

NEVS

Lunds University
Bachelor of Fine Arts



N - 2030

2023 | arvid schwartz

Bachelor Degree Work

Lund University
School of Industrial Design

Department of Design Sciences

Year of completion: 2023
Document submitted: 2023

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ISRN:

LUT-DVIDE/EX--23/50620-SE



LUND
UNIVERSITY

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ABSTRACT

N-2030 is an autonomous car-sharing interior concept that suggests what we humans could be doing in the future of vehicles.

Dead time during travelling opens up new abilities of spending time. N-2030 has a focus point on investigating how people have and are using free time in everyday life. Fully autonomous vehicles opens up an opportunity to break the tradition of what to do in a future car interior, and instead look at a vehicle from a new perspective.

One of the main things in the project has been to analyse what activities humans could do when the vehicle is: IN MOTION and STATIONARY.

The secondary focus has been to create something unique and catch the emotion of how humans could use the interior. N-2030 is designed to be used for a duration of 15-60 minutes within cities.



COLLABORATION

NEVS

This project was a collaboration with the car manufacturer NEVS. NEVS was founded with the determination to make a positive change for those around us and for generations to come. They provide transportation solutions and electric vehicles that give opportunities to more quality of life.

BACKGROUND

The project is mainly focused on developing an interior, based on 6 factors. The vehicle should be level 5 fully autonomous and shared by random people. The interior is designed to be used of 4-6 people, and duration from 15-60 minutes. The service is designed to be used in China and Europe.

4 - 6
PEOPLE

15 - 60
MINUTES

AUTONOMOUS
CAR SHARING | EUROPE | CHINA



15-30



30+



30-60



30-60

STATIONARY

Questions during the start of the research came up, such as what the users should do in the interior when the vehicle is for example; waiting for some more people or when a group of friends have ordered the service, and they would like to hang out in a city park. Is it possible, and if so how, if the interior activities could be different when the vehicle is stationary.



IN MOTION

One of the main things in the project has been to analyse what activities humans should do when the vehicle is: IN MOTION and STATIONARY. Dependent on how long a user stays in the interior, the activities can be very different. This is very common to see nowadays when we humans travel.



ABOUT THE PROJECT

THE OUTCOME

The project has a focus point on investigating how people have and are using free time in everyday life. My thoughts, a user survey combined with a very open conceptual creative process, what I think people are going to do within the vehicle space in the future.

POETRY

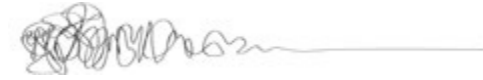
The project is heavily concept based and has a few boundaries to follow. The process has a poetic feel to it. With such an open process I have the ability to feel and reflect a lot. The result is a heavy personal outcome.

PITCHED IDEA

dead time during travelling opens up new abilities of how people want to spend their time during the trip.
investigate how people use their free time in everyday life.



PROCESS IDEA



The project consists of a research phase, user survey and a heavy personal inspiration phase. Combining with how humans have used free time in the past, with what we humans are doing nowadays during personal free time with help from user surveys, I have been able to create new activities from words, and from

USER SURVEY + RESEARCH INSPO

shape what activities exist in interior.
create new activities from words.

+



JUST LIKE PICKING FRUIT

Combining the words from the past and from the user survey, I could see them together in a bigger picture, and from there on come up with new activities based on these two milestones.

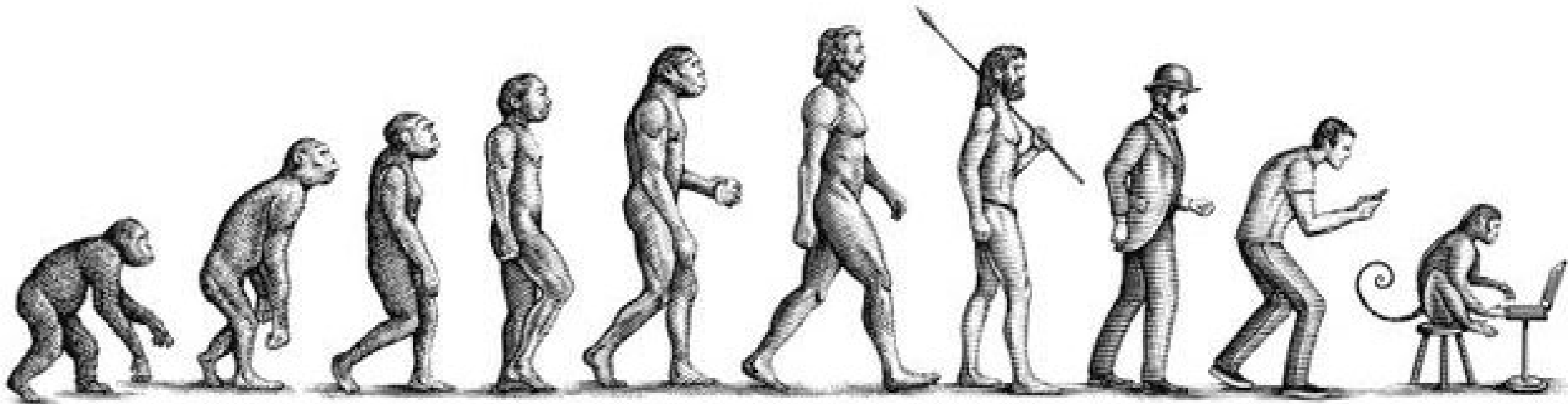


FINAL BRIEF

Design a future car interior, based on how people have and are using free time in everyday life

RESEARCH

01



DEFINITION LEISURE

What is the definition of Leisure Time? In order to start the process of this project after creating my brief, I had to get a grasp understanding of what Leisure Time is and what it stands for.

Thorsten Veblen's definition of free time follows "nonproductive consumption of time". Wikipedia's definition of free time explains it very well and follows "free time is spent away from business, work job hunting, domestic chores, and education, as well as necessary activities such as eating or sleeping".

My personal definition would be that Leisure Time is created during the day in between activities when we have no active purpose doing anything in just that specific moment.



Leisure

From Wikipedia, the free encyclopedia

This article is about free time. For other uses, see [Leisure \(disambiguation\)](#).

"Free time" redirects here. For other uses, see [Free time \(disambiguation\)](#).

"Relaxing" redirects here. For the racehorse, see [Relaxing \(horse\)](#). For other uses, see [Relaxation](#).

"Timepass" redirects here. For the 2014 Marathi language film, see [Timepass \(film\)](#).

Leisure has often been defined as a quality of experience or as **free time**.^{[1][2]} Free time is time spent away from business, work, job hunting, domestic chores, and education, as well as necessary activities such as eating and sleeping. Situationist International proposes that leisure does not evolve from free time, and free-time is an illusory concept that is rarely fully "free"; economic and social forces appropriate free time from the individual and sell it back to them as the commodity known as "leisure".^[3] Certainly most people's leisure activities are not a completely free choice and may be constrained by social pressures, e.g. people may be coerced into spending time gardening by the need to keep up with the standard of neighbouring gardens or go to a party because of social pressures.

Leisure as experience usually emphasizes dimensions of perceived freedom and choice. It is done for "its own sake", for the quality of experience and involvement.^[1] Other classic definitions include Thorsten Veblen's (1899) of "nonproductive consumption of time."^[4] Different disciplines have definitions reflecting their common issues: for example, sociology on social forces and contexts and psychology as mental and emotional states and conditions. From a research perspective, these approaches have an advantage of being quantifiable and comparable over time and place.^[5]

Leisure studies and **sociology of leisure** are the academic disciplines concerned with the study and analysis of leisure. **Recreation** differs from leisure in that it is a purposeful activity that includes the experience of leisure in activity contexts. Economists consider that leisure times are valuable to a person like wages that they could earn for the same time spend towards the activity. If it were not, people would have worked instead of taking leisure.^[6] However, the distinction between leisure and unavoidable activities is not a rigidly defined one, e.g. people sometimes do work-oriented tasks for **pleasure** as well as for long-term utility.^[7] A related concept is social leisure, which involves leisurely activities in social settings, such as extracurricular activities, e.g. sports, clubs. Another related concept is that of family leisure. Relationships with others is usually a major factor in both satisfaction and choice.

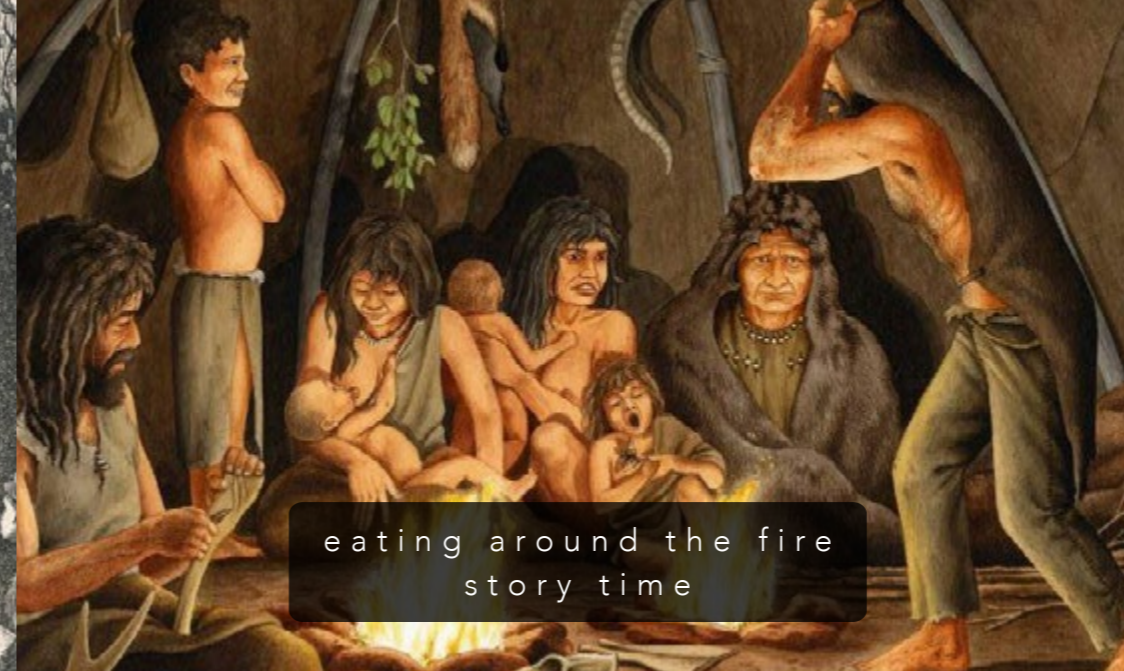
EVOLUTION OF FREE TIME

How have we human used Leisure Time in the past? Nowadays we have direct access to technology, which many people use when free time is in the moment. The time frame I have investigated is mainly the Stone Age.

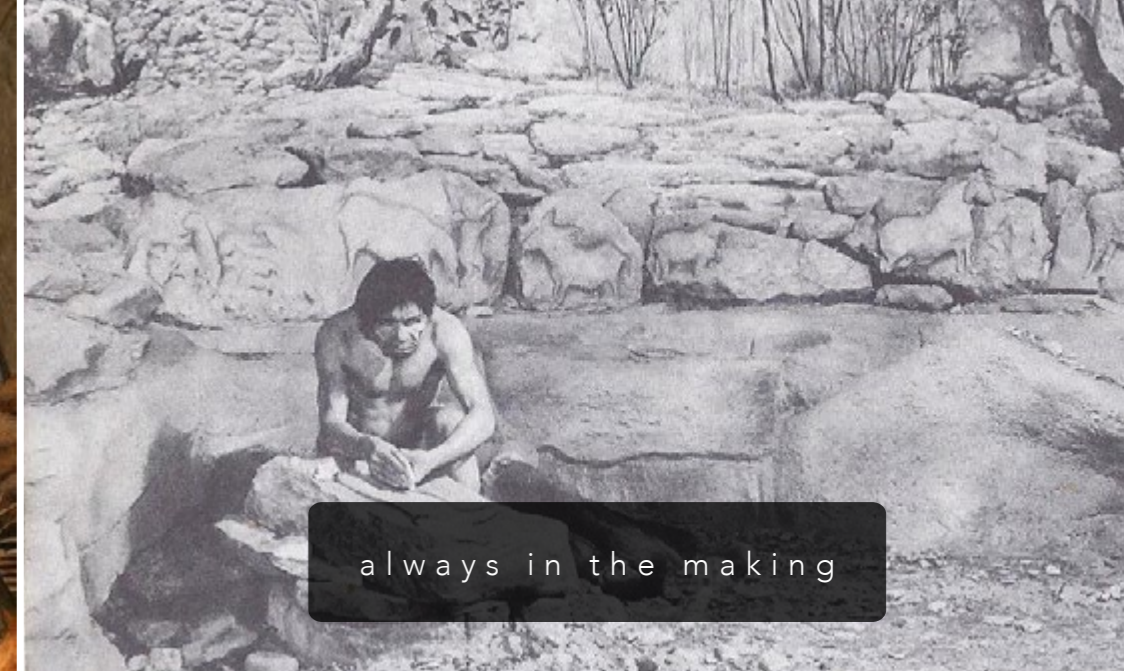
We humans were almost always in the making. Humans moved in groups between new places doing various activities: "hand craft, weapons, clothing and materials to mention a few. There was always something to be done during the day.



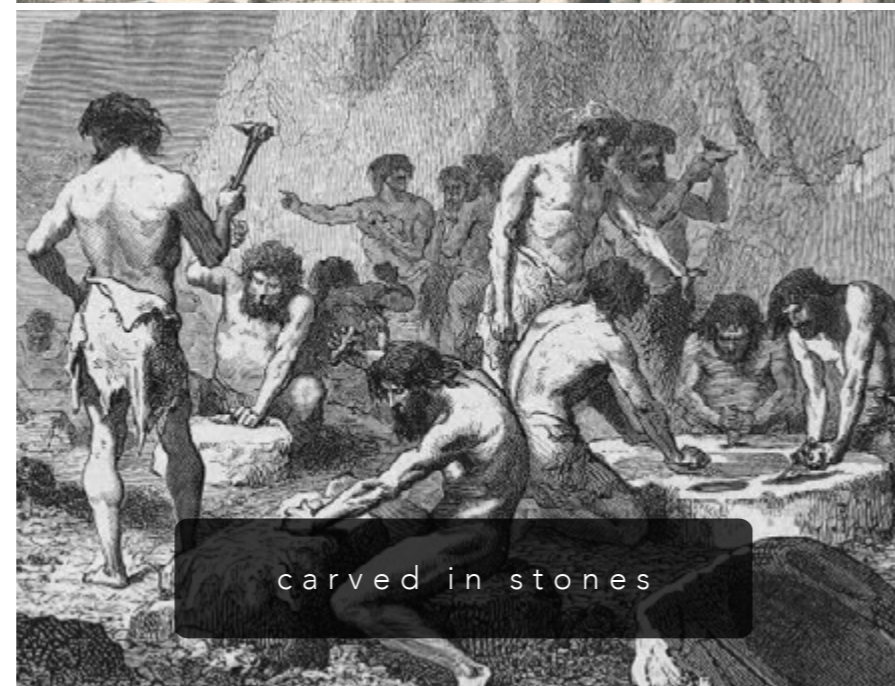
creativity



eating around the fire
story time



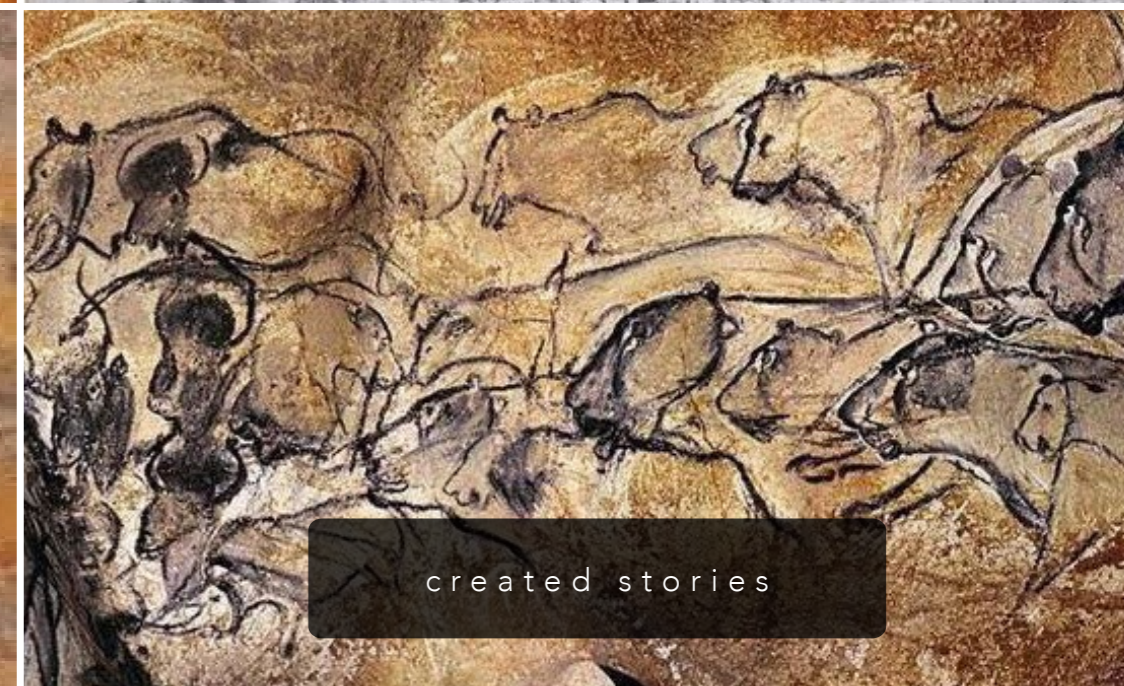
always in the making



carved in stones



hand crafts



created stories

CREATION USER SURVEY

During research, the different areas to investigate became more clear further down the process line. After finishing the first research, I began the research of how we humans are using free time nowadays by creating a Survey. The main goal was to interview different people in real life, but with the current circumstances during the project, it ended up being an online User Survey.

Lastly in the research phase, I analysed the data and started to see connections in behavior from the past to today. The heavy research phase gave me a good base to start getting creative and sketching down my first interior doodles.



QUESTIONS

USER SURVEY

One important aspect during the creation of the user survey was to have open questions that are not leading in any ways. I wanted to people who fill out the survey to reflect and not feel constrained. To achieve a balance between getting useful information out of the survey, and

Why is free time important to you?

What activities can be involved during your free time

What motion are you doing at most during free time

How old are you?

What activities can be involved during your free time *multiple choice*

What different movements in your activities are you doing when you are having free time?

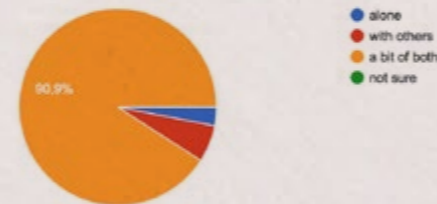


QUESTIONS USER SURVEY

One important aspect during the creation of the user survey was to have open questions that are not leading in any ways. I wanted to people who fill out the survey to reflect and not feel constrained. To achieve a balance between getting useful information out of the survey, and

Would you rather spend your time alone or with others during your free time?

33 svar



FRÅGOR SVAR 21

31 svar

SÄRSKILT SVAR ENSKILDA SVAR

31 svar

How old are you?

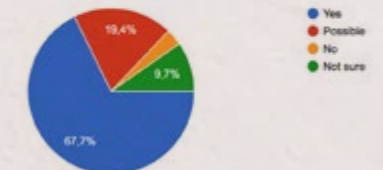
Age Group	Percentage
10-18	~1%
19-20	~1%
21-25	~1%
26-35	~1%
36-45	~1%
46-55	~1%
56-65	~1%
66-75	~1%
76-85	~1%
86-95	~1%
96-100	~1%
Other	38.7%

31 svar

What would you say would best describe your personality? *multiple choice*

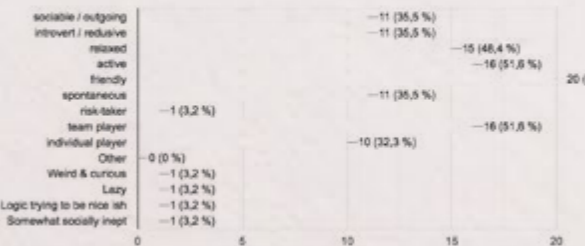
Do your activities change during free time depending on what time of the day?

31 svar



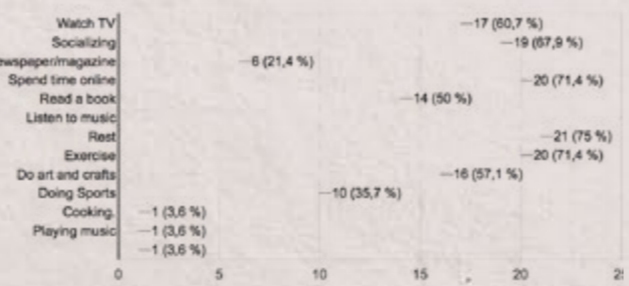
What would you say would best describe your personality? *multiple choice*

31 svar



What activities can be involved during your free time *multiple choice*

28 svar

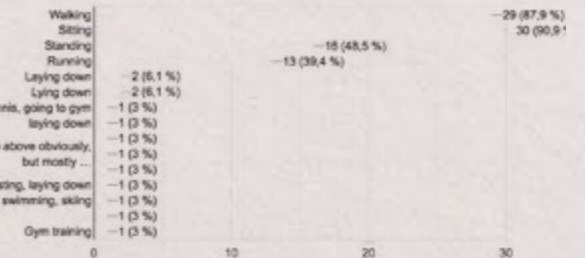


What activities are generally involved during your free time

Weight lifting, Watching TV, Playing Boardgames, "pysla"
 watching my kids doing sports, walking, doing art
 Music
 Drawing, sculpting and smoking, sketching and gym
 Gym and team sports
 I also like to dance alone in my room.
 walking, swimming, reading, wrenching
 Homework, housework, training, Netflix, reading
 lying down/back so a little more relaxed position than sitting in 90's angle
 Working out, watching series, hanging out with my boyfriend
 Didn't understand the question
 Going to the gym/running, Watching series, paint
 Forest walks
 Drawing, painting and running.
 Skiing, hiking, hunting, creating
 eating drinking nature
 Resting, playing instrument, working on cars for fun.
 Training, gym/loping/cycling
 Spending time with my daughter and doing household chores
 Alpine skiing, floating
 gym training, garden work, house renovation
 Workout at the gym
 Watch TV, working out, spending time with friends/having dinner with friends.

What different movements in your activities are you doing when you are having free time? *multiple choice*

33 svar



why is free time important to you

Time to relax, to be active, to be creative, time to meet friends.
 To recover from all duties and most do things like work and domestic things.
 It helps me to recharge and prepare for the "busy times"
 I can concentrate the time to improve myself both mentally and physically. I need free time to refill my batteries and to feel good. It makes my life richer
 To do stuff I like doing
 Relaxation and leisure
 Because work is a societal construction, a game, that really doesn't exist. Balance really.
 it allows me to get a new perspective on my work.
 I'm usually busy doing something all the time, and even if I am being social in some of these activities I can feel lonely since I use those activities as responsibilities that has to be done. If I meet a friend (even if it's from uni) in my free time I feel much better because it's a free chosen activity. Also when in really stressed times I might need some little time just by myself and relaxing.
 charge my batteries
 Time to relax and do things I like
 Even-though being a social introvert, I load my batteries by being alone or at least quiet and shutting off interactions (ex. having a lunch break listening music with headphones and eating, just to have a moment for myself and being able to interact with groups of people after a little break)
 To stay mindful, relax and get perspective
 Mind health
 I need to recharge and do what I want
 So I can just breathe and catch up with myself
 Helps me relax
 Time to recharge the batteries
 Time to recharge batteries and to get new energy.
 Get air riding for an hour or so.
 Time to spend on family, training and winding down.
 Enjoy hobbies and spend time with family
 To relax and learn new things
 time to relax
 It makes me more happy, motivated and gives me more energy if I have time to "charge my batteries". It also has a good impact on my performance in school.

