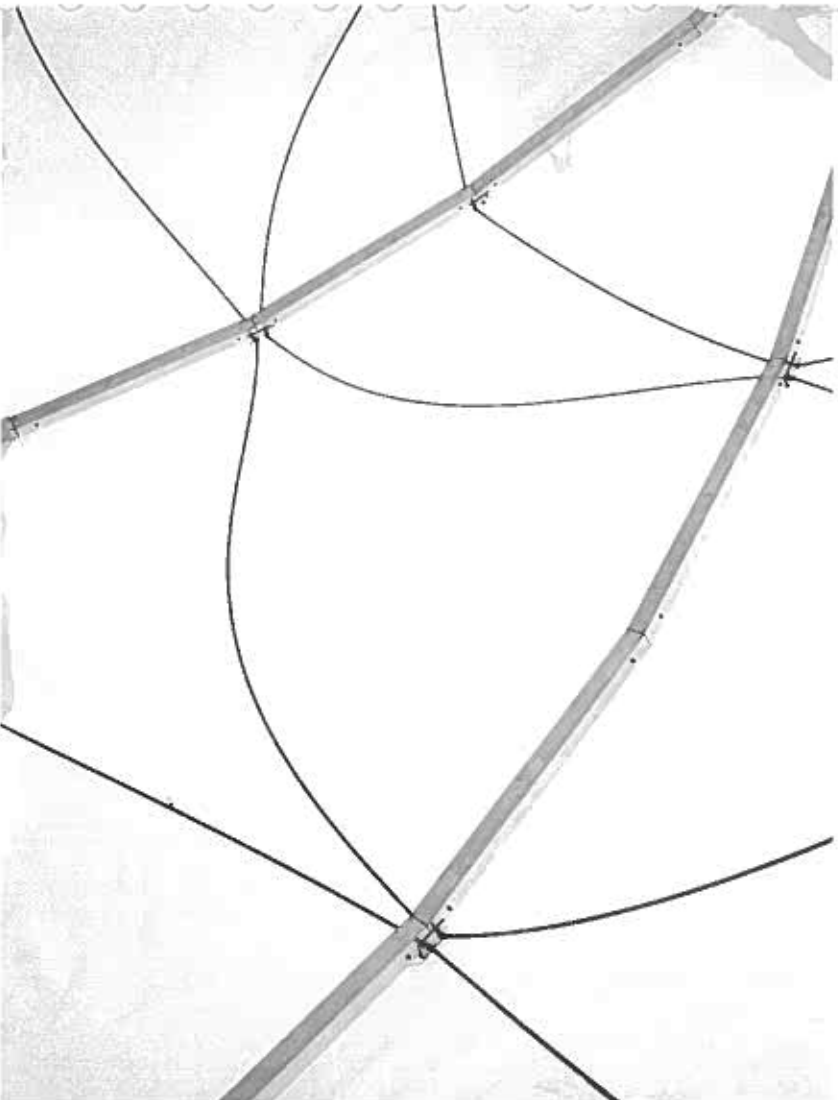


U PROFILE

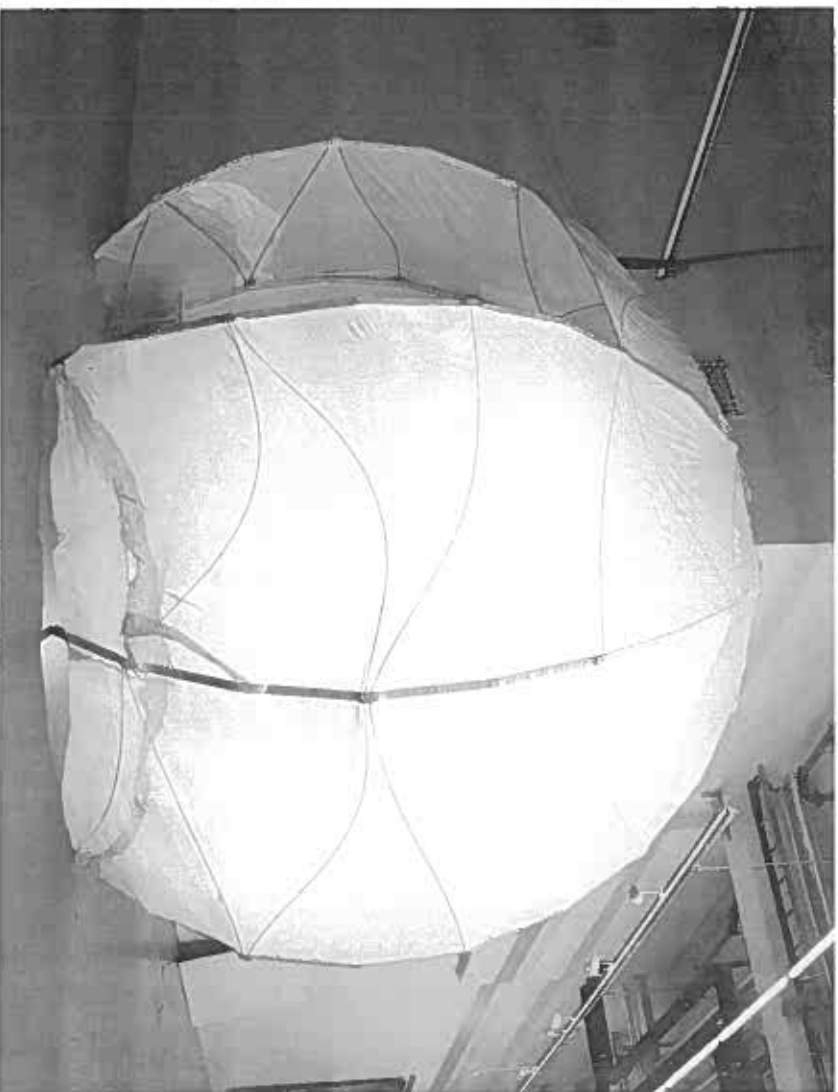
Threaded aluminum bars are fixed in the profile with a locking screw-nut on both sides. The bar needs flexibility in the construction, so the dimensions of the holes are slightly bigger than the bar. The profile is then places on the pipe with a distance, the space for mounting.







The bars curved because of the pressure of the plastic wich was a nice effect.





SUMMARY

After my presentation, I got some questions regarding the nature of my work, in what I'm trying to achieve. Some of the critique was that my piece did not serve the courtyard, the people that used it.

I see my work as an architectural interpretation/formation that elevates the value of a corner. Using the shape of a dome, a shape that usually associated with a sacral context, I magnify something that isn't holy at all, rather the diametrical: The corners, an everyday meeting place, an architectural beauty spot, fault or however you see it. Using that existing fact and to pair it up with another existing fact (the dome), creates a symbiotic relationship between the both. That to me is to me very interesting and that is the point I want to get across in this project. If discuss the function for it, you can you call it a meeting place between neighbors, a hideout for gathering thoughts, a green house or whatever you want to fill it with. What I have explored in this project is the frame of it. You can compare it to a stair, where the thought function is moving from one level to another but it actually has more functions like gathering people, sitting, having an overlook etc. My thought function is a protection and sitting area, and everything what else happens there is not for me to say. I am not directing.

Theoretically, I could have been finished with the project with that motivation. However, return-