EVALUATION USER SURVEY

After completing the user survey and collecting the result, I started to analyse it by finding patterns and similarities. I looked for the most common words and activities users had answered with. Following, I started to collect the final data and placed them widely in front of me to get an overview of the words. From the research of Leisure Time in the past followed by my user survey, I could already see patterns of what humans have done and are doing during Leisure Time.

human patterns - in the past - today

Is there a pattern of what people have in common

why free time is important

Is there a repeated pattern of basic movements which people do



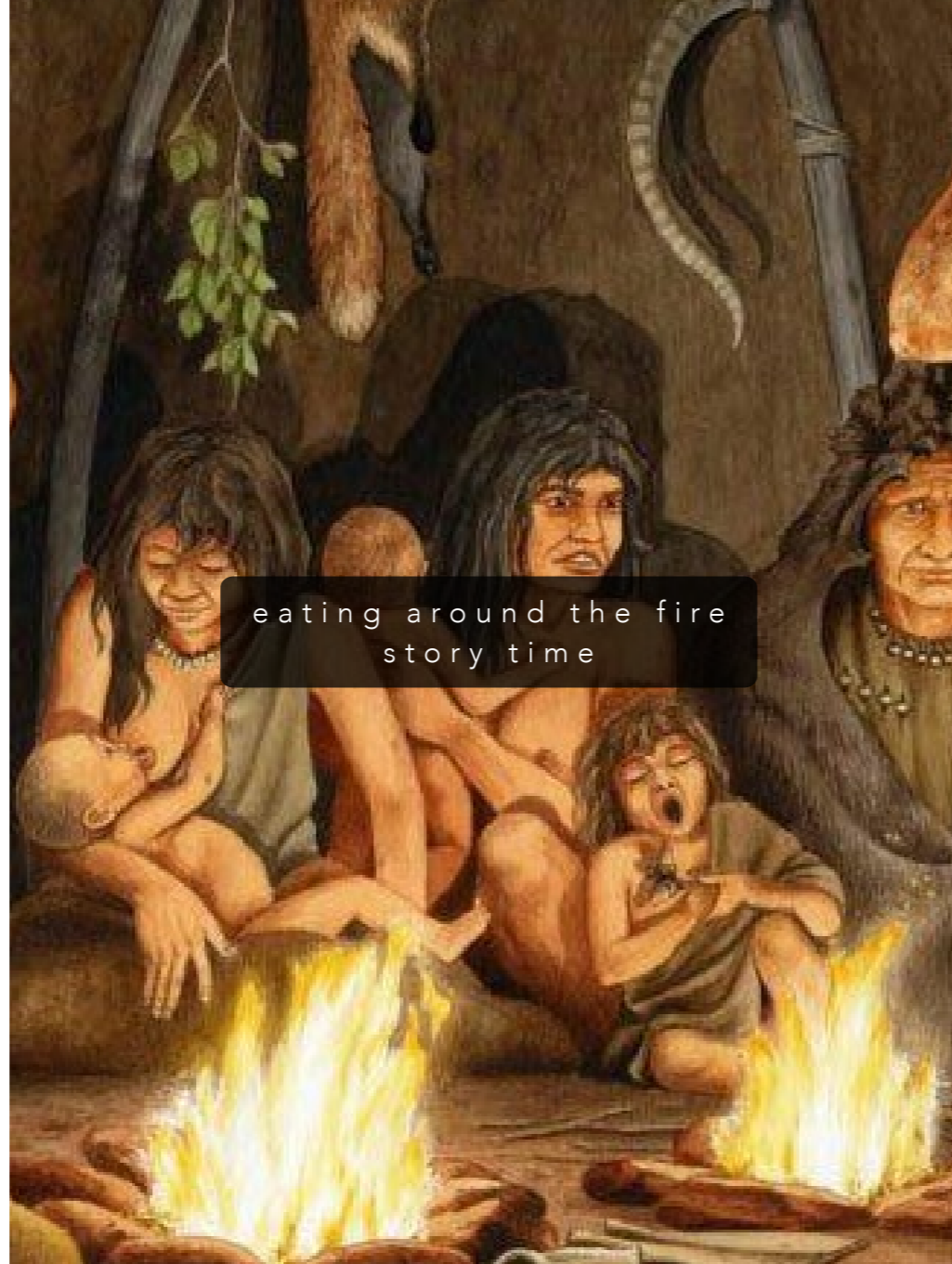
team player experience
 social music
 active/social area creative
 meet people movement body part
 mindful be alone
 personal growth recover
 working



AREA

SOCIAL / STATIONAL

The first area in the interior is the social / stational area. Following the different words from the user survey, I wanted to get a first rough visual feeling for the words by using images. After this stage I soon began to put my first rough ideas on to paper.



eating around the fire
story time



recover



active



team player



2 Chairs + Table

Sofa

experience

Bed



movement



social area



meet people

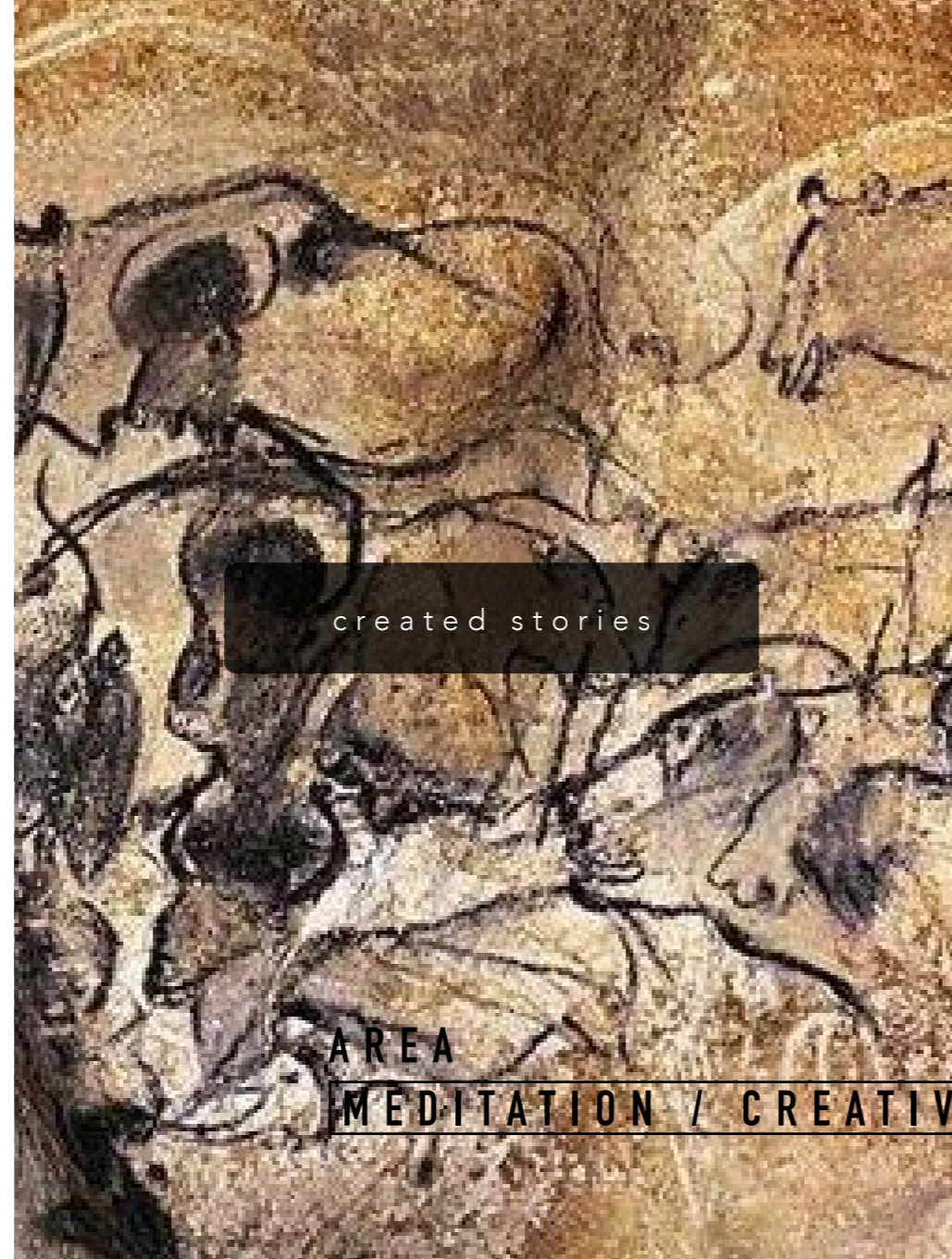


experience

AREA

MEDITATION / CREATIVE

The first area in the interior is the meditation / creative area. Following the different words from the user survey, I wanted to get a first rough visual feeling for the words by using images. After this stage I soon began to put my first rough ideas on to paper.



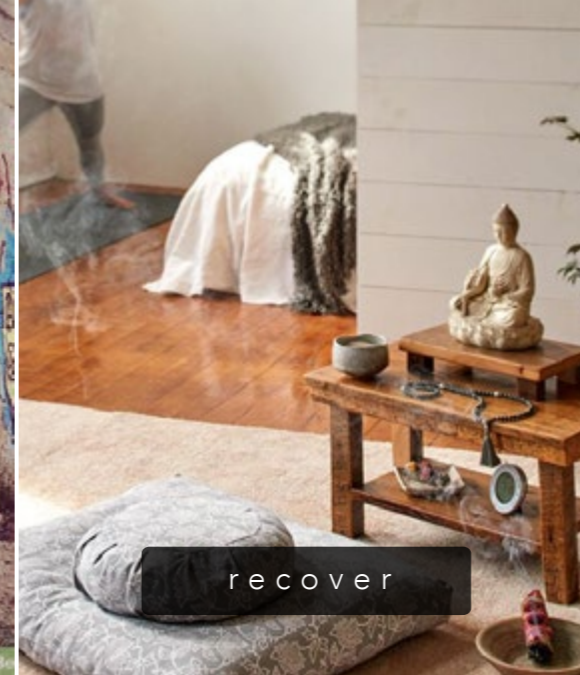
created stories

AREA

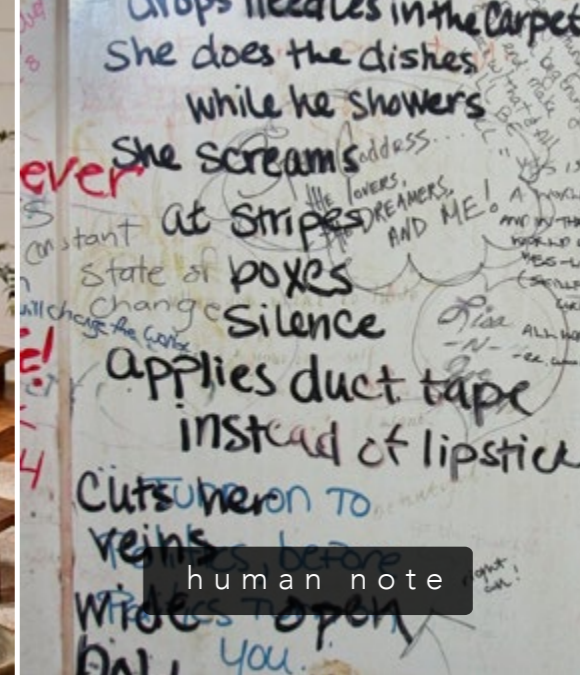
MEDITATION / CREATIVE



creative / music



recover



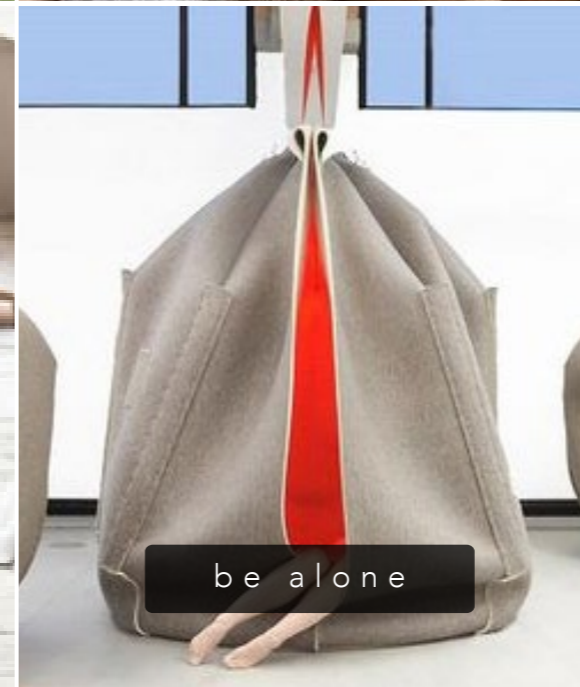
human note



personal growth



recover



be alone



stories

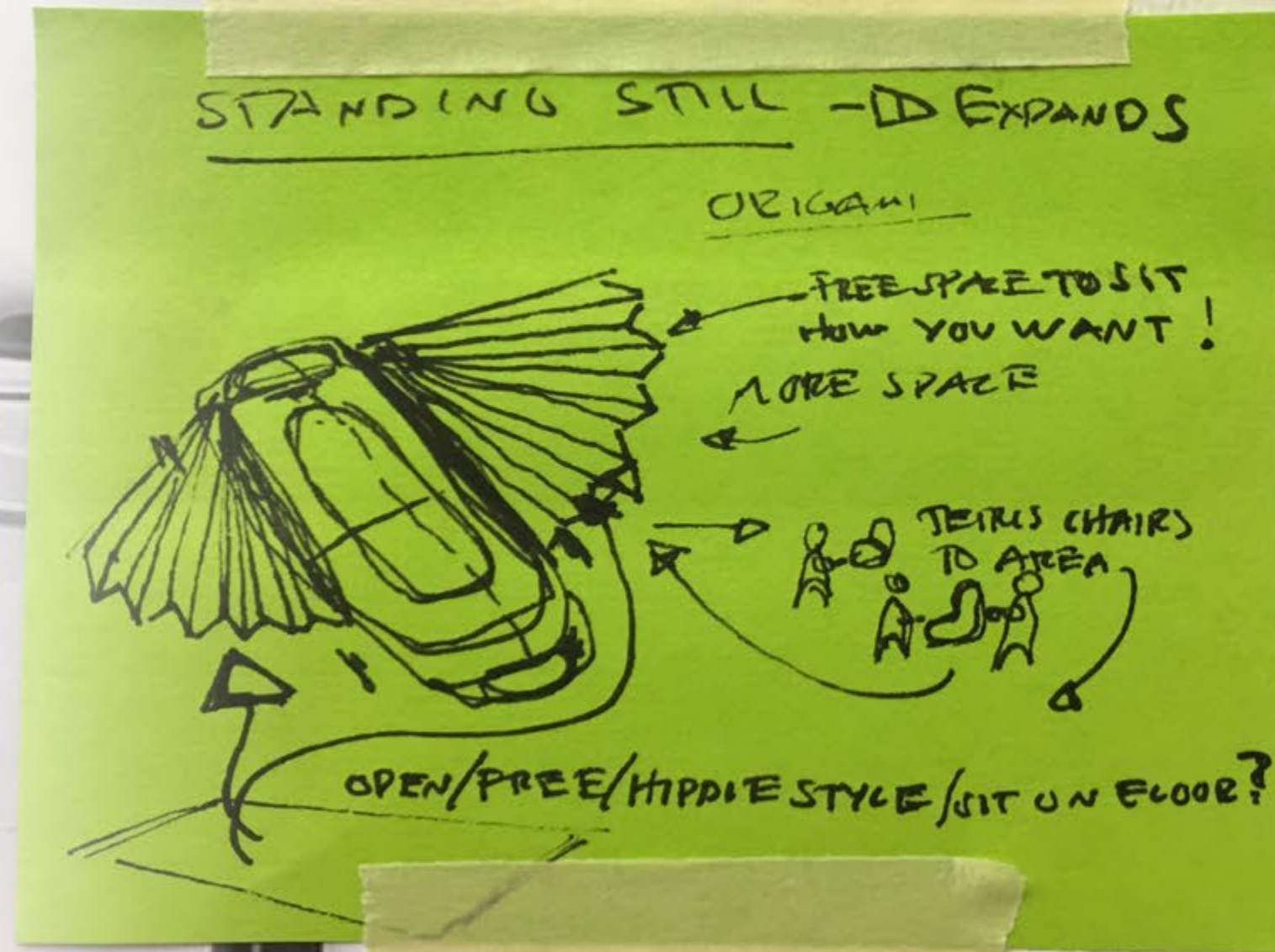


mindful

SUDDEN IDEA COMES TO MIND

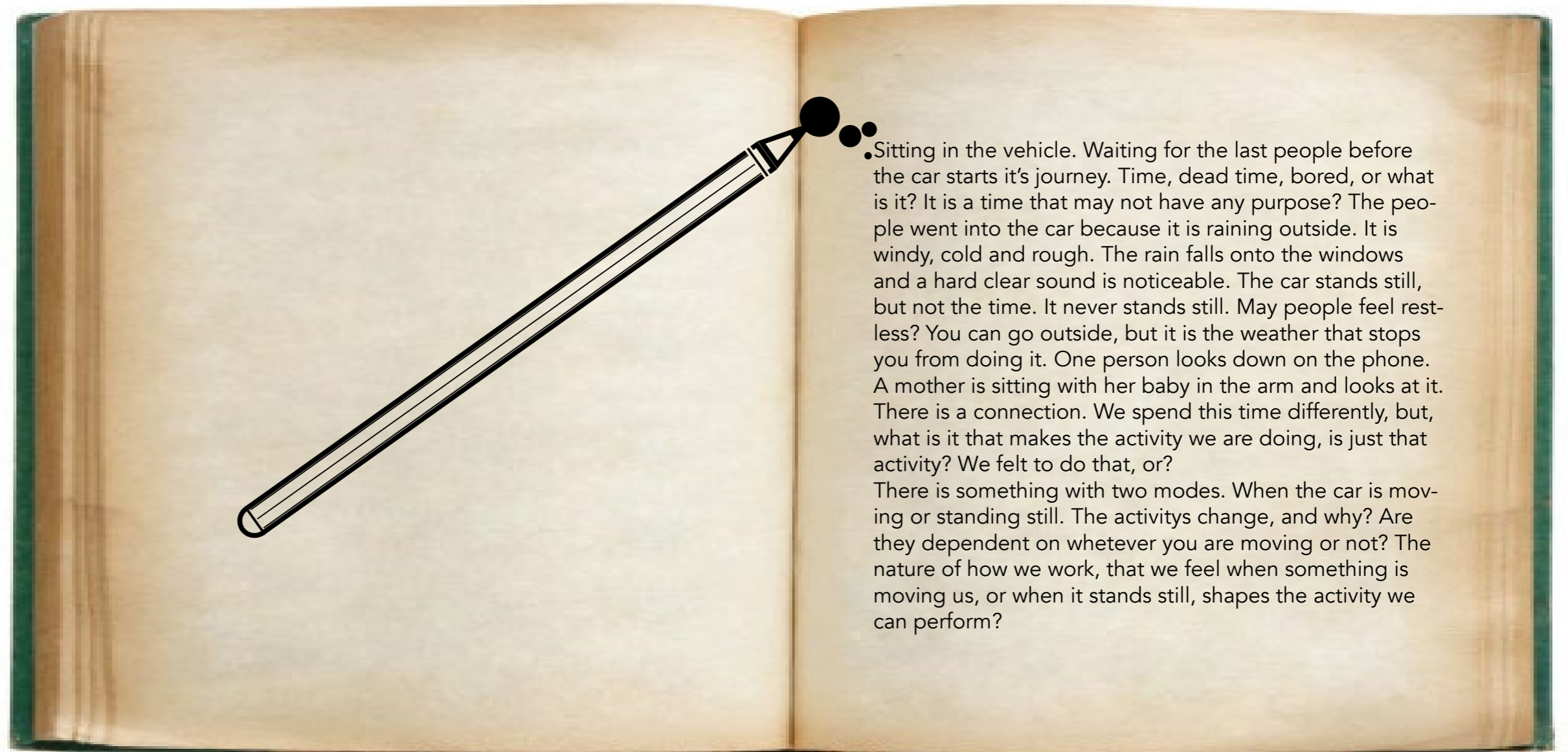
After I made the User Survey and investigated further the words which I had chosen, a mind struck my mind. The time during travelling in cities where the vehicle is currently stationary, there is dead time as well. The words "experience" and "team player" gave birth to an expanding exterior, inspired from Origami. Random humans has to help each other to expand the active space.

This sudden idea became later in the project a main focus point.



POETRY

As stated earlier in the process, this project contained a lot of reflecting, free thinking as well as poetry. This poetry as I call it, helped me to get a clearer path for how I should continue the project. Putting down words on paper from my busy mind helped me a lot. Just by only to be thinking of words was hard to put a feeling on.

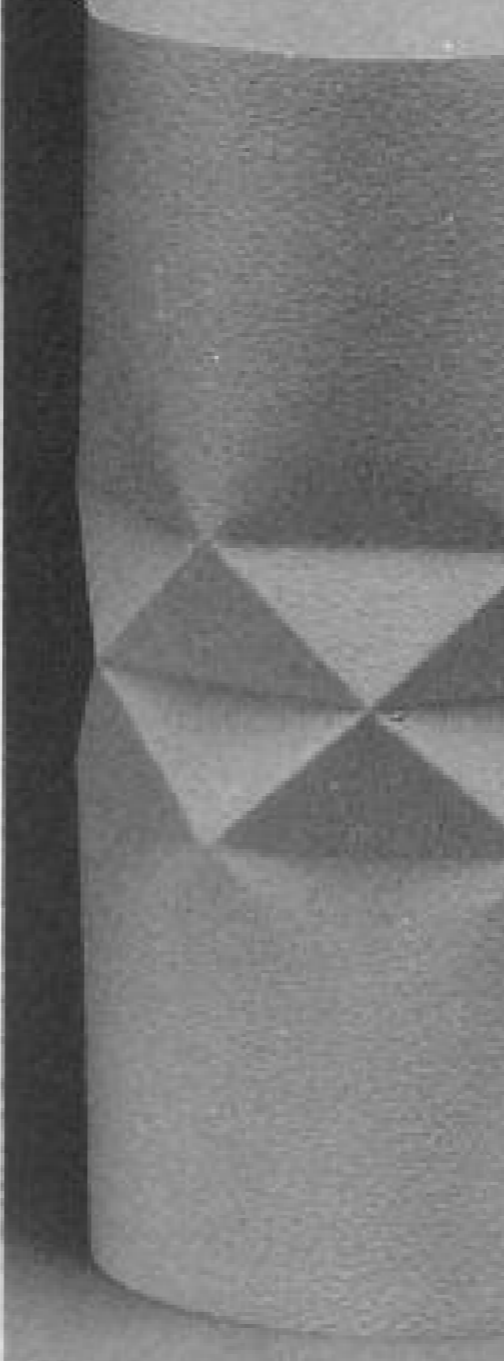
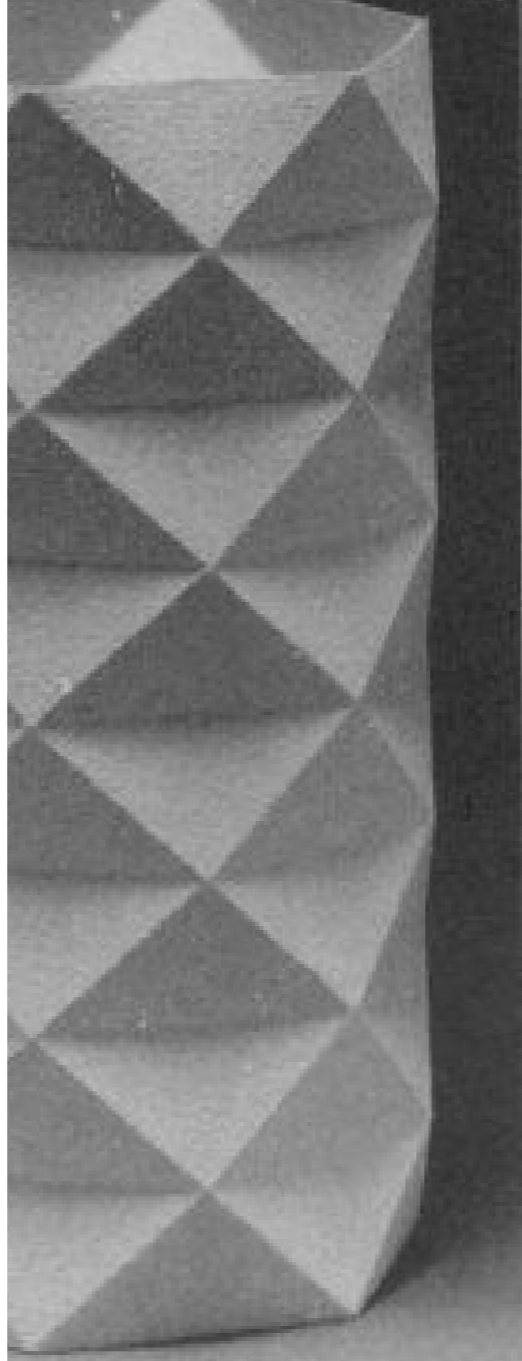


Sitting in the vehicle. Waiting for the last people before the car starts it's journey. Time, dead time, bored, or what is it? It is a time that may not have any purpose? The people went into the car because it is raining outside. It is windy, cold and rough. The rain falls onto the windows and a hard clear sound is noticeable. The car stands still, but not the time. It never stands still. May people feel restless? You can go outside, but it is the weather that stops you from doing it. One person looks down on the phone. A mother is sitting with her baby in the arm and looks at it. There is a connection. We spend this time differently, but, what is it that makes the activity we are doing, is just that activity? We felt to do that, or?

There is something with two modes. When the car is moving or standing still. The activities change, and why? Are they dependent on whatever you are moving or not? The nature of how we work, that we feel when something is moving us, or when it stands still, shapes the activity we can perform?

MOOD

First after a time into the project, I could start to feel what kind of feeling and mood this project would turn out to be. I got inspired early on from Origami, by accidently folding paper during brake from this project. As far as exterior and interior design language, I collected images representing the feeling of how I wanted the design to be based on. I got heavily inspired by minimalistic product design, given Braun as one brand. I wanted to avoid a chaotic design thus building a 1:10 model. Pure, honest, lightness, structural, playful, simple, technical, was some of the words I based my design upon.



MOOD

After the interesting research of Origami, I decided to quickly burst out a sketch on paper to get a clearer feeling of what this project might look like, exterior wise. This folding technique as on the sketch, got me interested, and it was originated from the doodle sketch "random" thought". As the vehicle is stationary, the active space opens up, almost like a peacock, and people experience a welcoming and interesting opening of the vehicle.

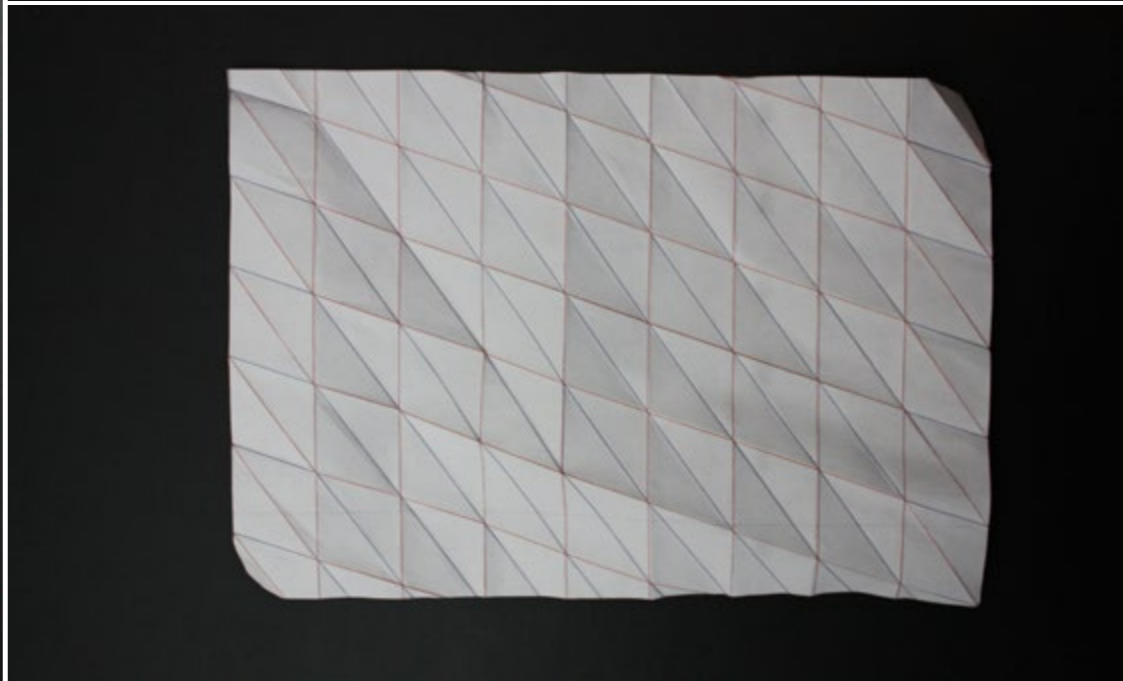
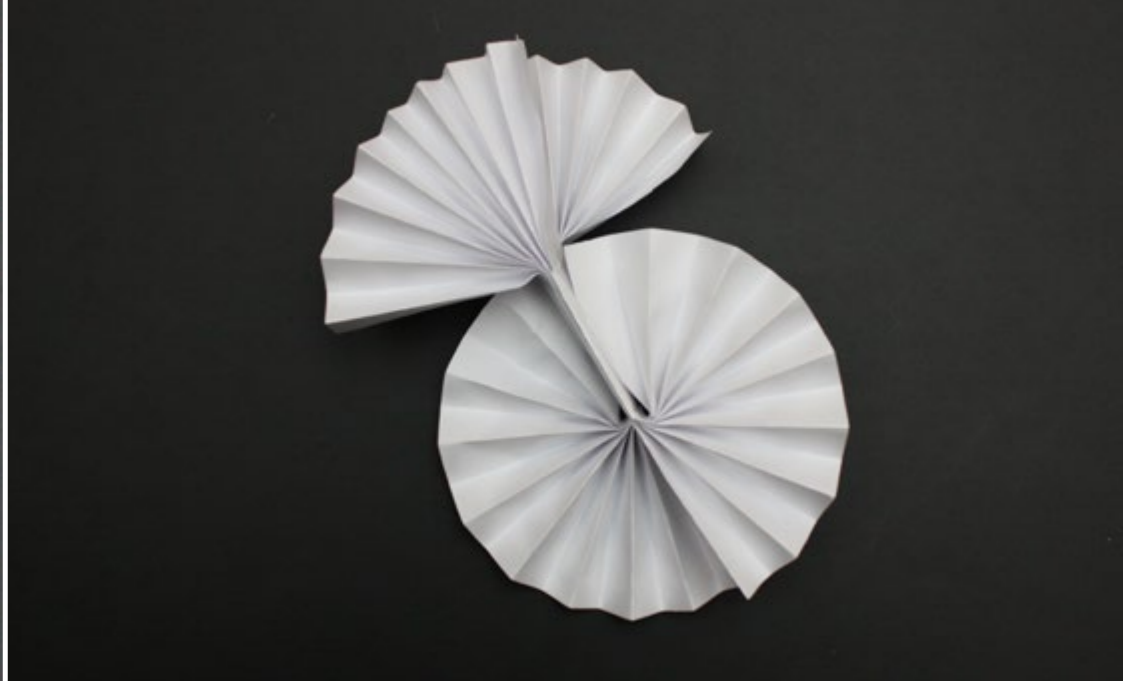
☒ 迎

welcome



ORIGAMI

As being inspired early on from the technique of Origami, I started to play further with Origami by folding different shapes. I wanted to investigate if I could use the Origami technique on several elements within the interior, not only on the active exterior. What fascinated me from Origami when looking from an interior design perspective, was the compact design solution. It can easily be folded and become compact. Not only that, it leaves the user with an unusual and interesting experience. I believe a product is well remembered if you as a user can get an instant and close relation to the product and how to use it.