ing to one of my key words of the project, "hands on", it needed to be completed with my hand and not only in theory. My goal of making my project 1:1 was to make the experience of the corner physical. What I could only assume in my model came to life when trying out full scale. All construction details were custom made by me, details that are usually overlooked when only working with models. This was a goal all along in the project, never letting go of the hands on approach and the belief that anything is possible. Building is not that hard! And I learn far more from constructing a profile in the workshop that drawing it in the CAD program. Thinking while making. A few insights came along the way:

The full scale become as evidence that the dome, in my opinion actually needs to go bigger. Considering the size of my courtyard, it should be bigger to fit more people. However, for the size and purpose of Vita havet, it worked.

Making the project come together in the end was a group effort, and would not have been possible without the help of others. This was a challenge, since I have been working so much individual before without reflection. Out if habit, fear, I am now coming to realize that, that way of working does not suit me anymore. I want to work with others, in a context where the journey from idea/concept/process/execution can be shorter, constructive and more joyful. That is my goal now!

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12. PICTURES

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- E. Fasaden & stadsrummet, Wulz F
- F. Fasaden & stadsrummet, Wulz F
- G. 20120317 <http://arkinethlog.wordpress.com/2010/02/19/agenda-the-bucky-bar-opens-tonight/buckminster-fuller-1/>
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All other photos taken by me.