RESEARCH

02

MARKET

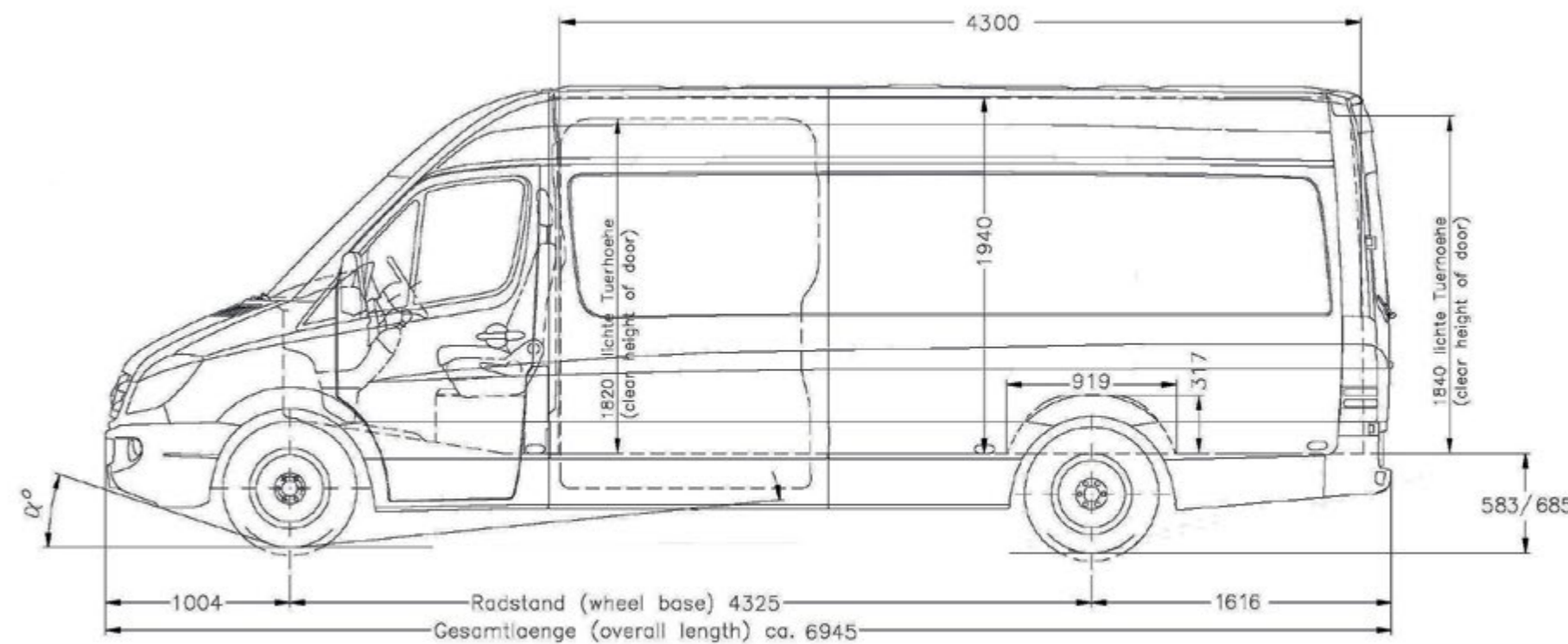
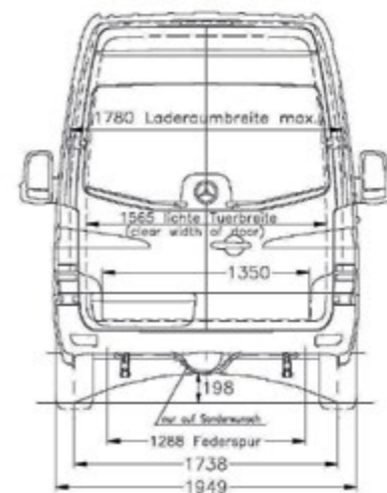
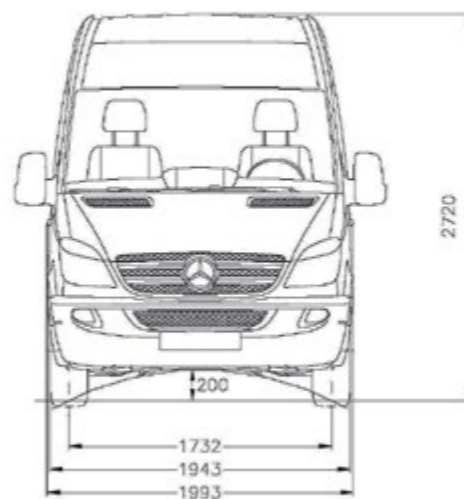
WHEELBASE

INTERIOR LAYOUT

WHEELBASE

One main important thing of the project was to really push the boundaries of what an future interior could look like and how it is being used. In combination with that, I wanted to have a realistic vehicle size and wheel base. After discussing this to my project manager at NEVS, Mikael, I finally decided to go for a wheel base based on a Mercedes Sprinter LWB (Long Wheel base) type.

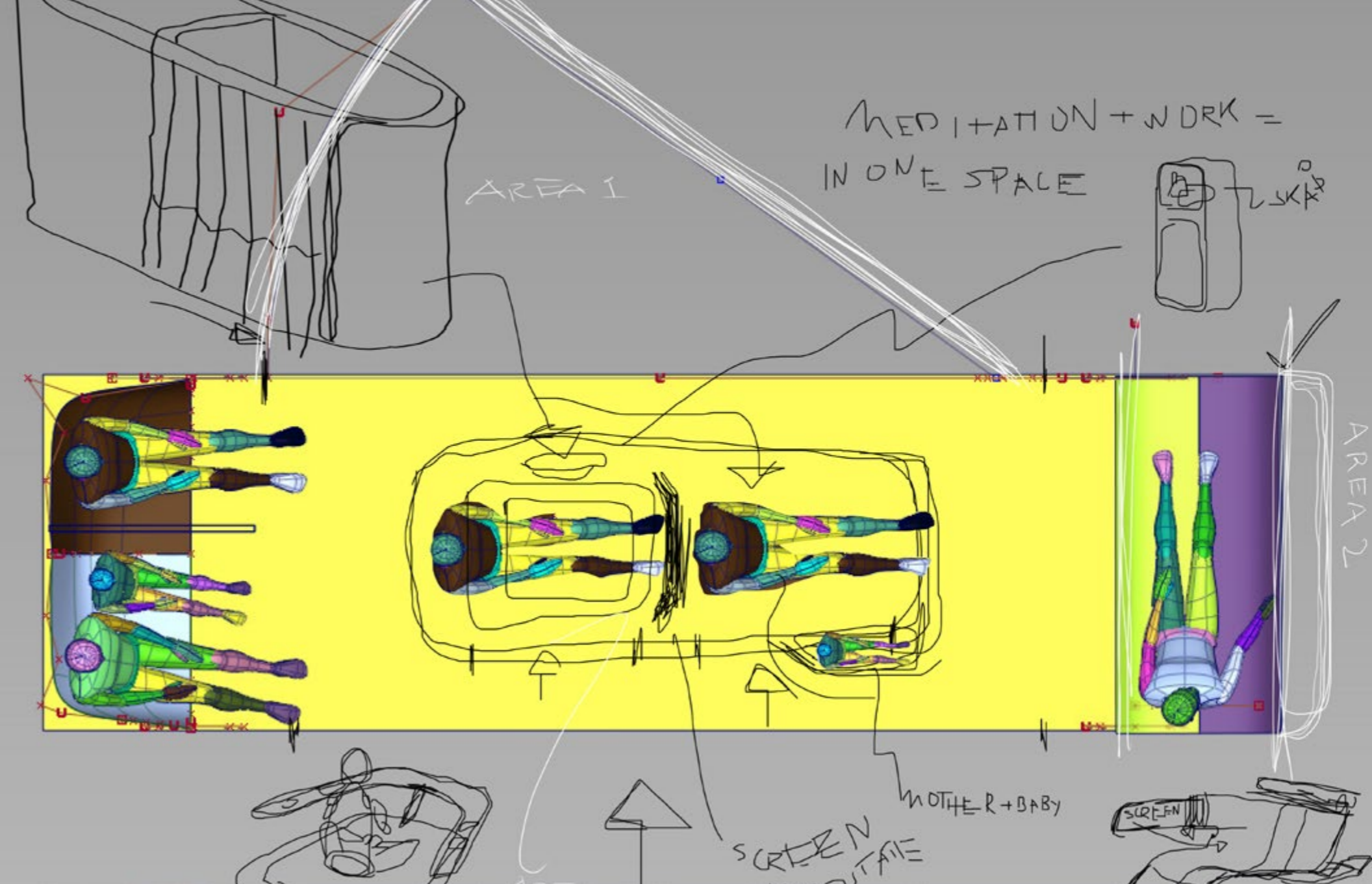
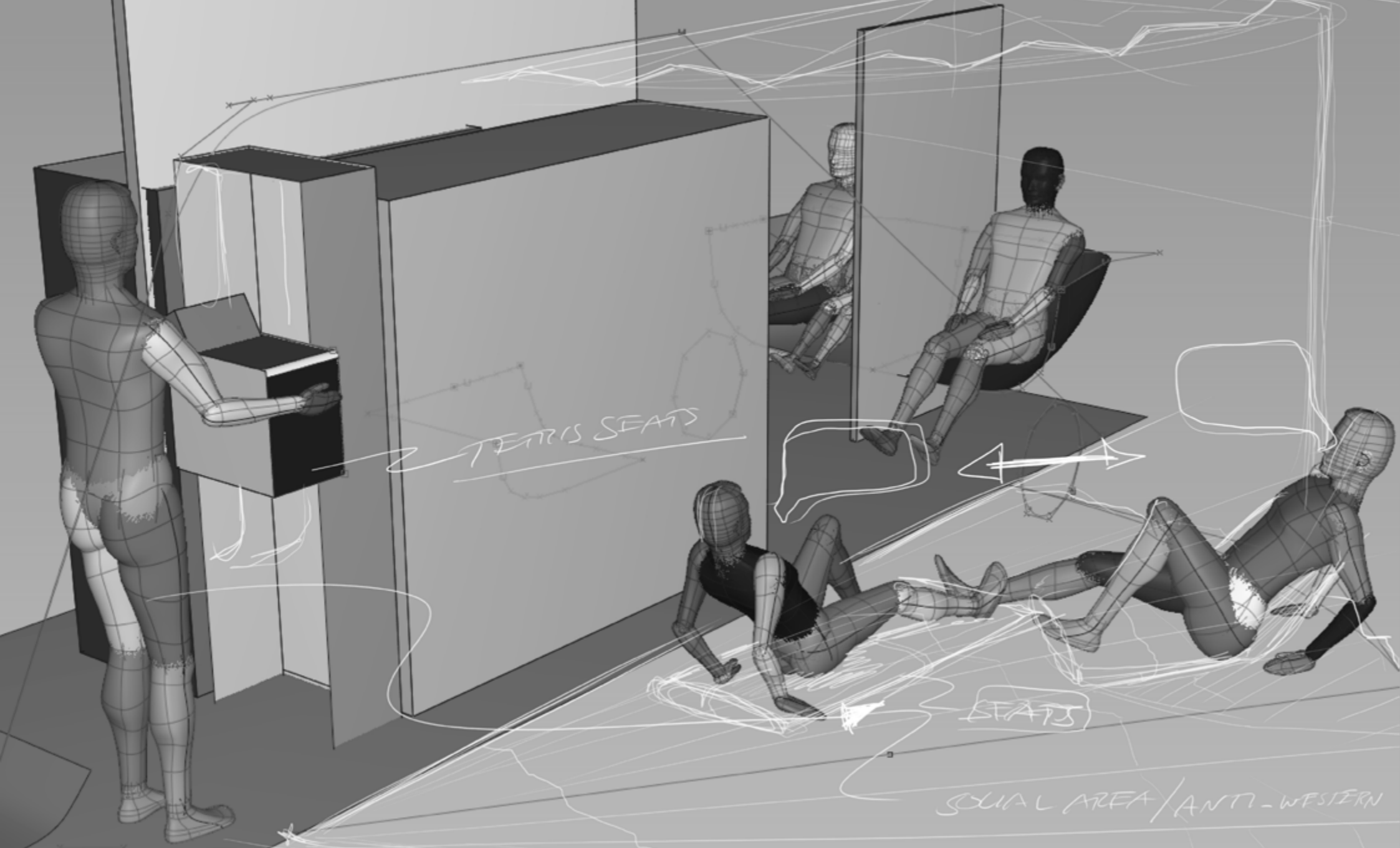
As my vehicle is designed to be used within cities and travel time between 15- 60 minutes, it had to be designed to fit current dimensions of roads.



MARKET RESEARCH

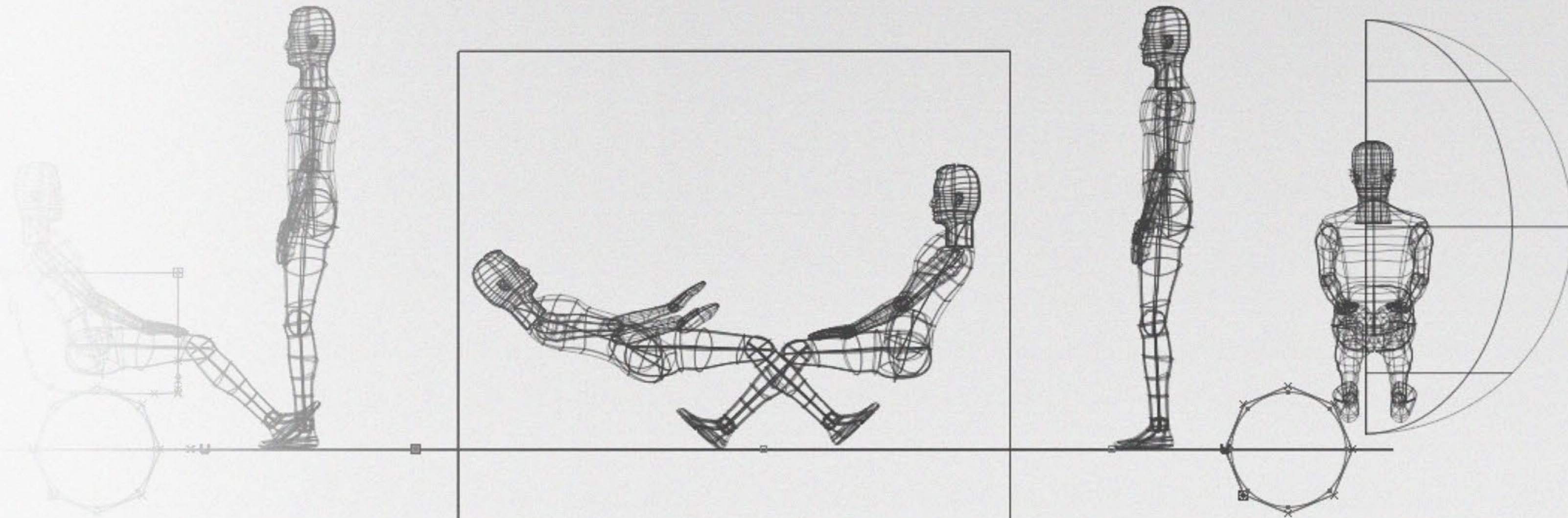
During the Market Research I investigated current autonomous vehicles which are released in near future for publicity. I looked at conceptual autonomous vehicles and project based as well, and got a great overview. Thus, this project is not based on to be a competitor within the market. The main purpose and goal of this project was to show the world a new way of looking at how we humans may be using autonomous vehicle in near future, as well as give the current people in the car industry a fresh perspective on autonomus interiors and how they can be designed.

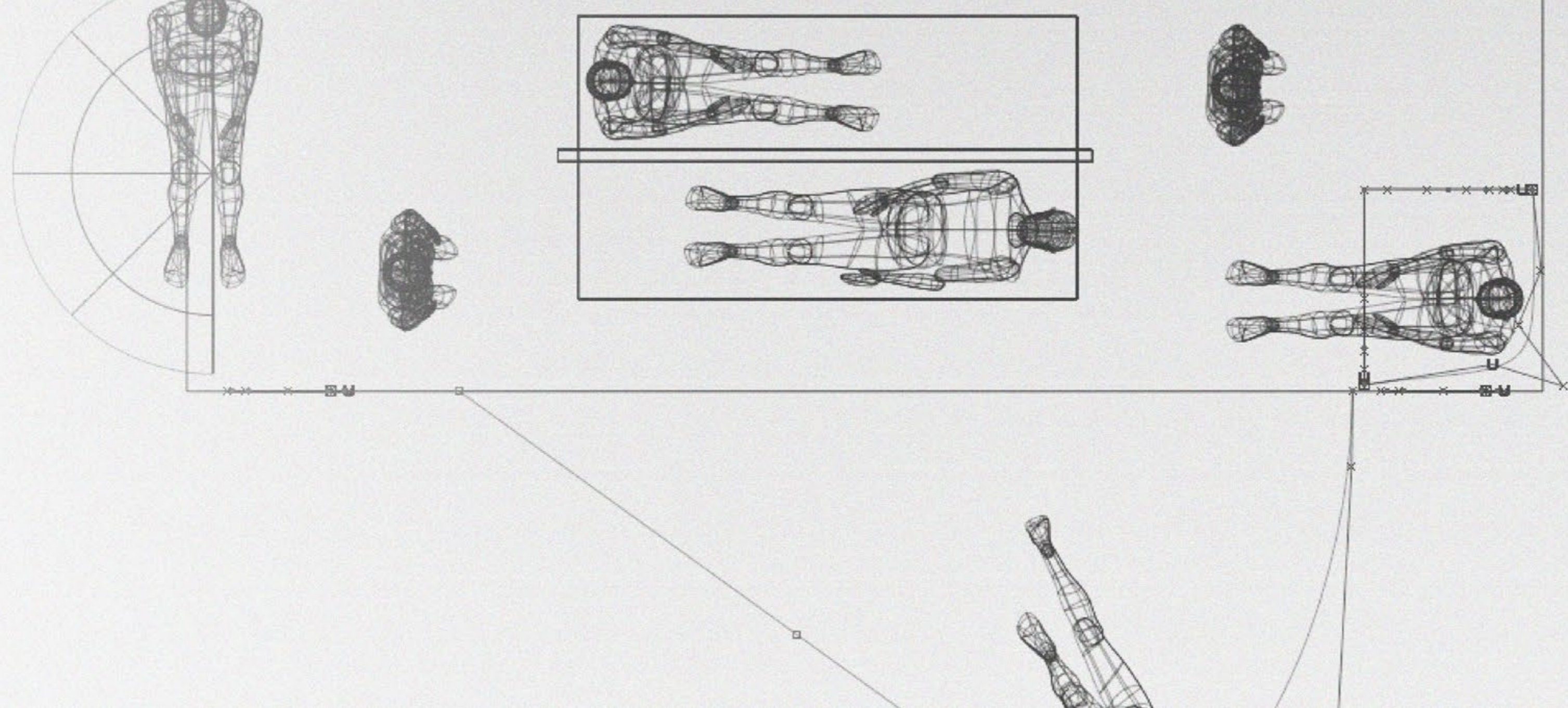




INTERIOR LAYOUT

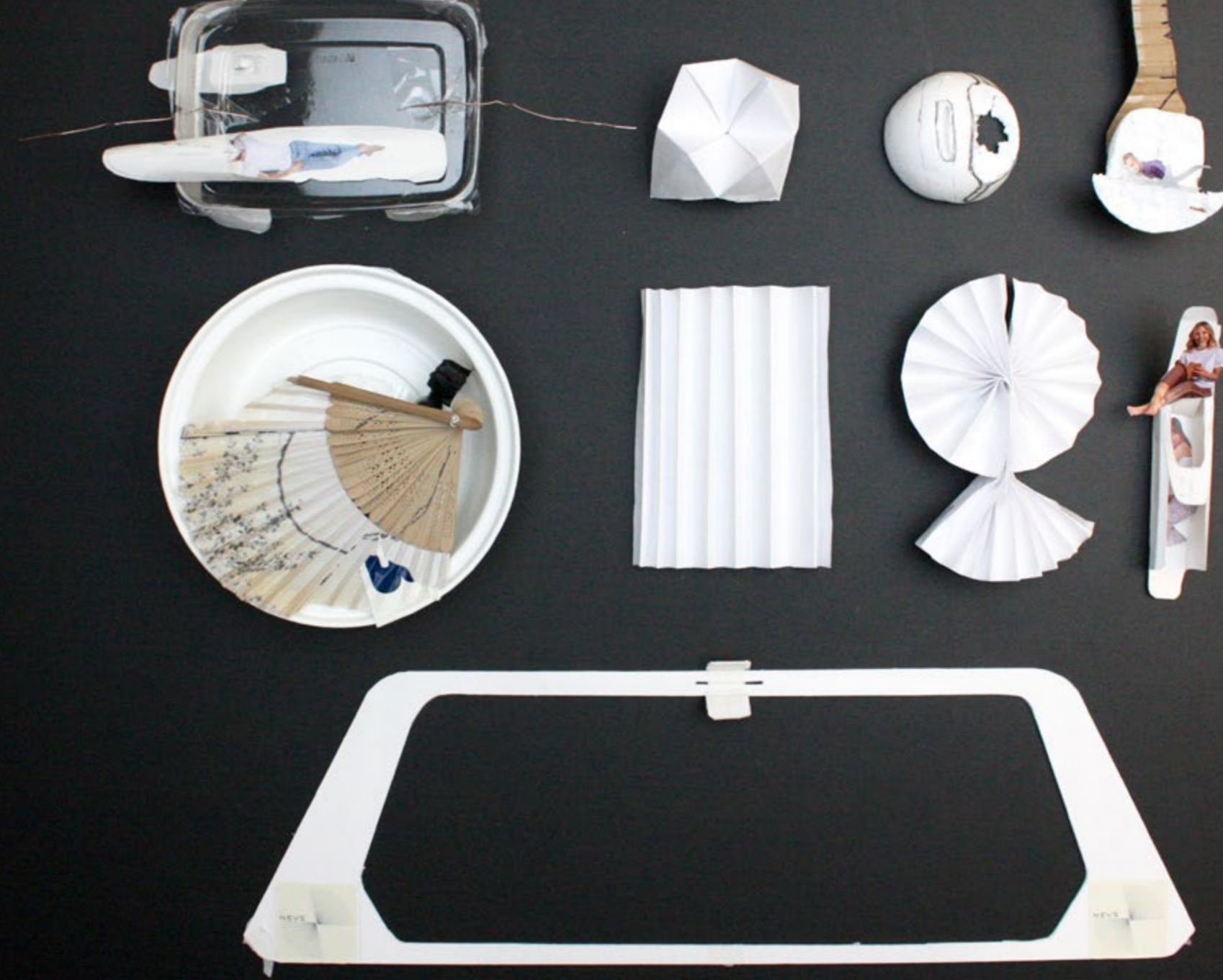
After the Market Research and chosen wheelbase for autonomous vehicle, I started roughly in CAD to place several "dummies" in order to see the interior space and upcoming different areas within it. Starting with CAD roughly gave me a better overview of the size of the interior as well as exterior. I began soon after to make my first paper model to get true hands on experience, as well as printing out humans in correct scale for the interior.





INTERIOR LAYOUT

After the Market Research and chosen wheelbase for autonomous vehicle, I started roughly in CAD to place several "dummies" in order to see the interior space and upcoming different areas within it. Starting with CAD roughly gave me a better overview of the size of the interior size as well as exterior. I began soon after to make my first paper model to get true hands on experience, as well as printing out humans in correct scale for the interior.

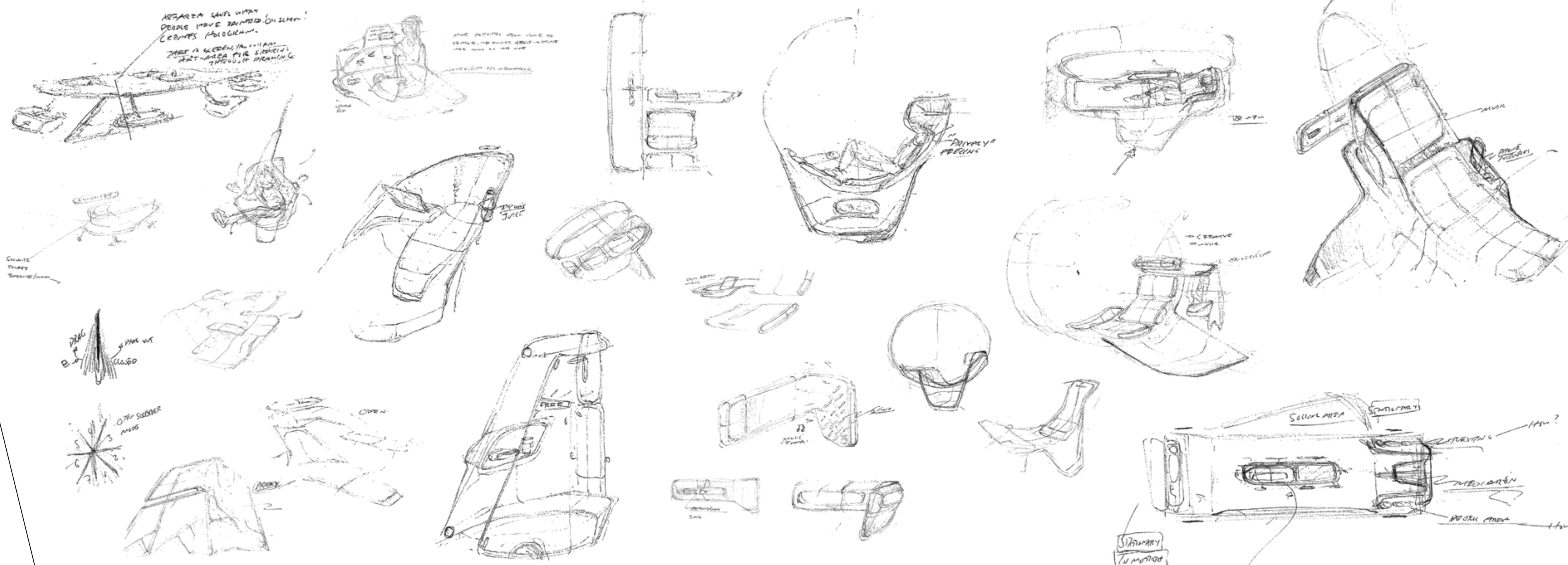


SKETCH PHASE



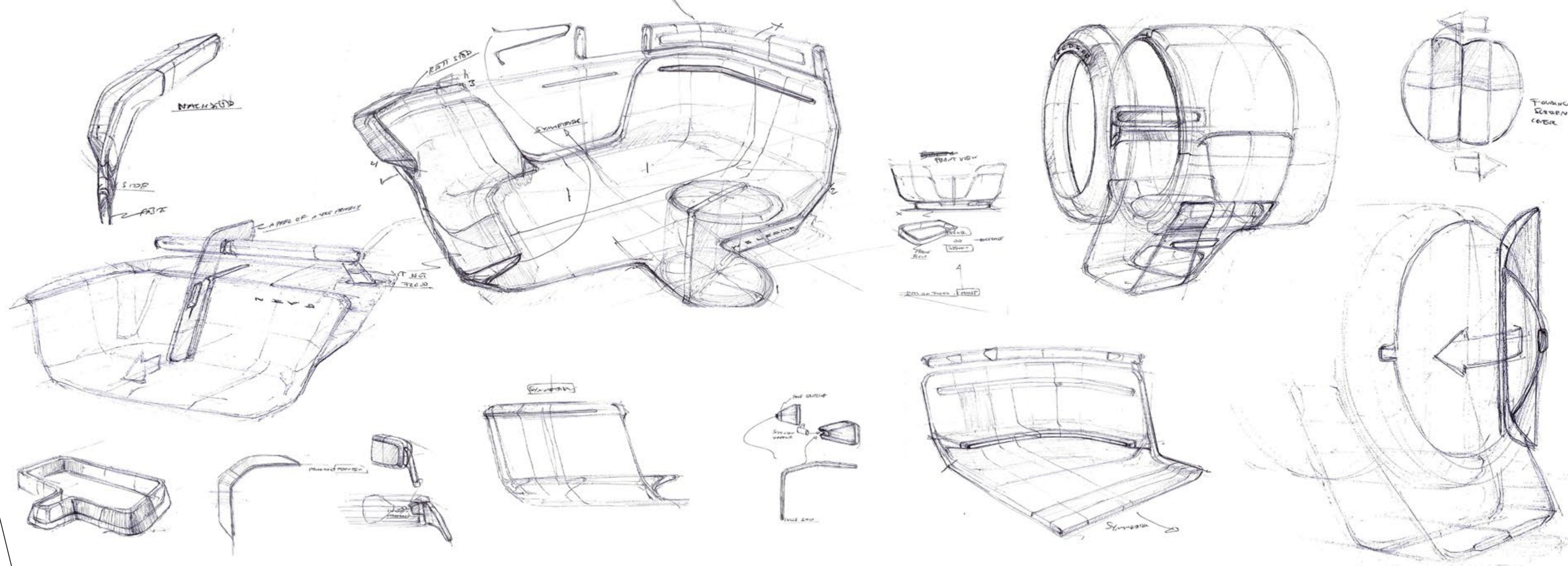
INTERIOR IDEATION 0.1

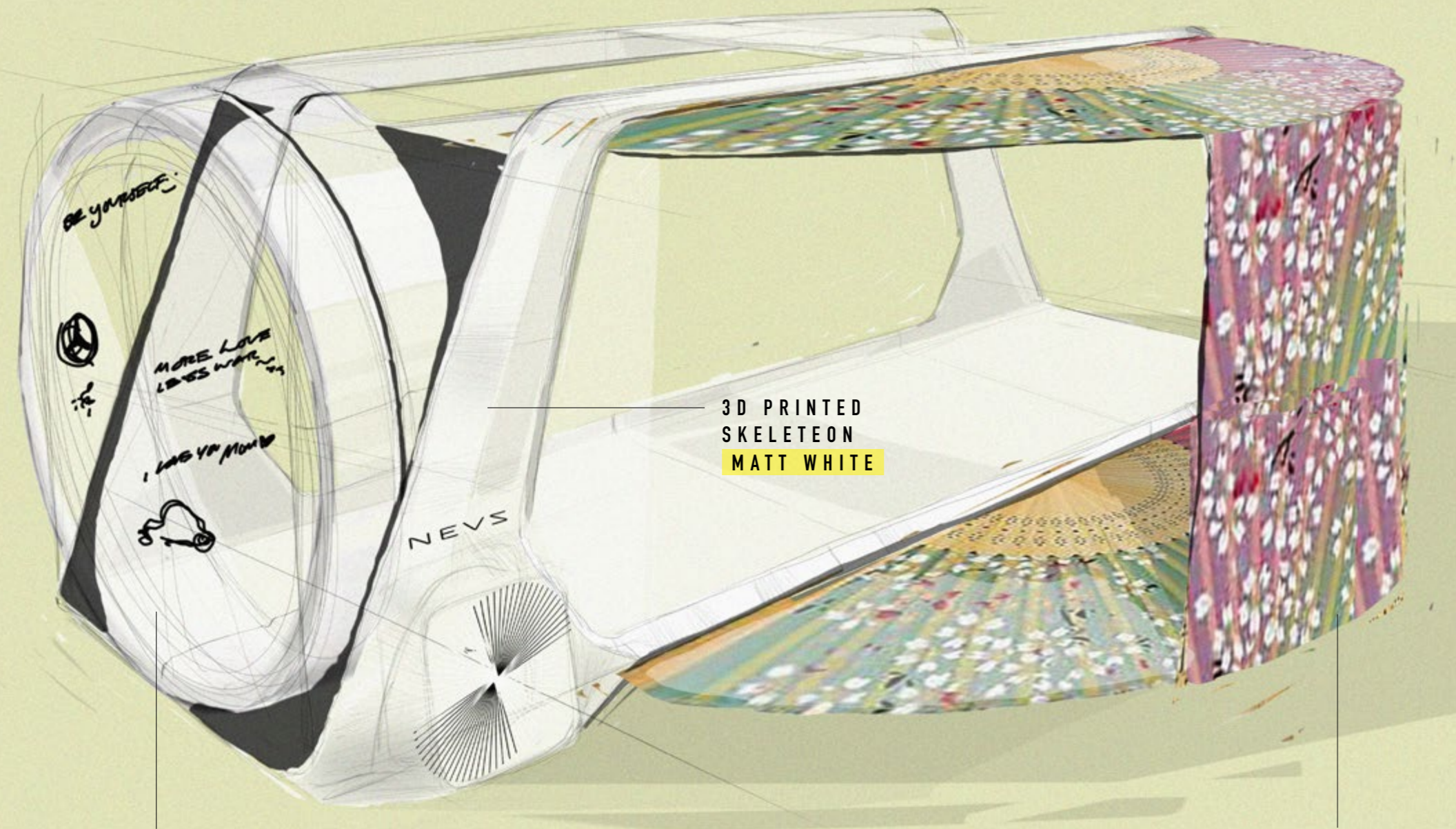
I started my ideation phase based on the words I had chosen from the Survey, as well as the chosen images that explained my words.



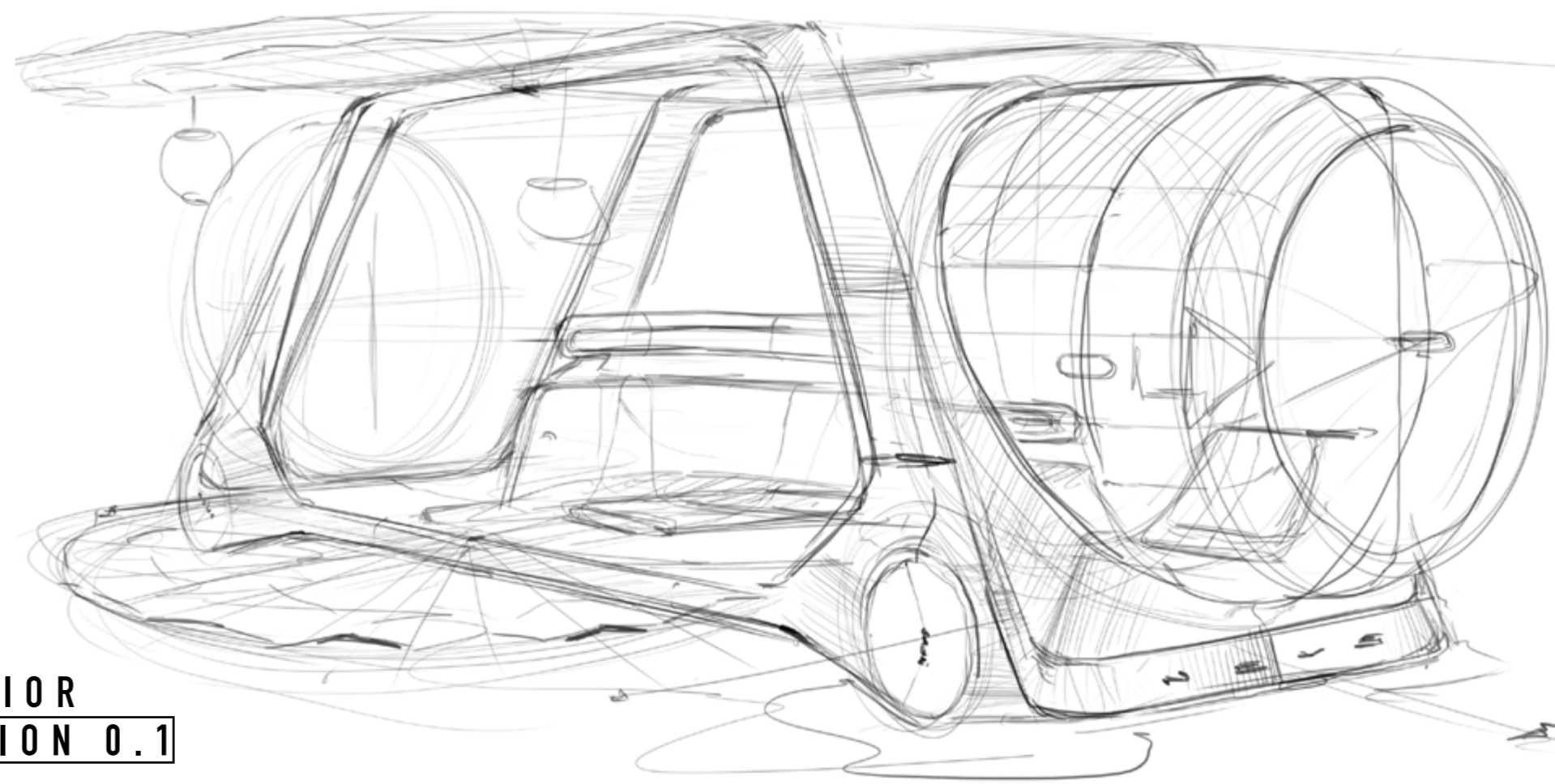
IDEATION 0.1 REFINEMENT

After ideation stage 0.1 I began to choose some interesting layouts of interior areas.





3D PRINTED
SKELETON
MATT WHITE



EXTERIOR IDEATION 0.1

Exterior ideation started out by sketching based on the wheelbase. These two first sketches resulted from the research and mood board.

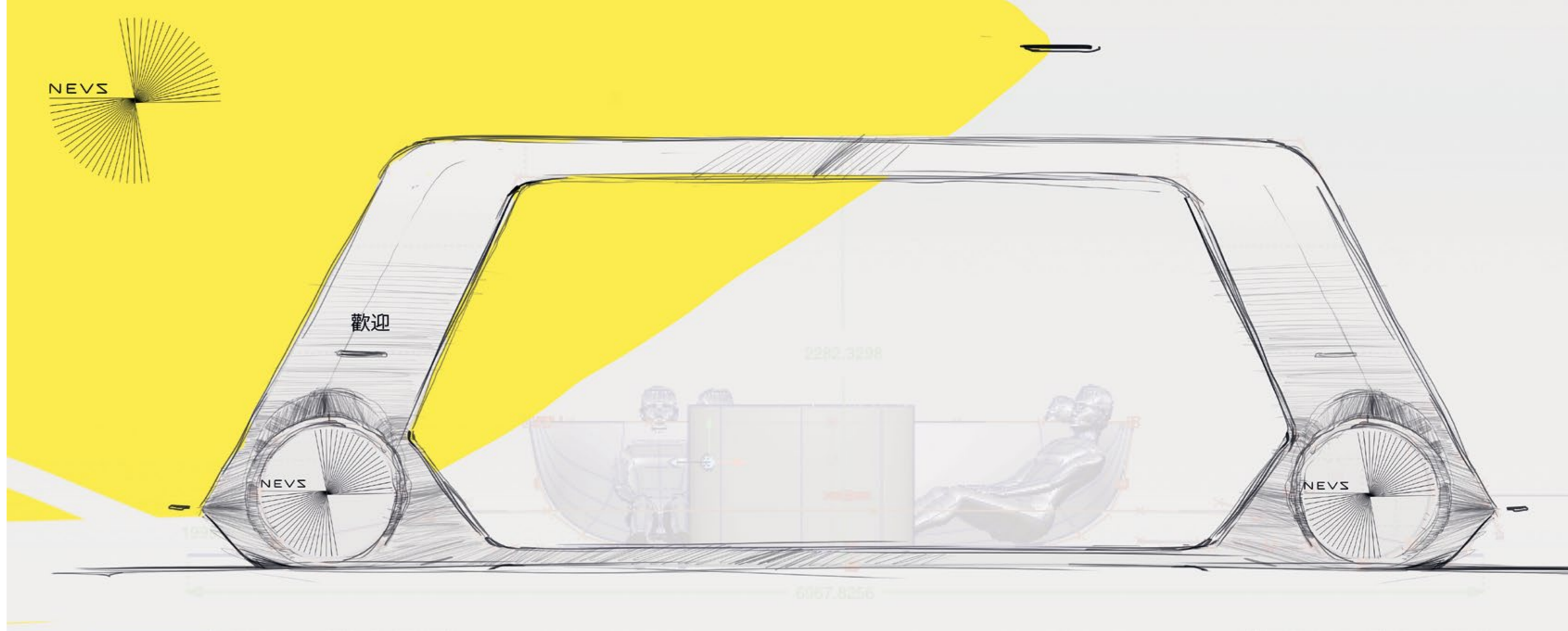
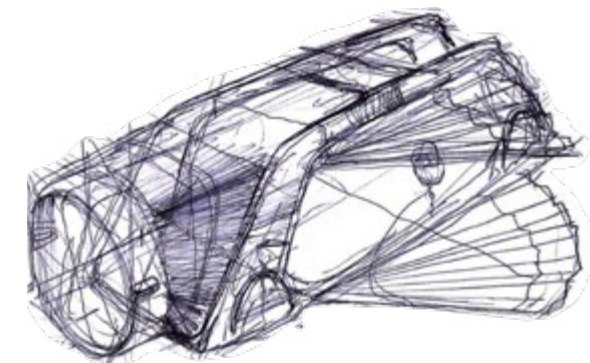
IDEATION 0.1

REFINEMENT

The sketch right under was one of the rough sketches during the sketch process which I thought most interesting, exterior wise.

I wanted to explore further how I could attach a cylindric shape at both ends of the vehicle acting as an separate interior area. The sketch to the right was sketched on top of the rough CAD model.

I started sketching the exterior by starting in side view to get a good proportion.



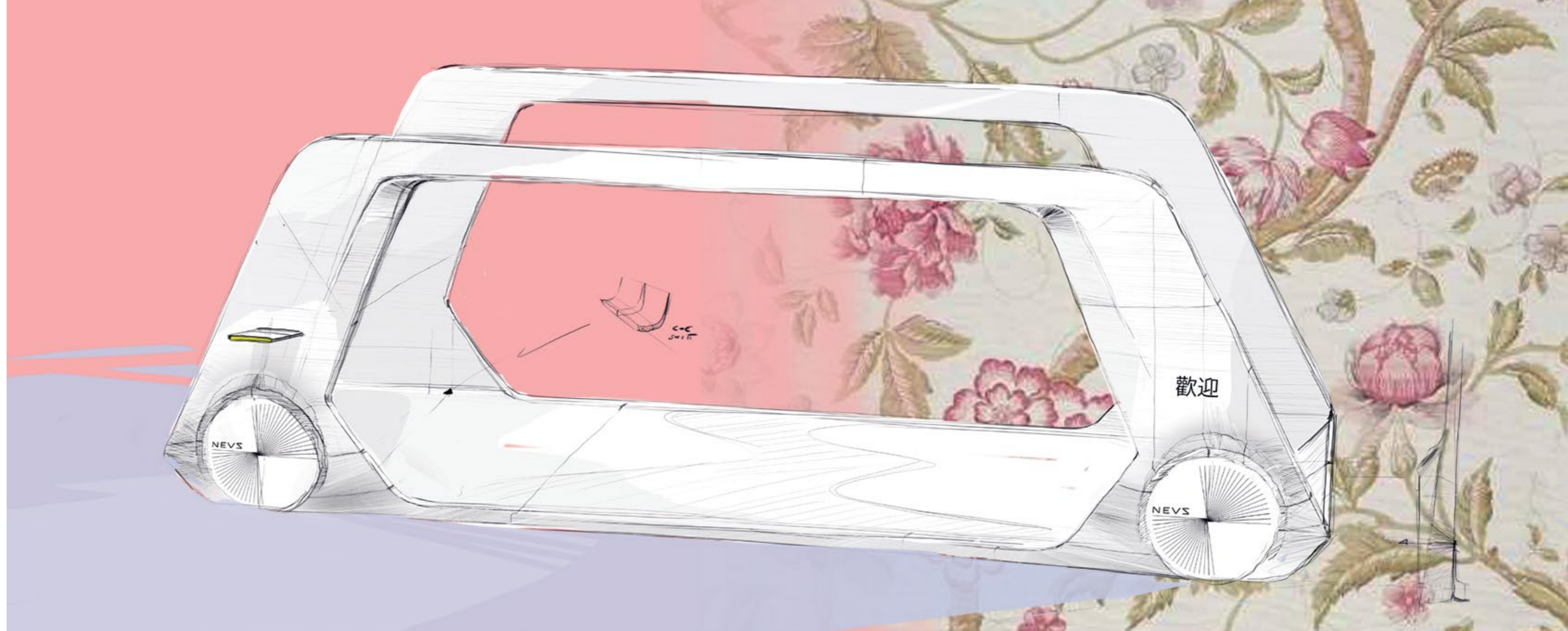
IDEATION 0.1

REFINEMENT

For the exterior design I started to aim for a wide stance to get the vehicle planted to the ground and visually looking confident.

Together with the two main frames at each side of the vehicle, I wanted to balance of the more angularity design with a pure cylindric shape that when looking far away the cylinder runs through the whole vehicle.

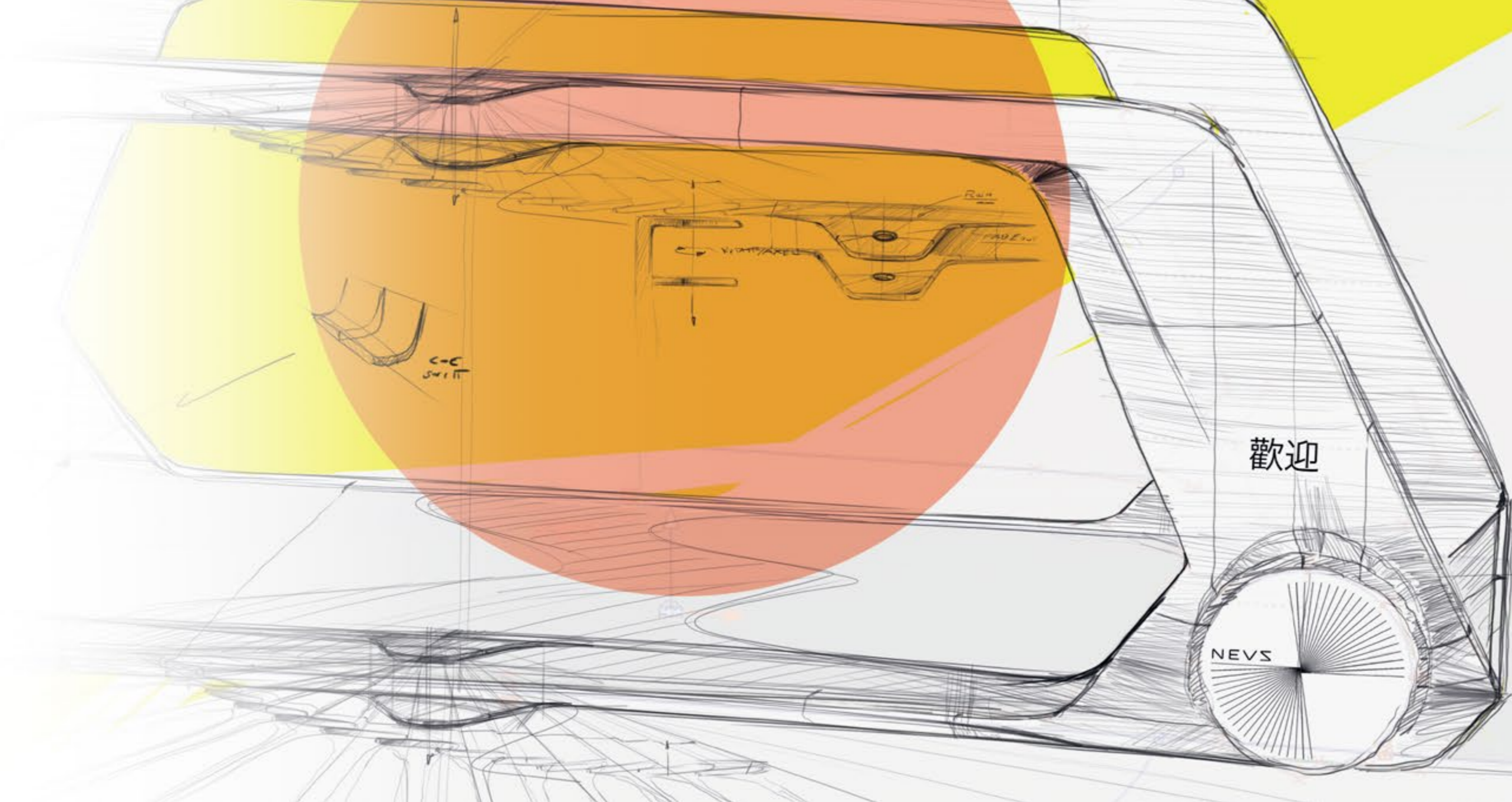
The cylindric area of the vehcile was in-teded to balance the technical feeling with a playful shape.



IDEATION 0.1

REFINEMENT

The active interior area that sits on the exterior, which consists of the Origami based pattern, had to be coexist in the interior without getting too dominant. I looked further in to fasten the active space to the exterior frame.



MOCKUPS

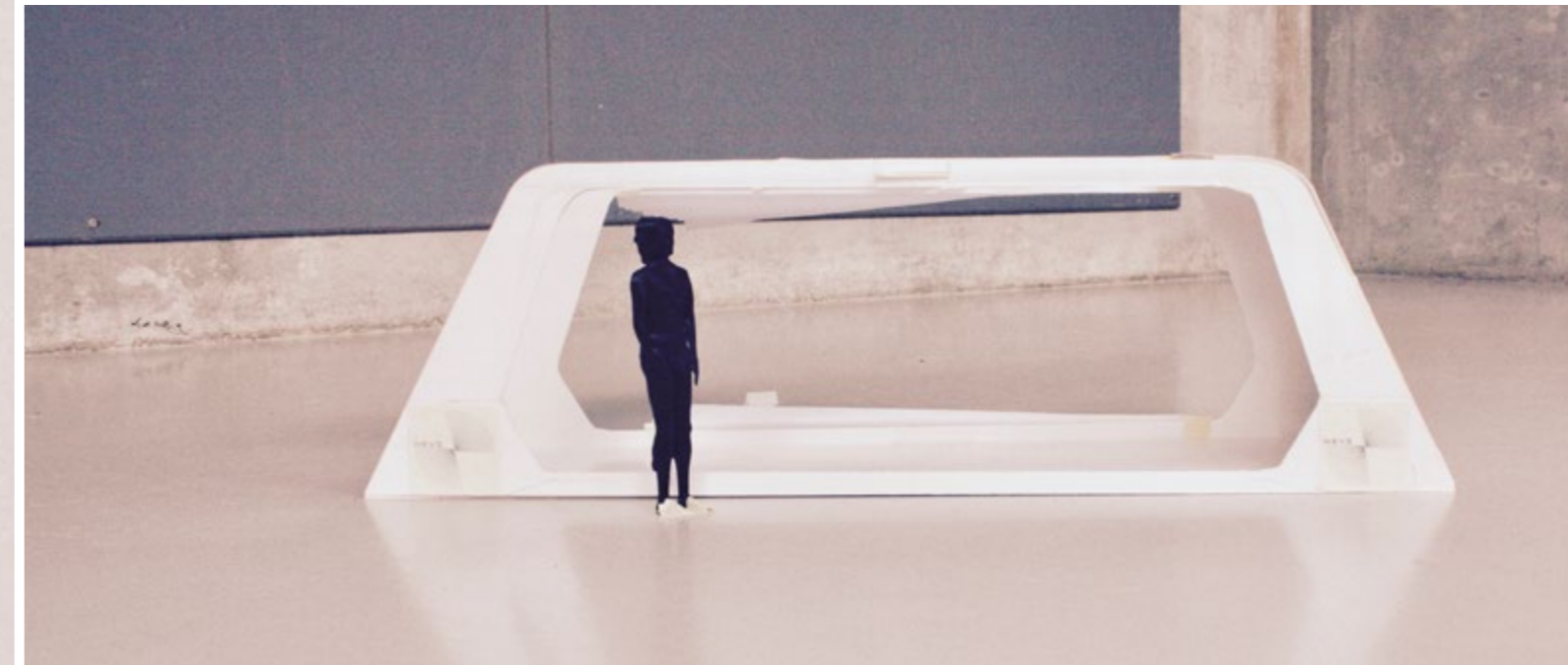
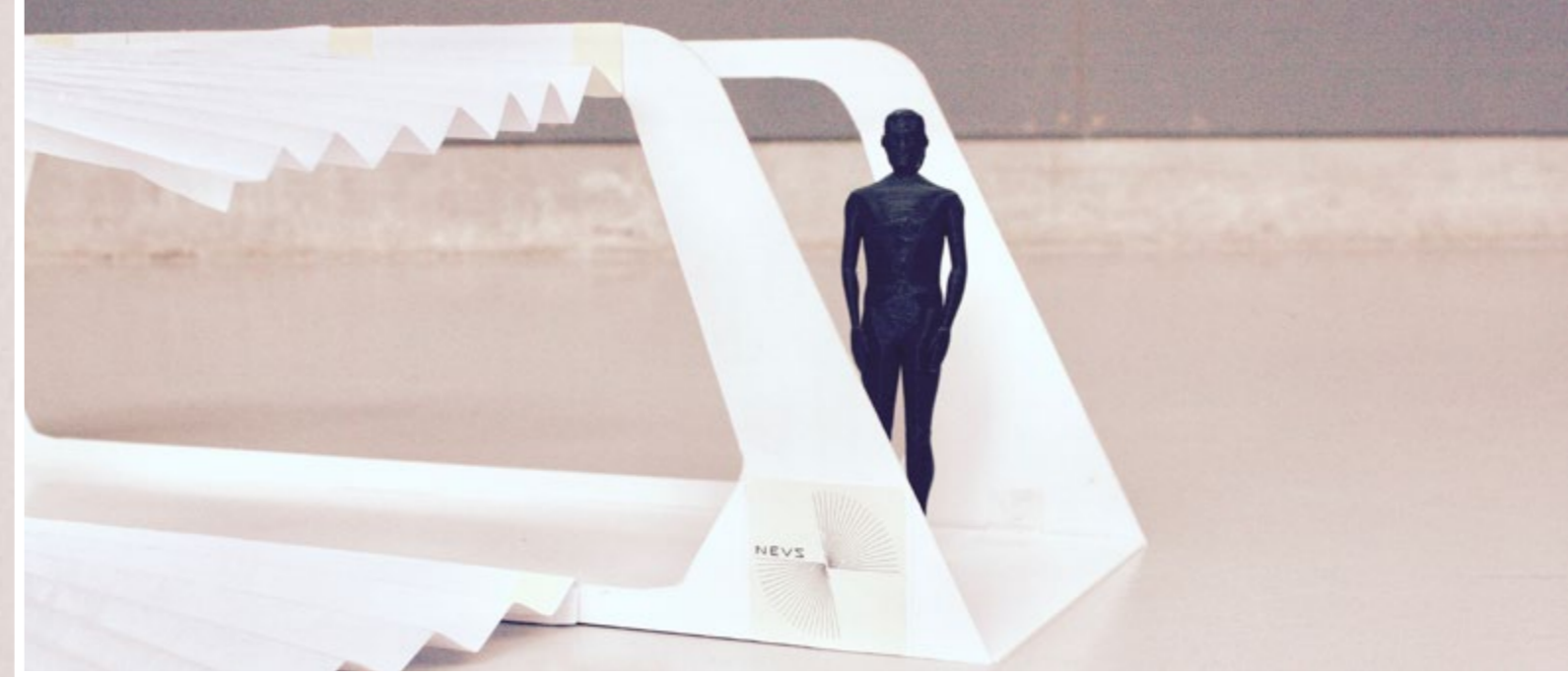
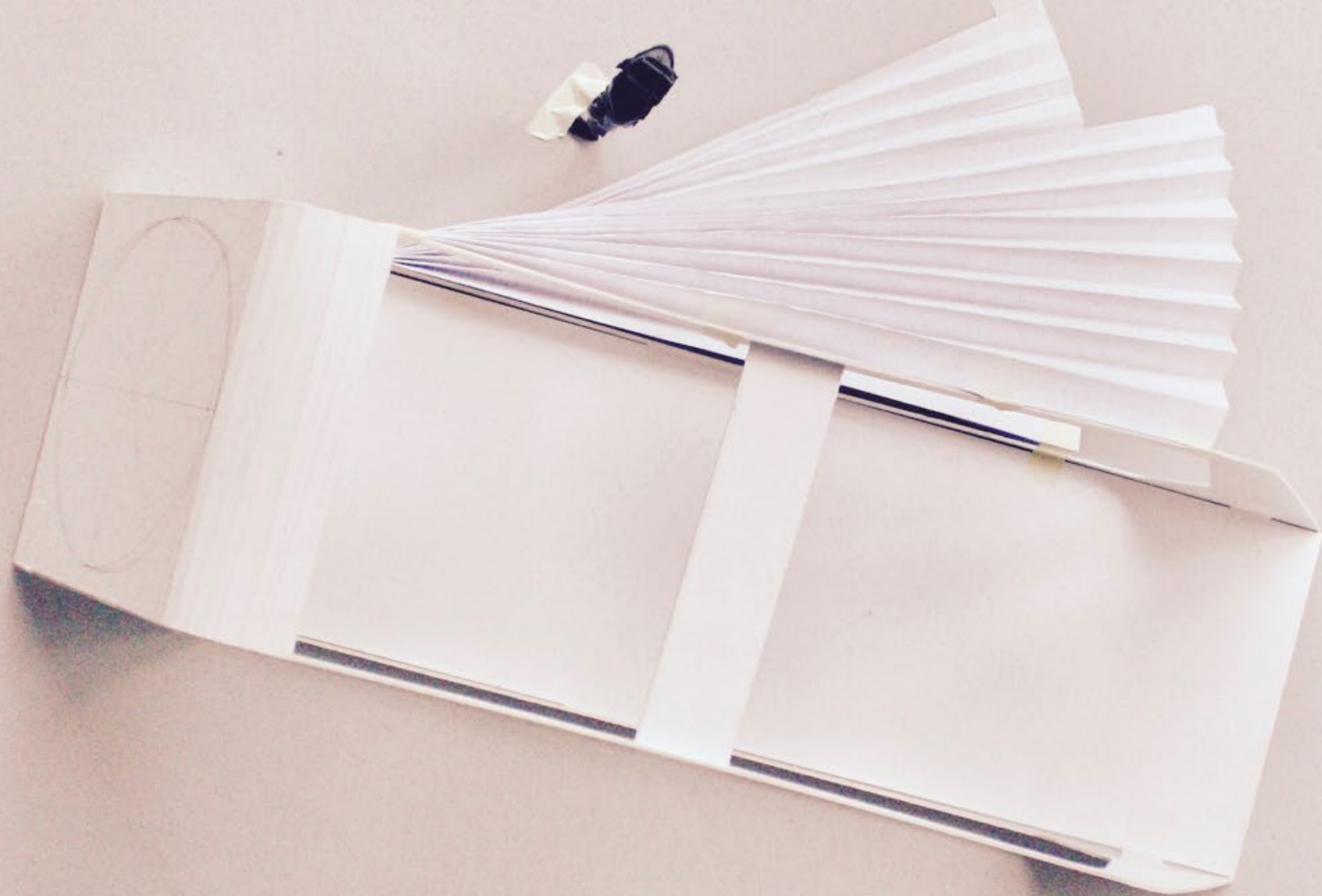
MOCKUPS

After having built a rough cad model with correct wheelbase and sketched a few exterior design proposals, I decided to build a frame using cardboard. I also printed out a few people in scale 1:10 to get a better feel of the interior space. Because the project build should be in scale 1:10 of real size, using printed human models was an nessescary and well appreciated.



ANALYSING STRUCTURE

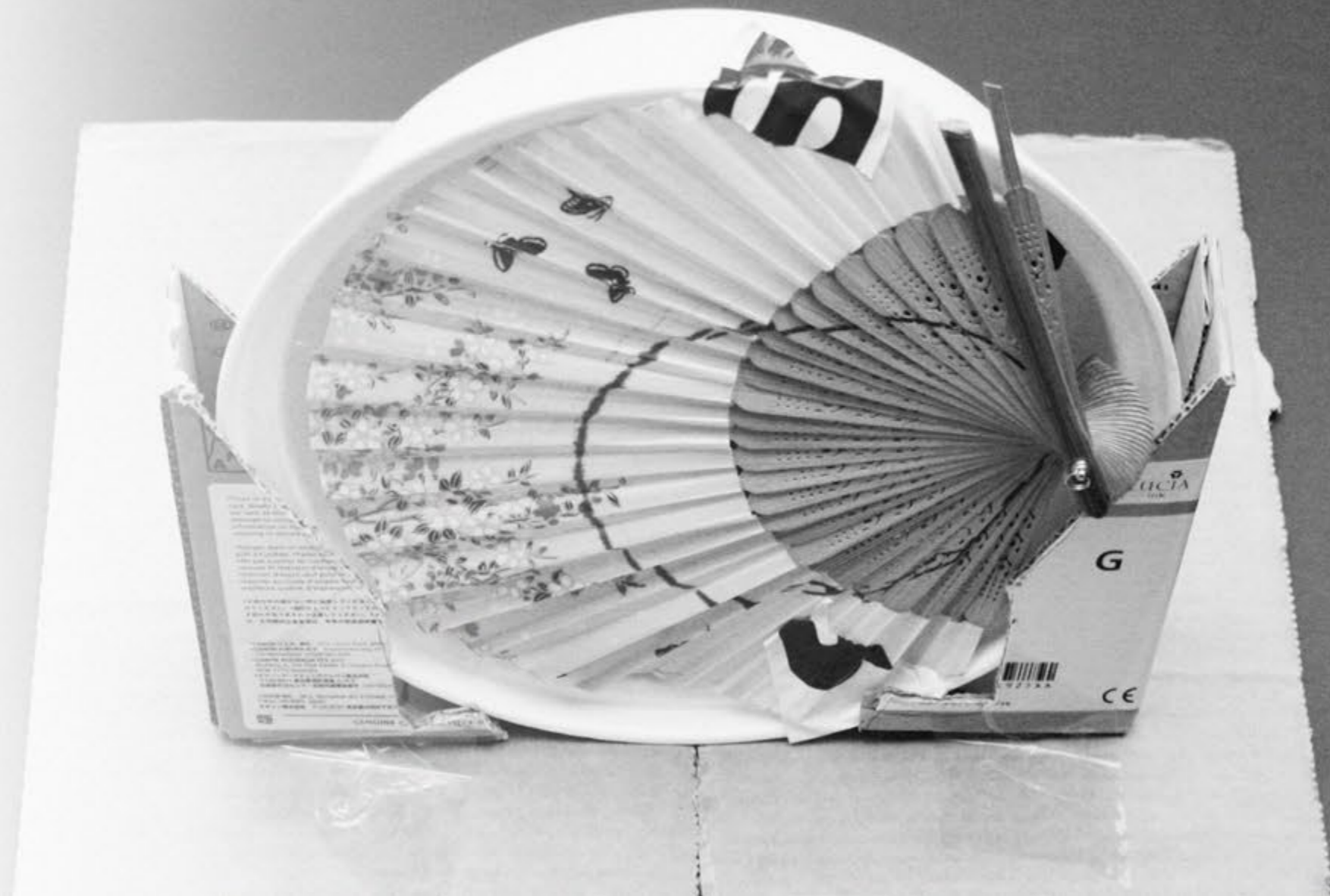
Building several prototypes gave me a better understanding of how the interior and the whole project should be shown in the end. Mainly, almost every mockup was built, based on a quick idea in the head or doodle on a piece of paper. The focus was not to make elegant models, but to investigate different ideas for the interior but also for the frame to show the interior. Printed scale-humans in paper gave me a more realistic view on the whole model and how it could function.



DIRTY MOCKUP

This mockup was built from materials laying around. I found a microwave lid which I used to intimate the cylindric inteior area of the vehicle. I started to see how that area could look like. I wanted to see if I could use the famous japanese fan a.k.a "sensu" to act as a wall to add privacy when using this area.

At this stage in the process I had already been exploring to have the cylindrical interior area as a meditation/creative spot. I investigated earlier in the sketch process if there was a chance to have a active foldable wall when the user enter or exit this area. The benefit was that the wall is compact and also ad a sense of security when sitting in this cylindric area.



CONCEPT REFINEMENT

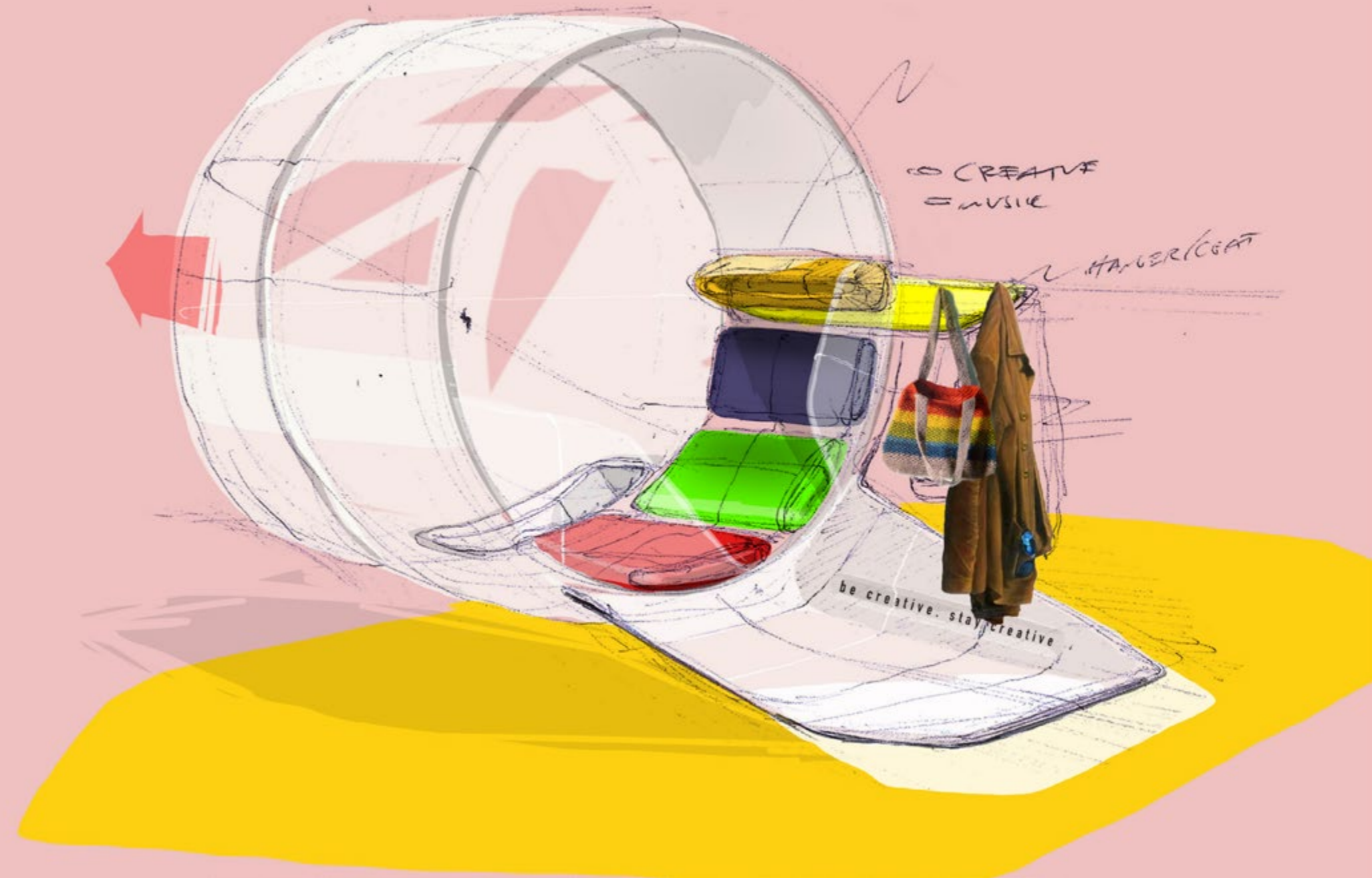
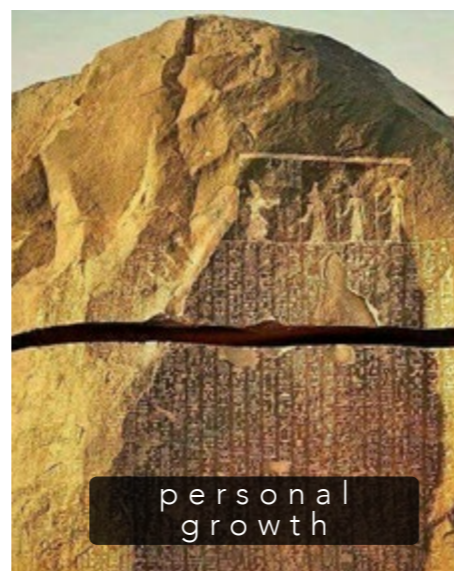
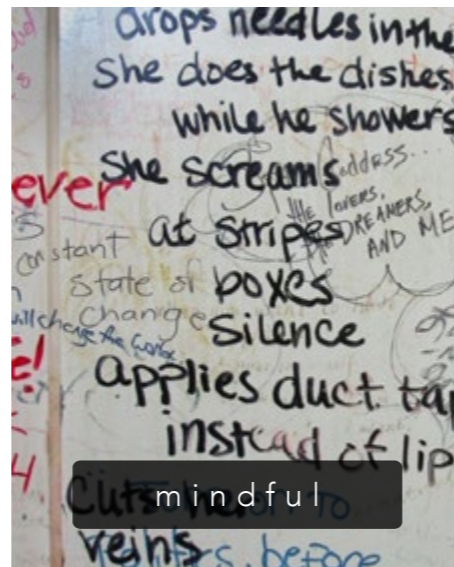
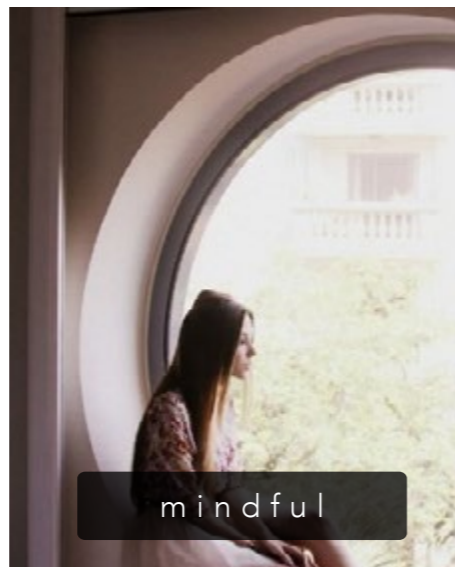
CREATIVE AREA

This more developed sketch to the right took the development of the interior areas closer to how it could look like. The creative area is all about getting in contact with yourself again during busy days. By entering a circular interior space with a big digital window in front of you, makes the area a memory itself. When entering, you have the chance to place your coat/jacket before you step into the area.

The sketch shows within the creative area it consists of a removable digital glass-piece. I got inspired from humans leaving notes on runestones but like so nowadays where people mark that they have been at a place by sometimes leaving a trace with keys in wooden benches, graffiti on walls or writing something on trees.

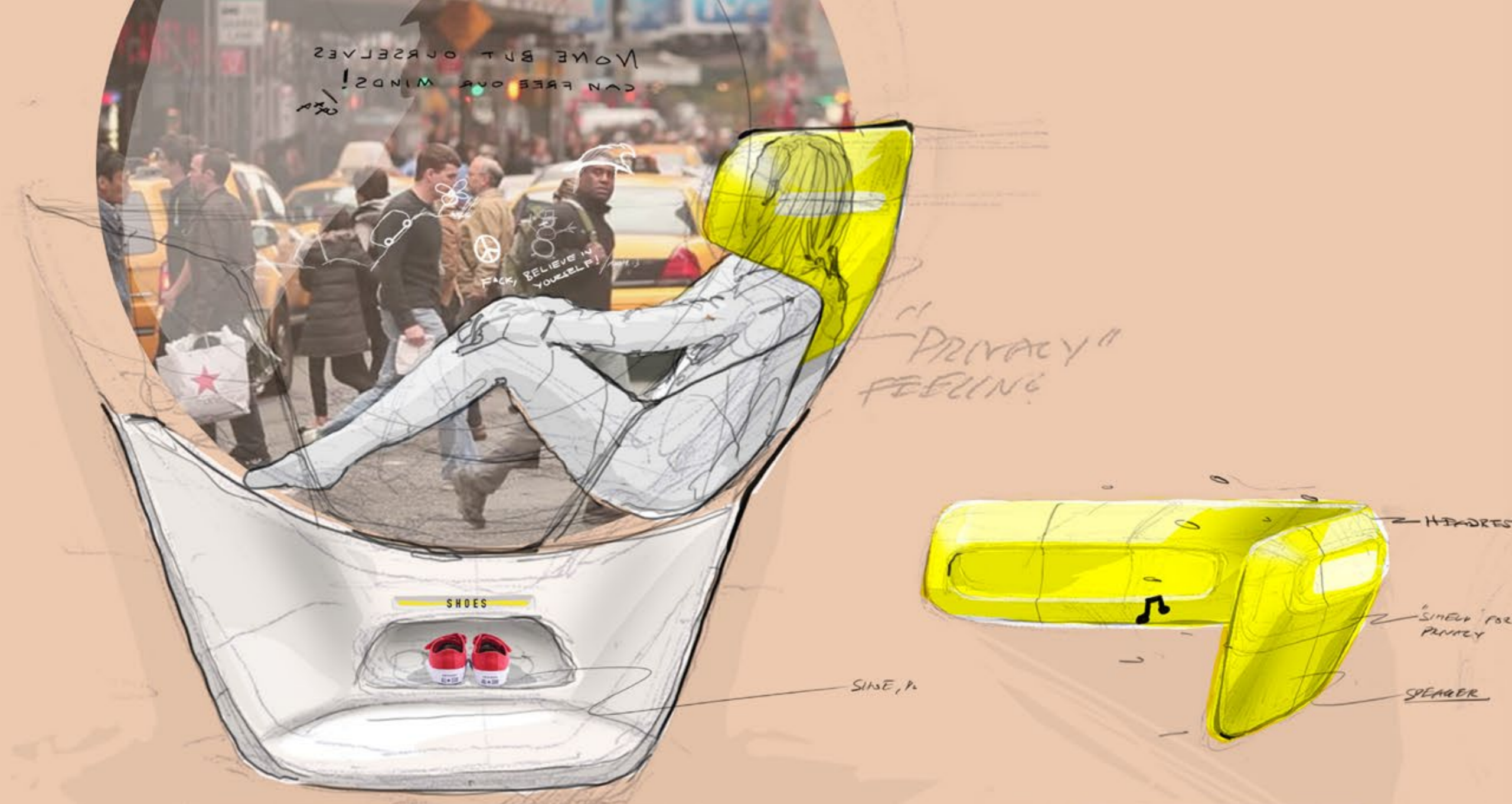
New people will constantly use the creative area, and the experience gets richer for every time. The space is turning to a story of what thoughts people had during travelling and the creativity to do something with the hands, as in the past.

Every human has a story to tell, and sometimes a thought to share. The digital window acts a historic piece. It lives and will be re-used for generations.



CREATIVE AREA

With integrated speakers in head rest, combined by connecting your phone to main screen in front of you, you can truly relax and become in zen with yourself. The circular creative seating questions how the traditional seating positions are in our western world. After every use of the digital screen, and if you leave a human note, the screen will become empty again for next person to start off with a complete white canvas paper, just like sketching .

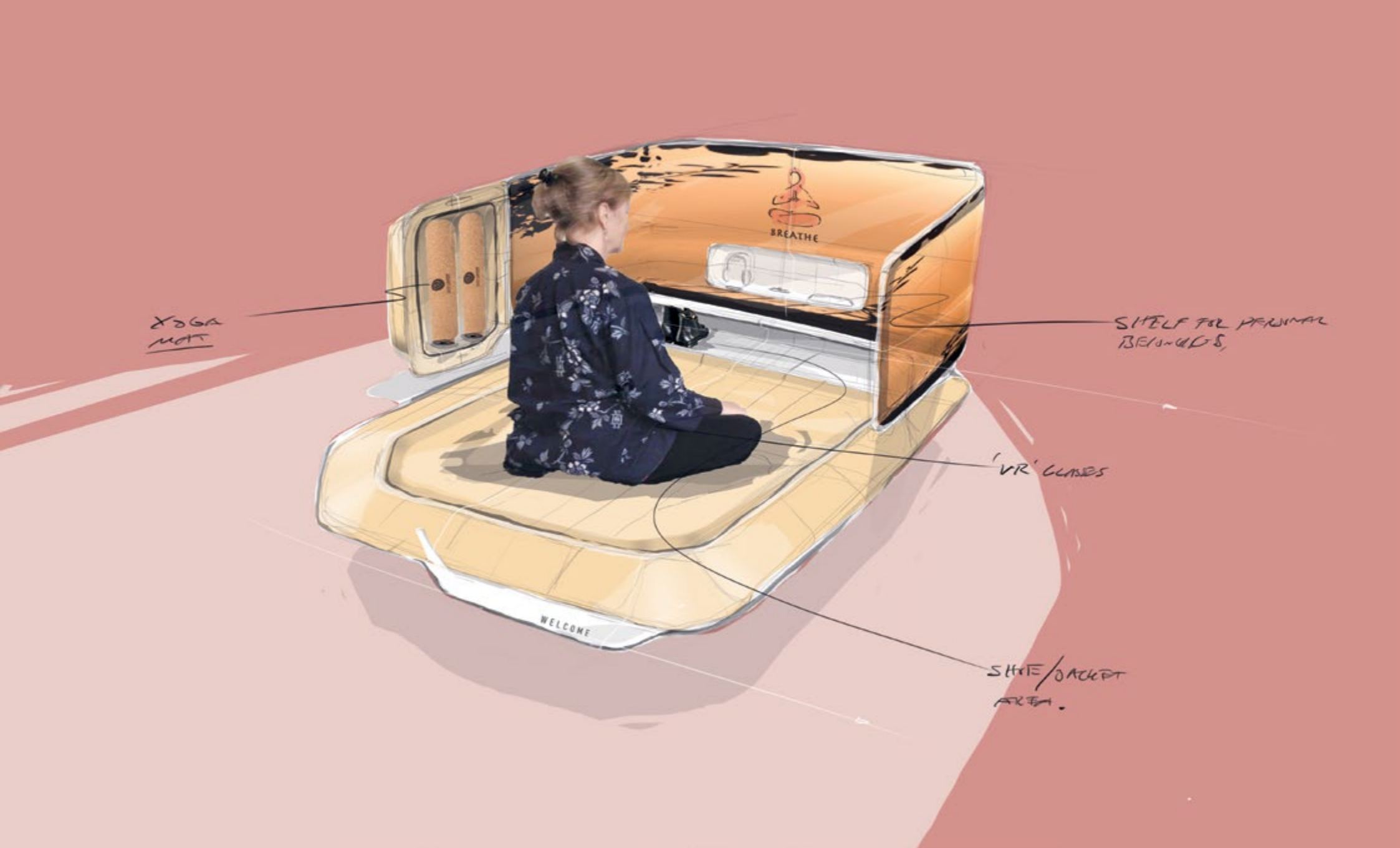
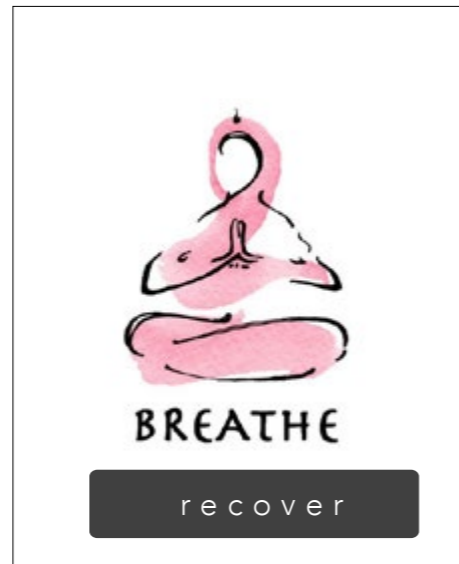
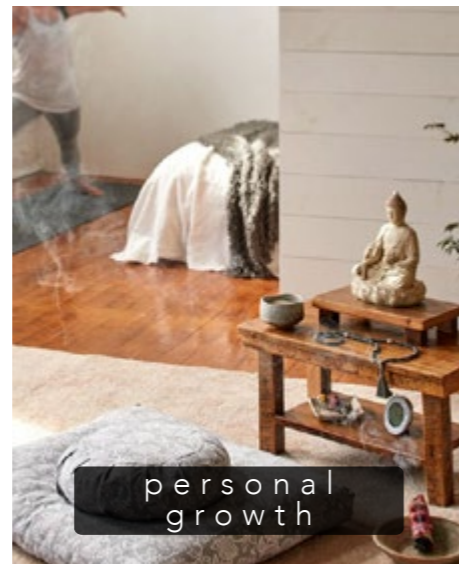
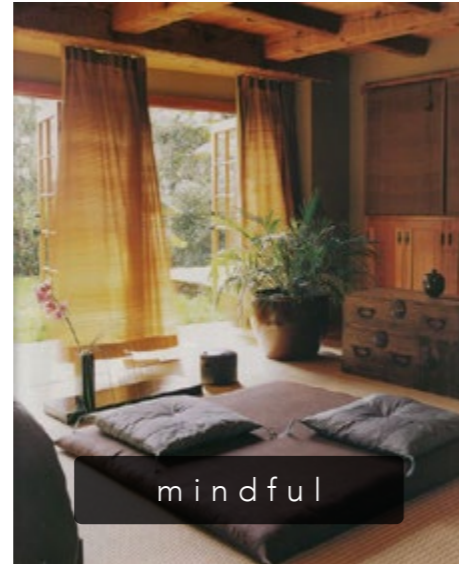


MEDITATION AREA

This more developed sketch to the right took the development of the interior areas closer to how it could look like. The creative area is all about getting in contact with yourself again during busy days. By entering a circular interior space with a big digital window in front of you, makes the area a memory itself.

This sketch showed an alternative to the circular design proposal earlier. In both interior layouts the user is the center of it. The feeling of the user being safe and giving a protected calm feeling by the walls wrapping around you was designed for both areas. The seat design should add a feeling of secureness as well as entering a more personal space by walls that wrap around you.

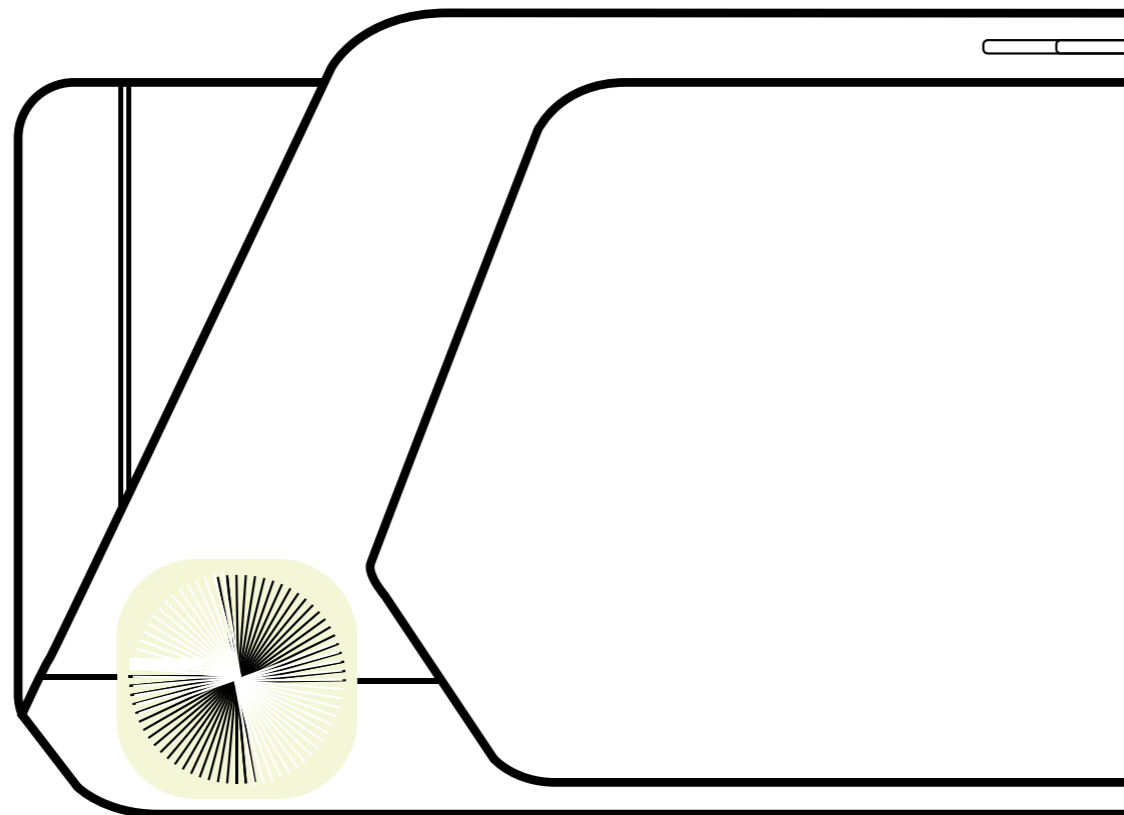
The layout regarding the sketch on the meditative area consists of one big screen in front of you which is controlled by touch. By using the screen you can choose different active backgrounds inspired from different nature environment, such as: oceans, forests etc.

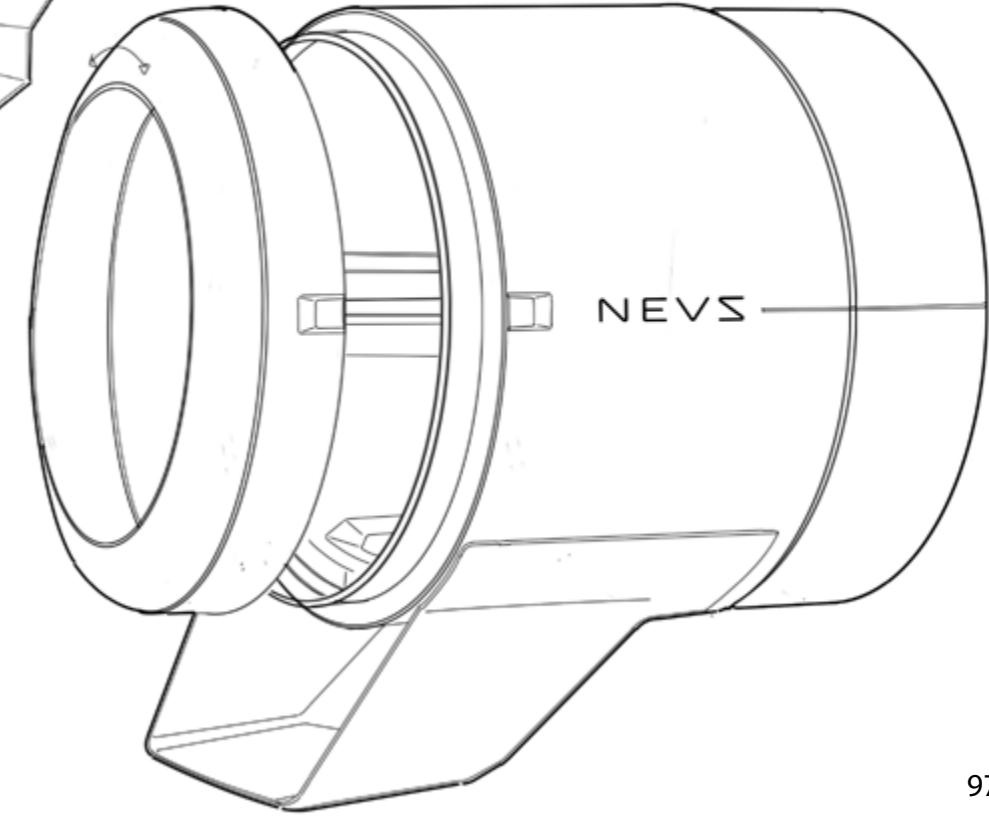
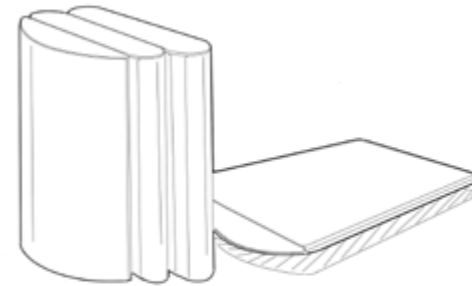
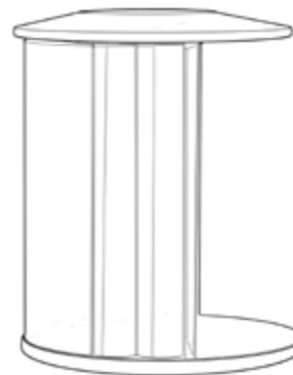
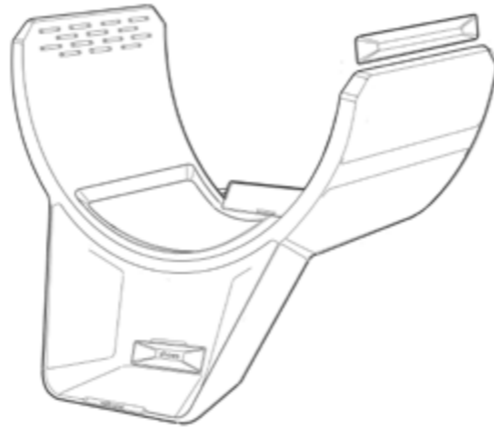
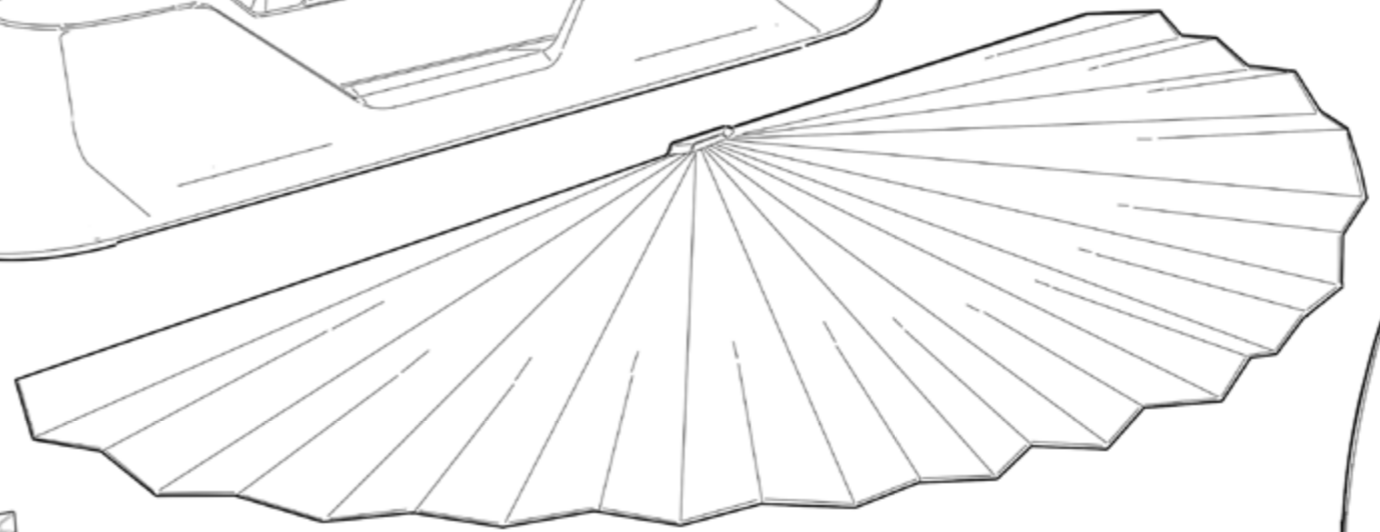
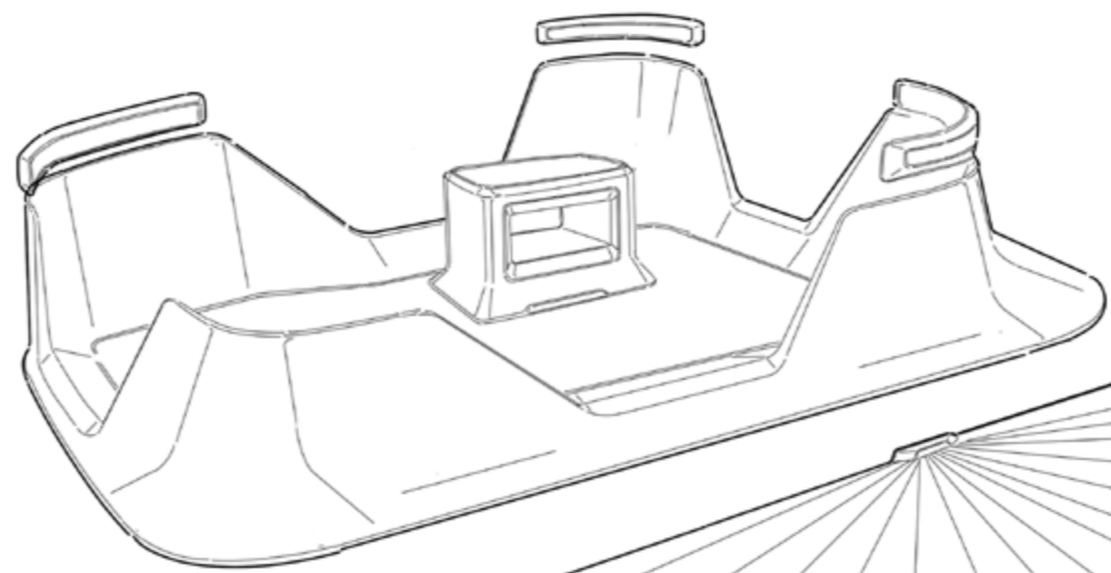
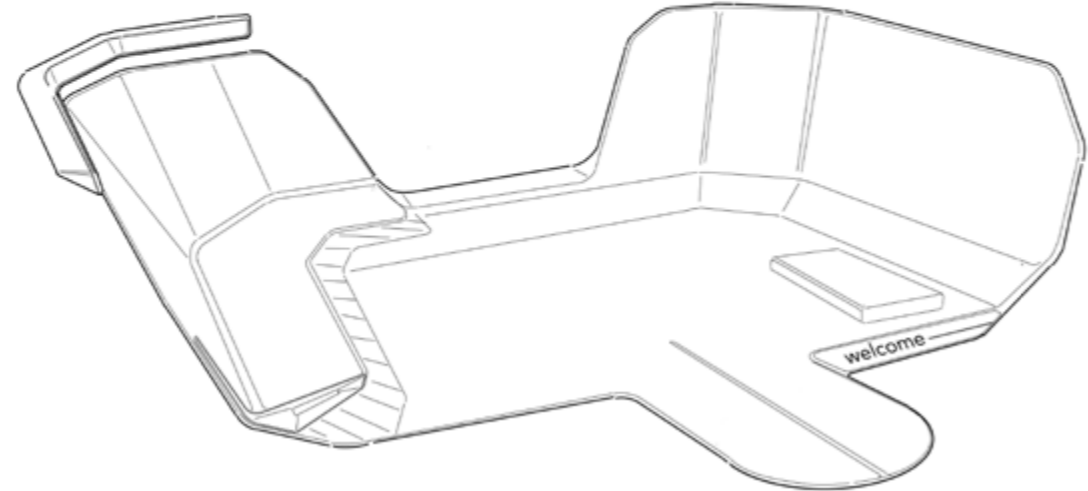
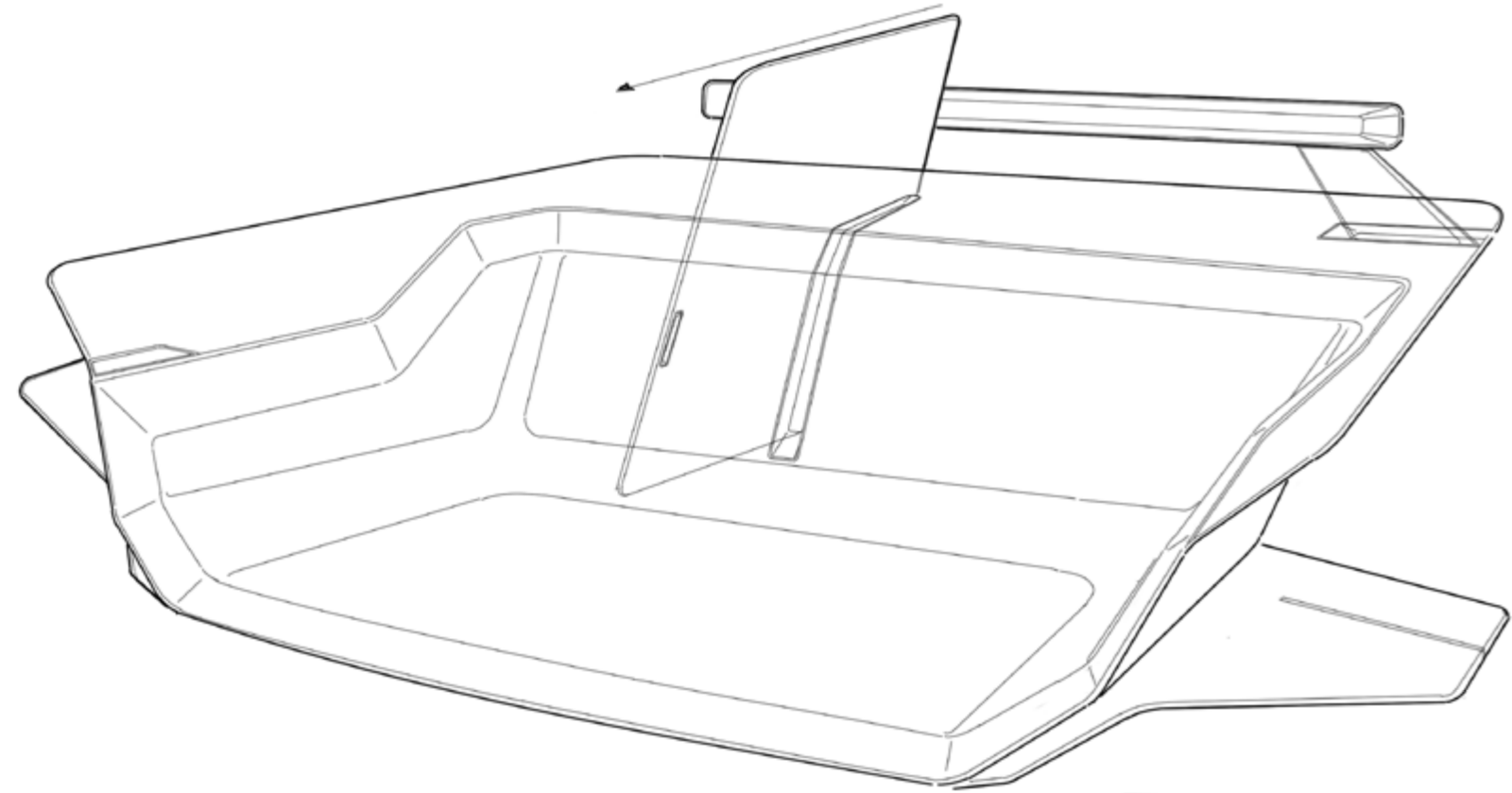


ANALYSING STRUCTURE

Building several prototypes gave me a better understanding of how the interior and the whole project should be shown in the end. Mainly, almost every mockup was built, based on a quick idea in the head or doodle on a piece of paper. The focus was not to make elegant models, but to investigate different ideas for the interior but also for the frame to show the interior. Printed scale-humans in paper gave me a more realistic view on the whole model and how it could function.

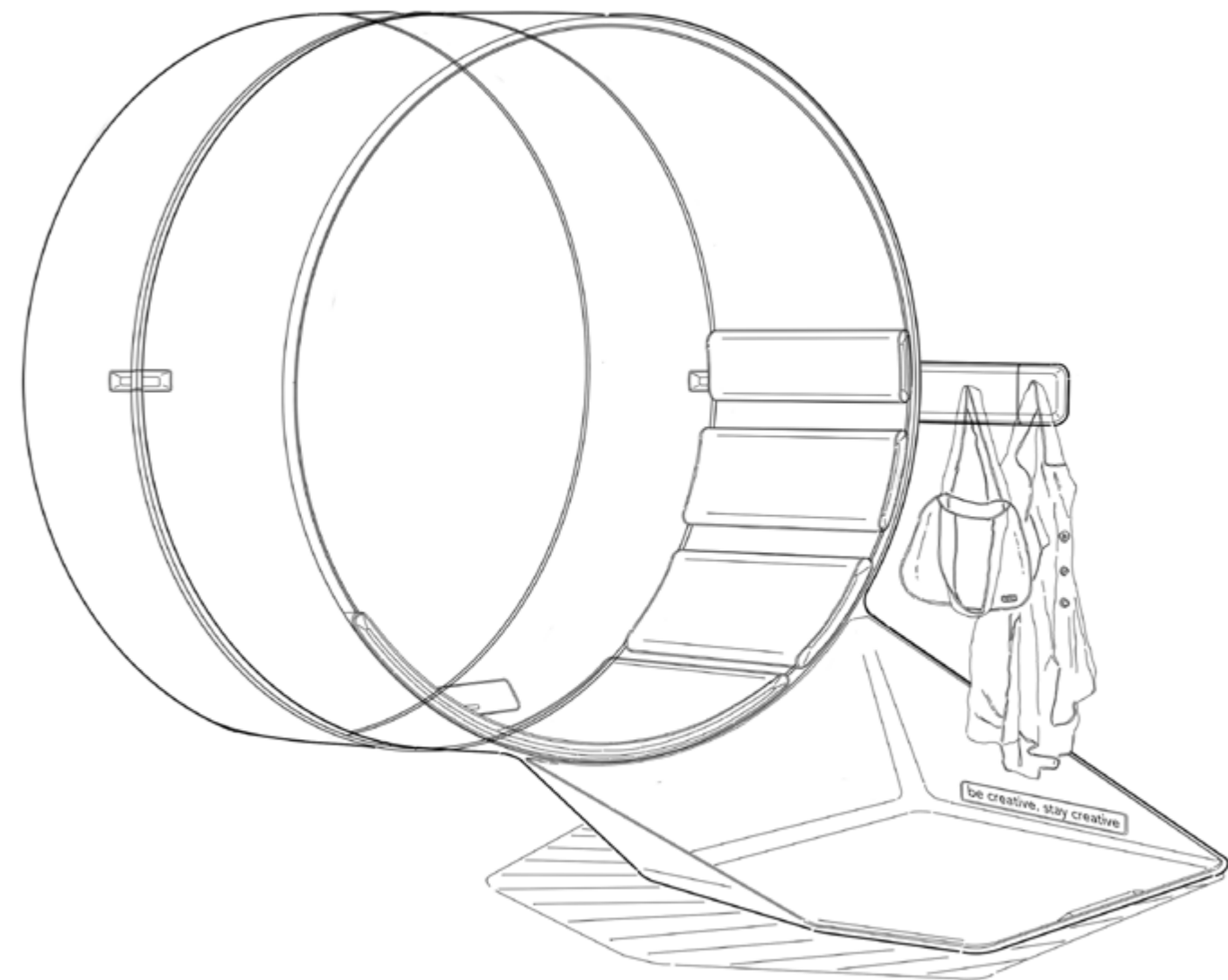
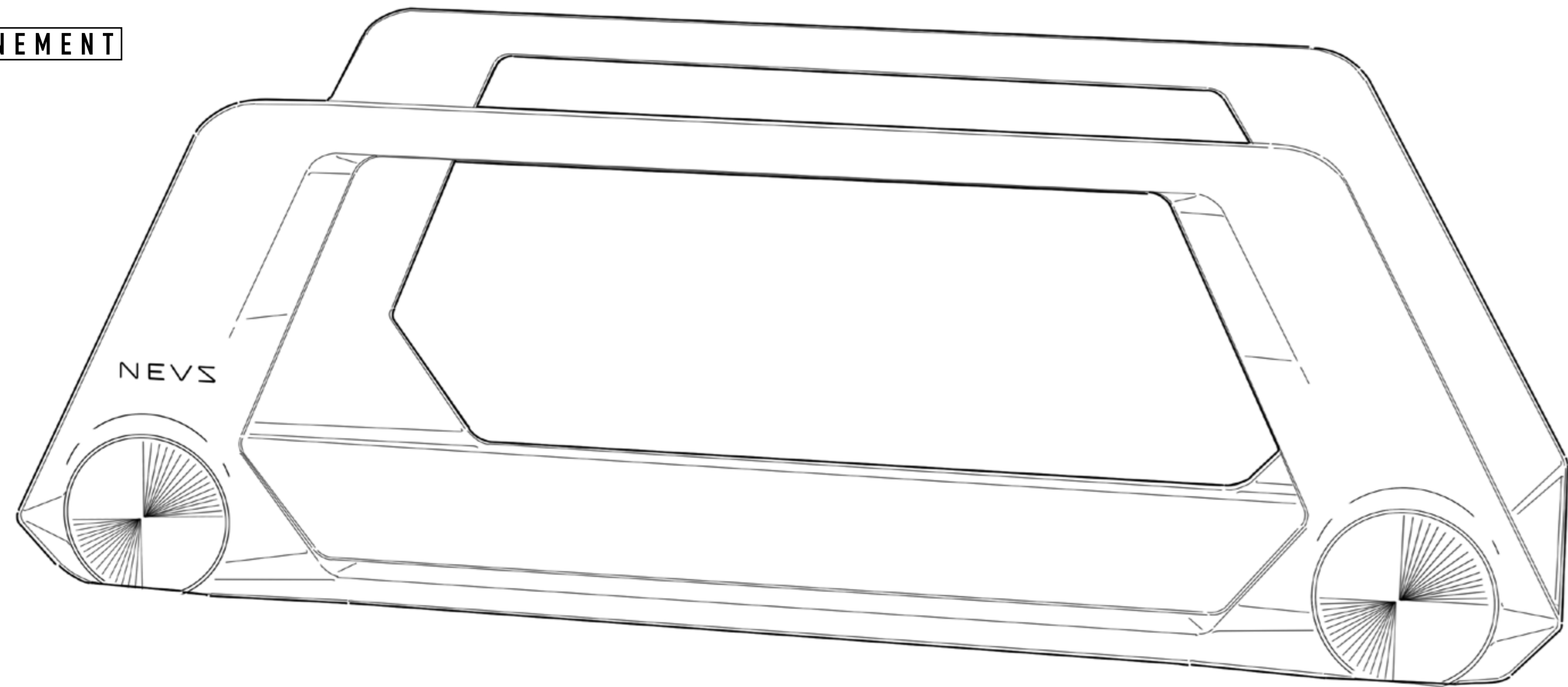
CREATIVE AREA BECOMES
A LIVING HISTORY
PEOPLE PASS ON STORIES
FOR NEXT GENERATION

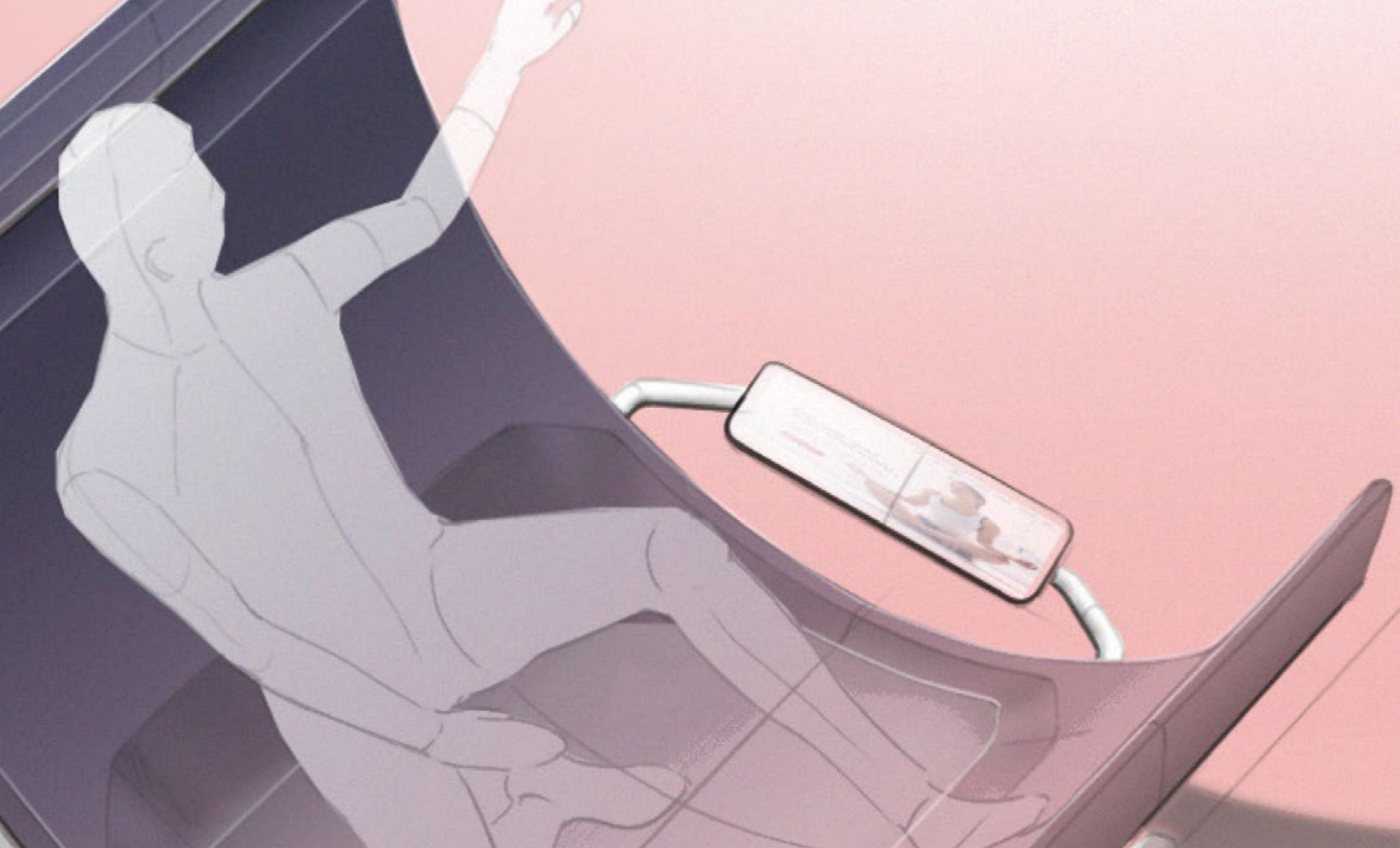




FINAL
REFINEMENT

FINAL
REFINEMENT







VIRTUAL REALITY

During the early modelling phase I decided to use virtual reality to be able to get a better overall feel of the interior architecture and how the different interior areas behaved in actual reality.

I looked into how it was to enter the creative/meditative area which is an circular area, as well as how it felt to sit and stand up in the central area of the vehicle, the socializing area.

A believe the virtual reality opportunity was strongly nessescary, to be able to design and structure an interior space. During the modelling screen it is impossible to get the correct feeling of sizes of objetcs in reaity.



MODELLING

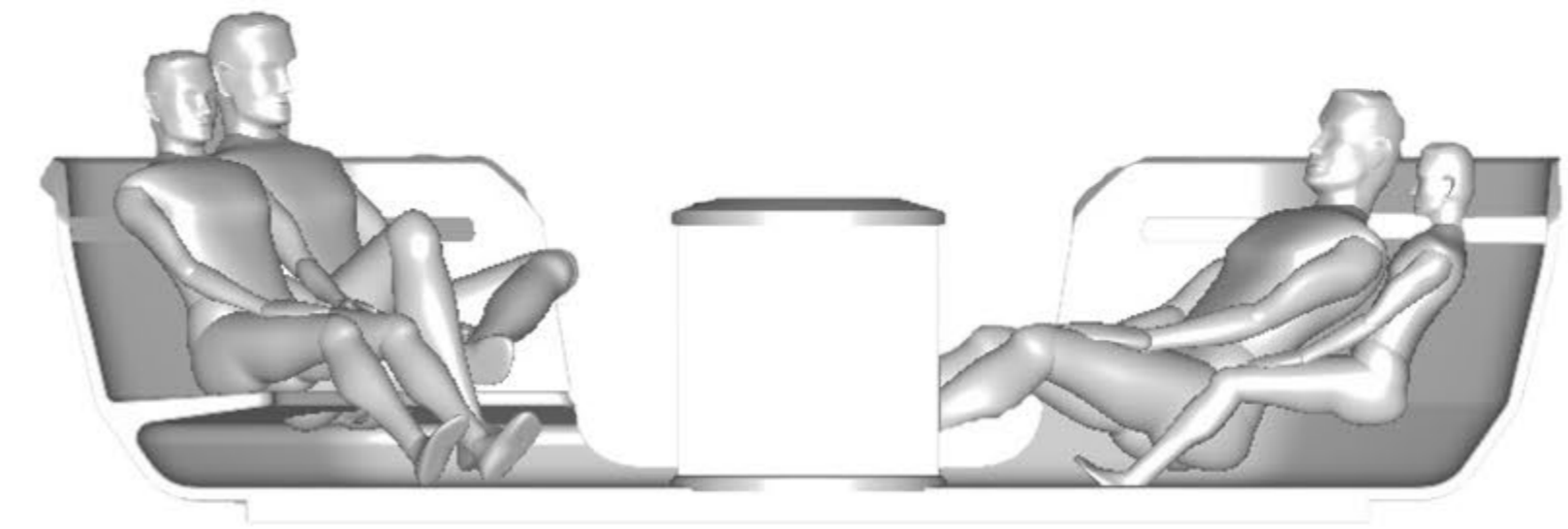
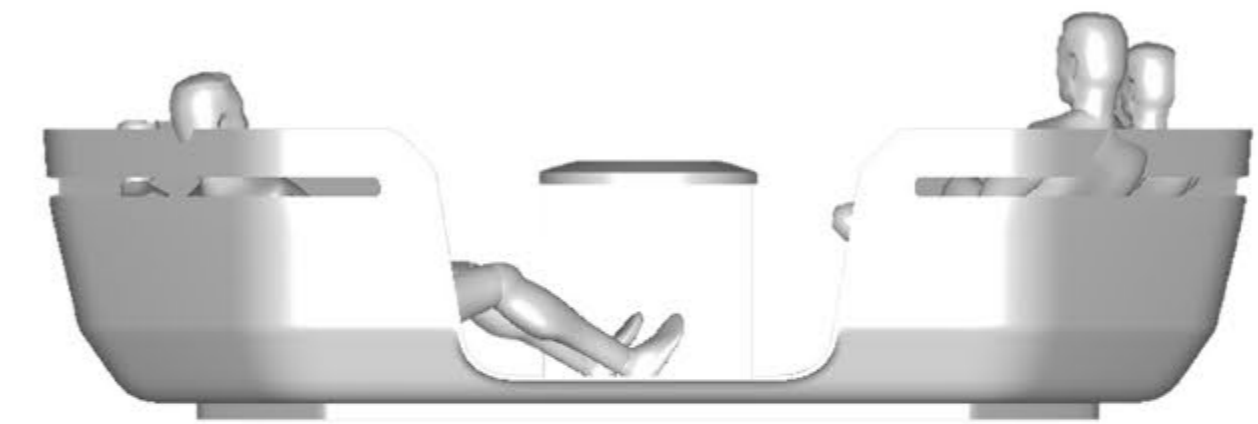
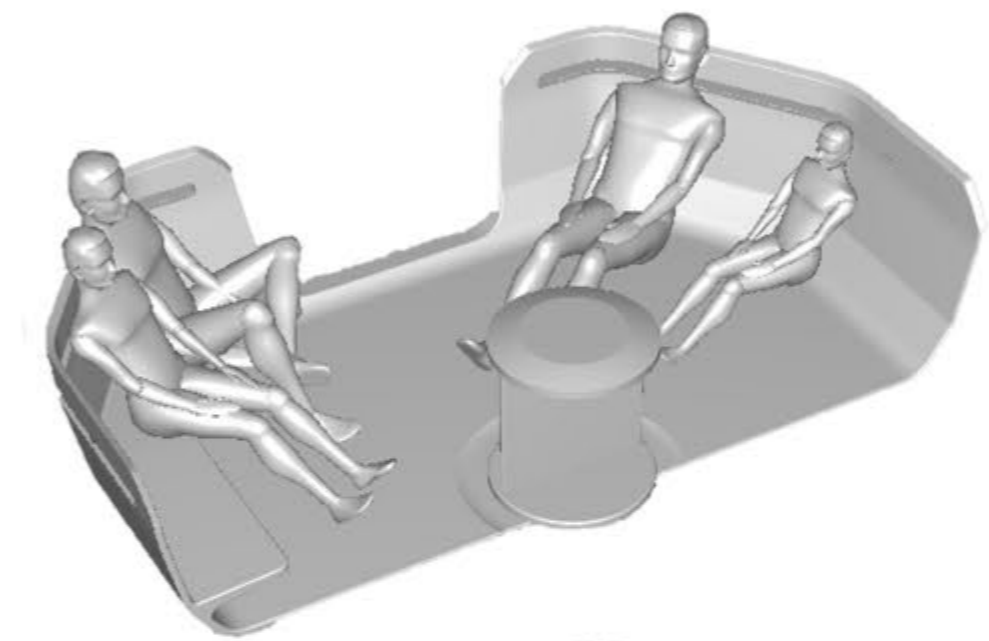
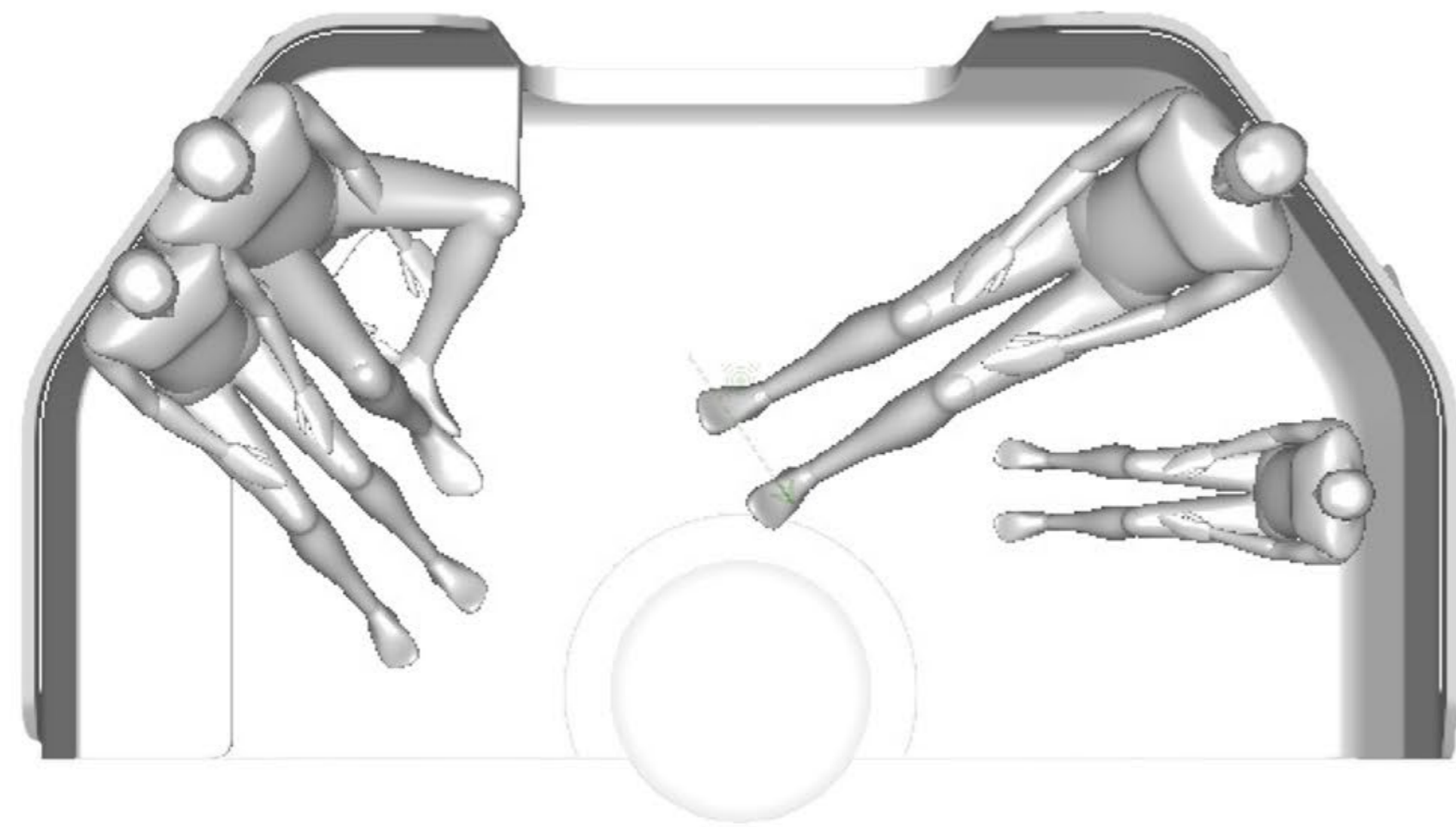


ALIAS MODELLING

Final model before printing is shown here. This is the creative/meditative area within the vehicle.

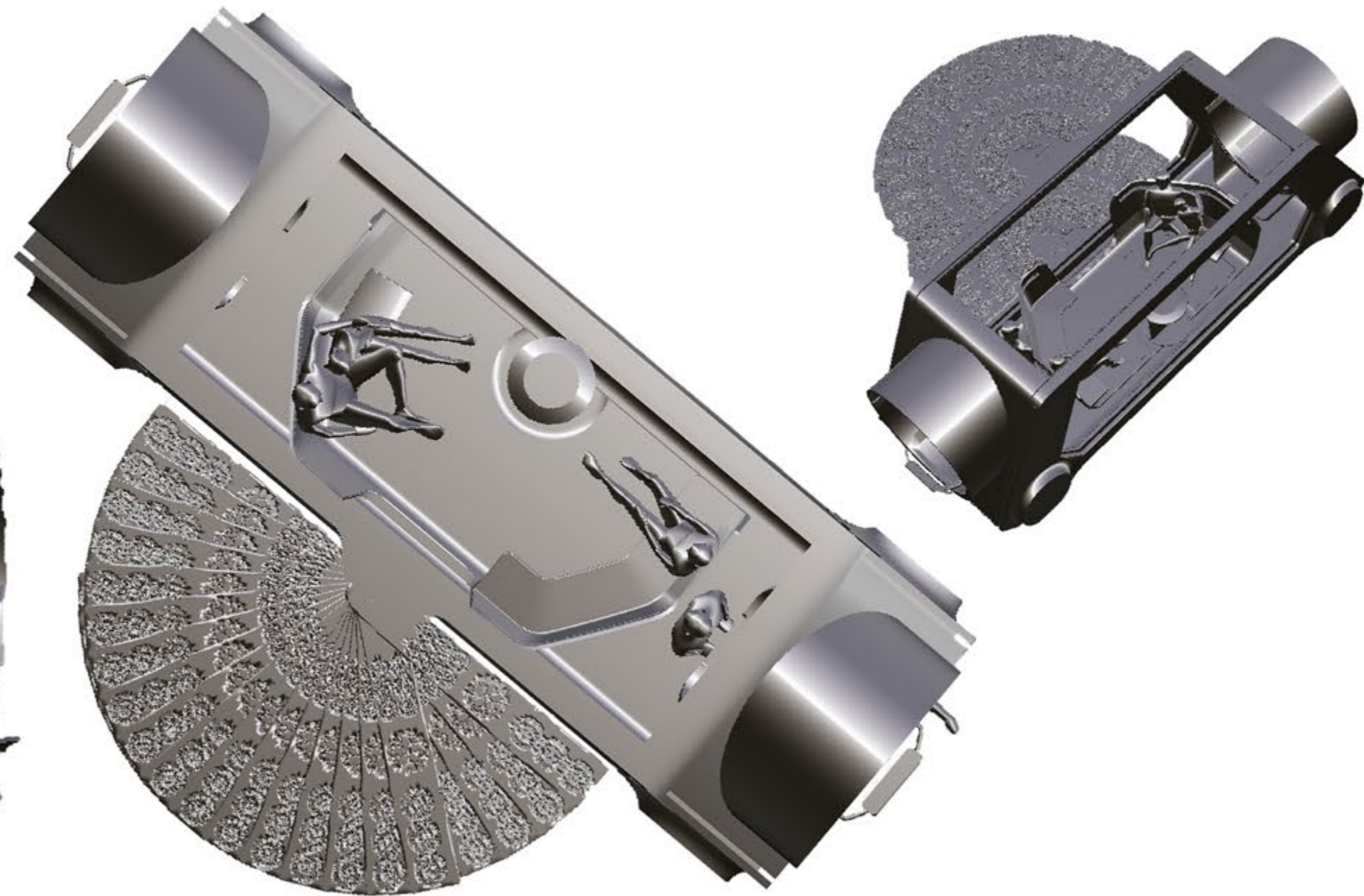
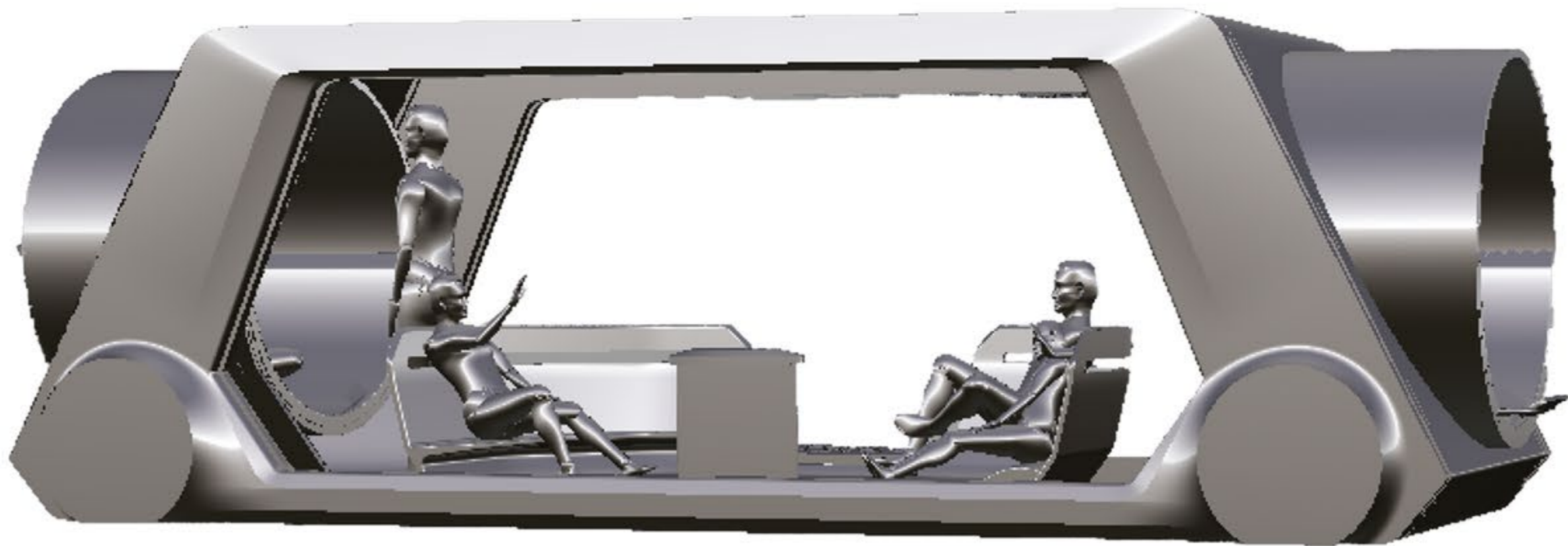
ALIAS MODELLING

Final model before printing is shown here.
This is the social area within the vehicle.



ALIAS MODELLING

Final model before printing is shown here.
This is the exterior of the vehicle.





REALISATION



HUMAN MODELS

When reflecting over how I wanted to showcase my interior area, I decided to add human models scaled in correct size. This showcases the interior in a realistic and relatable way. The models on this photograph did I personal print with my printer.





PRINT OUTCOME

This picture showcases how the model looked like after the final printing and a few thick layers of ground filler. Due to the scale model being relative big fo the printer which was used, some deformation happened. The model was divided into three pieces when printing, thereafter glued together.







VIRTUAL REALITY

Using virtual reality for my project was important. After roughly building the final model I started to use Virtual Reality.

I also decided to place "dummies" within the VR model to be able to interact and sit next to the models in both the social area, meditative and creative area.

Using VR gave me a realistic feeling of how big each interior area should be designed. Due to using Virtual Reality for my project, the outcome should not have been as good without the use of it.





N - 2030

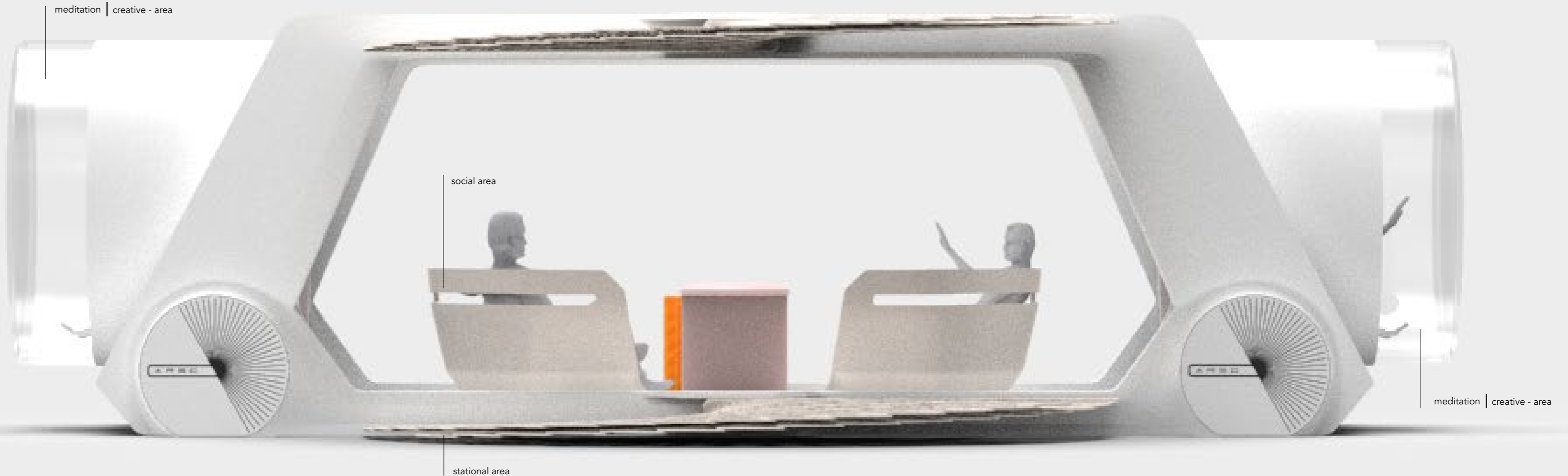


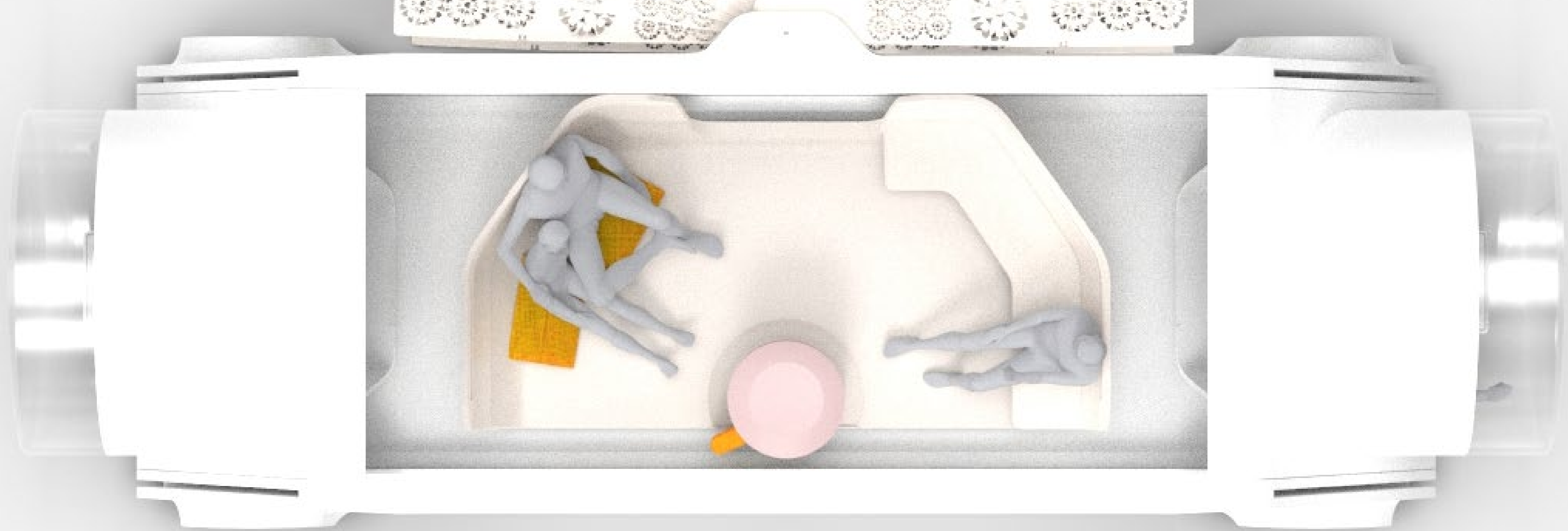
N - 2030

N-2030 is an autonomous car-sharing interior concept that suggests what we humans could be doing in the future of vehicles.

N-2030 has a focus point on investigating how people have and are using free time in everyday life.

Fully autonomous vehicles opens up an opportunity to break the tradition of what to do in a future car interior, and instead look at a vehicle from a new perspective.





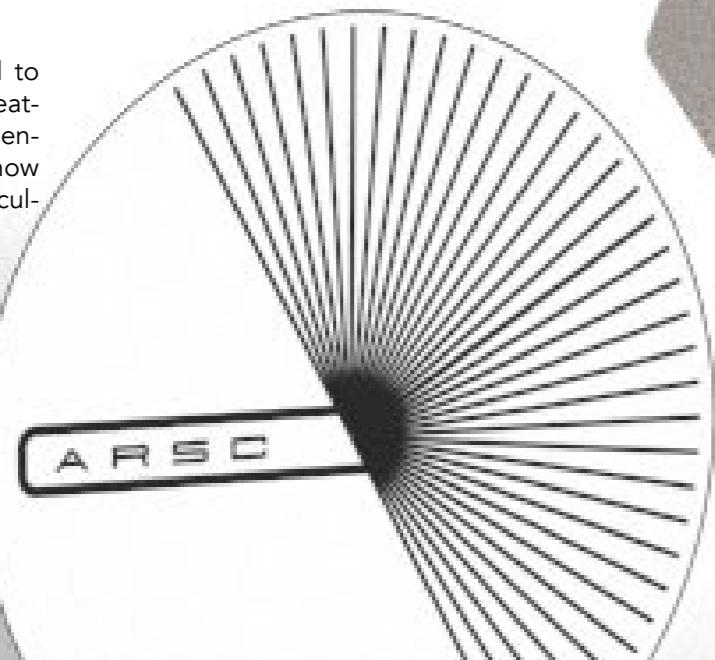
SOCIAL AREA

The social area is the central area of the interior. It is placed where passengers are entering the vehicle. The area consist of a center tower with cushins used both for the passengers deciding to sit on the floor as well as the stational area is used.

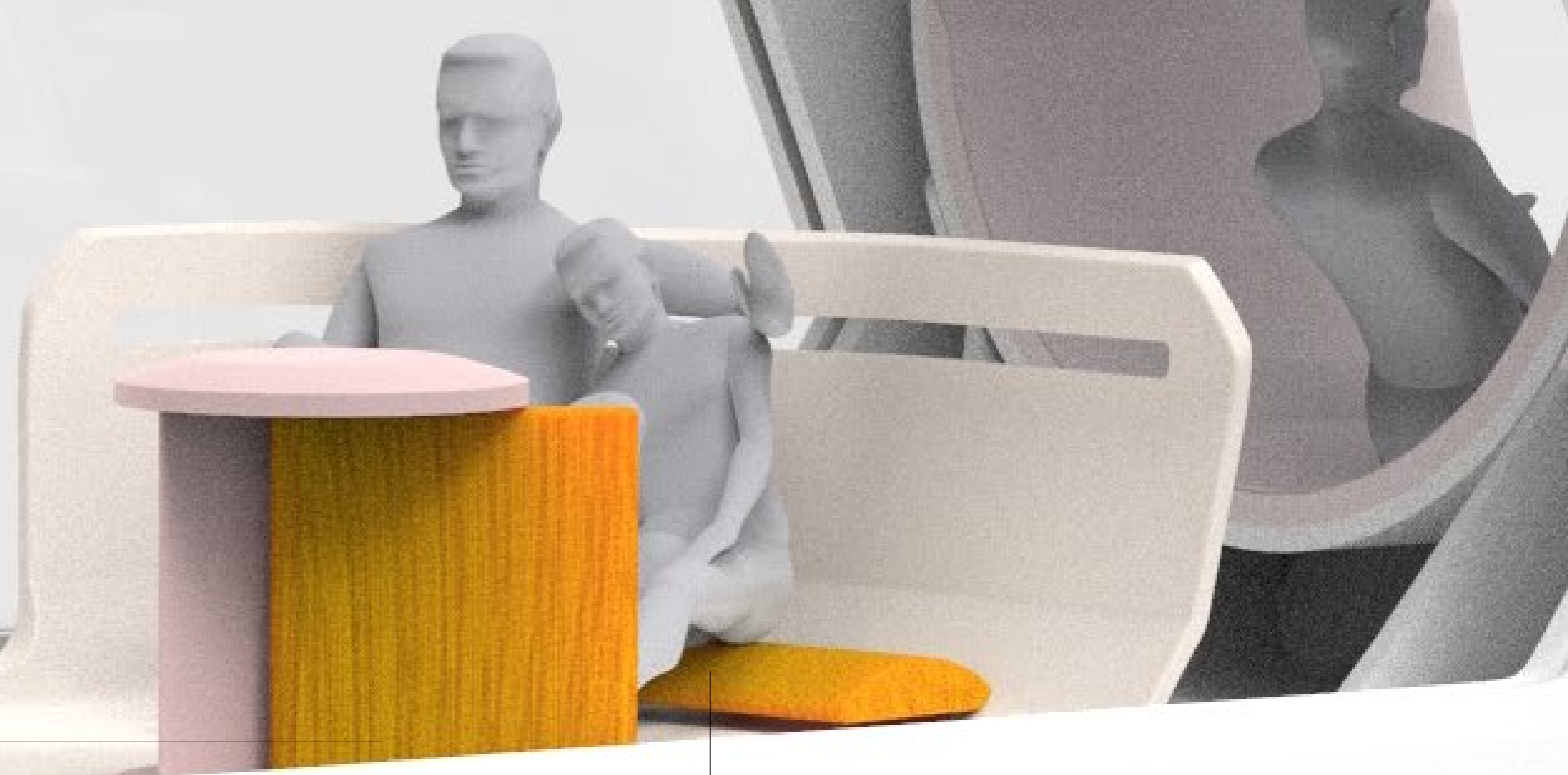
The social area is where pas-sengers should be social, meet new people, share stories and sit in a circular pattern around the cushin tower, just like in the past wehre we sat around the fire and socialized.

The seating area is divided to having a western style of seat-ing, as well as giving passen-gers a new experience on how other people sit in different cul-tures.

NEWS



playful color to wake interest in peoples mind



kushins increases social connection between strangers



Every human is unique. Every human has a story to tell, maybe a thought to share

Person is leaving a "human note"

Space is visited by different humans 24:7

CREATIVE AREA

The creative area is all about getting in contact with yourself again during busy and stressful days. In this area you can ventilate your thoughts, listen to music or just being for yourself and paint on the digital screen without anyone judging you.

In the creative area you can ventilate your thoughts on the digital screen, while listening to music for an example.

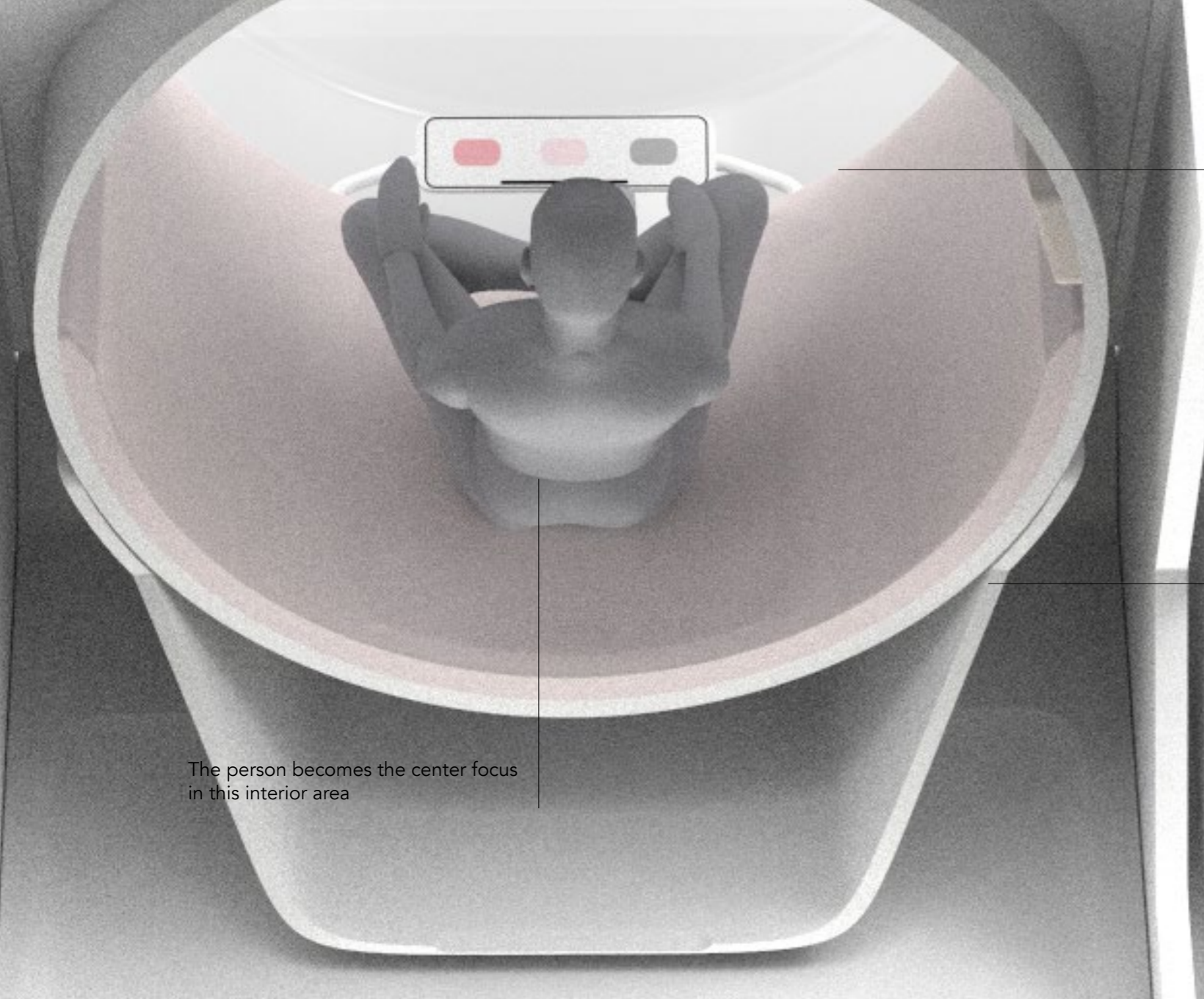
After every use, digital screen becomes empty again

All human notes will be collected on the digital glass when the life cycle is over of the vehicle

Creative seating. Questions how the traditional seating position



Seating is wide to fit 2 people to make it even more playful in the capsule



Seat acts as a feeling of se-
curness and personal space

Welcoming entrance gives a feel-
ing of hugging the capsule

The person becomes the center focus
in this interior area

Change color of digital glass

Choose a background on nature which
acts as a motion with sound

MEDITATIVE AREA

The meditative area is all about get-
ting in contact with yourself again
during busy and stressful days. In
both interior layouts the person is
the center of it. The feeling of the
person being safe and giving a pro-
tected calm feeling by the walls
wrapping around you.

By using the screen in front of you,
you can choose different active
backgrounds inspired from nature.
Water falls, Ocean sound, pouring
rain or your own music.



Person can control the glass through
an information/digital screen



gives rise to emotions and experience when light penetrates through silhouette onto ground, creating pattern

come together and share an experience

CATCH AN EXPERIENCE

The active exterior on the N-2030 is both inspired from Origami and based on two words, "experience" and "teampayer". During travelling in cities where the vehicle is stationary so called dead time while waiting on passengers, the active exterior can be used. The main purpose behind the active exterior is to create a bond (get to know each other) between passengers, friends, families.

To unfold the active exterior you have to become a team player where one or several is expanding the exterior, as well as someone who brings the cushions to sit on from the social area.

NEW LIFE AFTER END OF LIFECYCLE

The inspiration of how humans have through time on this earth left stories on runestones and walls , together with the rise of non circular design thinking in todays society, I wanted to change that by including it to my project. Sud-

The inspiration of how humans have through time on this earth left stories on runestones and walls , together with the rise of non circular design thinking in todays society, I wanted to change that by including it to my project. Suddenly the digital runestone was born. After the vehicle has reached it's end of the lifecycle, the digital runestones are being disassembled from the vehicle, and thereafter assembled to becoming a living thing.

digital "runestone" capsules
are getting disassembled





get inspired or take a meaningful note with you and enrich your life

digital runestone impacts future generations

DIGITAL LIVING RUNESTONE

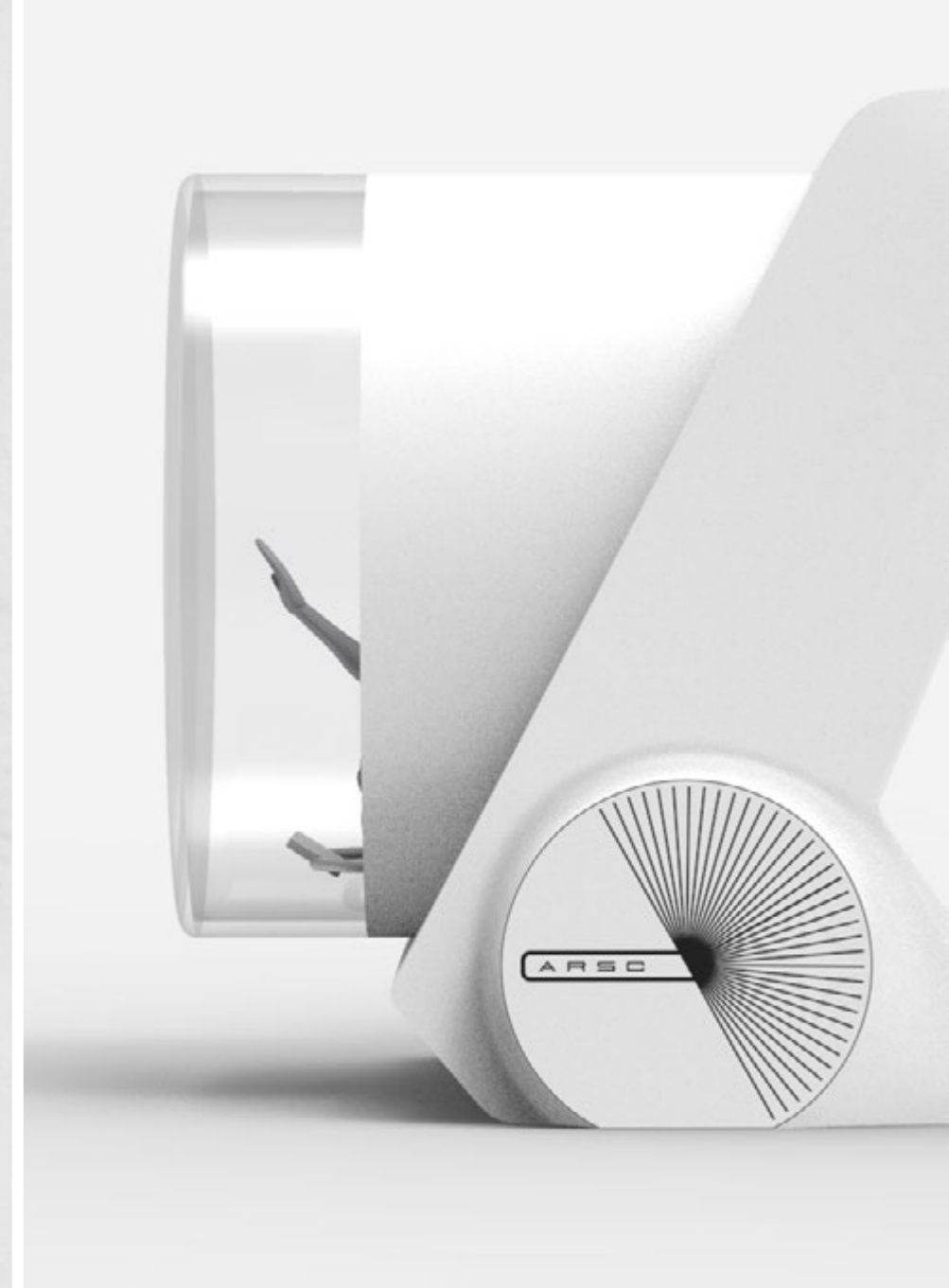
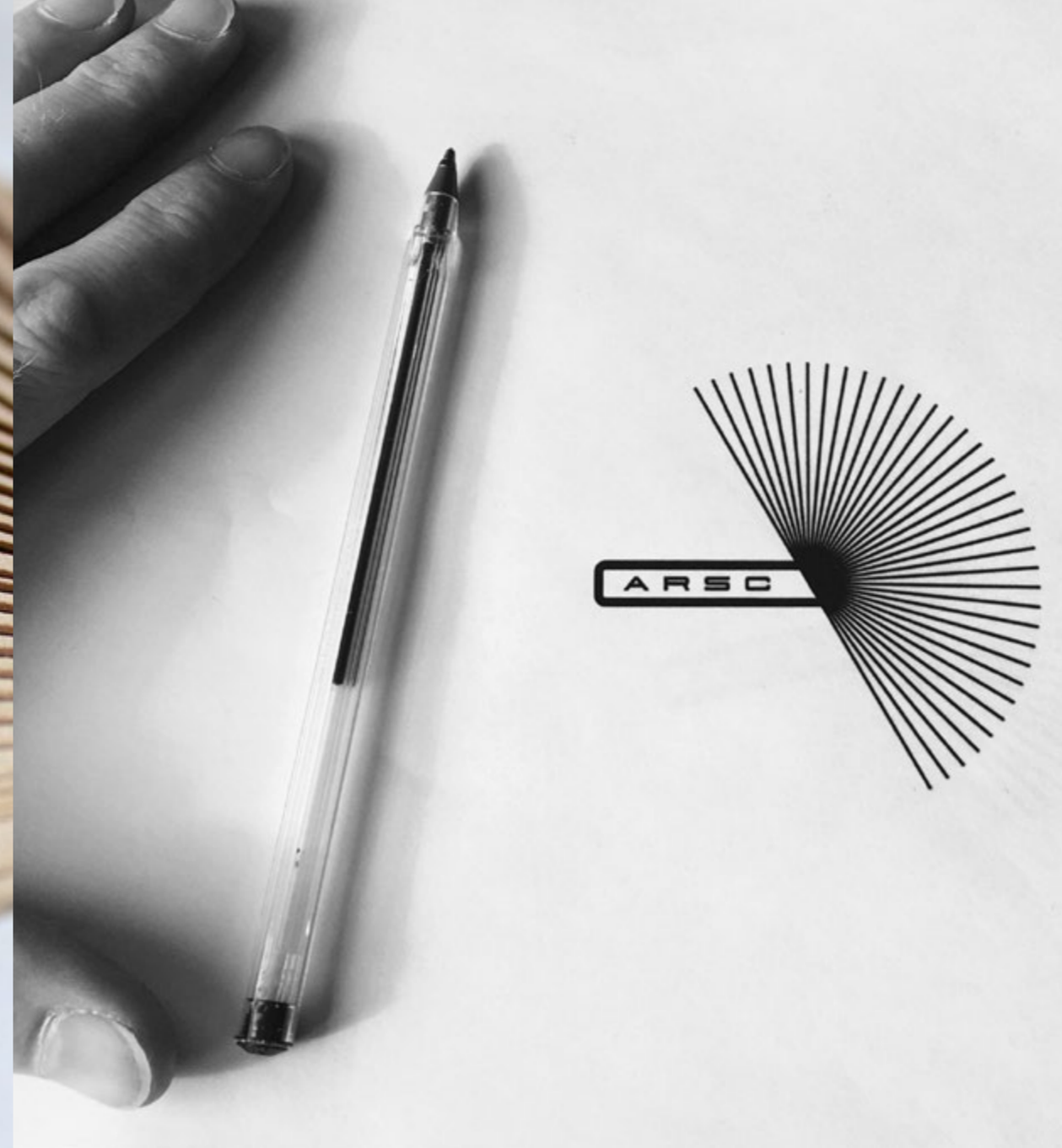
After the vehicles life cycle is over, the digital screens of the vehicle are disassembled, assembled into one piece and thereafter placed in urban areas such as city parks. The human notes on the runestone re-loops themselves, from being nothing on the runestone to slowly getting covered in the digital notes that did happen during peoples time within the creative/meditative area.

The runestones main syfte is exactly the same as runestones. For future generertions to see what todays humans had on their heart. Everything written on the runestone might not be pleasant to read. But the main purpose is to open people up emotiannly and show the naked "truth" . To get rid of the fasad.

ACTIVE INTERIOR

Graphic Elements is something I really wanted to include in my interior. Both graphical elements but as well written elements create a sense of personality to it.

One key element of the vehicle is the active interior which beautifully coexists with the exterior. The active interior opens up and closes as just like the Japanese fan "sensu". I wanted to create a graphical element of this motion and how the interior works. The placement of the graphical element was placed on the wheels. The graphic element acts as well as a signifier to the users.



EXHIBITON



ARSC

ARSC

NEVS

N - 2030

During the projects evolution I very often reflected upon how I should showcase my interior.

The interior as well as the door were open to invite audience to come closer. It also created a sense of airiness when showcasing the project.





INTERACT

As mentioned earlier, in the creative(-meditative) area where the digital circular window acts as a digital screen as well as a digital runestone, where humans have left a human trace after themselves.

During the exhibiton I wanted to interact the audience by that the audience becomes theoratically one of the humans who has been in the creative area and felt to leave a human note on the window.

How this connects in reality is that random people during the exhibiton decided to leave a human note on the digital window through reading the instructions to the right on the table.

I made me happy to see that the interaction worked and this also proved that the concept could become a reality in future.



REFLECTION

DISCUSSION

I am very pleased with my end product and how I developed it. In other projects during my education I underestimated the time to build a physical model, which resulted in not having one at the final presentation. In my Thesis Project, this became my main goal to have a physical model which is well executed and looks professional.

Nevs, which was the collaboration company, clearly noted that an Physical Model of scale 1:10 is required.

After reflecting on my Thesis Project, I know which parts of a Design Project I need to become better at. My project planning can become better. I underestimate the time it takes for each design step in the process. Secondly, I have the tendency to get tunnel vision, and get stuck in one phase, for example research phase.

These problems have occurred in several projects. After having the time to reflect on this behavior, it comes down to two causes. First, I don't believe in myself.

This behavior comes from a project in the past during my education, where I felt very confident and resulted in the final presentation to be a "non thought through" project according to the exhibitor.

This was the start of a growing confidence problem.

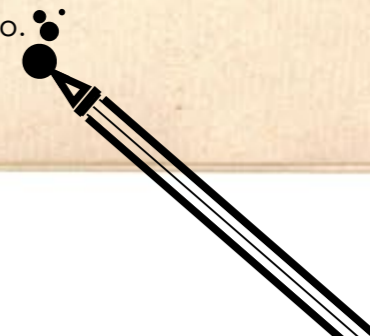
This resulted in that I wanted all future projects to be really thought through and therefore executing a very heavy research phase. I believe it is crucial to make a detailed research because it gives you advantage of backing up your design with arguments, as well as resulting in a better end product.

My Thesis Project is my most successful projects to date. It reflects at its best who Arvid is, and my emotional process with a lot of reflecting and philosophy. I am satisfied on how the model

turned out and how I presented it during the exhibition. Nevs, was happy as well with the project and shortly after placed it at the entrance to the Design Studio for showcasing it.

The project was a very philosophical based. It resulted in that I could expand my fantasy and think as broad and crazy as I want to.

The quick and dirty prototype building during the project was very helpful when coming to decisions and what route to go.



S U M M A R Y

Although the usual up and downs during my design project, I am very satisfied with the project. At the end I once more learned more about myself and how I work in a design process, what to do and not to do. Also, how I can improve myself as a Designer by getting more skilled at modelling and accurate project planning.

When I now look back at this project, 2 1/2 years later, I see a lot of potential to realise this project. This project shows in every way how I work, and the amount of energy and soul I put into a field within design that really matters and means a lot for me.

Together with my Thesis Job that was the factor I got my dream job as a Transportation Designer 6 months after finishing my Thesis Work, I wish the potential to make something groundbreaking within transportation design is more realistic than taking so long time.

I didn't get a fair chance to try out working as a Transportation Designer due to the rising pandemic which started March -2020 in Sweden. Currently I am looking for a new Job within the Design Industry.

My dream since I was a kid to become a car designer became true. What to do next in my design career is still in process.

Lastly, I want to thank all my professors and teachers at Lunds University for an unforgettable time.

I am forever thankful!



Bachelor Degree Work

Lund University
School of Industrial Design

Department of Design Sciences

Year of completion: 2023
Document submitted: 2023

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ISRN:

LUT-DVIDE/EX--23/50620-SE



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